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Reinvestigating the Wreck of the Sixteenth Century

Portuguese Galleon São João:

A Historical Archaeological Perspective

By

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List of Abbreviations

AMAFA	- Amafa Akwazulu Natali (Heritage Kwazulu Natal)
CSIR	- Council for Scientific and Industrial Research
HTM	- Historia Tragico-Maritima (Tragical History of the Sea)
QUADRU	- Quaternary Dating Research Unit
SAHRA	- South African Heritage Resource Agency

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Preface

In 1488, acting on instructions from King John II of Portugal, Bartholomeu Dias became the first European to sail from the Iberian Peninsula to the southern tip of Africa. The rounding of the Cape of Storms, so named by Dias, was a momentous event offering Portugal the promise of a sea route to India. Unfortunately no log, no journal and no chart has survived of the monumental Dias voyage.¹ What is known of his voyage is a combination of references gathered from brief notes and charts. Nearly a decade passed before anything was done to exploit Dias's achievement. Wars with Castile and the death of the King delayed plans for an Indian expedition. When the Portuguese finally set sail for India, no other European power had tried to reach India before the Portuguese. Dias's expertise and knowledge of the conditions likely to be encountered during the first part of the journey had led him adapt the design of the traditional caravel, producing two ships which, although slower, would also be stronger and better able to cope with the demands of the journey. Dias however, was not given command of these two ships. King Manuel, who had succeeded to the throne in 1495, instead appointed Vasco da Gama to go in search of the legendary Christian Prester John and the much required spices.² On the 22nd of November 1497 the two vessels, accompanied by the 50 ton Berrio and a supply ship, rounded the Cape and after a long and difficult journey reached India in 1499.³ And so trade was finally established with India and China.

Fifty years later, in the middle of the sixteenth century seven homeward bound ships, inadequately surveyed and repaired in India and also fatally overloaded with

¹ R. Burton, R. Cavendish and B. Stonehouse. *Journeys of the Great Explorers*. Hampshire, 1992, pp.50-55.

² Burton, Cavendish and Stonehouse. *Journeys of the Great Explorers*. pp.50-55; E. Axelson, *Dias and his successors*, Cape Town, 1988, pp.5-9.

³ E. Axelson, *Dias and his successors*, Cape Town, 1988, Foreword.

trade goods from China and India, wrecked on or near the South African coast.⁴ The frequency of shipwreck became such a big problem that a nautical expert was ordered to enquire into these losses and it was recommended that the coast of South Africa be closely explored and documented. This was done in late 1575 and early 1576.⁵ It is these records that provide valuable information when doing historical and archaeological research on Portuguese ships wrecked along the South African coast. This particular study focuses on one of the numerous shipwrecks on the south-east coast of Natal, an area actually identified by Da Gama's party. They named the extreme south-eastern coastal region of South Africa 'Natal' because they passed it on Christmas Day. João de Lisboa who, as far as can be ascertained, sailed to India with Vasco da Gama, gives a very detailed description of the 'Terra do Natal' or land of Natal.

Note that the Terra do Natal has these signs: high-lying country, and toward the interior a ridge of ranges made up of large and small sections. Four of 5 leagues toward the north-east there is a valley of forest with great vertical cliffs after the manner of a river. And when this valley is to the north-west, above it is a cut in the ridge which has two or three small hills in the middle of it. The one in the middle creates a shady area, and about half a league in front of this valley there is a mount which lies north-west by north. At its foot on the north-east side is a plain of sand like a barrier, and two little black hills in the northern side. And you will see to the north-north-west a stretch of ridge with two sheer points, and in the north-east a small shaded area, and in front a high black ridge. To the north-east of this terrain it is green except for places that have small, low patches of trees. And from this valley to the south-west, there are some small banks, and above them rock cliff in the interior; and in the interior a little round hill and a long slender range of hills toward the south-west. Above this mount is a ridge with a plain of land that has above it two little hills that resemble round trees. Note that between this valley and this hill there are some very red banks that resemble hay and to the west-north-west of these banks you will see thicket of round trees.⁶

⁴ J. Duffy, *Shipwreck and Empire*. Cambridge, 1955, pp. 26-35.

⁵ Axelson, *Dias and his successors*, foreword.

⁶ *Ibid.*, p. 25.

According to historians G. Bell-Cross and E. Axelson, there are two factors which suggest that Lisboa's Terra do Natal might start a few kilometres south of the Mtamvuna River at Port Edward. Firstly, it is in this region that the predominantly hilly and rocky coast of the Transkei gives way to sandy beaches so typical of present day Natal and therefore forms a natural topographical border. Secondly, the mention of 'red banks' suggests the area called the Red Desert located between Port Edward and the Mtamvuna River.⁷ This area described by Lisboa is where the artefacts believed to indicate the wreck site of the sixteenth century Portuguese Galleon, the São João are found, as well as its survivor camp.

According to research to date, the only two mid-sixteenth century Portuguese ships which wrecked along the south-east coast of South Africa were the São João (1552) and the São Bento. Research done by archaeologists C. Auret and T. Maggs in 1982, established that the wreck site of the São Bento is located 300m west of the Msikaba River on the coast of Transkei. There is however much speculation about the actual wreck site of the São João and its location still needs to be confirmed.

The aim of this study is to establish whether the archaeological material located at Port Edward is connected to the wreck site of the São João. The first part of this reinvestigation comprises an in depth historical analysis of the primary and secondary research material related to the São João. Chapter one presents a historiographical discussion of secondary publications and research on the São João completed over a period of one hundred years. These include both historical and archaeological works. The second chapter focuses on the two major and most valuable narratives on the São João and São Bento contained in the *Historio Tragico-Maritima*. These are scrutinised for all possible clues relating to the fate and final resting place of the São João as well as the survivor camp.

⁷ Ibid.

The second part focuses on an archaeological assessment of the fieldwork material discovered at the Port Edward site. This begins with an outline of the archaeological methodology in chapter three. Again the paradigm of primary and secondary sources is used demarcating the difference between artefacts discovered earlier by other archaeologists as opposed to those discovered by the researcher during the Port Edward project. Chapter four discusses the porcelain, cornelian beads, cowrie shells, pepper, cannons and miscellaneous artefacts discovered and assesses the relevance thereof. Chapter five pursues the integration of the historical and archaeological components, which is in itself a relatively new development in South African maritime archaeology.⁸ It considers the records and research of other Portuguese shipwrecks along the South African coast in order to extract more clues and comparative data. The purpose is twofold: one, to create a matrix regarding survivor camp characteristics, and two, to develop a virtual diagram of what the São João survivor camp could possibly have looked like. The sixth chapter takes this further by practically recreating three possible locations or virtual campsites for the survivors of the São João. Arguments to support and negate the proposed areas are set out, finally drawing up a comparative table which then indicates the most probable location. Hereby it proposes and presents a case study of a methodology for archaeologists when researching undefined or unknown sites. The thesis therefore offers an additional dimension to the field of historical archaeology, where not only are the two disciplines integrated, but a methodology is expanded which offers possible solutions to studies with inconclusive or disputable archaeological remains. The scenario thus created offers the researcher the option of delimiting the range of sites and thus a possible solution to ongoing research efforts.

⁸ E.J.S. Werz, *Diving up the Human Past. Perspectives of Maritime archaeology, with specific reference to developments in South Africa until 1996*. Cape Town, 1996.

Chapter I

Maritime archaeology on the south east coast of South Africa: a historiographical and archaeological overview.

The Portuguese galleon, the São João, is one of the greatest enigmas in South African maritime history, not only because so little is known about its cargo, passengers and crew, but also because the location of the wreck has puzzled researchers from the early 20th century until the present. It is an important part of South Africa's maritime history as it was the first cargo ship wrecked along the country's coastline, and according to early twentieth century historian, George MacCall Theal¹, it was one of the most richly laden ships to have left India since it was discovered. The coastal town of Port St. Johns, at the mouth of the Umzimvubu River, serves not only as a reminder of the tragic story of the São João and her survivors, since it is named after the great galleon, but also a key component of South Africa's maritime cultural heritage. However, while there is no agreement amongst researchers that this is the wreck site of the São João, recent research done by Bell-Cross presented evidence that the wreck at the Port St. Johns site is that of the Nossa Senhora de Belem (1635).²

Speculation as to the location of the São João wreck site started even earlier than that associated with the wreck at Port St. Johns. In the 1900's, Theal was one of the first to refer to Port St. Johns as a possible location and was certain that the resting place of the São João is located at the Umzimvubu River mouth "very near if not exactly off the spot where the English ship Grosvenor was lost".³ He unfortunately does not give reasons why he believes the wreck is located at this particular spot.

¹ G. M. Theal, *Records of South East Africa I*, Cape Town, 1964, p. 134.

² G. Bell-Cross, Portuguese Shipwrecks and identification of their sites" in E. Axelson, *Diaz and his Successors*, p. 67.

³ Ibid.

Theal's reference to the São João, and other Portuguese shipwrecks, led to the account being analysed by the Swiss missionary H. P. Junod, an authority on Tsonga language and society in 1914, and A.T. Bryant, a South African writer on the oral traditions and history of the Zulu in 1929. Junod states that the São João wrecked on the coast somewhere on 31° S, and gives no other information with regard to the location of the wreck⁴. Bryant refers to Manoel de Sousa and his group of survivors who trekked up the coast to Mozambique, but he does not mention the wreck of the São João or where it foundered.⁵ Although Junod and Bryant's reports are more focussed on ethno-linguistic studies they both tend to make unfounded and unsubstantiated comments when referring to sixteenth century Portuguese shipwrecks.⁶

In a very scarce publication of 1926, by Romola (no initials are given) and R.C. Anderson⁷, a description of the São João is given. It is stated that there are several pictures of the São João available, all showing it as a warship at the attack on Tunis in 1535.⁸ Anderson's definition of the galleon is as far as can be ascertained the general accepted definition. According to Anderson the galleon was usually a four-masted sailing ship the ordinary ship-rig of the time but with a hull built to some extent on galley lines, with a long beam, more or less straight and flat and with a beak-head low down like a galley's instead of the overhanging forecastle of the ship.⁹ The São João seen on the left in figure 1 on page 3, taken from a drawing on a

⁴ H.P. Junod, The condition of natives in South East Africa in the sixteenth century, according to the early Portuguese documents. *Report of the South African Association for the advancement of science*, 1914, p. 139.

⁵ A.T. Bryant, *Olden Times in Zululand and Natal*,. London, 1929, pp. 10-12.

⁶ P.E.H. Hair, Portuguese Contacts with the Bantu Languages of the Transkei, Natal and Southern Mozambique 1497-1650 in P.E.H. Hair. *Africa Encountered*. X, Great Britain, 1997, pp. 5-6.

⁷ Romola and R.C. Anderson, *The Sailing-Ship, six thousand years of history*, London, 1926.

⁸ Ibid. pp.128-129.

⁹ P. Cowburn, *The Warship in History*, London, 1966, p. 92.

lid of a chest belonging to Lord Berkeley, is depicted as a fighting ship rather than a cargo ship. It carries no oars at all and is said to have had no fewer than 366 guns.¹⁰

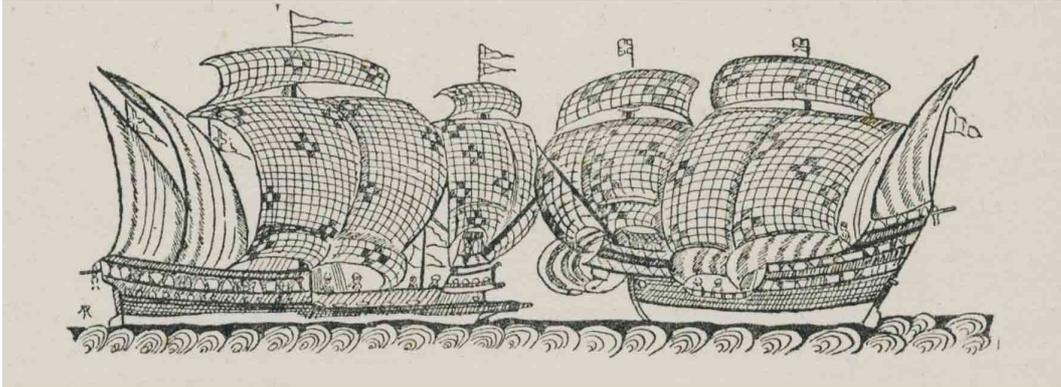


Figure 1: Illustration of the Great Galleon São João on the left and a typical Portuguese Carrack of the sixteenth century.

From: Romola and R.C. Anderson, *The sailing-ship, six thousand years of history* (London, 1926).

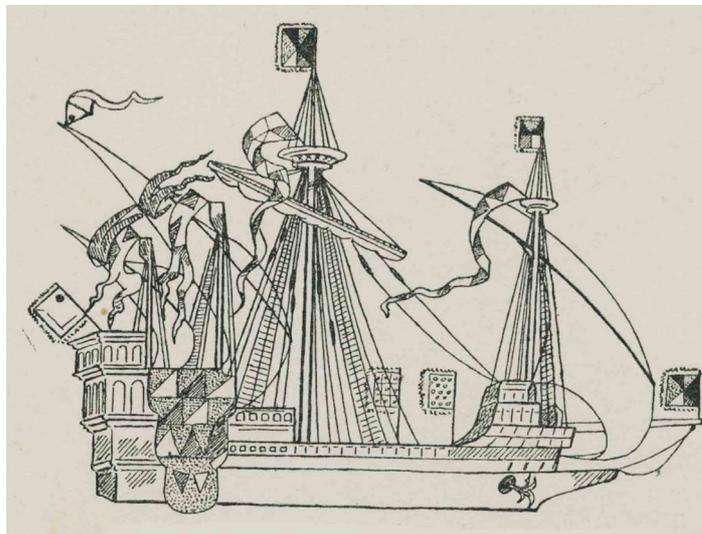


Figure 2: Illustration of the São João as a warship.

From: Romola and R.C. Anderson, *The sailing-ship, six thousand years of history* (London, 1926).

¹⁰ Ibid.

The authors of this particular publication were interested in tracing the two main streams of development in sailing-ships, until their junction in the fifteenth century, and therefore no attention is given to the wrecking of the São João but, rather only to its appearance. A large fire in 1916 destroyed among others almost the entire collection of early Portuguese ship models, therefore this is a valuable source since it contains depictions of the galleon not found in any of the other sources dealing with the São João. Researchers have generally shied away from depicting the São João, but when they do, it is depicted resembling a fifteenth century carrack as seen in the other figures. The tile (See Figure 3. page 4) was made for the inauguration of a monument in Port Edward June 2002. The figure (See Figure. 4. on page 5) is of a typical 15th century Portuguese carrack.



Figure 3: Tile commemorating the inauguration of a monument in honour of the São João in Port Edward (depicted as carrack).

Artist: Joanne Arkell

Figure 4: Drawing of a carrack or an armed merchantman.

From: P. Cowburn, *The Warship in History*. (London, 1966).



Small paintings, however, on the walls of a small room in the Alhambra in Spain depict the São João resembling a fighting ship or galleon rather than a merchant ship.¹¹ The difference in appearance is evident. It is depicted as a sailing-ship, four-masted and with the ordinary ship-rig of the time, but with a hull built long in beam, straight and flat and with a beak-head low down instead of the overhanging forecastle of the ship.¹²

As is evident in figure 2, galleons were fitted with moderate superstructures and were heavily gunned (See Figure 2. page 3).

¹¹ Romola and Anderson, *The Sailing-Ship*. pp.128-129; P. Cowburn, *The Warship in History*, pp. 92-93; C. R. Boxer, *Four centuries of Portuguese Expansion, 1415-1825: A succinct Survey*, Johannesburg, 1969. pp. 96-97. Boxer, *Tragic History of the sea*, 1959, pp. 2-3.

¹² Ibid.

The author of the account of the wrecking of the São João, which was published anonymously, also refers to the São João as a galleon. According to historian C.R. Boxer, this term is a generic name and does not accurately refer to a specific type. Generally a *nao* was a large merchant ship, broad in beam, with high poop and forecastle, lightly gunned; while a *galleon* was primarily a war vessel and a lighter and hardier ship.¹³ Boxer is convinced that there is no significant difference in appearance between the two.¹⁴ If one should, for the purpose of scientific research, wish to make a distinction it would be based on the use the Portuguese made of them. War vessels, however, such as the *galleon* were frequently pressed into service as cargo ships as a result of the increasing number of ships lost at sea.¹⁵

In support of this theory, is a proclamation by a survivor from the São Gonçalo where reasons are supplied for the loss of so many of the Portuguese ships. He states:

By building galleons instead of large ships, it was thought these losses would be avoided, and the profits being increased here, they should be equipped for battle... The number of galleons that can be built at the cost of three large ships is five, and this number forms a fleet... This being always proclaimed by wisdom born of experience, and contradicted solely by the blindness of covetous, there is no remedy!¹⁶

A 1930's publication, *The Cradle days of Natal (1497-1845)* by Graham Mackeurtan, describes four shipwrecks and the journeys of the survivors associated with these shipwrecks.¹⁷ In the Mackeurtan's own words "Each of these journeys was marked by suffering so grievous as to be almost beyond belief".¹⁸ The four

¹³ Boxer, *Four Centuries of Portuguese Expansion, 1415-1825: A Succinct Survey*.

¹⁴ Boxer, *The Portuguese Seaborne Empire 1415-1825*. Johannesburg, 1961, p. 207.

¹⁵ Ibid.

¹⁶ Theal, *Records of South East Africa I*, p. 420.

¹⁷ G. Mackeurtan. *The Cradle days of Natal (1497-1845)*. London, 1930, pp. 10-52.

¹⁸ Ibid. p. 16.

ships discussed by the author are the São João, São Bento, São Thomé and the Santo Alberto. Mackeurtan describes the voyage and wrecking of the São João as it was published in Theal¹⁹, but states that the waterlogged vessel was gradually carried inshore and finally stranded just north of the Umzimvubu River. He continues to claim that the settlement Port Saint Johns at the mouth of this river is named after the Galleon. Nothing else is mentioned to substantiate this claim that the wreck is located at the Umzimvubu River, and since no specific references are given, it is not possible to follow up the sources that were used. In the table of authorities, however, Mackeurtan lists Bryant as one of his sources.²⁰ This is an indication that Mackeurtan's theories may be merely based upon the research done by Bryant a decade earlier.

A few decades later historian S.R. Welch dedicated a whole chapter to the wrecking of the São João in his 1948 publication *South Africa under John III*²¹. He states that on the 8th of June the crew saw the north bank of the Umtavuna River and here they anchored in 10 fathoms of water. This detail given by Welch must be carefully considered since it could be valuable with regards to the wreck site, as well as the location of the survivor camp. Welch does however not substantiate his claim with reference to the survivor accounts or any other source and so it is doubtful that it was the survivor's themselves who referred to the river they saw as the Umtavuna. An investigation of the marine charts of the mid-sixteenth century also shows no indication of a river called the Umtavuna.²² According to cartographer Colin Martin, early marine charts were dependant upon actual scientific observation and as a consequence unknown areas were left blank on the charts. On all of the charts pre and post dating the wrecking of the São João the area around 31° is left blank.

¹⁹ Theal, *Records of South East Africa*.

²⁰ Bryant, *Olden Times in Zululand and Natal*.

²¹ S.R. Welch, *South Africa under John III*, Cape Town, 1948.

²² M. Colin, Portuguese marine cartography of southern Africa in the 15th to 17th centuries in E. Axelson, *Diaz and his Successors*, pp. 81-137.

Reference to the Umtavuna River however indicates that Welch supports the theory that the wreck of the São João is located near Port Edward.

A passage in Welch's account contains the following statement: "They decided to stay near the river for twelve days".²³ Since there are three perennial rivers in the area, this statement causes much uncertainty as to the location of the wreck site. If it refers to the Umtavuna River, it would mean a reformulation of the hypothesis with regards to the location of the wreck, as well as the survivor camp, since the mouth of the Umtavuna is 6km away from the site identified in Port Edward. Furthermore, Welch concludes categorically that they camped on the stretch of coast where Port Edward is today, thus the river he is referring to could either be the Inhlanhlinhlu or Kuboboyi River. His grounds for this statement are that this part of the coast is naturally fertile and sheltered from cold winds.²⁴

The tragic story of its survivors and the historic significance of the São João prompted other researchers, such as the English historians C.R. Boxer and James Duffy, to analyse the survivors accounts which may reveal clues to the chain of events prior to, at the time of and after the wrecking of the São João.²⁵ In his book, *The Tragic History of the Sea*, published in 1957 Boxer does not consider the São João directly, but refers to it often when discussing the other Portuguese wrecks of the time such as the São Thomé, the Santo Alberto and the São João Baptista. In the survival account it is stated that after about three months the party of survivors of the São João met with a black king who was the head of two kraals. He apparently promised not to harm them because of his previous acquaintances with the Portuguese through Lorenço Marques and Antonio Caldeira who had visited him. A geographical investigation by Boxer of the area where the São Thomé survivors

²³ Welch, *South Africa under John III, 1521-1557*. p.329.

²⁴ Ibid. p. 331.

²⁵ Boxer, *The Tragic History of the Sea, 1589-1622*, London, 1959; Duffy, *Shipwreck and Empire*, 1959.

travelled fourteen years later revealed the following:

a few years ago that king ordered this bush to be cleared and the ground to be cultivated, in the course of which the native Kaffirs say that they found two richly bejewelled rings, which the king has, and shows to this day to the Portuguese who go to trade there. We heard this from several people, who assured us that they saw these rings, which in all probability are those of the said Manuel de Sousa, who was wearing them on his fingers.²⁶

Unfortunately, no mention is made of where this piece of information originates or what became of these rings. According to Boxer, the survivors of the Santo Alberto met with a black man who had remained in that region since the time of the wreck of the São João.²⁷ Boxer concurs with Anderson and Romola, that the São João was a warship when he points out that galleons were frequently pressed into service as merchant ships.²⁸

By concentrating on the incidences of shipwreck, the research done by James Duffy in the 1950's focussed mainly on finding answers to the collapse of the Portuguese empire. His research is of great relevance to this study since he examined all the narratives contained in the *História trágico-marítima* for their accuracy, literary qualities and the historical significance. He concluded that a lack of knowledge about the authors of various narratives compiled in the *História trágico-marítima* has made it difficult to define the purposes of many of the narratives. According to Duffy, a great deal of speculation exists about the authorship of the narrative of the São João. Still, he concludes that the emphasis on detail in the account of the São João points to a "Fairly faithful transcription of Alvaro Fernandes' story".²⁹ Alvaro Fernandes was the São João's storekeeper who told the story of its wrecking to an

²⁶ Boxer, *The Tragic History of the Sea*. pp. 73-74.

²⁷ Ibid. p. 178.

²⁸ Boxer, *Four centuries of Portuguese Expansion, 1415-1825*.

²⁹ Duffy, *Shipwreck and Empire*, pp. 26-27.

anonymous author in Mozambique.³⁰

In 1957, in a book entitled *Portugese Ontdekkers om die Kaap*, the author, W.J. de Kock, at the time a senior lecturer of history at the University of Pretoria, appears to support the theory that the São João foundered at the Umzimvubu River, though he does not substantiate this claim with any further evidence. He does, however, indicate that other sources point to the Umtavuna River as the wreck site.³¹ De Kock mentions that the survivors from the São Bento encountered the São João wreck site two years later, as well as some of the survivors, but he positions the wreck site of the São Bento too far south.³² It is clear that this erroneous calculation contributed to the subsequent possible incorrect positioning of the São João wreck site.

Monica Wilson, former professor in social anthropology at the University of Cape Town, published a paper in 1959 that assessed the evidence given in Portuguese records on Nguni-speaking people who were living in the coastal districts of the Transkei and Ciskei in the 16th and 17th centuries.³³ In this paper she claims, “the São João went ashore in what is now Pondoland a little way north of the Mzimvubu River”.³⁴ She cites Theal’s *Records of South East Africa* as her source, but does not supply any further reasons for placing the wreck of the São João in this area. In a later joint publication entitled *Oxford History of South Africa*³⁵ with Leonard Thompson, a lecturer at the University of California, Wilson again reiterates her earlier statement, but again does not supply any reason for placing the landfall of the

³⁰ Ibid.

³¹ W.J. De Kock, *Portugese ontdekkers om die Kaap*, Kaapstad, 1957, pp. 225-228.

