

Assessing the Namibian Underwater Cultural Heritage

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## **Declaration**

I declare that this thesis: *Assessing the Namibian Maritime and Underwater Cultural Heritage*, except where I specifically indicate to the contrary in the text, is my work. The support of my Supervisor in developing the ideas expressed is acknowledged. Where I used relevant academic sources, I have fully acknowledged their origins through appropriate means.

## Abstract

Namibia is rich in maritime and underwater cultural heritage that historically, has not been fully acknowledged by authorities, as demonstrated by the absence of a comprehensive shipwreck database. Such inaction has led to a host of problems like neglect of shipwrecks, especially those that need urgent conservation leading to either decay by natural processes or plundering by treasure hunters and vandalism because authorities are unaware of such shipwrecks. Second, this thesis investigates the conservation status of these shipwrecks along the Namibian coast, especially onshore shipwrecks that are exposed to weather elements and human accessibility. How decayed or intact are they? Through the identification of natural and human threats to Namibia's shipwrecks; Namibian heritage authorities have the capacity to effectively initiate programs/projects to conserve shipwrecks *in-situ* as well as generate revenue through tourism, from such shipwrecks through shipwreck trails, etc. Third, the thesis investigates the approach of heritage authorities in managing Namibia's underwater cultural heritage? A shipwreck database is a legal requirement for country signatories to the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, to which Namibia is a member state. Given this background, relevant questions entail determining: how far has the country gone in legally adopting the 2001 UNESCO convention statutes and what is the role of stakeholders in protecting shipwrecks, and how well does the current heritage legislature/Act protect shipwrecks? Although historical document analysis, addresses the role shipwreck played in pre-colonial and colonial Namibia, the role of other silent voices (such as African workers on board the ship and or use of the ship in times of war of national resistance i.e., transportation of prisoner of war, shipwrecks as places of memory, etc.) is missing. What is clear from this PhD thesis is that shipwrecks are symbolic of colonial oppression as they have traditionally been seen by many African governments (who were victims of colonial oppression in the past and are reluctant to spend resources to protect shipwreck for this reason). However,

what is often ignored is that shipwrecks reflect African contributions to the economic, social and political history of Namibia in a positive way. Thus shipwrecks are possibly a symbol of unity hence the need to protect them by the government of the day.

## **Dedication**

This thesis is dedicated to four special people. First, my parents Raymond Mowa and Francesca Nanzila Sibungo who brought me up and taught me life lessons. I have hope the Lord would one day reunite us again in the Holy Kingdom. Second, I dedicate it to my two daughters, Francine Mowa and Patience Mowa, may you grow and be inspired.

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## Acronyms

MUCH-	Maritime and Underwater Cultural Heritage
UCH-	Underwater Cultural Heritage
NHA-	National Heritage Act of 2004
NHC-	National Heritage Council
DRASSM-	Le Département des Recherches Archéologiques Subaquatiques et Sousmarines (Department of Marine and Underwater Archaeological Research)
EIA -	Environmental Impact Assessment
EEZ -	Exclusive Economic Zone
ICOMOS -	International Council of Monuments and Sites
ICUCH-	ICOMOS International Committee on the Underwater Cultural Heritage
NGO-	Non-Governmental Organisation
WUC-	Windhoek Underwater Club
NUF-	Namibia Underwater Federation
NMN-	National Museum of Namibia
WW1-	First World War
WW2-	Second World War
CDF-	Change Diagnostic Feature
RSP-	Questionnaire Respondent
AIA-	Archaeological Impact Assessment
HIA-	Heritage Impact Assessment
NAMDEB-	Namibia DeBeers Company
MACHU-	Managing Cultural Heritage Underwater
UNAM	University of Namibia



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## Chapter 1: Introduction - unearthing the rich underwater heritage of Namibia

### Introduction

This chapter focuses on the thesis conception, presenting the reader with several reasons how the research project was conceived. As it will be noted in the course of the chapter, Namibia's collection of shipwrecks on the skeleton coast and the unavailability of any *in-situ* conservation protocol by the competent authority is worrisome. As a result of these deficiencies, questions arose as to how long these shipwrecks will last without intervention. Besides the absence of a conservation protocol, there are several concerns about the long-term survival of these historic heritage resources.

First, there is a need to assess the physical condition of these shipwrecks. This will help in identifying measures that can be taken for their safeguard. Second, there is no comprehensive, mapped shipwreck database, which is paramount for any management intervention to be initiated (Maarleveld *et al.* 2013). Thus, establishing this database was at the core of the research conception. Third, the historical or museological interpretation of these shipwrecks is lacking, their historical context within the social, cultural, political, and economic building of the Namibian nation is deficient, and their contribution to society is missing. As it will be noted in the thesis, I argue that it is this information (cultural significance) that can motivate the government to allocate financial resources for the conservation and for the Namibian public and tourists alike to enjoy and appreciate shipwrecks.

There are several shipwrecks along the Namibian coastline. These have sunk over the years for various reasons; ranging from weather conditions causing ships to sink (especially thick fog resulting in poor visibility) to intentional submersion of old fishing vessels (Mowa 2015). The oldest documented vessel that foundered on the Namibian coast is the Oranjemund shipwreck



(Chirikure *et al.* 2010; Smith 2009; Chirikure & Sinamai 2015; Mowa 2018), christened as the Bom Jesus or *Good Jesus*, and sunk in 1533. In contrast, chronologically, the Japanese Tuna fishing vessel, named *Fukuseki Maru no. 7*, is one of the youngest shipwrecks that run aground on 22 March 2018 (Terblanche 2018). Even with advanced shipbuilding techniques and state of the art modern navigation technology, ships passing close to the Namibian coast continue to wreck in modern times, a testimony to the treacherous conditions.

There is limited scientific research on Namibian shipwrecks, to highlight the magnitude of the problem. There is limited information about most shipwrecks except for their names and the geographical location, a real challenge for the management of these shipwrecks besides the obvious threat of deterioration as there are no conservation measures in place. Thus, knowledge of the ‘preservation state’ of these shipwrecks is one of the tasks this research intended to partially fulfil. The limited knowledge on Namibian shipwrecks coupled with weak legislation is a considerable threat to the long-term survival of these significant heritage resources on the Namibian coast.

## Statement of the Problem

As it shall be evident, Namibian heritage legislation and the country’s ratification of the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage have not had the desired impact on the protection of shipwrecks in the country. These heritage resources form an intergalactic part of communicating the Namibian story and serve as a major tourist attraction. Not only are the heritage instruments failing in the protection of shipwrecks, but there is another significant challenge in that the quantitative extent of shipwrecks in Namibia has not been confirmed, nor do we have a clear assessment of the dangers affecting these heritage resources in the country. There is, therefore, a significant lack of knowledge in scientific studies that focus on shipwrecks and their role in the colonial context of Namibia as

well as a lack of a scientific database. The need to have a comprehensive database arose because the existing ones not being systematic thus rendering them unreliable and undependable as a reference for academic and management applications. This view is informed by the understanding that the information in such records was originally intended for leisure consumption, put together by shipwreck enthusiasts. Such records were used nevertheless because, even though the data is inconsistent in its raw form, it is still useful. Their usefulness is defined by the provision of approximate or relative location for most of the recorded shipwrecks, which made identifying their location a convenient exercise during the mapping of shipwrecks older than 100 years.

The research project undertaken intended to fulfil these existing knowledge and management gaps of shipwrecks in Namibia with two benefits in mind. First, to help create a mapped and updated database for the shipwrecks, enabling for an improved management approach. Second, to understand the existing heritage legal framework and appreciate the extent to which it protects underwater cultural heritage and the extent that reflect best practice as indicated in the 2001 UNESCO convention on the protection of underwater cultural heritage. And further to make meaningful recommendations on the implementation of legal instruments to aid in the improved management of Namibian shipwreck heritage. If these two challenges are not addressed, and if this status quo remains, the cultural value of both onshore and offshore Namibian shipwrecks shall be at the risk of being eliminated by natural and human elements.

## Significance of the study

To help address the existing shortcomings in the protection of shipwrecks in Namibia, this thesis will assist (i) in the creation of a detailed, mapped, and informative shipwreck database, (ii) the production of a blueprint on how to manage Namibia's underwater and maritime cultural heritage. As stated earlier, we had not known much about the preservation status of

Namibian shipwrecks (except for the Oranjemund shipwreck) before this research, i.e., those that are in a good preservation state and those that are not. This thesis addressed this highly concerning status. A shipwreck database is important in broadening our knowledge of Namibian shipwrecks and ensuring effective management of these heritage resources. A database is also a legal requirement for countries that are signatories to the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage (Maarleveld *et al.* 2013) and Namibia being a member state to the convention (Mowa 2017) is vital. The blueprint guide is a practical document assisting heritage authorities in managing maritime and underwater cultural heritage bearing in mind the limited resources and human capacity. Creating the blueprint guide was done through the identification of the threats to shipwrecks through assessments, taking into consideration the Namibian coastal environment, enabling the Namibian heritage authorities to effectively initiate measures and necessary interventions to conserve shipwrecks *in-situ* as well as generate revenues through tourism from such sites.

Additionally, the study provides insight into the role played by the sea in general and ships in particular during pre-colonial and colonial times in Namibia. Such understanding is imperative in the appreciation of what shipwrecks represent.

## Research Questions

This study was anchored by four research questions that formed the backbone of the research to address the three challenges presented above.

1. What is the quantitative value of shipwrecks older than 100 years in Namibia, and what cultural or historic significance do these shipwrecks have?
2. What is the physical condition of shipwrecks along the Namibian coast?

3. To what extent do the existing laws protect Namibian shipwrecks and other underwater cultural heritage?
4. How involved are heritage authorities in the management and protection of underwater cultural heritage in Namibia?

## Research Aims

1. Establish the Namibian legislative framework and its provision towards the protection of maritime and underwater cultural heritage.
2. Formulate a comprehensive database and a blueprint guide on the management of underwater cultural heritage in Namibia.
3. Conduct an assessment of the state of preservation of shipwrecks within the study area.

## Study area

The Namibian Coast is vast, stretching for about 1,500 kilometres from the mouth of the Kunene River to the mouth of the Orange River. This entire coastline is littered with shipwrecks (Werz 2007, 2009; Kinahan 1991; Smith 2009). While it would be ideal to conduct a study of the entire coastline, this is not feasible for a PhD project, nor is it financially or physically possible because of the rough desert terrain and the treacherous coast. The study area, therefore, has been limited to the Conception Bay area. Most documented shipwrecks are found onshore at least in part due to sea and sand action, resulting in a changing shoreline (Harris *et al.* 2012). Sand deposition, especially south near Luderitz, is also a result of land reclamation due to alluvial diamond mining activities that have been taking place since 1908 (Werz 2007). Because of the onshore location, it was practical to study the shipwreck since they can easily be accessed on the land, and there is sufficient data available through photographs of the

Eduard Bohlen shipwreck. Furthermore, the archival data from the Windhoek Underwater Club (WUC) was used in the creation of a map, a desktop study was used to map all UCH in Namibia including those located inland to develop one comprehensive database, and as such, this exercise for database creation covered the rest of Namibia as a study area.



Figure 1.1. Shipwreck Study area. Conception Bay study area with the exact location of the Bohlen indicated inset with a red arrow (Source: Google maps 2020).

## Chapter Outline

This section presents the reader with an outline of all the thesis chapters under discussion. The main objective for outlining the chapter is to enable the reader to have a perspective of what the thesis is all about, how data was collected and analysed and how the objectives and aims are reflected in the results and discussion. All these aspects are discussed in each of the ten chapters that constitute this thesis.

### Chapter one

Chapter one provides the reader with an understanding of the motivation to this research, as outlined within the first chapter. The perceived weak legislations coupled with an apparent lack of knowledge about Namibian shipwrecks and their condition by the competent authority are key issues that compelled this research. The chapter also presents the reader with a statement of the problem, a breakdown of research questions, and the significance of the research. The chapter ends with an overview of the Conception Bay study area in which this research was carried out.

### Chapter two

Chapter two enables the reader to understand the research methodology used to achieve and attempt to answer the research questions. Three empirical tools were employed in conducting the study, namely, desktop study, questionnaires and photographic analysis of the deterioration that has occurred over the past 30 years on the Eduard Bohlen shipwreck.

## Chapter three

Chapter three focuses on heritage legislation and heritage institutions. It gives the reader an appreciation of the historical development of the overall Namibian heritage legislation. This is done by understanding the South African heritage legislation and the fact that the Namibian heritage legislation namely the National Monument Act of 1969 passed in South Africa was also implemented in Namibia. This is due to the shared history between Namibia and South Africa, with the former having been treated as a fifth province of the latter. Scrutiny of various local legislations and policies enables the reader to understand how other legislation such as environmental legislation, salvage legislation and shipping legislation affect or protect shipwrecks and other underwater cultural heritage. Such an appreciation is necessary. Moreover, the chapter delves into the existing heritage act and its provision towards safeguarding maritime and underwater cultural heritage. International Conventions that affect Namibia, as a Member State are scrutinised to unravel how far they have been implemented in the country.

Further, the chapter presents the collected data from heritage institutions and organisations. The data presented include questionnaire responses from the National Museum of Namibia as well as Namibia Underwater Federation/ Windhoek Underwater Club. This presentation is followed by an analysis of the result which renders the fact that private organisations in Namibia have done far more in research and protection of MUCH than competent authorities entrusted by law and the public to care for these heritages.

## Chapter four

Chapter four examines the merits of significance assessments since it is an essential element that heritage authorities use to make a decision about which heritage is worth preserving.

Again, the local context takes centre stage in the discussion. Further, it discusses five shipwrecks in Namibia and how these shipwrecks, when interpreted inclusively, can be an epitome of enjoyment and render their protection by all Namibians.

## Chapter five

The chapter discusses the essence of having a database. It examines international examples with comprehensive shipwreck databases as best practices to make a case that Namibian can emulate to have a database in Namibia as required by the 2001 UNESCO Convention on the protection of underwater cultural heritage, that Namibia is a Member State. Furthermore, chapter five presents the results on the database or inventory data collected during the course of this study.

## Chapter six

Chapter six focuses on threats to Namibian MUCH, an overview of relevant literature about Namibian maritime and underwater cultural heritage is scrutinised. Potential threats to MUCH in Namibia are analysed and discussed, with the aid of the literature. The chapter ends by discussing international case studies relating to threats to MUCH and the mitigation measures adopted by the respective countries to manage such threats. These international case studies include both developed and developing countries, are discussed within the Namibian context.

## Chapter seven

Chapter seven is a presentation of data collected through a 30-year photographic analysis on *Eduard Bohlen*. The purpose of this analysis is to ascertain the past condition of the *Eduard Bohlen*, focusing on the present condition and prospect of the wreck if no intervention is forthcoming.



## Chapter eight

Chapter eight discusses the previous chapters and assesses the findings within the chapters means towards the objectives and aims of the research. From the results of this discussion is fundamental, as it provides the reader with insight that the research methodology employed is appropriate and offers reliable and dependable conclusions in alignment with the research objectives.

## Chapter nine

Chapter nine provides the reader with an appreciation of my recommendations for mitigation measures to address the identified challenges. Moreover, I provide concluding remarks.

## Chapter 2: Research methodology

### Introduction

This chapter presents the research methodologies employed in carrying out the research findings. More importantly, there is a discussion on how the methodological approaches used in the study were considered appropriate and suitable for obtaining the necessary data presented in the research findings. For instance, the gathering of research data involved various methodological strategies, such as archival research, broad literature review to determine the legal framework governing Maritime and underwater cultural heritage within the heritage legislation. Literature about best practice regarding the shipwreck database was scrutinised. Photographic change analysis of the progressive deterioration of the Eduard Bohlen over thirty years was done using Change Diagnosis Feature analysis (CDF), to ascertain the change that has occurred for a given timeframe. This was done to enable the preservation outlook of this shipwreck and other old iron shipwrecks on the Namibian coast.

### Research instruments

Three instruments were used to collect the empirical data presented in this thesis. These were (i) desktop review (literature about Namibian legislative framework, quantitative analysis of shipwreck database from the WUC and creation of a map of shipwrecks older than 100 years as per the UNESCO recommendation), (ii) questionnaires for the identified heritage officials from both government and non-governmental entities, and (iii) photographic and scientific analysis of water samples in the laboratory. Based on these three approaches, it could be argued that the study applied a mixed research design (Creswell 2003). According to Creswell (2003), a mixed research design is one in which the researcher tends to base knowledge claims on pragmatic grounds (e.g. consequence-oriented, problem-centred, and pluralistic). Mixed

research design employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problems. The data collection of a mixed research method approach also involves gathering both numeric information as well as opinions from heritage authorities (administrative strategies etc.), so that the final database represents both quantitative and qualitative data.

The researcher visited the Walvis Bay and Swakopmund museum during this study. The decision to visit these smaller coastal museums was because, as also advised by Werz (2007: 106), these private entities house valuable information on Namibia shipwrecks. It was based on such understanding, therefore, that a deliberate effort was made to look for such information held by the museums. Most importantly, these entities also curate a significant collection of maritime artefacts such as shipwreck anchors, etc. Their inclusion was specifically aimed at gauging the extent of the roles they play in the overall protection of maritime cultural heritage. These smaller coastal museums are mostly private entities that have wide collections of artefacts donated by private individuals. However, the review of my objective and target population for the questionnaire led me to exclude them in the study. I felt it would not yield enough information as required by the themes on the questionnaires. Instead, shipwreck artefacts on displays in these museums were photographed (Appendix VIII and IX) to support the observation concerning the contribution of such private museum towards promoting MUCH in Namibia.

Concerning shipwreck mapping, there have been several approaches used in North Africa and the Middle East to integrate traditional and advanced methods of creating shipwrecks inventories. For instance, remote sensing and satellite imagery have been used by Endangered Archaeology of the Middle East and North Africa (EAMENA) to create a database for vulnerable heritage sites, not just shipwrecks. According to Green (2004), research approaches for land-based archaeological sites can still be applied to shipwrecks and underwater cultural

heritage. Vulnerability is defined by exposure of such heritage sites to potential looting, conflicts, etc. (Sheldrick & Zerbini 2017). With specific reference to my research project presented in this thesis, I used google map to physically locate the Eduard Bohlen shipwreck.

Furthermore, archival data of the shipwrecks within the study area proved significant. This involved reviewing photographs and short descriptions of different ships in the archives. These historical photographs were taken several years ago, most notably by the Windhoek Underwater Club (WUC) and East Carolina University in 2010 (Harris *et al.* 2012). The images were sourced from Professor Harris and her team, as well as NUF/WUC photographer Mr Frank Wittneben whom I was referred to by Mr Gunter von Schuman. Mr Gunter von Schuman is a veteran researcher and diver in maritime archaeology despite not having an academic qualification in the field.

Last but not least I tested the salinity and pH content of the water at Walvis Bay. A 600ml plastic bottle (Appendix VI) was filled with seawater from Walvis Bay and taken to the University of Namibia, Henties Bay campus for analysis. A tester was used from the laboratory to test the pH and salinity level of the water. This was done to ascertain the condition of the environment in which the Namibian shipwrecks are and ascertain if such pH and salinity level affect the deterioration rate of shipwrecks.

## Research design

The empirical research design was employed in the course of data collected. An empirical study is defined as a direct or indirect methodology of collecting data that is either qualitative or quantitative (Creswell 2003). As such, this approach was appropriate since my data comprised of qualitative and quantitative data from the literature, indirect observation through photographs. Three empirical approaches were employed in the collection of the data

presented, these are (i) desktop review, (ii) questionnaires (iii) photographic analyses, and scientific analysis of water sample in the laboratory.

### (i) Desktop review

A desktop review of relevant works of literature about the Namibian legislation framework and development was completed. This review was discussed in the Namibian context, to determine the effectiveness and the extent of legal implantation. Such discussions are necessary because it enables the reader to appreciate the context upon which MUCH protection is based. This enables the reader to have the appropriate insight into the effectiveness of efforts geared towards protecting MUCH in Namibia. Therefore, this necessitated further analysis of the 2001 UNESCO Convention on the protection of underwater cultural heritage in Namibia, and how far the country had gone in implementing the Convention as a catalyst for MUCH protection best practices. Furthermore, the literature was analysed to assess the Namibian maritime landscape and its historical significance. International case studies were analysed to determine and assess common threats to Namibian maritime and underwater cultural heritage. Various case studies were reviewed on natural and human threats, which enabled the researcher to expand the scope of these common threats and how such countries might have mitigated the threats. These case studies were discussed within the Namibian context to enable the reader to understand the relevance or connection between such case studies and the Namibian situation.

A significance assessment through an empirical approach using secondary sources was initiated and completed for five sampled shipwrecks. The shipwrecks were assessed using the UNESCO shipwreck significance assessment criteria as outlined in Manders *et al.* (2012), which is the best practice in assessing the cultural and historical significance of shipwrecks. A systematic sampling approach was followed, as the five shipwrecks in the study were selected based on the availability of relevant literature. The goal for assessing significance was to

answer the research objective about the historical significance of shipwrecks in Namibia. Answering this would establish whether or not shipwrecks are important heritage resources in Namibia, similar to other terrestrial heritage resources. As indicated previously, the success of this method would mean that such assessment criteria could be used by authorities as a benchmark for establishing guidelines towards shipwreck assessment. Thus, resulting in ease of use when conducting Archaeological Impact Assessment (AIA) or Heritage Impact Assessment (HIA). As well as assessing shipwrecks to proclaim them as a National Heritage resource as per provision of the National Heritage Act of 2004.

Historical research methods can be defined as the process of systematically investigating past events to provide an account of what happened. It is not only the accumulation of dates and facts or just a description of past happenings but is also a dynamic explanation and interpretation of past events. According to Junilla (2015), there are five reasons for conducting historic research, which includes: (i) to reveal the unknown, (ii) to answer questions that are yet to be answered, (iii) to search and identify the relationship of past events and their link with the present, (iv) to assess past activities and achievements of individuals, agencies and institutions, and (v) to understand human culture. In essence, the purpose of historical research, therefore, is to verify and explain the history of any area of human activities employing a systematic process. This thesis employed a historical research method in the investigation of the historical context of the shipwrecks assessed within the study area.

Moreover, secondary sources about the shipwreck database were consulted during the desktop review. These include information from the unpublished shipwreck database from the Namibia Underwater Federation and Windhoek Underwater Club. Mr Gunter von Schuman was instrumental in providing this list of shipwrecks. Other secondary data published scholarly works as well as media sources were analysed to gather additional data on Namibian shipwrecks and underwater cultural heritage not presented on the list provided by von

Schuman. Also, the researcher mapped out all maritime and underwater cultural heritage in Namibia, older than 100 years as prescribed by the 2001 UNESCO Convention on the protection of underwater cultural heritage. Quantitative chronological classification of shipwrecks older than 100 years was used from the data received from Mr Gunter von Schuman to have them on the map. This information enabled the researcher to develop a comprehensive shipwreck database that is comprehensive enough in that; it has a map, shipwrecks are classified based on the 100-year threshold in alignment with the 2001 UNESCO Convention on the protection of underwater cultural heritage, a best practice. This shipwreck database was necessary to satisfy the research aim of formulating a complete database that could be used as a guide on the management of underwater cultural heritage in Namibia, and easing management decisions regarding locations, which is key in heritage planning and management and also in answering the research question as to what the quantitative number of the shipwrecks on the Namibian coast is.

## (ii) Questionnaires for relevant heritage authorities and organisation

I initially planned to interview all heritage institution managers, to understand their involvement in underwater cultural heritage protection as informed by the research objectives. The management respondents would have constituted heritage managers from the National Museum of Namibia and the National Heritage Council because these institutions are mandated by law (National Heritage Act) to manage all heritage resources in Namibia.

The initial instrument selected for data collection was interviews, which I chose as the ideal instrument for data collection since my research questions were both exploratory and deductive in nature. Questions were exploratory because I was seeking new information. Interviews were further ideal because I could ask follow-up questions. Questions were deductive in the sense

that I was focusing on specific themes about maritime and underwater cultural heritage, such as legislation, threats, capacity building, and revenue generation through tourism. However, the respondents at the National Museum of Namibia (NMN) indicated that they would prefer questionnaires because they did not have enough time to schedule live interviews. They argued that questionnaires were more convenient because they can be responded at a time most convenient and determined by their commitments. I subsequently provided them with the questionnaire (Appendix XII) via an email which I sent to the NMN managers in August 2019. I decided to email the questionnaire because it is the quickest method of sending the questions in addition to the fact that I was based in a different town (Katima Mulilo), some 1, 300 kilometres away from the respondents who are based in Windhoek. Having received no response, I sent a follow-up email in October 2019. As per my first email, this second one was also not responded to. Due to the challenges of securing official responses to the questionnaire from the managers at NMN, I opted to approach their technical personnel who are directly involved with underwater cultural heritage management. They were far more willing to respond to the questionnaire.

When I began my analysis of data gathered from the respondents, I labelled the museum technical staff member as Respondent 1 in line with respecting ethical principles of not revealing their identities. This specific respondent, as indicated earlier, is involved with underwater cultural heritage at the museum, and is a former colleague I previously worked with at the NMN. His official duties, therefore, made him an ideal candidate.

As already alluded to in previous chapters, another heritage authority concerned with managing heritage resources in Namibia is the National Heritage Council (NHC). I have collaborated with this institution previously through the Heritage Impact Assessment projects I have previously undertaken. Two of these were conducted at Lake Otjikoto and Walvis Bay respectively. The Walvis Bay assessments were undertaken because two boats were lying in a



path of an oil tanker passage. The presence of these two boats required the oil tanker passage to be dredged and deepened.

Despite my efforts to acquire permission to interview NHC personnel, my request was declined. I was sent from one staff member to another and was eventually advised to contact staff members at the National Museum of Namibia. The reason for this advice was based on the eventual explanation I received, that the NHC does not directly deal with underwater cultural heritage. Instead, they argued, the NMN has the sole obligation to manage underwater cultural heritage including shipwrecks within Namibia. To me, this was surprising considering that the National Heritage Act of 2004 states that the NHC has the authority over the management of all heritage resources including shipwrecks that are older than 35 years. It was further perplexing to be referred to the NMN because the NHC manages the Lake Otjikoto heritage site and its WWI cultural heritage found at the bottom of this lake. It is classified as an underwater cultural heritage according to the 2001 UNESCO convention. In the light of this revelation, it became eminent to me that there seem to be confusion or ambiguity regarding heritage resources managed by NHC and those managed by the NMN. This confusion is likely contributing to a lack of a comprehensive management plan for all Namibia's maritime and underwater cultural heritage. The failure of the NHC management to answer my questionnaire compelled me to revise my objectives so that I include in the study other organisations involved in protecting and managing MUCH in Namibia. The prominence of these organisations is highlighted in Harris *et al.* (2012). I took an interest in the extensive work they have done in inventorying Namibian shipwrecks since 1992. The entity I focused on was the Namibia Underwater Federation (NUF) affiliated with Namibia Underwater Club (WUC). Namibia Underwater Federation is an umbrella organisation that oversees all other organisations involved in diving and research. Among these is the Windhoek Underwater Club (WUC). Doing so enabled me to assess the involvement of entities that were not directly under the arm

of the government. Thus questionnaires for this research were offered to the NMN, and NUF/WUC, moreover the questionnaire for both correspondents remained the same. The respondent from the NUF/WUC is identified as Respondent 2 within my thesis. This respondent has been affiliated with the NUF/WUC for more than 33 years.

The third institution I had the desire to involve in the study is the Luderitz shipwreck museum. While this museum is not yet open to the public, the project behind its existence has been ongoing since 2011 and much progress has been made thus far. The motivation for involving the Luderitz museum is because it is the only private museum dedicated to maritime shipwrecks within Namibia and will, upon completion potentially be the largest maritime museum in southern Africa. While I had considered it critical to involve the museum project managers, which would have highlighted the role of private institutions and individuals in public awareness of Namibian MUCH, I did not succeed in my intentions. This was because I never received a response from any of the museum managers, despite the many emails I sent. While I had made many efforts to source a greater number of respondents, I eventually worked with only two from NMN (Respondent 1) and NUF/WUC (Respondent 2) respectively.

I analysed the data from the two respondents using thematic analysis to make it easier for the readers to make sense of the responses I had received. The questionnaire contained both short questions and open-ended questions. The close-ended responses were presented as they are (without refinement), either using graphs and charts or tables. The open-ended responses required me to assign the coding system, in compliance with the best analytic method for open-ended responses. The coding enabled me to narrow down the respondents' answers which resonated with the data I was seeking to gather from the informants. The close-ended question was also used. As I already indicated, the data collected is both deductive (under predetermined themes) and exploratory (open-ended responses, leaving room to know more).

### (iii) Photographic analyses

Photographs illustrating the deteriorating nature of the Eduard Bohlen shipwreck were sourced. My analysis of these photographs centred upon a comparative analysis of the photographs of the Bohlen to detect change with the shipwreck. This change was diagnosed using an online tool namely, Image Analysis Toolset (IAT). The toolset enabled me to compare photographs that were paired together, each photograph representing an image of the Bohlen photographed several years apart for change to be noticed. The years or period such photographs were taken are duly indicated. This analysis enabled me to highlight and identify features on the Bohlen that have drastically changed between the two photographs. These features were labelled as Change Diagnostic Features (CDF) that assisted in the comparison of the change to be described. The photographs analysed covered 27 years, from 1990 to 2017, google maps taken in 2020 were also integrated into the analysis thus making the period span from 1990 to 2020, a total of 30 years under study. The photographic analysis became necessary due to COVID-19. The data collection procedure initiated from the beginning of this dissertation included a field study. Meaning I was scheduled to visit the shipwreck physically to assess its physical state and preservation, as well as take measurements such as wind speed, wind direction, humidity, salinity content, pH to mention but a few. Sketches and photographs were also part of the plan to answer the research questions concerning the physical state of shipwrecks on the Namibian coast. Thus Conception Bay was chosen as the study area and Eduard Bohlen was the representative sample that was studied due to the popularity of the shipwreck and its historical significance which was highlighted through a comprehensive desktop study review.

## Data Analysis

My analyses of data were largely informed by the nature of the information I gathered using the three different approaches highlighted in this chapter. For the desktop study, I used text analysis to identify the aspect of literature that concerns heritage legislative framework and existing shipwreck database. With regards to the latter, I made use of chronological analysis where all shipwrecks and underwater cultural heritage older than 100 years were sorted, classified, and put on a map per the UNESCO criteria. To analyse data gathered through the questionnaire, I used text analysis whereby the respondent answers were summarised as informed by the research questions. Coding was used to make sense of the data and identify frequent responses from both responses that made a comparative analysis of their responses easier. After this exercise, tables, graphs, and charts were used to analyse and present the responses of the respondents. I further applied photographic analysis using the AIT tool to identify deterioration changes over time and lastly used I results from the lab to determine salinity and pH content.

## Research Ethics

Strict adherence to ethical standards defined the carrying out of this research project. Data obtained from respondents were treated with confidentiality so as not to reveal the respondent's names or their positions within their organisation. Appropriate approval from the University of Pretoria's Faculty of Humanities Ethics Committee was granted to conduct the study (see Appendix I). This had been preceded by me securing letters of permission within Namibia: (i) approvals from the National Museum of Namibia (Appendix II) and (ii) National Heritage Council (Appendix III). As a golden rule, all respondents were asked to consent to the questionnaire (Appendix IV).

## Limitation of the study

Accessibility to the Eduard Bohlen was a practical challenge due to the COVID-19 pandemic. This was because of the lockdown measures that were implemented since March 2020 and Walvis Bay which is an entry point to Conception Bay where the Eduard Bohlen shipwreck is located was the worst hit by the Covid-19 infection becoming the epicentre of the pandemic in the country. As a result, permits were all suspended and a stage-one lockdown measure was implemented for an extended period which made fieldwork and physical assessment of the shipwreck to be suspended. Photographic analysis of the shipwreck was alternatively implemented instead, which was ideal since the objective of the research was still achieved by this exercise. Also, I made use of sedimentation morphology and stratigraphy as well as salinity and humidity levels to gather additional details on the threats to shipwrecks. I was able to come up with a concrete and dependable conclusion about the general condition of Namibian shipwrecks on the coast despite these limitations. Dependency on secondary data especially the shipwreck database, because fieldwork was off-limit in the study area was underwhelming at first since I had to change my data collection procedure.

## Conclusion

I have presented the research methodology used in collecting the data presented in the thesis, which enabled me to achieve the research objectives as outlined in chapter one. The purpose of this chapter was to get the reader to appreciate why I used certain research methodologies over others. Such understanding enables the reader to comprehend that this research followed an exploratory approach towards seeking answers to the questions the project posed. This is because the original research methodology planned at the beginning was revised as the need arose. The reader can note these changes in that the respondents selected in the study changed

slightly as circumstances were changing over time. This is highlighted by the unwillingness of the managers from both the National Heritage Council and the National Museum of Namibia (NMN) to respond to my request. This forced me to review my original approach and to rethink my study population. Such rethinking led me towards deciding to include technical personnel from the NMN and a NUF/WUC member. The latter organisation was chosen since they have done tremendous work in safeguarding Namibian MUCH. I was thus able to articulate the reasons why the research design (empirical approach) was chosen because explanations were given. It is clear, therefore, that the research methods and design used in procuring answers to the research objectives were considered appropriate to the circumstances without necessarily compromising the research objective. The success of such methodologies is demonstrated in the results attained and the explanation given.

## Chapter 3: Heritage legislation and Heritage Institutions

### Introduction

This chapter focuses on the heritage legislation of Namibia, particularly the National Heritage Act (no. 27 of 2004). I review the legal provisions aimed at safeguarding Underwater Cultural Heritage (UCH) as well as the significance of having a database listing identified sites of maritime heritage in Namibia. What is evident from the review is that the history of Namibia and South Africa has been intertwined such that heritage legislation from the latter has been allied in the former until independence in 1990. Namibia was effectively considered as a fifth province of South Africa under the *Apartheid* regime. Reviewing South African heritage legislation is thus equally insightful in understanding the protection of underwater heritage in Namibia. Other relevant pieces of heritage legislation are (i) the merchant shipping Act of 1951, (ii) the United Nations Laws of the seas, (iii) the 2001 UNESCO Convention on the protection of Underwater Cultural Heritage, (iv) the 2003 Convention on the protection of Intangible Cultural Heritage, (v) the Environmental Act of 2007, (vi) the National Heritage Act of 2004, and (vii) the wreck and salvage Act of 2007. It is necessary to understand these existing legislation to identify deficiencies in their provisions of protecting UCH as well as acknowledging the strength thereof. The objective of such is to find a common ground by which the existing legislation can be amended and enhanced in conformity with best practices. In addition to legislative frameworks, it is important to consider a database or inventory. In reviewing efforts in Namibia to create a meaningful database for UCH, I consider international examples from Australia, the United Kingdom, and Europe to highlight best practices. The selected entities from these countries are regarded as indicative of the best practice in the protection of UCH. A database is instrumental and a requirement for the effective management of UCH. What is evident in Namibia, however, is that there is a general deficiency in database

management even on traditional terrestrial heritage. Notwithstanding this, the situation is considered to be even worse with MUCH management.

## Overview

The Namibian heritage legislation (The National Heritage Act No.27 of 2004) mirrors that of South Africa (the National Heritage Resources Act of 1999) in several respects. This is not surprising, considering the shared colonial history between the two countries. South Africa, under British rule, was given the mandate to govern the Namibia territory following the defeat of the Germans and their allies at the end of the First World War. Germany had been the colonising country managing the affairs of Namibia. Such governance should have prepared the country for its independence. However, such did not happen. Instead, Namibia effectively became the fifth province of South Africa under the leadership of the National Party in direct violation of the international mandate that had been given to the country (Werner 1993). As an additional land portion to South Africa, Namibia was governed under the same apartheid laws passed in South Africa until independence in 1990. Amongst these laws was the heritage legislation (Ndlovu 2011). Namibia had implemented and enforced South Africa's National Monuments Act of 1969 (Werner 1993; Ndlovu 2011) until the promulgation of the current National Heritage Act passed in 2004. The South African influence on the management of heritage resources is still active in the country, as the 2004 legislation was greatly influenced by heritage practitioners from South Africa who were consulted by Namibian authorities. This Act made it illegal to destroy, excavate, or remove any material of cultural significance from its original site as well as the territory without approval or permit. As case studies have shown, heritage legislation is not enough without a strong competent authority overseeing its implementation (Maarleveld *et al.* 2013). As an illustration of the general ineffectiveness of heritage legislation, Ndlovu (2011) argued that the then South African National Monuments



Council failed to protect the salvage of about 1400 gold coins from a shipwreck in the Eastern Cape province of South Africa.

According to Namibia's National Heritage Act (no. 27 of 2004), hereafter NHA, a heritage object is defined as any moveable property of cultural significance which requires protection. This may include archaeological artefacts, paleontological, and rare geological specimens, meteorites, and any other object which holds cultural significance (National Heritage Act 2004: Section 1). Besides, such heritage objects may be immovable heritage assets or resources such as significant structures. According to the NHA, all boats or shipwrecks of significant heritage values that are older than 35 years old ought to be protected (National Heritage Act 2004). This effectively means that they belong to the State and are no longer the property of the private owners. As per Section 57 of the NHA, the Minister may decide, on recommendation from the National Heritage Council, whether a particular heritage resource can be classified as of significant heritage value or not.

It would seem, therefore, that those heritage resources that have not been comprehensively assessed may not have their heritage significance adequately protected. This would be so even if they have a value of some sort. Their non-protection would simply be informed by the NHC having not advised the Minister of the need to protect these resources. It is logical, in the context of UCH that NHC structures are served by an underwater or maritime archaeologist among its staff members. Such a professional will have the technical and theoretical knowledge to provide the necessary advice to safeguard maritime heritage. What is evident is that such skills within the NHC are lacking (Mowa 2017), thus significantly threatening Namibian Maritime and Underwater Cultural Heritage (MUCH). Most maritime heritage is currently threatened as a result of coastal developments, fishing, and offshore mining activities. Those engaged in such activities are not legally compelled to carry Heritage Impact Assessments (HIA) aimed at protecting shipwrecks or any other underwater or maritime cultural heritage.

This highlights the significant weakness of the current legislation in protecting Namibian maritime heritage.

Only one underwater cultural heritage has been proclaimed as National Heritage in Namibia. This is Lake Otjikoto, a site with historic and cultural significance. First, it was inhabited for centuries by the San hunter-gatherer population up to the present day (Kinahan 2000). Second, it is historically significant because the lake was used by the German colonial government to supply water to a nearby copper mine in Tsumeb (Buys & Nambala 2003; Zimmerer 2008). A remnant of the steam water pump can still be seen Otjikoto (Mowa 2012). Most importantly, however, is the fact that the colonial German army scuttled their weapons (see Figure 3.1) in the lake during WW1 (Buys & Nambala 2003; Mowa 2012). The act of scuttling their weapons in the lake was to safeguard their military ornaments against the advancing South African army (Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011). This is a tradition in wars to avoid double humiliation. These artefacts have become a major tourist attraction and are now considered a national heritage under the management of the NHC since they retain historical significance.



Figure 3.1. Photograph A is the Sinkhole Lake Otjikoto Heritage site, Photographs B and C are German WW1 weapons on the lake bed, approximately 80 to 100 meters deep (Source: WUC).

The Oranjemund shipwreck was supposed to be on the list of heritage sites registered in the heritage register as per Section 25 of the NHA. This 500-year-old Portuguese shipwreck has met all the requirements because of its high significance, considering the vast number of artefacts found aboard that are currently kept in a museum as indicated in Figure 3.2 (Chirikure *et al.* 2010; Smith 2009; Werz 2009; Chirikure and Sinamai 2015; Mowa *et al.* 2018; Mowa 2018). It was discovered in 2008 in Oranjemund during one of Namdeb mining activities. Following its discovery, it gained international media coverage and was later dubbed as the oldest shipwreck in sub-Saharan Africa. It has also become a treasure trove due to the large content of gold and silver coins discovered (Smith 2009; Chirikure *et al.* 2010; Chirikure and Sinamai 2015; Mowa *et al.* 2018). It is not very clear why this highly recognised shipwreck (see the location of Oranjemund and Lake Otjikoto on Figure 3.3) has not been defined as a site of historical and cultural significance because the object fits within the description of heritage resource provided in the NHA. One could postulate that perhaps a key reason why it has not been accorded national heritage status is that Oranjemund shipwreck is under the custodian of the national museum of Namibia instead of the national heritage council. Management discrepancies between the two institutions likely to blame. As a result, the NHA statutes have not been consistently applied for all heritage in the country, which is a significant weakness in NHC management.



Figure 3.2 Oranjemund shipwreck museum artefacts. Among some of these artefacts are the following: Copper ingots on the left shelf, lead ingot on the right shelf, and a breach loading canon to the left on the floor.

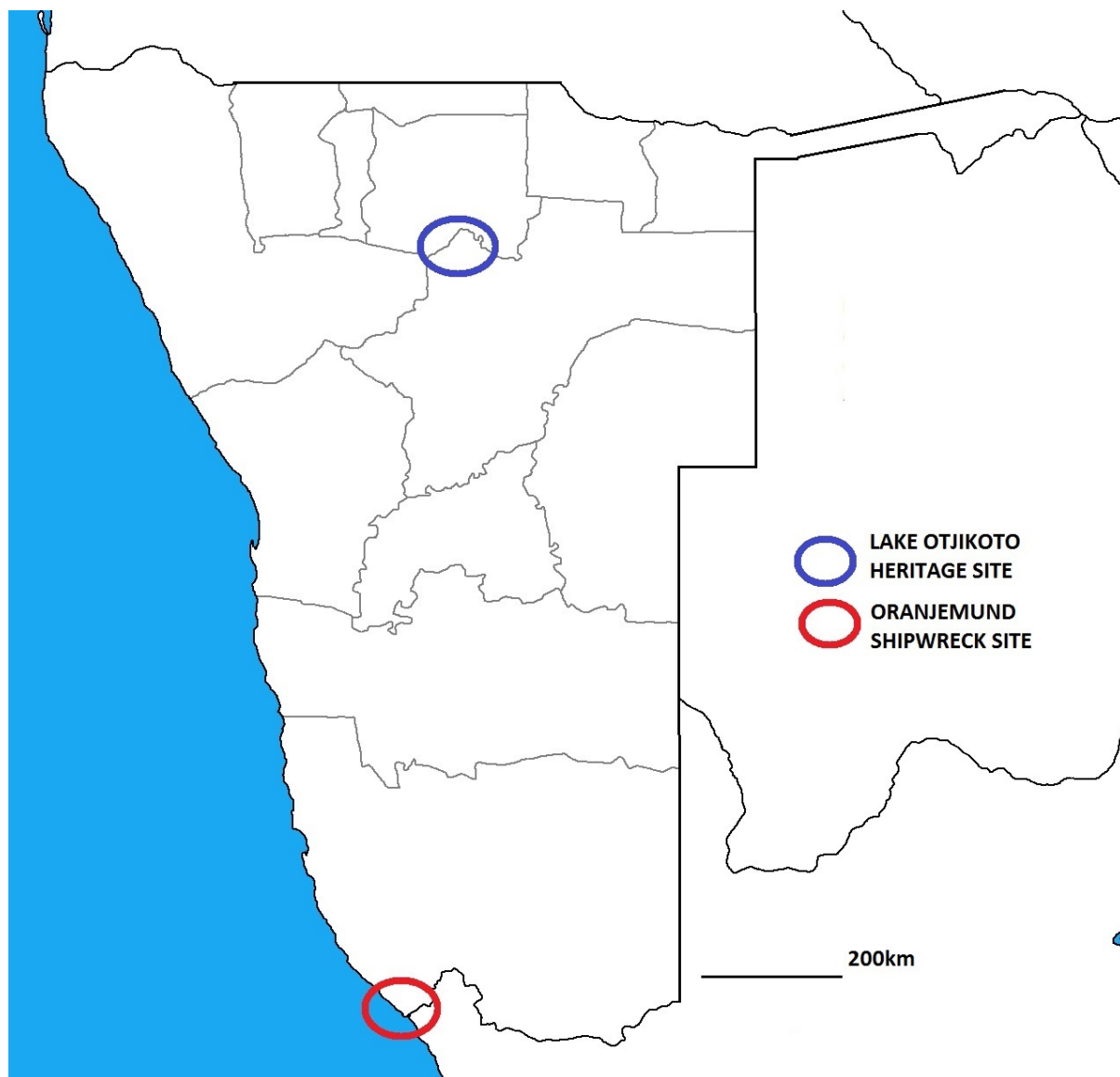


Figure 3.3. Location of Namibia's MUCH (Lake Otjikoto blue circle and 500-year-old Oranjemund shipwreck red circle)

## Heritage Legislation Framework

### International legislation protecting MUCH

Looting of MUCH sites is a worldwide problem (De Wet 2018). Hence, it is important to understand some of these conventions and charters to appreciate international development in MUCH protection. These are listed and discussed below in chronological order. The main idea for highlighting these conventions is that Namibia is a Member State to some of the conventions therefore how Namibia can create synergies between these conventions and harness the strength of each convention towards the protection of underwater cultural heritage.

- I. The 1954 Hague Convention for the Protection of Cultural Heritage in the Event of Armed Conflict.
- II. United Nations Convention on the Law of the Sea (UNCLOS).
- III. The UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects of 1995.
- IV. ICOMOS Charter on UCH Protection in 1996. Aimed at safeguarding underwater cultural heritage around the world. A precursor to the 2001 UNESCO convention.
- V. 2001 UNESCO convention on the protection of underwater cultural heritage. The law is aimed at protecting underwater cultural heritage such as shipwrecks and other UCHs that are under threat from treasure hunters plundering for gains at the expense of public education.
- VI. The 2003 Convention on intangible cultural heritage (ICH) protection. Formulated for the protection of intangible cultural heritage globally.

These international conventions above are discussed in detail below.