³² According to De Kock the landing place of the São Bento was just north of the Fish River and west of the Umtata River mouth.

³³ M. Wilson, The Early History of the Transkei and Ciskei. *African Studies*. 1959, 18(4).

³⁴ Ibid., p.169.

³⁵ M. Wilson and L. Thompson, *Oxford History of South Africa*, Vol I, Oxford, 1969.

São João in this area.³⁶

Philip Cowburn, formerly senior lecturer at the department of humane studies at Royal Naval College in Greenwich, did comprehensive research on war vessels throughout history. Significantly, the São João is the only Portuguese vessel included in his book *The Warship in History*.³⁷ He states that the São João was built in 1534 and classifies her as a galleon or warship.

According to Cowburn, tapestries woven to celebrate the attack on Tunis in 1535, located in Madrid, paintings in the Alhambra and some drawings, depict the São João as an efficient, up-to-date four-masted fighting ship and not a “stately Spanish galleon” as is the popular assumption.³⁸

In 1972 Basil Holt published a work entitled *Where Rainbirds call, a record of the Transkei*.³⁹ He states that on the 10th of June 1552 the São João, “the largest vessel in the Portuguese trade with India was wrecked somewhere east of the Umzimvubu River”.⁴⁰ He believes that the name of the galleon survives in that of the nearby town Port St. Johns, but does not substantiate his claims with historical or archaeological evidence.

A paper published in 1976 by anthropologist Robin M. Derricourt, focussed on the distribution of human groups in the Transkei and Ciskei in the sixteenth and seventeenth centuries. Derricourt concluded that the previous attempts, mainly by Theal, to locate the position of landfalls and travel routes by the survivors from the various shipwrecks, were incorrect due to miscalculations of positions. He claims

³⁶ Ibid., p. 78.

³⁷ Cowburn, *The Warship in History*.

³⁸ Ibid., pp. 92-93.

³⁹ B. Holt, *Where Rainbirds Call, a record of Transkei*, London, 1966.

⁴⁰ Ibid., p. 10.

that the positions were given too far to the north-east. According to Derricourt, these miscalculations were the result of former assumptions of the later entry and movement of Bantu-speaking people in the area. He admits that the same mistake was made by himself, as well, in his earlier estimates. In his research he rejects nineteenth century interpretations of the original texts, as well as twentieth century assumptions about the location of the shipwrecks. Instead, he closely examined the texts themselves.⁴¹

He estimated the landfall of the São João somewhere in the Ciskei, further south of the 31° given in the survivor account of the São João. His calculations were based on the survivor company travelling an average distance of twenty kilometres per day, which would correspond to the figures given in the text of a hundred leagues in one month and twenty leagues in five days. Moreover, he claims that these figures are in line with the progress of other groups of the same size. Also, according to his theory previous researchers such as Wilson and Thompson, who do not supply any further reasons for placing the wreck of the São João in the most southern part of Natal, erred in their hypotheses. Their claims correspond to the degree reading given by the survivors, but according to Derricourt's estimates it does, however, imply a 17% error in the estimate of direct distance. Thus Derricourt suggests that there is no real evidence for a landfall of the São João further south than the starting point of Pondoland (the former Transkei).⁴²

In the late 1970's to the mid 1980's research on the location of the wreck of the São João was carried out by the Archaeology Department of the Natal Museum, which tracked down and recorded ceramic fragments and cornelian beads washed onto the beaches of the Natal South coast in the vicinity of Port Edward (31°02'S and

⁴¹ R. M. Derricourt, Early European Travellers in the Transkei and Ciskei. *African Studies*. 1976, 35(3-4), pp. 278-279.

⁴² Ibid.

30°14'E).⁴³ According to their findings, only two sites on the South African coastline produce porcelain with styles datable to the mid-sixteenth century, the site of the São Bento (1554) at the Msikaba River mouth and a site at Port Edward.⁴⁴

Extensive research done by archaeologist Tim Maggs in 1978 was aimed at dating and identifying two wreck sites on the Natal South Coast, namely: the São João and the São Bento. He did a comprehensive archive and literature study to gather information on the possible identity of the wreck sites. This research concluded that most of the ships that foundered on the African coastline before 1650 were Portuguese on the homeward bound voyage and that some of them had blue-and-white Chinese porcelain onboard. A detailed beach survey from the Mozambique/South African border (26°51'S) to Plettenberg Bay (34°06'S) was initiated by Maggs. The objective of this survey was to find and plot the deposits of blue and white porcelain and any other artefacts related to mid-sixteenth century shipwrecks.

Available artefacts from these early shipwrecks held in both private collections and museums were inspected. The results of this investigation pointed to the site in Port Edward as the landfall of the São João.⁴⁵

A definite breakthrough in the search for the wreck site of the São João was the identification of the site of the São Bento landfall. According to Maggs, the detailed description of the walk north and the discovery of the wreck of the São João supplied by the survivors from the São Bento is a key to the location of the São João. Maggs used the specific information about the landscape, supplied by the São Bento survivors, to trace the steps of the survivors from Msikaba Island to the site at Port

⁴³ T. Maggs, The Great Galleon São João: remains from a mid-sixteenth century wreck on the Natal South Coast. *Annals of the Natal Museum*. 1984, 26(1), p. 173.

⁴⁴ Ibid.

⁴⁵ Bell-Cross, Portuguese Shipwrecks and identification of their sites, p. 47.

Edward. Thus, the evidence presented by Maggs proved that the locations suggested by both Wilson and Derricourt were erroneous.⁴⁶

Local Natal diver L. Harris did tentative underwater surveys on the site at Port Edward in 1980 that yielded archaeological evidence in the form of a fragment of a bronze cannon. As far as can be ascertained, Harris did not continue with any further salvage operations on the São João and did not publish any articles or reports on his find. Maggs, did however, include reference to the cannon fragment in his article published in 1984.⁴⁷

A comprehensive search was undertaken three years later in June 1983, by a team of four divers led by J.R. Wood and E. Roest. Their survey of the area lasted for two weeks and covered the stretch of coastline and areas north and south of it. They found nothing more than the usual ceramic fragments. As far as can be determined the work done by these divers did not contribute to any new findings or information on the São João and did not result in any published information, except featuring in Maggs's 1984 article.⁴⁸

Publications produced by Bell-Cross in the eighties mainly focussed on shipwreck legislation and underwater cultural management in South Africa. However, he did some research on the maritime history and shipwrecks along the South African coast, among others, the Bennebroeck and the São João.⁴⁹ He also did some comprehensive research on the occurrence of cornelian beads at shipwreck sites along the South African coast, wherein he lists twelve Portuguese East Indiamen and

⁴⁶ Maggs, *The Great Galleon São João*, pp.173-186.

⁴⁷ *Ibid.*, p. 174

⁴⁸ *Ibid.*

⁴⁹ G. Bell-Cross, *Bennebroeck Story*. *Coelacanth*. 32(2), pp 9-20; The occurrence of cornelian and agate beads at shipwreck sites on the South African coast. *Coelacanth*, 1987, 25(1). A brief Maritime History of the coast between the Kei and Fish Rivers. *Coelacanth*. 20(2), pp 27-40.

the possible localities of these wrecks. For the São João, he lists three possibilities, namely: Ivy Bay, Port Edward and Natal.⁵⁰ As far as can be determined, the bulk of his research on the São João is based on the conclusions made by Maggs and the information the latter gathered on the wreck of the São Bento.

Former Director of the Natal Museum, Brian Stückenber, published an article in 1987 relating the events surrounding the wrecking of the São João. He believes that it foundered “in the area between the Port Edward bathing beach and T.O. Strand.”⁵¹ Stückenber did some surveys in the area mentioned above in search for the survivor camp, but did not make any significant contributions to the search for such a site. He generally felt that such a site could not be located as it may have been destroyed due to agricultural activities in the area⁵².

In the 1988 publication *Shipwrecks and Salvage*, scuba diver M. Turner relates the story of the wrecking of the São João and states that it is not exactly clear where it was wrecked⁵³. He does mention that in all possibility it wrecked along the lower South Coast of Natal in the vicinity of the Umtavuna River.⁵⁴ He substantiates his claims by referring to the Chinese porcelain that is frequently washed ashore in the area of Port Edward. No mention is made of the survivor camp.

Interestingly, the *British Museum Encyclopaedia of Underwater and Maritime*

⁵⁰ G. Bell-Cross, The occurrence of cornelian and agate beads at shipwreck sites on the South African coast. *Coelacanth*, 1987, 25(1). p. 29.

⁵¹ B. R. Stückenber, The wreck of the St. John. *Neon*. vol. 52, August, 1987, p. 38.

⁵² Personal communication with Stückenber, August, 2002.

⁵³ M. Turner, *Shipwrecks and Salvage in South Africa*, Cape Town, 1988, p. 36.

⁵⁴ Ibid.

Archaeology published in 1997 lists the São Bento. Here it is stated that the São Bento wrecked in 1554 and reference is made to the work done by Maggs, but no mention is made of the wreck of the São João.⁵⁵

Curator of the Van Tilbugh collection at the University of Pretoria and cultural historian Valerie Esterhuizen, did extensive research on porcelain from Portuguese shipwrecks dating from the 16th and 17th centuries.⁵⁶ Although her doctorate focussed on the development of the decorative motifs of the porcelain of shipwrecks, her research gives valuable information with regard to the various locations of the Portuguese wrecks along the east coast of South Africa. According to Esterhuizen, the identification of the wreck of the São Bento was, as Maggs indicated, without a doubt a key to the identification of the Port Edward wreck site as that of the São João. Together, the shipwreck narratives, the porcelain found at Port Edward and the research done by Maggs confirmed that the landing of the São João was indeed at Port Edward. The details and scientific findings of Esterhuizen with regards to the porcelain will be discussed in a later chapter.

According to the recent extensive research done by cultural historian O.J.O Ferreira, original documents regarding the wrecking of the São João are scarce, because so few of the initial survivors were left to tell the tale. As is the case with many other researchers, Ferreira also views the anonymous publication of the survivor account contained in the *História trágico-marítima* as the most valuable source. According to Ferreira, the three slave women present at the tragic death of Dona Leonora and her sons, survived the ordeal and once back in Goa India they gave statements

⁵⁵ J.P. Delgado, *British Museum Encyclopaedia of Underwater and Maritime Archaeology*. London, 1997.

⁵⁶ L.V. Esterhuizen, *Dekoratiewe Motiewe op Chinese Porseleinskerwe uit Portugese Skeepswrakke aan die Suid-Afrikaanse Kus, 1552-1647: 'n Kultuurhistoriese Studie*. Ph.D Thesis, Universiteit van Pretoria, 2001, pp. 77-95.

regarding their experiences, which were later recorded by historians.⁵⁷ As already mentioned another survivor, Alvaro Fernandes, the ship's storekeeper told the story to someone in Mozambique in 1554, who then later published the account anonymously. The exact publication date is unknown, but it is believed to be sometime during the sixteenth century.⁵⁸ The thorough research done by Ferreira reveals that the story of the tragedy of the São João has been published in numerous forms, under diverse titles by a variety of authors for a period of over three and a half centuries.

Table 1: São João publications and authors

DATE	PUBLICATION	AUTHOR
1594	Navegação e lastimoso sucesso da perdiçam de Manoel de Sousa de Sepúlveda	Unknown
Unknown	Relação do naufragio do galeão grande S. João	Unknown
1609	Ethopia Oriental	João dos Santos
1614	Relação do naufragio do galeão grande S. João	Unknown
1625	História da muy notavel perda do galeão de São João.	Álvaro Duarte Fernandes
1735-1736	História trágico-marítima	B.G. de Brito
1898-1903.	Records of South-Eastern Africa.	Theal, G.M.
1912	The Cape of Adventure	I.D. Colvin
1947	Portuguese Voyages	C.D. Ley
1959	The Tragic History of the Sea	C.R. Boxer

In his book, which was published in 2002 to commemorate the 450th anniversary of the wreck of the São João, Ferreira lists secondary sources that were of great value in his research. Besides these already discussed above, he also refers to A. Duncan⁵⁹

⁵⁷ O.J.O Ferreira, *Die Stranding van die São João*, Jeffreys Bay, p. 9.

⁵⁸ C.R. Boxer, *An Introduction on the História trágico-marítima*. in Bell-Cross "Portuguese Shipwrecks and identification of their sites" in Axelson, *Diaz and his Successors*. p.50.

⁵⁹ A. Duncan, *A mariners chronicle*, London, 1904.

and Axelson⁶⁰. He, however, expresses his disappointment in the fact that in the publication of Boxer *The Portuguese seaborne empire, 1415-1825*⁶¹ no attention was given to the São João. Boxer did however focus on the São João in an earlier publication in 1957, entitled *The Tragic History of the Sea*.⁶²

A chronological examination of the extent of documentary and field research done by other investigators has been presented in this chapter. Some uncertainty still exists as to the exact location of the wreck of the São João. Part of the reason for this is that certain researchers such as Welch and Maggs supporting Port Edward as the site of the wrecking only refer to the Umtavuna River and do not mention the Inhlanhlinhlu or Kuboboyi Rivers, two other key rivers in the vicinity. Even so, through the research conducted over the past decade some groundbreaking achievements have been made with regard to the location of the wreck site of the São João. To date little research has been conducted to establish the location of the survivor camp.

⁶⁰ Axelson, *Diaz and his Successors*.

⁶¹ C.R. Boxer, *The Portuguese seaborne empire, 1415-1825*, Lisabon, 1991.

⁶² C.R. Boxer, *The Tragic History of the Sea, 1589-1622*, Cambridge, 1959.

Chapter II

Using historical evidence as part of the maritime archaeological research

In this chapter, the importance of incorporating documentary evidence when investigating a maritime archaeological site (such as the one in Port Edward) will be illustrated in the discussion of the original documents and published accounts of the events surrounding the wrecking of the São João. The discussion is based on an examination of all available primary sources containing reference to the São João.

To a certain extent this thesis deals primarily with archaeological artefacts presumed to have originated from the wreck of the São João, which includes Chinese porcelain shards, cowrie shells, cornelian beads and cannons. However, attention is also given to documentary evidence as this provides valuable information with regards to the most important aspect of this study of the wrecking of the São João, which is the location of the wreck and campsite. Both the physical evidence and texts are the indispensable tools, the sources of information, by which the events relating to the wrecking of the São João can be reconstructed and are viewed as it were as “witnesses” to this past event.

The incorporation of historical texts in archaeological investigations determines the fundamental nature of the historical archaeological approach, which is the study of people of the past, their culture, achievements and sometimes, also the tragic events surrounding their lives. Archaeologist Barber states that one of the great advantages of historical archaeology is that the archaeological record can be enriched with other data sources such as the written and oral resources.¹

¹ R.J. Barber, *Doing historical archaeology, exercises using documentary, oral and material evidence*. New Jersey, 1994, p.5.

According to maritime archaeologist, Dr. Bruno Werz, historic-archaeological sources that can be used by historians and archaeologists alike have some general characteristics and may contain a wide variety of information regarding culture and events.²

For this reason, a variety of sources were consulted in order to obtain different types of information pertaining to the wreck. This was done to establish a more balanced and comprehensive impression of the events before and after the wrecking. The sources that were used in this investigation not only supplemented existing information on the location of the São João, but also verified, and in some cases indicated contradictions in research done by previous investigators. Factors that determined which sources were to be used depended largely on the nature of the research, the motivation behind the research and the availability of sources.

Documentary evidence was particularly helpful as the bulk of the archaeological material has been lost over the period of 450 years due to destruction, theft, and treasure hunting, as well as natural deterioration on the site. Because information contained in the documentary sources that were used for this investigation were also recorded with a specific goal in mind, it was important to investigate the intent of the composition of two narratives compiled in the *História trágico-marítima*. Research on the “Account of the very notable loss of the great galleon S. João” and the “Account of the loss of the Sao Bento” was firstly done to establish the origin, the purpose and the identity of the person responsible for their documentation and what information they contain. In the historical context this type of analysis refers to what is known as internal criticism.

To explain the concept of internal criticism, historian R. J. Shafer states that when working with authentic documents the researcher will be faced with both

² E.J.S. Werz, *Diving up the Human Past. Perspectives of Maritime archaeology, with specific reference to developments in South Africa until 1996.*

fact and fiction. According to Shafer the fabrication or distortion of events within documents is not always intentional and for this reason the researcher must use certain principles to determine the presence and degree of distortion.³ The first essential concept when analysing events within authentic historic documents is language. Thus words within the particular document must be studied within context and the literal meaning of words must be taken into account. This is not always possible since the document may be written in a foreign language, certain terminology is not in use anymore, punctuation marks may be absent or incomprehensible abbreviations were used. The author may also use words in an obscure fashion, to have an ironical or sarcastic meaning. Therefore when studying historical events described in documents it is essential to refer to dictionaries or other sources of reference.⁴ Secondly, time and place also contributes greatly to the author's interpretation of events. Written and spoken language may differ from place to place and may change over time where some words may change in meaning.⁵ In addition to the above stated rules, it is thirdly important to take the literal and figurative meaning of words into account, thus placing words and sentences in context with prior and subsequent events. For this reason the whole document must be studied, not only words and phrases within the document. Shafer lists the following as factors that may contribute to distortion of facts and events: ignorance, failing senses, cultural differences, a feeling of superiority and misinterpretation of events. Of this list, one or more factors may influence the author and distortion of events may be intentional or unintentional. Furthermore, Shafer states that intentional distortion may be the result of the following human or social desires: lust for money, power or the approval of others, political ambition, jealousy, fear or thoughtlessness.⁶

³ R.J, Shafer, *A guide to historical method*. Wadsworth, 1980, p.149; Barber, *Doing historical archaeology*. pp.8-9.

⁴ Ibid., p. 150.

⁵ Ibid., p. 151.

⁶ Ibid., p. 153.

The reasons for distortion or falsification of events cannot always be determined, but Shafer stresses that any researcher studying historical documents must use internal criticism to try and determine the amount of distortion.

To prevent restricting the interpretative value of the sources that were used, no division was made between the disciplines of archaeology and history. For this reason a historical archaeological approach was chosen, and therefore this study was done in the Department of Anthropology and Archaeology in alliance with the Department of Historical and Heritage studies at the University of Pretoria, on an inter-disciplinary bases.

The História Trágico-Marítima

The Portuguese were one of the first European nations to carry out far-reaching voyages of maritime discovery and exploration. Because these voyages formed such an integral part of Portuguese society, the genre of world shipwreck stories had its modest beginnings within this culture. Some of the narratives on the theme of shipwreck were compiled in a series called *História trágico-marítima* (Tragical Maritime History or HTM)⁷. These narratives are important not only because of the symbolism of the theme within sixteenth and seventeenth-century Portuguese culture, and the fact that they focus on details of Lusitanian maritime practices during the period between 1550 and 1650, but also because they assist maritime archaeologists and historians in locating wreck sites. This source is particularly relevant in the case of the numerous shipwrecks along the notoriously dangerous South African coastline. Twentieth century researchers such as Duffy⁸, Maggs⁹, Ferreira¹⁰ and Esterhuizen¹¹ confirm this.

⁷ Duffy, *Shipwreck & Empire*. p. 21.

⁸ Duffy, *Shipwreck and Empire*.

⁹ Maggs, The Great Galleon São João: remains from a mid-sixteenth century wreck on the Natal South Coast. *Annals of the Natal Museum*. 1984, 26(1). p. 175

¹⁰ Ferreira, *Die Stranding van die São João*.

The editor of the *História trágico-marítima*, Bernardo Gomes de Brito, who was born in Lisbon on the 20 May 1688, compiled it between 1735 and 1736. Limited information exists concerning many of the authors in the *História trágico-marítima*, including the author of the story of the wrecking of the São João. However, it is believed that they were generally ordinary people, such as sailors, priests, pharmacists and passengers who were on board these ships.¹² For this reason, the stories told in the *História trágico-marítima* are simple and lack literary sophistication. Some researchers such as Duffy, see this as a positive aspect in that it implies a certain frankness and it affirms the authenticity of the stories.¹³

To study the narratives from the *História trágico-marítima* is a difficult task. Only a few of the original copies still exist and they were written in an older Portuguese dialect. Fortunately, in the early twentieth century, historian George MacCall Theal directly translated the eighteen narratives contained in the *História trágico-marítima* into English. His translations were compiled into a series called “*Records of South-Eastern Africa*” comprising of nine volumes, and they contain both the original Portuguese narrative as well as the English translation.¹⁴ It is a classical two part series and compilation of oral and written tradition on the theme of Portuguese shipwreck between 1550 and 1650. These two works are the most frequently used by historians and archaeologists studying the São João and São Bento¹⁵.

¹¹ Personal communication with Esterhuizen, 2002.

¹² Duffy, *Shipwreck & Empire*, p. 26.

¹³ Ibid.

¹⁴ Theal, *Records of South East Africa*.

¹⁵ Boxer, *The Tragic History of the Sea*; Duffy, *Shipwreck & Empire*; Theal, *Records of South East Africa*.

It is important to consider the intent of the composition of the two relevant narratives compiled in the *História trágico-marítima*, in order to establish whether the authors wished to report as truly as they could in terms of accuracy and coverage. Theal's English translations were scrutinised for this purpose. The narratives under investigation are of the only two mid-sixteenth century Portuguese shipwrecks along the east coast of South Africa: the São João (1552) and São Bento (1554). The São Bento report is regarded as the key to the location of the São João wreck site for two reasons. Firstly, it was written by Manuel de Mesquita Perestrello, himself one of the survivors of the wreck of the São Bento who had good powers of observation and some knowledge of navigation and secondly, because the survivors of the São Bento walked up the coast for a few days and reported that they came upon the remains of the wreck of the São João.¹⁶ Perestrello was later commissioned by the King of Portugal to explore and describe the whole coastline and was regarded by later researchers, such as Theal and Derricourt, as a reliable and professional witness within the limits and the constraints of the journey.¹⁷

Historian A. Marwick, affirms Shafer's theories that using documentary evidence, requires knowledge of external criticism, which determines the authenticity of the evidence and internal criticism, which determines the credibility of evidence (as discussed on pages 20-21).¹⁸ One needs to consider what motivated or compelled the survivor and/or author of these narratives to commit their stories to paper. According to Ferreira reports written by the survivors were presented to the Portuguese government.¹⁹ In addition, it is believed, that these records served as memoirs because the survivors simply could not forget the trauma associated with being shipwrecked in a foreign land, such as Africa, of which they knew very little. Therefore these narratives are

¹⁶ Maggs, *The Great Galleon São João*, p. 173.

¹⁷ Derricourt, *Early European Travellers in the Transkei and Ciskei*. pp. 278-279.

¹⁸ A. Marwick, *The Nature of History*, London, 1993, p. 127.

¹⁹ Personal communication with Ferreira, November, 2003.

basically representations of humankind's struggle for survival and a need to share experiences with fellow individuals. These two narratives, in particular, are however not a couple of impartial case studies that may seem stylized and similar to each other. They are individualized experiences written down according to a formula of exposition: the voyage, the wreck and the aftermath. The journalistic style of the first narrative, about the São João, can be attributed to the fact that it was not one of the survivors who committed the tragedy to paper.

Ferreira also questioned the credibility of the survivor account, but according to him it is relatively trustworthy because the relater was not aware of any other survivors to prove his narration as inaccurate.²⁰ The logic behind this argument is not clear, but perhaps Ferreira implies that not knowing whether someone will be able to expose the author as a fraud, was inspiration for telling the truth.

Language discrepancies and the selective thought process of the author and/or survivor may be blamed for the exclusion of detail or exaggeration of events and must be taken into account to prove that any distortion that occurs in the narratives was not done intentionally. These include events that seemed either insignificant or traumatic to the author and/or survivor. A good example of an exaggeration is where the author of the narrative of the São João writes of “tigers” that the survivors encountered on their trek to Mozambique:

and not a day passed but one or two were left on the shore or in the thickets...and were afterwards devoured by tigers and serpents, which are numerous in those parts...²¹ It would seem journeying through the thicket, there can be no doubt that he was devoured by tigers and lions.²² ...and anyone lingering behind was devoured by lions and tigers.²³

²⁰ Ferreira, *Die Stranding van die São João*, p. 12.

²¹ Theal, *Records of South East Africa* I, p.136.

²² *Ibid.*, p. 147.

²³ *Ibid.*, p. 137.

The incredible reference to tigers in southern Africa could be attributed to either language discrepancies, since the narrative was written in Portuguese and translated into English, or the ignorance of the survivors. It is, however, hard to determine whether the mention of tigers was meant literally, and that the survivors were unfamiliar with the animals in Africa, or whether in order to stir up sympathy for the survivors, the author exaggerated his interpretation of the events. It is, however, not a unique occurrence. According to the recent publication by anthropologist Carmel Schrine entitled *Tigers in Africa: Stalking the past at the Cape of Good Hope*, “early travellers’ records, whether English, Dutch or Portuguese, are stuffed full of lions and tigers.”²⁴ Boxer states that these references to tigers “should be understood as leopards, no doubt because tigers are not native to Africa.”²⁵ The implication here is that the latter reason, namely ignorance, is to blame for the reference to tigers, suggesting that the survivors did not intentionally exaggerate their experiences.

In this case the reference to “tigers” can also be attributed to the author and/or survivor adopting a patriotic attitude when writing down his story as it is believed that some artistic licence was used to suite the taste of the Portuguese Royalty. Since seafaring stories formed a part of Portuguese culture from the very beginning, it stands to reason that these two stories included in the *História trágico-marítima*, were also told to demonstrate the bravery of the men and their ships that followed the route laid down by Vasco da Gama to India in 1497, in order to advance Portuguese influence in the East.

Anthropologist Derricourt, who also used the shipwreck accounts of seven Portuguese shipwrecks on the Natal coast as a means to study patterns of

²⁴ C. Schrire, *Tigers in Africa: Stalking the past at the Cape of Good Hope*, Cape Town, 2002, p.4. As reference she cites R. Raven-Hart, *Before Van Riebeeck: Callers at South Africa from 1488-1652*, Cape Town, 1967.

²⁵ Boxer, *The Tragic History of The Sea, 1589-1622*, translators notes, p.26.

economy, material culture and trade, points out two characteristics that support the authenticity of the details found in these accounts. Firstly, the descriptions of indigenous communities encountered by the shipwrecked travellers are not exaggerated or inconsistent with knowledge gained from later research and other early explorers. The second substantiating point is the topographical detail that is often supplied by the authors. It is unlikely that these sometimes boring details were purposefully added, purely out of interest.

Or as Derricourt puts it

...it does not add to the literary style or appeal of the account and would only seem possible as an inaccurate addition if one were to credit the authors with the sophistication of a determined and dishonest wish to appear authoritative by a sprinkling of invented statistics and geographical data.²⁶

The references to geographic formations and locations have also been tested by Maggs and were found to be accurate.²⁷ A detailed discussion on Maggs' findings on the geography of the area will be dealt with as part of the critical evaluation of the survivor's accounts of both the São João and São Bento below.²⁸ Although some elements of exaggeration and distortion are evident in the two narratives, they are still viewed as the most valuable sources of information pertaining to the fate of the ships and location of the wreck sites. There appears to be no reason for the authors wanting to distort the account in terms of the events that led to the demise of these ships and their crew and the location of the wreck sites.

Thus for the purpose of this thesis the narratives of the São João and São Bento contained in the *História trágico-marítima* and translated into English by Theal, were viewed as a primary and most valuable source in locating the wreck site.

²⁶ Derricourt, *Early European Travellers in the Transkei and Ciskei*. p. 276.

²⁷ Maggs, *The Great Galleon São João* pp.183-185.

²⁸ Refer to section on the evidence as to the location of the wreck site contained in the account of the São João.

The account of the São João

Account of the very notable loss of the great galleon S. João. Wherein are told the great difficulties and pitiful events that befell Captain Manoel de Sepúlveda as well as the lamentable end that he, and his wife and his children, and all the other people met in the land of Natal, where they were cast away on the 24th of June of 1552.²⁹

The account of the wrecking of this sixteenth-century Galleon the São João with her cargo of Chinese porcelain, cotton piece goods, carpets, cornelian beads and precious stones, is regarded as the most famous of all Portuguese shipwrecks and in fact one of the much loved wreck stories in sixteenth and seventeenth-century Europe.³⁰

According to the *História trágico-marítima* and other historical sources, the São João left Cochin on the 3rd of February 1552 with a little more than half the amount of pepper the ship was able to carry.³¹ This was as a result of a war in Malabar that consequently resulted in Captain Manuel Manoel de Sepúlveda, an illustrious military hero in India, departing later than planned. According to the survivor account, the difference in cargo was made up with other merchandise which made her an exceptionally heavy laden ship when she left. This was a cause for concern with the crew not because *naos* and *galleons* often sailed out of port overloaded and so overcrowded with silks, spices and other precious cargo that no space remained for essential ship's supplies, but on account of being vulnerable to rough weather and piracy which they describe as the "the great risks to which heavily-laden ships are exposed."³²

At 32 degrees, on the 13th of April the coast of south-eastern Africa was first sighted. In the survivor account this is where the first mention is made of the

²⁹ Title directly translated from Portuguese in *História trágico-marítima*, I, pp. 1-38.

³⁰ Duffy, *Shipwreck and Empire*, p. 25.

³¹ Theal, *Records of South East Africa* I, p.129.

³² Ibid.

condition of the ship. Apparently their progress was also slow as a direct result of bad sails which is seen as one of the principal causes of the loss of the ship.

Sailing with favourable winds along the coast of Natal, the São João made it as far as 25 leagues³³ from the Cape of Good Hope. Here they encountered headwinds and it was decided by the Captain, the Master and the Pilot, because the ship was so large, long and heavily laden, to turn the ship around and sail with the wind.³⁴ Another consideration was the fact that the sails they had were torn and unreliable, but also the only sails that they had left. This change was made and they sailed along the coast until the Cape was 130 leagues away.³⁵ Again they encountered a head wind and were forced to turn the ship around again and sail before the wind.

It has been established that merchant ships travelling to and from South Asia were subject to a weather system, which determined their departure and arrival dates to and from Cochin and Goa. The monsoon weather system dominates the climate of a wide region, with seasonal reversals of direction. In South Asia this strong wind blows toward the sea in winter and toward the land in summer. Another weather system, the south-east trade winds that are the cause of great storms around the south-eastern coast of Africa, especially the Cape of Good Hope, blow during the winter months in the southern hemisphere and reach their peak in July. A comparison between figures 5 and 6 below shows how the ships pilots used these weather conditions to their advantage. For details on wind directions and trade routes followed by 16th century navigators (See Figures 5 & 6 on pages 30-31).

³³ 75 nautical miles or 120 kilometres.

³⁴ Theal, *Records of South East Africa* I, p. 129.

³⁵ 390 nautical miles or 624 kilometres.

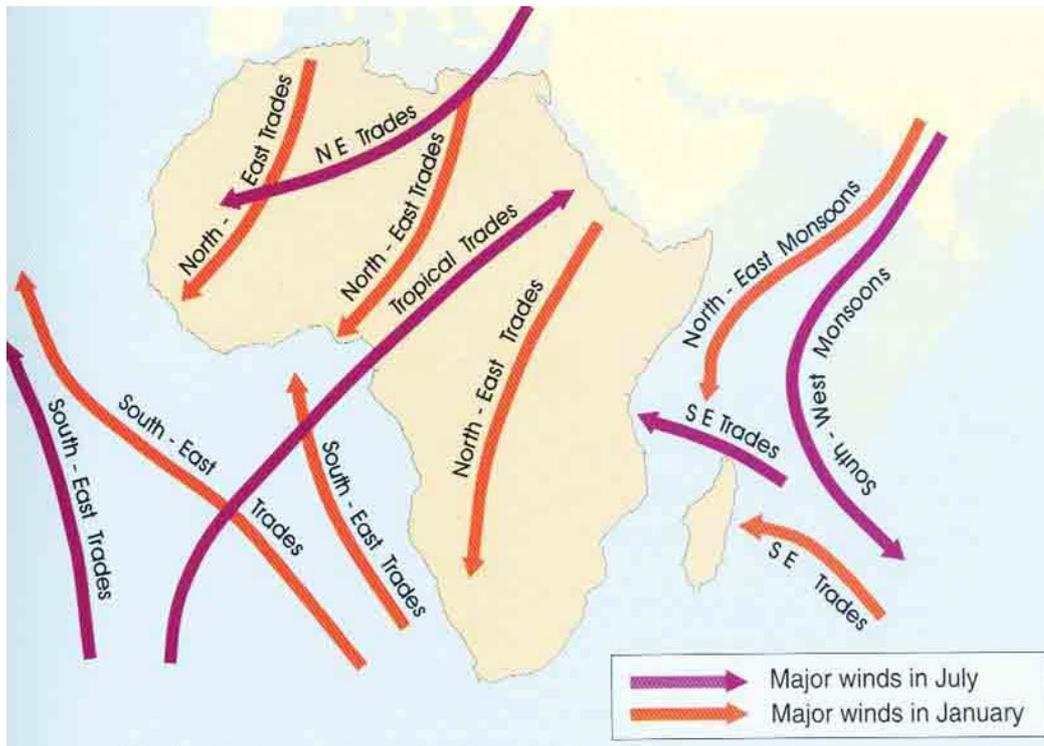


Figure 5: Africa: Major Winds.

From: C, Stuart & T, Stuart. *Africa a Natural History*. (Halfway House, 1995).

Numerous authors and researchers claimed that the Captain of the São João made a “belated departure” from Cochin. A reinvestigation of the departure date (February 3rd), established that leaving Cochin at this time was not uncommon. Instead of leaving at Christmastide or New Year, returning Indiamen often left India in February or even March and so rounded the Cape of Good Hope in May or June, when the winter storms had not yet reached their peak.

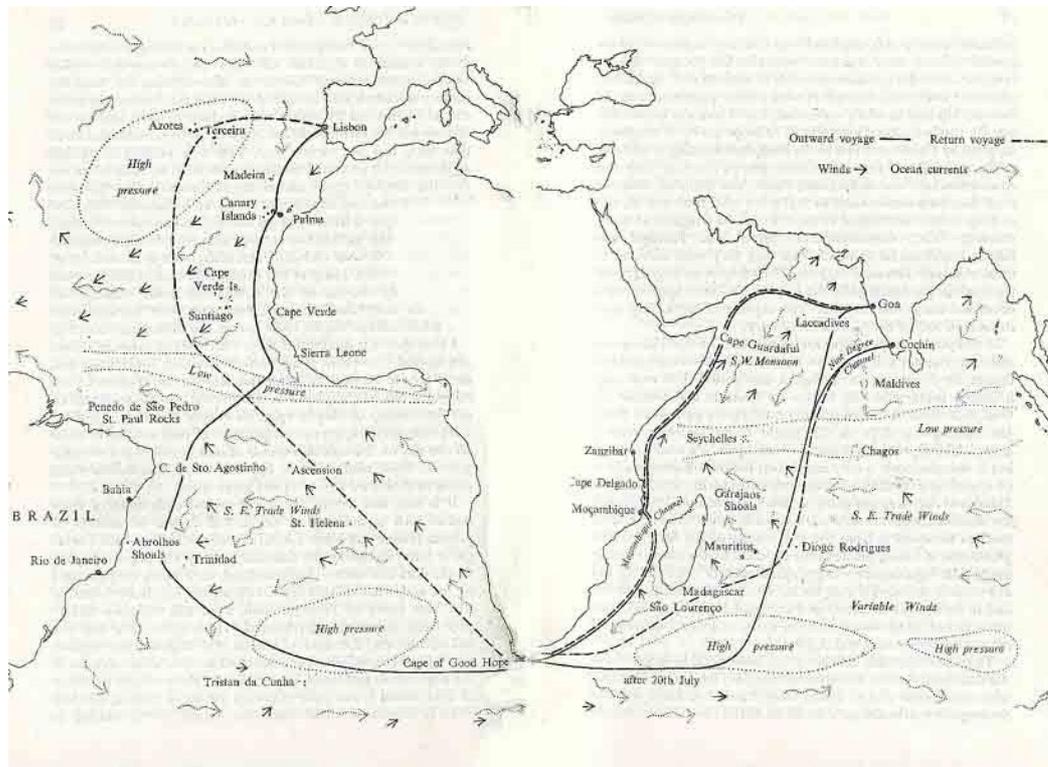


Figure 6: Major trade routes in the 16th century.

From: C.R. Boxer. *The Tragic History of the Sea*. (Hakluyt Society 1959).

Departures as late as in April and even May were not unknown.³⁶ The author of the narrative of the *São João*, mentioned that the pilot had great difficulty in manoeuvring the galleon.³⁷ The reason for this may be that while the French, English and Dutch attempted to build ships that were more stable in the water with a longer keel, a lower poop and forecastle and more effective artillery, the Portuguese, however, were consumed by greed and hence they continued to build ships that were larger and less manoeuvrable in the water.

³⁶ Boxer, *The Portuguese Seaborne Empire*, p. 206.

³⁷ Theal, *Records of South East Africa* I, p. 130.

The crew were concerned because other Portuguese ships, for example the São Bento, Aguia, Garça, São Paulo, Santiago, São Thomé, Santo Alberto and São Francisco, to name but a few, often sailed late, rotten, overloaded and inadequately stocked with the barest necessities and equipment.³⁸

The vessel apparently laboured in the rough seas, the reason given for this was that she was “heavily laden with boxes and other merchandise.”³⁹ They had no spare sails and those in use were torn and untrustworthy. And one of the reasons why they had not yet sailed around Cape Point was the time they took in unbending the sails to sew them. The shrouds and backstays were broken by large waves striking the ship abeam, meaning the waves hit the ship from the side and were so large they washed right through. For twenty seven days successive storms damaged the ship even further, as they lost the mast, topsail, mainsail, more shrouds and most important of all, the rudder. At this point Manuel de Sepúlveda and his officers decided to make a rudder as best they could and made some substitute sails from cloth from the merchandise. The rudder proved to be useless as it was too short and it was impossible to steer the ship with it.⁴⁰

It is clear from the above paragraph that the São João was not an easy vessel to handle. The reason for this may be that it was not intended to function as a merchant ship, but rather a war ship. Galleons were built longer and narrower than the actual cargo ships, used by the Carreira da India, called *Náos*. Galleons were fitted with moderate superstructures and were heavily gunned. Boxer points out, that galleons were frequently pressed into service as merchant ships and as previously stated, the tendency existed, amongst the Portuguese, to make the ships larger and larger.⁴¹ It is also apparent that the São João was one of the ships

³⁸ Duffy, *Shipwreck and Empire*, p. 51.

³⁹ Theal, *Records of South East Africa* I, p. 129.

⁴⁰ *Ibid.*, p. 132.

⁴¹ Boxer, *The Portuguese Seaborne Empire*, p. 207.

that left India overloaded and lacking the barest necessities of equipment, since they could not make a proper rudder replacement.

On the 8th of June they were in sight of the Natal coast and having no other choice, with the ship leaking badly, having no rudder, masts and only a few dilapidated sails, the Captain and his officers decided to let the ship drift with the current until they reached a depth of ten fathoms. On approaching the shore one of the ship's boats was launched to find a safe place to beach. A suitable area was located and the Captain attempted to steer the galleon to the selected area. They agreed that when the ship was anchored and after those on board had disembarked, as much provisions and arms as could be taken from the galleon would be taken ashore in the two boats. But, to save any other merchandise from the ship would only be to their detriment, for they feared that the indigenous people would rob them.⁴²

The date in June indicates the approximate time when the south-eastern trade winds start blowing and this would explain the successive storms that drove the galleon back to the Natal coast. The survivors' accounts were compared and were found to be in keeping with the Port Edward geography. The boat that was sent out returned and reported that only one suitable place, close by, could be found and that the rest of the coast consisted of 'sharp rock and great boulders which offered no hope of safety'.⁴³ On reinvestigating the Port Edward site it was found to be in keeping with Maggs' findings⁴⁴, that there is only one suitable landing place immediately north of the town of Port Edward. Today this place is used for launching fishing boats. North and south of this, the coast is endlessly rocky and thus inaccessible.

⁴² Theal, *Records of South East Africa* I, p. 132.

⁴³ Ibid.

⁴⁴ Maggs, *The Great Galleon São João* p. 183.

In seven fathoms the ship was anchored by one anchor and another that was carried to shore, which was “two crossbow shots away.”⁴⁵ According to the author of the *História trágico-marítima*, the Captain, his wife and children were put ashore with some twenty men to guard them against possible hostile inhabitants. The boat made several successful trips from ship to shore before it was destroyed in the surf. The São João was driven ashore with the remainder of the ship’s crew and passengers still on board. The galleon split in two pieces amidships and within an hour these broke into a further four pieces. This breaking up caused the merchandise and boxes to float to the surface and those crew members who still remained on the ship tried to get ashore using these as floats. More than a hundred passengers, slaves and crew were lost⁴⁶.

The loss of life was catastrophic, together with the cargo which was described by the survivors in the following manner: “...the merchandise in the ship, belonging to the king and others, was worth a million in gold, for a vessel so richly laden had not left India since it was discovered.”⁴⁷

There was no means by which the survivors could build a craft to take them to Mozambique as the São João was broken up completely by the waves. According to the survivor account: “In four hours there was not a piece of the galleon as large as a man’s arm remaining.”⁴⁸ Also according to Ferreira, they could not find any timber or other useful material to build a caravel.⁴⁹ The survivors formed a company of some five hundred, including Manoel de Sepúlveda, his wife and children, eighty other Portuguese and their slaves, André Vas the pilot, the master of the galleon, seamen and female slaves, Pantaleão de Sà and the rest of the slaves. The company remained on the shore at the wreck site for twelve

⁴⁵ Axelson, *Diaz and his Successors*. p. 51.

⁴⁶ Theal, *Records of South East Africa* I, p. 134.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ferreira, *Stranding van die São João*. p. 28.

days to salvage anything useful thrown up on the beaches and to give the injured time to recover.⁵⁰ Of the total number, 180 were Portuguese. They had access to drinkable water and built a sort of fortification with chests and barrels and, unlike some other shipwreck victims, were apparently not disturbed or confronted by blacks from the surrounding area⁵¹.

Mention is, however, made of an incident where some local inhabitants appeared on a hill leading a cow. By making various signs the Portuguese encouraged them to come down and the Captain and four men tried to speak with them.⁵² According to anthropologist P.E.H. Hair who specializes in Afro-European relations, sign language was commonly used in the sixteenth century.⁵³ It was understood that the locals wanted iron and were willing to trade the cow for this. The Captain showed them some iron nails which appear to have delighted them and they came nearer to make the transaction. Just as they were about to do this, some five other local inhabitants appeared on the same hill and shouted at them in their language apparently indicating that they should not exchange the cow for nails. They withdrew taking the cow with them, without any explanation. The local inhabitants are described as “*cafres*” and according to Derricourt this is an indication that they were Nguni not only because of the appellation, but also because the Nguni and not the traditional San, possessed cattle.⁵⁴ Further south, other travellers and traditions suggest that the vicinity was only occupied by significant numbers of Xhosa people.⁵⁵

⁵⁰ Theal, *Records of South East Africa* I, p. 134.

⁵¹ *Ibid.*, p. 135.

⁵² *Ibid.*, p. 135.

⁵³ Hair, Portuguese Contacts with the Bantu Languages of the Transkei, Natal and Southern Mozambique 1497-1650” in P.E.H. Hair. *Africa Encountered*. X, p. 22.

⁵⁴ Derricourt, *Early European Travellers in the Transkei and Ciskei*. p. 279.

⁵⁵ *Ibid.*

After twelve days of camping on the shore, the Captain called the people to a council, to consider what was to be done. They came to the decision to walk along the coast as far they could to reach the river discovered by Lorenzo Marques and the Portuguese outpost in Mozambique.⁵⁶ This journey took them as long as five and a half months to complete. On the 7th of July 1552 they set out from 31° and suffered greatly during their journey, with only twenty-five of the original five hundred that survived the wreck, eventually making it to Mozambique.⁵⁷

Historical evidence contained in the survivor account of the São João is sketchy, but it broadly points to the location of their land fall as somewhere near the coast of the Transkei just south of 31°. This conclusion was arrived at if one takes the distance stated⁵⁸ the period of the journey given⁵⁹ and an average realistic travelling distance of 20km per day into account. During the first month they estimated that a distance of about 100 leagues (592 km) was covered. This included deviations they made to cross over the larger rivers. They reported that no other people were met during this journey and the only food they had was a bit of rice taken from the ship and wild fruit they found in the thickets. They first lost twelve people of the company, including an illegitimate son of Manuel de Sepúlveda and the slave who was carrying him. They were left behind because they were too weak as a result of hunger to continue with the journey. When the Captain learned that his son was left behind he was devastated and offered two men five hundred cruzados to return and find him, but no one would accept the offer for they feared for their lives. The Captain was therefore forced to abandon his beloved son. And the author says here: “By this we may see the sufferings

⁵⁶ Theal, *Records of South East Africa* I, p. 136.

⁵⁷ Ibid.

⁵⁸ Over 300 leagues or 1080 km including deviations along the coast to the river discovered by Lorenzo Marques the Limpopo.

⁵⁹ Five and a half months.

endured by that gentleman before his death.”⁶⁰ After this, the first mention is made of skirmishes between the survivor party and the black inhabitants they encountered. It is recorded that they had fought several times and that more of the company lost their courage everyday and were left behind.

After about three months they were said to have met with a black king who was the head of two kraals. It is recorded that he promised not to harm them because of his previous acquaintances with the Portuguese through Lorenzo Marques as well as Antonio Caldeira who had been there. He also warned them not to carry on with their journey for he was at war with another chief in the area who would rob them and also he needed their help.⁶¹ According to Hair the survivors of Portuguese shipwrecks in general, comprised of Portuguese-speaking natives of India as well as Asian and African sailors and servants who spoke varying amounts of Portuguese. The language that was used for communication within parties was, as far as can be ascertained, Portuguese. According to various sources, some blacks living near Delagoa Bay spoke Portuguese very well.⁶² Thus it is reasonable to assume that the black chief that is mentioned in the survivor account of the São João was capable of speaking some Portuguese.

They remained with this black king for approximately twelve days and in this time Manuel de Sepúlveda ordered his brother-in-law, Pantaleão de Sá to go with twenty men to assist the king in a military campaign against a nearby rebellious chief. De Sá, did so and after their return they asked the king to let them go on their way in search of the river of Lorenzo Marques, not knowing that they had already reached it.

⁶⁰ Theal, *Records of South East Africa* I, p. 137.

⁶¹ *Ibid.*, p. 139.

⁶² Hair, *Portuguese Contacts with the Bantu Languages of the Transkei, Natal and Southern Mozambique*, pp. 19-20.

After leaving the kraal of the king they crossed a large river that flowed into the bay of 'Boa Paz' (Delagoa Bay).⁶³ The author mentions that they found a red ornament that was a sign that the Portuguese had been there before, but according to him "their fortune blinded them" and they insisted on going ahead. No matter how the king insisted they stay, they would not listen and because he meant them no harm he allowed them to go and also assisted them in crossing the first river by canoe. The author recalls that by this time the Captain's mind was adversely affected by the constant watching and the many hardships and trying experiences he had been through.⁶⁴

A day later, a group of blacks crossed the river by canoe and told them that a ship had come there with men like themselves, but had left again. De Sepúlveda, not heeding the warnings of the king that showed them kindness, was still determined to press on and on arrival at the kraal of the next king, Da Sousa was persuaded to deposit his firearms with the king. Being weak with hunger and thirst they surrendered their weapons and allowed themselves to be split up amongst many villages where they waited for the next Portuguese ship to arrive. They were then systematically robbed of all their possessions. Manoel de Sepúlveda's wife, Dona Leonor, was stripped of all her clothing, and feeling severely ashamed dug a hole in the sand and buried herself waist deep.⁶⁵ The pilot, André Vãs, and the others were forced to leave the Captain and his wife behind and carry on with their journey. Manuel de Sepúlveda was reduced to foraging for fruit in the thicket to try and sustain his family. Dona Leonor, her two children and several slaves died shortly thereafter as a result of hunger and exhaustion. The bereaved Manoel de Sepúlveda apparently wandered into the thicket and was never seen again. A rescue vessel delivered the twenty-five remaining survivors of the wreck of the São João to Mozambique Island of Ilha

⁶³ Theal, *Records of South East Africa* I, p. 140.

⁶⁴ Ibid.