### *The 1954 Hague convention on the protection of cultural heritage in event of armed conflict.*

This particular convention is dubbed as the first convention to focus solely on the protection of cultural heritage. According to De Wet (2018), the convention was formulated as a result of the vast destruction of cultural heritage as a result of the Second World War. The need for this convention was based on principles of safeguarding and protecting cultural heritage such as work of art, history, architecture, and archaeology during armed conflict. Principles of such protection include, include, inventorying all cultural heritages. Moving vulnerable movable cultural heritage to safe storage and training military personnel in protecting cultural heritage. Despite these commendable aspects of the convention, it does not mention anything concerning the protection of underwater cultural heritage in times of armed conflict. This underscores the fact that UCH is a relatively new paradigm in heritage. Nevertheless, this Convention is instrumental in the protection of all heritage including underwater cultural heritage in events of armed conflict. As such the authorities need to make use of the provision of this convention to protect Namibia's MUCH. This can be done by creating synergies between this convention and the 2001 convention, competent authorities can do this.

### *UNCLOS 1982*

The law of the sea convention serves as a guide on the rights and responsibilities of Nations on the use of the sea and was established in 1982 and effected in 1994. Article 149 of the United Nations Law of the Sea (United Nations: Oceans & Law of the Sea, 1982) was established to regulate the laws and responsibilities of countries with regards to the ocean. For my interest in underwater cultural heritage, the law has few provisions concerning this aspect.

De Wet (2018) claims that this convention is endorsed and applied almost universally, however, countries disagree on how it is applied. This has resulted in emerging conflicts over natural resources such as oil and gas, the conflict between South Africa and Namibia regarding continental shelf is an example (see Figure 3.4). UNCLOS principles depend on exclusively separating the ocean into discrete zones by defining the internal waters of a state where such a state has sovereignty (De Wet 2018). According to these principles, states should have national legislation that protects UCH within these areas inward from the baseline. Most interestingly is the fact that UNCLOS, like ICOMOS charter on UCH, provides equal preference to both sea, rivers, and lakes (United Nations: Oceans & Law of the Sea 1982; ICOMOS 1996). UNCLOS is not sufficient in protecting underwater cultural heritage. This is what necessitated the promulgation of the ICOMOS Charter on UCH and the 2001 UNESCO Convention (Maarleveld *et al.* 2013).



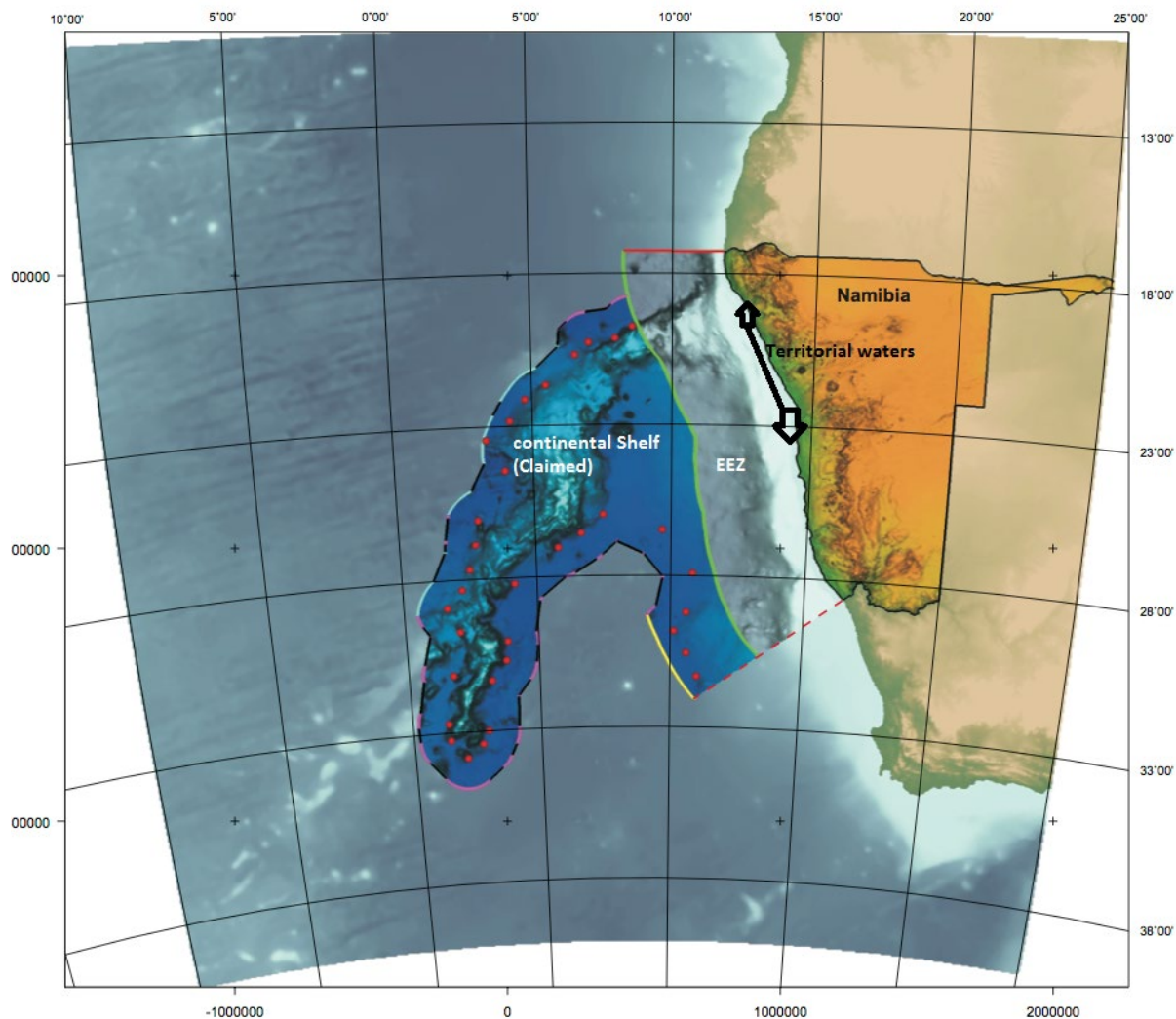


Figure 3.4 Namibia's claimed continental shelf has not yet settled with neighbouring South Africa (Source: New Era, 2018).

According to Article 149 of UNCLOS, the Eurocentric focus of this convention is accentuated due to emphasis on awarding rights to country of origin instead of the host country, because most shipwrecks around the world dating from the 16<sup>th</sup> century to the 20<sup>th</sup> century are of European trading and colonial powers (Werz 2007). This is not surprising, considering that these conventions are mainly drafted by institutions such as UNESCO, ICOMOS, and ICCROM dominated by Europeans. UNCLOS Article 149 gives preferential rights to the country of origin. This is somewhat troubling for countries where these shipwrecks might be located, particularly developing countries like Namibia. Because of this UNCLOS legal

prescription, shipwrecks in these countries are robbed of their local context. These sentiments are also underscored by Ndoro (2018).

Article 149 of UNCLOS applies to UCH resources found in international waters. Where disputes concerning rights to UCH between states arise, this article is applied to resolve those differences. Needless to say, it was an exceptional feat for the Oranjemund shipwreck to be discovered within Namibia's territorial. There were, however, differing opinions about the ownership of the Oranjemund shipwreck (Chirikure *et al* 2010, Smith 2009, Chirikure and Sinamai 2015). Although this contention over ownership never reached diplomatic offices, it was highly debated within the international media, particularly in Portugal (Werz 2010). Furthermore, a 2016 Portuguese documentary film crew from state broadcaster RTP (Radio et Television de Portugal) visited Namibia to see the Oranjemund shipwreck and extensively interviewed a number of individuals, including myself. In addition, they further filmed the current conservation facility and the bank of Namibia where the Spanish and Portuguese gold and silver coins are kept in safes. The resulting documentary which was shown in Portugal and other Portuguese speaking countries was very critical of the Namibian government and what they perceived as the failure by the Portuguese government to take ownership of the wreck. Namibia's claim and responsibility to protect and manage the artefactual remains is a national and sovereign right issue based on the fact that the wreck was found in Namibian territorial waters. This is notwithstanding Portugal's own poor UCH management system (Monteiro *et al.* 2012; Alves 2010). Disputes arising out of Article 149 are addressed in the 2001 UNESCO Convention on MUCH. Article 6 states that bilateral agreements are of utmost importance particularly in a shared heritage. Furthermore, Article 7 of the 2001 convention gives preferential rights to states where shipwrecks have been found. The convention outlines that State parties should exercise their sovereignty, and have the exclusive rights to regulate and authorise activities directed at underwater cultural heritage in their internal waters, archipelagic

waters and territorial sea (UNESCO 2001). What is being highlighted here is the unambiguous relationship between the law of the sea and the 2001 UNESCO convention on UCH and vice versa, in that the latter does not override the provision of the former. To put it in perspective, shipwrecks found in territorial waters such as the Oranjemund shipwreck belong to Namibia where it was discovered regardless of country of origin. It seems, therefore, that ratifying the convention is beneficial to member state as they can exercise responsibility. As a positive outcome of a country ratifying the convention, general knowledge of the applicable laws of UCH lead to improved protection of heritage found within their territorial water.

Article 303 of UNCLOS (United Nations: Oceans & Law of the Sea, 1982) provides that states must protect and cooperate to protect objects of an archaeological and historical nature found at sea within their Exclusive Economic Zone (EEZ). Similarly, Article 8 of the 2001 convention stipulate that following article 303 of the law of the sea and article 9 and 10 of the 2001 UNESCO convention on UCH protection state parties may regulate and authorise activities directed at underwater cultural heritage within their contiguous zone. In so doing they will ensure that the rules are applied (UNESCO 2001).

Article 303 of UNCLOS (United Nations: Oceans & Law of the Sea, 1982) outlines that a coastal state is allowed to presume that the removal of objects from its contiguous zone without its approval would amount to infringement within its territory or territorial sea of customs, fiscal, immigration or sanitary regulations. It thus gets clearer that UNCLOS and 2001 Convention do not contradict regarding sovereign rights to underwater cultural heritage. Even though the difference between the two conventions lies in the fact that UNCLOS does not fully offer UCH protection from looting and damage. Further, this settles the question of ownership regarding the Oranjemund shipwreck or any other shipwreck in territorial waters of Namibia within 12 (nm) nautical miles and within its EEZ about 200 (nm) nautical miles.

The Oranjemund shipwreck has been designated as of outstanding heritage value (Chirikure *et al.* 2010). Over the years, the government has made strides in ensuring that the shipwreck is protected and conserved. These efforts have mainly been due to four reasons: (i) the age of the shipwreck is more than five hundred years old, (ii) the cargo on board (which includes African ivory), (iii) the international coverage the discovery received, and (iv) the pressure for the government to take responsibility and protect the wreck with the international community watching (Smith 2009). Nonetheless, the most important aspect is that the government delivered on the expectations to protect the wreck. Through research conducted at the shipwreck, there is potential to learn more about trade between Europe and Africa, trade amongst Africans, and the geographical origin of various artefacts found on the wreck in particular African ivory. Research on African ivory has already yielded some promising results. I co-authored a publication that looked at the potential source of the Oranjemund shipwreck ivory through historical documentation (Mowa *et al.* 2018). We established that the ivory, measuring up to two meters, belong to the savanna elephants species. These elephant species are very rare in West Africa where the Portuguese are thought to have sourced the ivory on-board the Asian bound ship. The West African biome is dominated by forest elephants that are somewhat smaller in physical stature and yields smaller tusks compared to savanna elephant species. It was established further that during the 16<sup>th</sup> and 17<sup>th</sup> centuries, African communities in the East African interior such as the *Waata* (Kusimba and Kusimba 2003) based their livelihood on the African ivory trade. This means there was an established trade route in the African interior to which East African savanna elephant's ivory was sourced and transported, possibly to West Africa where the Portuguese bought them on established ports (Mowa *et al.* 2018). This example of published scholarly work demonstrates the endless opportunities for research and learning about the African past in particular. Lastly, I Argue that UNCLOS is a well-placed convention and is in harmony with the 2001 UNESCO Convention on the

protection of underwater cultural heritage. The fact that Namibia is a member of both UNCLOS and 2001 UNESCO Convention on the protection of UCH means that the two conventions could be strengthened, and avenues explored on how Namibia could protect its underwater cultural heritage within its EEC and continental shelf (see Figure 3.4). Furthermore, when domesticating the statutes of the 2001 UNESCO convention, it might be necessary for statutes of UNCLOS to be extensively explored by lawmakers so that Namibia's UCH is better protected. Lastly, the Namibian navy and other stakeholders entrusted in safeguarding the maritime territorial claim of Namibia need to be sensitised on the importance of protecting shipwrecks and other UCH within the territorial waters of Namibia. This will not only ensure the protection of Namibian wrecks from treasure hunters but also ensure the regulation of the fishing industry and mining industry against activities that are a threat to UCH in Namibia.

### *The UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects of 1995*

The International Institute for the unification of private law (UNIDROID) *in French*, was tasked by UNESCO to come up with a convention for the restitution of stolen objects. The convention was developed in response to an increase in the illicit export of cultural objects. This is not surprising, considering that European countries in the 19<sup>th</sup> and 20<sup>th</sup> century looted cultural and archaeological objects from Africa, Asia and Latin America. This convention highlighted a few principles that focused on the need to track and return terrestrial archaeological objects to their original owners. According to the convention (UNIDROID 1995), stolen cultural objects constitute objects on “religious or secular grounds, are of importance for archaeology, prehistory, history, literature, art or science” (UNIDROID 1995: 2). These frameworks address the illegal movement and looting of artefacts. However, De Wet (2018) argues that none of the principles in this Convention protects shipwrecks and

underwater cultural heritage in general. The Principle of this Convention seeks to restore stolen or illegally acquired and exported heritage back to the country of origin. This Convention ensures the protection of cultural objects in countries with limited legislations on condition they ratify the Convention. Sanctions for countries breaching this convention include returning the objects plus paying compensation fees to the country objects were stolen from (UNIDROID 1995: 5). Furthermore, I argue that underwater cultural heritage in Namibia could better be protected by this Convention through public awareness and strengthening the existing legislation to protect UCH from being stolen or looted by competent authorities working with various stakeholders such as customs officials, Namibian Navy and police. This will not only ensure the protection of underwater cultural heritage from being illicitly exported but will make it difficult for treasure hunters with such intention to operate in the first place.

Lastly, this convention stresses the importance of returning objects that were stolen from host countries, in this case underwater cultural heritage are also included. This means that repatriation of the cultural objects in Namibia needs to also include underwater cultural objects that were illicitly taken, thus it is an opportunity for competent authorities bestowed with the responsibility of taking care of Namibian heritage to research, document and list UCH objects that were illicitly exported from Namibia in the past. For reason that such objects are returned, an example, in this case, is the original cross (*pradao*) left by Diego Cao in the late 15<sup>th</sup> century at the Namibian coast at Cape Cross, before he returned back. This cross was taken by the Germans in the late 19<sup>th</sup> century to Germany and a replica was planted in its place. It is one of Namibia's ancient static artificial maritime heritage sites that need to be repatriated.

*ICOMOS: Charter on the protection and management of underwater cultural heritage 1996*

The ICOMOS Charter is intended to encourage the protection and management of underwater cultural heritage in inland and inshore waters, in shallow seas and the deep oceans. It focuses on the specific attributes and circumstances of cultural heritage underwater and should be understood as a supplement to the ICOMOS Charter for the Protection and Management of Archaeological Heritage (ICOMOS 1996). Underwater cultural heritage according to the charter means the archaeological heritage which is in, or has been removed from, an underwater environment. It includes submerged sites and structures, wreck-sites and wreckage and their archaeological and natural context. The definition is similar to that of the UNESCO convention (UNESCO 2001). Furthermore, the Principles of the charter are as follows:

- (i) The preservation of underwater cultural heritage in situ should be considered as a first option.
- (ii) Public access should be encouraged,
- (iii) Non-destructive techniques, non-intrusive survey and sampling should be encouraged in preference to excavation.
- (iv) An investigation must not adversely impact the underwater cultural heritage more than is necessary for the mitigatory or research objectives of the project.
- (v) An investigation must avoid unnecessary disturbance of human remains or venerated sites.
- (vi) An investigation must be accompanied by adequate documentation (ICOMOS 1996:

It is no surprise that most of the charter principles and articles have been integrated into the 2001 UNESCO Convention rules and Annexure since the ICOMOS charter preceded the convention. However, there seems to be an emphasis on inland water protection by the charter which includes rivers and lakes. Inland waters are a very important aspect that need to be stressed when discoursing UCH in the African context. As alluded to earlier, the fact that more than 100 years ago most Africans interacted with inland waters than the sea, except for East Africa (Horton 1996) is a testament to the significance of freshwater UCH among Africans that should not be understated. The ICOMOS Charter on UCH is very instrumental when applied with the 2001 UNESCO convention to protect and safeguard UCH found in rivers and lakes. As such, this is an encouragement for landlocked countries to come on-board and ratify the 2001 Convention on UCH. As a result, competent authorities are encouraged to harness the provision of the ICOMOS charter (emphasis on inland water heritage) and emphasise more on this aspect when conducting public awareness programme, this is important as I underscored that most African governments are quick to protect the heritage that is indigenous and synonymous with Africans than foreign origin. And this is not to say foreign underwater cultural heritage is of no value but rather all heritage deserve protection. I believe that such an indigenous approach will be instrumental in solving one of the key issues or challenges in the funding and public involvement of indigenous people in identifying themselves with MUCH.

### *The 2003 Convention on Intangible Cultural Heritage protection*

Another convention that deals with cultural heritage is the 2003 Convention for the Safeguarding of Intangible Cultural Heritage to which Namibia is a Member State. According to Article 1 of the Convention, its principal purposes are: (i) to safeguard intangible cultural heritage, (ii) to ensure respect for the intangible cultural heritage of the communities, groups and individual concerned, (iii) raise awareness at the local, national and international levels of



the importance of the intangible cultural heritage, and of ensuring mutual appreciation thereof, and (iv) to provide international cooperation and assistance.

Namibia ratified this convention in 2007. The convention was enacted under the existing Universal Declaration of Human Rights of 1948, the International Covenant on Economic, Social and Cultural Rights of 1966, and the International Covenant on Civil and Political Rights of 1966 (Keitumetse 2006). The 2003 convention was enacted with the realisation that intangible cultural heritage is a wellspring of cultural diversity and a conduit to sustainable development, as underscored in the UNESCO recommendation on the safeguarding of traditional culture and folklore of 1989 (UNESCO 2003). Furthermore, legislators considered the deep-seated interdependence between intangible and tangible cultural heritage.

Upon close inspection, there are key principles shared by the 2001 UNESCO convention on the protection of UCH and the 2003 UNESCO convention (2003). Certain cultural heritages are protected by both these conventions. This is good and heritage authorities in Namibia can increase the value of this heritage protected by both conventions and stress their value when presenting to government and politicians the need for funding, to safeguard such heritage, and again such heritage is indigenous and synonymous with Africans. To validate this point, the 2003 Convention which Namibia is signatory, highlights the following aspects as a manifest of intangible cultural heritage:

- a) Oral traditions and expressions, including language.
- b) Performing arts
- c) Social practices, rituals and festive events
- d) Knowledge and practices concerning nature and the universe
- e) Traditional craftsmanship.

What is being highlighted with the above points, in particular, (c), is that the cultural heritage is covered by both the 2003 UNESCO Convention, and the 2001 UNESCO convention on UCH. To expand my assertion, Maarleveld (2013) underscores that, the 2001 Convention protects sacred sites and venerated sites which include rituals and practices for as long they are covered by water are considered protected under the 2001 UNESCO Convention.

As highlighted rituals on sacred sights found underwater is a perfect example of how principles from the 2003 convention could be used to strengthen the protection of underwater cultural heritage, thus competent authorities should explore these intersections on these conventions and use them to the maximum benefit of protecting indigenous underwater heritage.

### *The 2001 UNESCO Convention on the protection of underwater cultural heritage*

On the international front, Namibia ratified the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage in 2011 (Mowa 2017). The 2001 Convention stipulates that any object of significant heritage value that has been submerged or partially submerged continually for more than 100 years qualify for protection (Maarleveld 2015). However, Maarleveld *et al.* (2013) stress the importance of flexibility for each country to protect their culturally valuable underwater heritage resources of any age where possible. This is important given the fact that culture is not static but is rather dynamic (Werz 2007), implying that shipwrecks that are not culturally valuable today might be culturally significant in the future. Such an increase of heritage importance could be enhanced over time based on research findings.

Becoming a signatory of the 2001 UNESCO Convention was a highly commendable move especially for a country with significant shipwrecks that are not being adequately protected (Maarleveld *et al.* 2013). Despite this bold move, the statutes of the convention have not been

adopted into the national laws (Mowa 2017), thus making it difficult to enforce the convention statutes. As a result, Namibia is failing on its duty described in Article 2 of the 2001 UNESCO Convention which states that “State parties shall, individually or jointly as appropriate, take all appropriate measures in conformity with this convention and with international law that are necessary to protect underwater cultural heritage, using for this purpose the best practicable means at their disposal and per their capabilities” (Maarleveld 2015:12). The ratification of 2001 UNESCO Convention by Namibia in 2011 (Mowa 2017) was in part motivated by the discovery, three years earlier, of the Oranjemund shipwreck in 2008 (Smith 2009; Chirikure *et al.* 2010; Chirikure & Sinamai 2015; Alves 2010; Werz 2009; Mowa 2018; Mowa *et al.* 2018).

It would seem that there was an assumption by authorities of the National Museum of Namibia and National Heritage Council that such ratification will assist in the protection of Namibia’s underwater cultural heritage. This assumption was not far off, and instead, it echoes the same sentiments that are generally used to urge United Nation-State Members that have not ratified the convention to do so because they would benefit from such actions. In particular, it is often argued that amongst the benefits of ratifying the convention is the ability to network via the University Twinning and Networking Programme of UNESCO, aimed at promoting international inter-university cooperation and networking to enable institutions to become capacitated through the sharing of knowledge (see Maarleveld 2003). Also, State parties are encouraged to ratify conventions so they could benefit from accessing UNESCO funding, for example, emergency recovery of shipwrecks. Such funding becomes a vital resource for cash-strapped African countries (Ulrike Guerin, pers. comm. 2019). This funding is logical and expected. The general understanding of heritage authorities in Namibia was that shipwrecks would be better protected with this convention in place. However, it is critical to appreciate that ratification is one act and implementation/application of the convention statutes is another. Furthermore, ratification is directly linked to an implementation plan defined by both human

and financial capacities (Maarleveld *et al.* 2013). Namibia, we can postulate that financial resources and a human capacity, are not available to back up activities directed at implementing the statutes of the convention.

According to this international legal framework, underwater cultural heritage older than 100 years must be protected (Alves 2010). I wish to highlight three problems with regards to such protection. First, different legal instruments seem to put more emphasis on maritime shipwrecks found in deep seawater or along with coastal areas. Even though the legal framework does, however, offer protection to ancient sites covered in freshwater e.g., ancient fish traps, caves and other sacred sites that are underwater (Maarleveld 2011). Such biased focus towards deep sea shipwrecks means there is less attention given to cultural heritage resources found in rivers and lakes. I point this out because the Convention focuses on maritime shipwrecks and little attention is given to canoes especially along rivers such as Nile, Niger, Congo, Zambezi and Limpopo and small boats used by Africans to trade (Kusimba and Kusimba 2003). Yet, most Africans have historically interacted with such locations which are now final destinations for some underwater heritage they would have used over time. The general observation is that underwater heritage found in freshwaters such as canoes and dinghies are thus not accorded the same value and protection as marine shipwrecks.

Moreover, there is a 100-year minimum timeline for shipwrecks to be eligible for protection under the convention, which was a period during which African countries were under colonial rule including Namibia (Werner 1993; Werz 2007, 2009). Noting the timeframe indicated in legislation, one can argue that such instruments are geared towards safeguarding European shipwrecks, and by extension, European heritage within African contexts. This is not disputing the possibility that Africans can have their own stories to tell about such European-linked ships. The African historic interpretation of shipwrecks in general, and Namibian in particular, has ignored this aspect. In contrast, the mainstream western interpretation that centres on

symbolism such as designs of shipwrecks, country of origin, and so on have been favoured. Thus, the interpretation of the heritage and cultural significance of this heritage to Africans in general and black Namibians, in particular, is ignored, giving rise to selective interpretation. I argue therefore that this is the status quo and needs to change, shipwrecks, in particular, has to give prominence to the significant role played by Africans, and the role Black Namibians played in the war of national resistance against colonial occupation etc. This is not only factual but there is a possibility that such shipwreck will receive financial support from heritage authorities for their safeguarding. Research is deficient in this area and needs to be geared towards understanding the role shipwrecks played in pre-colonial, colonial and post-colonial Namibia, in the context of the chronological era of the shipwrecks found.

As indicated earlier, Maarleveld *et al.* (2013) articulated the need for flexibility in addressing the concerns expressed by L'Hour (2015) about WWII UCHs. If the 100 year period was to be strictly adhered to, it would only be in 2039 that maritime cultural heritage dating to WWII would be accorded protection under the 2001 Convention. The concern from L'Hour (2015) is valid and relevant, and in an attempt to respond to this question I argue that shipwrecks and other UCH that are victims to the sea and rivers today might have future significance in future when interpreting the present. Hence there is a need to protect all shipwrecks regardless of age. This suggests that shipwrecks that are wrecking today might not be culturally significant in the meantime but in future, they will be culturally and historically significant in learning about the present. However, such an approach should follow the existing legislative provision, such as Section 28 and Section 29 of the NHA (no. 27 of 2004). These Sections of the legislation give provision for heritage of any age to be protected by law provided that the nominating party, that could either be by a person or an organisation, stresses the cultural significance of such a heritage. The Omugulwombashe heritage site (Katjavivi 1988; Buys & Nambala 2003), though a terrestrial heritage site, it is less 100 years old and was declared a heritage site under

the provision of Section 28 and Section 29 of the Heritage Act. As such, I stress that the same can and should be applied to MUCH in Namibia. Heritage managers can thus help identify and analyse the significance of such shipwrecks. Needless to say, this has been applied in South Africa and the same should be considered for Namibia.

Thirdly, many African countries do not have the luxury of allocating large amounts of funding towards heritage. As a result, they continuously seek foreign financial assistance through various sources such as funding from UNESCO (Ulrike Guerin, pers. comm. 2019). These funds are often used in the archaeological rescue operations of shipwrecks and their continued conservation. In the case of Namibia, the conservation of the Oranjemund shipwreck discovered on 01 April 2008 is a good example. The ship known as Bom Jesus originated from Portugal. It was on an outbound voyage transporting mainly *Fugger copper ingots* to Asia when it wrecked (Smith 2009; Werz 2009; Alves 2010; Chirikure *et al.* 2010; Chirikure & Sinamai 2015; Mowa 2018; Mowa *et al.* 2018). While heritage efforts on the Oranjemund shipwreck initially went well, management efforts since 2016 have become too costly to maintain. The project has been faced with many challenges, as articulated by Mowa (2017) in the annual UNESCO country report. Amongst these challenges are a lack of necessary resources to train conservation personnel. With these challenges in mind, it is necessary to remember that shipwrecks are treasure troves (Werz 2009) and a time capsule that could teach us about the far distant past. As in the case of the Oranjemund shipwreck, information can be gathered about ship navigation technology, e.g., Oranjemund shipwreck astrolabes (Smith 2009; Werz 2009; Chirikure *et al.* 2010 & Chirikure and Sinamai 2015), the provenance of such vessels, the socio-political, cultural, and economic context of the world describing how countries have interacted with each other over the years, etc. These are some of the reasons behind the significance of the National Heritage Act's objective to protect Namibia's heritage for this generation and the next (National Heritage Act 2004).

Besides the financial difficulties, there is also the possibility that the Oranjemund museum, once operational, will generate enough funds for its continued maintenance to keep key areas operational. The Oranjemund museum will face significant competition from a privately funded shipwreck museum planned in Luderitz (Gondwana 2017). The founder of the Luderitz museum has the largest fleet of sailing ship models in the world, however, the process of opening the museum has been slow, and as of 2020, the museum is yet to be opened. If these models were donated to the shipping museum it will surely attract more visitors, given the favourable location of Luderitz well-known as a known historic town (Harris *et al.* 2012). It is safe to assume that the Luderitz museum might thus attract more visitors than the Oranjemund shipwreck museum, making the latter unsustainable and becoming a white elephant. Such potential danger could lead to the decay of a 500-year-old history before it is adequately studied. Hence, there is a need for alternative conservation measures such as *in-situ* preservation for other shipwrecks. Onsite preservation of shipwrecks is less expensive, and the authentic integrity of the wrecks is preserved (Maarleveld 2015). However, such efforts require undertaking comprehensive research and assessment of the shipwrecks as noted by Werz (2007, 2009).

## South African Heritage legislation development and its provision to UCH.

As indicated earlier, the history of heritage management in South Africa and Namibia is interwoven because of the shared political history. Hence, a review of South African UCH legislation is crucial in understanding the Namibian situation since South African laws passed before Namibian independence in 1990 were by default applied to Namibia as it was a South African (mandated) colony (Drechsler 1980; Katjavivi; 1988 Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Ndlovu 2011; Schaller 2011). Thus, understanding legislative

development in South Africa, is necessary, as they are tied to the development in Namibia due to the historical bond between the two countries.

According to Sharfman *et al.* (2012), the South African heritage legislation framework was formulated out of a need to accord UCH and shipwrecks the same protection status as land heritage sites. This was spearheaded by historians and archaeologists in the 1970s as international plundering and destruction of shipwrecks for profit by treasure hunters gained international attention. South African heritage legislation enjoys a progressive constitution that is caught between the developed and the developing world (Sharfman *et al.* 2012). As such, Sharfman *et al.* (2017) pondered the moral question, the luxury of preserving heritage whether is a necessary government priority, when compared with the challenges of poverty alleviation and heritage protection. However, Guerin (2015) highlights the fact that in many developing countries, UCH protection has the potential to enhance sustainable tourism and developing economies and can become a major source of revenue for the public, to substantially contribute to poverty alleviation. Such assertions, however, is yet to be proven for many developing countries. Nevertheless, the Namibian government is privileged to generate income from tourist visiting some of its MUCH, first, indirectly through tour operators visiting Edward Bohlen and other shipwrecks along the skeleton coast, and directly through the National Heritage Council charging tourists visiting Lake Otjikoto's UCH.

In the South African and Namibian landscapes, the expenditure balance between poverty alleviation and heritage protection is a political question which politicians need to address. This is underscored by Jamieson (2006), quoted in Sharfman *et al.* (2012), in which he states that “the preservation of heritage is a luxury many in the developing world are unable to afford”. Administrators must maintain and enhance their heritage resources within a legislative and political environment that often are a low priority on heritage preservation as a political issue to be resolved at a local level” (Jamieson 2006: 153). In the Namibian case, the Oranjemund



shipwreck excavation lasted approximately six months and cost the government millions during and after the excavation (Werz 2009; Chirikure 2010; Alves 2010) and during the conservation phase (Chirikure & Sinamai 2015; Mowa 2017). The researcher is thus, of the opinion that such expenditures do not yield returns, which could be the reason why the government is reluctant to allocate sufficient resources to protect other shipwrecks along the Namibian coast.

With South Africa having been influenced by various global cultures over time (within the African subcontinent, Europe, Middle East and Asia), her underwater heritage is defined by an amalgamation of these different societies within her legislative system. As such, South Africa has a unique maritime landscape littered with shipwrecks of various nationalities. Sharfman *et al.* (2012) make an important observation — that South Africa struggled to comprehensively protect underwater cultural heritage. They argue that this is due to several reasons, one of which is that South African heritage authorities did not consider maritime archaeology as a relevant national priority. Instead, the then National Monument Council initially interpreted UCH as important only to the countries of origin of such shipwrecks. This was further compounded by the lack of trained maritime archaeologist or terrestrial archaeologist with diving training.

According to Sharfman *et al.* (2017), the situation changed in early 1990 when the Nautical Archaeology Society (NAS) introduced training courses in maritime archaeology and field excavations. These opportunities were available in all major cities of South Africa including Namibia. This statement is fundamental and underscores the fact that as development in UCH protection unfolded in South Africa, Namibia was not far behind but rather on par.

In terms of UCH legal framework, Sharfman *et al.* (2012) state that the country accommodated or attempted to incorporate international and local trends, local pressures, and individual philosophies in devising a legal framework to manage maritime heritage. They further allude

that the country struggled to accommodate salvagers and treasure hunters as a way to manage UCH preservation. Ever since the invention of the aqualung, South Africa like other countries, has had a fair share in treasure hunting and souveniring activities. This was highlighted by Gribble (2006) in the case of SS Maori.

Furthermore, treasure hunters in South Africa have dictated the interpretation of significance, whereby they focused on commercially valuable shipwrecks with certain materials. As a result, other shipwrecks were generally ignored, i.e. slave wrecks, trading shipwrecks, etc. Gribble and Sharfman (2012) state that “the net result of much of the interest in South Africa’s historical shipwrecks between 1960 and 1980s was the unquantifiable loss of archaeological and historical material and information as sites fell victim to often indiscriminate commercial salvage” (Gribble and Sharfman 2012:95). Boshoff *et al.* (1994), notes that it was probably in 1994 that, for the first, a British East India shipwreck, wrecked in 1805 was excavated. Such excavations were purely archaeological rather than profit-driven. In other words, this was the first shipwreck to be comprehensively excavated for education purposes to benefit the public even though as I will highlight later in this chapter, in the 1980s treasure hunters masquerading as archaeologist plundered South African shipwrecks while convincing authorities that they are doing it for scientific and education purposes (Forrest 2006).

These developments were preceded by an awakening of the universities and heritage institutions in the 1960s after they began raising concerns about the deliberate ransacking of underwater cultural heritage. What followed was, in the 1970s, the decision by the National Heritage Council, as required under the National Monuments Act (no. 28 of 1969), to initiate a framework for protecting UCH. The 1969 legislation was amended in 1979 to include the need to protect maritime colonial sites. According to Deacon (1993) in Sharfman *et al.* (2012), shipwrecks that were 80 years or older and were considered to be of historic, scientific, or aesthetic value could be declared as national monuments. Moreover, they could be accorded

the same status as monuments on land. As a direct outcome of this legislative development, several wrecks were enlisted for this recognition. However, as it is common knowledge recognition is one thing and implementation of protective measures is another. Several shipwrecks were reportedly earmarked for recognition but this never happened. This was mainly due to the lack of human capacity to implement.

According to Forrest (2006), the 1979 amendment of the National Monument Act was spearhead by a parliamentarian named John Willy who had an interest in historic shipwrecks. Through his efforts, certain historic wrecks older than 80 years were included as having heritage significance. Nevertheless, the law seems to have been ambiguous and it is likely salvagers and treasure hunters still found loopholes within the law to exploit shipwrecks. This led to the second amendment of the National Monuments Act which was effected in 1983 (Forrest 2006). Following such legislative review, it became illegal to salvage historic wrecks without a permit. But this did not protect shipwreck from salvagers and treasure hunters who exploited the ambiguity of the legislation to continue salvage shipwrecks. It was only in 1986, on a third amendment of the heritage legislation, that blanket protection for shipwrecks was initiated, making it illegal and an offence to exploit any shipwreck that is older than 50 years.

Following the promulgation of these legislation amendments, treasure hunters lobbied politicians for their rights to salvage shipwrecks to be protected. Needless to say, the National Monuments Council continued to issue archaeological permits to treasure hunters and souvenir hunters. The reasoning behind the provision of such permits was that the shipwrecks were perceived as heritage resources belonging to respective European countries of their origin (Rudner 1986; Sharfman *et al.* 2012). It could be that the National Monuments Council failed to adequately enforce legislative requirements because discussions on the need to protect UCH was still a relatively new phenomenon.

A shipwreck belonging to Robert Clive the *Dodington* sank in 1755, taking with it gold coins and hence it was not forgotten (Forrest 2006). The shipwreck was excavated in 1982, but it is unclear who carried out these excavations and whether they had been legally authorised for the task. The excavated materials were donated to a museum, which is not identified by Forrest (2006). It is noteworthy to highlight that doing so was a grave violation of the 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (De Wet 2018). Such incidences were probably a driving force behind the promulgation of the International Institute for the unification of private law (UNIDROIT) Convention, on Stolen or Illegally Exported Cultural Objects of 1995. This Convention prohibits museums from securing artefacts proceeding from theft. This has been a significant development to address the prevalence of heritage theft of maritime resources globally. South Africa only ratified the Convention in 2003.

According to Forrest (2006), the concerning situation is highlighted by the fact that more than 1200 gold coins were, in 1997, put for sale in London. According to the advertisement, these gold coins were marketed as having belonged to Robert Clive whose *Dodington* wreck was excavated by so called archaeologists in 1982. It would seem, therefore, that there was a general weakness in the South African National Monuments Act in that it failed to protect shipwreck cargoes from being stolen by treasure hunters cum archaeologists while masquerading to excavate for education purpose (Forrest 2006). It thus likely that treasure hunters exploited the *Dodington* for their gain and a loss to the public. The stolen *Dodington* coins highlight the prevalence of looting and theft of UCH at the time. This resulted from the weakness of heritage legislation in South Africa, which failed to adequately protect UCH, an issue that is also highlighted by Ndlovu (2011).

The prevalence of the treasure hunters (commercial and recreational divers) was encouraged by the absence of trained underwater cultural heritage personnel amongst the staff members of

the National Monuments Council in the 1980s. Their reports carried a heavier meaning with heritage authorities because they lacked maritime expertise. To this end, they concluded in their reports that the treacherous nature of the South African coast meant that the majority of shipwreck remains were destroyed by the waves and the little remaining heritage resources are of no historic or scientific value. This meant that South African wrecks, and Namibian wrecks, in particular, were in danger of destruction. As mentioned earlier it can be assumed that Namibia faced a similar dilemma in the protection of its vast shipwrecks particularly those with a commercial value.

Continuing the trend of poor legislative protection for maritime archaeology, there is a disturbing decision of one particular government department. What is further concerning is that an arm of government, i.e. the South African Department of Transport, in the 1980s, declared that the potential commercial value of cargoes from historic shipwrecks will have no public value and protection.

The change in attitude came in the late 1980s when the University of Cape Town appointed a maritime archaeologist. In 1993, a maritime archaeologist post was created at Iziko Museum to oversee shipwreck protection and research. The change in attitude towards UCH protection in South Africa highlights the crucial role universities played in the protection of UCH (Department of Transport, 1983).

Moreover, South Africa ratified the 2001 UNESCO convention on the protection of underwater cultural heritage in 2015 (De Wet 2018). This action followed the legislative framework development that I have covered in the previous paragraphs. It is important to remember that the 2001 convention needs to be 'aligned' with the national laws. The same would be applicable in Namibia's case for the ratification to be fully effective. This would, therefore, require that

the Namibian laws do not contradict or conflict with the provisions of the 2001 UNESCO Convention.

In highlighting South Africa's position in Africa as a progressive nation with regards to the protection of MUCH, the country was consulted in the formulation of the 2001 Convention on the protection of underwater cultural heritage and the drafting of the ICOMOS charter in 1996 (Forrest 2006). This effectively meant that the maritime archaeologist employed in the country had been instrumental in helping to develop a framework that gives preference to protecting underwater cultural heritage. These events played a crucial role in South Africa's eventual ratification of the 2001 UNESCO Convention in 2015 (De Wet 2018).

A significant threat to South African shipwreck heritage is highlighted by Forrest (2006). He argued that there remains a stumbling block in UCH legislation and treasure hunters still want to exploit legislative loopholes. This is because the Dutch, English, as well as Roman laws, are covered in the South African constitution. As a result, there is still a question regarding the ownership of shipwrecks (De Wet 2018), about if owners or descendants of owners of these shipwrecks can claim them regardless of the NHRA.

To illustrate the concern raised by Forrest (2006) and De Wet (2018), I provide a practical case. If there were to be a wreck older than 50 years and unclaimed, the blanket automatic possession law might be applied. If such a vessel were to have an owner, ownership laws might apply and favour the real owner. These are apparent loopholes that treasure hunters might exploit to loot underwater cultural heritage. As indicated, the Namibian heritage legislation mirrors that of South Africa. It is thus safe to assume that the Namibian heritage legislation on MUCH is on par with that of South Africa although Namibia ratified the 2001 UNESCO Convention earlier than South Africa (Mowa 2017). The fact that Namibia lags in active UCH protection might be due to limited human and financial resources. So far, Namibia has one Maritime

archaeologist (myself) while South Africa has numerous archaeologists including Jonathan Sharfman, Vannesa Maitland, Bruno Werz, John Gribble and Boshoff. These archaeologists are instrumental in research and advocacy for the protection of UCH at the local level and national level. It seems, therefore, that legislation without the support of human capacity is equally fruitless in protecting underwater cultural heritage, this is exactly what is happening on the ground in Namibia since there is only one maritime archaeologist, who is not employed by either the National Museum of Namibia (NMN) or National Heritage Council (NHC).

## International Approaches to the implementation and management of UCH in the African content

According to Jeffery *et al.* (2014), Tanzania and South Africa have a lengthy background with regards to human interaction with the sea. Such include activities dating to approximately two million year old by the early hominids, or hunter gatherers and the Iron Age people. However, Tanzania and South Africa have contrasting backgrounds in their development of UCH programmes. Tanzania has a long history of preserving locally and nationally significant sites, with early heritage legislation having been passed in 1964 (Tanzania Antiquity Act). This was the British law protecting monuments and relics made before 1864 and objects which were made before 1940. In addition, Tanzania has a 1997 policy that gives protection to the UCH. The country has not yet developed a specific programme to give protection to UCH. As of 2013, Tanzania has since, with the help of key stakeholders, developed a UCH strategic plan. This is part of efforts to prepare for the ratification of the 2001 Convention.

South Africa, which outlawed commercial exploitation of maritime heritage largely because of the 1996 ICOMOS Charter on the protection of UCH, initiated a Maritime Archaeology Development Project (MADP) (Jeffery *et al.* 2014). As an outcome of this MADP, South Africa established the Center for Heritage Activities (CHA), with the aim of providing further

training and regional coordination of UCH programmes. Whatever efforts are instituted for UCH, it is important that they are considered to be relevant for the African people as well. In a bid to make UCH relevant to Indigenous communities, the SAHRA declared lake Fundudzi as the National Heritage Site, to highlight its significance in the country. Its declaration was largely informed by the intangible significance of the water from the lake. Needless to say, and as I shall present in this thesis, Namibia has countless lakes and rivers that have a potential for being heritage sites that are relevant to the Indigenous communities.

### **An in-depth look at the National Heritage Act in Namibia**

It is exceedingly necessary to become familiar with Namibia's National Heritage Act (NHA) of 2004 as the guiding principle of all heritage legislation in the country. As a result, I will focus on the main objectives and principles of this legal instrument that protects the country's cultural heritage. From such a review, it shall be possible to deduce the existing legal position with regards to the management of MUCH. The NHA represents a significant watershed moment in the management of Namibia's cultural heritage. Its promulgation allowed Namibia to develop independently its heritage legislation, thus deviating from continuously applying South African heritage laws (Forrest 2006; Sharfman *et al.* 2012).

The stated objective of the NHA is to “provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects: to establish a National Heritage Council: to establish a National Heritage Register; and to provide for incidental matters” (National Heritage Act 2004). It is Section 57(1) of the NHA that provides the scope for the protection of shipwrecks. It is stated that “the remains of all ships that have been situated on the coast or in the territorial waters or the contiguous zone of Namibia for 35 years or more are historic shipwrecks for that purposes of this section” (National Heritage Act 2004: Section 57). Furthermore, the Act states that “Section 57(2) all articles that have been



situated on the coast or in the territorial waters or the contiguous zone of Namibia for 35 years or more and that were associated with ships are historic shipwrecks objects” (National Heritage Act 2004: Section 57).

It would seem, therefore, that Section 57 of the NHA is in harmony with Article 303 of UNCLOS (United Nations: Oceans & Law of the Sea 1982) as well as Articles 7, 8, 9, and 10 of the 2001 Convention on the protection of Underwater Cultural Heritage which stresses the importance of Member States to take full preferential rights to UCH found within their internal waters and ensure their protection and conservation (UNESCO 2001). Thus, adopting the convention statutes and amending the existing NHA will not infringe nor conflict with existing statutes.

In terms of declaring a shipwreck as a historic shipwreck or a heritage, the NHA outlines that the council may obtain and submit to the Minister of Culture, together with the National Heritage Council’s report and recommendation. Together with any comments or advice which the minister responsible for fisheries and marine resources may wish to make or give concerning the proposed declaration (National Heritage Act 2004).

It may seem, therefore, that fishing being instrumental to the national economy has a stake in the decision made in either declaring a shipwreck a heritage and protected shipwreck or not. It remains unclear whether in case a shipwreck of significant value is discovered within a fishing area, the minister of fisheries may have an overriding influence in approval decisions. Even though stakeholder consultation is important in decision making, the fact that the fisheries Minister’s influence is highlighted in the Act underscores an unfortunate weakness in the existing laws. Unfortunately, the existing NHA document dedicates only a single triple spaced page out of 39 pages to historic shipwrecks (National Heritage Act 2004: Section 57). This

further demonstrates that there is room for strengthening the existing legislature because there are current deficiencies in the protection of shipwrecks and MUCH.

## A framework of Namibian Legislation provision on MUCH

Namibia ratified the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage in 2011. In theory, this ratification means that the country should adopt the statutes of the convention within its national laws. France has made strides to protect its shipwrecks and other underwater cultural heritage sites in line with the 2001 Convention (L'Hour 2015). Treasure hunters are her greatest challenge nevertheless. Besides having signed the convention for several years to date, there is little literature on successes and failures with the implementation (if there are any) of legal frameworks aimed at protecting shipwrecks.

As indicated before the Namibian heritage legislation mirrors that of South Africa (the National Heritage Resources Act of 1999) in several respects. South Africa, under the British rule, was given the mandate to govern the Namibian territory following the defeat of the Germans and their allies at the end of the Second World War (Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011). Germany had been the colonising country managing the affairs of Namibia before the outbreak of WW1. With South Africa taking over after the war it was agreed to prepare the country for independence. However, such did not happen. Instead, Namibia effectively became the fifth province of South Africa under the leadership of the National Party (NP) in direct violation of international mandate that had been given to the country (Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011). As an additional land portion to South Africa, Namibia was governed under the same apartheid laws passed in South Africa until independence in 1990. Amongst these laws was heritage legislations (Ndlovu 2011). Namibia had implemented and enforced South Africa's National Monuments Act of 1969 (Werner 1993;

Ndlovu 2011) until the promulgation of the current heritage legislation passed in 2004. Thus the South African influence on the management of heritage resources is still active in the country. This is demonstrated by the fact that the 2004 NHA legislation was greatly influenced by heritage practitioners from South Africa who were consulted by Namibian authorities. This act made it illegal to destroy, excavate or remove any material of cultural significance from its original site as well as the territory without approval or permit.

## Namibian Legislation that affects and influence UCH

These heritage legislations have a direct and indirect impact on the protection of MUCH, as such, below are highlighted some of the Acts, and how they influence UCH and protection accorded towards UCH. Overall protection of UCH depends on how best national legislation works in sync to protect heritage.

### *Namibia Merchant Act of 1951*

Namibia's Merchant Shipping Act of 1951 was amended in 2004. Its objective is "To provide for the control of merchant shipping and matters incidental thereto" (Merchant Shipping Act 1951). This is important because the Act indirectly affects shipwrecks lost at sea, even though it is not expected to protect UCH. Section 29 outlines procedures when a ship is lost or ceases to be a Namibian ship ( Merchant Shipping Act 1951)" In the event of a Namibian ship being either actually or constructively lost, taken by the enemy, burnt or broken up, or ceasing to be a Namibian ship because of transfer to a person not qualified to own a Namibian ship or for any other cause, the registered owner of the ship or any share in the ship shall immediately on obtaining knowledge of the event report the particulars thereof to the proper officer at the port of registry of the ship, who shall record such particulars in the register and, subject to the provisions of paragraph (c), close the registry of the ship in that register" (Merchant Shipping

Act:30). This applies only to Namibian ship lost (including shipwrecks), the only provision made for lost ships is registration. Registration of a lost ship or shipwrecks is important in the creation of an inventory or database for UCH according to the 2001 convention. Thus the inventory of Namibian shipwreck that was lost or wrecked can be found with the port authorities such as Namport ship registration book. This is important in tracing shipwrecks whose location might not currently be known; thus, heritage authorities can strengthen ties with port authorities in documenting these for the creation of a database and provenance of these shipwrecks.

### *Wreck and Salvage Act 5 of 2004*

The main objective of this Act is to provide for the salvage of ships, aircraft, human life and the protection of the marine environment (Wreck and Salvage Act 2004), this particular Act under the ministry of transport; provides regulation relating to ships or aircraft that are in danger or distress and may cause the loss of life or damage to the ship or aircraft. The main emphasis of this particular law is on the removal of such wreck as there is the possibility of causing damage to the environment in the form of oil spills. The Act provides guidelines on the responsibilities of salvors, and owners of the wreck when the ship is in danger of wrecking or has wrecked, issues about payment for salvage operations etc. The Act make provision under Section 38 that states that “this Act does not derogate from the operation of the National Monuments Act, 1969 (Act No. 28 of 1969)” which was replaced by the NHA of 2004 (National Heritage Act 2004). The wreck and salvage Act does not deviate or preclude the principles of the NHA of 2004 with regards to wrecks that are older than 35 years. This is fundamental and means that the Act does not apply to wrecks older than 35 years, considered historic wrecks under Section 57 of NHA (National Heritage Act 2004) that are subject to salvage. It is thus unlikely that treasure hunters can use the wreck and salvage Act to plunder

historic wrecks in Namibia and importantly the Act does not make a provision for the protection of underwater cultural heritage per se but rather respects the provisions made under the NHA for blanket protection of shipwrecks over 35 years. Furthermore, this law gives heritage authorities powers to ensure that salvors do not plunder shipwrecks that are older than 35 years since these as per the current Heritage Act are protected by law. To illustrate my point, salvors might be looking for rare materials such as copper, silver or iron that were carried in bulk by ship that wrecked 35 years ago, or parts of the ship such as bronze propellers.

### *Environmental Act of 2007*

The Namibian environmental Act provides principles to govern activities affecting the environment to minimize and reduce the negative impact of such activities on the environment. According to the Environmental Act (Environmental Act 2007), the objective of this Act is to promote the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment; to establish the Sustainable Development Advisory Council; to provide for the appointment of the Environmental Commissioner and environmental officers; to provide for a process of assessment and control of activities which may have significant effects on the environment, and to provide for incidental matters.

The last principle of environmental management affect heritage and indirectly UCH among others. Further, the Act outlines that “Namibia’s cultural and natural heritage including, its biological diversity, must be protected and respected for the benefit of present and future generations” (Environmental Act 2007: 4). It is this principle quoted above that makes it clear that among the principles of the environmental Act there are elements that aim at protecting cultural heritage. This could be interpreted in practice to mean that environmental impact assessment ought to take into consideration the impact of activities on cultural heritage. This

would mean that if this principle of the Environmental Act is respected, heritage impact assessment would form part of the environmental impact assessment. If this is done in compliance with the principle of this Act, it would further mean that all activities that affect heritage in general and underwater cultural heritage, in particular, would need to be evaluated by a heritage professional or archaeologist before an environmental clearance certificate is given. In essence, this would protect shipwrecks older than 35 years from potential damage by human activities.

However, the reality is worse than expected. As of June 2020, I was appointed by the Namibian Heritage Council (NHC) as a member of the scientific committee that advises the Council on the issuance of permits to individuals intending to visit, conduct research, and film at any of the heritage sites and objects registered and managed by the NHC as per NHA of 2004 (see Sections 46, 47, 48, 49, 50, 51, 52, and 58). As our first meeting as the Scientific Committee, held at end of June 2020, I observed with disbelief how the NHC legislative responsibilities are being undermined by two factors, lack of trained personnel and the inexistent national heritage register.

First, this is due to the NHC lacking trained staff to conduct research on various sub-fields such as heritage studies, archaeology, palaeontology. The lack of trained personnel exists even though Namibia has a substantial number of terrestrial archaeologists, one maritime archaeologist, and a number of heritage experts. In addition, and since 2015, the University of Namibia began offering a postgraduate diploma in heritage management (University of Namibia, 2015). I argue here that even though this introduction of a postgraduate qualification is commendable, the reality is that employing more trained staff members to adequately fulfil the responsibilities and principles of the Namibian heritage legislation will increase the wage bill of the Council and the overall expenditure of funds allocated by Namibian government together with the income generated through the Council's activities. As a direct result, there

would be less funding dedicated specifically for heritage management, thus leading to some key activities being stalled. What is commendable, however, is coordination and cooperation between the Council and institutions that employ professionals that are needed to perform key functions highlighted above for the council. These institutions, among others, include the University of Namibia (where I am currently employed as a lecturer, trained as a maritime archaeologist), the Namibia Centre for Research Science and Technology (NCRST), Museum Association of Namibia, Gobabeb Research Centre, and the Namibia Scientific Society.

Second, I noted, during the familiarisation of the Council's current operation, that there is no heritage register in existence. A heritage register is a key tool in the management of heritage sites and objects. The council needs to have one as per NHA Sections 35, 36, 37, 38, 39 and 40. Furthermore, it was apparent that the NHC has only ten (10) proclaimed heritage places and objects with the nine of these having been registered pre-independence. I subsequently discovered that Lake Otjikoto Underwater Cultural Heritage (UCH) site is the only such site that has been proclaimed as a National Heritage Site under the current legislation. As the only UCH that have been registered with the NHC, it shows that shipwrecks seem to be neglected even though the Council is fully aware of their significance in Namibia. There are a number of shipwrecks along the Namibian coast, and among these are the Eduard Bohlen, Dunedin Star and most importantly, sub-Saharan African's oldest shipwreck (Oranjemund shipwreck). All of these shipwrecks, while very important, are not proclaimed as a National Heritage Site. This underscores a significant weakness in the NHC's processes of nominating, proclaiming, and registering a site/object as heritage. Such reasoning reflects that only one heritage site has been proclaimed since Namibian independence in 1990. This highlights significant sluggishness on the Council with regards to research in the protection of Namibia's heritage in general and UCH in particular. It was further revealed that, as per NHA, for a site to be declared a heritage site it should be nominated and comprehensive information regarding the historic, scientific

and cultural significance of the site needs to be provided. However, of the proclaimed sites, most information on Namibian heritage was researched and provided by foreign researchers particularly among paleontological studies (Nankela pers. comm. 2020). I further discovered that Namibian researchers generally do not focus on heritage.

Furthermore, it would seem that the process of nominating a heritage site is rigorous especially the provision of information concerning the significance of a site before they are proclaimed and registered, again according to Nankela (pers. comm. 2020), the heritage register is non-existent in grave non-adherence to the NHA provisions (National Heritage Act 2004). This makes managing heritage sites and in particular UCH difficult and thus risking heritage sites/objects being destroyed by human activities and natural phenomenon. This is notwithstanding the existing blanket protection for archaeological sites and objects as per section 55 of NHA which states that “all archaeological and paleontological objects and meteorites are the property of the state,” National Heritage Act (2004: Section 1).

This blanket protection gives provision for heritage impact assessment to be carried out if the council believes that activities carried out have the potential to cause damage to archaeological object/site. The Act states that “If the council has reasons to believe that any activity or development being carried out in or on any area of land which is believed to be an archaeological or paleontological site without a permit the council may intervene and order such activities to cease” (National Heritage Act 2004). Again, the council appears to be ineffective in enforcing this provision. With specific regard to UCH, there are two incidences where underwater Heritage Impact Assessment was carried out, namely: (i) Lake Otjikoto assessment (Mowa 2012) and (ii) Walvis Bay underwater Heritage Impact Assessment (Mowa 2015). This number of assessments since the enactment of the NHA is miniscule compared to human activities that directly affect underwater cultural heritage such as fishing, coastal development, and dredging and harbour expansions.



To illustrate further the enormity of this problem, a terrestrial archaeologist conducted a heritage impact assessment under the NHA provision at Otjohorong granite hill and Gross Okandjou farm after community members reported the possible destruction of heritage at the site. It was revealed that an archaeological site with rock art painting was being destroyed by mining activities (Nankela, pers. comm.2020). The company mining granite rocks at Otjohorong granite hill and Gross Okandjou farm in the Erongo Region of Namibia ignored calls to cease operation by the NHC after an initial investigation on the site revealed possible destruction. This illustrates the fact that many other heritage sites are being destroyed by similar human activities. We can thus only postulate that the situation is even more precarious towards UCH that is submerged underwater and hidden from human view. During HIA carried out by the author on behalf of the NHC in 2015, it was revealed that an even older shipwreck had been destroyed by authorities a few years prior during harbour expansion activities at Walvis Bay (Mowa 2015). I thus wonder as to how many shipwrecks have been destroyed by fishing companies? By fluvial diamond mining company (Namdeb)? It is difficult to know because of the weakness of the NHC and NHA highlighted above.

As per the 2007 Environmental Act, it appears that heritage impact assessment (HIA) is an integral part of any EIA before a clearance certificate is issued (Environmental Act 2007). However, under the Environmental Act (no. 7 of 2007), Section 33 states that “when an application is made for an environmental clearance certificate, the environmental commissioner must (b) within prescribed time decide whether the proposed activity requires an assessment or not” (Environmental Act 2007:23).

According to Maarleveld *et al.* (2013), activities that have the potential to negatively affect underwater cultural heritage includes offshore mineral prospections and mining like Namdeb alluvial diamond mining, fishing especially trawling methods, coastal developments, harbour expansions and dredging activities. As already highlighted these activities are taking place on

the Namibian coast. However, it is safe to assume that minimal heritage impact assessment has ever been conducted or considered when issuing environmental clearance certificates. This highlights a significant weakness in the implementation of Namibia existing legislation that has the potential to protect shipwrecks or any UCH as defined by the 2001 UNESCO Convention. I argue, therefore, that existing legislature in particular the Environmental Act of 2007, if implemented accordingly might somewhat protect MUCH through regular and compulsory heritage impact assessment for activities directed at coastal areas or underwater. Further, the existing institutions tasked to execute the statues of the Act are weak, as a result, fundamental reforms, revision and amendments to the Act is of paramount importance.

### *Namdeb environmental policy and underwater cultural heritage.*

Namdeb is a wholly-owned subsidiary of Namdeb Holdings which is owned in equal share (50:50) by the government of the Republic of Namibia and De Beers Group (Namdeb 2019). Namdeb performs land-based prospecting (exploration) of alluvial diamond mining and rehabilitation operation and services for Namdeb Holdings.

According to its environmental policy Namdeb is committed to protecting the environment including pollution, prevention and conserving of natural habitats, flora and fauna and cultural heritage. The latter part of this statement directly applies to cultural heritage and MUCH is a major component that is directly found in the coastal area where the company`s main operation of mining activities occur. Namdeb`s main operation is with alluvial diamond mining. It is worth noting that the Oranjemund shipwreck was discovered during one of the company`s mining operations (Chirikure *et al.* 2010; Smith 2009). The company`s mining operation involves reclaiming land from the sea, by building massive sea walls such that the reclaimed land is isolated from the sea. Then trapped water is pumped out from the reclaimed land back into the sea leaving dry land where bulldozers and vacuum machines are used. These would

suck all the sand for processing and to check for diamonds (Werz 2009). It is during one of such episodes that the Oranjemund shipwreck was discovered. Without the mining technical interventions, the shipwreck would have been within seven meters of seawater, below sea level (Werz 2009). As highlighted Namdeb environmental policy does have elements of heritage protection probably in compliance with the environmental Act (Environmental Act 2007). The company has its own contract archaeologist from South Africa, and when the Oranjemund shipwreck was discovered in 2008, Dr Dieter Noli, Namdeb's contract archaeologist was called to the shipwreck site to investigate. However, the fact that there are no clear guidelines on heritage impact assessment procedures, the protection of heritage and UCH, in particular, remains to be at the mercy of the diamond mining company.. I thus point out that competent heritage authorities need to work closely with marine mining companies such as Namdeb and other fishing companies to sensitise them on the importance of UCH and their location. This will ensure the protection of UCH in Namibia.

### *Namibia and UNESCO 2001 convention*

Namibia made important strides towards protecting UCH when it became a signatory to the 2001 UNESCO Convention on the protection of UCH (UNESCO 2017; Mowa 2017). This is evident by its participation in regional UNESCO meetings on the protection of underwater cultural heritage and its dedication towards conserving the Oranjemund shipwreck. It is a highly commendable move especially for a country with significant shipwrecks that are not being adequately protected (Werz 2007).

Despite this, the statutes of the convention have not been adopted into Namibia's national laws (Mowa 2017), and this remains the case in 2020 when this research was undertaken, almost ten years since the country ratified the convention in 2011. As a result, Namibia is failing in its duty, as articulated in Article 2 of the 2001 UNESCO Convention which states that: "State

parties shall, individually or jointly as appropriate, take all appropriate measures in conformity with this convention and with international law that are necessary to protect underwater cultural heritage, using for this purpose the best practicable means at their disposal and under their capabilities” (Maarleveld *et al.* 2013: 6).

Furthermore, the slow nature in domesticating the 2001 convention statutes into NHA or Amendment of the Act can best be explained by understanding that the ratification of 2001 UNESCO Convention by Namibia in 2011 was in part motivated by the discovery, three years earlier, of the Oranjemund shipwreck in 2008 (Smith 2009; Werz 2009; Chirikure *et al.* 2010; Alves 2010; Chirikure & Sinamai 2015; Mowa 2017, 2018; Mowa *et al.* 2018). It would seem that there was an assumption by authorities of the National Museum of Namibia (NMN) and National Heritage Council (NHC) that such ratification will assist in the protection of Namibia’s maritime and underwater cultural heritage (MUCH). This assumption is justified because similar sentiments are generally used to urge United Nation member states that have not ratified the convention to do so. Because they would benefit from such actions. In particular, it is often argued that amongst the benefits of ratifying the convention is, first; the ability to network via the University Twinning and Networking UNITWIN Programme of UNESCO. The programme is aimed at promoting international, inter-university cooperation and networking to enable institutions in member States to become capacitated through the sharing of knowledge and training (see Maarleveld *et al.* 2013). This UNITWIN seem to have been highlighted in Article 21 of the convention which outlines that “State parties shall cooperate in the provision of training in underwater archaeology, in techniques for the conservation of underwater cultural heritage and, on agreed terms, in the transfer of technology relating to underwater cultural heritage” (UNESCO 2001: article 21).

Namibia has so far participated in UNESCO regional meetings on the protection of UCH in Africa, and the author was privileged to attend these training and meetings and penned

comprehensive reports with recommendations from such meetings and pieces of training. Several such pieces of training were held in Mombasa and Malindi (Kenya, Mowa 2015), Antalya (Turkey, Mowa 2015), Maputo (Mozambique), and Gore (Senegal, Mowa 2019a, 2019b).

Helvi, a UNESCO Namibia's National Programme Officer for Culture (Helvi pers. comm 2020) underscored that Namibia was scheduled to host a regional meeting on the protection of underwater cultural heritage in 2020. The meeting was to focus on "Implementation (and ratification) of the 2001 convention, focus on the Annex. Conservation issues and museology; international cooperation opportunities in underwater archaeology and capacity-building of people at a technical level (Helvi, pers. comm. 2020). However, due to COVID-19, this became unlikely to happen by the time this thesis was compiled. By hosting this meeting Namibia shows commitment towards and in compliance with Article 21 of the 2001 Convention on the protection of underwater cultural heritage.

Moreover, countries are encouraged to ratify the convention so they can access UNESCO funding. The general understanding of heritage authorities in Namibia was that shipwrecks would be better protected with this convention in place. However, it is critical to appreciate that ratification is one act and implementation/application of the convention statutes is another. Furthermore, ratification is directly linked to an implementation plan defined by both human and financial capacities (Maarleveld *et al.* 2013). In Namibia, it is understood that financial resources are not available to back up activities directed at implementing the statutes of the convention nor the human capacities.

According to this international legal framework, underwater cultural heritage older than 100 years must be protected (UNESCO 2001). I wish to highlight three problems with regards to such protection. First, different legal instruments seem to put more emphasis on maritime

shipwrecks found in deep seawater or along with coastal areas. Even though the legal framework does, however, offer protection to ancient sites covered in freshwater e.g. ancient fish traps, caves and other sacred sites that are underwater (Maarleveld 2011). Such biased focus towards deep sea shipwrecks means there is less attention given to cultural heritage resources found in rivers and lakes. Yet, most Africans have historically interacted with such locations which are now final destinations for some of the underwater heritage they would have used over time. The general observation is that underwater heritage found in freshwater such as canoes and dinghies (see figure 3.5) are thus not accorded the same value and protection as marine shipwrecks. Several of these canoes are sunken in lakes and rivers. Such can tell a story about the trees, people, unique designs and canoe construction tradition that need to be preserved because of their cultural significance. These are given less prominence within the 2001 Convention and its activities annexure. Thus, some communities might feel their heritage are not valued, therefore inclusiveness needs to be strategically addressed since it is a sensitive issue that can lead to defunding of UCH protection by politicians. I argue that this is the case among some African countries that recently became independent.

A 100-year timeline to be eligible for protection under the convention would have been a period during which African countries were under colonial rule including Namibia (Drechsler 1980; Katjavivi 1988; Werner 1993; Buys & Nambala 2003; Werz 2007, 2009; Adhikari 2008; Zimmerer 2008; Schaller 2011). The African historic interpretation of shipwrecks in general, and Namibian in particular, has ignored this aspect. In contrast, the mainstream Western interpretation that centres on symbolism such as designs of ships, country of origin, and so on have been favoured. Thus the interpretation of the heritage and cultural significance of this heritage to Africans in general and black Namibian, in particular, is ignored, giving rise to selective interpretation. As a result, there is a danger of ignoring UCH protection by those in power due to its Eurocentric nature. I argue here that this is the status quo and needs to change.

Shipwrecks, in particular, have to give prominence to the significant role played by Africans. This is one key aspect I am discussing in this thesis.



Figure 3.5 Canoes or *Mukolo* used in the Kavango, Chobe and Zambezi rivers by communities sharing these rivers in Zambia, Botswana, Namibia, Angola and Zimbabwe.

As I shall illustrate throughout the chapters in this thesis, remembering the role played by Black Namibians in the war of national resistance against the colonial occupation can significantly raise the value of these shipwreck as their interpretation becomes more inclusive. This is not only factual but there is a huge possibility that such shipwrecks will get financial support from politicians in safeguarding them.

Third, and as demonstrated with South Africa experience (Gribble & Sharfman 2012), many African countries do not have the resources to allocate significant funding for heritage protection. As a result, they continuously seek foreign financial assistance through various sources such as funding from UNESCO (Ulrike Guerin, pers. comm. 2019). These funds are

thus used in the archaeological rescue operations of shipwrecks and their continued conservation. In the case of Namibia, the conservation of the Oranjemund shipwreck discovered on the 1<sup>st</sup> of April 2008 is a good example. This ship christened as Bom Jesus originated from Portugal and was on an outbound voyage transporting mainly *Fugger* copper ingots to Asia when it got wrecked (Smith 2009; Werz 2009; Alves 2010; Chirikure *et al.* 2010; Chirikure & Sinamai 2015; Mowa 2018; Mowa *et al.* 2018). While heritage efforts on the Oranjemund shipwreck initially went well, management efforts in the past years since 2016 have become too costly to maintain. The project has been faced with many challenges, as articulated by Mowa (2017) in the annual UNESCO country report. Amongst these challenges is the limitation of resources needed to train conservation personnel, e.g. maritime archaeologists and conservators artefacts from a maritime environment.

## Heritage Institutions interview results

In this section, I outline the objectives of interviewing heritage authorities and NGO officials that are involved in the management of MUCH within Namibia. The detailed analysis of the responses presented in this chapter enables the reader to establish what the respondents know about various themes in the questionnaire. What becomes clear is that the two respondents have a varying degree of knowledge in MUCH, with one of them being more knowledgeable. The main reason for this might be a result of the institution that the respondent works for has done more in protecting maritime and underwater cultural heritage compared to the employer of the first respondent. Respondent one is employed at the NMN while Respondent two is affiliated with the NUF and WUC. NUF is an umbrella organisation overseeing and regulating all underwater related activities carried by other non-governmental entities such as the WUC and diving clubs like Dantica diving.



I begin by presenting the results as per the responses I received from the two informants. The informant from NMN is referred to as Respondent One (hereafter Respondent 1) while the one from NUF/WUC is referred to as Respondent two (hereafter Respondent 2). I am presenting these as per the five different themes (general, threats, legal, revenue, and capacity building) that were a focus of my research project through the questionnaires I sent to my respondents. Besides, my presentation of the results is two-fold. I first present a graphical narration of my findings, before providing the reader with the direct responses received from the two informants. The presentation of results is subsequently followed by my discussion of these findings, to offer detailed insights into the information sourced through the questionnaires. I principally highlight issues emerging from my application of questionnaires.

### PART I: General

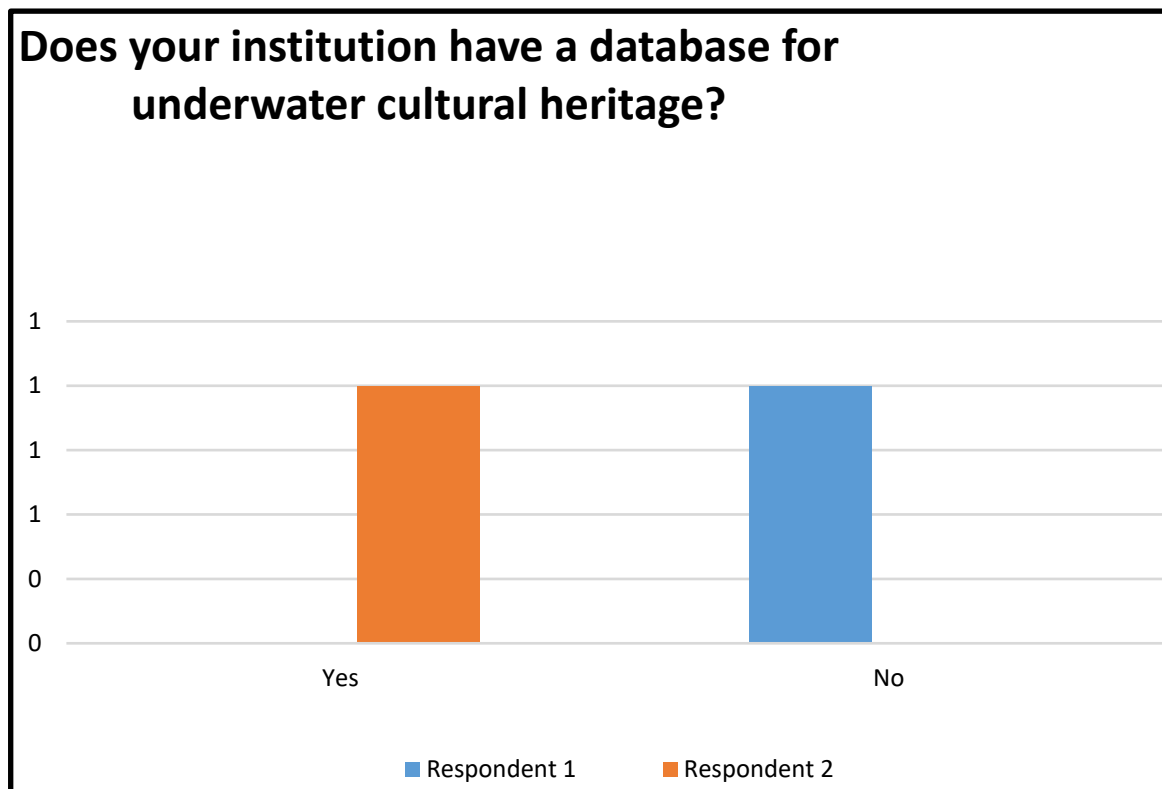


Figure 3.6. Respondents' response to whether their institutions have a database for underwater cultural heritage.

Table 3.1. Summarised responses to questions about general information.

<p>a) For how long have you worked for this institution</p>
<p>Respondent 1 NMN: 7 years</p> <p>Respondent 2 NSS/WUC: 33 years</p>
<p>a) What is your position and job description?</p> <p>Respondent 1: Museum technician/academically trained personnel in heritage</p> <p>Respondent 2: Librarian, trained diving, some basic training.</p>
<p>b) How would you define or describe underwater cultural heritage?</p> <p>Respondent 1: Able to define.</p> <p>Respondent 2: Able to define giving local context.</p>
<p>c) What underwater cultural heritage projects, studies or documents have been completed by your institution (For example Shipwreck excavation, shipwreck conservation study or assessment of shipwrecks and other underwater cultural heritage sites. (If does not apply to you indicate N/A).</p> <p>Respondent 1: Single project since 2008 Oranjemund shipwreck</p> <p>Respondent 2: Multiple projects since 1992 annual survey from Kunene River to Orange River, no exaction.</p>

d) In your view, have these projects improved the management of this cultural heritage by your Institution.

Respondent 1: Yes

Respondent 2: Yes

e) How is this cultural heritage resource information managed in your office? (For example paper filing, spatial GIS database, oral records, photographs etc.)

Respondent 1: Oranjemund artefact database/no database for shipwrecks

Respondent 2: WUC has photo collection, shipwreck library available.

f) How many underwater cultural heritage sites do you have on record in your office?

Respondent 1: None

Respondent 2: List of shipwrecks above 150

g) Does your institution have a mandate to manage shipwrecks/ underwater cultural heritage in Namibia?

Respondent 1: Yes

Respondent 2: No, MOU exist to carry survey with permits from NHC.

h) If the answer is yes. What management plans do you have in place?

Respondent 1: None, future surveys

Respondent 2: MOU with NMN allows the institution to renovate old mining infrastructure in Skelton coast dating back to 1909, local tour operator sponsor the initiative

i) If no which has the mandate to manage these shipwrecks?

Respondent 1:

Respondent 2: NMN/NHC

j) If the answer is yes are these shipwrecks being conserved in-situ? Or kept in museums? What measures have been taken in conserving the shipwrecks or any other underwater cultural heritage?

Respondent 1: No plan.

Respondent 2: Plan exists, in agreement with NMN shipwreck artefacts are loaned and displayed in Swakopmund museum and Mowe Bay.

*Part II Threats*

**What are the threats (natural and human) to Namibia's Maritime and Underwater cultural heritage (shipwrecks) that you are aware of?**

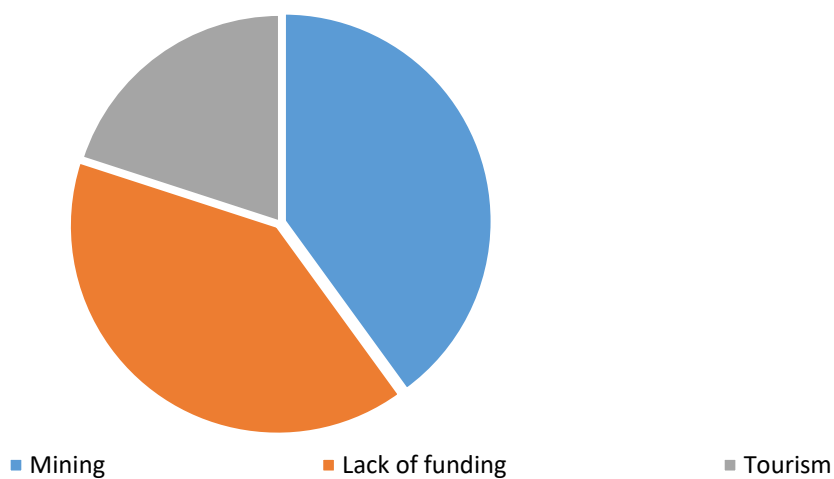


Figure 3.7. Common threats identified by the respondents.

Table 3.2. Respondents Answers about threats to MUCH.

<p>a) Do you believe or are you aware of the maritime and underwater conservation challenges the country is faced with? If so what is your institution doing towards mitigating this</p> <p>Respondent 1: None, lack of funds, capacity</p> <p>Respondent 2: Plan source of funds NSS support marine spatial planning.</p>
<p>b) What is your institution doing towards mitigating the threats?</p> <p>Respondent 1: No plan., HIA for the future.</p> <p>Respondent 2: Plan available .presenting, public debates, dissemination of information.</p>

*Part III Legal*

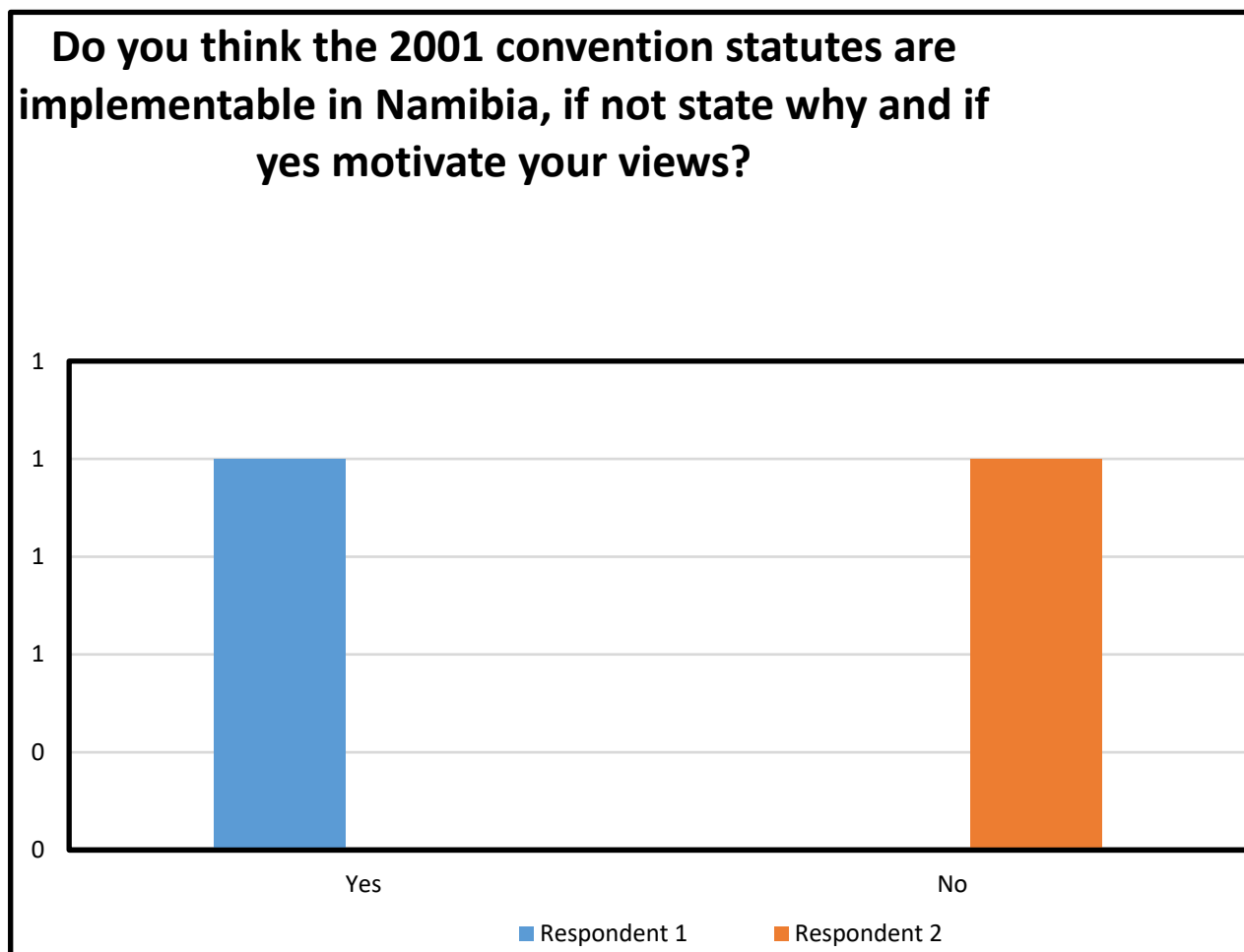


Figure 3.8. Responses about the 2001 UNESCO Convention.

Table 3.3 Summarised respondents' answers about the Legal protection of MUCH.

- (a) Namibia is a signatory to the 2001 convention on the protection of underwater cultural heritage since 2011. Has the country competent authorities' national museum and national heritage council taken any steps to implement the statute of the 2001 convention into their national laws...

**Respondent 1: Yes**

**Respondent 2 No**

(b) If the answer in (a) above is yes what steps has the competent authority taken to realise this?

Respondent 1: none, missed the question. Cooperation with international institutions

Respondent 2: none.

c) Do you think Namibia has enough resources to implement the convention statutes? Motivate your view.

Respondent 1: No, government cuts

Respondent 2: Government doesn't have any due to financial stress because of Covid-19.

#### *Part IV Revenue*

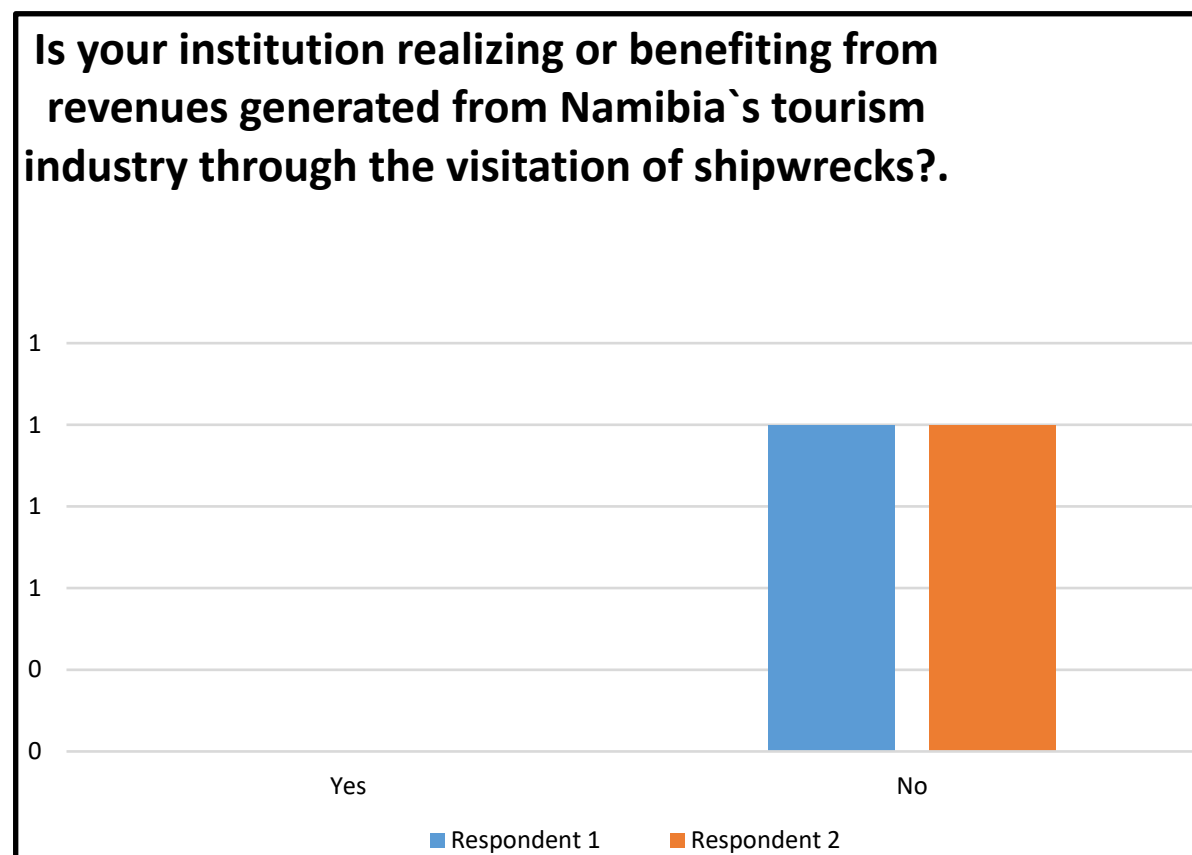


Figure 3.9 Responses about MUCH economic benefits.



Table 3.4. Respondents Reply Revenues.

<p>a) Most tourists come to Namibia to see shipwrecks and Lake Otjikoto for their historical importance what should be done to enhance revenue from these cultural resources?</p> <p><b>Respondent 1: diving tourism enhance</b></p> <p><b>Respondent 2: Develop Bom Jesus, shipwreck trail, support Luderitz museum.</b></p>
<p>b) What is the biggest/greatest stumbling block in the protection of Namibia’s underwater cultural heritage?</p> <p><b>Respondent 1: Lack of fund expertise.</b></p> <p><b>Respondent 2: Lack of interest government side.</b></p>

*Part V Capacity building*

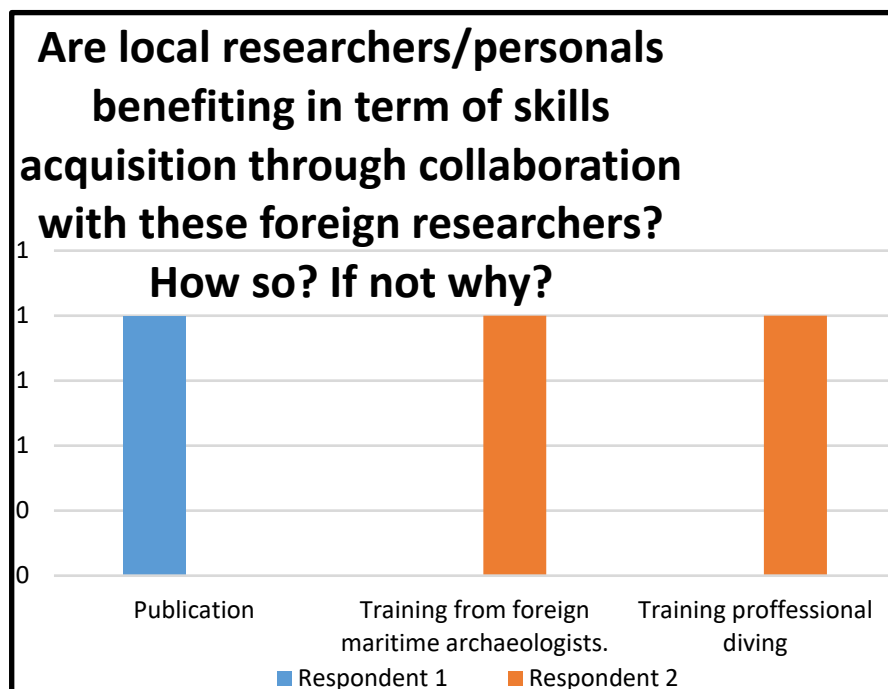


Figure 3.10. Responses to capacity building.

Table 3.5. Respondents Replies to Capacity building

<p>a)        Apart from the 2001 conversion are there any bilateral or multilateral treaties/MOUs the country has with other countries and partners towards safeguarding and promoting underwater and maritime cultural heritage? Mention these.</p> <p><b>Respondent 1: memorandum of understanding exists between Namibia competent authorities and Portugal.</b></p> <p><b>Respondent 2: Luderitz museum with Pescanova fishing company.</b></p>
<p>b)        Do you think the competent authorities have the skills and trained personnel in managing/advising underwater and maritime cultural heritage? Mention the existing skills/profession among staff members</p> <p><b>Respondent 1: diving skills, conservation of artefacts</b></p> <p><b>Respondent 2: maritime history and diving background, diplomas in maritime archaeology. Age challenges.</b></p>
<p>c)        Does the government/your institution currently have capacity building programs for underwater archaeology and conservation of maritime and underwater cultural heritage? In what fields are they being trained or have been trained?</p> <p><b>Respondent 1: Two staff members</b></p> <p><b>Respondent 2: None</b></p>

d) Would you please describe any steps that your institution has taken to build awareness and understanding about Namibia`s underwater and maritime cultural heritage (e.g. attended awareness workshops, provided training to the community on managing the heritage, trade fair, exhibitions etc.?)  
Are you satisfied the community is being educated about this heritage?

Respondent 1: Yes

Respondent 2: none

e) Has your Institution designed strategies that identify specific maritime and underwater cultural heritage resources? Mention these

Respondent 1: Yes, 3 researchers per year average

Respondent 2: Yes, president of NSS approached by an international maritime archaeologist.

f) Any Other suggestion or comment on the management of Namibia`s maritime and underwater cultural heritage?

Respondent 1: Enhance the relationship between key stakeholders.

Respondent 2: Cooperation with foreign institutions engage with the fishing sector over 200 trawler wrecks recorded pre-world war 1.

## Analysis of Results

As outlined before, I used the questionnaires as a research tool to collect information regarding the extent to which heritage institutions are involved in MUCH management and protection in Namibia. Two respondents were selected one from each of the two institutions, namely NMN and NUF/WUC. After presenting the results from my data-gathering phase through the use of questionnaires, I now discuss the responses from my two respondents. In the same way, as I presented the results according to the five different themes (general, threats, legal, revenue, capacity and building), I follow the same trend in my discussion of the findings regarding the management of MUCH in Namibia. It is my view that presenting and discussing the research results thematically make it conveniently possible to derive the important findings I discovered from my application of questionnaires.

### *General*

As presented in figure 3.6, I particularly asked the respondents if their institutions have a database of MUCH. According to Respondent 1, the NMN does not have an actively managed database, while Respondent 2 confirms that there is one initiated by NUF/WUC. What I derived from this response to this important question was that NUF/WUC are better informed about the location of the shipwrecks in their database. They are, therefore, better informed about the physical condition of these shipwrecks. This is unlike the NMN or NHC, the two heritage authorities in Namibia. One would have expected the situation to be the reverse of the existing reality, but sadly this is not the case. A non-governmental entity (NGO) knows more about MUCH than government authorities tasked with managing heritage resources. As a result of this NGO (NFU/WUC) has more detailed knowledge (see Table 3.1) about Namibian shipwrecks, and their database proved very significant for my research. This was particularly the case in helping develop a comprehensive Namibian MUCH database.

The great differentiation between NUF/WUC and the government entities (NMN and NHC) is that the former is well capacitated with experienced personnel who have more than three decades of experience working on Namibian shipwrecks. This highlights the extended period within which NUF/WUC has been actively involved in the management and research conducted on shipwrecks in Namibia. The NMN, however, is better positioned compared to the NHC in that Respondent 1 has about seven years of experience working on the Namibian maritime and underwater cultural heritage protection. Even this experience is limited, in the sense that the NMN has only conducted one project to date. This was, as indicated by Respondent 1, the impact assessment undertaken on the Oranjemund shipwreck. To further emphasise the extent of differentiation between the NMN and the NUF/WUC, the latter has recorded more than 150 shipwrecks while the former has not discovered any new shipwrecks.

Activities of the NUF/WUC are operated under a Memorandum of Understanding signed with the NMN. For example, and as reported by Respondent 2, the NUF/WUC have conducted several research projects on Namibian shipwrecks. As reported by Respondent 2, these activities are conducted on behalf of NMN. It is particularly helpful because the NMN has not had a maritime archaeologist for a considerable period. It is almost a decade since the NMN last had a maritime archaeologist in its employ and that should be of significant concern. But as it should be evident from my earlier chapters, not having staff members with the necessary training and experience to manage MUCH is not unique to Namibia but has been witnessed in other countries as well.

As a further illustration of the significant contribution made by NUF/WUC, they have plans to renovate old mining infrastructure along the skeleton coast. Lack of funding, however, has been delaying the execution of the project (Harris *et al.* 2012). Considering that the plans were referenced in Harris *et al.* (2012), it is clear that the delay has been running into a decade. Besides the lack of funding, the treacherous nature of the skeleton coast is one of the reasons

there have not been conservation projects aimed at managing shipwrecks *in situ*. This has led to many shipwrecks being exposed to decay because of various factors. Among such shipwrecks is the Eduard Bohlen and many others located offshore. A comprehensive plan to conserve some of the shipwrecks *in-situ* is needed to prevent the loss of this valuable heritage.