⁶⁵ Theal, *Records of South East Africa* I, p. 147.

de Moçambique on the 25th of May 1553.⁶⁶ The narrative of the wrecking of the São João gained the status of an anthology within Portuguese, Italian, French and Spanish culture, because of the tragic events that befell the Captain Manoel de Sepúlveda and his wife Leonor de Sá. The above mentioned incident, involving the Captain and his wife, is a simple but tragic one. Their scandalous affair and marriage was viewed within these religious cultures as the reason why they were cast ashore on the African coast when the São João, (the richest and finest Indies vessel in half a century) was destroyed on the South East coast of South Africa. After enduring endless hardships and losing his bastard son, the once selfish arrogant Captain was reduced to a pitiful madman. There is nothing inspirational about his character. His wife, however, still clinging to the little dignity she had left in the end may be viewed as the heroic figure in this tragedy. Although one may detect evidence of neglect and greed in this story, it is still regarded as an example of national heroism and of Portuguese faith and valour,⁶⁷ and remains a key to the unravelling of this past event.

Evidence as to the location of the wreck site contained in the account of the São João.

In the account of the São João presented in the *História trágico-marítima*, there are various details that provide clues as to the possible location of the wreck site. First it was stated that the crew of the São João sighted land on the eighth of June.⁶⁸ According to Welch, the coastland they saw was the north bank of the Umtavuna River.⁶⁹ The crew made for that part of the shore, which offered them a chance of landing safely, so the galleon was anchored in seven fathoms of

⁶⁶ Theal, *Records of South East Africa* I, p. 149; Welch, *South Africa under John III, 1521-1557*. pp. 325-343; Ferreira, *Stranding van die São João*. pp. 31-49.

⁶⁷ Duffy, *Shipwreck and Empire*. p. 46.

⁶⁸ Theal, *Records of South East Africa* I, p. 132.

⁶⁹ Welch, *South Africa under John III*, p. 326.

water.⁷⁰ Welch believes since the galleon was no longer seaworthy the intention was to run her aground and use the timber to build a caravel to take the survivors to Mozambique. As far as the various sources reveal, there was enough cloth left on board to make functional sails. One of the wise precautions of the royal government of Portugal, according to Welch, was to send with their trading vessels a number of skilled artisans to deal with emergencies of this nature.⁷¹ This plan would not be realised, since the galleon broke loose from her insecure anchorage and was carried onto the rocks. The survivor reports that all the merchandise floated to the surface and as a result of the rough seas was all broken up into very small bits.

Immediately north of the landing beach the coast becomes rocky and this stretches on for about one kilometre. All the artefacts (porcelain, cowries and cornelian beads) suspected to originate from the wreck are found within this one kilometre stretch. According to Maggs, the cannon fragment that was found by Harris came from the southern end of these rocks. According to the survivor account the company stayed close to the wreck site and near the river⁷² for twelve days to give the injured time to recuperate and salvage merchandise that was washed up by the sea. They mention two hills upon which blacks appeared.

⁷⁰ Theal, *Records of South East Africa* I, p. 136.

⁷¹ Welch, *South Africa under John III*, p. 327.

⁷² *Ibid.*, p. 329.

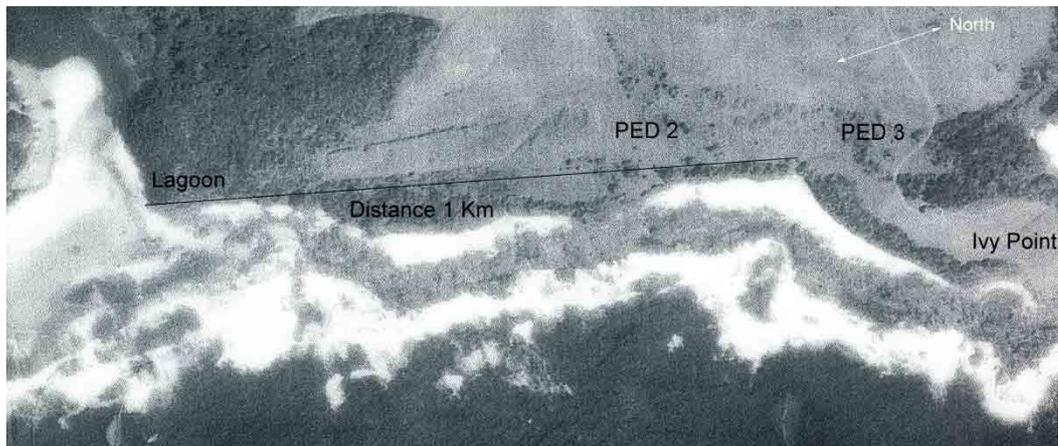


Figure 7: Aerial photograph of Keisers Farm. From the mouth of the Inhlanhlinhlu on the left to Ivy point on the right is a distance of 1km.

From: Surveyor General, Pretoria, 2001.

There are two hills, north and south of the landing beach, separated by a lagoon (see figure 7 on page 41). However, these hills are densely overgrown and very high and it is unlikely that these are the hills that are mentioned by the survivor. Just north of these two hills and adjacent to the stretch of coast where the artefacts are found on the farm called Inhlanhlinhlu (Keisers Farm) is enough space to accommodate a large number of people, away from wind and sea, and this area is surrounded by smaller hills. The water from the stream feeding the lagoon is brackish, but the water from the larger river, the KuBoboyi, is not. This is a perennial river that flows 1km north of the town of Port Edward and close to where the wreck site is believed to be located. These factors make it the most possible site for the survivor camp. Moreover, the survivors give the latitude of the wreck as 31°. The latitude of the site at Port Edward is 31°02'59"S. This particular account in the *História trágico-marítima*, however, contains no further geographic information to be used in determining the location of the wreck site.

The account of the São Bento

Since the account of the wreck of the São Bento contains more specific geographic information than that of the São João, it is important to analyse parts of this ship's survivor's account. For the purpose of this study, the São Bento account includes relevant information regarding the location of the wreck of the São João. What is therefore important for the São João research is the account of the events following the wrecking of the São Bento on the coast of the Transkei on the 22nd of April 1554.

According to Manuel de Mesquita Perestrello the crew of the São Bento:

steered for the nearest land, which was a wide expanse of sandy shore in latitude thirty-two degrees and a third, at the mouth of the river Infante... she drifted upon a rocky islet which lies within gunshot of the mouth of the river, on the side towards the Cape... if we had gone ashore where we intended, the sea being now almost at low tide, there was left a band of rocky shore, over which the sea burst in foam all along the coast, so that none could have escaped; but the shore of the rocky island was so steep that we were within a crossbow shot of it in seven fathoms of water.⁷³

It was established by Auret and Maggs that the wreck site of the São Bento is located at the Msikaba Island on the Transkei coast. According to this, Maggs reconstructed the journey that the survivors followed, to the place where they encountered the wreck of the São João. Maggs divides the journey of the São Bento survivors into a possible five stages.⁷⁴

During the first part of the journey the survivors of the São Bento travelled from the wreck site inland in a north-easterly direction. The going was slow and it was not until the third day after climbing down a very steep, rocky valley that they

⁷³ Theal, *Records of South East Africa* I, pp. 218-285.

⁷⁴ C. Auret and T. Maggs, The Great Ship São Bento: remains from a mid-sixteenth century Portuguese wreck on the Pondoland coast. *Annals of the Natal Museum*. 25 (1) pp. 1-39.

reached the next river. As they were unable to cross it, they spent the night there. The next two days they retraced their steps in an attempt to find a suitable place to cross the river safely. On the fifth day they gathered enough courage to attempt a crossing. It took them all day and they spent that night on the other side close to a kraal where they were able to barter some food.⁷⁵

The second part comprised of a journey that took about three days, still travelling in a north-easterly direction. This brought them to a third river they called “the River of Saint Christopher, which lay right across our path and the water swarming with sea horses.” Again they were unable to cross the river. The night was spent in the hills and it was decided that they must head towards the coast in search of a suitable crossing and food.⁷⁶

During the third stage they followed the third river down to the coast and early the next morning they reached the Saint Christopher River again, near its mouth. The river gorge is described as steep, with impenetrable thicket and topped by a cliff on either side. They were completely discouraged by the size of the river but were, however, able to find a suitable place to cross.⁷⁷

The fourth phase entailed them climbing for two days to the other side from where they could see the sea. Here they slept in a deserted village in which they found Chinese porcelain shards and other familiar objects, which they felt sure, were from the wreck of the São João.⁷⁸ The last phase which followed was when they reached the shore at the very spot where the galleon São João had been wrecked, “capstan and timbers still being visible.”⁷⁹

⁷⁵ Maggs, *The Great Galleon São João*, pp. 183-185; Axelson, *Diaz and his Successors*. p. 54; Welch, *South Africa under John III*, p. 353.

⁷⁶ Maggs, *The Great Galleon São João*, pp. 183-185.

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ Ibid.

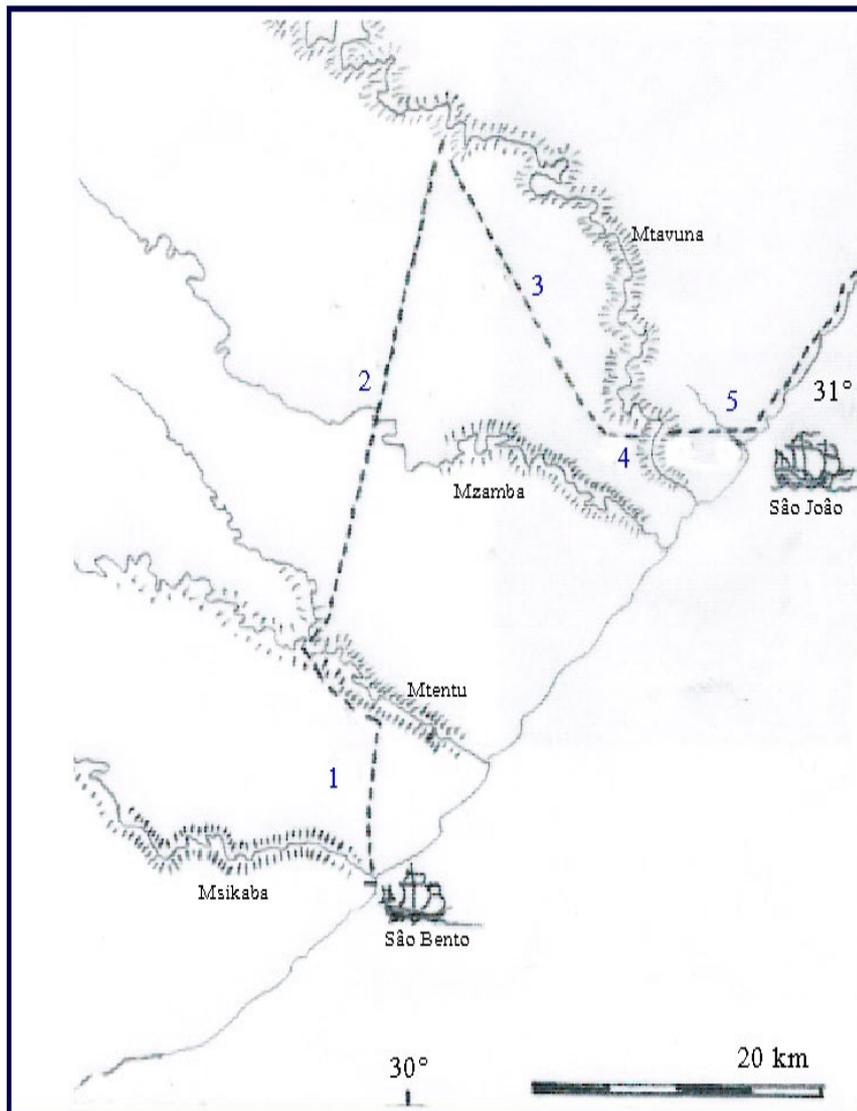


Figure 8: Route followed by the São Bento survivors as discussed in the text.

From: Maggs, *The Great Galleon São João*, 1984, p.185.

The five phases identified by Maggs regarding the São Bento are of great relevance to determining the location of the São João. (See Fig. 8. on p. 44) Of significance is that the São Bento report gives more detailed geographic information. Moreover, since the survivors of the São Bento state that they came

across the wreck of the São João it is assumed that if the steps of the São Bento survivors can be retraced, it will give an indication of the location of the wreck of the São João.

If these five phases are compared with the local geography in the area then the first phase, the very steep, rocky valley with a big river they were unable to cross must be the Mtentu that lies approximately 15 km north of the Msikaba River mouth. According to Maggs the river runs in a very deep gorge, about 300m deep.⁸⁰

In the second phase, the São Bento survivors state that they were travelling in a north-easterly direction. Doing so would bring them to the Mtamvuna River, also flowing in a steep valley. On a 1:50 000 map of the area it is clear that the other rivers in the area flow eastwards at right angles towards the coast, except the Mtamvuna, which flows in a southerly direction.

It is stated that they followed the third river down to the coast, the river flowing in a southerly direction would explain why they met up with it again early the next morning. According to Maggs, from 3km upstream the river flows in a steep forested gorge 300m or more in depth and is topped by sandstone cliffs. The sea is visible from many places on the eastern side of the gorge as described by the survivors in phase four.⁸¹ The presumed wreck site of the São João is about 6km from the mouth of the Mtamvuna River. There are some lower hills there and standing on them would have given them a good view of the stretch of coastline where the São João was wrecked.

In a period of over one hundred years, from when Theal first wrote about the São João in the 1900's to the recent publication by Ferreira in 2002, 450 years after its foundering, the story of the São João remains thus incomplete. While

⁸⁰ Auret and Maggs, *The Great Ship São Bento*, pp. 1-39.

⁸¹ *Ibid.*

numerous researchers continue to speculate about its final resting place, there are many other questions that remain unanswered. The available historical documentary evidence has been interrogated, now the archaeological material requires further scientific analysis. Moreover, the campsite, which was inhabited for a period of twelve days by the initial 500 survivors of the wreck, still remains undetected. These are the issues primarily addressed by the next three chapters.

Chapter III

Archaeological research methodology

As is apparent in chapters I and II historical sources for this study were of both a primary and secondary nature. In line with this, the same can be advertently applied to archaeological research, that is the material found by the researcher herself, as opposed to secondary archaeological material that is what other researchers have found and analysed. The importance of making such a differentiation enables the researcher to clearly indicate what material was personally recovered (first-hand), as opposed to material collected by other researchers. This also allows the researcher to reinterpret and interrogate the integrity of former researchers. This chapter focuses mainly on primary archaeological material, that is material as well as the methodology followed by the researcher

It must, however, be pointed out that archaeological artefacts suspected of originating from the wreck of the São João, including Chinese porcelain, cowries, cornelian beads and cannons, are not enough to prove the location of the wreck of the São João. Currents, winds and other natural phenomenon could have washed these up at places far removed from the actual wreck site. In addition, merchandise including porcelain and beads, as well as cannons, could have been thrown overboard prior to the wreckage in an attempt to lighten the load and keep the ship afloat. Therefore, attention is also given to documentary evidence and other research as this provides valuable information with regards to the location of the wreck site. Both Maggs¹ and Esterhuizen² are convinced that remains of a survivor camp is still present after such a long period of time and agree that valuable information may be gained by excavating such a site.

A survey was conducted to determine what scientific research has been done on the wreck of the São João. To prevent reinventing previous investigator's research, all aspects with incomplete evidence regarding the exact location of the

¹ Personal communication with Maggs, July 2002.

² Personal communication with Esterhuizen, August 2002.

wreck site and the presence of a survivor camp were identified. It became evident that a lot of previous research has been done to identify the wreck site, but always only up to a certain point where some uncertainty still remains. This uncertainty comes from the fact that in the case of wrecks as old as the São João it is most unlikely to find pieces of the ship itself, especially if it broke up in shallow waters during the wrecking. Only artefacts originating from the wreck are normally found. Also, the artefacts found underwater, may not be proof enough of the wreck site itself because, as indicated above, boxes of merchandise were often hurled overboard to try and keep the ship afloat, when the crew encountered stormy weather. The survivor camp however would be proof of a wreck site since the survivors of a shipwreck never camped far from the site.³

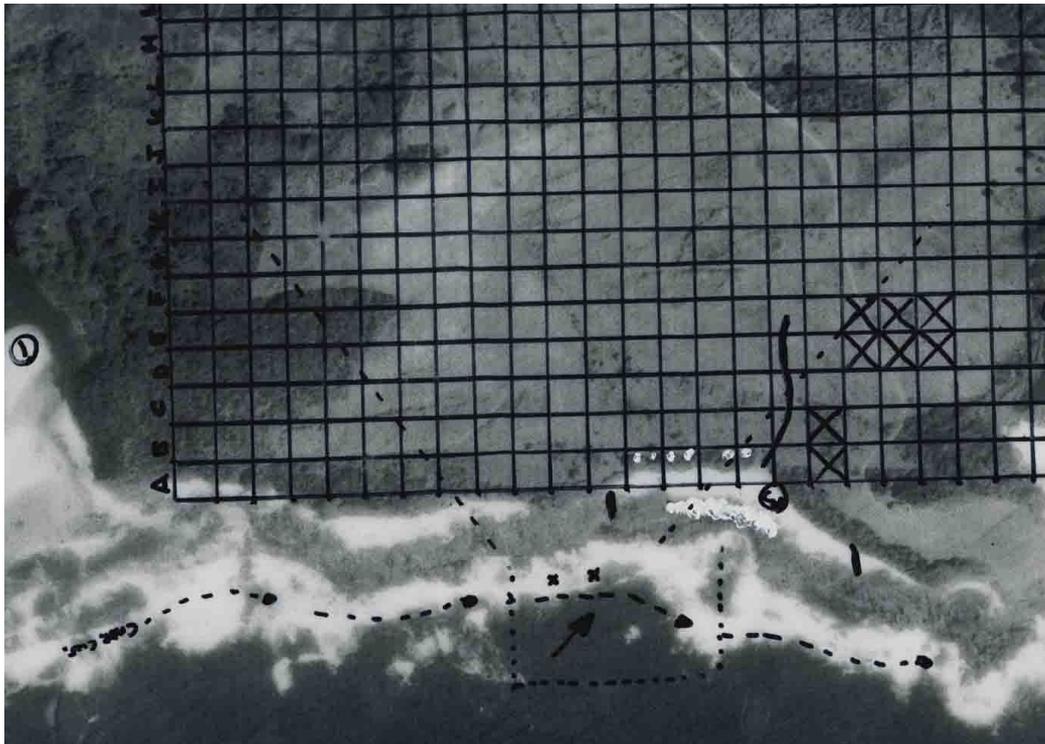


Figure 9: Aerial photograph showing the geographic area of investigation and research grid.

After the relevant information provided by available historical sources had been collected and analysed and an initial search area demarcated, preparations for fieldwork was undertaken. This included obtaining excavation permits from

³ Bell-Cross Portuguese Shipwrecks and identification of their sites, pp. 70-71.

AMAFA for the land excavations and SAHRA for the underwater sites. Permission to do excavations was granted by Dave Matteson, the land owner of Keisers Farm and Mr. Reardon, owner of the land on which the caravan park is situated.



Figure 10: The section of the 1:50 000 map showing the geographic area of investigation

The previous year, 2001, in April and August, a pre-disturbance survey of the area as part of the permit application had already been undertaken with the assistance of archaeologists from the University of Pretoria.

To begin with, the geographic area of investigation was identified to be within a defined zone within Port Edward. Investigations were limited to a stretch of coast and adjacent inland area between the town of Port Edward, more specifically Tragedy Hill, and the Kuboboyi River. An aerial photograph, obtained from the

surveyor general, was examined and on the photograph itself the places where porcelain have been reported to wash onto the beach was indicated. Esterhuizen⁴ and a local sport diver, Francoise van Rensburg⁵ who claims to have seen cannons underwater, were consulted in this regard. Also on the first few visits to Port Edward some of the residents were interviewed to get an indication of the occurrence of porcelain and cornelian beads on the beaches.⁶ From these interviews it became apparent that most of the artefacts occur in the area closest to the Keisers Farm, Kuboboyi River mouth area rather than the lagoon at Tragedy Hill. The area between the Lagoon at Tragedy Hill and the Kuboboyi River mouth is so vast it was decided to identify the most likely sites that show characteristics identified in the survivor account of the São João. Four land sites were defined, namely: PED1 in the area of Tragedy Hill, PED2 in the centre of Keisers Farm and PED3 close to the Kuboboyi River. PED4 refers to the beach where excavations were also carried out. The underwater site, at 31°02'24.9"S, 30°13'51.8", will be referred to as PED 5. Most of the initial investigations were focussed on the two sites closest to the Kuboboyi River mouth, PED2 and PED3.

The preliminary investigation conducted in April 2001 revealed the following: the coastal area and adjacent inland area of Inhlanhlinhlu, better known as Keisers Farm (especially the section of beach adjacent to farm: 11395) includes a couple of significant archaeological occurrences that are not only conservation worthy but point to the wreck of the São João. It was recommended that a proper assessment of the archaeological resources be made within the year. It was also established that any form of development in the area would have a long term negative affect on the land, as well as underwater sites, and that the area is certainly worthy of further archaeological investigation. A project plan assisted the investigations.

⁴ Personal communication with Esterhuizen, 2001.

⁵ Personal communication with R van Rensburg at the van Tilburg Collection, University of Pretoria, 2002.

⁶ Interviews were conducted with Mr. Dave Watson, Mrs. Joanne Arkell, hotel manager Mr. Reinhart and caravan park manager Mrs. Sue Brain and daughter Chrissy, August 2002.

PORT EDWARD PROJECT

2001-2002

Reinvestigating the wreck of the sixteenth century Portuguese galleon São João:
A historical archaeological perspective

DURATION	21 ST to 27 th of September 2002
QUALIFICATION FOR PROJECT	MA (Cultural History)
SUPERVISORS	<ul style="list-style-type: none"> • Prof. Karen Harris • Prof. Andrie Meyer
PROJECT DIRECTOR/PERMIT HOLDER	Liz Burger
EMERGENCY CARE ASSISTANT	Bothma van Tonder (Emergency care practitioner level 1)
FIELD ASSISTANTS	University of Pretoria Archaeology and History students: <ul style="list-style-type: none"> • Rika Venter (Archaeology) • Johan de Bruyn (Archaeology) • Barry van Wyk (History)
ARCHAEOLOGICAL EXPERTS	<ul style="list-style-type: none"> • John Gribble of the South African Heritage Resource Agency • Gavin Whitelaw of the Natal Museum
SPECIALISTS	<ul style="list-style-type: none"> • Dr. Valerie Esterhuizen (Curator: Van Tilburg Collection) • Dr. Bruno Werz (Maritime archaeologist) • Prof. Jan Coetzee (Laboratory of Microscopy and Microanalysis) • Dr. Stefan Woodborne (Carbon and Isotope dating: CSIR)
FACILITIES	<ul style="list-style-type: none"> • Accommodation was arranged for all field assistants, consultants and directors in a holiday house in Leisure Bay.
EQUIPMENT	<ul style="list-style-type: none"> • Most of the technical archaeological equipment was supplied by the University of Pretoria.
TELEVISION CREWS PHOTOGRAPHY	<ul style="list-style-type: none"> • Portuguese Television • Discovery Channel and National Geographic
PERMITS	<ul style="list-style-type: none"> • No. 80/01/03/013/30 a pre-disturbance survey permit of the historical wreck believed to be the São João, with limited sampling of material found on the beach in the vicinity of the wreck. • No. 02/02 a survey and excavation permit of the inland portion of the wreck site of the São João. • No. 80/02/01/009/54 For the damage or destruction for analysis/dating of a cowrie shell and iron nail.

PROGRAM	
Sat.21 Sep.	<ul style="list-style-type: none"> • Arrival/Planning. The whole day will be spent driving down to Port Edward. On arrival of all parties a meeting will be held to discuss and plan the work procedure for the rest of the week.
Sun.22 Sep.	<ul style="list-style-type: none"> • Reconnaissance and tests in Caravan Park (PED 1) and Beach. Since this is the site identified as most likely for the survivor camp it will be assessed first. Meetings will be held with the local people who have artefacts and information about the survivor camp.
Mon. 23 Sep.	<ul style="list-style-type: none"> • Visit to the Natal Museum
Tue. 24 Sep.	<ul style="list-style-type: none"> • Reconnaissance and tests on Farm site No. 1 (PED 2). Only if tests on site PED 1 indicate nothing will reconnaissance and tests be carried out on the second most likely site on Farm 11395.
Wed. 25 Sep.	<ul style="list-style-type: none"> • Reconnaissance and tests on Farm site No. 2 (PED 3). Only if tests on site PED 1 and 2 indicate nothing will reconnaissance and tests be carried out on the second most likely site on Farm 11395.
Thu. 26 Sep.	<ul style="list-style-type: none"> • Test Excavations
Fri. 27 Sep.	<ul style="list-style-type: none"> • Departure
	<p>Each evening will end with a meeting, discussing the days work and processing artefacts recovered.</p> <p>During the project the members of the Archaeological Society are going to visit the site.</p>

Archaeological fieldwork started on site PED2, located on Keisers Farm. The fieldwork is based on methodology used by maritime archaeologist Bruno Werz implemented to excavate the Haerlem wreck site. Werz identified certain objectives before the project on the Haerlem was started, these objectives were compared with the requirements of the Port Edward project and adapted accordingly as seen in the table below.

Table 2: Haerlem project methodology versus Port Edward Project methodology

Haerlem Project	Port Edward Project
Werz did a study of the available literature and historical documents relating to the story of the Haerlem survivors in order to reconstruct the approximate location of the camp and the wreck site, the building of the camp and events surrounding the wreck and survivor camp. ⁷	The Port Edward project started a bit broader with a study of the survivor accounts of all the Portuguese shipwrecks in the area between the years 1552 and 1700. This assisted greatly in establishing certain Portuguese campsite characteristics which in turn indicated possible location for the survivor camp and wreck site of the São João.
This was followed by a description of historical and archaeological work undertaken to date concerning this specific camp and wreck site. ⁸	Not only a description but an in depth investigation of historical and archaeological work done on the survivor camp and wreck site of the São João was undertaken, from the beginning of the 20 th century up to the present.
The formulation of a pre-disturbance survey, followed by a sampling strategy and partial excavation in an attempt to substantiate whether the reconstructed location obtained from historical documentation is correct. ⁹	A meagre description of the survivor camp of the São João and its location is given in historical records. Therefore the formulation of the pre-disturbance survey was based on the Portuguese campsite characteristics of other similar Portuguese campsites and their locations.
If traces of the camp site were to be discovered, further excavation to collect information on constructional details and living conditions would continue. ¹⁰	The identification of Portuguese campsite characteristics greatly assisted in identifying a possible site and further excavations may confirm or contradict the virtual reconstruction of the survivor camp.
If the site is positively identified, the formulation of a management proposal to protect the site from destruction and declaration of the camp and the adjacent wreck site as a national monument. ¹¹	The same will apply to the camp- and wreck site of the São João.

⁷ Werz, *Diving up the human past*, p175.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

The first phase consisted of scanning a depression within the selected area with a metal detector in an attempt to locate buried metal artefacts, such as nails and weaponry. Due to the limited potential of the available detector and some modern refuse, this operation was not successful. Hereafter a limited disturbance survey of the site was undertaken. It was necessary to do so since field walks were severely hampered by the thick vegetation in the area.



Figure 11: Photograph taken by the researcher indicating the use of a metal detector.

(Port Edward, September 2002).

An auger was used not only to identify a potential position for a test trench but also to test the soil quality so as to avoid digging in the marshland. The top layer of soil in the area contained little traces of modern debris. Due to the size of the area, it was decided to follow a simple random sampling strategy by using the auger in selected areas, each hole going down approximately 1m. To this purpose a grid was superimposed over an aerial photograph of the area as seen in figure 9 on page 48. The grid was mapped along a baseline, which ran along a magnetic north-south axis. This line ran from one potential site (PED3) near the Kuboboyi River across the farm to the other potential site (PED2) closer to the stream running through the farm.

Sampling started to the east of the baseline where a square of 2mX2m was cleared to make the sampling process easier. Inside the square the auger was used to determine the stratigraphy of the area. The stratigraphy was well defined but not uniform throughout the area, the top layer at the first test site, with a depth ranging from 0 to 60cm below the surface, consisted of a loose sandy type soil very dark in colour. This was followed by a more compact muddy layer with an average thickness of 30cm; below this layer the water table was encountered.



Figure 12: Photograph taken by the researcher of volunteers using an auger to bring soil samples to the surface on site PED 2.
(Port Edward, September 2002).

The testing was thus moved more to the centre of the area 31°02'18.0"S and 30°13'52.9"E at an elevation of 15m. Again a square of 2m X 2m was cleared and the auger was used to determine stratigraphy. At this point the soil was much dryer and sandier. The top layer again with a depth of 60cm below the surface consisted of loose sand very dark in colour. In the first layer many pepper corns (*shinus molle*) were encountered. This layer was followed by an even sandier layer of about 90 cm, rusty brown in colour. Many of the pepper corns were found in this layer but they were red in colour. This area looked promising since definite disturbance in vegetation was noted and the hills in the surrounding area, which were referred to in the historical texts, were clearly visible.

The stream running through the farm was also investigated for any signs of habitation in the area (see figure 12 on page 55). Many shells, especially the white sand mussel *Donax serra*, were found in the river bed. Of interest in the mussel shell is the fragmentation and few complete valves were noted. Work on the Atalaya campsite in 1978 by Bell-Cross established that with Early Iron Age *Donax* middens the valves are almost all complete. According to Bell-Cross, this suggests that people collecting the mussels were unfamiliar with the resource and the method of extracting the meat, and this may certainly be an indication that the survivors from the São João camped in the area.¹²



Figure 13: A major task during surveys was to locate and record the whereabouts of sites and features. This riverbed is one of the features that showed up on the aerial photographs and was located during ground surveys. On closer inspection the riverbed contained a lot of broken mussel shells, an indication of the presence of a possible survivor camp.

(Port Edward PED 2, August 2001)

¹² S.L. Hall, *Test excavations at the Atalaya camp site*. 1978. Albany Museum. Grahamstown.



Figure 14: The ground survey further identified this feature on site PED 3. This area in particular showed various characteristics which would have been favourable for establishing a fortification.

(Port Edward PED 3, September 2002)

Work in the PED2 area, however, did not reveal any other artefacts besides the pepper, dating to the sixteenth century. For this reason, sampling of the next potential site followed. Aerial photographs were taken by a micro-light aircraft to locate any significant archaeological sites or features. It was also helpful to distinguish between vehicle tracks and crop marks and in identifying old riverbeds.

Previous investigations in the area did not include PED3 and for this reason emphasis was placed on field walking and a limited disturbance survey of the site. The vegetation growing on the site made it extremely difficult and it was necessary to go on to hands and knees and search through the thick layers of grass.

A grassy mound of approximately 2X10m in an area where vegetation had been disturbed was observed within the PED 3 site, as seen in the above photograph. This area in particular showed various characteristics which would have been favourable for establishing a fortification. It is crescent-shaped and faces towards

the sea and its elevated from its surroundings. The Kuboboyi River is easily accessible from this spot. In the middle of the mound and going across at 1m intervals sampling was done with an auger. The work also consisted of sieving the top 10 to 20cm of loose surface deposits using a 3 millimetre mesh and then excavating test trenches across the mound.

A slight elevation on the farm road leading to the T.O. Strand campsite was identified several meters away from the grassy mound. Of interest is the variation in vegetation in this particular location. The first phase consisted of demarcating the boundaries of this site, again a square of 2mX2m was cleared and the auger was used to determine stratigraphy. Nothing of interest was found in this area.

The beach area posed an interesting challenge since most of the archaeological materials are found in rock crevices below the high water mark. Thus new methodology had to be tested on the beach site, PED 4. It was found that using a bucket to scoop sand and debris from the bottom of the rocky areas worked best. The content of the bucket was then emptied into a light, round, aluminium, garden sieve with a very large mesh size. The lightness of the sieve is important so that when adding the soaked material from the bucket it does not become too heavy for one person to handle. Scooping the material into the bucket required practice and good timing. The bucket was filled when the surf was retracting and the sieving took place with the next wave. The seawater was used to wash the sand from the sieve, which facilitated the separation of the usual shells from the archaeological artefacts. The whole task was best performed during low tide (See Figures 15-18 on pages 59-60). The artefacts found were numbered and labelled according to the site where they were found.

The above primary archaeological research, often making use of innovative archaeological methods, assist in refining and delimiting the possibilities of the location of the camp site.



Figure 15: A bucket is used to scoop material from the bottom of rock pools. The material is sieved through a garden sieve. The technique is best performed by two people as illustrated by the volunteers in this photograph. (Port Edward PED 5, September 2002)



Figure 16: The tide is used to wash the material in the sieve, making the artefacts easy to spot. (Port Edward PED 5, September 2002)



Figure 17: Many pieces of porcelain, cowrie shells and cornelian beads were found using this technique.

(Port Edward PED5, September 2002).



Figure 18: A piece of porcelain clearly visible between the other pieces of shell and debris in the sieve.

(Port Edward PED5, September 2002).

Chapter IV

Using archaeological material to supplement historical evidence

An interrogation of the documentary evidence in chapter I and II showed that some ambiguities as to the location of the wreck site still exist and that very little has been done to find the survivor camp. Background research and scientific analysis of the archaeological material found in Port Edward may possibly clear up these ambiguities and answer questions as to the final resting place of the São João. Primary archaeological sources i.e. material found during excavations, discussed in chapter III, will be examined according to what has been scientifically achieved with tests and classification together with a discussion of secondary archaeological sources i.e. material found by other researchers and their contribution to the interpretation of the archaeological material.

Furthermore, the examination of primary and secondary archaeological sources aims to provide historical insight as to the true origin of the artefacts found in Port Edward. In the past it was believed that the red cornelian beads found along the south east coast are Phoenician trading beads originating from Arab dhows¹, while the ship called the Ivy that foundered on the 27th of March 1878, on its way from London to Durban with a large cargo of liquor² was responsible for fragments of blue-and-white china washed onto the beaches of Port Edward. It will be shown how the archaeological investigation in the area proved that a sixteenth century Portuguese wreck, possibly the São João, is responsible for these particular artefacts washed onto the beaches.

The archaeological material can be divided into five main types, namely: the Chinese porcelain, cornelian beads, pepper, metal artefacts and marine shells. The Chinese porcelain shards will be discussed to begin with because of the comprehensive studies done on this material world wide as well as by

¹ B.R. Stückenberg, The wreck of the St John. *Neon*, August 1987. p.37.

² *The Argus Annual and South African Directory*, Cape Town, 1889, p.168; T.V. Bulpin, *Natal and the Zulu Country*, 1966, pp.375-376.

Esterhuizen in South Africa. The cornelian beads cannot contribute to the dating of wreck sites, but they do indicate that the ship in question was on its homeward bound voyage and also indicate special boundaries of both the wreck site and the survivor camp. This is followed by a discussion on the cowries which posed an opportunity to test new methodology regarding the identification of wreck sites along the South African coast. The pepper was a very exciting find since it may prove the location of the survivor camp. Metal artefacts and archaeo-metallurgical studies will show that it is viable to do testing on metal artefacts originating from shipwrecks, but that it is expensive and as in the case of the São João, difficult and extremely dangerous to salvage primary sources such as cannons believed to be located under water. Secondary sources, however, exist in museums. Lastly, the testing of marine shells is a new contribution to the field of maritime archaeology and in the case of the São João it not only indicates place of origin, but age as well.

Porcelain

During the sixteenth century, from about 1457 to 1557, the Portuguese did not have right of entry to the Chinese harbours. Thus the porcelain they obtained was acquired through smuggling via other harbours in the area, from India and Arab merchants. As a result of this, and a fire in Lisbon in 1755 that destroyed the archive, hardly any records of the exact origin of the porcelain remain.³ Blue-and-white Chinese porcelain shards are found at 10 locations along the south-east coast of South Africa, believed to be the following wrecks: São João (1552), São Bento (1554), São Thomé (1589), Santo Alberto (1593), São João Baptista (1622), São Gonçalo (1630), Nossa Senhora de Belém (1635) and the Nossa Senhora de Atalaia do Piheiro (1647).⁴

Four hundred and fifty years since the foundering of the São João, porcelain shards are still washed onto the beaches in the vicinity of Port Edward. The

³ Esterhuizen, *Dekoratiewe Motiewe op Chinese Porseleinskerwe uit Portugese Skeepswrakke aan die Suid-Afrikaanse Kus, 1552-1647: 'n Kultuurhistoriese Studie*, p. 81.

⁴ *Ibid.*; Turner, *Shipwrecks and Salvage in South Africa*.

pieces found in Port Edward are all of varying sizes and quality. The shards are broken into very small pieces since the area is extremely rocky and the sea rough. According to Esterhuizen the porcelain shipped onboard the São João belongs to the Jiajing period (1522-1566) of the Ming Dynasty. One of the pieces found at Port Edward, found by the researcher in September 2002, bears the mark characteristic of this particular period.⁵ Porcelain shards similar to the ones found in Port Edward are also found at the wreck site of the São Bento (1554) at Msikaba river mouth and these shards greatly assisted in dating the shards believed to be from the wreck of the São João since they are not so badly broken and abraded.⁶



Figure 19: A view of the larger shards found on the site in Port Edward during investigations in September 2002

⁵ Ibid., pp. 77-95; T. Maggs, The Great Galleon São João: remains from a mid-sixteenth century wreck on the Natal South Coast. *Annals of the Natal Museum*. 1984, 26(1), p. 178

⁶ Maggs, The Great Galleon São João. p. 173

Big collections of the shards believed to be from the São João are kept in various museums around the country and many in private collections. Because legislation protecting these artefacts only came into affect fairly recently, residents from the area and holiday-makers often went “beading and minging”,⁷ as they termed it, collecting porcelain shards and cornelian beads.

The possibility exists that the porcelain onboard the São João was either made just before it was loaded onto the ship or earlier. Because the date of the wrecking is known, and the porcelain onboard the ship could not have been manufactured after the wrecking, it is possible to date a wreck with fair certainty.⁸



Figure 20: Porcelain found at the São João during the Port Edward Project are mainly from group B and C.

According to Esterhuizen, the porcelain shards found at the São João wreck site can be classified into three groups based on the quality of the clay, the colour of the cobalt and the style of the decorations on the porcelain. The first group, “Group A”, represents porcelain of the highest quality. The porcelain itself is refined and compact almost brilliant white. The colour of the decorative art is also clear and brilliant. Lines and washes are delicate and neatly painted. Motifs

⁷ Interviews with residents from Port Edward.

⁸ Esterhuizen, *Dekoratiewe Motiewe op Chinese Porseleinskerwe uit Portugese Skeepsrakke aan die Suid-Afrikaanse Kus, 1552-1647*, pp. 82-83; C. Clunas, *Research display of 16th century Chinese ceramics. Transactions of Oriental Ceramic Society*, vol. 58, 1993-4, pp. 23-32.

consist of flowers, fruit, berries and leaves. Birds are also common to this group, peacocks are exceptionally beautifully painted, which gives the impression that commodities painted with this motif were meant for a specific market.⁹ No porcelain shards from this group have been found during excavations of the Port Edward 2001-2003 project. Most of the shards found are from “Group B” and “Group C”.

According to Esterhuizen, the shards classified, as “Group B and C” are much heavier than the shards classified as “Group A”. Thus the sea currents can not carry them far from the wreck site¹⁰ and it stands to reason that the heavier pieces, such as those found by the researcher at Port Edward, are washed ashore closer to the wreck site. Most of the heavier pieces of porcelain were found in rock crevasses in the area closest to Ivy Point. Therefore it is possible that the São João foundered in the area where the bigger concentrations of heavier porcelain shards are found which is in the area of Ivy Point.



Figure 21: A piece of porcelain found in September 2002 with the characteristic *Jiajing* mark on the left.

Characteristic of “Group C” is that the colour of the porcelain is impure and the texture is coarse, its appearance is grey with a pinkish hue. The decorative art also seems impure but sometimes the cobalt is a deep blue. The motifs are the same as found in “Group C”, but the technique is sketchy.

⁹ Ibid.

¹⁰ Personal communication with Esterhuizen, September 2002.

The outlines of the motifs are often much darker than the wash and in some cases no outline is used at all. The glaze, which is in many cases applied very thick, gives the porcelain a green tint and in some shards small cracks are visible. Porcelain similar to these have also been found in Kilwa and Madagascar.¹¹

The evidence presented by the dating and classification of the ceramics, especially those with markings such as the one seen in the photograph on the right (this is the mark of the *Jiajing* period), firmly dates the wreck in Port Edward between 1522-1566. Evidence such as this not only links the São João with the Port Edward wreck site but it also gives a better indication of the location of the wreck site.

Cornelian beads



Figure 22: Photograph of a typical cornelian necklace.

From: Coles, J. and Budwig, R. *World Beads*. Ryland Peters & Small, Great Britain, 1997, p 34.

¹¹ Ibid., p. 84.

The history of tubular cornelian beads goes back as far as 5 000 years ago, originally from the deserts of Arabia. Seals and signet rings of cornelian are not uncommon to Egyptian excavations associated with the Pharaohs where cornelian was a symbol of life. They were used in Egypt until the 19th century. Idar-Oberstein in the German Rhineland has been a stone cutting centre since the 15th century, but the main source associated with the early Mediterranean civilizations and pre-18th century shipwrecks, was Cambay and Radhandhur in the Bombay/Gujerat Province of India.¹² It has also been found in the Rio Grande area, China, Colombia, Saxony, Scotland and United States of America. Presently cornelian is extracted in Brazil.

Long before the Portuguese arrived in India a lucrative trading industry in cotton materials and cornelian beads existed. Arab dhow traders monopolized the trade routes between Cambay and the east coast of Africa where they bartered cornelian beads for slaves and ivory. A girdle of chalcedony beads was the price of a slave in central Africa in the 17th and 18th centuries. On the coast of Madagascar 6-8 beads could buy a 'fat ox' and at that time the cost price in India was 8-10 shillings per hundred beads.¹³ These beads are significant because they are associated with 16th and 17th century Portuguese wrecks on their homeward bound voyage from India to Portugal and, according to Bell-Cross, they have been found at a number of South African wreck sites.¹⁴ After Vasco da Gama's voyage in 1498 the Portuguese entered the Arab dominated trade but as the Duarte Barbosa, a Portuguese chronicler, reports the beads were shipped back home to Portugal as well, consequently they are found on homeward bound shipwrecks only.¹⁵

¹² Bell-Cross, The occurrence of cornelian and agate beads at shipwreck sites on the southern African coast; J. Coles and R. Budwig, *World Beads*, Great Britain, 1997, pp. 36-37.

¹³ Bell-Cross, The occurrence of cornelian and agate beads at shipwreck sites on the southern African coast, p.23.

¹⁴ *Ibid.*, p. 22.

¹⁵ G. Bell-Cross, The occurrence of cornelian and agate beads at shipwreck sites on the southern African coast. pp.20-32.

Cornelian beads are translucent, semi-precious agate, red or orange in colour. Because it was believed that they have medicinal powers, not only did they as mentioned above, play a central role in Arab trade but also formed part of currency throughout the Mediterranean, India and Africa. In addition, they were also used to make spectacular jewellery. The name stems from Latin derivations *cornu* which means a horn, *cornum* which means cherry or *carnis* which means flesh or meat. The Portuguese use the modern term *cornalina*, but in the 16th and 17th century the term *alagueguas* was used when referring to these beads. According to Bell-Cross these appellatives should only apply to those beads of a clear red, or reddish brown colour, but as far as can be ascertained this is used indiscriminately for all the multicoloured chalcedony beads associated with ship wrecks.¹⁶ Thirteen homeward bound Portuguese East Indiamen wrecked along the south east coast of South Africa before the end of the 17th century and most of them carried cornelian beads as part of their cargo including the São João, São Bento (1554), Santo Alberto (1593), Santo Espiritu (1608), São João Baptista (1622), São Gonçalo (1630), Nossa Senhora de Belém (1635) and Santa Maria de Deus (1643).¹⁷

The specimens found by the researcher in Port Edward believed to be off the wreck of the São João are severely broken, but still recognisable. On some of these specimens the bore channel is clearly visible. In addition the hexagonal shape of one of the specimens is identifiable. The largest bead found during excavations measures 1.2cm X 1cm. It is believed that great concentrations or “pockets” of these beads may be found underwater since so many are still washed onto the beach.

¹⁶ Ibid., p. 20.

¹⁷ Turner, *Shipwrecks and Salvage*. p. 36; W.G.N. van der Sleen, Trade-wind Beads. *Man*. vol. 56, 1956, pp. 27-29.



Figure 23: Cornelian beads found at the São João wreck site.
(Port Edward PED 5, September 2002.

Unfortunately on their own these beads cannot contribute to the identification or dating of this particular wreck, since as far as can be ascertained, they cannot be dated by means of scientific tests or classification. Studied in context with the rest of the material found on site in Port Edward they are significant since they confirm the presence of a homeward bound Portuguese wreck. In addition the possibility exists that more beads, perhaps in better condition, may be found underwater.

Cowries

The money cowrie shell or *Cypraea moneta* belongs to the cowrie family. It occurs in areas with warm water temperatures such as the Maldive Islands. These shells have medium size teeth, not extending across the base. They are heavily margined, with base and margin white and unspotted. In some modern examples

a black transverse line crosses the dorsum almost centrally. The specimens found in Port Edward are white with a purple crown.¹⁸



Figure 24: *Cypraea moneta*.
(Port Edward PED 5, 2002)

The cowrie shell is one of the most remarkable primitive currencies ever used before the advent of gold and silver coinage. This shell extended its range further than any form of money before or since, spreading from China and India to the Pacific Islands, travelling across and encircling Africa and then penetrating the New World.¹⁹

In Africa, the cowrie shell is not only a symbolic allusion to wealth and prosperity. For thousands of years it was used as the main medium of exchange. Although not used anymore as money, the shells are still believed to have occult or supernatural powers, so they are used in divination, traditional medicine, fertility, ancestor worship and other rituals. Cowries formed the common currency throughout this vast expanse of the trading world and Africa.²⁰

¹⁸ R. Kilburn and E. Rippey, *Sea shells of Southern Africa*. Johannesburg, 1982, p. 67.

¹⁹ S. Tiley and E. Burger, Cowries in the Archaeological and Maritime Record. *Strandloper*, April 2002, pp. 5-7.

²⁰ *Ibid.*, p. 5.

Money is the medium in which value is expressed, however money possibly originated out of religious and social custom, rather than directly out of barter and trade. The objects used as currency were usually chosen to conform to the ‘ideal’ properties of money: portable, durable, easy to count and difficult to counterfeit.²¹

From 2000 BC in China, under the Hsia Dynasty, cowries were used as money during early feudal times and they were also used in India about 400 AD. *Cypraea annulus* in Africa preceded metals like iron and copper by centuries, if not millennia. The Ngorongoro Crater burials in Tanzania, excavated by several archaeologists between 1915 and 1969, contained perhaps the oldest cowrie shells known in the archaeological record, as the site was radiocarbon dated to the second half of the first millennium BC. The earliest document relating to trade on the East African coast which refers to cowries as currency was called the ‘*Periplus on the Erythraean Sea*’ and was produced in 943 AD by El-Masudi, a well renowned Arab explorer and merchant.²²

The name cowrie is believed to be a derivative of the Hindi word *Kauri*. The shell is also known by other names. Marco Polo (1217-1291) travelled to Yunnan in China, where he came across the cowrie shell where it was called *porcelette*. The word *buzio* was also an ancient word used by the Portuguese for the money cowrie, otherwise known as *Cypraea moneta*. Furthermore, the Spanish word *pesa*, and the Indian word *pice* are also derivatives meaning cowrie shell. Even as late as 1859 AD the Arabs trading in central Africa called cowries, *kaure*. This linguistic observation leads one to believe that the currency cowrie was used throughout Africa and as part of the Indian Ocean trade network.²³

²¹ Ibid., p. 5.

²² Ibid., p. 5. J. Hogendorn & M. Johnson, *The shell money of the slave trade*. 1986. pp 1-4.

²³ Ibid., p. 5.

Cowrie currency is not necessarily only *Cypraea moneta*, but could also be the *Cypraea annulus*. However, *Cypraea moneta* have become the most widely recognised African ‘money cowrie’. The Maldives Islands, which once were known as the “*Isles of the Cowrie*”, until the arrival of Portuguese traders, was the main origin of these shells. The inhabitants of these islands harvested the cowries using intensive methods of aquaculture, and used them as money in exchange for rice with people of Bengal. After the Portuguese gained control of this supply, they were then able to use the cowries to buy slaves and goods, first on the East African coast, and later on the West African coast.²⁴

Cypraea moneta also flourishes at selected locations along the Mozambique coastline, where they are found in rock crevices and along marine grasses on protected mudflats.²⁵ As far as can be ascertained they have never been the target of deliberate aquaculture there, and harvesting of the natural resource was presumably not able to deliver sufficiently large numbers of the shells to make an economic difference to the trade from the Maldives.²⁶

According to an archaeologist at the Natal Museum, Gavin Whitelaw, *Cypraea annulus* have been found at numerous prehistoric Iron Age archaeological sites in southern Africa, but the first conclusive use of *Cypraea moneta* as local currency comes after the written record began with the arrival of Portuguese merchants²⁷. The use of money cowrie shells in southern Africa therefore appears to have occurred after trade and exchange had been established with Europeans, and the maritime record stands testimony to this.