### *Threats*

I presented, in figure 3.7, the nature of threats identified by the respondents. They have seen these as the common threats to maritime and underwater cultural heritage in Namibia. Both respondents agree that mining and tourism are a major threat. In particular, Respondent 1 highlighted the lack of government funding which is stifling the activities of the NMN institution. In addition, some of the ongoing conservation efforts (i.e. the 500-year-old Oranjemund shipwreck) have stalled because of the lack of funding. Such derailment will result in significant loss of important shipwreck heritage and artefacts. This is even though Eduard Bohlen and other popular shipwrecks onshore are equally threatened by nature and tourism due to lack of funding.

As I argued before, tourism is another threat of concern. It is particularly heightened by the unregulated operation of tour activities. In addition to these tour operations, there has been an increase in local specific recreational activities such as the race to the wreck. This race targets the Eduard Bohlen and threatens the integrity of the remaining fragile hull.

To counter the different threats, NUF/WUC is involved in raising awareness to ensure that the public does not loot or take a souvenir from the shipwrecks (Table 3.2). These NUF/WUC activities are seldom funded by local tour operators. It may seem therefore that NUF/WUC engage in public awareness to safeguard shipwrecks for protecting the tourism industry (economic perspective) rather than from a cultural point of view (including academic research). This is considering that there are fewer works of literature about these shipwrecks in Namibia

that are rich with information concerning their cultural value. Which makes it plausible to argue that NUF/WUC preserves shipwrecks mainly for tourism. For heritage to be valued there must be some sort of value attached to the wrecks, which can only be understood through research.

### *Legal*

Both respondents were asked whether the 2001 UNESCO Convention is implementable in Namibia (see Figure 3.8). The respondents were divided in their responses. Respondent 2 from NUF/WUC indicated that the statutes of the convention are not implementable while Respondent 1 from NMN indicated that the statutes can be successfully applied in the country. The reasons for the divergence of opinions between these two respondents are indicated in Table 3.8. The basis for Respondent 1 having the confidence is informed by the level of assistance that the NMN has been receiving from UNESCO which has, since 2009, offered training opportunities about the 2001 UNESCO Convention on the protection of underwater cultural heritage. Not only has NMN offered training opportunities, they have also had to attend UNESCO meetings since the discovery of the Oranjemund shipwreck in 2001. The country subsequently ratified the Convention in 2009. The NUF/WUC, being non-governmental, have never been involved in such meetings and training platforms provided by UNESCO. Even though no specific reason has been provided to support this assertion, this could be the reason why Respondent 2 does not see hope for the successful implementation of the statutes of the Convention.

While they share different sentiments about if the 2001 Convention can be successfully implemented, both respondents agree that the country does not have enough resources to effectively implement the statutes of the Convention. The concern is further exacerbated by the budget cuts necessitated by the financial stress resulting from the COVID-19. The pandemic is a threat to an already unpleasant situation, significantly threatening Namibian. I, therefore,

suggest that the state or authorities should look for alternative sources of funding to sponsor projects aimed at promoting and protecting underwater cultural heritage in Namibia.

### *Revenues*

The respondents were asked if their institutions are realising economic benefits through sustainable tourism involving shipwrecks (see Figure 3.9). Both indicated that they do not benefit because they are non-profit making entities, one being government and the other non-governmental. This is however surprising because NHC is allowed legally by the NHA to generate income through revenues emanating from tourist visiting heritage sites. The basis for this surprise is that there are several heritage sites from which the NHC generates revenue through tourism. Among these sites are the Twyfelfontein World Heritage Site, Brandberg, Omuguluwombashe. The revenue generated has been instrumental in helping the NHC manage these sites. It is my argument that the same could be done with shipwrecks such as Eduard Bohlen. It is not necessarily easy at this point in time to assess the feasibility of generating income from shipwrecks. This assessment task is especially made difficult by the lack of statistics on the number of tourists visiting shipwrecks in Namibia. As I shall demonstrate with several case studies presented in chapter 6, the use of shipwrecks to generate income is viable and feasible in the long term. Unlike the NHC that is funded by the government, the NUF/WUC is an NGO funded through sponsorship from those who share interest with its mandate. With all the work this NGO has done, and as it should be expected, it has also not generated any specific revenue from tourists visiting shipwrecks.

It could be expected that with the difficult economic situation in the country, worsened by COVID-19, the NMN might be faced with significant financial challenges due to potential cuts in their government funding. If such were to happen, Namibian heritage would be put at serious risk of damage and decay. It is thus my recommendation that that NMN should start generating



revenue from tourists visiting its museums and other facilities under its care countrywide for self-sustenance. The Eduard Bohlen is an example of a heritage resource that is popular with tourists and can be infrastructurally developed by the heritage authorities in charge of heritage management in the country. This is very important in protecting Namibian heritage, particularly shipwrecks. The fact that the Eduard Bohlen shipwreck has previously been overlooked as money generating heritage by authorities underscores how shipwrecks have been perceived by the government. They have generally been considered to be a heritage for Europeans, with no meaningful contribution to the cultural and economic wellbeing of all Namibians particularly the indigenous populations. As I have argued earlier, this requires a new pragmatic and inclusive interpretation of these shipwreck as representing the Namibian history that belongs to both Black and White Namibians. For instance, the Eduard Bohlen was once used as a floating prison for Herero and Nama prisoners of war during the conflict of national resistance from 1904 to 1908.

### *Capacity building*

The ability to deliver on a given mandate is based on having adequately trained and experienced staff members. One of the themes my questionnaires addressed was capacity building (see Figure 3.10). In particular, I wanted to establish the extent to which local researchers were benefitting in their efforts to properly manage MUCH in Namibia by working in collaborations with foreign researchers. Respondent 1 from NMN indicated that the institution benefits through publications with foreign researchers, this is even though such collaboration is rare and far in between. Such collaboration respondent 1 is referring to might be highlighted in two publications such as Chirikure *et al.* (2010) this publication was a collaboration between South African, Zimbabwean archaeologist, and NMN employees. The other Publication is that by Hauptmann *et al* (2016) which was a collaboration between Dr Schneider from the Namibian

Ministry of Mines and Energy and Dr Hauptmann and Mr Bartels from Germany. The two publications above are the only ones that I am aware of where foreign researchers (non-Namibians) collaborated with local researchers through publications. These publications are overshadowed by many others produced by foreign researchers on the Oranjemund shipwreck where no local collaboration was instituted. Among such publications are those by Smith (2009); Werz (2009); Alves (2010); Chirikure and Sinamai (2015). Therefore, it is safe to assume that Respondent 1 insinuations do not reflect the situation on the ground. Respondent 2 indicated that local professionals benefit through the acquisition of diving skills, this is reflected in the training of local divers such as the expedition of Harris *et al.* (2012) which involved NUF/WUC.

As illustrated in Table 3.5, both respondents confirmed that the respective institutions have MOUs with various entities. According to Respondent 1, NMN has entered into an MOU with Portugal to help conserve the Oranjemund shipwreck. Respondent 2 confirmed that Pescanova fishing company is one of the private companies that have helped to fund the Luderitz maritime museum. After having worked at the NMN, particularly on the Oranjemund shipwreck from 2011 to 2017, it is my considered view that such MOUs have not yielded any meaningful benefits for Namibians, whether be in training or funding for the conservation of shipwrecks in the country.

Nevertheless, both respondents indicated that their entities have qualified personnel who are capable of managing underwater cultural heritage. Some of these even have diving skills. However, I am aware that the NMN does not have a qualified conservator nor someone trained as a maritime archaeologist. Furthermore, and based on my familiarity with the NMN, I know that the majority of heritage staff members are not adequately experienced, nor do they have the expertise to undertake excavations or impact assessments. This lack of expertise is further emphasised by the delay in the implementation of the second phase of conserving artefacts

from the Oranjemund shipwreck. The delay has been caused by the lack of expertise in that there is a need for a qualified conservator who is yet to be employed. It is my view, therefore, unless this capacity deficit is corrected, Namibia will lose its MUCH at an unprecedented scale. The loss could be prevented by training personnel with academic qualifications in maritime archaeology and conservator of archaeological artefacts from a marine environment.

An additional aspect relating to the capacity building was my interest to find out from my informants as to what could potentially be done to enhance MUCH management in Namibia (see Table 3.5). According to Respondent 1, there is a need to enhance the nature of the relationship between key stakeholders. It was the view of Respondent 2 that cooperation with foreign institutions and engaging the fishing sector is critical. This was particularly important because the NUF/WUC has recorded about 200 trawlers. With regards to collaborations with foreign institutions, the efforts of East Carolina University is an ideal case study. Such collaborations do not only bring experienced academic experts but also helps in training local researchers in the management of MUCH. Besides, there could potentially be additional funding sourced through such collaborations. What both respondents highlight is the need to ensure that there is meaningful cooperation between stakeholders as it is such relationships that effective management of MUCH can be initiated. I am critical, however, of what I deem to be unimpressive strides that have been made by the NMN in terms of engaging key stakeholders such as the fishing and mining sectors. Both these stakeholders are well known to undertake activities that are damaging to MUCH.

## Conclusion

What I have highlighted in this chapter is that Namibian legislation mirrors that of South Africa. This is confirmed by an analysis of the South African heritage legislation development. Needless to say, the National Monument Act of 1969 was used in Namibia for a long-time,

until the enactment of the National Heritage Act of 2004. Moreover, some several international charters and conventions determine the management of MUCH in general. Namibia is a signatory to these charters and conventions. Therefore, understanding their provision is important to appreciate how they could affect the protection of MUCH in Namibia. What comes out of this analysis is that to a lesser degree, these charters and conventions have not had the desired impact on the protection of Namibia MUCH. Furthermore, I looked at heritage legislation that can impact the management of MUCH in Namibia. An appreciation of such likely impact is equally important to understand the existing legal instruments and how far they protect MUCH.

I also established, through my analysis of Namibian heritage legislation, that these tools are relatively weak in their protection of MUCH according to best international practice. Nevertheless, the provision within the National Heritage Act offers protection to shipwrecks older than 35 years. The provision by the Environmental Act for AIA to be conducted before developments should provide another protective layer safeguarding these shipwrecks.

Unfortunately, leading national heritage institutions, such as the National Museum of Namibia and the National Heritage Council, are weak in implementing and enforcing existing provisions within the legislation to protect shipwrecks. As illustrated in this chapter, there has been one AIA on underwater archaeology since the enactment of the NHA of 2004. This on its own served to highlight the relative weakness of the NHA in protecting all MUCH in Namibia according to best international practice. I however discussed legislative and institution weakness with suggestions on how best the legislation could best be implemented for purpose of safeguarding underwater cultural heritage in Namibia. And how the institutions can be strengthened to implement existing legislation within the framework of the 2001 UNESCO convention.

Furthermore, the data presented in this chapter followed a deductive and exploratory line of questioning. The main objective of the questionnaire was to gauge to what extent the two respondents and their institutions are involved in MUCH protection and management in Namibia. I sought to orient the respondent to themes synonymous with the management of MUCH. Besides, I made use of exploratory (open-ended question) because I wanted the respondents to provide more information than what I would have sourced from a close-ended question. Several challenges were highlighted by my respondents, with solutions also suggested by them. Besides the open-ended questions, I further employed those that were targeted at attaining answers of brief, but specific detail that did not expect much explanation from respondents. These short answer questions enabled easier analysis. I assigned codes to the responses given by respondents as answers to my open-ended questions. Using such coding methods, analysing and presenting the data through the use of tables, graphs, and charts, was made easier.

I am satisfied with the responses I attained from both respondents. It is my view that the findings presented in this chapter are reflective of the contribution made by the two institutions in the overall protection of MUCH in Namibia. What is also evident is that the NMN is not adequately involved in MUCH protection. This is in contrast to the efforts that have been made by NUF/WUC. This non-governmental entity has been undertaking sterling work in helping to protect Namibian MUCH. The results presented in this chapter are further discussed in the succeeding chapter, Chapter eight.

## Chapter 4. Assessment of MUCH significance

### Introduction

This chapter highlights the importance of assessing the significance value of maritime and underwater cultural heritage (MUCH), principally focusing on the various criteria used to undertake such assessments. These various criteria and their probable applicability are discussed within the Namibian context so that a realistic approach in assessing Namibian MUCH can be made using the highlighted examples as a benchmark. Criteria for assessing the significance of heritage include scientific, historic, cultural, economic, and representativeness to mention but a few. Furthermore, the chapter discusses the role of using Archaeological Impact Assessments (AIA) in the management of MUCH in Namibia. The importance of this chapter is defined by the reality that the level of significance attached to a given heritage resource determines its level of priority in terms of its management. A significance assessment analysis on five shipwrecks that are divided between the pre-colonial and colonial era as a proof of concept, was also explored in this chapter.

Within the context of Namibia, the level of significance needs to be undertaken before a determination being made as to whether such a heritage resource can be classified as a national heritage under the heritage legislation. Therefore, there must be guidelines applied to assess the value of MUCH. And since this thesis tackles the issue of threats to MUCH and MUCH legislation in a broader context, it is justified to study the criteria used in assessing the significance of maritime heritage. This is, even though the competent authority (NHC) does not have such guidelines at present. The value of this chapter, therefore, provides the benchmark from which comprehensive guidelines for assessing MUCH in Namibia might be developed.

## Overview

According to the Burra Charter (ICOMOS 2000), cultural significance refers to the aesthetic, historic, scientific (including archaeological), social or spiritual value for past, present or future generations. Cultural significance is embodied in the heritage place (or site) itself, its fabric, setting, use, associations, meanings, records, related places and objects.

Cultural heritage is depended on the significance that society places on them. It is this value, therefore, that has always been the reason underlying heritage conservation (Manders *et al.* 2012). Manders *et al.* (2012) further argue that no society makes an effort to conserve what it does not value. The same principle would apply in the assessment of significance for any MUCH. Ultimately, it is generally agreed to the significant value that defines if a society values a particular heritage phenomenon or not. Steinberg (2001) states that the process of determining the value of heritage is referred to as an assessment of cultural significance. This means that value is based on those qualities that society places upon a place and object. Other providers of value could be the historical context associated with an object and its aesthetic appeal.

The value of a heritage site also depends upon its visibility. According to Manders *et al.* (2012), if a site is not accessible to the general public, then it is less likely to be considered as having a high level of significance (see Ndlovu 2021). A typical example is the Oranjemund shipwreck. It is not easily accessible to the public because of its location being within an area actively used for mining by Namdeb. As the result, permits are granted to only a few individuals (Chirikure and Sinamai 2015). The fact that it is not visible means that its value is less compared to other shipwrecks that are visible and easily accessible by the general public. It is my view that heritage without public access is not good for a nation. Moreover, Steinberg (2001) believes that a heritage site that has a high social value because it is visible and easily accessed by tourists and the public is more likely to have a high significance even though it

might not be overwhelmingly significant in understanding the past. This statement is fundamental. I argue, therefore, that to increase the value of a particular heritage site, research and publication (in the media and academic platforms) is important. This will ultimately increase the value of the given heritage resource through new information and new hypothesis formulated to address pertinent questions. Furthermore, opening the site to the public will increase its social value. Increasing the value of heritage can be beneficial in the overall protection and conservation of heritage for future generations.

The English Heritage (2008) have outlined that the process of increasing heritage significance of a site as the 'heritage cycle'. This is when a society, through public awareness, exhibition and displays, understand the value of a heritage site. After establishing the value of a particular heritage site, it is expected that the public would want to care for it. It is through such caring interventions that enjoyment can be achieved after which comes a desire to know more (thirst for knowledge) and the process repeats itself (English Heritage 2008).

Based on the understanding of what constitutes the 'heritage cycle', it cannot be understated that the assessment of significance is a vital component in the entire process of managing heritage. In the case of Namibia, that involves conserving, protecting, and valuing Namibia's MUCH. The ratification of the 2001 UNESCO Convention on the protection of underwater cultural heritage should have placed the country in a better position to preserve its maritime heritage. Similarly, it should have served as encouragement for research aimed at identifying the significance of these various MUCH resources.

According to Manders *et al.* (2012), a shipwreck that is deemed as 'shared heritage' has a varying degree of significance in different geo-cultural spaces. For example, a Portuguese shipwreck such as the 500-year-old Oranjemund shipwreck might be more significant in Namibia where the shipwreck of this age is rare. In contrast, a similar shipwreck might be less



significant in Portugal where maritime heritage from this era are more abundant, such as the pepper wreck (Castro 2001). According to Finney (2002), some shipwrecks are more significant because they still retain memory or remembrance value among survivors. Based on the available literature, it remains unclear whether any shipwrecks in Namibia retain this value. For example, the recently sunken trawling vessel off the Namibian coast claimed the life of its captain while 27 others survived and were rescued (New Era 2020). I am tempted to argue that such shipwrecks still retain memory value because sailors who were rescued from the wreck are alive and still remember the sinking ordeal. In contrast, shipwrecks such as 19<sup>th</sup>-century German colonial vessels off the Namibian coast (Harris *et al.* 2012) do not retain the same memory value since few or no people from the era are alive to remember how the boats were used. This is not disputing the fact that recorded sources could still be a source of information and serve as a memory for descendants of the people who used the boats. I argue that shipwrecks such as the Eduard Bohlen have the potential to retain collective memory at a national level especially among descendants of the victims of the Herero-Nama genocide from 1904-1908 (Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011).

Another value by which MUCH can be assessed is aesthetic. Manders *et al.* (2012) argue that this value is very difficult to assess, especially in the Namibian context. Aesthetic value is depended on beauty or visual appeal, largely informed by the state of preservation of the shipwreck. Because of the diversity of views in terms of how different communities define beauty, it is thus difficult to come up with a mutually agreeable definition of aesthetic value (Manders *et al.* 2012). As a result, the aesthetic value should be judged based on the completeness of a shipwreck, meaning that it ought to have most of its components intact including its original colour, as well as visibility and accessibility. Most Namibian MUCH, both ashore and offshore, do not fit well within this description except for a few. One of them

is Lake Otjikoto MUCH (Mowa 2012, see Figure 2.1). Most shipwrecks are not well conserved or preserved in Namibia, as a result of natural elements which have scoured the beauty of most maritime heritage. This is particularly applicable to those ashore. The typical example is provided by the corroded metal shipwreck named Eduard Bohlen (see Figure 4.1; Werz 2007; Harris *et al.* 2012). For those shipwrecks underwater, their visibility is rather poor due to the active nature of waves and upwelling at the coast. This makes them out of reach to serve as an attraction for recreational divers (Von Shumman pers. comm. 2019).



Figure 4.1. Eduard Bohlen has lost its aesthetic value over time due to corrosion (Source: Harris *et al.* 2012).

Another category used to assess the value of shipwreck is economic. Manders *et al.* (2012) argue that it is important to assess a site based on its potential for tourism and job creation

rather than the value of individual artefacts. To illustrate Manders *et al.* (2012) argument in the Namibian context, copper ingots and ivory from Oranjemund shipwreck (Chirikure and Sinamai 2015) ought to be valued on their potential to attract tourists rather than based on their dollar value when sold to buyers. I thus argue that Namibian shipwrecks score highly in terms of their potential economic value than they do in other value categories. This is demonstrated by the general awareness of the importance of the tourism industry which is a major source of foreign income in the country (Kinahan 2009). Such is demonstrated by heritage authorities and other stakeholders' acknowledgement of the potential economic value of the shipwreck in Oranjemund. The idea is to turn the mining town of Oranjemund into a major tourist hub, particularly tourists from Portugal where the ship originated from. Needless to say, politicians often give preference to projects that bring about income for ordinary citizens. Therefore, the economic value of shipwrecks needs to be carefully assessed and presented to stakeholders in such a way that politicians and those responsible for budget allocation from the central government prioritise heritage and become interested. This can be done by articulating the potential economic value of a particular shipwreck, particularly in terms of job creation and other economic benefits that can accrue through sustainable tourism.

## Assessment of significance

### Why is it important in the management of MUCH

Now that we have partially considered the different types of values attached to the significance of heritage resources, it is crucial to understand the rationale behind assessing significance. This is critical to fully comprehend its importance in the management of MUCH. Maerr (2007) states that significance assessment is important because not everything can be researched and conserved at the same time. In most cases, this is due to limited budgets, limited time, and

limited human resources. Thus, a significance assessment is required so that priorities can be made accordingly. Manders *et al.* (2012) further argue that significance assessment affects most heritage management decisions since it is through significance assessment that nomination of heritage sites to the register is made. Similarly, it is through significance assessment that further conservation decisions are considered, i.e. deciding between in-situ or ex-situ conservation methods. Significance, therefore, allows us to understand why material archaeology is important.

According to Rogers (2007), Archaeological Impact Assessment (AIA) or Heritage Impact Assessment (HIA) is a process through which trained professional looks at an archaeological site and assesses what impact the proposed development will have on it. Such studies must consider the significance assessment. Samuels (2008) highlights that AIA studies are initiated in response to development proposals that can potentially disturb or alter archaeological sites. The role of the assessment is not to prohibit or impede land use and development, but rather to assist a government agency and/or private sector stakeholder in making decisions that will ensure effective management of archaeological resources, as well as optimal land use. The overall assessment of a site considers the significance value of a particular heritage before making the decision, therefore it is important in significance assessment.

### Criteria for assessment of significance

Two major aspects of significance need to be evaluated when managing underwater cultural heritage, namely, (i) intrinsic value and (ii) its relation to managing change. According to Maerr (2007), intrinsic values include the following: (i) cultural, (ii) historical, (iii) economic, (iv) educative, and (v) social. Furthermore, the significance concerning managing change relates to understanding how changes arise and what the implications are in altering the

intrinsic value considerations. I will focus on intrinsic values because these are the values that influence whether a particular heritage is considered important or not by the public.

Manders *et al.* (2012) outline 10 components of significance utilised in assessing the value of MUCH. These are: (i) potential significance, (ii) historical significance, (iii) scientific, research or technical significance, (iv) aesthetic significance, (v) social and spiritual significance, (vi) economic, (vii) provenance, (viii) rarity, (ix) experience significance, and (x) interpretive potential. I will discuss these regarding the broader Namibian context. This must be understood since it is a reference point for best practice in the development of a comprehensive assessment guide for MUCH in Namibia.

#### *(i) Potential significance*

Manders *et al.* (2012) suggest that the potential significance implies the possibility of yielding more information or value than the initial expectation. It is argued that assessing the potential significance is an important aspect to consider when assessing the value of shipwrecks. Stanisforth (2001) argues that potential significance has shortcomings and should be used in association with other values of significance. In the Namibian context, the Oranjemund shipwreck was diligently preserved and conserved by the government because it was believed that it would yield potential economic benefits through sustainable tourism.

#### *(ii) Historical significance*

Finney (2002) argues that historical significance is about what new information, within a historical context can reveal regarding a particular aspect that is either misrepresented, misunderstood or omitted altogether from existing works of literature. About Namibia, I argue that many shipwrecks or underwater cultural heritage are researched because of their historical significance. Several examples can be given to this effect: (a) Oranjemund shipwreck has

significant historical value because of the large consignment cargo and weaponry that has the potential to teach us about the social-economic and political dynamics of the 16<sup>th</sup> century in a new way Castro (2001). The early Portuguese trade to the Far East is significant both in Portugal and Africa. This is because few artefactual materials remain from this era. Considering that this particular shipwreck was laden with ivory sourced from Africa signifies the Pan African involvement in the Portuguese trade. Furthermore, various cargo onboard the ship was sourced from various countries. This is indicated by the presence of medical and weaponry possibly from other countries, Spanish coins, Venetian coins, Fugger copper ingots from Germany, lead and tin ingots possibly from East Europe, etc. Such value of the material discovered from the shipwreck provides it with the appropriate description of a shared heritage. The essence of this context is that most shipwrecks in Namibia have been documented with an emphasis on their historical significance more than any other value discussed in this chapter.

Other shipwrecks, such as the Eduard Bohlen, are associated with commerce, transportation, and the Herero-German war of national resistance (Katjavivi 1988; Drechsler 1980; Schaller 2011; Adhikari 2008; Zimmerer 2008; Buys & Nambala 2003). It is historically significant because it has the potential to provide new historic information that might have been misrepresented in the existing literature. This could, therefore, highlight the roles played by other groups of people in the overall trade network represented in the shipwreck. A thorough historical analysis of each shipwreck can provide a unique story to tell, even those with seemingly little historical information. This is because in most cases shipwrecks occur as a result of accidents rather than intentional submersion. Therefore, the story of the ship could be linked to the political, social and economic historic context of the period (Mender *et al.* 2012). Nevertheless, what Manders *et al.* (2012) fail to acknowledge is the historic significance of a heritage depends on who assesses a heritage site as alluded to by Gibbs (2005). In most cases, this depends on the political climate. As a direct result, the heritage that glorifies colonial

powers are now considered offensive or not inclusive enough. This is emphasised in the movement under the banner Rhodes must fall in South Africa (Nyamnjoh 2016). Often, the narrative of those in power influences the management decisions in terms of what qualifies as heritage and what is not included. Within Namibia, this political influence is highlighted by the removal of the horse raider monument that was commissioned at the end of the Herero Nama war to celebrate German war victory over the indigenous people (Drechsler 1980; Katjavivi 1988; Adhikari 2008; Schaller 2011). The monument was proclaimed as national heritage under the National Monument Act of 1969 before independence. It remained as a national heritage for the first 24 years after independence. However, in 2013, the President of Namibia and other academics questioned the continued presence of the raider monument and its meaning in the public space it occupied (see Figure 4.2). It was deemed as insensitive towards the sufferings of Namibians at the hands of the German colonial forces and glorifying the perpetrators of the genocide (New Era 2019), 24 years after the country had obtained independence from South Africa.

As a result of political pressure, the monument was removed in 2014 from the contested space it occupied and was relocated to the Alte-Feste museum, within the same vicinity of its original location. This move sparked a debate among scholars and the general public, with some questioning whether the decision was justified. Expressions of dissatisfaction came especially from the German-speaking Namibians. A new independence memorial museum was built within the space where the removed monument was. The new monument celebrates the history of armed struggle against both the German and South African colonial forces. It is quite ironic considering the monument that had been removed, which celebrated the same colonial society Namibians are celebrating against (see Figure 4.2). This highlights a crucial aspect of how heritage is politicised and used to represent those in power. A crucial aspect that heritage managers need to be aware of when interpreting the significance of such heritage.

According to the National Heritage Council, the monument was de-proclaimed because “it has lost its historic significance after independence” (Nankela pers. comm. 2020). I argue, therefore, that historical significance cannot be relied upon to judge the value of heritage particularly when such history is contested and involves acts of genocide or holocaust.



Figure 4.2: The rider Monument (A) was de-proclaimed, removed, and the space it occupied (B) became a new home for an independence memorial museum (Source: New Era 2019).

I argue that such rhetoric is justified depending on the space such as heritage sites occupies. Could the same rhetoric be applied to shipwrecks of German origin that litters the Namibian coast? I think not, because, unlike the raider monument that was located in a sensitive space adjacent to Herero-Nama prisoners of the war concentration camp (Drechsler 1980; Katjavivi 1988; Adhikari 2008; Schaller 2011), shipwrecks on the Namibian coast are located on isolated areas in the treacherous desert along skeleton coast. As such, they do not carry the negative connotation statues such as the raider monument had. Most importantly, inclusive historical interpretation of this colonial heritage is important so that the public can discern and appreciate the role played by Black Namibians through these shipwrecks as opposed to the current status quo.



*(iii) Scientific, research, or technical significance*

According to Finney (2002), it has to be considered whether a site is representative of the period it was in service in terms of scientific, research or technical significance. A site or an object may have research significance if it has major potential for further scientific examination or study. This assertion is true in the Namibian context, as exemplified by the Oranjemund shipwreck which is rich in artefacts ranging from copper ingots, silver ingots, medical equipment, weaponry, organic artefacts etc (Smith 2009; Chirikure *et al.* 2010; Chirikure and Sinamai 2015). To illustrate its scientific potential, ivory from the shipwreck was taken for further DNA analysis at the University of Cape Town in 2015 by Professor Chirikure, I have not received nor read the results of this DNA analysis to date. This was intending to establish the geographic origins of these ivories. Mowa *et al.* (2018) through historical analysis established that the ivory from the Oranjemund shipwreck, originated from West African ports. This meant that these elephants though yielding large savanna elephant ivories which do not correspond to the forest geographical environment of West Africa. The ivory was likely hunted in the interior of West Africa that has a significant Savanna landscape or they might have been hunted from East Africa and transported in the interior to West Africa where the Portuguese were principal ivory buyers (Mowa *et al.* 2018).

Moreover, the source of the copper ingots, as well as their mineral composition and technology that was applied in the melting process during the 16th centuries, was established through laboratory analysis (Hauptmann *et al.* 2016). This is a ‘snapshot’ of potential studies focusing on scientific significance especially for underwater shipwrecks that have relatively well-preserved artefacts for accurate results.

(iv) *Aesthetic significance*

This entails assessing shipwrecks based on their ability to appease visually (Menders *et al.* 2012). As stated earlier, this implies that shipwrecks that are well preserved are more attractive and appealing due to their physical beauty. This also applies to the environment in which such shipwrecks are located. The Namib Desert is considered to be one of the most tranquil and beautiful landscapes in the world due to the desolate and unmolested nature of the landscape and the vast dunes. Shipwrecks such as the *Eduard Bohlen*, *Dunedin Star*, and the *Otavi* shipwreck are aesthetically appealing due to the environment in which they are found. This is perhaps one of the main reasons that make these some of the famous and popularly visited shipwrecks in Namibia because of their appearance within the desolate landscape. Manders *et al.* (2012) argue that since aesthetic significance is difficult to quantify, it is best for heritage managers to use quantifiable variables to determine aesthetic value. Such quantifiable variables include visibility, intactness, and ease of access to the site. This form of assessment should apply to both ashore and offshore MUCH.

(v) *The social and spiritual significance*

Maritime and Underwater Cultural Heritage (MUCH) can be places of remembrance or memory (Menders *et al.* 2012). It is a well-known fact that the sea is not meant to be a habitat for humans, therefore ship-wrecking or foundering often claim lives (Gibbs 2006). In some cases, shipwrecks that are known to have claimed lives are regarded as gravesites and are protected by various laws (Gibbs 2006). An example would be the United Kingdom's laws specifically protecting shipwrecks that sunk in combat (Gribble and Sharfman 2014). I identify the *Eduard Bohlen* shipwreck as having the potential to yield social and spiritual significance particularly among the Herero and Nama communities in Namibia. Harris *et al.* (2012) outline that this particular shipwreck was used as a floating prison in addition to ferrying prisoners of

war. It is however not clear what Harris *et al.* (2012) mean by floating prison. One wonders whether Eduard Bohlen housed prisoners of war and was kept there indefinitely while the ship was afloat or it was used occasionally to ferry such prisoners to other destinations such as Shark Island near Luderitz.

I argue that in the case of Eduard Bohlen and other shipwrecks, they can be viewed as symbols of national resistance against colonialism. A good Namibian example is the *Omugulu wombashe* which was proclaimed as a national heritage site by the National Heritage Council (NHC). This is a war landscape where the first battle between People Liberation Army of Namibia (PLAN), a military wing of the South West Africa People Organisation (SWAPO), and South African Defense Forces (SADF) took place in the 1960s (Katjavivi 1988; Buys & Nambala 2003; Zimmerer 2008). The significance of this site lies in the historical events deemed as worthy of remembrance, especially among politicians. Other heritage sites, such as Kassinga in southern Angola, are associated with massacre and are protected to remind the public of the struggle for independence. It was at Kassinga where Namibia lost more than 600 people after a SWAPO refugee camp was attacked by SADF in 1978. While this area is regarded as a heritage site of significance to Namibia, it has not been proclaimed as a national heritage site under Namibian heritage legislation because it is in Angola. Nonetheless, the site is protected under such a historical narrative of the event that took place even though it is often disputed by SADF apologists who argues that Kassinga was not a refugee camp but rather a military camp and it was justifiable to attack it (Katjavivi 1988).

My argument is that if the sites linked to struggles for political independence are recognised as having importance in terms of heritage, then landscapes and objects associated with the first war of national resistance need not be left behind but to be equally recognised. I further question whether this courtesy of heritage recognition cannot be extended to shipwrecks associated with war. My argument here is that shipwrecks can serve as sites of remembrance

in an inclusive way, highlighting the role played by all Namibians in the historic development of the current Namibian society.

*(vi) Economic significance*

The value of objects or sites can be assessed based on the economic significance of such sites. According to Finney (2002), economic significance entails the site's ability to attract tourists and create jobs. This value of significance, however, can either be a 'blessing' or can become a 'curse to the country'. The latter can happen as a result of popular shipwrecks attracting looters who often put a value on the cargoes and other materials. The major aim for those attracted shall be to plunder the resources discovered. I postulate that it is this possibility that led Namibian heritage authorities to decide on removing gold and silver coins from the Oranjemund shipwreck. These were removed for safe storage at the Bank of Namibia.

While the cargo from this one shipwreck has been safeguarded, the Namibian shipwrecks are not safe from souvenir hunters. It is safe to assume that shipwrecks such as Eduard Bohlen 1909 and Dunedin Star 1942 have been looted through souveniring over the years due to lack of protection by heritage laws and an active heritage authority. During data collection for this study, it was evident that some artefacts displayed in the Swakopmund museum were removed from Eduard Bohlen wreck by members of the public and donated to the institution for curation (Figure 4.3). Besides, there are artefacts displayed at the same museum which originally came from the St Croix (Figure 4.3). A caption on the display cabinet indicates that most of the shipwreck artefacts displayed were donated to the museum by members of the public. These were likely plundered because of the shipwrecks being easily accessible. This description renders them accessible for the letting, thus compounding the challenge behind their long-term conservation.

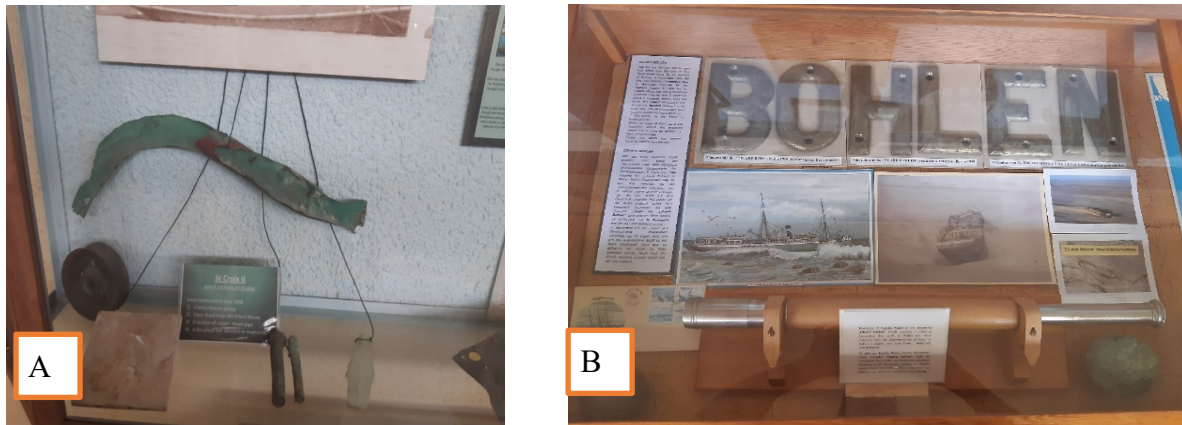


Figure 4.3: Some of the artefacts displayed at Swakopmund Museum — (A) Miscellaneous artefacts recovered from the St Croix displayed in the cabinet — (B) Nameplate of Bohlen was stamped to the iron hull of the ship, also telescope used by captain Parrow of the steamship Eduard Bohlen.

### *(vii) Provenance*

Provenance entails the origin, history, and use of a particular site or object. It gives a context of the purpose and operational use of a site or object. According to ICOMOS (2000), provenance is central to understanding and appreciating the historical and scientific significance of a site or object without which it would be difficult if not impossible to add any value to it. Furthermore, Bailey (2011) argues that before a shipwreck is removed from its context and environment, it is important that provenance is investigated. It is the provenance that will give significance to the context of the site.

As in the case of Eduard Bohlen shipwreck, its provenance gives it more value than any other assessment criterion I have looked at thus far. According to the provenance of the Eduard Bohlen, it was used by the Woerman liner to ferry passengers between Swakopmund, Luderitz, and Cape Town. At the dawn of the German-Herero war in 1904, the role of the shipwreck turned to be that of a floating prison as already alluded to Harris *et al.* (2012). Each of these

significance assessment criteria is recommended as best practice by UNESCO, and need to be used in association with other criteria. These assessment tools are used to establish the level of significance and thus validate the need for heritage authorities to preserve a particular heritage object. It is often difficult to achieve this with one criterion. As a result, it is my recommendation that a combination of these criteria is used when assessing the heritage value of a phenomenon.

Guerin (2015) states that cultural heritage is kept for enjoyment for current and future generations. Therefore, a balance needs to be developed between economic and scientific or historic benefits. I contend further that in developing nations such as Namibia it is quite challenging to persuade the government of the day to release funds for the preservation of heritage that seemingly do not translate into huge economic benefits. This is well captured in the response by one heritage official, who said: “people do not eat heritage.” The official who is still a senior management staff at the national museum of Namibia was responding, three years ago to the question of the perceived neglect of other shipwrecks in Namibia in exception of the Oranjemund shipwreck. I took this to imply that it is unethical to allocate funding for heritage management in a system that is not sustainable. It is my view, therefore, that politicians must be informed that heritage is not just for the present but for future generations as well. Also, they must be made aware that economic benefits can be realised with careful planning and management of MUCH. The lack of this aspect has resulted in millions being injected in preserving non-self-sustaining cultural heritage projects at the national museum of Namibia and the national heritage council of Namibia over the years. This has led such projects to be white elephants because of poor planning. Nevertheless, economic benefits should not be the overriding reason for preserving heritage in the first place, but rather, preserving the heritage for cultural reasons for this generation and the next.

Besides, Maerr (2007) warns that giving prominence to economic value as the main motivation for preserving heritage might lead to treasure hunting and the prioritisation of material value over sustainable economic benefit. Heritage managers for the Oranjemund shipwreck (Smith 2009; Werz 2009; Chirikure *et al.* 2010; Chirikure and Sinamai 2015) convinced the Namibian government to spend millions of dollars in conserving the shipwreck because of its future potential value as a tourist attraction. There had been a view held by politicians that if the shipwreck's consignment, mainly the copper ingots and gold and silver coins, were to be sold, significant revenue would be raised. The discovery of the Oranjemund shipwreck brought confusion about what was to be done to the copper ingots and the numerous 16<sup>th</sup>-century gold and silver coins. Politicians considered the potential revenue to be more than five times the then national budget of Namibia. This was a significant exaggeration that was overestimated by the local media to highlight the significance of the finds.

### *(viii) Rarity*

Some shipwreck score high on rarity and uniqueness to give them significance. I maintain that Namibian shipwrecks such as Eduard Bohlen are unique and rare. They represent the colonial presence of Germans and their influence in Africa. So, while complete and preserved shipwrecks from the era might be common in German, the fact that they are rarely seen in German colonies renders them unique within such localities. As such, these shipwreck becomes attractive and are valued for their uniqueness in being the only one of their kind available in the specific country. Also, Namibia has only one 16<sup>th</sup> century Portuguese shipwreck, meaning that it is rare in the country. Heritage, in general, is a non-renewable resource and once damaged, it is destroyed forever. Rare heritage must thus be prioritised when it comes to conservation.

According to Samuels (2008), some shipwrecks might be classified as significant based on their completeness and intactness or originality. The same cannot be said for most of the Namibian shipwrecks. This is due to the harsh nature of weather elements and the treacherous sea. As a result, most shipwrecks, especially those made of metal, are badly corroded. This is best exemplified by Eduard Bohlen.

#### *(ix) Experience significance*

Manders *et al.* (2012) argue that the visibility of a site within a landscape and its strong association with memory can create a unique mood or character that enhances a site's significance. A good example would be the Eduard Bohlen shipwreck. Those visiting the shipwreck become captivated by the site. This is so because it is the only man-made object for hundreds of kilometres in either direction. And the fact that it is within a desert environment on an inhospitable coast captivates the imagination of those visiting, regarding why it foundered, the ordeal of the survivors in such an environment as well as the aesthetic beauty of the shipwreck within the background of a sea and desolate desert dunes (Harris *et al.* 2012).

#### *(x) Interpretive potential*

Stanisforth (2001) demonstrates that a shipwreck site could be significant based on their interpretive potential, which is a probable explanatory of the heritage site in a way that has not been done before by either museum curators, researchers, archaeologists, etc. This is very important because each artefact has a story to tell, as in the event of Oranjemund ivory (Mowa *et al.* 2018). Historical sources provide some evidence that ivory was sourced from the West African interior from hunters who sold them to Portuguese merchant in West Africa at various ports such as Elmina. Understanding these hunting communities, their geographical location, hunting locations, trade routes is one way of interpreting the shipwreck. So every single artefact found on a shipwreck has a unique story to tell. For example, a spoon could potentially tell us



about the materials used to manufacture it, who used it aboard the ship, etc. A belt buckle can tell us what class of people wore it in the 16<sup>th</sup> century, what animal skins were used in manufacturing the leather, etc. besides, animal bones have the potential to tell us about the diet on board, utensils, and garments from the 16<sup>th</sup> century.

The significance assessment model based on Weick and Daft (1984) interpretive model demonstrates that the significance assessment is critical in the management of MUCH. It is through the interpretive model that decisions regarding which shipwrecks qualify to be considered heritage at all. After significance assessment is done and it has been established that a wreck is significant, the management by competent authorities has to take effect. The process can be repeated since significance can be increased over time (Manders *et al.* 2012) or can decrease as in the case of the horse raider monument in Namibia (Nankela pers. comm. 2020). In case a shipwreck is considered less significant; it does not mean it should be abandoned or destroyed, but rather that more research must be conducted (see Figure 4.4).

According to Manders *et al.* (2012), the management of MUCH is a complex process that does not only involve archaeologists but other stakeholders too. Amongst these are fishermen, policymakers, and the general public. Maerr (2007) outlines that decisions about heritage management (i.e. whether in situ preservation or excavation is considered) ought to be made at the local level meaning the condition of the environment of the wreck site ought to be considered. At the regional level is where one considers a site and its context within the environment it is located. And at the national level, legislative instruments to protect the site are initiated. This applies to all shipwrecks that are of significant heritage value as illustrated in Figure 4.4.

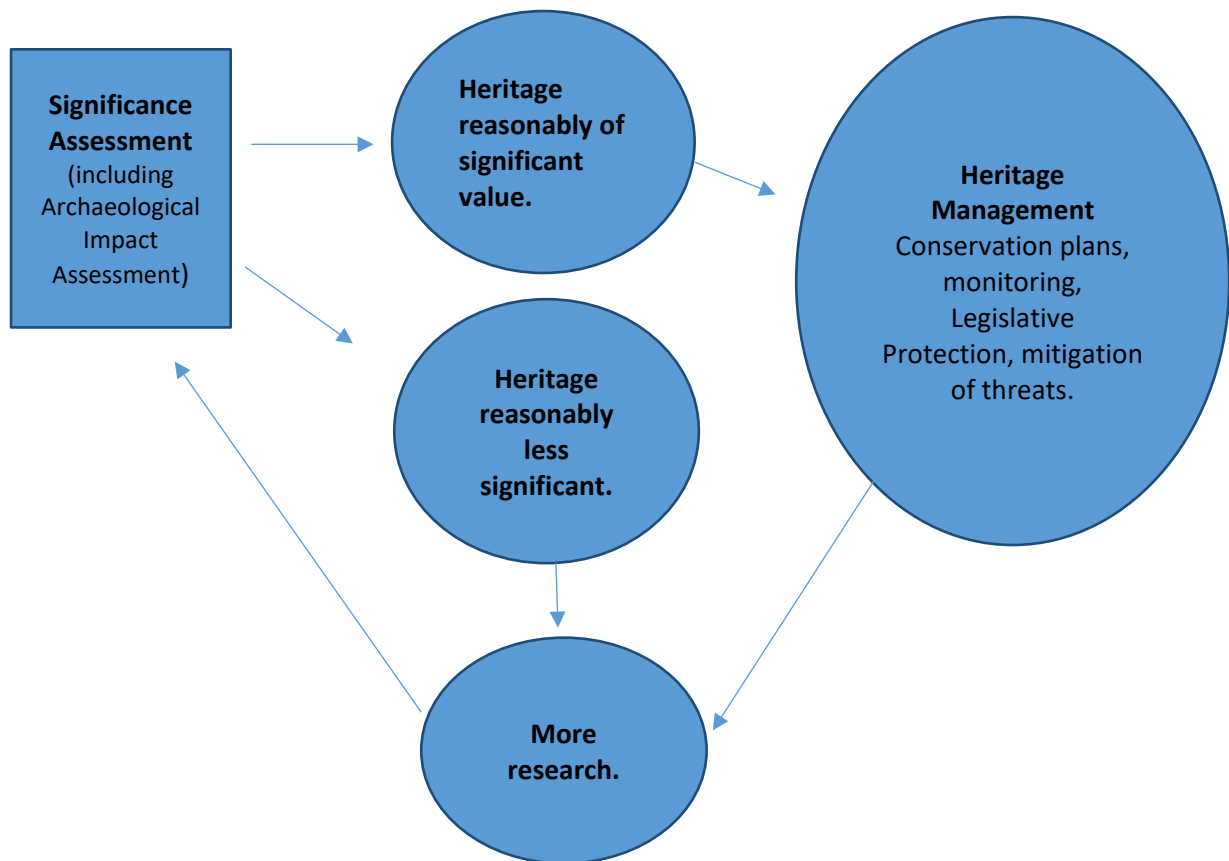


Figure 4.4. Significance Assessment Model for the management of Maritime and Underwater Cultural Heritage (Source: Model Adapted from Weick and Daft 1984).

### Significance assessment in the Namibian context

One of the aspects highlighted in this research with the Eduard Bohlen which was the focus of my fieldwork is that significance assessment is important and crucial in raising awareness on the need for conserving this particular shipwreck. Harris *et al.* (2012) highlighted that the Eduard Bohlen was used as a floating prison and used in the transportation of Herero/ Nama prisoners of war from Luderitz to Shark Island (Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011). As such the shipwreck could be seen as a tool, used to promote acts of genocide or violence against a certain group of people. In the public discourse, the question arise regarding, should such a heritage be protected, celebrated and promoted? As I already underscored the answer to such question is yes, they

should be protected and promoted, however, this should be done in a way that is inclusive and representative, one that is sensitive to the topic and does not evoke sentiments of superiority nor inferiority. Furthermore, the underlining message should be that of reconciliation and peace through these heritages. Public discussion on such matter is important in raising awareness of the significance of such shipwrecks.