Africans prized many materials such as iron, copper, gold and ivory. They traded these with Arab merchants of the East African coastline long before Portuguese explorers rounded the Cape in 1497, in their pursuit of a share of the lucrative

²⁴ Ibid., p. 5.

²⁵ Kilburn and Rippey, *Sea shells of Southern Africa*, p. 67.

²⁶ Tiley and Burger, *Cowries in the Archaeological and Maritime Record*, p 5.

²⁷ Personal communication with Gavin Whitelaw, September 27, 2002.

Arab trade with the East. Over the following century, numerous Portuguese vessels made their way along the South African coastline. Some were wrecked here, and direct contact between the Portuguese and Africans came with the bands of shipwreck survivors who either set up camp in the hope of rescue, or tried to make their way northward to Portuguese settlements in Mozambique.²⁸

Although live *Cypraea annulus* are relatively common along South Africa's eastern coast, live *Cypraea moneta* are rare. Most of the *Cypraea moneta* shells found along our coast are believed to originate from the holds of old shipwrecks.²⁹ For this reason the *Cypraea moneta* that are washed up at the site in Port Edward are viewed as important links in identifying it as the wreck site of the São João.

Tests performed at The Quaternary Dating Research Unit (QUADRU) based at the Council for Scientific and Industrial Research (CSIR), Pretoria were to prove that the *Cypraea moneta* found in Port Edward by the researcher are not indigenous to South Africa. Therefore stable light isotope analyses including ^{13}C and ^{18}O were performed under the supervision of Dr. Stefan Woodborne and Siep Talma.³⁰

Isotopes are elements that differ from one another on the basis of the number of protons in their nucleus. The most common form of carbon, for example, has an atomic weight of 12 and is represented symbolically as ^{12}C . Isotopes of carbon include ^{13}C which has one more proton in the nucleus, and ^{14}C with two additional protons. In the case of ^{14}C the nucleus is unstable and it rearranges through the process of radioactive decay. The ^{12}C and ^{13}C are stable forms of carbon and they are called stable isotopes.³¹

²⁸ Tiley and Burger, *Cowries in the Archaeological and Maritime Record*, p 6.

²⁹ Kilburn and Rippey, *Sea shells of Southern Africa*. 1982, p. 67.

³⁰ Tests were performed at the CSIR, September, 2002.

³¹ www.quadru.co.za. November 2002; interviews with head of QUADRU Stefan Woodborne, October, 2002.

In general it can be assumed that stable isotopes of any element are chemically equivalent in reactions with other elements. However, the slight differences in atomic weight cause chemical compounds that contain heavier isotopes to react slightly slower than their lighter counterparts. For this reason the ratio of light to heavy isotopes may change, or fractionate, during chemical processes. This has a profound effect in many natural systems. As water evaporates, for example, the lighter molecules of H_2^{16}O will escape from the water surface faster than the H_2^{18}O isotopes. This forms the basis for the use of oxygen isotopes in hydrological studies.³²

All chemical processes will fractionate isotopes to a greater or lesser extent. The lighter the isotope the more profound the effects. For example, ^2H is twice as heavy as ^1H even though the difference is one atomic mass unit, while ^{238}U is four atomic mass units heavier than ^{234}U the difference is only a fraction of the overall mass of the element. Stable light isotopes are therefore excellent tracers of natural chemical processes and they make a profound contribution to our understanding of environmental chemistry. The applications of isotope research are correspondingly as diverse as the chemical processes in nature.³³ The intention of the researcher, however, was to apply isotope analysis to the cowrie shells found in Port Edward. These tests have been performed on other shells indigenous to South Africa, but not on cowries.

Shells were collected on the beach area near the presumed wreck site. No live specimens of *Cypraea moneta* were to be found in this area, only empty shells were apparent. Care was taken to use only whole shells with minimum abrasion for isotope analysis. The specimens were all between 1 and 1.5 cm in length. Five *Cypraea moneta* and one control, a cowrie (*Cepraea annulus*) indigenous to the area were tested.

³² Ibid; H.J. Deacon & J. Deacon, *Human Beginnings in South Africa Uncovering the secrets of the stone age*, Cape Town, 1999, p.24.

³³ Ibid.

The shells were cleaned, washed in distilled water and air-dried. One type of sample was taken for isotope analysis. Average samples of each entire shell were taken by drilling a series of holes with a 1-mm drill through the shell. Each powder sample was given a number and was kept separate from the other samples. Between 47.8 and 53 grams were taken from each shell.

The carbonate powder was then baked in a vacuum at 450°C to remove volatile organic matter and then reacted with 95% phosphoric acid at 25°C to produce carbon dioxide. Isotope ratio analysis of the CO₂ was done on the VG SIRA 24 mass spectrometer at QUADRU.

Table 3: Test results of money cowrie shells tested at QUADRU

ENTRY PORT	SAMPLE	DESCRIPTION	C-13	O-18
1 A1	NBS18	L515 NBS-18	-5.026	-22.895
2 A2	LC2232	MC-1	2.078	-1.284
3 A3	LC2233	MC-2	2.438	-1.574
4 A4	LC2234	MC-3	2.603	-1.444
5 A5	LC2235	MC-4	2.633	-1.385
6 A6	LC2236	MC-5	2.176	-1.354
7 A7	LC2237	CA-1	0.968	-0.434
8 A8	LC2238	CA-1	0.832	-0.473
9 A9	NBS19	L386 NBS-19	1.950	-2.201

Results, as seen in the table above, are reported as δ values, the relative difference between the isotope ratio of the samples and a standard, expressed in parts per thousand (‰). The standard used for carbonate is PDB (calibrated with NBS 19, of which $\delta^{18}\text{O} = -2.20\text{‰}$ PDB and $\delta^{13}\text{C} = +1.93\text{‰}$ PDB). The standard for ¹⁸O in water is SMOW (Standard Mean Ocean Water). Analytical precision (± 1 sigma) is 0.04‰ for ¹³C and 0.07‰ for ¹⁸O. The control is *Cypraea annulus* shown in blue.

To date these results on the cowries found in Port Edward, provided no certainty as to their origin. Not only do these tests performed by the researcher at QUADRU set a standard for comparing money cowries found at other shipwreck sites on the south east coast of South Africa, but they also prove that the money

cowries are not indigenous to the area. Since they are not found in the archaeological record before the arrival of Portuguese merchants they must have arrived as cargo on the São João. This contributes to the argument that the resting place of the São João is in Port Edward. Similar studies on money cowries originating from the islands around India may establish the exact origin of these shells.

Pepper

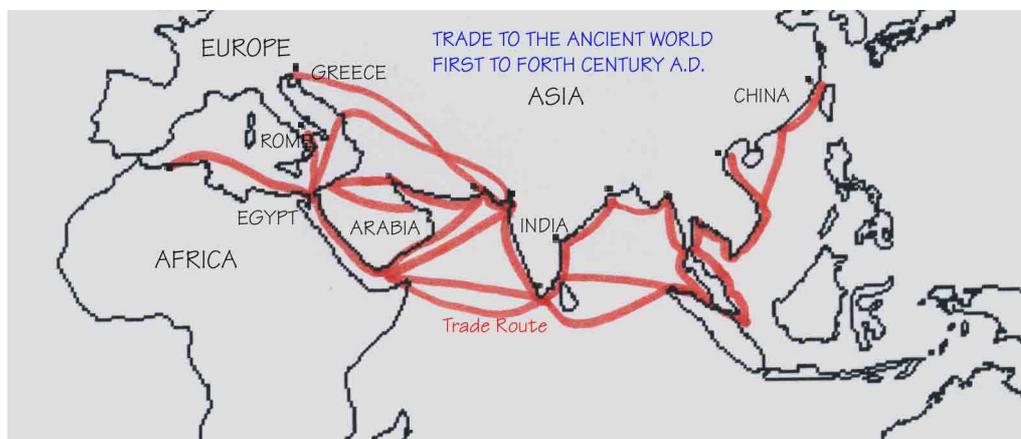


Figure 25: Map illustrating trade between China, India, Europe and Africa in the first to fourth centuries A.D.

From: Liz Burger (Pretoria, January 2002)

From ancient times many risked their lives to get their hands on what seems to be an unimportant berry called pepper. Merchants wagered their fortunes and kings embarked on expeditions, wars were fought over it, whole nations were reduced to slavery while America was found as a result of it.³⁴

No other item in the world can claim a history so dramatic in its consequences – except perhaps oil. Pepper was valued as a preservative, used in cooking otherwise inedible meat and used for medicinal purposes as early as 4000BC. Thus the demand for pepper stimulated trade between south-west India and distant European lands as seen on a map of trade routes above.

³⁴ www.indiaprofile.com/pepperttrade, P. de Sousa, *Seafaring and civilization, Maritime Perspectives on World History*. Great Britain, 2002, pp. 74-79.

the 14th century Venice was one of the main pepper metropolises. To avoid the exorbitant prices on pepper and other spices and attracted by the prospects of wealth, the Spanish and Portuguese started their conquest of the sea voyage along the African coast to reach India. Trade with the Zamorin, the Hindu lord of Calicut, was not very successful and therefore when the Portuguese returned in the 15th century to the Malabar Coast they forged an alliance with the Raja of Cochin who was at war with the Zamorin. Cochin, soon became one of the busiest trade centres on the Malabar Coast.³⁵

The specimens found by the researcher in Port Edward were nearly dismissed as local grass seed, until they were taken to the National Botanical Institute for identification. Botanist Hugh Glen states without a leaf and bark from the “mother” tree it is hard, but not completely impossible, to make an identification. Since there are no pepper trees in the area there is, as far as can be ascertained, no other explanation for the presence of pepper in the area other than them originating from the holds of a shipwreck.



Figure 27: Pepper specimens found in Port Edward.
(Port Edward PED 2, September 2002)

³⁵ A. Wild, *The East India Company, Trade and Conquest from 1600*, London, 2000, p. 13.

It is stated in the survivor account that the São João left Cochin with a little more than half the amount of pepper the ship was able to carry.³⁶ From this it is known that the São João had pepper onboard even if it was less than is normally carried. It is believed then that the presence of pepper in the area is not only an indication of the wreck site but the survivor camp as well, since in many cases merchandise was salvaged during and after the wrecking and placed under guard in the survivor camp.³⁷

Cannons

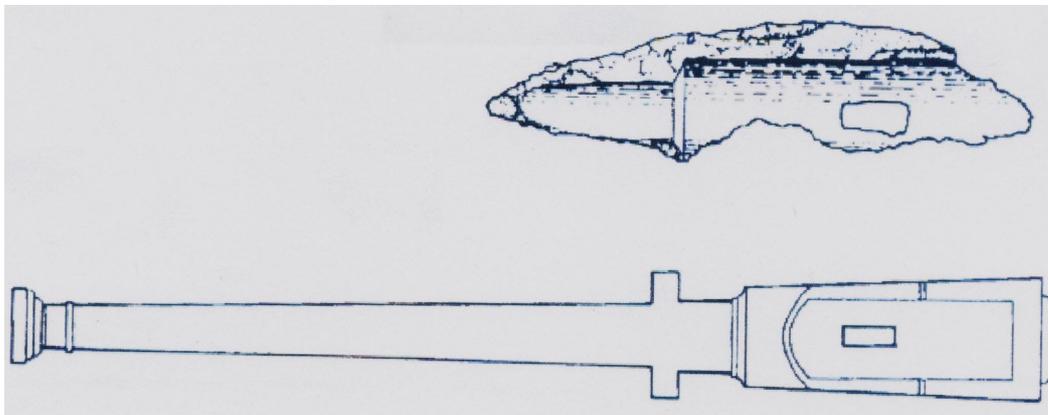


Figure 28: The cannon fragment found by Harris compared with the Robinet cannon in the de Merindol Gallery in Pretoria.

After: T. Maggs, *The Great Galleon São João*.
(Pietermaritzburg, December 1984)

The presence of cannons at a wrecksite greatly assists researchers in a number of ways. Marks on the cannons such as seals and dates reveal the origin and age of the weapons. The location of the cannons may also indicate the area of the wreck site. Archaeological metallurgical evidence in the form of a 60 cm fragment of a bronze cannon salvaged by Harris in the 1980's cannot be traced. And according to salver Gavin Clackworthy, Paul Colanda salvaged another fragment of a small cannon in 1997.³⁸ Nothing was published on this particular cannon and sadly

³⁶ Theal, *Records of South East Africa* I, p. 129.

³⁷ *Ibid.*, p. 223.

³⁸ Personal communication with Gavin Clackworthy, 14 March 2003.

Colanda died in a motor vehicle accident shortly afterwards. His find however, substantiates arguments that there are still some cannons located underwater in Port Edward. Clackworthy states the cannons are in the area of PED 5, where the researcher found the biggest concentrations of porcelain, cowrie shells and cornelian. The cannons remnants are apparently badly broken and abraded.³⁹



Figure 29: Cannon on display in the De Marindol Gallery.
(Pretoria, May 2001)

In the De Merindol collector's gallery, (Malan Museum) in Pretoria a cannon is on display (See figure 28 on page 79). An unsubstantiated nameplate that accompanies the cannon states it originates from the wreck of the São João. The owner of this museum claims that he bought the cannon accompanied by the nameplate from a restaurant in the area of Port Edward that went bankrupt.⁴⁰ A faint mark as seen in figure 30, in the form of a 6 or a 9, is visible on the back of the cannon.



³⁹ Ibid.

⁴⁰ Personal communication with Claude Malan, August, 2001.

Figure 30: A mark visible on the cannon in the De Merindol Gallery.
(Pretoria, May 2001)

According to G. de Vries, retired commander of the South African Navy, the gun is definitely in the Portuguese style (and not French as indicated on the nameplate). This particular style was cast until c. 1600 and used much later.⁴¹ He identified the cannon as 43mm Robinet, or Half Pounder.⁴² It is not clear whether this cannon originates from the wreck of the São João, since the nameplate incorrectly gives the date for the wreck of the São João as 1530 and states that it was found at the Msikaba River mouth (the location of the wreck of the São Bento).⁴³

The De Merindol cannon may belong to a collection of cannons from the São Bento wreck site, that were salvaged in the 1960's by a group calling themselves "Cannon Hunters of Kokstad" or CHOK.⁴⁴ Two cannons belonging to this collection may be viewed at the Port Shepstone Museum. Comparative tests such as those performed by archaeologist Duncan Miller at the University of Cape Town can determine the nature of the bronze alloy used in the manufacture of these particular cannons. This in turn may help in establishing a link between the cannon at the De Merindol Museum and those in the Port Shepston Museum.⁴⁵ According to de Vries, the identification of muzzle-loading cannons is likely to cause confusion. No standard has been established worldwide since gunfounders worked in isolation and worked with different lengths and weight measurements, different proportions, patterns, methods and standards. Comparative tests as performed by Miller can determine the nature of the bronze alloy used in this particular cannon's manufacture that may help in better identification.⁴⁶

⁴¹ Personal communication with Cmdr. Gerry de Vries, September 01, 2001.

⁴² Ibid.

⁴³ Nameplate in the De Merindol collectors gallery.

⁴⁴ Personal communication with John Godlonton a member of CHOK, 2001.

⁴⁵ D. Miller. Archaeometallurgical studies in Maritime archaeology at the Cape of Good Hope.

Southern African Field Archaeology, April 1997, vol. 6, No. 1, Grahamstown.

⁴⁶ Ibid.

Miscellaneous artefacts found at the site

Metal and Glass



Figure 31: Metal fragment believed to be off the wreck of the Ivy.
(Port Edward, 2002)



Figure 32: Glass fragments found close to PED 5, believed to be from the wreck of the Ivy.
(Port Edward, 2003)

According to Macholm Turner, the Ivy was a British wooden brig of 249 tons, built in 1865 by Richard, in Quebec, and commanded by Capt C. Orr. It was

wrecked in the same area as the São João on the 27th of March 1878 while on a voyage from London to Durban with a cargo of liquor. Only one man was lost⁴⁷. Besides the metal some fragments of glass were also found washed onto the beach closer to Ivy point. These fragments are believed to be from the wreck of the Ivy. According to the locals many of these fragments are washed ashore and are clearly distinguishable since they are of a very dark green colour (almost black) and small air bubbles are present in the glass which are not found in modern glass⁴⁸.

In conclusion, all the artefacts (secondary and primary) viewed in context point to the wreck of the São João as the ship that wrecked in Port Edward. Together with the documentary evidence this also presents a clearer scenario of the events surrounding the wrecking and a possible location for the wreck site itself. Viewed in isolation there can be no doubt that the Chinese porcelain can only be from a 16th century Portuguese shipwreck. Since the wreck of the São João is the only documented 16th century Portuguese wreck in the area, the researcher is convinced that they must originate from this wreck. The pieces that were found by the researcher indicated the possible area of the wreck site as well, since it is believed that the bigger heavier pieces are washed onto the beach close to the wreck site.

The cornelian beads on their own only indicate a homeward bound wreck and cannot be dated or classified. The isotope tests, on the money cowrie shells, on the other hand, caused a sensation proving that these shells found by the researcher are not indigenous to South Africa and are believed to originate from warmer waters such as the Maldivian islands.

The discovery of pepper on one of the on land sites identified, narrows the otherwise enormous search area and may indicate the presence of a survivor

⁴⁷ Turner, *Shipwrecks and Salvage in South Africa*. p.216. The Argus Annual and South African Directory, Cape Town, The Argus Printing and Publishing Co, 1889, p. 168. T.V. Bulpin, *Natal and the Zulu country*. 1966, pp. 374-375.

⁴⁸ Personal communication with locals from Port Edward, 2003.

camp. This also merits further investigation as to the location of such a site. Further research is necessary to locate and identify cannons that are believed to be located at PED5. Preliminary research however established that they might be Half Pounders or Robinets. Finally, other artefacts, such as glass and metal, found in the area may be contributed to the wreck of the Ivy that foundered in the same area and not the São João.

Chapter V

The campsite: comparative analysis and geographic survey.

Although a multitude of artefacts apparently originating from the wreck of the São João have been discovered over the past century, the actual location of the campsite has not been indisputably determined. In order to assist in locating this illusive site, the descriptions and details of other Portuguese campsites were also investigated. In South Africa we are fortunate to have ten Portuguese shipwrecks dating to the same period, all wrecked along the south-east coast of South Africa. Information gathered from these other wrecks is of great value in that it gives an indication of the manner in which the Portuguese camps were constructed. In addition, survivors from the São João were unfortunate victims of some of these other earlier wrecks as well, and would have been forced to construct a camp yet again.

The comparative analysis and geographical survey of the São João survivor and other accounts, indicates three locations in the area of Tragedy Hill worthy of investigation. In other words, they are possible and the most likely locations of the São João survivor camp. The research for this thesis focuses specifically on the survivor camp of the São João and addresses an important aspect that forms the bases of this study, which is the collaboration of archaeological material and historical documentation to elucidate physical evidence. It will be illustrated how documentary evidence can contribute to the understanding of past events. More specifically, the study also attempts to indicate similarities between other such Portuguese settlements, again illustrating in what way documentary evidence can be used to locate such a site and provide future researchers with information regarding the types of material evidence that can be expected once a site is located. Thus, an attempt is made to reconstruct the position of possible sites, using both historical documentation and physical archaeological evidence. This will amount to the creation of a scenario of virtual sites indicating both the positive evidence, which supports the location, as well as the negative evidence, which detracts from the location.

To begin with, a comparative analysis of other Portuguese survivor camps provides possible clues to the position and general appearance of the São João survivor camp. Because the narrative of the São Bento (1554) is regarded as the key to locating the wreck site of the São João, it was again scrutinized to find information on how early survivor camps were constructed in general and how far they were from the wreck site. Seven Portuguese shipwreck accounts which refer to survivor camps are considered:

Table 4: Other Portuguese shipwrecks along the south-east coast of South Africa.

SHIP	DATE	WRECK SITE
São Bento	1554	Msikaba River Mouth
São Thomé	1589	Unknown
Santo Alberto	1593	East London
São João Baptista	1622	Between Woody Cape & Kei River
São Gonçalo	1630	Plettenberg Bay
Nossa Senhora de Belém	1635	Port St. Johns
Nossa Senhora de Atalaia do Piheiro	1647	Cefane River

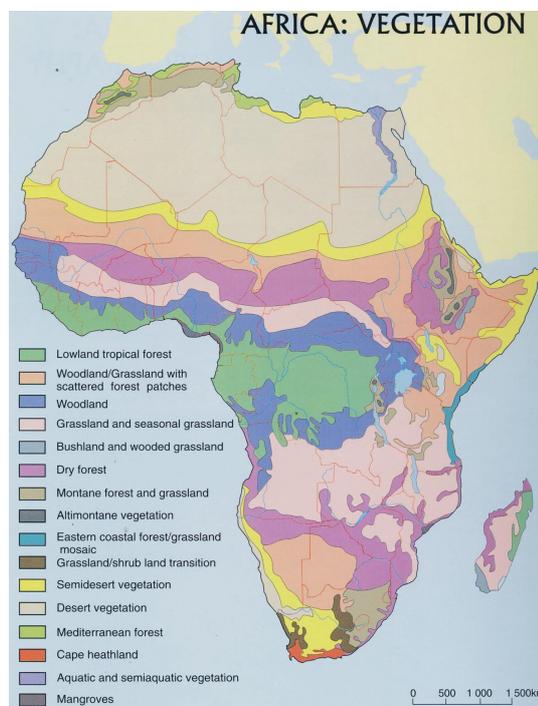


Figure 33: Map illustrating Africa’s Vegetation.

From: Stuart C, & T. *Africa A Natural History*. (Halfway house, 1995.)

These seven were chosen because they all occurred within a century of the wrecking of the *São João* and occurred on the south east coast of South Africa stretching from Port Edward in the north to Natures Valley in the south. These seven wrecks, and consequently their survivor camps, share an area characterized by more or less the same vegetation and rainfall as seen in figure 33 on page 86. It is therefore argued then that the camps will have similar characteristics.

It is stated that the survivors from the *São Bento* took shelter in a wood that was close to the wreck, where they slept under the trees the first night. Here, they also had access to a river with fresh water. The next day they returned to the shore where they gathered “what was necessary” and returned to the spot where they slept the previous night and here they constructed “a superb lodging” with “rich carpets, pieces of gold cloth and silk.”¹ It is mentioned that a number of boxes also washed ashore and it is possible that these were used in the construction of the shelter. Later on it is indicated that “each one returned to his own place of shelter” thus, it is possible that the shelter consisted of smaller or individual units.² It is stated that when they started out for Mozambique they left the shelter as it was. As far as can be gathered from the survivor account they did not organize themselves according to social standing. Rather, they arranged themselves in marching order which consisted of the following: the boatswain and seamen were in front, the captain followed right at the back together with the passengers, the injured walked or were carried in the middle. It is noteworthy that it does not appear as if the slaves were separated from the Portuguese passengers.³

The survivors from the *São Thomé* (1589) only camped for a couple of days and passed the night among some sand hills.⁴ No further details are given with regards to the construction of their shelters. The survivors from the *Santo Alberto* (1593), however, wrecked under similar circumstances as those of the *São Bento*

¹ Theal, *Records of South East Africa* I, p. 223.

² *Ibid.*, p. 224.

³ *Ibid.*, p.227.

⁴ Bell-Cross, *Portuguese Shipwrecks and identification of their sites*, p. 56.

and São Thomé, but more detail is given with regard to the appearance of their camp. It is stated that they entrenched themselves and also made tents of the valuable carpets of Cambaya and Odiaz they had onboard. They also used rich quilts, gunjoens, chests, and mats from the Maldiv Islands in the construction of their shelters.⁵ Captain Julião de Faria divided the camp into three main parts, namely: the vanguard, main body and the rearguard, furthermore he divided the soldiers into three companies. He also divided the seamen into three bands, with the pilot, the master and Custodio Gonçalves, the boatswain, as captains.⁶ Again, as far as can be determined, the slaves were not separated from the Portuguese and formed part of the main body.