The Eduard Bohlen is a heritage associated with war or acts of war (Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011). It is thus logical for many Namibians to dislike such a heritage since it may be seen as a heritage of the oppressor and protecting it would be frowned upon as an act of preserving European superiority symbols. However, this ought not to be the case. As already elaborated there are iconic examples around the world showing how heritage associated with war and conflict can help to promote peace and reconciliation among the parties involved. Robben Island heritage site is one of such examples (Humphrey 2014). The site attracts tourists because of its cultural and natural heritage. The natural heritage is rich in unique fauna and flora and most importantly is home to the African penguins (Humphrey 2014). Second and most important of all is its cultural or historical aspect, the island served during apartheid as the home of a prison that incarcerated political prisoner. Those who resisted against the apartheid government were arrested and sent to Robben Island and consisted primarily of black Africans both Namibians and South Africans including South Africa first black president Nelson Mandela who was incarcerated for 27 years (Drechsler 1980; Katjavivi 1988; Adhikari 2008; Schaller 2011; Humphrey 2014).

As outlined before one of the worlds' most iconic leaders, Nelson Mandela was imprisoned alongside other political prisoners on this island, which according to historian was more like a concentration camp due to the ill-treatment of the prisoners. At present, the island prison cells are still in such a pristine condition as they were during the apartheid era (Humphrey 2014).

This is a reminder of the horrors of apartheid, which are documented in a museum that was created on Robben Island, and it has become a major tourist attraction.

Such sites can be used to remind people of the horrors of hate and remind people of the need to preserve peace at all cost. Guerrin (2015) state that such sites are often located in international waters and most cases are also regarded as gravesites or horrors of war and remind people about the need to preserve peace. In light of Guerrin's (2015) sentiments, the Robben Island prison museum serves as a site to promote peace and reconciliation between different groups of people in South Africa mainly black and white. It reminds people of the horrors of hate and the need to jealously preserve peace. Such views can be attributed to the Eduard Bohlen, although it was associated and used as a prison and concentration camp, it ought to be interpreted as heritage that promotes peace and reconciliation between different groups in Namibia.

Furthermore in promoting reconciliation Guerin (2015) state that WW1 underwater cultural heritage sites can do this through collaboration on heritage projects between warring states, an example could be Britain and German collaborating on a project involving a British sunken ship torpedoed by German submarines in WW1, or Argentina and UK working together to study a sunken Argentinian ship during the Falkland War in 1982, thus such collaboration can promote reconciliation and peace between nations (Guerin 2015).

Another example of how shipwrecks associated with war can help in peace and reconciliation and a catalyst for inclusive interpretation of heritage is that of SS Mendi Gribble and Sharfman (2015). As elaborated previously, this shipwreck also demonstrates how distorted history can be corrected through the shipwreck study. In the case of SS Mendi though a British ship was employed to ferry non-combatant black labourers from South Africa to serve non-combatant duties on the frontline in France. Through research, their role in WW1 can thus not be forgotten.

They were instrumental in the allied victory. As a result, SS Mendi becomes a reminder of the heroic deeds of black Africans in WW1. As a matter of note Gribble and Sharfman (2015) state that the highest honour of heroic deeds in South Africa bestowed by the president is now referred to as the order of Mendi.

Turning our focus at Eduard Bohlen in Namibia the answer is obvious, the shipwreck is a reminder of the sad history of colonialism as well as racism and genocide. Historians argue that the success of the Herero genocide enabled German to successfully commit a second genocide against Jews in Europe in a space of fewer than 30 years (Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011; Shigwedha 2018). If the Herero genocide was considered a genocide by the international community, they would have better prepared themselves to avoid a second holocaust against the Jews, however, Germany denies that acts of genocide were committed to this day.

Guerin (2015) argues that shipwrecks are a treasure trove for the academic community since they remain a major source of knowledge in understanding the past. Furthermore, they remain an important source of reference for further research in various fields such as shipbuilding technology studies, military science, warfare science etc. Guerin (2015) further contends that shipwrecks can become a source of sustainable economic wellbeing for local communities through sustainable tourism, which is better than pillaging by few individuals for their gain at the expense of the community. In Namibia tourism is already a major contributor to the country's GDP and easily accessible onshore shipwrecks along the skeleton coast are a major tourist attraction.

As a general principle and rule of the 2001 UNESCO convention on the protection of underwater cultural heritage, the protection of underwater cultural heritage *in-situ* shall be considered as the first option (UNESCO 2001). This is because of the existing interplay

between the site, its story, and its context. What this means is that the authenticity of the site is defined by the historic events that led to the ship sinking. Thus, the event and locality define the significance of the shipwreck (Maarleveld *et al.* 2013). However, Ndoro (2018) contends that the western interpretation of authenticity falls short of being inclusive of other cultures, particularly in African contexts. Ndoro (2018) argues that many African heritage sites are in danger and not appreciated as world heritage sites because they lack the physical attributes that delimit a heritage as defined by UNESCO and ACCROM (Ndoro 2018). He further claims that such definition is Eurocentric and falls short of recognising that in the African context, the outstanding universal value of a site often includes the intangible aspect of heritage. A typical example is the Kuomboka heritage landscape that has been utilised for over four centuries and is still being utilized by the current generation in Zambia's Western province. He argues that such a heritage is valuable to the community as long as it is utilised by the current generation. In other words, according to the community perspective, it will cease to be a heritage if the current community is disconnected from it i.e. community relocated from the heritage while preserving it for tourists. In this case, the community is most often excluded in defining a heritage as well as in the management of such heritage, thus heritage is not static or sealed in time but its value is defined by the current generation utilising it, hence the need to consult the community. In general, Ndoro (2018) state that the dynamic nature of culture in the African context needs to be recognised in defining heritage. The 2003 convention on intangible cultural heritage (UNESCO 2003) gives preference to current cultural practices, rituals, dances languages etc. However, the same cannot be said to physical heritage sites or space, nor underwater cultural heritage sites.

What this means is that shipwrecks such as Eduard Bohlen's cultural significance goes beyond the material remains, this is so because it was used to transport prisoners of war to concentration camps at Shark Island, it becomes a site of remembrance. Remembrance of the resilience and

spirit of resistance to colonial oppression by indigenous Namibians. These aspects are not physical but intangible, hence the study of these shipwrecks should consider that aspect of inclusive interpretation that appreciates the “intangible histories” associated with shipwrecks. I argue that the Eduard Bohlen, in particular, is not just a monument in the desert but some communities in Namibia especially descendants of the German-Herero/Nama war would have considered the shipwreck as a shrine, due to the ship’s role in the war. I believe that this is perfectly important in as much as it enhances the value and protection of the shipwreck.

## Significance Assessment of Five shipwrecks

In making sense of the nature of shipwrecks in Namibia, I decided to randomly select five shipwrecks from those provided in Appendices X and XI, as well as Table 6.1. The five chosen shipwrecks are in alignment with the two periods of Namibian history and their historical contexts. The two periods I am referring to here are (i) the pre-colonial period and (ii) the colonial period. Through the understanding of the cultural, social, economic, and historical significance of these shipwrecks, I will be in a position to present a strong argument on why it is important to have a comprehensive database for a country like Namibia that is rich in maritime and underwater cultural heritage. Furthermore, it will become apparent why every shipwreck on the database list is significant.

A significance assessment of the randomly selected five shipwrecks demonstrates that importance is rated based on the significance assessment criteria tools covered in this chapter. This is done so that a postulation can be made on how valuable each shipwreck is. According to Manders *et al.* (2012), criteria for significance assessment include historic, rarity, scientific, academic, social, spiritual, experience, economic, representativeness, rarity/uniqueness and interpretative potential. Moreover, Manders *et al.* (2012) state that for heritage to be classified as significant, a combination of two or more of these criteria has to be demonstrated. However,

one criterion might be overwhelmingly stronger compared to others, in such a case it should demonstrate how and why it is worth considering the asset as heritage. Some shipwrecks score high in economic assessment and none in terms of aesthetic value. Therefore, the assessment of value was not applied universally due to the scarcity of information. My view is that when each shipwreck scores more than one value, it should be sufficient enough to declare such heritage asset as a National Heritage as per the 2004 National Heritage Act of Namibia. The shipwreck data presented under this section has been sourced from a broader desktop study using secondary data. Additionally, the historic information has been divided to align with contemporary heritage management criteria to which such significance of shipwrecks and value might be measured against. I discussed the criteria in Chapter four as outlined by Manders *et al.* (2012).

In presenting these five shipwrecks, I focus on their historical and economic significance. Three shipwrecks are from pre-colonial Namibia (Vlissingen, Oranjemund Bom Jesus, The Kent), and two are from colonial times (Eduard Bohlen and The Dunedin Star). In line with the 2001 UNESCO Convention on the protection of underwater cultural heritage, the three shipwrecks dating from pre-colonial times are more than 100 years old. These shipwrecks, due to their age, are not only important but are significantly threatened due to their faster rate of deterioration compared to recent colonial shipwrecks. Furthermore, it is uniquely important to note that each shipwreck is unique based on available information and interpretive potential.

## Pre-colonial Era shipwrecks

### Vlissingen (1747)

According to Werz (2007), the Vlissingen was a Dutch East India Company (hereafter VOC ship) that was on its way to Table Bay from Middleburg in the then Dutch republic. The ship



was likely carrying European goods for trade in the Far East where the Dutch had overtaken the Portuguese in controlling the lucrative trade for Chinese porcelain, Indian spices, and other commodities. Werz (2007) stresses that the Vlissingen was identified based on the coinage that washed ashore in Meob bay on the Namibian coast. It is thought that the coins were minted around 1746 in the then Dutch Republic.

### *Historical significance*

The wrecking of this ship on the Namibian coast highlights the treacherous nature of the coast and the importance of the Namibian coast as a route for the ship that sailed from Europe to Asia. Based on the earlier contacts between indigenous people on the Namibian coast and seafarers (Kinahan 2000) there is a strong possibility that the Vlissingen might have veered close to the shore looking for trade or refreshing their ship with fresh food and water. This put the ship within an important historic period that was dominated by the Dutch in the Far East. To highlight the linkage of the Vlissingen shipwreck to the Netherlands, I established from one Mr Von Schumann who informed me that he once benefitted from funding provided by the Dutch Embassy in Namibia. This funding enabled him to receive training in the Netherlands concerning the study of this shipwreck. What this funding indicates is that the linkage of this shipwreck to the Netherlands is well known and is appreciated by the Dutch government. It is a further indication of the potential economic significance of Vlissingen that can be derived through sustainable tourism.

### **Oranjemund Bom Jesus shipwreck (1533)**

This is perhaps the most famous ancient shipwreck to have been discovered in Namibia to date. According to Chirikure *et al.* (2010) and Chirikure and Sinamai (2015), the ship was identified as a Portuguese *Nau* that carried mainly copper ingots from Europe to the Far East. The link to

Portugal was based on the Spanish and Portuguese coins discovered onboard during the excavation. A mariner's astrolabes on-board were the oldest of their kind and only the Portuguese used these from the middle ages onwards. Furthermore, several other artefacts from the shipwreck were found, ranging from weapons to personal items such as belt buckles, copper spoons, pewter plates and medical equipment such as barber's bowl, and a syringe with mercury inside which was probably used to treat diseases such as syphilis on-board.

### *Historic significance/interpretive potential*

The cargo on-board potentially formed the ballast of the ship, such as the Fugger copper ingots with a Fugger trident signage stamped on each ingot. Tin ingots were also found in significant quantity, perhaps most intriguing is the elephant ivory, which is the single most important cargo on-board from the African continent. Symbolising Africa's involvement and role in the intercontinental transnational trade, and the wrecking itself in the Namibian water further highlights Namibia's strategic location in the *Carrera da India* or Indian route as well as a testimony to the treacherous nature of the coast.

### *Economic significance*

The Oranjemund shipwreck offers immense potential for its historical significance. This is because it enables the historian to reflect into a bygone era to understand various aspects of trade, weaponry, disease treatment, diet on-board etc. Furthermore, this shipwreck has an economic value due to its rarity. It is dubbed the oldest European shipwreck in Sub-Saharan Africa. As a result, the shipwreck has the potential to become the Vasa Museum or the Mary Rose Museum of Southern Africa through sustainable tourism.

## The Kent shipwreck (1850)

### *The historic significance and scientific potential*

According to Kinahan (2009), the Kent shipwreck went down on the 5<sup>th</sup> of July 1850 long after the exhaustion of the Guano trade on the Namibian coast. It is reported that this was a passenger ship of British origin from Liverpool that sailed to Cape Town. It got lost in a south-west gale off Hottentot Bay. The ship was a three-mastered 26-meter wooden vessel, and the little that remains of it is because its wood was broken up and used to build a jetty. This jetty is today used for loading at a crayfish factory. Werz (2007) specifically refers to it as a rock lobster factory, the jetties themselves in this context constitute artificial static sites and are part of the maritime and underwater cultural heritage due to their association with the sea. The passengers from the Kent were rescued by Captain Spence of De Pass, Spence and Co. The story of the rescue is most important as well as studying what is left of the ship in understanding its design etc, thus interpretive and scientific potential is possible.

## Colonial-era shipwrecks (from 1885 to 1990)

### Eduard Bohlen (1909)

#### *Historical significance*

Harris *et al.* (2012) state that the ship was purchased by the Congo Company and was used between Belgium and Congo to explore the lucrative trade that existed in this part of the world. It was later bought by the Woerman Liner Company in Germany. According to records at the Swakopmund Museum, Eduard Bohlen was the first German ship used to transport mail and passengers from Germany to the then German South-West Africa, which is Namibia today. This was between the period from 1900 until its wrecking in 1909.

It has further been argued, by Harris *et al.* (2012) that before its wrecking in 1909, the ship had also been used as a floating prison during the 1904-1908 genocide. This conflict had resulted because of dissatisfied indigenous people whose livestock and the land was continually threatened by the German settlers. As a result, the local Nama and Herero population in central Namibia revolted against such incursion into their territory by destroying the settler's homes and killing at least 106 German settlers. In retaliation, Germany sent an additional 14 000 troops as reinforcement to fight against the indigenous population. A decree by German General Lotha Von Trotha, to kill every Herero woman and child, resulted in a high casualty. The Herero retreated to Waterberg Plateau where they were rounded up and killed. The Germans allowed some of them to escape within a narrow corridor into the dry Kalahari Desert to neighbouring Botswana where the majority died of hunger and thirst.

The Herero who were caught were sent to Shark Island. Other Herero prisoners were sold as slave labour to South African mining companies, with the Eduard Bohlen transporting approximately 230 prisoners to South Africa. Further, the ship was utilised during this period as a floating prison where a good number of Herero prisoner of war were housed.

### *Social significance*

It has been argued that the Woerman Liner Company was instrumental in the colonising of Namibia by Germany (Harris *et al.* 2012). The company colluded with the colonial government in providing it with essential services. It is alleged that after the war ended in 1908, the ship resumed duty as a passenger liner until it wrecked on the morning of 5 September 1909. This incident occurred while the ship was attempting to dock before offload supplies for the diamond diggers close to Conception Bay. There was thick fog, with the ship eventually foundering about 100 meters from the shoreline. A day later, the captain ordered all passengers

to disembark and abandon the ship. Two salvage attempts were made but all failed miserably, however, all passengers survived the wreck and made it to the shore.

Since then the ship was used by nearby diamond diggers as their habitation (Harris *et al.* 2012). The manager of the mine occupied the captain's hold and the rest of the diamond employees lived in the rest of the passenger compartment of the ship. The ship was used as living quarters while the mine employees worked on the diamond mines.

### *Aesthetic and rarity*

The Eduard Bohlen has been made famous and highly romanticised, with many paintings of the shipwreck available today (Harris et al. 2012). Some of these paintings of Eduard Bohlen have animals such as a gemsbok/oryx, with a sunset in the background. They generally get sold for a high price. Some of these exclusive paintings are hanging on the walls of the most luxurious hotels and offices around the world. In the 1960s the Eduard Bohlen was a location for an English film.

### *Economic value*

Because the shipwreck is located within a National Park, it has become popular, serving as a major tourist attraction in the country. Having the ship and the natural desert environment within which it is generally found is rare scenery and highly romanticised. This highlights the aesthetic and rarity value of the shipwreck. Considering the pristine wildlife environment it is found within, the economic value of the shipwreck is enhanced, serving as a major tourist attraction.

## The Dunedin Star (1942)

### *Historic significance*

The Dunedin Star was a United Kingdom (UK) cargo liner owned by Blue Star Liner that sunk in 1942 on Namibia's inhospitable skeleton coast. The cargo liner was commissioned between 1935 and 1936 by the Blue Star Liner, a UK based transport company. The ship was employed in the transportation of refrigerated cargo from Australia to the UK (Marsh 1958). Following the outbreak of the Second World War in 1940, the ship was occasionally escorted by warships highlighting its importance in UK commercial entity.

Marsh (1958) states that the ship became instrumental in Operation Halberd, in the siege of Malta in 1941. On 9 November of the same year, the ship left Liverpool for Egypt via Saldanha Bay and Cape Town. It is reported that the ship reached the southern coast of Africa on 29 November 1942, upon crossing the Kunene River approximately 50-80 km within Namibia, the ship hit a shoal. As a result, the keel was ripped open and water started to fill its hulls including the engine room. Following this incident, the captain realised that the ship was going to break due to strong waves that bombarded it. As a result, he decided to move the ship as close as possible to shore and it beached at a distance of about 500 m from the shoreline. It is reported that the captain sent about 60 people from the ship on the shore including the elderly, women, and children.

A distress signal was sent and picked up at Walvis Bay where a tugboat, Sir Charles Eliot, was sent to rescue the stranded ship and its passengers. Two other ships that were within the vicinity were sent the signals to help the Dunedin star and its crew. Marsh (1958) indicate that the currents and the strong surf made both the rescue of remaining passengers as well as rescuing the stranded ship difficult.

It is reported that the ship was beached and it became virtually impossible to rescue it. The attention was then more focused on rescuing the passengers. Marsh (1958) argued that a South African military plane was sent from South Africa to rescue and give provision to the passengers, mainly food, blankets and water. In a fateful turn of events, there were two incidents linked to the attempts to help those stuck within the Dunedin Star. First, the Ventura (the plane) that first responded to the Dunedin Star and dropped supplies is reported to have gotten stuck in the saltpan when the captain landed. It is reported that after four days of digging and onsite repairs to the plane they managed to get the plane airborne. It only flew for about 43 minutes and soon developed an engine problem. The decision made was to ditch the plane in the sea near rock point where the tugboat Sir Charles Eliot got stuck (Marsh 1958). Fortunately, all the crew of the Ventura plane survived the initial impact and swam to the shore. Second, the tugboat Sir Charles Eliot became stranded on its way back to Walvis Bay. One of the rescue plans is reported to have attempted to rescue the tugboat crew. Unfortunately, it got stuck in the salt pan they had landed on. It is reported that two people (the first officer and a black deckhand) died during an attempt to swim from where the tugboat stranded to the shore. These are the two deaths that were reported following the wrecking of the Dunedin Star. The crew and passengers from the ship all safely made it on the shore.

The remains of the Dunedin Star, though it was reportedly scrapped in the 1950s, are still visible onshore today. In addition, the Ventura plane and the tugboat Sir Charles Eliot can also be seen. These are all heritage assets with a major potential to serve as a major tourist attraction, bringing sustainable economic wellbeing.

According to the UNESCO Convention (Manders *et al.* 2012), *in-situ* conservation is preferred as the first option. This is because the context of the shipwreck or MUCH lies in the environment in which it is found. So the loss of the Dunedin Star and its subsequent eventful rescue attempt is a profound illustration of how important this statement is.

There is little information about the burial of the two deceased men. It is not known whether they were buried on the shore within the vicinity of the wrecking of the ship or they were taken to Windhoek or Walvis Bay. But what is clear is that the loss of these two lives was associated with this shipwreck, more so a black Namibian employed as a deckhand. I argue that the two men who died sacrificed their lives to save others, who were European sailors on a mission to deliver ammunition to British troops in the Middle East. It is important to mention that about 21 passengers on-board the Dunedin Star were paying passengers on their way to Cape Town, possibly to escape war-torn Europe.

The story of the Dunedin Star is one of cheating death which sounds like a story from a fiction novel or horror thriller movie. While they survived the wreckage, six of the 63 crew members, including the captain, died not long after surviving the sinking of the Dunedin Star. These six survivors died under mysterious circumstances. First, the captain died after migrating to India in 1944 and the other four crew members died in the north Atlantic on the Melbourne star. The chief electrician of the Dunedin Star died in the empire Javelin ship when it sunk in the English Channel.

The shipwreck offers immense potential in terms of its scientific and historic values. Because of their high level of significance, it is vital to protect not only the Dunedin Star but also the tugboat Sir Charles Eliot and the Ventura plane.

## Conclusion

In summary, what I have presented in this chapter enables the reader to understand best practice criteria for assessing the significance of shipwrecks and other underwater cultural heritage. Significance assessment of MUCH is a priority when managing these underwater cultural heritage. This is critical because, without this exercise, it is virtually impossible to assign any



significant value to heritage. What I also emphasised was that there are ten criteria for best international practice (Mender *et al.* 2012). I agree with these ten criteria and see their value in the Namibian context. The purpose of highlighting these criteria was informed by two reasons: (i) to respond to the objectives of the research study I undertook, as can be seen from the many chapters within the thesis that specifically focus on the significance of shipwrecks in the Namibian context; (ii) to reflect on the potential significance of the criteria particularly in the absence of existing guidelines on MUCH significance assessment in Namibia. I have argued, therefore, that assessment of significance presented in this chapter might serve as a benchmark from which heritage authorities can formulate standard MUCH assessment guidelines. This can be instrumental in the use of management tools such as the assessments of significance in evaluating if a particular heritage qualifies to be classified as having national significance. It is important to analyse significance to understand the value of shipwrecks in the greater appreciation of Namibian history.

I decided to focus specifically on five shipwrecks, the major purpose of which was to tell a broader story of Namibian history through shipwrecks. The value of these five shipwrecks was informed by the criteria I had already discussed in this chapter (see Manders *et al.* 2012). As a result, each of the five shipwreck scores at least more than one value category which is significant enough to necessitate the protection of such heritage (Manders *et al.* 2012). The crucial category of historical significance provides the provenance and historical occupation of such vessels. It does not only present the heritage significance of such shipwrecks but also tells a story of what their presence means to Namibian history. Telling the Namibian story through shipwrecks was one of the core objectives of this research.

The decision to divide these shipwrecks into pre-colonial and colonial periods necessitated me to unpack a comprehensive history concerning the provenance of such heritage resources. In particular, to also assess the role of Black Namibians in the creation of Namibian history. Based

on the data provided in this chapter, it is clear that each shipwreck can tell a story about Black Africans and Namibians in particular. Such stories can be sifted through archaeological material remains, i.e. the African ivory discovered on the Oranjemund shipwreck. Questions such as (i) where the ivory was sourced in Africa? and (ii) who are the hunters? Furthermore, historical account documents indicate that Europeans, since the early days of Vasco da Gamma, have traded with indigenous people on the Namibian coast (Kinahan and Kinahan 2009). One is tempted with curiosity about the nature of trade and items traded with Africans. Similarly, The Vlissingen and The Kent shipwrecks tell a story about the lush Namibian coast.

The Eduard Bohlen discussion at length in this chapter of my thesis is crucial in understanding and appreciating the brave men and women who sacrificed their lives to fight for freedom. Such is illustrated by the use of Eduard Bohlen as a floating prison. Therefore, this specific shipwreck is equally important to Black Namibians, particularly descendants of those people incarcerated on the ship during the 1904 to 1908 war. The Dunedin Star is another important shipwreck, telling the history of the heroic sacrifices of a Black Namibian who enlisted to save the crew of the sinking ship, and who died in the line of duty while serving the lives of others.

What becomes evident, unfortunately, is that the analysis of these five shipwrecks indicate that there is a broader history of shipwrecks that are not particularly appreciated in Namibia. These are the aspects that involve the stories about Black Namibians. By presenting the story of Black Africans, I was directly challenging the narrow view which emphasises the European origin of Namibian shipwrecks. In other words, it is mainly the European history that is represented, in terms of architectural supremacy and colonial command. This is not only untruthful but necessitates a new paradigm about shipwrecks interpretation. The historical context should be used to interpret shipwrecks as representing an inclusive history of both Europeans and Black Namibians. This does not only promote the protection of such heritage, but further promotes peace, national reconciliation, and the greater appreciation of heritage by all persons.

## Chapter 5: Database Presentation

### Introduction

A quality and comprehensive database are essential for the effective management of MUCH (UNESCO 2017). Article 22 of the 2001 Convention states that “To ensure proper implementation of the convention, States Parties shall establish competent authorities or reinforce the existing ones where appropriate, to provide for the establishment, maintenance and updating of an inventory of underwater cultural heritage” (UNESCO 2001:5). According to this article, there must exist a systematic database that documents all known underwater cultural heritage resources in Namibia. Surprisingly such sentiments are also echoed by the existing NHA although the NHC does not have any in existence. This illustrates the significant weakness of the NHC to carry out one of its mandates as outlined in the NHA.

Nevertheless, there is an existing heritage database for land-based heritage resources that are managed by competent authorities within Namibia (National Museum of Namibia and the National Heritage Council). The Oranjemund shipwreck has a digital database that was formulated by expatriates from Zimbabwe (see Figure 5.1). And as such, it is the only existing comprehensive UCH database managed by a competent authority (NMN) to date.

As outlined in the research objectives, there is an existing shipwreck database even though it is not adequately comprehensive. This shipwreck database is privatised instead of being managed by competent heritage authorities. This should not be surprising, considering that it was put together by private individuals with a passion for shipwreck heritage. They did so in their private capacities (Von Schumann 1996; Gunter Vonn Schumann pers. Comm 2019). It is also important to note that the existence of the database is not an outcome of efforts by competent authorities in conformity with the 2001 UNESCO Convention, particularly Article 22 (Maarleveld *et al.* 2013) but rather by NGOs.

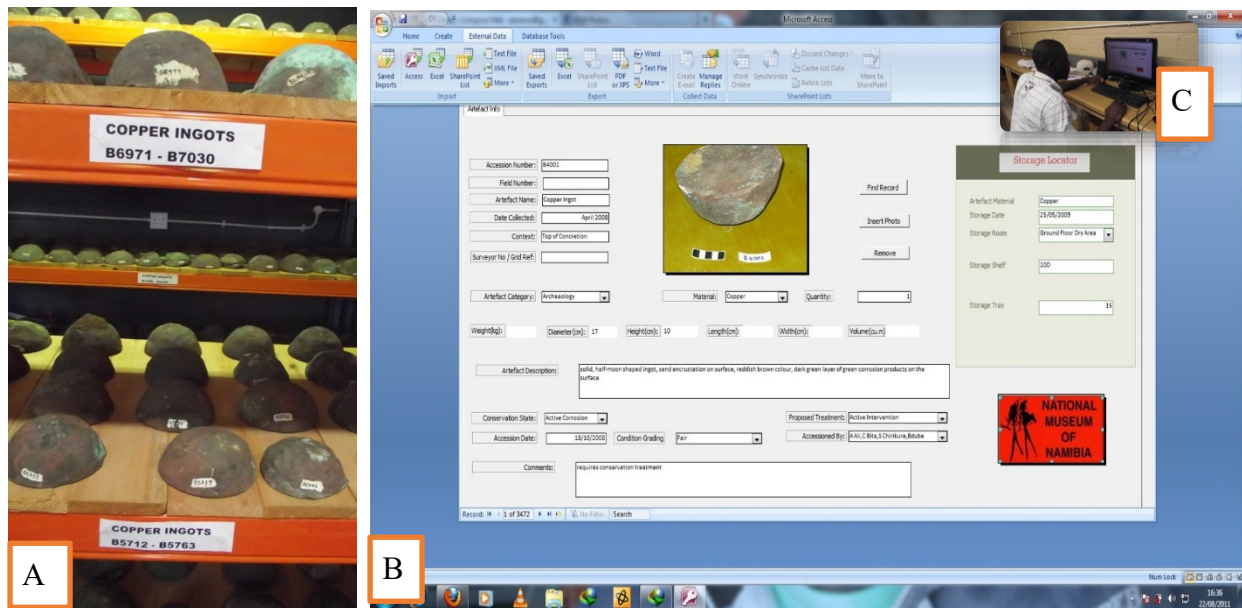


Figure 5.1. Oranjemund shipwreck artefacts numbered for ease of access photograph (A) and corresponding numbers kept in a digital database screenshot (B) and photograph (C) an employee working on a digital artefacts database.

## Best Practice: MUCH database in selected countries

### *Australia Database*

An understanding of best practices around the world regarding shipwreck database management or underwater cultural heritage is imperative in understanding maritime and underwater cultural heritage. Australia a world leader in online MUCH database management is one such country. The Australian Institute of Maritime Archaeology (Australia National Shipwreck Database 2020) also abbreviated AIMA).

The information in the ANSDB was collected by each State and `territory's maritime cultural heritage management agencies or supplied by collecting institution holding shipwreck relics (Australia National Shipwreck Database 2020). However, a visit at the government website informs that data from the ANSDB has been integrated into the Australasian underwater

cultural heritage database (AUCDB) which incorporate all shipwrecks in the Australian region i (see Figure 5.2). However, both ANSDB and AUCDB operate incorporation with the former confined to Australia alone and the latter to the Australasian region as a whole.

The website serves as the register for all protected underwater cultural heritage (Australia National Shipwreck Database 2020). This database is updated regularly and the public can contribute towards its update by applying to become public researchers. What is highlighted by the last point is critical because not only will the public contribute to the expansion of the database, but also will serve as an encouragement to the general public to learn more concerning UCH. This is an important element in the protection and enjoyment of heritage by the public (English Heritage 2008).

Furthermore, another agency managing an online database system in Australia is the West Australian Museum (West Australian Museum 2020). Their shipwreck database includes more than 1650 shipwrecks and is available on their website in digital form. The database includes maps of where the wrecks are located (through the provision of GPS coordinates), information concerning whether wrecks are sensitive or not, date of wrecking, date of manufacture, the port of manufacture, the port of departure and port of call, owner details, metal or wooden wreck, propulsion system, cargo on board, date of inspection, photographs, etc. (West Australian Museum 2020). Such levels of detailed information online are useful for the public who have a thirst for knowledge about shipwrecks Namibia can learn from such database initiatives. It is important to note that Namibia's existing shipwreck database can be updated and be unveiled online as it has been done in Australia. I would argue that it is important however to link the database with a proactive management plan, so that souvenir hunters or even treasure hunters, do not exploit the database and plunder shipwrecks that might be sensitive or commercially exploitable.

## Australasian Underwater Cultural Heritage Database

You are here: [Home](#) » [Heritage](#) » [Underwater Heritage](#) » [Australasian Underwater Cultural Heritage Database](#)

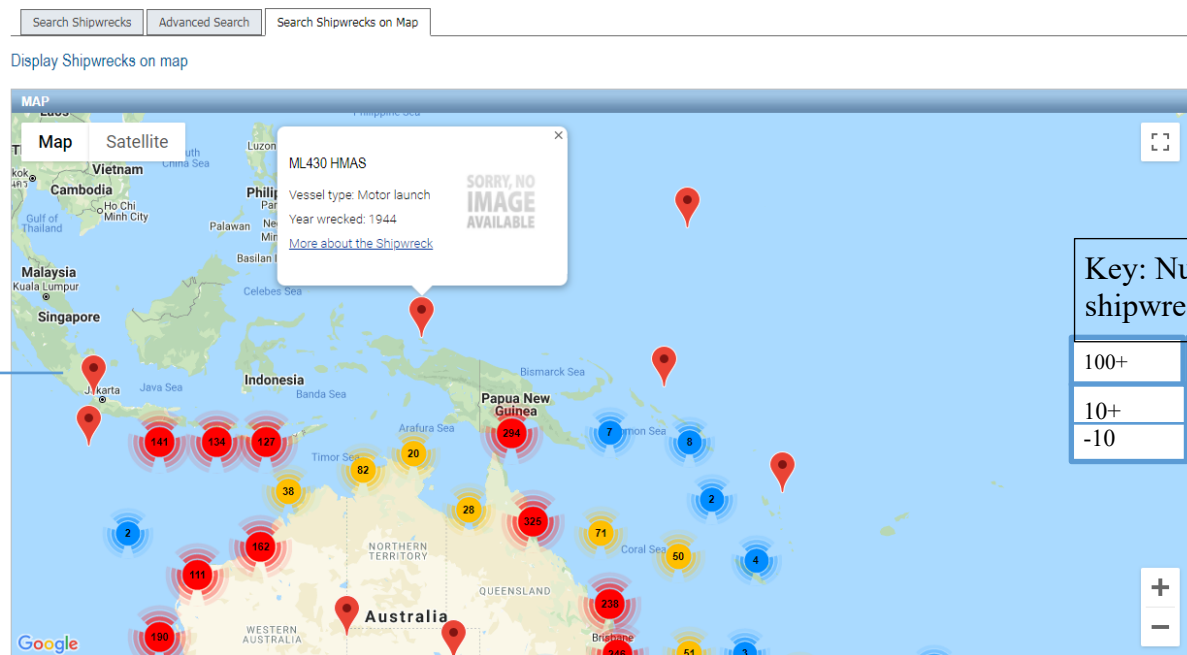


Figure 5.2. Screenshot of an interactive Australian shipwreck database map available online (Source: Australia National Shipwreck Database 2020).

### *The United Kingdom' Admiralty database*

The United Kingdom, through the hydrographic office, has perhaps the world's largest database of shipwrecks lost around the world dating from 1913 when detailed records of lost ships at sea were commissioned (United Kingdom Hydrographic Office 2020). The data is kept in analogue records and it's unclear if some are available digitally or online. The records include ships that were lost in North Atlantic, South Atlantic, including within African territory, South America, the Indian Ocean, and the North Sea. This database is a treasure trove for reference and research purposes.

### *Oxford Roman project*

The University of Oxford commissioned the Oxford Roman project, a long-running project based on databases collected by Oxford researchers since 1992. Among them is A. J. Parkers

who researched ancient Roman and Mediterranean provinces shipwrecks (Oxford University 2020). The project focuses on Roman and Mediterranean shipwrecks dating up to the 1500s. In 2007, Julius Strauss updated the database with information emanating from a PhD study titled *Roman cargoes, underwater evidence from the East*. According to the Oxford University (2020) website, this underwater inventory has been limited to finds that are assumed to have come from accidental shipwrecks rather than those finds that were dumped overboard or deliberately discarded. The database has accumulated at least 600 shipwrecks so far since the commissioning of the research in 1992. Some shipwrecks have over time been found in deep waters, reflecting the value of using submersibles and remotely operated vehicles.

### *Joint MUCH database project in Europe*

According to the Maritime and Archaeological Trust (2020), Atlas of the two seas is one of the most comprehensive collaborative shipwreck database projects to date in Europe. The aim of the project involves shared research on the maritime past by examining, discovering and recording archaeology below the common waters of their countries. The project involved creating a comprehensive understanding of the underwater archaeological landscape. This includes identifying the location of known shipwrecks, contextual data and legal and regulatory information from the United Kingdom, fieldwork, and desktop-based studies. The resulting database was linked to a GIS system and was online for public access.

The first stage of the project involved merging data related to UCH sites in Belgium, the United Kingdom, and France to create a comprehensive database of the underwater archaeological landscape. Cooperation between the three countries was demonstrated with fieldwork in both countries that involved students and volunteers that allowed for the development of sports divers and future professionals in UCH research (Maritime and Archaeological Trust 2020). Results from the research and survey of the English Channel and the North Sea was fed into

an online GIS linked database involving several countries (see Figure 5.3). The website is multilingual which contains updates about the project subsequent progress and was supported by *le Department des Recherches archéologiques subaquatiques et sous-marines* DRASSM and the English Heritage (Maritime and Archaeological Trust 2020).

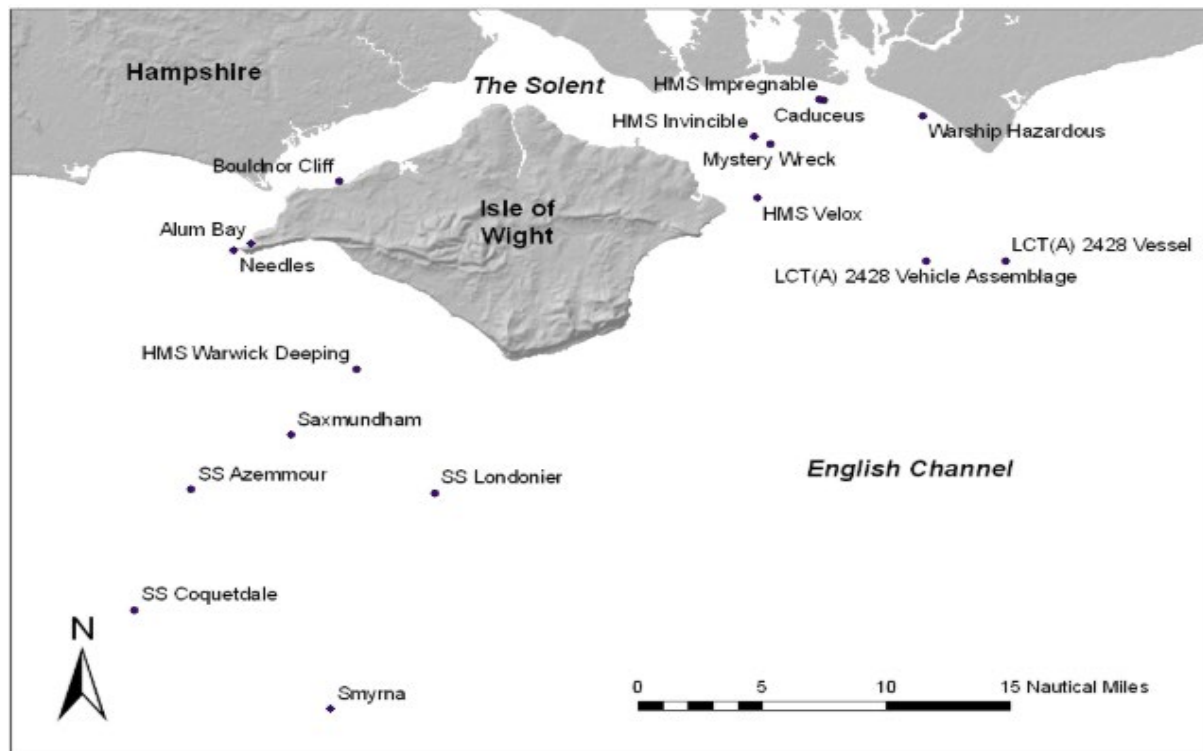


Figure 5.3. The Atlas of the 2 seas project map indicating shipwrecks within the English Channel (Source: Maritime and Archaeological Trust 2020).

### *MACHU project*

The main objective of the MACHU (Managing Cultural Heritage Underwater) project was to find better and more efficient ways to manage underwater cultural heritage and to serve as a network for international cooperation and exchange. This project involved the cooperation of seven European countries. There were data from the seven participating countries Belgium, Germany, the Netherlands, Poland, Portugal, England, and Sweden. According to Brouwers (2015). A GIS was developed within the MACHU project. Data from the project was shared



in the GIS platform. To create this GIS, the INSPIRE initiative was adapted. The GIS application combines layers with archaeological and historical data (see Figure 5.4), research data from sites and areas with information on the burial environment (including geophysical, geochemical, sedimentological and oceanographic data) and possible threats to the sites in the short term (e.g. erosion, infrastructural works, mining and fishing) and the longer-term (e.g. increased erosion due to climate change and chemical degradation).

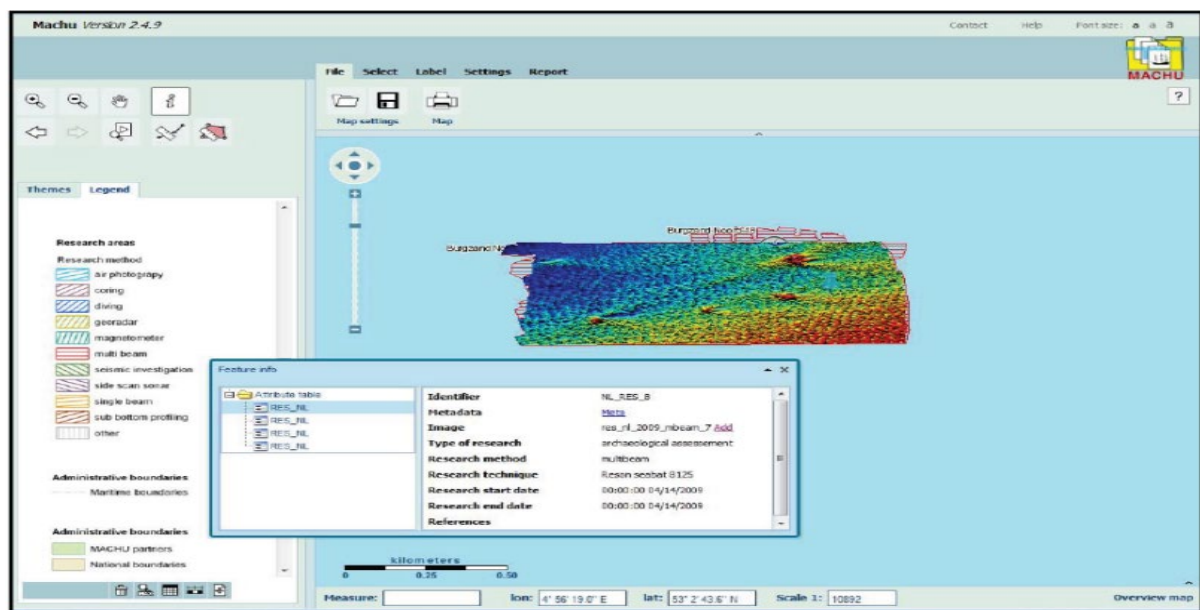


Figure 5.4. MACHU project digital database. The screenshot indicates information about specific shipwrecks such as date of wrecking, cargo on board, owners, geographical coordinates, etc. (Source: Brouwers 2015).

### *Shipwreck Asia*

According to Brouwers (2015), the Shipwreck Asia database provides information on historic wrecks within the Asian region (see Figure 5.5) with the information provided by experts within maritime archaeology. The main objective involves providing information on shipwrecks within their shared waters. Countries participating in this project are Brunei, Cambodia, China, Japan, Korea, Malaysia, Philippines, Taiwan, Thailand, and Vietnam.

Information provided in the database includes the names of wrecks, country of origin, location, date excavated, information whether salvaged and information whether surveyed or damaged.

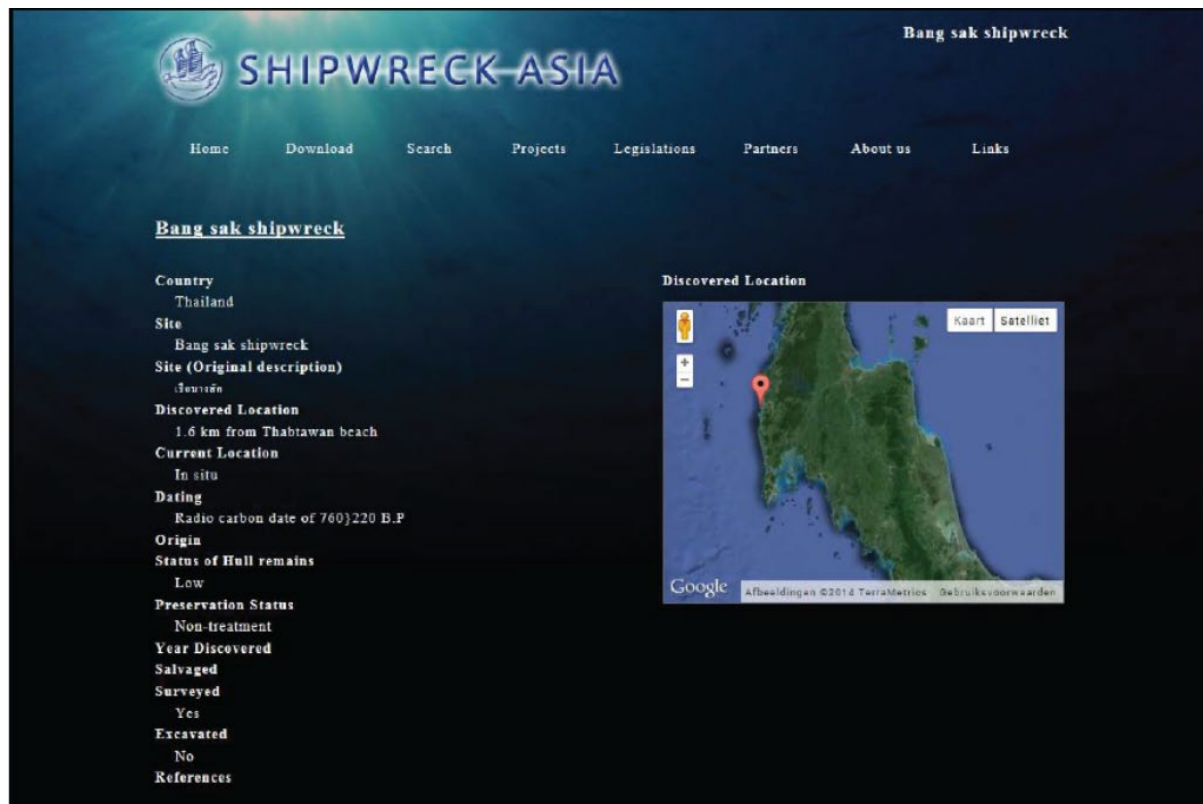


Figure 5.5. Shipwreck Asia online database (Source: Brouwers 2015).