The survivor account of the São João Baptista (1622) states that the survivors built “shacks” to give them shelter from the cold and entrenched themselves on the shore, again close to the wreck site. Here they stayed for one month and six days. During this time they constructed a church on the shore covered with canvas and inside hung gold-embroidered Chinese coverlets.⁷ Unfortunately there are no other clues as to their survivor camp.

The survivors from the São Gonçalo (1630) fared much better than their predecessors. Apart from growing their own fruit and vegetables such as melons, pumpkins, cucumbers, onions and coriander, they were also able to establish an effective barter trade with the local friendly Khoi tribesmen.⁸ They built “habitations of wood” and also a kind of a church⁹. Disappointingly, no detailed description is given of what the camp looked like or what the social organization was set up like, despite the fact that they stayed there for eight months.¹⁰

⁵ Ibid., pp. 283-290.

⁶ Ibid., p.295.

⁷ Boxer, *The Tragic History of the Sea*, pp. 190-199.

⁸ Theal, *Records of South East Africa* I, p. 418

⁹ Ibid., p. 417-419

¹⁰ Ibid. Andrew B. Smith, Excavations at Plettenberg Bay, South Africa of the camp-site of the survivors of the wreck of the São Gonçalo, 1630. *The International Journal of Nautical and Underwater Exploration*. 1986, pp. 53-63.

The survivor account of the Nossa Senhora de Belém (1635) provides details about the location, structure and organization of a typical survivor camp. The survivor's stated "When we got to the other side of the river, we found a good place within site of the sea, where we decided until we should have better council, to make our dwelling place."¹¹ Bell-Cross lists several reasons why the survivors possibly chose this site. One of the most significant reasons for the purposes of the search for the São João survivor camp is where Bell-Cross explains that the terrain on the west bank was not only protected from westerly winds, but is also more level and therefore more suitable for a camp site needed to house nearly 300 people.¹² It is also mentioned that "the place where we were posted with our backs to a thicket which served as a defence against the cold and them (natives) in case they should attack us."¹³ They buried the dead "in a spot which we selected for the purpose."¹⁴ They had access to drinking water, because it is stated "water from a river which was not far off..."¹⁵

As regards the layout of the camp, it is evident that the Captain was separated from the main body as he "chose a site for [his] dwelling on a little hillock".¹⁶ This was possibly so that he could keep a lookout. They also built a church and a house. The house was built in the centre of the camp for the purpose of keeping the provisions safe. The Captain divided the main body into "parties, each building their straw hut where they thought best within the limits which [he] set them."¹⁷

The survivor Bento Teyxeyra Feyo, from the Nossa Senhora Da Atalaia do Piheiro (1647), stated that they made their camp in the bushes to get away from the sand on the beach. It is apparent from this account then that at least 200 survivors camped there for 11 days before starting the trek to Mozambique. The Captain divided the survivors into three squadrons (possibly 180 people in each).

¹¹ Bell-Cross, *Portuguese Shipwrecks and identification of their sites*, pp. 70-71.

¹² *Ibid.*

¹³ Theal, *Records of South East Africa* I, p. 206.

¹⁴ *Ibid.*, p. 204.

¹⁵ *Ibid.*

¹⁶ *Ibid.*, p. 214.

¹⁷ *Ibid.*

The passengers were separated into the one group with the Captain, the seamen and ship boys were divided among the officers. Again, all provisions were brought into the camp, put together and guarded.¹⁸ It is stated that they made “shelters as good as canvas tents.”¹⁹ This survivor camp was found soon after the wreck site was identified in 1980. Excavations at the site by Simon Hall, archaeologist at the Albany Museum, yielded the following: eight fragments of blue-and-white porcelain that can be referred to the traditional Ming period, eight pieces of Blanc de Chine, three stoneware fragments and eleven pieces of flint. They also found a single piece of carved marble, 25 fragments of highly rusted iron, a small cog-like ornamental piece of bronze, a piece of bronze sheet with gold plating, a small hemispherical piece of silver, a thin sliver of bronze, two pieces of lead, 498 fragments of bone, and two lengths of mother of pearl.²⁰

From these several examples of early Portuguese survivor camps the following ten significant and similar characteristics can be identified. In the first instance, the sites were never further than 1 km from the actual wreck site. In some cases, the campsite was in sight of the wreck. Secondly, it was established as close as possible to fresh drinking water. Thirdly, the survivors sought shelter from wind and weather in the colder months of June, July and August, such as in the case with the Nossa Senhora de Belém and São João Baptista. The shelters were most often strategically placed close to a wood, trees or thicket to provide protection against weather as well as possible enemies. Fourthly, in two cases the São Thomé and the São João Baptista, the survivors entrenched themselves. Fifthly, in most cases the camps were erected on flat areas as they had to accommodate large numbers of people, like in the case of the Nossa Senhora de Belém and Nossa Senhora Da Atalaya. Sixthly, most survivors mentioned that they erected tents, wooden structures, shacks or houses with the merchandise they had salvaged from the ship. Seventhly, the camps often consisted of smaller units or tents, built within the limits set by the Captain, as in the case of the São Bento,

¹⁸ Ibid. p., 306.

¹⁹ Ibid.

²⁰ Bell-Cross, Portuguese Shipwrecks and identification of their sites, p. 77; S. L. Hall, *Test Excavations at the Atalaya Camp Site*, Grahamstown, 1978, pp.1-6.

São João Baptista, Nossa Senhora de Belem and Nossa Senhora Da Atalaya. Eighthly, provisions were brought and placed in the centre of the camp where they were guarded. Ninthly, from the different accounts it is evident that the survivors were divided into groups, squadrons or parties. In nearly all of the cases the main body was divided into three of these groups, where the passengers were separated from the seamen and soldiers. The captain stayed with the passengers, though in some cases was separated to keep watch. Lastly, in only one case burials are mentioned despite the fact that there were always fatalities and the only information gathered from this is that they selected a specific location for the dead. The organization of a typical Portuguese survivor, reflecting all the common characteristics is illustrated by figure 34 on page 93.

The geography of the area was investigated to determine any changes with regards to the sea level, climate, shifting sand dunes and flora in the area. According to research done by oceanographer Martin Grundlingh, the climate in the area has not changed over the 450-year period. Fluctuations in the sea level would not have had a great influence on the coastline itself since this stretch of coastline represents the steepest underwater topography along the east coast of South Africa. The current dominating this part of the coast is the same as it was 450 years ago. In the Port Edward area it is the Agulhas current that flows close to the shore in a southerly direction. The rate of flow in the area is on average 1.5m/s, individual measurements have sometimes indicated even greater rates.²¹ The vegetation of the area is characterized by what is called “Dry Forest”. This would explain the references by various survivors to woods, thickets and trees.²²

A major problem in reconstructing the survivor camp of the São João is the limited availability of historical information on the São João survivor camp. The documentary survivor evidence on the São João merely indicates that the camp was erected using chests and barrels, close to the wreck site and drinking water. This complies with three of the ten characteristics of the other Portuguese

²¹ Personal communication with Martin Grundlingh, June 4th, 2002.

²² C. T. Stuart, *Africa. A Natural History*, Halfway House, 1995. p.4.

wrecks. The São João description contains further brief detail on the geography and mentions two hills on which some of the blacks from the area appeared.

Before the virtual graphic interpretation was created the size of the site was considered. Based on the statement in the survivor account that 500 hundred people camped in the area after the wrecking, it was calculated that the camp had a possible size of a 1000² m or more. It might not have been possible to fortify this entire area with the chests and barrels, thus the researcher believes that only a portion of the camp was fortified. The camp was strategically placed in a wooded area, this together with the fortification served to protect the company in the event of an attack. It is believed that the fortified section of the camp possibly only housed the passengers (especially women and children) the captain and his family. Also, the provisions were viewed as very valuable obviously as a means to survival, and it is known from the other Portuguese survivor accounts that they were placed under guard in the centre of the camp, thus in the virtual reconstruction it is also included within the fortification. The soldiers (if any) and seamen make up the rest of the company. They possibly camped with the rest of the company but not inside the fortified area. Since the captain of the São João was in the military one might assume that he would have set up lookout points around the camp. For hygienic reasons the graves would not have been within the boundaries of the camp but since no graves have been found to date this cannot be confirmed.

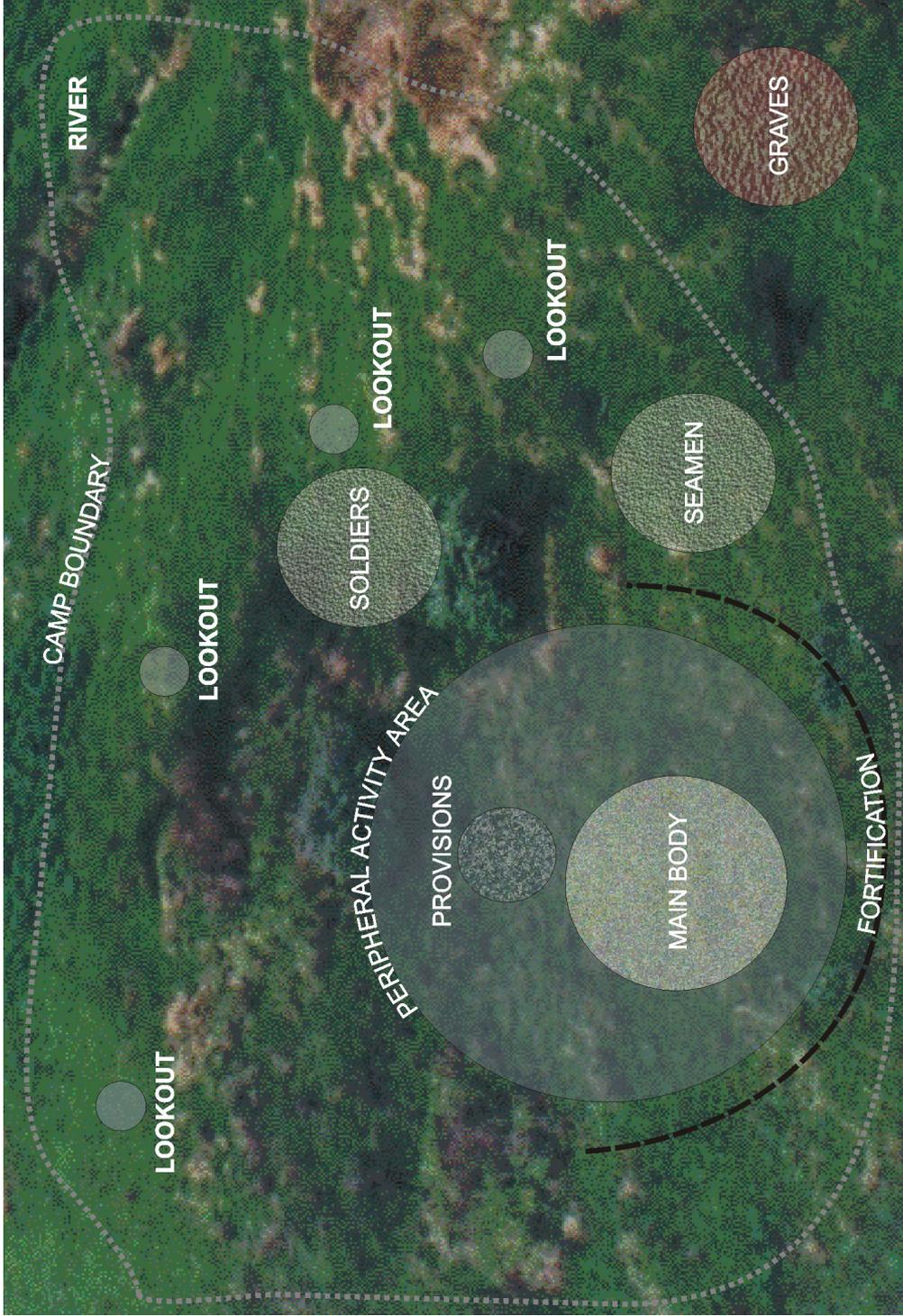


Figure 34: Diagram of the possible structure of the survivor campsite of the São João.
From: Burger, E. (Pretoria, September 2002)

The more detailed historical information of other Portuguese survivor camps on the east coast of South Africa greatly assisted in building a matrix (See Table 5 below) based on survivor camp characteristics. This information was used to identify certain distinctive features of Portuguese survival camps and aided in creating a virtual image of what the survivor camp of the São João might have looked like. The comparison provided useful information on construction material, methods, structure and positions of camps in general. From this it was possible to construct a virtual picture (See Figure 34 on page 93) of the survivor camp by comparing the survivor’s account and the known characteristics of Portuguese survivor camps with the artefacts found and geography of the Port Edward area.

Table 5: Matrix based on survivor camp characteristics.

Known about Portuguese survivor camps.	Unknown about Portuguese survivor camps.
<ul style="list-style-type: none"> ➤ Never further than 1km from wreck. ➤ Near water supply. ➤ Survivors sought shelter. ➤ Defensive structures were erected on flat area. ➤ Used material from wreck to build shelters. ➤ Camp was divided into units. ➤ Provisions were placed in the centre of the camp. ➤ Survivors were divided into groups (in most cases into three groups). ➤ Passengers were separated from the seamen. ➤ A specific location was selected to bury the dead. 	<ul style="list-style-type: none"> ➤ Shape of the camps (square/round etc.). ➤ The exact appearance of these camps.
Known about São João Camp	Unknown about São João camp
<ul style="list-style-type: none"> ➤ The camp was erected close to the wreck site. ➤ They had access to fresh water. ➤ It accommodated 500 people. ➤ A fortification was built with chests and barrels. ➤ Two hills were visible from the camp. ➤ They stayed at the site for twelve days. 	<ul style="list-style-type: none"> ➤ Shape of the São João camp ➤ Exact location of the camp. ➤ The size of the “fortification”- did it include the whole camp or only the captain, his family and the provisions? ➤ Location of the burial site.

Chapter VI

The virtual campsite of the São João.

This chapter sets about recreating three possible locations for the survivor campsite of the São João. Based on historical, archaeological and additional campsite investigations, this chapter proposes a possible methodology to assist archaeologists in determining the location of not only survivor campsites, but any other archaeological sites which are not clearly identifiable. It shows how historical documentation and archaeological material of both primary and secondary nature, can be combined to create possible locations. This particular study sets out the information in the following format. Firstly, a geographic description of the location with details of position, landscape and environment of the particular site is given. This is followed by a justification of the specific site, using evidence of both a historical and archaeological nature. This is further divided into arguments, which both support and negate its viability. By identifying and creating these various scenarios of sites the researcher is able to determine the possibility of location more specifically, and thereby limit the range of options for possible future archaeological excavation.

In this scenario creation, the manner in which the camp was constructed is also considered. As a categorical mention is made of a fortification in the São João survivor camp, an attempt is also made to reconstruct a virtual image of this fortification, whereby it is possible to establish how many people were housed inside the fortification, and indicate the material it contained during the period of occupation.

The survivor camp of the São João represents the earliest temporary Portuguese settlement on the South African coast. But more than this, the São João survivor camp also presents proof of the wreck site of the São João since artefacts present underwater are extremely difficult to locate and document. Two other earlier wrecks recorded on the South African coast, which have not been located are the ‘Soares wreck’, believed to have foundered near Mosselbay in 1505 and the São

Jeronymo, that foundered on the Zululand coast, north of Richards Bay, in June 1552. Neither of these two wrecks apparently had any survivors.¹ Although the events surrounding the wrecking of the São João are not unique, the camp itself is, because of the vast number of people who camped there. The number as already indicated, is recorded as 500, including both Portuguese people and slaves, which is greater than any of the other Portuguese wrecks considered.

The research done over the last five decades has not thrown much light, if any, on the São João survivor camp. In the most recent work done by Ferreira, he uses the concept temporary camp when referring to the survivor camp of the São João and also just mentions that they built a temporary fortification of chests and barrels. He also refers to the incident where the blacks appeared on the separate hills. Ferreira does not attempt give any indication of where the camp might have been located.²

All the research done by Maggs on the São João did not include the survivor camp. Maggs did, however, confirm that fellow Natal archaeologist Stückenbergs searched for the survivor camp in the 1980's.³ No articles or reports on the survivor camp itself were published by Stückenbergs. Apparently he did do a survey of the area and identified a site where he believed the survivor camp might be situated. According to Stückenbergs, he did not continue with his research since the site was severely damaged by sugar plantations. He did, however, mention that the site he identified was away from “the wind and the waves”.⁴

These three meagre allusions to the survivor camp are all that exist in the historiography on the São João. For the purpose of this study, certain criteria were developed to assist firstly in determining the position of the camp and secondly the appearance of the camp.

¹ Turner, *Shipwrecks and Salvage in South Africa*, pp. 179, 221.

² Ferreira, *Die Stranding van die São João*, pp. 28-30.

³ Personal communication with Dr. Maggs, November, 2001.

⁴ Personal communication with Dr. B. Stückenbergs, 2002

Portuguese campsite characteristics and geographic information supplied the following detail: the site under investigation had to be large enough to accommodate 500 people and not be further than 1km from the wreck site. Based on information supplied through personal discussion with other researchers such as Stückenberg, Maggs and Esterhuizen, the residents of the area and based on the above criteria, three possible sites were evaluated. Below follows a description of these respective areas, with both the evidence which substantiates their viability and evidence which detracts therefrom.

It is stated in the survivor account of the São João that they "...decided to remain on the shore where the galleon was lost...for here water was to be had"⁵ From this statement and the survivor accounts from other Portuguese shipwrecks, it is evident that drinking water was the greatest concern for the survivors from shipwrecks. Thus a geographical investigation of the defined area determined the locations of fresh water sources. An inspection of the geological survey of South Africa⁶, aerial photographs, the 1:50 000 map, reconnaissance and excavations in the area revealed only two perennial rivers found within walking distance of the wreck site, the Inhlanhlinhlu and the Kuboboyi.

⁵ Theal, *Records of South East Africa* I, p. 135.

⁶ G.F. Birch, Quaternary sedimentation off the East Coast of Southern Africa (Cape Padrone to Cape Vidal). *Bulletin of the Geological survey of South Africa*, 1996. p. 118.

CAMP SITE PROPOSITION NO. 1: TRAGEDY HILL (PED 1)

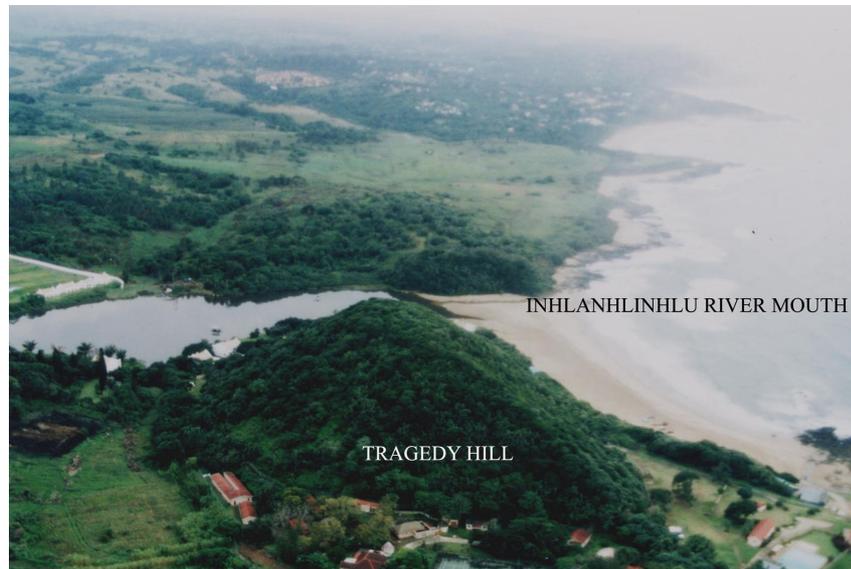


Figure 35: Aerial view of PED 1: Tragedy Hill
(Port Edward, September 2002)

Port Edward is located at the southern most point of Natal where the Mtamvuna River forms the border between South Africa and the former Transkei. This river is characterized by forested kranzes. From the bridge, the river mouth and beaches are clearly visible. Port Edward, named during the 1920's after the Prince of Wales, is dominated by the shadow of recorded history stretching back from the sixteenth century to the more recent tragic events of the nineteenth century. Tragedy Hill or Isandlundlu (Inhlanhlinhlu) in Zulu, with its bush covered slopes was rumoured to have been the site of a massacre in 1831, when Dingane allegedly caught and killed a party of settlers thought to be fleeing with royal cattle. Only fossil, not human, remains have been found here. Rumour also had it that treasure was buried on "North Sand Bluff", a spur of the hill overlooking the Sanlundlu (Inhlanhlinhlu) River.⁷ The main bathing beach in Port Edward located at the mouth of the Inhlanhlinhlu River (31°02'07"S and 30°13'08"E) is characterized by a hill of approximately 64m in height called Tragedy Hill.

⁷ AA Illustrated guide to the Southern African coast, personal interviews with the tourism buro in Port Shepstone.



Figure 36: Aerial view of PED 1: Tragedy Hill from the sea.
(Port Edward, September 2002)

The area around Tragedy Hill was identified as one of the possible locations of the survivor camp since it not only fits the description given in the survivor account, but also displays most of the characteristics mentioned. Firstly, the hill is within 500 m of the supposed wreck site. Secondly, the perennial river, the Inhlanhlinhlu, may have been a good water source for the survivors. Thirdly, the very high hill would not only have provided shelter from the weather and enemies, but also a good lookout of the surrounding inland area and the sea. The stretch of beach in the area of the hill is less rocky than the area directly north of it. According to local fishermen the hill is used even today as a beacon and is clearly visible far out to sea.⁸

This first proposition as to a possible survivor camp site is based the account of São Bento survivor Manuel De Mesquita Perestrello, together with the survivor accounts of the São João.

In the survivor's account of the São João it is stated that:

A boat was immediately got out with some men to search the shore for the best spot...a long time afterwards the boat returned with intelligence that there was a part of the shore close by where they

⁸ Personal communication with local residents in Port Edward, September 2002.

might disembark...but all the rest was sharp rock and great boulders which offered no hope of safety...the Captain and his company had no means of acquiring or manufacturing a craft to take some of the crew to Mozambique to find help. It was decided that they should remain on the shore where the galleon was lost, for a few days until the sick were convalescent. They made a sort of fortification with chests and barrels and remained at the site for twelve days⁹. In the surrounding area they encountered no people, only deserted straw huts. In several of the huts they found arrows and assegais¹⁰.

Manuel De Mesquita states that:

That day crossing the top of these summits, we came to a headland from which we could perceive the sea, and in our joy at the sight we made our day's journey longer than usual, and slept in a deserted village, where we found pieces of china and many other things in use among us, which we felt certain had remained from the shipwreck of Manuel de Sousa Sepulveda. The next day...we reached the sea at the very spot where the galleon came ashore, where we found the capstan and other pieces of timber thrown upon a rocky reef which stretches for many leagues along the coast¹¹.

From three kilometres upstream of its mouth the Umtavuna River runs in a steep forested gorge, 300m and more in depth and topped by sandstone cliffs. The sea is visible from many places on the eastern side of the gorge¹². The rocky reef runs to the north of the mouth of the Umtavuna except in the bay at Tragedy Hill where there is a stretch of beach where today fishing boats are launched. The Umtavuna River Mouth is approximately six kilometres from Tragedy Hill at the mouth of the Inhlanhlinhlu River, travelling on foot it would take about half a day's walk to reach Tragedy Hill.

In Welch's book he gives his own interpretation of the São João survivor account and adds some more detail that may provide clues as to the location of the survivor camp. According to Welch "they decided to stay near the river for twelve days"¹³. It is not clear whether this statement is based on a direct

⁹ Theal, *Records of South East Africa* I, pp. 132-135

¹⁰ Ibid.

¹¹ Theal, *Records of South East Africa* I, pp. 233-234.

¹² Maggs, *The Great Galleon São João*, p.185.

¹³ Welch, *South Africa under John III*, p. 329.

translation of the survivor account, and if it refers to the Umtavuna or the Inhlanhlinhlu River. The São Bento account, also, does not mention any other large rivers in the area.