### *Portugal Database*

Portugal is said to lag by 30 to 40 years behind other European counterparts in research and underwater capacity. Monteiro *et al.* (2012) highlights two aspects that make Portugal relatively weak in managing underwater cultural heritage. First, there is a lack of human capacity in UCH. Secondly, a lack of political will to domesticate the convention statutes into national law. According to Monteiro *et al.* (2012), Portugal only had one state archaeologist in 2012. Besides, there was one conservator trained in preserving finds from a maritime environment as well as a technician. This evident lack of resources puts Portugal in a compromising situation since it fails to uphold the statutes of the 2001 Convention.

Highlighting the significance of having a comprehensive database, Monteiro *et al.* (2012) argued that it is challenging for Portuguese authorities to adequately protect shipwrecks that are in grave danger from treasure hunters. Besides the lack of resources, the absence of a database has been highlighted as another significant issue of concern. The Portuguese autonomous regions such as Azores and Madeira have done much better. They have shipwreck inventories even though they do not have trained maritime archaeologists working with the central government. This weakness in the protection of underwater cultural heritage by Portugal leaves a lot to be desired, as it makes one wonder that if a developed country fails to protect its UCH, how will developing countries with weak economies succeed? I postulate that perhaps this weakness is what led Portugal to sign a joint MOU with Namibia (Mowa 2017) in conserving the Oranjemund shipwreck. It was decided to conserve the wreck in Namibia rather than to be taken to Portugal. Human and technical capacity are lacking in Portugal in as much as they are lacking in Namibia therefore the latter was preferred.

### Need for Database in Namibia

A database helps in the assessment and development of a protocol for easy access to a site and subsequent preservation of significant shipwrecks. In Namibia, the absence of a comprehensive database or inventory put shipwrecks at increasing risk from natural and human threats since authorities are not involved in monitoring their physical condition (Werz 2007; Harris *et al.* 2012; Mowa 2017). A database in Namibia can be used by heritage authorities in such a way to convince lawmakers that Namibia is rich with shipwrecks that are a major tourist attraction. If a database is used as a supporting tool for lawmakers to see the list and location of shipwrecks that need conservation and protection then the government will be more inclined to partner with stakeholders and provide the necessary leadership, financial, management, and human resources for the protection of shipwrecks.

Outlining how the lack of a concise database for Namibian shipwrecks harms Namibian heritage, is one of the objectives for undertaking this study, and the need for this cannot be stressed enough. Based on information derived from research activity, the existing database for Namibian shipwrecks is very limited in areas already outlined. The consequence of this entails that many shipwrecks are exposed to threats of various kinds, natural and human, and will only deteriorate worse without sufficient and immediate strategic intervention.

The absence of a concise database necessitated the need to formulate a Namibian database, under this thesis. This database includes a condition of conservation of identified shipwrecks, a key element that is missing in the existing database compiled by Windhoek Underwater Club (WUC). Such information is needed to develop appropriate interventions. This is considered to be a best practice (UNESCO 2017). Such information about the state of conservation is missing in the current Namibian database. This is so because it was drafted many years ago and through efforts by private individuals who would be focused on what is most of the interests to them (Von Schumann pers. Comm. 2019). These private efforts were undertaken under the banner of the Namibian Underwater Federation (NUF) and the Windhoek Underwater Club (WUC). There is, therefore, a need to create a comprehensive Namibian database that can be used by heritage authorities such as the National Museum of Namibia and the National Heritage Council. The existing database, even though unpublished (Von Schumann pers. Comm. 2019), is outdated and cannot be utilised in its current raw form.

My study, therefore, enhanced the existing unpublished database, by including a map that is missing on the current database and by providing additional information such as the conservation status of some shipwrecks (which are also missing in the current database). The objective is to create a database that is up to date, timely, comprehensive, and includes extensive use of maps and relevant data which are currently missing in the existing database.

Although, with a rich shipwreck heritage there is no database of the said shipwrecks along the Namibian coast. As a result, it could be argued that the national authorities (National Museum of Namibia and the National Heritage Council) are not in a position to protect these shipwrecks from human and natural elements. The full extent of this challenge was illustrated in 2015 through a Heritage Impact Assessment (Mowa 2015). This was after the assessors; a team composed of a maritime archaeologist, museum technician, and a history student from the University of Namibia, discovered that a large 'old undocumented' vessel probably from the German colonial period or early South African colonial period in Namibia had been destroyed three years prior. The damage had been caused by construction activities undertaken by Namibian Port Authority (Namport) to expand the harbour in Walvis Bay. What this 2012 destruction shows is that national legal frameworks for the protection of shipwrecks within Namibia are very weak despite the country being a signatory to the 2001 UNESCO convention on the protection of underwater cultural heritage. Pending the 'domestication' of the 2001 UNESCO convention statutes into the Namibian legal system, the current heritage legislation does not make it a mandatory act to conduct comprehensive impact assessments for proposed development projects that may negatively impact shipwrecks and other underwater cultural heritage onshore and offshore. The then Chief Executive Officer of Namport seemed to display a complete disregard for shipwrecks, a heritage resource seen by him and others as a potential nuisance (Bisey Uirab, Pers. Comm 2015). Such attitudes are coupled with a lack of awareness and weak legislation on shipwreck heritage. Besides the ineffective legal instruments, an absence of research about shipwrecks, the perceived cultural and historic value of shipwrecks to the current generation and the next, and poor public awareness on the value of shipwrecks are reasons why authorities such as ports display uninformed leadership on such matters. These actions are a threat to underwater and maritime heritage in Namibia hence a need for more research on these threatened heritage resources.

Furthermore, there is a likelihood that there are more shipwrecks on the Namibian coast than previously known. Thus the existing database does not completely represent the totality of shipwrecks that might be on Namibian waters, particularly those within the 100-year threshold of the 2001 UNESCO Convention on the protection of underwater cultural heritage. Of these recorded shipwrecks, only three have been properly studied namely: the Oranjemund shipwreck (Smith 2009; Alves 2010; Chirikure *et al.* 2010; Chirikure & Sinamai 2015), the Eduard Bohlen and Meob Bay boats (Werz 2007; Harris *et al.* 2012). While noting the deplorable rate of recording Namibian shipwrecks, in the exercise of recording them there is a huge potential to learn about colonial history hence the need to assess, document, count and preserve them since irreversible damage might have already occurred thus immediate action is needed. In addition to the comprehensive database, this thesis presents the cultural significance of some Namibian shipwrecks.

Namibia as a signatory to the 2001 UNESCO Convention on the protection of underwater cultural heritage, is responsible to be proactive in ensuring its maritime and underwater cultural heritage is appreciated and preserved for future generations. According to the UNESCO Convention (Maarleveld 2015), competent authorities must share information about shipwrecks with the public, so that they can appreciate and enjoy these heritage resources and aiding in the protection of this heritage.

## Data collected during this study

I present an inventory of all known shipwrecks and other underwater cultural heritage in Namibia. This unpublished inventory is largely an outcome of the work undertaken by the Namibian Underwater Federation (NUF) over the years. I present this data (Appendix X and XI) to supplement the shipwreck inventory data that I collected from other sources (Table 6.1) through a desktop study presented in this thesis. The database results I present in this thesis is

an amalgamation of data from different sources to create a comprehensive inventory database of Namibian shipwrecks and UCHs, which spans a period from the late 15<sup>th</sup> century when European started visiting the Namibian shores for trade with indigenous people to the present. Moreover, the significant objective of presenting (Appendix X and Appendix XI) is to ascertain the total number of wrecks inventoried by private institutions such as the NUF/WUC. The list of shipwrecks inventoried by the NUF has not been previously published as an academic work. Its presentation in this thesis is critical in consolidating the list of all known shipwrecks along the Namibian coast, giving much significance to the research. Without an appropriately consolidated list, it is not possible to adequately preserve shipwrecks, as a heritage manager needs to know the assets at his or her disposal to protect them accordingly. As one of my objectives, I wanted to establish a comprehensive database or inventory of all known shipwrecks on the Namibian coast as well as inland water cultural heritages, classified as such by the 2001 UNESCO convention on the protection of underwater cultural heritage. Such a comprehensive database is an important management tool, serving as a reference point for future research about Namibian shipwrecks and other underwater cultural heritage. Such can further be used by heritage authorities to lobby for funding from the government or funding organisations, by presenting the extent and nature of Namibian underwater cultural heritage. Thus the essence of preserving them can be more meaningful.

## Reviewing the NUF shipwreck database

I divided the unpublished inventory gathered by NUF into two, based on the geographic location of the shipwrecks listed. In Appendix X, I provide a list of all shipwrecks recorded from the Kunene River mouth to Walvis Bay. The shipwrecks found between Walvis Bay and the Orange River mouth are provided in Appendix XI. The position of each shipwreck on the map is relative, giving an approximate location based on the information provided in

Appendices X and XI). All shipwrecks listed in both Appendices X and XI are older than 100 years, which is a benchmark for qualifying MUCHs as indicated under the 2001 UNESCO Convention on the protection of underwater cultural heritage. Making use of the Convention, which Namibia has ratified, is considered to be a best practice. In addition to the shipwrecks listed in both Appendices X and XI (see Figure. 5.6), I have other shipwrecks recorded from desktop analyses (Table 5.1).

In addition to the coastal shipwrecks in Figure 5.6, I have indicated the geographical location of inland maritime heritage resources. Amongst these are the famous Lake Otjikoto which submerged in 1914. Also indicated are the Zambezi floodplains and Cuvelai river basin located in the north-eastern and northern Namibia respectively. In particular annual floods in the Zambezi region, lasting for six months between March to August, occur when the Zambezi river bursts its banks, flooding the low-lying areas of the region. When this happens, several heritage resources (i.e. ancient settlements, ancient graves sites, venerated sites, ancient fish traps, ancient villages, etc.) are significantly submerged. I consider these as underwater cultural heritage assets, as articulated in the 2001 UNESCO Convention on the protection of underwater cultural heritage, are “...traces of human existence having a cultural, historical or archaeological character which has been partially or totally underwater, periodically or continuously, for at least 100 years” (Manders *et al.* 2012: 5). I stress the wider meaning of the word ‘partially’ which is interpreted as “only to a part or to a limited extent” (Cambridge dictionary 2020). Considering the valuable cultural heritage found within inland waters, I argue that the Zambezi floodplains and Cuvelai River basin qualify to be considered as a significant underwater cultural heritage. As indicated before, the neglect of inland or freshwater UCH is one of the central concerns of this thesis. Therefore giving such heritage attention equal in proportion to shipwrecks of foreign origin will greatly help the preservation of underwater cultural heritage in general and the public are likely to identify with such heritage and take



precedent steps in protecting it. This means in the long term all MUCH (shipwrecks and indigenous UCH) in the country will be protected and be given preference in funding and resource mobilization by the government.

The map in Figure 5.6 indicates shipwrecks littered across the Namibian coast and offshore, this map was modelled after the digital database of the Australian National Database and the European project “Atlas of the two seas “discussed at the beginning of this chapter. Furthermore, this database is useful not only as a management tool to locate shipwrecks but also can be used by competent authorities to seek funding. Like most third world countries (Sharfman *et al.* 2012), Namibia has other priorities when it comes to funding, such as health and education. As a result, heritage is underfunded. The map in Figure 5.6 can be used to serve a number of purposes. First, present a case for urgent need to protect Namibia’s decaying MUCH. Second, such a map can be used in convincing lawmakers and politicians about the need to fast-track the implementation of legislation aimed at safeguarding underwater cultural heritage. This can be achieved by showing lawmakers the geographic extent of Namibia’s MUCH. Illustrating them on the map would help indicate how numerous Namibia’s UCH are, highlighting the potential for heritage tourism if these shipwrecks were to be well conserved and managed for the benefit of the Namibian nation and those from elsewhere. Third, such a map can be shared with stakeholder, such as the navy to watch for treasure hunters within the localities of shipwrecks, and most importantly if shared with fishing companies it would serve to warn them concerning areas where shipwrecks are likely to be found. When done effectively, fishing methods such as trawl fishing could be avoided altogether in localities with shipwrecks. Likewise, mining companies such as Namdeb that mine alluvial diamonds could also use the same map to conduct due diligence during mining activities in localities with shipwrecks. Fourth, the lack of public awareness is one of the threats that lead to neglect and souveniring on shipwrecks. As a result, the database and map supplemented by historical information about

the significance of these shipwrecks could be used to educate the public within the coastal community and schools about the history, provenance and location of important Namibian shipwrecks including inland indigenous UCH and why such should be celebrated and enjoyed by all.

Lastly, and as highlighted in the case study, a digital version of this map that integrates GIS will be instrumental for most applications and easier to use and share. Moreover, foreign researchers will benefit tremendously when deciding to research Namibian shipwrecks, such a digital platform will provide a benchmark. Furthermore, a digital version of the map will be easy to access by the public enabling the addition and edition of historical information , as it has been done in Australia.

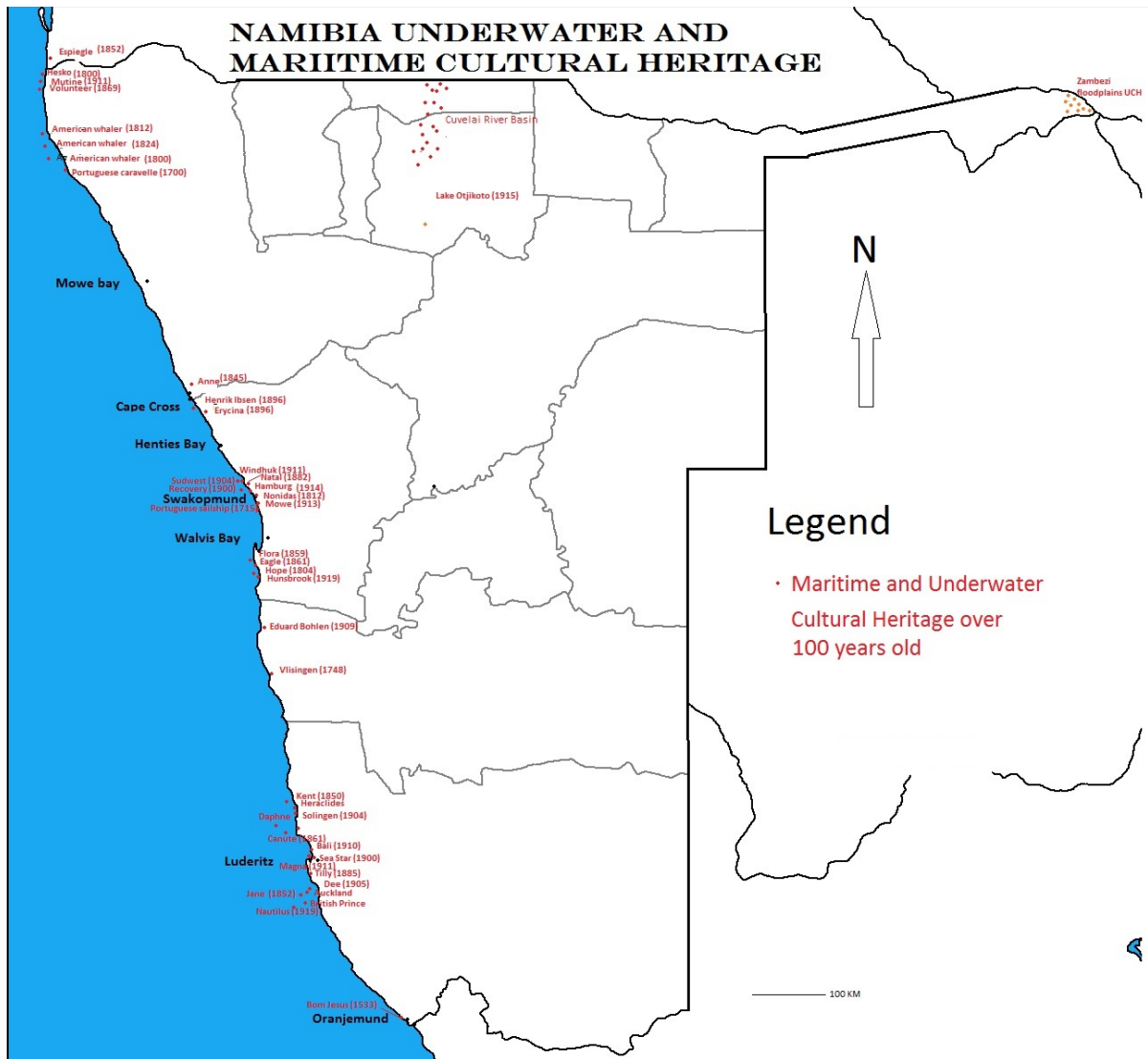


Figure 5.6: Map showing the distribution of Namibian shipwrecks and other inland underwater cultural heritage sites that are 100 years or older. Altogether, these amount to 40 shipwrecks and three inland UCHs.

Table 5.1 Underwater Cultural Heritage database not listed on Von Schuman's collection (see Appendices X and XI). I recorded and listed these based on the desktop study I conducted including an expanded shipwreck management spread sheet that can be used by authorities.

Name of MUCH	Date of foundry/discovery	Location	Significance assesment	Threats	Condition assesment
Oranjemund shipwreck	1533 estimated	20km north of Oranjemund	Elephant ivory were found onboard Oranjemund shipwreck, which is the single most important cargo on-board from the African continent. Symbolising Africa's involvement and role in the intercontinental transnational trade, and the wrecking itself in the Namibian water further highlights Namibia's strategic location in the Carrera da India or	Kept in a safe purpose built conservation laboratory. However lack of trained staff to carry out conservation work might result in the deterioration of the artefactual remains.	Mostly deteriorated, wood is mostly in good condition. The iron artefacts such as anchors and sword blade are in a bad shape however they are undergoing conservation with sodium bicarbonate to remove excess salt while simulternously reducing corrosion.

			Indian route as well as a testimony to the treacherous nature of the coast.		
Zeila Wreck	August 2008	15km south of Henties Bay	This ship was on its way to India when it run aground near Hentiesbay in 2008.	Ship has slowly drifted to the shore as a result of wave action. Currently due to surf zone locality of the shipwreck, there is great likelihood that it may break apart as a result of physical action. This is in addition to continual corrosion of the mainly iron hull.	Shipwreck intact, used by the black commorant birds as a nesting ground. Covered in bird guano.

Fukuseki Maru (removed)	April 2018	-	N/A	N/A	N/A
The Jellyfish (fire broke)	July 2012	Sank off Luderitz	N/A	N/A	N/A
Diamond ship (50m)	April 2002	Off Lüderitz	N/A	N/A	N/A
Vlissingen	1747 estimated	180 km South of Walvis Bay	Dutch ship sank in the 1700s at the height of the Dutch east india company, culturally and historically significant in understanding the goods they traded, the currency they used,	N/A	N/A

			coins from this ship were washed off the Namibian shores, this according to Werz (2007).		
Resplendent	18 February 2020	Within the vicinity of Walvis Bay	N/A	N/A	N/A
Lake Otjikoto	1915	20km North of Tsumeb	Materials at the bottom of the lake have cultural significance in that, they not only tell us about the weaponry used by the Germans during their colonial period in Namibia, but also one can construct a story why they	Regular diving activities, some unregulated might physically alter, remove or damage the artefacts.	Good condition, freshwater environment.



			scuttled their weapons in the lake.		
Zambezi flood plains cultural heritage	Ancient (not dated)	Eastern part of Zambezi region	Culturally significant, tangible and intangible heritage associated with the wetland of the Zambezi region in telling a story about the people in this area.	N/A	N/A
Cuvelai River basin	Ancient (not dated)	Northern Namibia	Culturally significant in telling a story about Efundja, and associated tangible and intangible cultural heritage.	N/A	N/A



## Conclusion

My consideration of international best practices regarding database management was critical, in providing Namibia with the most important benchmark. I established that the existing database notably in Australia, Europe and Asia use an integrated GIS system with information available to the public online. There is also a provision for public participation through providing information regarding these wrecks, this is especially applicable in Australia. Such is the path that Namibia ought to emulate considering its rich shipwrecks and MUCH in general.

This chapter presents aspects correlating with my research objectives, which presents a comprehensive database with a map of MUCH older than 100 years in compliance with the 2001 UNESCO Convention on the protection of underwater cultural heritage. This database includes shipwrecks and other inland underwater cultural heritages that are not included in the existing database attained from Mr von Schumann and WUC. I discovered that there are about 40 shipwrecks and two inland UCH older than 100 years. From this it can be concluded that, that those underwater cultural heritages on the map comply with the 2001 UNESCO Convention, therefore their relative location should give heritage managers approximate geographical positions based on appropriate management decisions. Such decisions can involve the need for more surveys and excavations. Furthermore, the database can be used in the review of applications for coastal developments.

## Chapter 6: Threats to Namibian maritime and underwater cultural heritage

### Introduction

This chapter provides a broad spectrum of studies conducted in Namibia regarding coastal archaeology and its link to early contacts between indigenous people and seafarers in pre-colonial (pre-1884), colonial, and post-colonial periods. It is divided into three sections, namely, (i) underwater cultural heritage studies in Namibia, (ii) threats to underwater cultural heritage in Namibia, and (iii) underwater case studies from around the world to explore management frameworks that have been applied by different countries.

The first section shall principally focus on the archaeological studies undertaken to understand the historical significance of shipwrecks within Namibia. In particular, I review three studies conducted by Kinahan (1991, 2000, 2009, see also Kinahan & Kinahan 2009), Harris *et al.* (2012), and Werz (2007). Kinahan (1991, 2000, and 2009) focused on the guano trade by the British along the Namibian coast in the 1840s and the whaling in the late 19<sup>th</sup> century by the Americans. These activities (guano trade and whaling) had socioeconomic implications on the indigenous communities on the Namib coast. These studies by Kinahan (1991, 2000), one of several sources reflecting on Namibian shipwreck heritage, provides significant knowledge about the history of the country and general interrelationships between various population groups. In particular, my main aim is to look beyond shipwrecks being a manifestation of colonial power and heritage. Instead, I focus on the role of the indigenous population in the events that occurred along the coastline to situate them within the context of shipwreck heritage. I have postulated that it might be this inability to view shipwrecks from an indigenous worldview. As a direct result, politicians do not seem to consider shipwrecks as representative of heritage significant enough that they must be protected and conserved. The second study

was conducted by Harris *et al.* (2012) and East Carolina University concerning the physical non-intrusive assessment on shipwrecks. Their 2010 study focused on the Eduard Bohlen at Conception Bay and the two boats at Meob Bay. With particular reference to Eduard Bohlen, the study yielded important historical information on the historic significance of the shipwreck as well as the threats to its continued existence. I paid special attention to the natural and human threats identified during the 2010 study to undertake a comparative analysis with the assessment I undertook for my research project. Given the fact that the WUC and East Carolina University study was conducted in 2010, my idea was that assessing their findings could provide insight on the deterioration rate, then and now. This is instrumental in estimating the preservation status of the wreckage in future which is an important aspect in the management of maritime and underwater cultural heritage in Namibia. The 2010 study proved to be an important benchmark in my research project. The third study was conducted by Werz (2007) on the approach to research maritime archaeology in Namibia. This is important literature because it helps in understanding the Namibian maritime and underwater landscape.

In the second section, I present a broad overview of the shipwrecks in Namibia and discuss the general threats identified as having an impact on the Namibian shipwreck heritage. This overview provides the reader with a broad understanding of the Namibian maritime archaeological landscape. What becomes apparent is that the majority of conservation-related studies undertaken in Namibia have primarily been conducted by volunteers from the Windhoek Underwater Club (WUC) and the East Carolina University (Von Schuman 1996, pers. comm. 2019; Harris *et al.* 2012). Besides these earlier conservation-inspired studies, there have also been those undertaken following the discovery of Oranjemund (Chirikure *et al.* 2010; Sinamai & Chirikure 2010; see also Werz 2007). These studies have further highlighted the weakness of Namibia's heritage authorities with regards to the conservation of shipwrecks in

general as illustrated by the challenge faced by the government in conserving the Oranjemund shipwreck heritage.

The third section is particularly focused on reviewing fourteen case studies. The main aim here is to explore what many countries, developing and developed, have done to adequately manage their underwater cultural heritage. This is an important exercise in that significant lessons can be taken and implemented in the context of Namibia as per the common threats facing underwater cultural heritage in the country.

## Underwater cultural heritage studies in Namibia

As indicated in the introduction, this section reviews archaeological studies conducted in Namibia. The research projects undertaken by Kinahan provided significant insights into the significance of underwater archaeology in the country. She did so by reviewing the history of a selected number of shipwrecks to tell the rich story of interactions between seafarers and the Namibian indigenous population. I then argue that it might be because of the failure to situate the significance of Namibian shipwrecks within the indigenous people that this heritage has generally been ignored by government officials. This is in contrast to Robben Island, for instance (Humphrey 2014), whose significance is appreciated by the indigenous people in South Africa because the story of the museum has significantly been told from the pain they suffered. The second study by Harris *et al.* (2012) focused more on conservation issues. The significance of Harris's study within the context of my study is in terms of providing a benchmark from which I could assess the level of damage that has taken place in the past 10 years since their investigations were undertaken in 2010. The third research study by Werz (2007), has significance, as it serves as a standard to this thesis since overall the study gives an overview of the Namibian maritime archaeological landscape and points out potential unexplored areas for the development of maritime archaeological research. This overview helps to orientate my

research on the preservation conditions of shipwrecks on the Namibian coast. Thus, it is the reason I am assessing the condition of Eduard Bohlen among others.

### The first study: Jill Kinahan

One of the first maritime archaeology studies undertaken in Namibia is that by Kinahan (1991). She explored the historical accounts of the British royal navy ships expeditions along the Namibian coast in the 19th century before the territory was colonised by Germany. Her research focused on the interactions between European seafarers and indigenous people of the Namibian coast (the *!Aunin*, also called *Topnaars* and *!Naranin*). According to Raper (2020), the *!Aunin* are indigenous people (currently regarded as Nama but are thought to have originated from San) living by the Walvis Bay Area and the Kuiseb River in Namibia. Their primary form of subsistence is through fishing and harvesting the seeds of *!Nara* (*Acanthosicyos horrida*) plants. The human remains discovered by Kinahan also confirm this diet of *!Nara* through the dental examination.

In her later project, Kinahan (2000) documented archaeological evidence on the Namib coast indicating contact between the indigenous people and European seafarers. She then argued and affirmed her view that there is archaeological and written evidence that indigenous Namibians traded with the Europeans since the late 15<sup>th</sup> century. Amongst the assets that were exchanged were livestock (primarily cattle), and ceramic pots that were traded for European goods such as copper, gun, beads, tobacco, iron pieces, etc. Kinahan (2000) made specific reference to archaeological evidence found on the mouth of the Khuseb River. Such evidence illustrates the various assets that originated from Europe as well as bones from dogs, cattle, and other smaller animals. Dogs could have been used for herding livestock. These archaeological artefacts were all unearthed during the excavation she conducted by the Kuiseb River mouth. Other than archaeological evidence, Kinahan (2000) further mentions that there are narratives

from the European seafarers, such narratives describe the customs, stature, dressing, and tradition of the indigenous people they encountered along the Namib Coast. One of the early sources comes from British Captain Thomas Bolden Thompson who was sent by the Admiralty to investigate the suitability of Namib Coast for settlement in 1786. Due to the absence of water on the Namibian coast, Kinahan (2000) indicates that the British admiralty opted for Botany Bay in New South Wales in Australia for human settlements. Kinahan (2000) in her book further concluded that the trade between indigenous Namibians and European seafarers resulted in indigenous people on the Namibian coast, in particular the *ǀAunin*, losing all their livestock by the end of the 19<sup>th</sup> century. As a result of this loss of cattle, the indigenous people on the Namibian coast mainly survived scavenging beached whales and birds on the Namibian coast. This precarious situation is confirmed by records dating back to the late 19<sup>th</sup> century during the colonization of Namibia by the Germans (Kinahan 2000).

What these two studies by Kinahan (1991, 2000) demonstrate is that the Namibian coastline has played a critical role in the political and economic history of the country in the 18<sup>th</sup> and 19<sup>th</sup> centuries. This is so because missionaries and European colonial settlers came through the sea, e.g. Luderitz, Swakopmund, and other coastal areas (Werner 1993; Werz 2007). I discuss these studies by Kinahan in greater details below. My thesis covers a much broader period, namely, pre-colonial and colonial periods so that comparisons can be made. Such an extensive review provides a comprehensive understanding of maritime history in the Namibian context that forms the basis for maritime and underwater archaeological studies.

### *Contact with the indigenous population*

In her published book, Kinahan (2000) presents a reader with a broad picture of the contact periods, divided into early, middle, and late contact phases. She argues that the colonial historical narrative that has been accepted by academics throughout the 20<sup>th</sup> century is biased.



Kinahan based her argument on the fact that research methodologies that had been applied are based on considering the materialistic history as a narrative through which the shipwreck history could be told. She describes such an approach to data collection as too ambiguous and defragmented. Besides, Kinahan argues that historians have used a process called ‘hermetic reasoning’ to construct stories about people in the past. She refutes the thinking that such a method is not problematic because every story might not be as noble as the other. Kinahan (2000) further contends that a narrative or story should re-count documents and objects to the context from which they emanate for a new social and cultural insight. This is a process she refers to as ethnography of place. She implies that a local context should be a starting point from which to link analysis to a more general global inference rather than the other way around.

The Namib coast was, from the early contact phases, definitive of constant contact between the early explorers and indigenous people. Amongst some of these early explorers were Diogo Cao, Bartholomew, Dias, and Vasco da Gamma (Blake 1937; Boxer 1969, Disney 1978; Russel-Wood 1998; Betherncourt & Diogo 2007). The early contact phases have been interpreted not only from the archaeological evidence but also the narratives of the European seafarers. As indicated earlier, it is through these narratives that researchers have had insights into the cultural customs, clothing, and various traditional practices of the indigenous people they encountered along the Namib coast (Kinahan 2000). While Europeans also held derogatory views on indigenous people, their narratives can be correlated with archaeological evidence to provide a more nuanced history on the Namibian coast.

The middle contact period, in the 19<sup>th</sup> century, centres on Ichabo Island, the island is located near Douglas Bay as indicated in Figure 6.1. It was in the 1840s that this island was visited by British merchant ships after the Peruvian merchants exposed them to the valuable trade commodity of Guano bird droppings fertilizer.

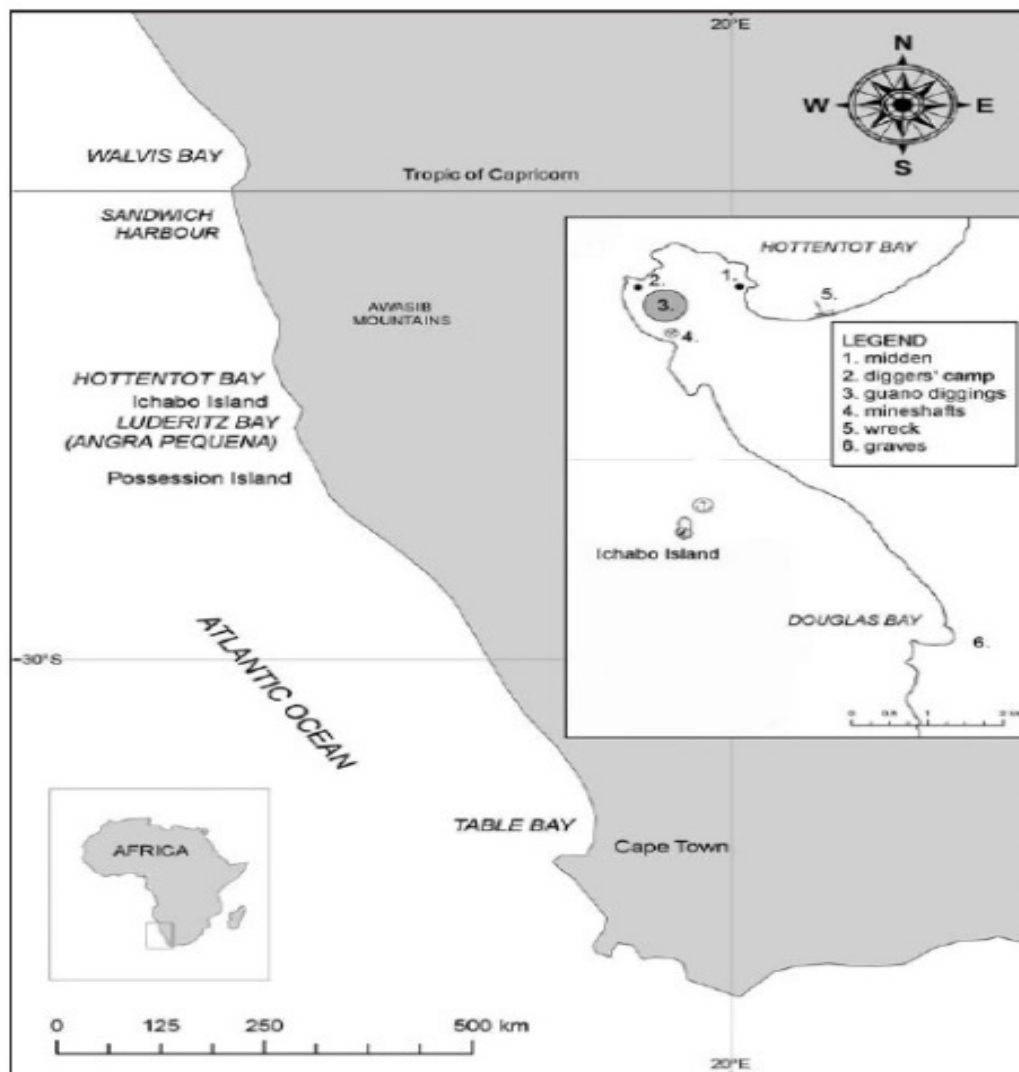


Figure 6.1. Map indicating the location of Ichabo Island off Douglas Bay near Luderitz. The map also indicates sites where artefacts were found during Kinahan's study (Source: Kinahan and Kinahan 2009).

These bird droppings were found naturally on the Namib coast at Ichabo Island. This discovery began what Kinahan (1991) has described as the 'Guano Rage' along the Namibian coast facilitated through the British ships between 1843 and 1845. The Guano rush of the 19<sup>th</sup> century primarily involved British vessels from Liverpool, London and Glasgow. Hundreds of British merchant ships are known to have frequented this Ichabo island area during this period. On average, about 300 sailing vessels anchored around the island at one time in 1834, peaking to about 460 by December of 1844, these are illustrated in Figure 6.2 (Kinahan & Kinahan 2009).

Due to overcrowding of the island by ships and the treacherous nature of the Namib Coast, it has been argued that several vessels are presumed to have foundered within this area. The island, on its southern side, is exposed to gale winds. The extent of gale winds is confirmed by Von Schumann (pers. comm 2019) who has argued that diving in this area is problematic due to strong gale and strong currents. These factors make it difficult for commercial divers to undertake investigations in the area (Von Schumann, pers. comm. 2019). This nature-based hindrance has, therefore, resulted in the limited exploration of shipwrecks along the southern portion of the Namibian coast where a great concentration of shipwrecks can be found (Werz 2007). Besides natural factors, diamond mining operations originating back in 1908 has been another reason why it has historically been difficult to access shipwrecks in this area (Smith 2009; Harris *et al.* 2012). Due to these mining activities, the area has become a forbidden zone from public access or *Sperggebitt*. On the positive, the shipwrecks in this area have remained intact, and unexplored. This is illustrated by the discovery of the Oranjemund shipwreck in 2008 with all its gold coins and other cargoes. Some of these shipwrecks have been washed ashore (see Figure 6.3). While the sailing ships were generally destroyed due to the treacherous nature of the Namib coast, the wooden structural components of the vessels were used to construct jetties. These jetties were then used by the ships to moor and anchor. There is a further possibility that the wooden structural components were also used for firewood by the diggers for bird droppings due to the absence of wooden trees around this area (Kinahan & Kinahan 2009). Three anchors are reported to have been discovered around Ichabo Island. These have been attributed to the Guano rush of the 19<sup>th</sup> century (Kinahan & Kinahan 2009). Besides vessels foundering, several men died due to scurvy and accidents resulting from the collapse of guano pits they were digging.

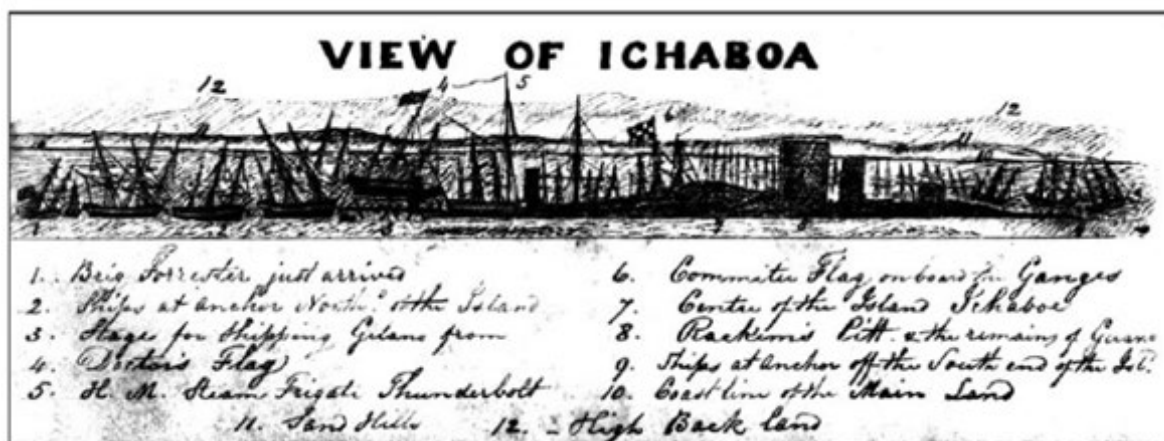


Figure 6.2 Illustration of Ichabo Island guano collectors' British ships (Source: Kinahan and Kinahan 2009).

Archaeological evidence recovered from Ichabo Island, the adjacent Douglas Bay, Possession Island, and Hottentot Bay attests to the camps that were utilised by the diggers (Kinahan and Kinahan 2009). As indicated earlier, further archaeological evidence on these sites indicates the presence of beads, thus confirming trade between the indigenous people and the seafarers. As attested in the historical narratives, there were indigenous villages located nearby the coastline.

Kinahan & Kinahan (2009) further describes that the decline of the guano trade, resulting from the diminishing guano droppings, led the British to begin trading with the indigenous people who lived on the Namib coast. As per archaeological evidence, the indigenous people were bartering cattle for European goods (Kinahan 2000).



Figure 6.3. One of the 19<sup>th</sup>-century sailing shipwrecks at Hottentot Bay, adjacent to Ichabo Island. It is believed to be *The Kent*, a British passenger ship that sailed in the 1850s. Image for context purpose only (Source: Kinahan and Kinahan 2009).

Besides the Kinahan research along the Namibian coastline, there have been other studies undertaken on shipwrecks (Kinahan 1991, 2000; Kinahan & Kinahan 2009). Von Schuman (1996), a veteran of the Namibia Underwater Federation (NUF), has conducted several investigations on shipwrecks on the Namibian coast. These investigations have, however, not led to many publications, and are thus largely inaccessible.

The mid to late 19<sup>th</sup> century witnessed a surge in the global whaling industry to which the Americans were the leaders (Kinahan 2000; Harris 2009). They scoured the globe in search of sperm whales, later discovering that the Namib coast was a rich whaling ground. During their hunting seasons, which lasted up to a year or two, American whalers would trade with indigenous people in Walvis Bay. The indigenous people would supply them with cattle, goats, and sheep in exchange for guns, beads, tobacco or copper.

Kinahan's studies (1991, 2000, 2009; see also Kinahan and Kinahan 2009) articulates the fact that the treacherous Namib coast was frequented by ships and vessels from Europe and America. This is evidenced by historical and archaeological evidence (Kinahan 2000; Werz 2007; Smith 2009; Harris *et al.* 2012; Chirikure & Sinamai 2015). Namibia's maritime history spans more than five hundred years (Kinahan 1991, 2000; Smith 2009; Werz 2009; Kinahan & Kinahan 2009; Chirikure *et al.* 2010; Harris *et al.* 2012; Chirikure & Sinamai 2015). As a result, it is safe to hypothesize that the Namibian coastline is rich in maritime cultural heritage which if studied could substantially add to our existing knowledge (Werz 2007; Werz 2009; Chirikure *et al.* 2010). It is safe to assume that hundreds of vessels got wrecked along the Namibian coast during the pre-colonial period, from 1480s-1884. This assumption is based on the understanding that formal colonialism in Africa began after the 1884 Berlin conference that initiated the Scramble of Africa (Katjavivi 1988). The high possibility of this having happened is further evidenced by shipwrecks such as the 16<sup>th</sup>-century Portuguese shipwreck known as Bom Jesus (Smith 2009; Chirikure *et al.* 2010). Other shipwrecks that sank long before colonial era formally began were the Portuguese caravelle that sank in 1700, the Ogden Harbour that sank in 1700, the Vlisingen that sank in 1747 (Werz 2007), the Hope that sank in 1808, the American whaler (Meob) boats that sank in 1812 and 1824 respectively (Harris *et al.* 2012), the Kent that sank in 1850 (Kinahan 2009), the Orion that sank in 1845, the Canute that sank in 1861, and the Espiegle that sank in 1852 (Von Schumann 1996). These are some of the shipwrecks that have been recorded by Von schuman and other sources on the Namibian coast. They sank prior to the pre-colonial era, potentially indicating that there may be a lot more shipwrecks along the Namibian coast that are yet to be discovered.

The relatively recent discovery of the Oranjemund shipwreck emphasises the possibility of there being more shipwrecks along the Namibian coast that are awaiting discovery. The

shipwrecks must be discovered, protected, and studied to improve understanding of the past, thus supplementing our existing knowledge.

What emanates from these Kinahan studies is the fact that shipwrecks are under threat from natural and human elements. What is more concerning, however, is that there have been no deliberate efforts to assess the physical condition of these shipwrecks, except for the exceptionally few and isolated cases led by volunteers from the Namibian Underwater Federation (NUF) and the Windhoek Underwater Club (WUC). NUF was established in 1990 by amateur archaeologists and has recorded over 350 shipwrecks (Sandelowsky 2011). Due to the lack of concerted efforts to conserve Namibian shipwrecks, there is a great concern that some of those visible shipwrecks have disappeared due to corrosion, mining activities, trawl fishing, and other human and natural elements.

## The second study: collaboration between East Carolina University and the Windhoek Underwater Club

One of the limited studies that have principally focused on the conservation of shipwrecks in Namibia was undertaken in 2010. This study (Harris *et al.* 2012), focused on two vessels (Meob Bay boats and the Eduard Bohlen) and was undertaken by the East Carolina University in conjunction with the NUF and WUC. This study yielded substantial data about the deteriorating condition of the two vessels but also emphasised their historic significance. The study is one of the few that paid special attention to the physical assessment of shipwrecks in Namibia. With specific reference to the thesis I am presenting here, the assessment of Eduard Bohlen by Harris *et al.* (2012) is important in that it provides a benchmark that I used to comparatively assess the deterioration of Eduard Bohlen over 30 years. Considering that this conservation assessment was undertaken in 2010, it makes the comparative study on the rate and nature of

deterioration highly desirable. I provide a review of the 2010 study conducted by East Carolina University in collaboration with the NUF/WUC (Harris *et al.* 2012).

### *Eduard Bohlen*

One of the popular shipwrecks along the Namibian coast is the Eduard Bohlen. The ship located close to Conception Bay wrecked in 1909 (see Figure 6.4). It is understood that the ship was commissioned in Europe in the early 20<sup>th</sup> century (see Wilkinson 1989). It was subsequently brought into the then German South-West Africa to serve as a passenger liner under the Woermann Company (Harris 2014; Welzer 2015; Jones 2017). Its usage for the ferrying of passengers was used until the ship foundered due to thick fog in 1909. Following its wreckage in 1909. Furthermore, Harris *et al.* (2012) point out that Eduard Bohlen shipwreck was used as an accommodation facility for workers at the diamond digger sites near Conception Bay where it wrecked (Harris *et al.* 2012).





Figure 6.4. A photograph of Eduard Bohlen (Source: Harris *et al.* 2012).

The Namibian coast is one of the fast-changing coastlines in the world, the south-westerly winds and currents continuously deposit sand on the shore. This has resulted in land accumulation from the sea, which explains why in the present day, the Eduard Bohlen wreck lies a few hundreds of meters from the shore. Harris *et al.* (2012) further note that the wind-whipped waves of sand have replaced the ocean water that once covered the remains of the Eduard Bohlen when it foundered in 1909.

Two features are evident from the 2010 study on Eduard Bohlen, (i) history of the ship and (ii) conservation status. First, the history of the ship, before and after wrecking, is instrumental in understanding its historic value and significance as a heritage resource. Second, the state of the conservation of the wreckage was carried out by Harris and East Carolina University. A

comprehensive physical assessment was conducted. I will outline the implication of these two aspects and their significance to the aims and objectives of my research project.

### *History of the ship before and after wrecking*

It is pivotal to understand the history and provenance of the ship to appreciate its value as an inclusive heritage resource worth conserving. According to Harris *et al.* (2012), shipwrecks are perceived as symbols of colonial oppression, especially in African contexts. As a result, shipwrecks face neglect because politicians seemingly fail to see the need of availing funds for conserving a colonial symbol. Harris *et al.* (2012) recommend that to deal with the negative perceptions that shipwrecks receive from the public and governments as colonial symbols, research must be conducted that speaks to inclusivity. This should include all Namibians regardless of race. Through such research projects, the role played by the indigenous population in shaping the economy and industry of Namibia should be investigated and highlighted. This will improve the inclusivity and the African 'ownership' of shipwrecks. Harris *et al.* (2012) acknowledged that due to time constraints, their study came short of providing a thorough investigation of the role indigenous people played in shaping the history of coastal heritage in the country.

This is a task I have undertaken in my research project reported in this thesis. I saw a need for studying this aspect since it speaks to inclusivity which is key to highlight during public awareness and providing advocacy for government support for shipwreck conservation in Namibia.