According to Bell-Cross “it was custom to build the camp as close as possible to the wreck site, in order to be close by should anything come ashore”¹⁴. The camp site of the Portuguese ship the São Gonçalo was found 500m from where the ship came ashore¹⁵. The Inhlanhlinhlu River rather than the Umtavuna River is viewed as a possible location for the survivor camp of the São João for the following reasons, firstly Maggs indicates on an extrapolated map that the wreck site is located at the Inhlanhlinhlu River¹⁶. Secondly, most of the artefacts are found in the area near the Inhlanhlinhlu River. Thirdly, it is improbable that the survivors from the São João would camp further than 1km from the wreck site especially with the large amount of injured survivors. It is stated that “the capstan and other pieces of timber” were found “thrown upon a rocky reef” therefore this proposition is based upon the hypothesis that this rocky reef is the one stretching to the north of again the Inhlanhlinhlu River rather than the Umtavuna River.

Factors supporting Tragedy Hill as the location for the survivor camp.

Several reasons support the theory that the survivor camp is located near the Inhlanhlinhlu River mouth at the foot of Tragedy Hill. Firstly, the Inhlanhlinhlu River flows into a lagoon first and then into the sea which would make fresh drinkable water easily accessible. Also, it is separated by two high hills, which could be those mentioned in the survivor account of the São João and São Bento. At its mouth it forms a large stretch of beach with relatively few rocks. It is stated in the survivor account of the São João that “The captain, who disembarked the day before, went to and fro on the beach...helping all that he could to get to the fire he had made”¹⁷. Aerial photographs of the area show a platform visible on the higher of the two hills, which could indicate a site used as

¹⁴ Bell-Cross, Portuguese Shipwrecks and identification of their sites, p. 65.

¹⁵ Ibid.

¹⁶ Maggs, The Great Galleon São João, p.184.

¹⁷ Theal, *Records of South East Africa* I, p. 134

a lookout. Also, according to Ferreira the Portuguese had a tradition of building their settlements on top of hills which could have influenced the choice of the location for the camp.¹⁸ Lastly, the survivors would want to be sheltered from the elements and the higher of the two hills would give them exactly that.

The area has been developed and today a caravan park with some self-catering chalets is situated on the southern bank of the lagoon. Sue Brian, manager of the caravan park, reports that a lot of archaeological material was found when the caravan park was erected, including porcelain and cornelian beads.¹⁹ A bronze bracelet was found on top of Tragedy Hill many years ago and is now in possession of local potter Jo Arkel, who believes it may be of Chinese or Portuguese origin.²⁰ Similar bracelets, however, have been found among the Zulu, and considering the history of Tragedy Hill as discussed above, this particular bracelet may belong to the later history of Tragedy Hill rather than the events surrounding the São João.

Factors contradicting Tragedy Hill as the location for the survivor camp.

The first contradicting factor is that the area is located quite a distance from where the wreck site is believed to be located. The water from the lagoon is brackish and today it is unsuitable for drinking. It is impossible of course to say whether this was the case 450 years ago. In the second instance, if the area was densely overgrown it would have been inaccessible, especially for 500 people most of whom were severely injured. The site lacks one of the characteristics of the other Portuguese camps: it is not situated on level ground and therefore unsuitable to accommodate a vast number of people.

Over the years, development and other activities in the area have uncovered some artefacts at Tragedy Hill, including jewellery, porcelain, cornelians and

¹⁸ Personal communication with Ferreira, November, 2003.

¹⁹ Personal communication from Sue Brian, 12 August 2001.

²⁰ Personal communication with Jo Arkel, September 2002.

cowrie shells but it also had its negative influence and it is possible that traces of any archaeological sites have already been destroyed

CAMP SITE PROPOSITION NO.2: KEISERS FARM (PED 2)



Figure 37: Aerial view of PED 2: Keisers Farm
(Port Edward, September 2002)

The area of interest is situated adjacent to the lagoon on Keisers farm in between the Inhlanhlinhlu and Kuboboyi Rivers, approximately 150m from the beach. Its geographical position is situated between 31°02'19.4"S and 30°13'53.3"E. Bounded by the Inhlanhlinhlu to the south the Kuboboyi to the north and the national road R61 to the west. The area is characterized by a range of hills and dunes covered by grass, lilies and coastal vegetation. The lower part of the farm is mostly marshland where the ground is muddy because of a reed marsh and a small stream flowing through the area. In the centre the ground is dry and sandy. It is easily accessible from two places along the beach where most of the artefacts were found.

Factors supporting the Keisers Farm site.

Walks in the field assisted in demarcating a promising area. Here the comparison between the area, the survivor account of the São João and the survivor accounts from other Portuguese ship wrecks with the geography of the area proved to be very valuable. Observations in the field immediately showed that fresh drinking

water was available, possibly from the Inhlanhlinhlu and Kuboboyi Rivers, as well as the stream running through the farm. The land is elevated above sea level by about 11m and the beach area clearly visible, yet far enough so that it is away from the “wind and waves”. It was also observed that the area is relatively flat surrounded by a number of hills visible to the north and west of the site.

One area in particular showed various characteristics which would have been favourable for establishing a camp site. A slight depression of approximately 200X200m in an area where vegetation has been disturbed was detected. This depression is large enough to contain a vast number of people together with rudimentary accommodation, for instance tents.

Scuba diver, Francoise van Rensburg, during personal meetings indicated on aerial photographs that some porcelain and cornelian beads were found at this site. He also pointed out where he had seen ships cannons underwater, which is not far from the site.²¹ The eastern side of the site is bounded by the sea, at present about 150m from the site.

Factors against the Keisers farm site.



Figure 38: View of PED 2 from the beach.
(Port Edward, September 2002)

²¹ Personal communication with van Rensburg, April 2001 and August 2002.

The beach in this area consists mostly of rock, though according to the geological survey of South Africa²² unconsolidated material has been detected off the coast of Port Edward, which may indicate that 450 years ago most of the rocky beach was covered by sand. Still, if one does not agree with this assumption, it would be very difficult for any survivors to come ashore in this area as is clear from the photograph. Moreover, upon diving in the area a strong undercurrent flowing away from the beach was also noted, making it considerably difficult for survivors to come ashore.

CAMP SITE PROPOSITION NO. 3: KUBOBOYI RIVER (PED 3)



Figure 39: View of PED 3: Kuboboyi Site.
(Port Edward, September 2002)

The investigated area is situated adjacent to the Kuboboyi River, approximately 230m from the beach, with an elevation of 42m. Its geographical position is situated between 31°02'06.6"S and 30°13'58.0"E. Bounded by a farm road leading to T.O. Strand camp site to the south, the Kuboboyi to the north, the national road R61 to the west and the T.O. Strand camp site to the east. A characteristic of the area is that it is situated on a hill covered by trees, khaki-bush, grass, and yellow wild flowers growing in abundance. The soil varies in that it was sandy in places and dark compacted soil in others. This site was

²² G.F. Birch, Quaternary sedimentation off the East Coast of Southern Africa (Cape Padrone to Cape Vidal). *Bulletin of the Geological survey of South Africa*. 118.

identified as a possibility as it displays anomalies associated with possible archaeological sites, such as disturbance in vegetation and soil

Arguments supporting the Kuboboyi site



Figure 40: View from PED 3: Kuboboyi Site.
(Port Edward, September 2002)

Walks in the field assisted in demarcating three promising areas within the site. Again the comparison between the area and the survivor account of the São João with the geography of the area proved to be helpful. Observations in the field immediately showed that fresh drinking water was available possibly from the Kuboboyi. This site poses a good vantage point since the surrounding area as well as the beach stretching from Port Edward all the way north to Leisure Bay is clearly visible as seen in figure 40 on page 106. By building a fortification with chests and barrels as it is stated, they would have had a clear view of hills to the north-west. The area is accessible, flat on top and large enough to accommodate a vast number of injured survivors.

Arguments against the Kuboboyi site

No mention is made of this river by either the São João or the São Bento survivors. Again the beach in this area consists mostly of rock which would make it very difficult for any survivors to come ashore in this area.

Beach Excavations (PED 4)

The beach excavations are also an important element within the investigation of the wreck site and survivor camp of the São João. The hypothesis of this thesis states that the porcelain, cowrie shell and cornelian beads washed onto the beach in the area of Port Edward must belong to a specific wreck, the São João. Thus the need existed for a proper evaluation of these archaeological finds and an organized effort to identify them and place them within context. Physical associations of cultural remains in the archaeological record are affected by factors that intervene from the moment of deposition to the recording of those associations by archaeologists.²³ British maritime archaeologist Keith Muckelroy has identified two major factors that alter the context of archaeological finds: scrambling devices and extracting filters. Scramblers are processes that operate to cause mixture of materials in such a way as to alter the physical associations at the site. Strong surge and wave action for example drive the porcelain, cowrie shells and beads away from the São João wreck and onto the beach²⁴. In the case of this investigation the scrambling process may be utilized to track and plot where the artefacts wash out. Filters are processes that affect the archaeological context by removing or obliterating materials from the physical associations at a site. Some of these processes include decomposition and destruction by marine organisms, flotation and salvage activities resulting in the removal of materials from the site.²⁵

By plotting the occurrence of artefacts on the beach and entering data into a database it may be possible to pinpoint the origin of the artefacts, and hence the

²³ J.P. Delgado, *The British Museum Encyclopaedia of Underwater and Maritime Archaeology*, London, 1997, p.108; K. Muckelroy, *Maritime Archaeology. New Studies in Archaeology*, London, 1978.

²⁴ Delgado, *The British Museum Encyclopaedia of Underwater and Maritime Archaeology*, p.109.

²⁵ Ibid.

actual wreck site. Since survivor camps, as far as can be determined, were never further than 1km from the wreck site this may in turn assist in locating the survivor camp. This process will take place over a long period of time to get an accurate reading. Some of the residents of Port Edward who have been picking up porcelain and beads over the years have kept record of when and where they collected the artefacts. Entering this data will help speed up the process.²⁶

The excavations on the beach were systematic and due to the time constraint only covered the stretch of beach closest to where the wreck site is believed to be located, 1km from the mouth of the Inhlahlinhlu River mouth. The greatest concentrations of artefacts were found below the high water mark to the middle of this beach opposite the inland site PED 2.

Seen in context, these artefacts indicate in the first instance a shipwreck in the area of Port Edward. In the second instance, after proper identification and analysis they reveal that the shipwreck is of Portuguese origin dating to the sixteenth century and not an Arab dhow as some believed in the past. The greatest concentrations of artefacts are found in the area adjacent to PED 2, where the peppercorns were found, confirming the theory that the survivor camp may most likely be located in the vicinity of PED 2. This theory is reinforced by the various Portuguese campsite characteristics that are comparable with this particular site.²⁷

Table 6: Portuguese campsite characteristics comparable with PED sites.

Portuguese campsite characteristics comparable with sites	PED 1	PED 2	PED 3
Not further than 1 km from wreck site		✓	✓
Near water supply	✓	✓	✓
Area suitable for the erection of structures i.e. flat		✓	✓
Availability of material from the area for shelters.	✓	✓	✓
Traces of provisions that may indicate survivor camp.		✓	

²⁶ Personal communication with computer programmer Bothma van Tonder, September 2002.

²⁷ Refer to the in depth discussion of Keisers Farm site on page 106.

Artefacts found close to site.		✓	
Traces of a burial site.			
Easily accessed from the beach/wreck site.	✓	✓	

Conclusion

Unlike other topics within the field of historical archaeology, primary sources pertaining to the São João are rare. The scarcity of sources, as a result of a large fire in 1916¹, can be blamed for the locality of the wreck mistakenly being designated further south than Port Edward, by most researchers, for the first half of the twentieth century. Many researchers i.e. Theal², Mackeurtan³, de Kock⁴, Wilson⁵, Holt⁶ and Derricourt⁷ place the wreck of the São João at Msikaba River mouth, near Port St. Johns.

For the account of the wrecking of the São João archaeologists and historians are largely dependent on the English translation from Gomes⁸, by Theal⁹. The original account was not written by one of the survivors, but by someone who was told the story and published the account anonymously. This source therefore had limitations with regard to detailed geographical information. From the 1980's, research on the location of the São João wrecksite included the survivor account of the São Bento, wrecked at the Msikaba River mouth. This source, again translated into English by Theal, was written by an actual survivor of the wreck and therefore contains more specified detail, particularly regarding the geography. The São João account used in combination with this source has shown that the published reports of the shipwrecked Portuguese survivors can be plotted with fair to excellent accuracy by relating the features described to the topography of the south-east coast of South Africa.

¹ O.J.O Ferreira, *Die Stranding van die São João*.

² Theal, *History and Ethnography of Africa South of the Zambesi I*, 1910, p.364.

³ G. Mackeurtan, *The cradle days of Natal (1497 – 1845)*, London, 1930. pp. 10-52

⁴ De Kock, *Portugese ontdekkers om die Kaap*, pp. 225 - 228.

⁵ Wilson, *The early history of the Transkei and Ciskei*. p. 169.

⁶ Holt, *Where rainbirds call, a record of Transkei*.

⁷ Derricourt, *Early European travelers in the Transkei and Ciskei*, pp. 278 - 279.

⁸ B. Gomes, *História trágico-marítima. Em que se escrevem chronologicamente os Naufragios que triveraõ as Naos de Portugal, depois que se poz em exercicio a Nave gaçaõ da India*. 2 vol. Lisbon.

⁹ Theal, *Records of South East Africa I*, Cape Town, 1964.

Added to the problem of sources was the fact that countless rumours and myths around the location of the wreck, its survivor camp and artifacts prevailed. This legacy, though interesting, causes more difficulties for historians and archaeologists because each and every rumour must be investigated to determine its accuracy. In addition, many non-historians authored a lot of literature based on these rumours¹⁰, which meant a great deal of time was spent scrutinizing and correcting misinformation.

Recent archaeological excavations in the area of Port Edward are yielding artifacts, food remains and other details which complement the historical record and strengthen the theory that Port Edward is the location of the wreck. In the area where the most likely location for the survivor camp was identified, for instance, foreign peppercorns were found. This discovery merits the continuance of this project especially since these are the first cultural remains found that may be linked to a survivor camp.

The shortage of historical sources as well as the uncertainty surrounding the archaeological material relating to Portuguese wrecks along the south-east coast of South Africa was without doubt an important factor, which shaped the methodology for this study. In South Africa, where the study of historical-archaeology is a comparatively new field of research some archaeologists such as Werz¹¹ have pointed out the value of incorporating historical texts in archaeological investigations and in addition also pointed out the problems experienced because of the lack of such sources. Despite the fact that Portuguese shipwrecks and consequently their survivors form an integral part of South African history from the time of the earliest wreck of the São João in the sixteenth century, they have generally been neglected. Another reason for the neglect is the lack of specialization

¹⁰ For example, R. Webster, *Fireside tales* and AA Illustrated guide to the Southern African coast.

¹¹ Werz, *Diving up the human past. Perspectives of Maritime Archaeology*, p. 56.

within the field of archaeology in fields such as maritime- and historical-archaeology.

A solution is presented by this study in the form of a methodology for historic-archaeology. Through a thorough chronological examination of the extent of documentary and field research done by other investigators the researcher has presented the scope of research already done on the specific subject and in doing so highlighted areas that have not been properly investigated yet, such as the survivor camp. In addition, it became apparent that it is crucial to separate the truth from fiction and in doing so identify arguments that go beyond rumours and anecdotes. The identification of wreck sites and survivor camps in documents can be correlated not only with historical and traditional sources, but also with archaeological evidence.

Conventionally one of the main concerns of the archaeologist is the study of artifacts, in other words the cultural resources, i.e. artifacts or material remains found on a specific site. Recent developments in archaeology place more emphasis on non-artifactual remains sometimes referred to as ecofacts, i.e. organic and environmental remains¹². This is not an inaccurate practice, but what is suggested by this study is that documentary evidence should also be included in archaeological investigations as non-artifactual remains or as termed in this study, historiographical and historical material. So the partnership of historiographical and historical material and artifacts defines the fundamental nature of historic-archaeology, which is the study of events and cultural remains of the past. It is necessary to consult a variety of sources during historiographical and historical research in order to obtain different types of information and therefore it is necessary to make a differentiation between manuscript sources, primary sources, i.e. the survivor or travel accounts, as opposed to secondary sources i.e. published sources written some time after the event. The

¹² C. Renfrew & P. Bahn, *Archaeology, Theories, Methods and Practice*, London, 1996, p.45.

emphasis, however, is on the partnership for without the archaeological evidence, the historiographical material remains incomplete.

Not unlike the differentiation made with historiographical material, it is suggested that archaeological material can also be grouped into primary archaeological material, i.e. material found by the individual researcher herself as opposed to secondary archaeological material, i.e. material found by other researchers. This clearly defines the differences between existing and new research, and how they complement or contradict one another.

Important to this study is the application of the physical and chemical sciences to primary remains found at the site. An alliance was forged with specialists from QUADRU based at the CSIR in Pretoria to perform stable light isotope analysis on *cypraea moneta* found at the suspected wreck site. This is a breakthrough in the field of maritime archaeology in South Africa since the application of these tests to marine shells originating from the hold of a shipwreck has never been undertaken before. The aim of these tests is again to separate fact from fiction. Up until these tests were performed, researchers only speculated about the origin of the *cypraea moneta* on the south east coast of South Africa. The tests prove that the shells are from warmer water than found on the entire south-east coast of South Africa. Thus *cypraea moneta* pockets along the entire coast of South Africa can now be tested in this manner to trace their origins which can contribute to a better understanding of early trade.

Similarities in Portuguese campsites were investigated through documentary evidence, enabling the researcher to create a generic site plan to assist in the determination of areas to search for the São João campsite. This new methodology does not pertain only to this project, but it can assist archaeologists in determining the location of other similar sites, which are not clearly identifiable. The campsite is

possibly the most important feature of the São João wreck site since it can present convincing proof that the wreck site is located at Port Edward. Only one other researcher explored the possible location of such a camp, but was put off by the farming activities in the area.



Figure 41: Photograph of the proposed development in the area of Port Edward.
From: R. De Kock. Rich and Poor Rub Shoulders. *The South Coast Herald*.
63 (25), December, 2001.

Since the start of the Port Edward Project 2001-2003 and even before, the wreck of the São João has enjoyed a lot of attention, both wanted and unwanted. Unwanted attention in the form of destructive excavations in the area, as well as newspaper articles “advertising” the porcelain washed onto the beach practically inviting the public to collect it. An example of such an article is the one published in *The*

Kwazulu-Natal Tourist showing a photograph of the stretch of beach designated by the researcher as PED 5, stating underneath the photograph “The beach where the survivors of the wreck of the São João came ashore, with Port Edward in the background. Many of the artifacts from this wreck were discovered here”.¹³ Other disturbing articles show plans for development in the area such as the one shown above. In comparing the plan shown in the photograph above and the aerial photograph used in this research it is evident that the proposed development falls within the area of PED 2, where the pepper was found, and PED 3. Development of this magnitude will surely destroy any traces that are left of a survivor camp and for this reason the continued search for the survivor camp of the wreck of the São João is of great importance. Many other archaeologists have terminated their projects on the São João, since compared to other projects relatively few artifacts have been found. However, the partnership with historic documentation gives this project the option of taking the investigations further. The virtual scenario assists in reducing the possibilities and refining the focus as opposed to merely terminating the search.

¹³ D. Watson, Great old wrecks, *The Kwazulu-Natal Tourist*. Kwazulu-Natal, October 2001. pp. 6-7.

APPENDICES

APPENDIX 1: Pre-disturbance permit for underwater and beach excavations.

SAHRA

South African Heritage Resources Agency

111 HARRINGTON STREET, CAPE TOWN, 8001
P.O. BOX 4637, CAPE TOWN, 8000
TEL (021) 462-4502 - FAX (021) 462-4509

OUR REF : 9/2/701/85

YOUR REF:

ENQUIRIES: John Gribble, Maritime Archacologist

DATE : 1 August 2001

PERMIT
No. 80/01/03/013/30

Issued under Section 35(4) of the National Heritage Resources Act, Act No. 25 of 1999. Permission is hereby given:

to: Ms E Burger,
of: 90 Tait Street, Colbyn, Pretoria, 0083,
for: a pre-disturbance survey of the historical wreck believed to be the "Sao Joao" wrecked in 1552,
with limited sampling of material found on the beach in the vicinity of the wreck,
at: approximately 31.05S, 30.14E,
at: Port Edward, Kwazulu Natal Province.

The following conditions apply:

1. Work must be limited to the exploration of the "Sao Joao". A limited collection of archaeological material, to be used for dating and identification purposes, may be made on the beach adjacent to the wreck, but nothing may be recovered from the wreck itself.
2. This permit gives the holder the sole right to work on the site for the duration of the permit period.
3. Adequate recording methods must be employed. The positions of all datum points and excavations, and all artefacts removed from the beach must be marked on an accurate plan of the site, which must also include a title, date, north arrow and scale.
4. A detailed log book must be kept to record daily progress, the mapping and location of finds, features of the wreck, and sea and weather conditions.
5. All artefacts removed from the site must be tagged and numbered, and the number and description of each artefact entered into an accession register with pre-numbered pages. A copy of this accession register must be submitted to SAHRA with the annual report.
6. The permit holder must work closely with the Natal Museum, and all artefacts and materials recovered must be recorded, preserved and identified in collaboration with the Natal Museum. No artefacts may be disposed of without the permission of SAHRA.
7. An annual progress report on activities connected with this permit must be submitted to SAHRA on or before 31 December 2001, and a final report is due on or before 31 December 2002. Reprints of all papers, theses or reports resulting from this work must be lodged with SAHRA.
8. If satisfactory progress reports are not received, this permit may be cancelled. If a published

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report has not appeared within three years of the lapsing of this permit, the report required in terms of the permit will be made available to researchers on request.

9. It is the responsibility of the permit holder to obtain permission from the landowner for each visit, and conditions of access imposed by the landowner must be observed.
10. It is the responsibility of the permit holder to fill in excavations and protect the site during and after excavation to the satisfaction of SAHRA.
11. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities in connection with this permit.
12. SAHRA reserves the right to cancel this permit upon notice to the permit holder.

This permit is valid until 31 December 2002.

for **CHIEF EXECUTIVE OFFICER**

Date: 1 August 2001



Place: Cape Town

APPENDIX 2: Damage or destruction for analysis/dating permit.



SOUTH AFRICAN HERITAGE RESOURCES AGENCY
111 HARRINGTON STREET, CAPE TOWN, 8001 P. O. BOX 4637, CAPE TOWN, 8000
TEL: (021) 462 4502 FAX: (021) 462 4509

OUR REF: 9/2/701/85

YOUR REF:

ENQUIRIES: **PERMIT**
No. 80/02/01/009/54

DATE: Issued under Section 35(4) of the National Heritage Resources Act, Act No. 25 of 1999. Permission is hereby given:

to: Ms E Burger,
of: 90 Tait Street, Colbyn, Pretoria, 0083,
for: the damage or destruction for analysis/dating of a cowrie shell and iron nail,
from: the wreck of the Sao Joao, Port Edward,
in: the Port Shepstone District, KwaZulu Natal Province.

The following conditions apply:

1. Samples must be selected by the permit holder in consultation with the excavator or curator who must ensure that comparative samples are retained in the collections, and that any samples not used by the analyser are returned to the collections.
2. Sampling must be done with minimum damage to the artefacts or objects and according to principles outlined in the application from the permit holder.
3. The samples must all be labelled with the relevant accession numbers and all packets and boxes containing the samples must be labelled with accession number, the name of the site, and the name and address of the institution where the collection is kept.
4. An annual progress report on the results of the analyses must be submitted to SAHRA on 1 December 2002, and a final report is due on or before 12 February 2003.
5. Reprints of all published papers, or copies of theses or reports resulting from this work must be lodged with SAHRA.
6. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities in connection with this permit.
7. SAHRA reserves the right to cancel this permit upon notice to the permit holder.

This permit is valid until 12 February 2002.

for **CHIEF EXECUTIVE OFFICER** 

Date: 12 February 2002 Place: Cape Town

APPENDIX 3: Survey and excavation permit for land sites.

PERMIT
No.02/02

Issued under Section 26.(6) of the KwaZulu-Natal Heritage Act No.10 of 1997.

Permission is hereby given to Elizabeth Burger for the survey and excavation of the inland portion of the wreck site of the Sao Joao, Port Shepstone.

This permit is valid until 1 February 2005.

Please read the attached Regulations.


Annie van de Venter
Head of Archaeology
pp Director

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