While the Eduard Bohlen was used to transport the white privileged Namibians between Cape Town and Swakopmund, it also acquired an even darker history before becoming wreckage. For instance, during the war of national resistance that was fought between the Herero-Nama and the German colonial forces, the Eduard Bohlen ship was used to transport the Herero and

Nama prisoners of war to the Shark Island concentration camp (see Drechsler 1980; Katjavivi 1988; Buys & Nambala 2003; Adhikari 2008; Zimmerer 2008; Schaller 2011; Shigwedha 2018). It was at this locality that they were subjected to the cruellest and debauchery experiments. Indigenous Namibians began the war of national resistance as a result of the loss of land and livestock to the German settlers. Such losses significantly affected the livelihood of the Herero and Nama people, leading them to take a stance against German colonialism. Following the end of the resistance war, the indigenous Namibians were defeated and confined in overcrowded areas that came to be known as native reserves.

Based on Harris *et al.* (2012), I postulate and argue that shipwrecks are not just symbols of colonial oppression but sites of memories where descendants of victims of the 1904-1908 Herero-Nama genocide would come and reflect on the heroism and spirit of colonial resistance of their ancestors (see Morgan 2012). I suggest that if shipwreck history is presented to the government as inclusive as it ought to be, then there is a greater likelihood that heritage resources such as the Eduard Bohlen wreckage could take on a very different meaning. Subsequently, the wreckage could be a major attraction among indigenous people or be classified as a shrines/sanctuary.

The wreckage has the potential of becoming a national symbol commemorating the 1904-1908 resistance war (and related genocide) fought by the Herero and Nama people. Most importantly, this recognition and reputation would help with the long-term *in-situ* conservation of this wreck through the funding of conservation efforts. While the link of Eduard Bohlen shipwreck to the resistance war is known, it is not often emphasised within the same context of the indigenous people's demand for reparations and the general recognition of their struggle against the Germans. This is the 'missing link' that is important in reframing the overall significance of maritime and underwater cultural heritage in Namibia.

### *Conservation status*

The second aspect emphasised by Harris *et al.* (2012) is the state of preservation of this shipwreck that is highly popular amongst tourists. As evident from Figure 6.5, the Eduard Bohlen shipwreck is in a poor state, owing to many years defined by no proper conservation measures put in place to safeguard its significance. What the deterioration of this famous shipwreck highlights is that constant monitoring of Namibian maritime heritage, in general, is lacking. Without such adequate monitoring, it is not possible to establish a historical understanding of the changes occurring on the shipwreck as the result of environmental factors affecting the structural components of the shipwreck.



Figure 6.5. Collapsed Guard rail and severe corrosion of the stern side, including the rudder of Eduard Bohlen (Source: Harris *et al.* 2012).

Moreover, what has been observed by Harris *et al.* (2012) is specifically a clear and gradual corroding of key diagnostic features such as rudder, bollards, mast and funnel (Figure 6.6). The evident damage observed might be due to continued corrosion and wind abrasive action given

the nature of the Namibian coastal environment and weather. The environmental changes around the site mean that the shipwreck's pace of deterioration increases gradually, necessitating an intervention (Maarleveld 2003).



Figure 6.6. Assessment of Eduard Bohlen wreckage in 2010 (Source: Harris *et al.* 2012).

There were several other factors observed as key in the gradual deterioration of the Eduard Bohlen shipwreck. Amongst these is the use of the shipwreck by wildlife for habitation. Harris *et al.* (2012) observed that the shipwreck is used as a wildlife sanctuary by animals such as hyenas and jackals, providing shade from the intense Namib sun. The presence of seals near the wreck attracts these predators subsequently they also utilise the shipwreck as a feeding area. This is confirmed by the presence of animal bones around the shipwreck. Moreover, there were guano bird droppings that were observed on the horizontal surface of the shipwreck. However, it remains unclear what the negative impact of this guano could be on the metal

portions of the wreckage. As a result of interconnected wildlife activities occurring by the wreckage, the site has become a zone where new artefacts are brought to the site. For instance, hyenas drag seal carcasses to the shipwreck to feed in the shade. Moreover, hyenas have also become extracting agents, by taking artefacts away from the wreckage. I consider this interpretation of the potential role of hyenas to only be hypothetical because Harris *et al.* (2012) do not provide sufficient evidence for this activity. Nevertheless, as extracting and scrambling agents, hyenas have a significant role they play in the overall interpretation of evidence found at the wreckage. This is because according to Harris *et al.* (2012), through their various activities, the shipwreck becomes disarticulated in a way that can potentially lead to confusion in the general interpretation of the archaeological findings (Harris *et al.* 2012). This observation has the potential of rendering scientific investigation on the wreck obsolete, thus leading to a loss of valuable information in terms of learning more about the wreck. Furthermore, the loss of such information highlights what has already been articulated concerning the need to protect the shipwreck from the negative impact of natural elements.

Natural elements with the potential to threaten the integrity of shipwrecks are of special interest. It is thus just as important that I highlight them briefly here. Natural elements and threats to maritime and underwater cultural heritage can be classified into biological (animals), mechanical (fog, sand, wind, etc.), and chemical (corrosion). Not undermining the impact of natural threats, however, human elements play a key role in the destruction of this cultural heritage. Grenier *et al.* (2006) and Manders (2011) argue that human activities are perhaps the greatest threat to shipwrecks amongst the scrambling and extracting agents.

Harris *et al.* (2012) study highlight both human and natural threats to underwater heritage. It is thus important that heritage authorities are aware of these threats. What is missing in the 2010 study by Harris *et al.* (2012) is that there were no recommendations on practical steps that heritage authorities can implement. It is through such interventions, such as the regular

monitoring and assessment that this shipwreck can be conserved *in situ* following best practices stipulated in the 2001 UNESCO Convention on M.U.C.H. After such practical steps are implemented, the next step would thus be the improvement of public awareness. With public awareness, the significance of shipwrecks will increase, making it possible for Namibian authorities to realise revenue inflow from the shipwreck through tourism.

Throughout the world, many developed countries have benefited from revenues streaming from shipwrecks through tourism. A few examples of success stories are the Tudor era warship, Mary Rose, in the United Kingdom (Marsden 2003), the Vasa warship (Maarleveld *et al.* 2013) and Stora Sofia in Sweden, Harbollebro in Denmark, Burgzand Noord 10 in the Netherlands, and Zakynthos wreckage in Greece (Manders 2011). These are a few examples of shipwrecks that have been successfully conserved and displayed, subsequently becoming major attractions for tourists. In some countries, such as the United States of America, tourists are guided through shipwreck hiking trails. The Florida key marine sanctuary shipwreck trail is one of the world's popular shipwreck trail (Maarleveld *et al.* 2013). Likewise, Namibia can initiate such hiking trails since most onshore shipwrecks are lined along the 1,500 km skeleton coast from the mouth of the Kunene River to the mouth of the Orange River. Unlike *ex-situ* excavated shipwrecks curated in museums, which would be cost-prohibitive for Namibia, however, shipwreck trails require a minimal financial injection to set up. It is important to note that few private companies have set up their shipwreck trails along the Namibian coast in a bid to attract tourists (Gunter von Schuuma, pers. comm 2019). I argue that even though such a move is commendable as highlighted with the examples above, the Namibian shipwrecks do not have enough information written for tourist to enjoy and appreciate their historical significance. As outlined in the research objectives, such information is to fill gaps for identified shipwrecks. Such information can be used by the tour operators in their interpretation of these shipwrecks thus raising the significance of shipwrecks even more.

## The third study: A blueprint management strategy for Namibian maritime archaeology

According to Werz (2007), maritime archaeology is a field of study that emanated from interests to understand the role played by coastlines in shaping human history. The study of maritime or underwater archaeology is vast, ranging from the activities by salvage hunters, treasure collectors ‘hunting’ for materials from shipwrecks, and other aspects of underwater cultural heritage. Altogether, these aspects provide an understanding of how people used ships for their various purposes. Green (2004) argues that maritime archaeology has evolved from the days when it was associated with treasure hunting to the present day where it is comprehended not only as a field specialising in the excavation of shipwrecks but also issues related to the conservation of underwater heritage.

An interest in shipwrecks has benefited from the advancement of technology, such as the invention of scuba diving gear (Green 2004). Such technological developments have made it possible for researchers to access underwater sites that are located much deeper in the sea. These were previously inaccessible to humans before technological advancement (Green 2004; Werz 2007). Namibia has a well-documented maritime history dating back to the Portuguese explorers, and as such, there is a greater potential for further research as underscored by the investigations carried out by Werz (2007) and others along the Namibian coast. This is not precluding the rich pre-colonial settlements along the Namibian coast as outlined by Kinahan and Kinahan (2009).

In his publication titled a *Suggested blueprint for the development of maritime archaeology in Namibia*, Werz (2007) emphasised the need to urgently conserve Namibian maritime archaeological landscape. At the time, he pointed out offshore diamond mining activities as one of the significant threats to Namibia’s maritime landscape hence the need for interventions



to conserve this important cultural heritage. Werz (2007) classified Namibia's maritime archaeological sites into four categories namely: (i) natural static, (ii) natural dynamic sites, and (iii) artificial static, and (iv) artificial dynamic sites. He defined the natural static sites as inclusive of caves, rocks, islands reefs, bays, and submerged rocks that could have served as habitats for the early human settlements along the Namibian coast. These are archaeological sites that cannot be moved. He further argued that extensive information can be gathered from such sites, providing deeper insights into the prehistoric past. For example, an excavation on a coastal cave found in Luderitz in the 1920s revealed organic materials such as bones, shellfish, eggshell, stone tools, and plant materials. Such findings are indicative of early settlements on the coast (Werz 2007). The second category, the natural dynamic sites, are those that have been formed by natural processes. These are movable by natural processes and humans have interacted with such sites. Thus archaeological materials could be found in natural dynamic sites such as estuaries, lagoons, sandbanks and beaches.

As a third category, the artificial dynamic sites are those which were constructed by humans. They are mobile, thus found at different locations than their original area where they would have fulfilled their purpose. These sites include shipwrecks, boats, and planes. Based on Werz's (2007) observation, this category of sites could be extended to those shipwrecks that are presently at different locations than where they originally wrecked as a result of natural processes (such as shifting shores). This can presently be observed on the Namibian coast, based on the Eduard Bohlen wreckage (Harris *et al.* 2012). This shipwreck is presently ashore whereas it originally submerged offshore. But due to sand deposition and wave action, they are now present on the land, slightly located away from the site they originally wrecked. The fourth category is defined by artificial static sites. These are immovable man-made coastal features. An example on the Namibian coast is such as the *pradao* cross (see Figure 6.7) that was left by the Portuguese explorer Diego Cao at Cape Cross in the 15<sup>th</sup> century (Berthencourt &

*Diogo; Boxer 1969; Disney 1978*). This was Diego Cao's first expedition at the order of Henry the navigator. Other examples of artificial static sites are the deserted settlement camps such as those used during the American whaling period and early diamond mining period along the Namibian coast (Kinahan 1991, 2000; Kinahan & Kinahan 2009; Harris *et al.* 2012).



Figure 6.7. Cape cross Furthest point he reached on his voyage before returning.

Werz's (2007) publication left more questions than answers. While he highlighted the overall vulnerability of Namibia's maritime cultural heritage that is not adequately managed, there are several questions that he did not address: (i) what percentage of these wrecks have been destroyed due to natural and human threats? (ii) what information can we gather from the available wrecks?, and (iii) what could be done to mitigate or stop the destruction of this valuable heritage? My research, therefore, sought to address such questions. I did so by assessing the preservation state of the wrecks and unravelling their cultural and historical significance as outlined in the research objective and aims.

## Namibia's maritime archaeological landscape

It has been demonstrated in previous studies undertaken on the Namibian coast that throughout the precolonial period, ships have wrecked off the Namibian coast due to a combination of several factors. Amongst these is the treacherous and uneven seabed. This was illustrated by the case of the Oranjemund shipwreck discovered within a locality that is infested with rock outcrops that are suspected to have caused the wrecking of the ship (Werz 2007; Kinahan & Kinahan 2009; Smith 2009; Chirikure *et al.* 2010).

As indicated in the introductory chapter, my key interest in shipwrecks is the rationale behind the research project reported in this thesis. Such an interest is informed by several factors, namely, (i) the large quantity of Namibian shipwreck heritage, (ii) Existing literature and database, largely unpublished and in the hands of private volunteers sharing an interest in shipwrecks, attest to this (Von Schumann 1996). These shipwrecks provide a broad range, from the oldest wrecks such as the Portuguese Bom Jesus foundered in 1533 (Chirikure *et al.* 2010; Chirikure & Sinamai 2015), Eduard Bohlen foundered in 1909 (Harris *et al.* 2012; Kinahan & Kinahan 2009), and the youngest Japanese fishing vessel that wrecked in 2018 (Terblanche 2018). All these bare testimonies to the hazardous nature of the Namib coast. Most importantly, each wreck has a story to tell, thus making them culturally significant in learning about the past. This is the key motive concerning those shipwrecks or artificial dynamic sites that retain cultural and historical significance as per UNESCO's definition of cultural significance (Maarleveld *et al.* 2013). Needless to say, this does not imply that natural static and artificial static sites are less important paralleled to artificial dynamic sites, but the latter are more at risk of being destroyed by natural and human elements than the former.

While the importance of researching and documenting Namibia's maritime landscape is vital and unquestioned, not much-coordinated research projects have been undertaken so far in

documenting and assessing Namibia's shipwrecks (see Werz 2007, 2009). This is the case, even though, Namibia is a signatory to the 2001 UNESCO Convention on Protection of Underwater Cultural Heritage. For instance, few shipwrecks have been identified within the diamond mining area due to the security nature of the area (Smith 2009). As a result, the shipwrecks are corroding due to the sea laden fog and are said to be disappearing quickly as a result of mining activities (Werz 2007). Overall, it is only the Oranjemund and Eduard Bohlen shipwrecks that have been extensively and systematically studied.

Lake Otjikoto is located outside the study area discussed in this thesis, however, it is important to mention it here because it forms part of the broader Namibian maritime and underwater cultural heritage. Lake Otjikoto sinkhole hosts numerous German ammunitions that were scuttled there by the retreating German South-West Africa colonial forces during the First World War.

Beyond the three archaeological studies discussed in the first segment, the section below presents the reader with an overview of the Namibian maritime archaeological landscape. The reader must understand the environmental context in which my research project presented in this thesis was undertaken.

## Threats to underwater cultural heritage in Namibia

This section looks in-depth at existing literature focusing on natural and human threats affecting Namibia's underwater cultural heritage. The aim is to provide an overview of the common threats in Namibia, some of which were presented in the previous sections (Werz 2007; Harris *et al.* 2012). I further provide a comprehensive description of the common natural and human threats. Such a review emphasises the rationale behind my research project, highlighting its significance.

Several Heritage Impact Assessments (HIAs) have been carried out in Namibia but only a few have focused on underwater cultural heritage such as shipwrecks. One of such a few heritage impact assessment I conducted, was on the investigation of two fibreglass boat carried out in 2015 ( Mowa 2015). As illustrated in chapter three, the Environmental Act (Environmental Act 2007) provision for HIA or AIA is infrequently enforced, leading to heritage resources being destroyed by human activities. Through these impact assessment studies, the level of damage that has been caused by human projects along the coastal areas has been emphasised. Amongst such projects is the harbour extension in Walvis Bay (Mowa 2015). Other human activities, such as the laying of pipelines, oil terminal project, internet cables, and commercial fishing have harmed submerged and onshore maritime cultural heritage (Werz 2007; Manders 2011; Maarleveld *et al.* 2013; Mowa 2015). Other than the harbour extension project I have mentioned here, these disturbing infrastructural development activities have not been extensively assessed through coordinated and detailed research projects. It is likely that with an increase in archaeological impact assessment projects at the Namibian coast, the number of shipwrecks will be known including their locations. This will improve the existing inventory and database of shipwrecks in Namibia. In the long term, this inventory will help in management decisions as well as public awareness and requesting conservation funding by highlighting the significance and vulnerability of such wrecks.

According to Grenier *et al.* (2006) and Green (2004), many dredging activities negatively impact the environment by creating pollution, erosion that result in changes to sea currents (see also Manders 2011).

Therefore, the impact is not just cultural, in terms of the permanent destruction of cultural heritage, but environmental as well. The impact of dredging activities cannot be ignored, more so when it destroys shipwrecks. Manders (2011) classify these human and natural threats into four categories, namely, (i) mechanical, (ii) chemical, (iii) biological, and (iv) human threats.

I discuss these briefly below in order to give context by which the assessment of Eduard Bohlen discussed in this thesis is based.

The mechanical threats are caused by environmental forces such as ice, swell, current, and wind. On the Namibian coast, the south-westerly winds are more prevalent (Werz 2007). These south-westerly winds are responsible for the formation of the Namib Desert dunes since they blow sand deposited onshore into the interior. Manders (2011) notes that winds are responsible for abrasive action that can lead to the loss of sturdiness in structural remains of shipwrecks onshore, especially those made of metals. The sandblasting effect of wind on wrecks has been observed by Harris *et al.* (2012) in their study on the Eduard Bohlen shipwreck. Abrasive sandblasting action lead to the loss of surface texture on the shipwreck and ultimately loss of cultural information. Moreover, swells and currents are perhaps one of the most destructive mechanical threats to submerged shipwrecks. According to Manders (2011), currents and swell, especially when exacerbated by storms, are capable of unearthing shipwrecks covered by sediments on the seabed, stirring the artefacts and redistributing them. This exposes shipwrecks to even more abrasive action and micro-organism such as *Teredo Navalis* which further leads to the deterioration of the materials.

The Oranjemund shipwreck is one of the finest examples of this effect, considering that it foundered about two hundred meters offshore within the surf zone which is described by Manders (2011) as a high energy zone where abrasive action by wave action is intense (Werz 2009; Smith 2009; Chirikure *et al.* 2010). Furthermore, Alves (2010) acknowledges that 70% of the wooden structural component of the Oranjemund shipwreck was washed away by sea action probably owing to the strong surf and wave action where the ship foundered. This is notwithstanding the possibility of wood borers also damaging the wood given the aerobic nature of the shallow waters the shipwreck foundered.

The second threats result from chemical issues such as oxidation exacerbated by frequent salt-laden fog. Oxidation happens when salt moisture in the form of fog reacts with iron, leading to the corrosion of iron shipwrecks. Such corrosion eventually leads to the destruction of cultural heritage. As an indication of the level of damage that can arise out of chemical threats, on the Namibian coast, a good example is Eduard Bohlen's structural remains made of iron that has partly lost their sturdiness due to oxidation (Harris *et al.* 2012).

Third are biological threats, in the form of *Teredo Navalis* (Manders 2011). These threats to onshore shipwrecks are common in shallow aerobic or oxygen-rich waters and have the potential to damage submerged shipwrecks. Their negative impact is even more evident amongst wooden ships. According to Harris *et al.* (2012), on the Namibian coast animals such as seals, jackals, hyenas, and birds (through bird droppings) are a significant threat to MUCH. These have been observed to frequent onshore shipwrecks such as the Eduard Bohlen. These animals use this particular shipwreck as shelter from the scorching sun and as a feeding ground for food.

The fourth threats are human activities. On the Namibian coast activities such as fishing, mining (Werz 2007, 2009), looting, vandalism, tourism, and coastal developments (Mowa 2015) feature prominently under this category. Human beings are, therefore, the greatest danger to underwater cultural heritage. Manders *et al.* (2012) outline some key coastal activities with the potential to destroy underwater cultural heritage. Amongst these are bottom dredging which is common in Namibia as illustrated by the harbour extension project at Walvis bay harbour (Mowa 2015), trawling, wind farms, prospecting for mineral resources, wharf/port/marina development offshore, oil and gas drilling, development of sub-sea cables and pipelines, as well as wave power and outfalls. There is a general limitation on our knowledge as to the extent to which these human threats are prevalent along the Namibian coastline. These human-induced threats are perhaps colossal. The weakness of Namibia's

heritage legislation and the relatively low HIA for coastal marine and coastal activities is a critical concern (Mowa 2015).

Maarleveld *et al.* (2013) emphasise that by its nature, archaeology is a field of study that is destructive even though discovered artefacts can be presented to the broader public through museum displays. As a result, methodological approaches used in studying shipwrecks are potentially destructive to the coherence and context of a shipwreck site.

Furthermore, excavating the site interferes with its authenticity and does not allow for the appreciation of such heritage in their 'original' setting. According to UNESCO, it is advisable to consider *in-situ* preservation as the first option, as it also takes into consideration financial and curatorial issues, it is cheaper to preserve shipwrecks *in-situ* than excavate and display them in a museum (Ortman 2009). While noting the value attached to *in-situ* conservation of heritage artefacts linked to shipwrecks, it is important to appreciate that Namibia is beleaguered with hundreds of shipwrecks along its coastline spanning more than 1,500 kilometres (Werz 2007). It is, therefore, a significant challenge to preserve all the wrecks *in-situ*, compounded by the consideration of Namibia's status as a developing country. Countries that are broadly defined as developing nations have financial priority for other developmental projects as has become evident with the neglect of the Oranjemund shipwreck in Namibia. It must also be noted that a site changes as the environment around it transforms. For this reason, action should be taken through intervention or monitoring mechanisms to ensure that environmental changes do not significantly affect the continued preservation of a shipwreck in a given locality. In Namibia, there has been little intervention and monitoring on the preservation of underwater and maritime cultural heritage (MUCH). Most of the interventions have been made by the volunteering members of the Windhoek Underwater Club (WUC) (Harris *et al.* 2012; Von Schumann pers. comm. 2019).



A review of these natural and human threats as classified by Manders (2011) within the Namibian context helps us to understand the factors behind the damage to Namibia's cultural heritage found along the coastline. What is noteworthy to highlight is that even methods applied by underwater archaeologists to investigate shipwrecks can potentially threaten the integrity of such wrecks. This is particularly common when intrusive techniques are used on shipwrecks unnecessarily. It is my view that a holistic approach to mitigating threats does not only require the enforcement of legislation, it also requires physical intervention in the protection of vulnerable shipwrecks from natural forces and outline of operation guidelines. Such interventions must be in line with the 2001 UNESCO Convention on MUCH that prioritises *in-situ* preservation as a first option.

I have now presented to the reader the factors that are behind the destruction of shipwrecks on the Namibian coast. These factors are discussed within the Namibian context to understand the environment in which my study was carried out.

## Understanding the conservation of shipwrecks within the global context

It is important to understand threats to underwater cultural heritage in a global context. I review different case studies from around the world, intending to explore heritage management approaches in mitigating against identified threats to MUCH. I explore threats to MUCH within a global context to identify potential best conservation practices. Such a globally informed understanding of conservation issues will inform interventions that are meaningful in the preservation of Namibia's shipwreck heritage. I shall review 12 case studies from various localities around the globe. For comparative purposes, these case studies represent both

developed (United States, Canada, Australia) and developing countries (Panama, Sri Lanka, Madagascar and South Africa).

The first case study I review concerns the legal challenge between a treasure hunting company and an institution advocating for the safeguarding of MUCH in Panama. The Playa Damas shipwreck was threatened by a treasure hunting company that took advantage of the weak legislation in protecting Panama's MUCH in government. The second case study is the SS Maori shipwreck in South Africa. The aim is to assess how human threats were mitigated. The ancient fishing weirs in Canada of Ashley Narrow, threatened by human activities, is the third case study. Collaborative solutions identified to resolve these human activities are explored. Fourth is the Yongala wreck in Australia. It is an underwater museum attracting thousands of recreational divers. My aim, therefore, is to explore the threat to this shipwreck arising as a result of these recreational activities. In particular, I want to assess how the enactment of legislation and collaborative approaches have helped in safeguarding this shipwreck and I draw a parallel comparison with the Namibian case. The fifth case study considers the Avondster, a shipwreck of Dutch origin in Sri Lanka. What this case study illustrates is the value of the low-cost approach to mitigating threats and international collaboration in alleviating natural and human threats, I draw parallel similarity between the economies of Sri Lanka and Namibia as well as how Namibia can make use of such approaches to its shipwrecks that are currently under threat. The HMS Swift in Argentina is the sixth case study. Following its discovery, authorities faced challenges with regards to the *in-situ* conservation of the shipwreck. It was through a collaborative approach that funded the costs of managing threats to the shipwreck. . The Baie Trinitie shipwreck, found in Canada is the seventh case study. It shows how heritage authorities working together with local recreational diving companies and local community members can mitigate human and natural threats parallel comparison with Namibia is drawn, and practical approach how Namibian heritage authorities can create synergies between

stakeholders for the protection of underwater cultural heritage. Through the evident collaboration, research and excavation of the shipwreck have been undertaken. Haiti and Madagascar shipwrecks were pillaged by a treasure hunter filming a TV documentary, fame and perceived weakness due to the third world status of these countries motivated the pillaging, again parrel comparison with Namibia is drawn. NGOs such as GRAN in French Polynesia Island are at the forefront in safeguarding shipwrecks, conducting public awareness and education programs on the need to protect and safeguard MUCH for that nation. Next is the case study addressing the Queens of Nation shipwreck in Australia. I shall investigate how legislation and collaboration helped safeguard the shipwreck from threats. The second case study from South Africa is the SS Mendi. This ship sank in the English Channel with dozens of black South Africans that were destined to be non-combatant servicemen during the First World War in France. The case study focuses on how ignorance or racism can play a role among modern academics. Some modern academics do not pay much attention to certain wrecks that do not represent their interest, which is a threat by itself to shipwreck research. I shall review the involvement of archaeologists in studying and raising awareness concerning SS Mendi and Black people's role during WW1. The last case study reviews general threats to the French's underwater cultural heritage.

It is important to note that all these case studies are discussed within Namibia's context, this is imperative for comparison to be made and a conclusion to be reached on how Namibia compares with the rest of the world as well as discussing practical steps based on the approach taken in each case on how they mitigated the threats. From such comparative analysis, the idea is to propose and recommend best practice and way forward. Furthermore, these case studies expose a few aspects with regards to managing underwater cultural heritage.

The common denominator observed in these case studies has generally been treasure hunters and the natural factors leading to deterioration. Such threats are underscored by the lack of

attention given by heritage authorities. Besides other kinds of challenges experienced with underwater heritage, it is a relatively new field worldwide. Second, it is evident that developed nations have greater availability of conservation and technical expertise compared to developing countries. Furthermore, there is often comprehensive heritage legislation enacted to manage, amongst others, underwater cultural heritage. Nevertheless, this is not to argue that developing nations lag too far behind, as it is demonstrated that Panama which is a relatively poor country. Yet, it was the first country in the world to ratify the 2001 UNESCO Convention on the Protection of underwater cultural heritage. This is demonstrative of its 'first-class' commitment to safeguarding MUCH. Third, there is a realisation in both developing and developed countries that collaboration and public awareness is important in the overall protection of underwater cultural heritage.

According to Grenier *et al.* (2006), since the invention of SCUBA diving gear, underwater cultural heritage has become increasingly in danger of being looted by treasure hunters. They often approach governments around the world with a fallacy that they are doing justice to humanity by retrieving the underwater heritage before it is claimed by nature. The danger is that many governments are 'buying into the promises made by treasure hunters. Treasure hunters often promise that more than 50% of the cargo shall go towards the State for scientific research into the past (Grenier *et al.* 2006). Some scholars contend that it is a 'slap in the face' to the academic and scientific community since the educational value of a shipwreck lie within the context it is found. Treasure hunters remove archaeological objects from the shipwreck (context) to what Grenier *et al.* (2012) liken to 'mining' of shipwreck cargo leaving little scientific information. Treasure hunters validate their activities by reasoning that archaeologists do not have the technical capacity and time to engage in an excavation. This is because in most cases, shipwrecks are located beyond reach for SCUBA divers. As a result, most conventional archaeologists excavate submerged shipwrecks at shallow depth (40 meters

max). In contrast, well-funded treasure hunting companies use expensive underwater robots to reach shipwrecks at great depth.

Treasure hunting of underwater heritage has been immortalised through media as evidenced by motion pictures such as 'The Titanic'. Through such media, treasure hunting has been stereotypically presented as a just and good act for saving underwater cultural heritage from threats of nature. In contrast, it cannot be disputed that while nature has its adverse effects, it can also become a protector of underwater cultural heritage from human destruction.

The treasure hunting industry is industry-driven by profit rather than thirst for knowledge. Seemingly, Namibia has been relatively at low risk from exploitation by commercial treasure hunters owing to restriction and control of vessels in the Namibian waters. This is primarily due to major commercial fishing and alluvial diamond mining activities taking place along the entire coastline. The 16<sup>th</sup>-century gold coin laden Oranjemund shipwreck (Chirikure *et al.* 2010) is a testament to that, although souveniring, particularly on easily accessible wrecks ashore, cannot be ruled out. Since diamond mining began in 1908, Namibian governments throughout the colonial years guarded the coast against intruders, leading to the indirect protection of the country's maritime and underwater cultural heritage along the skeleton coast (Smith 2009). Also, there is poor visibility of water along the Namibian coast due to strong waves that makes it almost virtually impossible for SCUBA divers to see more than one meter underwater. The strong currents steer up the seabed, rendering visibility to be within centimetres (Mowa 2015). The bigger threat is likely to be souvenir hunters onshore rather than organised treasure hunting companies. It is, therefore, not heritage legislation that is protective of shipwrecks from treasure hunting and general plundering but a combination of factors ranging from commercial interests by fishing and mining industry to natural factors making the coastline inaccessible for deep-sea exploration. Studying other countries with similar

challenges as Namibia provides insight into potential best practices in the management and mitigation of human and natural threats of underwater cultural heritage.

## Treasure hunting in Panama

The Playa Damas in Panama is a good case study for treasure hunting (Castro & Fitzgerald 2006). A treasure-hunting company known as IMD, an affiliate to the Mel Fisher treasure hunting conglomerate, wanted to secure the rights to excavate the Playa Damas shipwreck. The conflict had to be resolved through the courts. The investment made by IMD was based on the premise that objects that were within Playa Damas shipwreck belonged to explorer Christopher Columbus. Such a historical link to Columbus was used to lure investors who saw this exploration of the shipwreck cargo as an opportunity to benefit financially once the artefacts were offered for sale.

According to Castro and Fitzgerald (2006), the Playa Damas had been known for years before it gained the attention and interest of the treasure hunters. Local fishermen used the shipwreck to catch lobsters for years. When the Panama Institute of Nautical Archaeology discovered that a treasure hunting company had extracted artefacts from the shipwreck, they secured a court order to stop them from further explorations. However, in a clear demonstration that treasure hunting companies will go to greater length to plunder resources for profit, they argued that the permits given to them were for the extraction of artefacts that were deemed to be in danger of being damaged by the environment. They further convinced the government to go ahead and excavate the shipwreck after they made bargains and hired an archaeologist from Jamaica.

Castro and Fitzgerald (2006) were managers of the pro-heritage conservation team that conflicted with the treasure hunting company. Castro was at the time heading a branch of the Institute of Nautical Archaeology at Texas A&M University, while Fitzgerald was the Director of the Institute of Nautical Archaeology in Panama. Following studies undertaken by the

Institute of Nautical Archaeology in Panama, the wooden structure of the Playa Damas was dated to between 1450 and 1530.

The artefacts such as anchors, guns, and cannonballs proved that the shipwreck was quite larger than what the treasure hunters originally thought it was. This example serves to show that treasure hunters can plunder wreckage they have insufficient knowledge about, selling artefacts to unsuspecting buyers. This demonstrates how dangerous treasure hunting is and how it contributes to the destruction of maritime heritage.

This example of the Playa Damas shipwreck illustrates the extent to which treasure hunters can go in looting an entire archaeological heritage site meant for education and the public good. Based on the Playa Damas case study, I contend that the authenticity of heritage becomes questionable once financial gain and biased political interests become involved.

What is underscored here is that the Panama heritage legislation before the ratification of the Convention was weak in protecting underwater cultural heritage. As demonstrated in the case study, the treasure hunting company was able to exploit these loopholes and put a vociferous fight in court so they can loot the shipwreck. However, despite these facts, Panama became the first country in the world to ratify the 2001 UNESCO Convention on the protection of underwater cultural heritage that speaks volume and means they have leadership that seeks to protect its underwater cultural heritage. The Panama example is a great lesson for Namibia to learn from. It is demonstrated that weak legislation can be exploited by treasure hunters. As in the case of Playa Damas, a huge price was paid by the loss of valuable academic information at the hands of treasure hunters. Namibia is not off the radar judging from current weak legislations. As I indicated Namibia has not yet domesticated the 2001 Convention, this means that shipwrecks within the Namibian archipelagic waters can be explored by treasure hunters

thus there is a need to urgently implement the statutes of the 2001 UNESCO convention into Namibia's national laws.

## The SS Maori

Unintentional damage to underwater cultural heritage is a major problem. This was experienced with the SS Maori in neighbouring South Africa. According to Gribble (2006), SS Maori was a steel steamship similar to Namibia's Eduard Bohlen. Interestingly, SS Maori also wrecked the same year as Eduard Bohlen, in 1909. The ship was equipped with a sailing mast in case her engine failed, however, it wrecked in thick fog off the Cape Peninsula. About 35 out of 53 persons including the captain on board perished in the incident (Gribble 2006). It is industry standard practice that the captain of a ship ensures that everyone makes it safely off a sinking ship before he rescues himself. This is illustrated by the recent wrecking of a trawling vessel off Walvis Bay in February 2020 (New Era 2020). All 27 crew members on board this ship made it on the deck and were rescued, except for the captain who was still in the holds (probably ensuring no one was left behind) of the ship when it suddenly sunk taking him down with it.

Moreover, what is illustrated in the case of SS Maori is the fact that her location in the calm waters of a bay and the ship's completeness (intactness) makes the location a popular destination for divers. The popularity of this shipwreck has attracted not only recreational divers coming to see its aesthetic appeal but also souvenir hunters. Gribbles (2006) argues that the easily accessible location of SS Maori has become a detriment since souvenir hunters have, over the years since the 1960s, accessed the ship's artefacts. The inventor of the SCUBA gear, Cousteau, once elaborated about SS Maori that "she was the most intact shipwreck of her era he had ever seen" (Gribble 2006:42). According to Gribble (2006), some divers, in the 1980s, used explosives to open her intact hull in the search of ferrous metals, in addition to this, it is



alleged that ill-placed anchors by divers' boats over her hull throughout the decades have dented her once intact hull. This destruction of the once beautiful wreck is a clear demonstration of threats caused by human activity as a result of dive tourism. In the case of South Africa, any wreck older than 60 years of age is to be protected (Gribble 2006). Needless to say, there is an emphasis on age delimitation in many of the laws concerned with shipwrecks around the world. This is not surprising, given the fact that the UNESCO convention on underwater cultural heritage (UCH) also has 100-year minimum conferment for UCH protection. Unlike South Africa's 60 year restriction, Namibia's 2004 Heritage Act state that shipwrecks older than 35 years belong to the State and are to be protected. As can be demonstrated by the damage to SS Maori, it takes more than legislation to protect shipwrecks. As I have emphasised before, that beyond national legislations protecting underwater archaeology, Namibia must also domesticate the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage. The convention provides best practice guidelines and statutes aimed at protecting all maritime and underwater cultural heritages (MUCH). Gribble (2006) underscored the need for public awareness and education on the importance of protecting shipwrecks as key mitigation measures.

The SS Maori case study is comparably similar to Namibia situation, in that the country also has accessible shipwrecks that attract large numbers of tourists annually. Most of these shipwrecks are located onshore thus many shipwrecks on the Namibian coast are at the mercy of souvenir hunters and being vandalised from human-induced activities. Thus it is safe to say shipwrecks located onshore are in greater danger on the Namibian coast than those underwater owing to accessibility. As a result, the competent authority should increase public awareness programme to sensitise the public on how to conduct themselves on fragile shipwrecks on the Namibian coast. In the long term regulation for diving on heritage sites that conform with the 2001 UNESCO convention will need to be established. This is important so that the private

sector will become stakeholders to help the competent authority in protecting the underwater cultural heritage.

### Fishing and the case of Ashley Narrow in Ontario, Canada

According to Ringer (2006), fishing constitutes one of the major threats to underwater cultural heritage. The dangers of this activity are particularly evident in the case of Ashley Narrow located near Orillia in Ontario Canada. It is an ancient fishing weir previously used by the local aboriginal people for thousands of years to catch fish. These fishing weirs are currently threatened by fishing activities because of communities from the nearby town that use fishing lines. Ringer (2006) states that while line fishing is the main threat, other threats to this underwater cultural heritage come from coastal marine development. This happens when hooks entangle around weirs leading to their damage. The weirs have been declared as a cultural heritage for the *Chippewas* because the fishing method is ancient. For the indigenous people, the ancient traditional fishing grounds were also used for ritual and spiritual ceremonies, festivities, and trade. As such, the weirs possess a social, economic, cultural, and spiritual significance to the *Chippewas* people. In this case, we see that the noble fishing line regarded to be less intrusive than the fishing nets is singled out as the main danger towards underwater cultural heritage, highlighting the importance of local research in the identification of local challenges.

In the Namibian context, line fishing is popular on the Namibian coast. To what extent this fishing method damages underwater cultural heritage is not presently known. Furthermore, it should be investigated to establish if line fishing can present danger towards shipwrecks and underwater cultural heritage in the Namibian context. This is so because Kinahan and Kinahan (2009) highlights that the Namibian coast has pre-colonial fish traps that were used by indigenous people, thus further investigation is needed to establish if line fishing does damage

underwater cultural heritage on the Namibian coast. However, a good practice would be to sensitise the public and institutions issuing fishing permits to take into consideration of places that are known to have underwater cultural heritage, especially those that are close to shore. This is particularly important to consider since fishing lines have already been identified as a damaging activity (Ringer 2006). This problem is not presently established in Namibia, however, such threats emanating from fishing lines must be taken into consideration by competent authorities to holistically protect shipwrecks, since fishing activities both using nets and using the fishing line is popular on the Namibian coast. The extent of damage this can cause when overlooked might be huge therefore preventative measures need to be sort.

Noting the threats emanating from line fishing, we should consider that it is an extent and frequency of fishing that is more devastating to the underwater cultural heritage. I argue, that several factors play a role in increasing the risk of damage to underwater cultural heritage as a result of line fishing. These are (i) the frequency of fishing activities, (ii) the number of people per fishing area, and (iii) the terrain or sea bed topography. I postulate that it is the combination of these factors that collectively cause lasting damage.

### The Yongala shipwreck of Australia

In an illustration of how natural and human threats merge and have devastating effects, it is best to look at the Yongala shipwreck case study of Australia. The wreck is located within Queensland Marine Park and is part of the Great Barrier Reef. According to Viduka (2006), Yongala shipwreck is completely covered by marine organisms. As such, it has been classified as an artificial reef. Harris *et al.* (2012) argue that marine organisms on shipwrecks can give misleading information, this can be the case when the structure of the hull becomes disarticulated and lose its true structural form. Besides such natural factors, the Yongala shipwreck is also faced with human-induced factors. According to Viduka (2006), the Yongala

wreck receives over 7,700 divers annually. This increment in the numbers of visitors has increased the rate of physical and mechanical damage to the wreck through the dropping of anchors directly on the hull as well as increasing the level of oxygen (air pockets) on the wreck. Such foreign elements brought in through diving activities accelerate the rate of corrosion on the metal wreck. This is what I refer to as ‘human-induced natural threats’.

In the 1970s, the wreck faced an increased rate of souvenir divers that further increased the loss of scientific information. This was in addition to the increased oxygen levels on the wreck. Over time, natural threats to the wreck became difficult, if not impossible to prevent such as increased corrosion due to increased oxygen levels by divers. According to Viduka (2006), a theoretical proposition was made to try and install artificial sacrificial anodes to mitigate corrosion. However, this recommendation failed to be implemented since it would have required substantial financial resources and ongoing financial commitment to the conservation of the shipwreck. Even though this possible intervention failed, the focus remained on efforts to mitigate human threats, with a focus on divers and their interaction with the wreck (Viduka 2006).

Queensland Marine Park authorities identified formal and informal mitigation measures to manage the shipwreck. The formal measures are defined by the enforcement of existing heritage legislation. Through such laws, the Yongala shipwreck was gazetted as a historic shipwreck in 1981, added to the register of the National Estate in 1982, listed under Section 7 to offer it a 500 meters radius for protection in 1983, and included in the Central Zone of the Great Barrier Reef Marine Park in 1984 (Viduka 2006). The enactment of such legal interventions highlights the significance of the wreck and the realisation of the threats affecting it. Viduka (2006) stressed that SCUBA dive operators operate under a strict code of conduct. First, penetration of the wreckage is strictly prohibited due to its classification as a gravesite. It is classified as a gravesite following the death of 120 people when the ship foundered in

1911. None of these 120 passengers survived. Second, dive interaction with the wreck is always under the supervision of the dive club operator. Third, enforcement of legislation through cooperation between heritage authorities and dive operators has led to several prosecutions. In the one case, a diver chose to enter the wreckage even after having received instructions to the contrary. A fine of \$2000 was issued following a successful prosecution. Fourth, other informal mitigation measures such as increased communication and education to divers and dive operators have been implemented (Viduka 2006).

What is clear from this particular case study is how important it is to have a proactive multi-faceted approach to mitigate threats to underwater cultural heritage. Fortunately, these approaches and laws are permitted by the UNESCO Convention (Manders 2012). What this case further illustrates is that legislation on its own is not enough. Instead, education is very important particularly among stakeholders that have the potential to directly or indirectly affect MUCH. As also demonstrated in the case of SS Maori in South Africa, it is difficult to enforce legislation without cooperation from dive clubs, navy, fishing, mining companies and other stakeholders.

Namibia is faced with similar challenges especially with regards to underwater cultural heritage that are easily accessible by divers such as Lake Otjikoto (Mowa 2012). As outlined before Lake Otjikoto has German WW1 weapons on its lakebed at a depth of 80 meters. This heritage has over the years attracted several divers and often dive clubs conduct their dive training within the lake. Why I classify activities of divers as a threat to UCH in this lake is because of: (i) they do not have qualified maritime archaeologists to ensure that diving does not increase the level of chemical and mechanical damage to the heritage at the lakebed; (ii) There is presently no diving operational guidelines that guides divers conduct on underwater heritage such as those in Lake Otjikoto and the Namibian coast; and (iii) the absence of such operational guidelines means diving clubs do as they please. As a result of this, mitigation measures lies in

the creation of synergies between diving clubs and the competent authorities to ensure that. Diving clubs that have diving activities in Lake Otjikoto abide by a strong code of ethics, guided by regulation that should be established by the competent authorities following the best practice guidelines from the 2001 UNESCO convention. These operational guidelines and regulations should not only apply to diving clubs in Namibia but also to all stakeholders that affect MUCH. In terms of establishing such guidelines, Namibia has a maritime archaeologist that can be consulted. South Africa have several maritime archaeologists and Namibia as a member of the 2001 UNESCO convention is in a great position to request help from UNESCO in establishing such operational guidelines within the Namibian context.

### Avondster shipwreck in Sri Lanka

According to Manders (2006), the Avondster wrecked in the shallow sandy seabed in Sri Lanka. It was later discovered that the shipwreck is affected by sand abrasive action from strong wave actions, stimulated by gale winds, ocean currents, monsoon rains, and rare tsunamis. It was further discovered that wood was being affected by the growth of wood borers or *Teredo Navalis*. Other threats to the wreck included looting, fishing activities, chemical degradation, and the corrosion of metals. As a mitigation measure, it was decided that interventions were needed that were practical, realistic, and affordable given the economic status of Sri Lanka.

According to Manders (2006), excavation was seen as a viable alternative to preserve some material remains that were under threat from souvenir and looting activities. The hull and structure of the ship were left *in-situ*. To mitigate the effect of wave action scouring the site, scattering artefacts and redepositing them, a project was initiated in cooperation between the Department of Archaeology from Sri Lanka, the Australian West Maritime Museum, Sri Lankan fund organisation, and the postgraduate institute of archaeology in Sri Lanka.

Cooperation between non-governmental organisations, universities, and museums enabled the project to have technical and financial resources to save the shipwreck.

The first step taken during the intervention phase of the project was to cover the wreck site with nets made from polyethene to help trap the sand and slowly cover the exposed site. Such accumulation of sand was to prevent abrasive action from scouring the fragile wreck site. This action proved effective and within a week, a quarter of the shipwreck was covered by sand as desired. This was effective in preventing not only the currents from exposing the wreck site but also monsoon gale winds and tsunamis.

What is demonstrated in this Sri Lankan case study is that a combination of approaches is required to successfully protect UCH. Management and mitigation of threats should not only be depended on the availability of funding from a single source notably governments. Instead, collaborations between various institutions such as museums, universities, and NGOs can assist authorities in source experts with the technical capacity to manage underwater cultural heritage collaboratively.

This is, however, can only be achieved through proactive and strategic interventions. In the case of Namibia, this will address some of the key challenges that the National Museum of Namibia and National Heritage Council are currently facing regarding lack of funding as demonstrated by the respondent in chapter three. NGO such as NFU, institutions such as UNAM (to which the author is employed) can provide expertise in the management and research of Maritime and underwater cultural heritage, also, UNESCO can assist on certain project to a member state of the 2001 convention by providing expertise.

Further, what is highlighted in this case study is that covering a shipwreck with sand has been proved as an effective approach in mitigating natural threats from exposing the shipwreck to natural elements. As I shall demonstrate in this thesis, in the Namibian context, various

shipwrecks onshore are deteriorating at a rapid rate, conservation methods such as sandbags can prove cheap and effective to prevent corrosion and degradation by burying exposed wreck components. This is effectively demonstrated by the case study of the Avondster shipwreck in Sri Lanka. Such methods are not only cheap but also effective. This will moreover address some of the funding concerns raised by heritage authorities as challenges for conservation of shipwrecks, particularly in current economic difficulties compounded by COVID-19.

## HMS Swift

While collaboration was on a smaller scale with the Avondster shipwreck, it has been demonstrated that such concerted efforts can also be undertaken at a much larger scale as shown in the case of HMS Swift (Elkin 2006). Collaboration between several countries ensured that the shipwreck site was developed and became a centre for training, education, conservation, scientific research, and publications. This mirrors the aspirations of the 2001 UNESCO convention on the protection of underwater cultural heritage. What is apparent from this Argentinian case study is that each shipwreck is unique and to conserve a shipwreck of this type and age requires a sustained financial commitment and human capacity development. Therefore, collaboration with other countries and institutions is necessary to spread and lessen the burden on one country.

HMS Swift was a British ship that sank in Argentina in the 18<sup>th</sup> century on a trading mission to the Falkland Island. Following its discovery in the 1980s, it became apparent that the wreckage was being threatened by human activities such as coastal and harbour extensions. These activities increased traffic in the area as well as pollution waste spillage into the sea. This led to the alteration of the delicate equilibrium of the site and its surroundings (Elkin 2006).



Other threats to HMS Swift artefacts include lack of capacity by the museum (named after the young diver who discovered the shipwreck site). The Mario Brososki museum was established to care for the display and conservation of materials recovered from the HMS Swift in the nearby town of Puerto Deseado in Argentina. Elkin (2006) stresses that the artefacts from the shipwreck need more care than can be provided, because of the inadequate capacity of the Mario Brososki museum.

What is underscored in this case study is the fact that, for developing countries such as Argentina, collaboration with other countries and institutions is advantageous. In this specific case, collaborations occurred between Argentina., the USA, Germany, Canada, Chile, Colombia, England, France, Holland, Mexico and helped in training and building local human and technical capacity.

As demonstrated in this literature review, not all threats to MUCH are eliminated. However, there are key similarities between the Oranjemund shipwreck (Chirikure and Sinamai 2015), HMS Swift (Elkin 2006), and the Avondster (Manders 2006). The key similarity between these shipwrecks lies in collaboration. The similarity is that, like the HMS Swift project, the Oranjemund shipwreck project involved collaboration with countries and institutions in America, Portugal, South Africa, Zimbabwe, Kenya, and Texas A&M University. All these collaborators supplied technical and professional expertise ranging from archaeologists, conservators, and database managers. The United States Embassy donated an undisclosed amount of money (Chirikure *et al.* 2010) which helped in purchasing conservation laboratory equipment. Furthermore, an MOU between Portugal (as the nation of wreck origin) and Namibia was signed to help with technical expertise and capacity building on training local conservators. Some promises were theoretical and have never been acted upon to date. However, it was a step in the right direction in conformity with the 2001 UNESCO Convention on the protection of MUCH. This case study of HMS Swift underscores the fact that even

developed nations rely on collaboration for the successful protection of MUCH. In the Namibian context, several shipwrecks are not accorded the same status or attention.

Most of these shipwrecks are of significant historic value as highlighted in chapter four and are deteriorating at a rapid rate in particular the Eduard Bohlen shipwreck assessed in this thesis. With the realisation of the value of shipwrecks such as the Eduard Bohlen (Harris *et al.* 2012), it may seem therefore that the HMS Swift and Oranjemund shipwreck are key learning points to which competent authorities can learn from and organise similar international institutions and bodies such as UNESCO to mitigate threats.

### Baie Trinitie, Canada

Another example that demonstrates the effectiveness of sandbags as a mitigation measure against threats facing shipwrecks is found in Canada (Bernier 2006). What is interesting about this particular shipwreck is the fact that heritage managers are faced with difficult and intriguing questions regarding dig it or not to dig. According to Bernier (2006), heritage managers decided to delay digging the site as much as possible in conformity with the 2001 UNESCO convention whereby *in-situ* preservation protocol is the first option before any intrusive techniques are introduced. It was further agreed that parts of the shipwreck that were exposed and thus vulnerable to natural elements be buried with sandbags. This highlights the value of this inexpensive method in mitigating the threats. This intervention is internationally accepted and used, as we have already observed with the Solway in Australia and Avondster in Siri Sri. The successful use of sandbags in the case of Baie Trinite is further evidence of the significance of this conservation method.

When excavations were allowed at the site of the Baie Trinite shipwreck, it was agreed that minimal intrusive techniques be used. These were aimed at understanding the nature of the threats as well as the extent of damage with regards to the artefact component. The idea was

further to establish what the excavated artefacts tell us about the identity of the shipwreck. This was because by the time the excavations were recommended, the shipwreck had not yet been positively identified. When part of the buried wreck was exposed, rescue excavation on that portion was conducted and artefacts recovered. It was through the interpretation of these discovered artefacts that the identification of the shipwreck was achieved. Having a larger portion of the site managed *in-situ* was important and respectful of the UNESCO Convention. However, and as we have seen with the other case studies, the *in-situ* option works only for a while. The reality is that continued financial and human commitment together with the changing natural environment will eventually unveil new threats to the wreck site. This will ultimately demand additional financial commitment towards continued *in-situ* preservation. As observed, the *in-situ* conservation of shipwrecks such as the HMS Swift was abandoned when it became impractical, leading to decisions being made to excavate the entire wreck site. The same was noted with the Baie Trinite whereby heritage managers realised that they were fighting a losing battle because of new threats that continued to emerge. It also proved to be an expensive exercise to continue managing the shipwreck in its position of sinking. The decision to excavate the Baie Trinite wreck site was made due to the emergency concerns arising from new threats. After excavations, the shipwreck was positively identified as a merchant ship called the Elizabeth and Mary. The ship sank with about 50 men from Boston, Massachusetts in America.

The decisions to excavate or not to excavate, puts heritage managers in a quagmire because one decision brings fears of exposing the shipwreck to environmental threats and the other helps us learn more about the ship and its cultural provenance. In the case of the Baie Trinite, the decision taken by managers was commendable as it still conformed to the UNESCO Convention on UCH that outlines that *in-situ* conservation shall be considered as the first option (Maarleveld *et al.* 2013). Despite potential future challenges, an advantage of *in-situ*

conservation as applied in the context of Bae Trinite is that it gave heritage managers time to plan excavations that were properly phased with human and economic resources availability taken into consideration. Based on the Bae Trinite it is thus safe to assume that delaying excavation will allow time to plan and conserve the excavated materials in a systematic and planned way.

Moreover, what can be learnt from the Baei Trinite shipwreck is the involvement of local communities in protecting the heritage. According to Bernie (2006), heritage managers collaborated with local divers to take on the initiative to protect the shipwreck through Nautical Archaeology Society (NAS) training courses in underwater archaeology. Bernie (2006) elaborates that the divers who were potentially a threat towards the shipwreck through looting souvenirs were empowered in understanding and appreciating the value of underwater heritage. They were further sensitised on the importance of its historical and scientific context in understanding the past. Through such collaborations, divers also helped heritage managers as they became stakeholders in protecting the Baie Trinite shipwreck. The divers further helped heritage managers conduct frequent dives on-site before and during excavation and throughout the site monitoring phase.

It can be concluded that collaboration is one of the ways that can be used to complement the deficit in financial and human resources. *In-situ* and subsequently, excavation, both need financial support and ongoing commitment.

What can be highlighted from this case study is that using inexpensive management of underwater cultural heritage is a possibility even for Namibia. Namibia and Canada have similar economic activities such as fishing in common and both coasts have vibrant fishing communities. As such, in the Namibian case, competent authorities can work in close collaboration with the fishing industry and port authorities to protect underwater cultural

heritage. With the right approach it is possible that operators of fishing vessels in Namibia knows the location of some shipwrecks and can become instrumental in the protection of such wrecks and with the right sensitisation awareness programs, heritage authorities can empower operators of fishing vessels to steer away from the locations with possible shipwrecks or to use fishing methods that are potentially dangerous such as trawl fishing (Manders 2011). I believe that Namibian offshore shipwreck whose status is unknown except for the location highlighted in the database in chapter three will be protected.

Moreover, collaboration could also include involvements of stakeholders, such as the navy, the ministries of fisheries, mining, safety and security, local dive clubs, and interested private individuals. It is through such collaborations I trust that *in-situ* conservation as well as other mitigation measures can be implemented in Namibia.

As observed with the South African shipwreck SS Maori (Gribble 2006), legislation alone is not sufficient. Rather, it is through a combination of various approaches, ranging from collaborations and increased public awareness, that human threats to MUCH can be significantly decreased. This is undoubtedly the lesson from these case studies so far and I have demonstrated in part how such solutions can be integrated within the Namibian context.

The human and natural agents threatening shipwrecks have so far been discussed through an in-depth review of various case studies. It has become apparent that several mitigation measures are employed for effective interventions in safeguarding the integrity of underwater cultural heritage. Case studies have demonstrated that *in-situ* conservation cannot be done in isolation. Rather, authorities should consider legislation amendments and domestication of the 2001 UNESCO convention. This is important in minimising human threats while increasing the overall recognition and value of shipwrecks at a national level in Namibia. I argue that these threats highlighted in these case study are universal and Namibia can learn significant

lessons that, if implemented in the right context and approach it will significantly enhance the protection of underwater cultural heritage.

## Treasure hunting in Madagascar and Haiti

According to UNESCO, in 2014, a maritime archaeologist by profession and treasure hunter Mr Barry Clifford announced that he discovered Christopher Columbus shipwreck known as the 'Santa Maria' in Haiti. According to UNESCO (2018), the Haitian government requested the advice of UNESCO regarding the discovery. UNESCO at once dispatched a team to investigate the discovery. The UNESCO's Scientific and Technical Advisory Body (STAB) investigated the said wreck. They concluded that the shipwreck did not belong to Christopher Columbus but belonged to a later period.

Furthermore, Mr Barry Clifford, a year later AFP (2015) reported that he was working on a documentary film with the History Channel when he announced he discovered the ship of the 17<sup>th</sup> Century pirate William Kidd. Kidd was sentenced to death by the British parliament in 1701. It is alleged that the announcement by Mr Clifford of the discovery was made in the presence of the Madagascan president, UK and US ambassadors to Madagascar to gain fame. According to AFP (2015), Kidd treasures that were believed to have been left somewhere near Madagascar where he operated were never found. As a result, Mr Clifford announced that he discovered William Kidd shipwreck with a 50 kilogram of pure silver (Figure 6.10). Such news and the apparent presence of the Madagascan president and foreign ambassadors made it international news.

Based on the fact that Mr Clifford's discovery in Haiti was debunked by UNESCO's STAB team, it was thus easy for the organisation to suspect foul play. UNESCO dispatched a STAB team to Madagascar to investigate Mr Clifford's discovery. (UNESCO 2015). After the investigation, it turned out that several shipwrecks were discovered within the bay of Saint

Marie Island off Madagascar but have been wrongly identified and pillaged, and the 50-kilogramme silver turned out to be a lead ingot (Figure 6.8).



Figure 6.8. UNESCO STAB team with a lead ingot wrongly identified by Mr Clifford as William Kidd's silver (Source: UNESCO 2018).

What is illustrated with the Haitian and Madagascar examples are that developing countries are an easy target to treasure hunters and looters. This is illustrated by the fact that in less than a year, Mr Clifford pillaged two shipwrecks and claimed they belonged to famous historical figures, which turned out not to be true. One might argue that he targeted these countries because they do not have strong heritage legislations nor the capacity to protect and understand their UCH. UNESCO STAB does only help countries that are the Member States to the 2001 Convention, to which Haiti had been a member since 2009 and Madagascar ratified the Convention in January 2015 hence UNESCO became involved. This aspect highlights the importance of ratifying the Convention, particularly for the developing world.

What is underscored by this case study within the Namibian context is that being a third world country, Namibia is not off the radar from being targeted by international treasure hunting, thus there is a need for capacity building i.e heritage authorities should strive to have their maritime archaeologists, conservators and researchers in the field of maritime and underwater cultural heritage. And as I had highlighted before, Namibia's legal instruments need to be strengthened in harmony with the 2001 UNESCO convention to ensure thorough protection. This is possible through the review of the Heritage Act, statutes of the convention can be implemented, this implementation will compel mining and fishing companies to abide through an appropriate regulation be mandatory for archaeological impact assessment for all underwater activities. Concerning technical capacity, the University of Namibia have a maritime archaeologist and can be partnered with to ensure that any discoveries or claims of discoveries are thoroughly investigated, South Africa have several maritime archaeologists whom I believe through UNESCO their expertise can be sort. I am highlighting these issues not because they have happened but as a contingency measure in case a similar scenario as in Madagascar and Haiti occurs in Namibia.

## GRAN in French Polynesia Island

According to Guerout & Veccella (2006), the public in the small French Polynesia nation has worked tirelessly to protect underwater cultural heritage without waiting on government efforts. Such an initiative can be seen in French Polynesia country, a self-governing autonomous region of the French republic. The self-governing nation is rich in underwater cultural heritage owing to its strategic location within a busy navigation route between Asia and America (Guerout & Veccella 2006). The Groupe de Recherche en Archéologie Navale (GRAN) is a non-profit organisation created by Guerout and Veccella. It is dedicated to protecting and promoting underwater archaeology in the territory.



It is commendable what the organisation has achieved over the years. As mentioned by Guerout & Veccella (2006), the NGO collaborated with a wide array of informants. Conducted awareness programs. Due to their success, they can be applied across other countries. What is intriguing and worth noting is that GRAN did more in terms of research and public awareness than what governments have done. Moreover, GRAN has been given the responsibility to supervise all national/territorial, archaeological research and have been subcontracted by both government, municipalities, and private companies, highlighting its commitment to the protection of underwater cultural heritage.

What is demonstrated by this case study is the fact that the role played by NGOs cannot be underestimated, if NGOs can do this much to protect shipwreck in Polynesia, Namibia is no exception. How this can be done is through empowering existing NGO such as NUF/WUC. These organisations have been conducting commendable work in documenting (as in the case of the existing database) and protecting underwater cultural heritage in the country (Von Schumann Pers. Comm 2019). As such the Namibian government in particular heritage authorities need to work closely and collaborate with such institutions, to ensure that shipwrecks are documented, accessioned and protected. As I have indicated in chapter three an NGO in Namibia namely NUF/WUC has done more to research and protect Namibian shipwrecks and need to be recognised as an important institution. As demonstrated by the Polynesia case study such recognition can enable the organisation to carry out the important tasks on behalf of the National Museum and National Heritage Council since they lack technical staff, experience and capacity. NUF/WUC, as I have indicated from the data conducted by this research in chapter three, have wide experience regarding shipwrecks in Namibia and are knowledgeable regarding the location of various shipwrecks in the country, could be instrumental in the management of UCH, this is demonstrated by some of the work

they have done to restore old mining archaeological remains dating from the German colonial era (Von Schumann Pers. Comm. 2019).

## Queen of Nations in Australia

In a second Australian case study, legislation proved to be substantial (Nutley 2006). Through legislation, shipwrecks were better protected against treasure hunters and irresponsible leisure diving as demonstrated in this case study.

From the beginning, there seems to have been general negligence concerning underwater heritage in Australia in the 1970s, for example, authorities saw shipwrecks such as Queen of Nations as a hazard to swimming. Such an attitude and perception led to the looting and destruction of this particular underwater cultural heritage. According to Nutley (2006), looters armed with knives and hoses descended upon this shipwreck, destroying much of its content and superstructure. It was only after archaeologist raised the alarm on the possible loss of historical information that action was taken at a national level. By then, pickled food in glass containers and other utensils for the sailors were either pillaged or destroyed. It is the loss of such valuable MUCH that led to the enactment of strong legislation in Australia, protecting all old shipwrecks. Nutley (2006) state that after the realisation of the loss of valuable information from the Queen of Nations it became law that all shipwrecks older than 75 years were to be designated heritage status. Thus diving, and archaeological research, could not take place without permits from authorities.

I postulate that Australia being among the first countries in the world to enact legislation geared towards protecting MUCH might have influenced legislation developments around the world. This is demonstrated by the 2001 UNESCO Convention on underwater cultural heritage legislation, emphasising minimum age limit. This is evident with South Africa's minimum protection age of 65 years (De Wet 2017), and Namibia minimum age of 35 years (National

Heritage Act 2004). Additionally, the ICOMOS Charter, on the protection and management of underwater cultural heritage which is the precursor to the 2001 Convention on the protection of underwater cultural heritage was conscripted in Australia (ICOMOS 1996). Second, the pillaging of the Queen of Nations shipwreck is indicative of the need for public awareness programs to prevent what I would call a ‘treasure rush’ for old shipwrecks. This is because the media and film industry had romanticized the notion that shipwrecks are a source of valuable treasures. I state here that Namibia is faced with a similar challenge, this is highlighted by the fact that numerous valuable information might have been looted from shipwreck such as Eduard Bohlen (Harris et al.2012) by local souvenir hunters, many of these individuals have donated some of the items from Eduard Bohlen to the local museum in Swakopmund. It is thus through public awareness of the importance of MUCH that the Namibian public will be aware of the cultural value attached to local shipwrecks.

### SS Mendi in South Africa

On the same matter of threatened wrecks, it is important to note how lack of interest by mainstream academic researchers and scientist in certain aspects of history can lead to neglect and destruction of MUCH. This is demonstrated in the case of SS Mendi in UK waters (Gribble & Sharfman 2015) and other countless wrecks within French territorial waters (L`Hour 2015). A very interesting aspect of SS Mendi provenance is that it was used to deliver troops for the British Labour Corps (BLC). This was a contingent of foreign labour forces mainly from Britain’s colonial oversea territories. According to Gribble & Sharfman (2015), the need for a colonial labour force during WW1 was born out of an observed high fatality among British soldiers on the frontline due to fatigue. During the war, soldiers were used as labourers by night to construct roads and railways, build bomb shelters, trenches, and prepare meals while at the same time taking up arms during the day on the front line to face the enemy. As a result, the

British war department reacted by outsourcing labour force from foreign British colonial territories including South Africa. Therefore, when the SS Mendi wrecked, it was travelling from South Africa with more than 800 Black Africans and their officers from the South African Native Labour Corps SANLC (Gribble & Sharfman (2015). After it arrived in the English Channel in bad foggy weather, the ship collided with another British ship which resulted in the SS Mendi sinking within 20 minutes. It is reported that the sailors on board from the SANLC refused to go overboard the sinking ship. Rather, they chose to die with dignity because they believed or were made to believe by the interpreter on-board named Isaac Dyobha that they came from South Africa to die in Europe. As such, the sinking of the ship fulfilled exactly what they came to do.

It is easy to understand why a shipwreck with such a history is bound to fall out of favour' or be neglected by mainstream Eurocentric archaeologists and researchers. It might be ignorance to put aside racism as not influencing this. Similar sentiments are echoed by Gribble & Sharfman (2015) who state that the neglect of the SS Mendi is attributed to the lack of interest in the story of the 'native' labour force and its role during WW1. The shipwreck is protected by legislation in the United Kingdom after having been declared one of only two non-military shipwrecks to be protected under the 1986 Protection of Military Remains Act.

Nevertheless, what is being highlighted in this case study is the importance of legislation in protecting shipwrecks and public awareness through research on the significance of shipwrecks. It is further illustrated that there is a need to provide a multifaceted viewpoint to provide a wide variety of significance rather than telling a limited story about the importance of shipwrecks such as SS Mendi. This is particularly so for shared heritage, as the shipwreck has historical significance in both South Africa and the United Kingdom. Gribble & Sharfman (2015) refers to this aspect as the *Transnational and international nature*. In other words, different nationalities may value SS Mendi to varying degrees. Manders et al. (2012) reiterate

that assessment of significance might lie in site uniqueness, therefore SS Mendi being one of its kind especially makes it a special shipwreck in South Africa. It's sinkage represented one of the major recorded losses of Black South Africans at sea during their involvement in WW1. It thus provides a much higher significance for South Africa. However, the significance of SS Mendi towards Britain might be less because there are many WW1 shipwrecks of this nature lost within the English Channel. Furthermore, what this SS Mendi case study highlights is that when managing shipwrecks as in the Namibian context, it is important to understand their cultural and historic context. It further promotes the need to engage all nations that share the heritage of the shipwreck to provide a holistic approach to the assessment of significance and the continued conservation of the heritage resource. This can be achieved through collaborations in research as it has been done between Namibia and Portugal with regards to the research and conservation of the Oranjemund shipwreck. More collaboration can be done with other countries where some of the shipwreck found on the Namibian coast originated from.

In the case of SS Mendi, It took the participation of South African maritime archaeologists for the SS Mendi to be surveyed and recorded to understand the ship's construction, its provenance, as well as its eventual loss. Needless to say, this aspect was virtually ignored by the academic community in Europe. What is further underscored here is the need to document and protect heritage even when it evokes painful emotions and sad memories, more so in Africa in general and Namibia in particular where colonial symbols are frowned upon.

This case study illustrates one of the key challenges in the management and funding of shipwrecks in Namibia. As highlighted, Namibia as a country has a long history of contact with European countries, as such most shipwrecks are either of European, South African or American origin. As a result, they are a shared heritage, thus there is a need for Namibian heritage authorities to engage countries and collaborate in research with such countries of

origin of these shipwrecks. It is my view that through such collaboration funding can easily be sourced for either research, inventory or conservation projects as it might seem to be the critical area in Namibia at the moment (Von Schuman Pers. Comm.), and from the data collected in this thesis, most shipwrecks need urgent conservation.

### General threats to French underwater archaeology

L'Hour (2015), of the French organisation, *le Département des Recherches Archéologiques Subaquatiques et Sous-Marines* (DRASSM), a governmental organisation concerned with underwater archaeological research argues that several vessels within French waters are threatened. First, shipwrecks, particularly those onshore, in the past were destroyed by authorities in the 1980s. This destruction was due to a quest for creating public space for swimming and recreation. As a result, valuable scientific information about the past was also destroyed in the process. Second, shipwrecks in France are threatened by trawler fishing. This is because most of the shipwreck vessels in France have turned into artificial habitation for fish. They have thus been frequented by fishing vessels using trawling fishing that has the potential to drag shipwrecks along, thus destroying the scientific information in the process. Third, shipwrecks are subjected to natural threats such as chemical wrought caused by corrosion. This is particularly prevalent for most WW1 vessels made from metal. According to L'Hour (2015), it has been established that iron in a saline environment corrodes at a rate of about 0.1mm per year, 1mm per decade, and 1 cm per century. It is not clear, however, if such statistics take into account salinity levels since salt content has a direct impact on the corrosion rate. As a result, if no appropriate measures are taken to mitigate the natural threats, metal shipwrecks are significantly exposed and are bound to soon disappear. L'Hour (2015) does not state if any mitigation measures have been implemented to curb this specific threat to the metal shipwrecks. Fourth, there is an interest in salvaging industrial metal. Such interest puts

shipwrecks with industrial metal cargo that are easily accessible, especially WW1 and WW2 wrecks, in great danger. Unfortunately, permits to legally extract metal cargo have and continue to be offered to salvaging companies. As a result, shipwrecks are being destroyed before archaeologists have a chance to excavate them.

L'Hour (2015) argues further that several shipwrecks in France have had their cargo, such as nickel, copper and tin, extracted. Collectively, these weigh between 1300 to 2000 tons. He argues that in such cases where a large consignment or quantity is involved it is often difficult for the archaeologist to argue against such extraction. This is because, according to him, the information needed by an archaeologist to research a shipwreck is small. Therefore, the rest can be commercially exploited and used industrially. Modern methods have been used by salvaging companies that do not disturb the entire site. Rather, they extract the raw material in a less intrusive way. L'Hour's line of thought here is controversial, especially with regards to a heritage site. Whether the site's cargo is fewer or numerous, it is the whole site that should be protected at all cost because it is the cargo that gives context to the wreck. Manders *et al.* (2012) argue that a site's economic significance should not always lie in the material value of its content. I, therefore, question how the justification for cargo material stands in line with the 2001 UNESCO Convention that prohibits such acts. I thus question the acceptance of this salvage approach in France. Namibia has similar shipwrecks, such as the Oranjemund shipwreck, which had an unusually large cargo. This shipwreck carried a consignment of mainly copper ingots (Smith 2009; Chirikure *et al.* 2010; Chirikure & Sinamai 2015), with a quantity weighing more than 30 tons. These copper ingots date back to the 16<sup>th</sup> century. With such a quantity of copper ingots, should the same argument be made that it can be salvaged in case Namibia runs out of copper? Would it be appropriate for the 16th century copper ingots from the Oranjemund shipwreck to be used for replenishing the country's copper needs? I doubt if the answer to this question could ever be a 'yes' or that it is the right thing to do from

cultural heritage management. I, therefore, argue that salvaging raw materials from a shipwreck is a form of 'legal pillaging' because scientific and cultural information is being destroyed in the process while existing legislation is in favour. This is because the value is being placed on the economic benefit of the cargo rather than the cultural and historical significance.

One major argument made by L'Hour (2015) was that it is not acceptable that countries must wait until shipwrecks turn 100 years to start protecting them. This criticism was in direct reference to the UNESCO Convention on MUCH which states that the legal protection of shipwrecks starts at 100 years. As indicated earlier, some countries have lowered this requirement, with South Africa having the limit at 60 years and Namibia at 35 years. Noting this potentially disturbing legal requirement, Guerin (2015) argued that the ratification of the UNESCO Convention remains important in rendering protection to shipwrecks. This is because the convention provides a detailed and comprehensive guideline on how to protect underwater cultural heritage from treasure hunters and looters. It further provides the best practice for activities directed at underwater cultural heritage, such as excavation, impact assessments, and conservation of underwater cultural heritage. Therefore, states should implement the necessary measures to protect their shipwrecks, which are a source of cultural significance even before they are 100 years. What is highlighted by the French case studies is the need for diligence by Namibian heritage managers. As I have demonstrated in chapter three where I indicated that the Wreck and Salvage Act makes a provision for shipwrecks to be salvaged by registered companies for the sake of the environment, and it is clear that shipwrecks older than 35 years ought not to be salvaged. Again, the heritage manager needs to be vigilant concerning possible metal salvage from Namibian shipwrecks older than 35 years or older than 100 years. Second, what is illustrated by the case studies is that fishing remains one of the threats to shipwreck worldwide, and Namibia is no exception, where the fishing industry contributes significantly to the GDP of the country. Therefore, as I already indicated heritage managers should seek



avenues where stakeholders such as the fishing industry are sensitised on the locations and significance of shipwrecks and why the need to protect them and to avoid areas where shipwrecks are located.

## Conclusion

The review of literature about Namibia's MUCH reveals that the country is rich in these heritage resources. Unfortunately, as noted by Werz (2007) and Harris *et al.* (2012), these resources are facing an increasing danger from natural and human elements. Some key threats have been highlighted in this chapter and are based on two specific studies conducted by Werz (2007) and Harris *et al.* (2012) about the Namibian coast. Furthermore, studies by Werz (2007) and Kinahan & Kinahan (2009) enable the reader to have a much broader appreciation of the Namibian maritime landscape. In particular, the reader gains additional insight into the pre-colonial and colonial heritage resources found in Namibia and highlights the need for their safeguarding.

Besides, I discussed case studies drawn from selected countries regarding how they dealt with threats to MUCH. All case studies discussed, represent a general framework used to mitigate various threats to maritime and underwater cultural heritage. In this regard, Namibia can take significant lessons regarding the best approaches to mitigating threats to MUCH. This is so because as highlighted, Namibia is faced with similar threats, these are discussed giving local context and examples. What these case studies have highlighted as crucial in mitigating threats to MUCH is the significance of collaborations with other countries and institutions, as key to successful project execution. This can either be through excavations, *in-situ* management of MUCH, public awareness and legislation enforcement. Also, threats to MUCH have been classified as either natural or human-induced, with the former being those emanating as a result of nature while those resulting from human activities and interference. The approach by these

respective countries, some having similar economic conditions as Namibia, can be integrated without causing financial distress to the government.

## Chapter 7: Eduard Bohlen shipwreck assessment

### Introduction

In this chapter, I present findings undertaken following my implementation of three analytic approaches to assess the state of conservation of the Eduard Bohlen shipwreck. These are: (i) photographic analyses, (ii) sedimentation morphology and stratigraphy, and (iii) salinity and humidity levels. The use of photographic analyses of the Eduard Bohlen covers almost 30 years, between 1990 and 2017. I chose the Eduard Bohlen because of three factors: (i) it is popular, (ii) the shipwreck is located within the study area as I had originally conceptualised, and (iii) the availability of Eduard Bohlen photographs spanning almost 30 years. Having photographic evidence covering such a wide period is crucial when assessing the rate of deterioration over time. I must reiterate that my decision to focus extensively on Eduard Bohlen was informed by the outbreak of COVID-19. The lockdown regulations implemented to deal with the spread of COVID-19 made it impossible to undertake physical assessments of the shipwrecks. As indicated before, research objectives were not compromised by my decision to comprehensively assess one rather than multiple shipwrecks. If anything, the photographic results are more dependable than physical assessment alone as would have been most probably the case had there not been an outbreak of COVID-19.

### Methodology

As indicated in the research methodology chapter, the photographs used in this research were requested and freely provided by Mr Frank Wittneben from WUC. I further managed to source one photograph from Harris *et al.* (2012). Altogether, I used four pairs of photographs which translates to eight images that helped undertake the comparison of deterioration over time. The four pairs of photographs were taken at various angles that correlate. Each pair comprised of

photographs taken from relatively the same angle of the shipwreck but taken at different periods, ranging from five to 14 years. This enabled the diagnosis of deterioration changes on key shipwreck features. In addition to the eight photographs, I analysed an additional three photographs (Figure 7.5, 7.6 and 7.7), all of which were taken at close angles. Two of these were taken in November 2011 and one taken in October 2017. The first two photographs (Figure 7.5 and 7.6) were taken in 2011 before the collapse of the quarterdeck which significantly altered the appearance of the shipwreck. I had decided to analyse these photographs to provide a greater appreciation of the condition of the wreck before the collapse of the quarterdeck. Doing so enables the reader to understand why it collapsed. As indicated, the photograph illustrated in Figure 7.7 (taken in October 2017), after the quarterdeck had collapsed, the details and the extent of the corrosion which was never arrested are evident.

To adequately assess the Eduard Bohlen photographic evidence, I made use of the Image Analysis Toolset (IAT). Using the AIT, I paired photographs taken from the same angle at different times. These photographs were sourced from the archives of the Windhoek Underwater Club and the shipwreck project led by Harris and others. IAT was able to identify changes between the paired images through change diagnostic features (CDF). These are features on the wreck that changed drastically as a result of natural and possibly human elements affecting the site. I was unable to get any images between 2012 and 2015, which I assume to be the period when the quarterdeck of the wreck collapsed. I only managed to get photographs taken in 2016 when the quarterdeck had already collapsed. It is thus likely that the quarterdeck might have collapsed between 2012 and 2015. Mr Frank Wittneben a photographer from Windhoek Underwater Club, an affiliate operating under NUF, offered the photographs for use in this study. Through an email exchange, I questioned him about the exact date when the stern deck collapsed, and he indicated that it might have collapsed around 2011. However, among the photographs offered, are some taken in 2011 showing the deck still intact.

It is, therefore, safe to assume that the deck could have collapsed between 2012 onwards, or anytime in 2011 after the photographs were taken.

Moreover, I applied sedimentation morphology and stratigraphy to understand the factors at play in the process of site formation. Moreover, salinity and humidity levels along the Namibian coast is important in understanding other potential natural threats affecting the rate of corrosion for all shipwrecks on the Namibian coast. Coastal wind speed and wind direction also affect sandblasting, thus impacting the deterioration rate of the metal shipwrecks.

## Photographic change analyses

As indicated earlier, the photographs used in this analysis were taken over a period close to 30 years, from 1990 to 2017. It is also important to note that some photographs, particularly those taken in 2011 and 2017, and as indicated in Figure 7.5, 7.6 and 7.7, are not paired with others. Rather, each photograph is analysed on its own. This is because of the dissimilar photographic angles that do not correlate, making comparison analysis difficult. However, the analysis of these photographs taken in 2011 and 2017 is significant, because they were taken at close range, enabling me to visualise and see more details about the deterioration of the Eduard Bohlen.

The earliest available photograph of Eduard Bohlen is sourced from the archives of the Windhoek Underwater Club (WUC). The photograph was taken by the late Dr Tux Schulz. A document sent to me by Mr Gunter von Schuman indicates that Dr Tux Schulz was, at the time, the CEO of Namibia Underwater Federation. To have evidence of photographs dating from almost three decades ago is a confirmation that NUF has been acquainted with Eduard Bohlen for a very long time. The earliest photograph is presented in Figure (7.1.A), showing the wreck in almost pristine condition when compared to Figure (7.1.B). Furthermore, Figure 7.1A indicates that the guardrail is still perfectly attached to the hull of the ship.

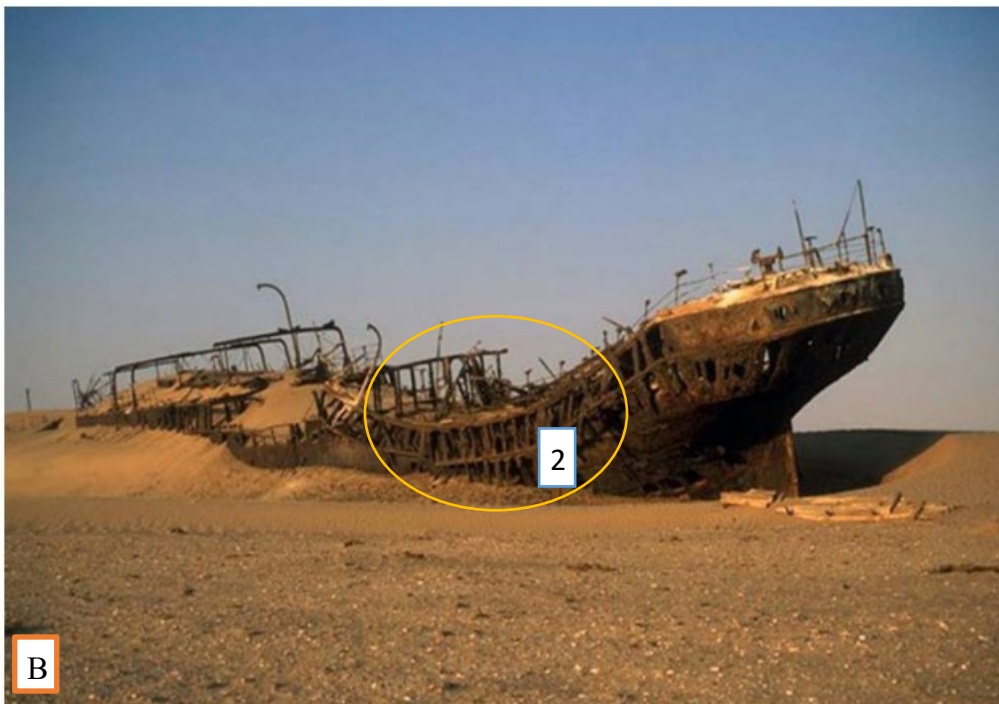


Figure 7.1. Eduard Bohlen. Photograph A was taken by Dr Tux Scholz in 1990. CDF 1 indicates a straight deck. Fourteen years later, in 2004, the top deck on the mid-section had collapsed (Photograph B was taken by WUC in 2004, CDF 2) (Source: Frank Wittneben and WUC).

Moreover, Photograph A of Figure 7.1 (CDF1) presents a straight frame aligned with the top deck. However, Photograph B of Figure 7.1 (CDF2) was taken some 14 years later. It shows a collapsed top deck which is an indication of significant accelerated deterioration.

I reviewed two further images of the Eduard Bohlen (Figure 7.2A, Figure 7.2B) which were taken six years apart by the WUC and the East Carolina University team, and from relatively the same angle. Photograph A (taken in 2004) shows the same angle of the shipwreck as Photograph B (taken in 2010). It is not clear which month or season the photographs were taken. What is important here is the similarity of the photographic angles, which enables direct comparisons to be made. This is crucial in diagnosing key differences between the photographs, which is the essence of the analysis. As indicated in the opening statement of this chapter, and to effectively identify and assess the deterioration of various features on this shipwreck over time, I used an online tool IAT. Its usage enabled me to analyse changes of key diagnostic features on the shipwreck.

Comparatively, several changes can be detected from Photograph 7.2B. What particularly emphasises these changes is that the same damage is not evident in Photograph 7.2A, taken six years earlier. These key diagnostic features that changed or deteriorated over this period are indicated by yellow circles in Photograph 7.2B. I discuss these areas of deterioration in detail below. The changes include advanced delamination and corrosion of the hull plates resulting in large holes gapping through the shipwreck.

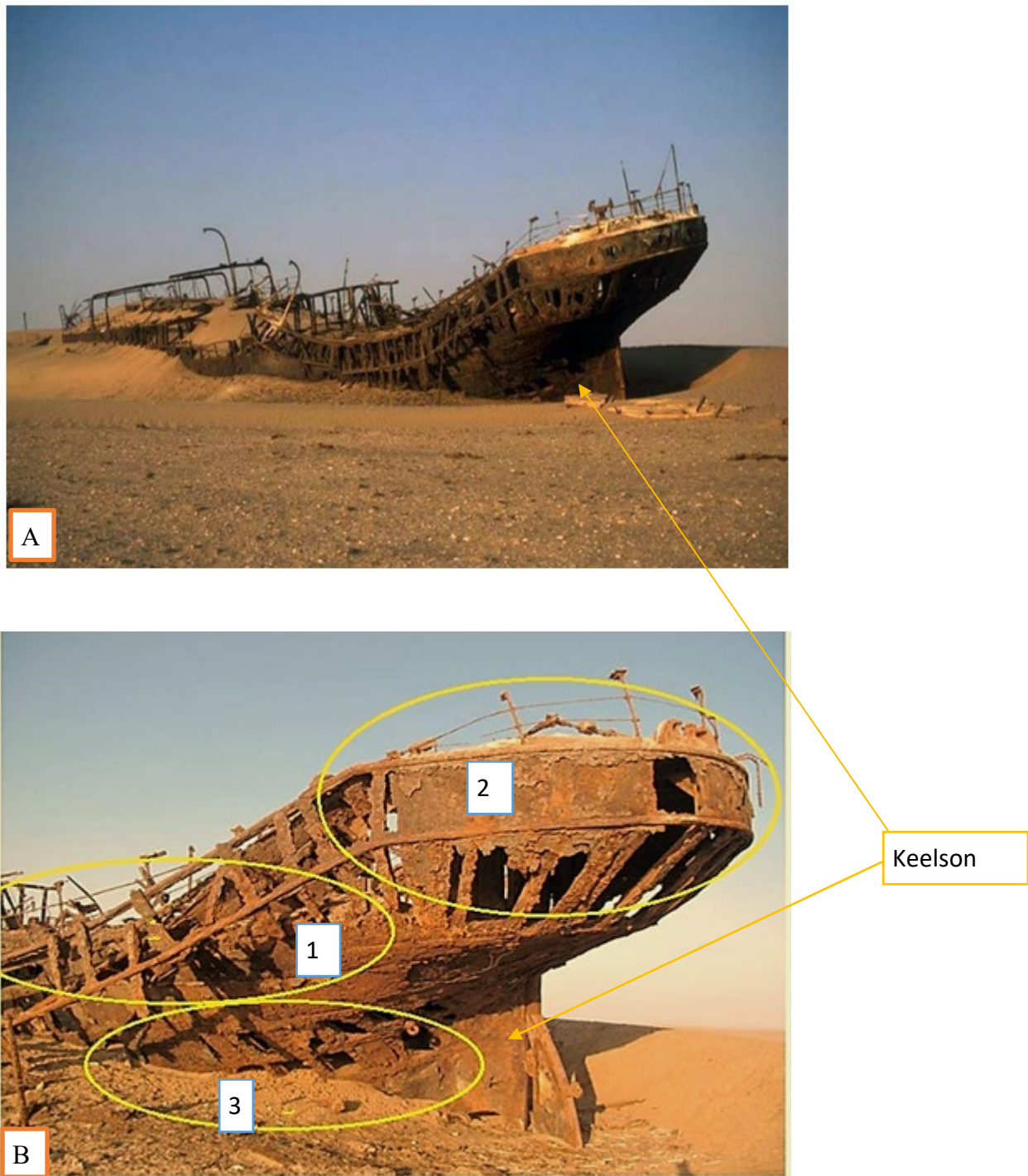


Figure 7.2. Eduard Bohlen's photographs taken six years apart, in 2004 (Photograph A: WUC) and 2010 (Photograph B: Harris *et al.* 2012). The encircled three areas (Change Diagnostic Feature) are indicative of damage that had taken place in the six years between 2004 and 2010 (Source: Frank Wittneben and WUC).



As evident from Photograph 7.2B, the shipwreck has deteriorated significantly. The level of damage is evident from the rail guard, the stern gallery, and the accumulation of sand. Change diagnostic feature (CDF 1), the rail guards and frames, which were previously in 2004 attached to the main hull, had shifted, flared and became detached from the main hull by 2010. It is clear in 7.2B, CDF1 that, this gradual detachment might be a result of two elements, chemical corrosion first and the physical movement second probably by strong winds. Physical movement is suspected because the detached rail guard and frames shifted from their position, corrosion alone would have caused detachments causing it to collapse, but the movement of the collapsed guardrail and frames thereafter might have been exerted by physical force, probably strong winds. Nevertheless, it is not beyond a reasonable doubt that human activities or local wild animals such as jackals, seals and hyenas through physical contact might have had an impact on the movement of such artefacts on the wreck.

Furthermore, it is evident from Change Diagnostic Feature (CDF 2) that larger holes are visible in the stern poopdeck. What this indicates is that the hull supporting the frames corroded rapidly in the intervening period. This could be a direct result of two natural elements working simultaneously: (i) Sandblasting effect from the sand-laden south-westerly winds (I discuss these in details later in this chapter) and (ii) Salt laden coastal humidity accelerating corrosion. Sedimentation morphological changes are evident from CDF 3. What is clear in Figure 7.2B, CDF 3, is that by 2010, sand had accumulated at the keel. This could have been due to natural effects resulting from seasonal changes. During summer periods, easterly winds dominate and might have influenced the deposition of sand on the seaside of the shipwreck as indicated by CDF 3. Moreover, the prevailing winds along the Namibian coast are south-westerly winds for most of the year, however, during September and November easterly winds dominate. The easterly winds might be responsible for the deposition of sand at the keel. These winds likely sandblast the metal wreck, resulting in significant deterioration at the keel as observed by the

holes through the hull in Figure 7.2B, CDF 3. Furthermore, we can also assume that this picture was taken between September and November when these easterly winds dominate.

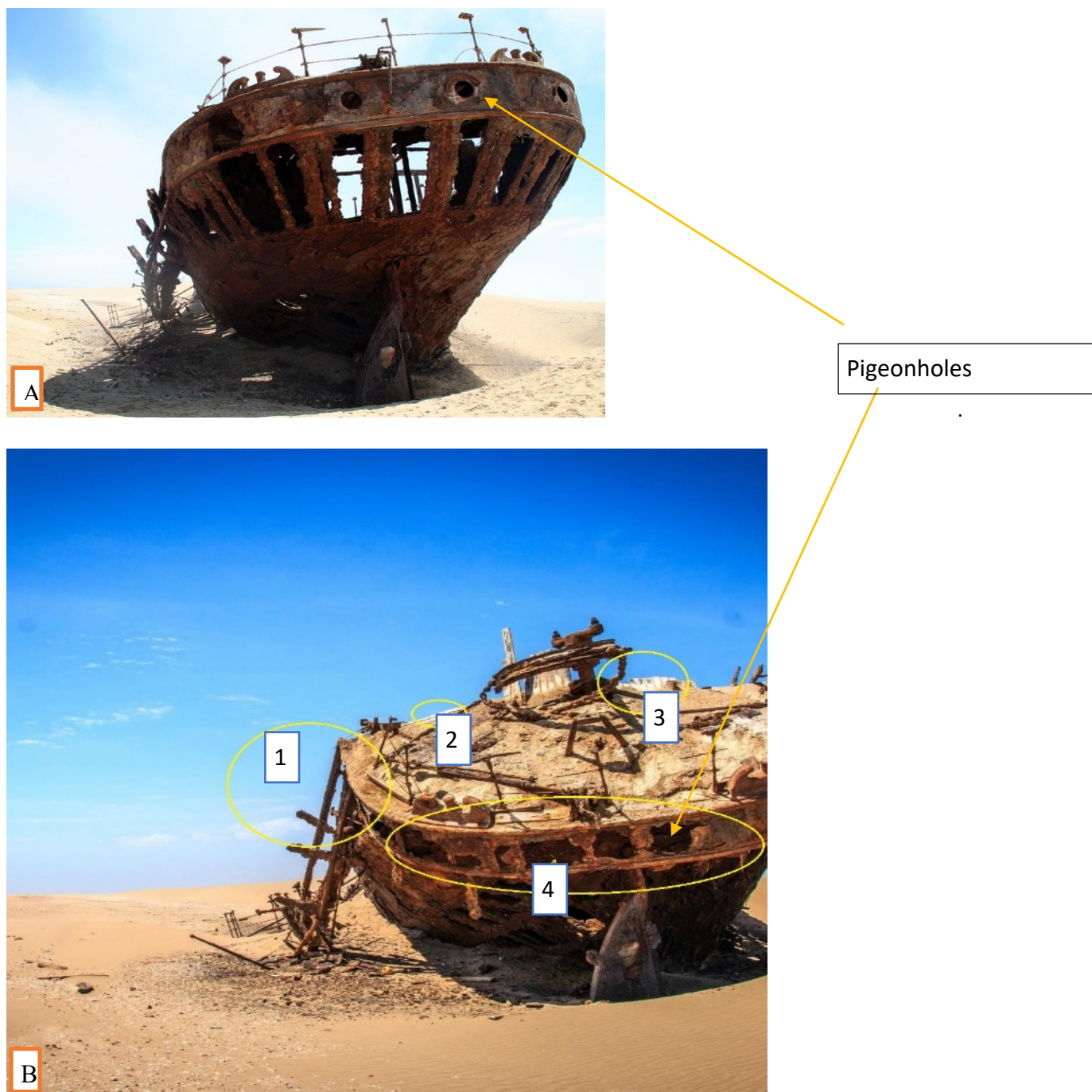


Figure 7.3. Photograph A was taken in 2009 and Photograph B in 2016. Both images were taken by the Windhoek Underwater Club. Changes over time are indicated by the four encircled areas (CDF 1-4) (Source: Frank Wittneben and WUC).

The third set of images (Figure 7.3A, Figure 7.3B) further illustrates additional damages to the Eduard Bohlen shipwreck. Figure 7.3A, taken in 2009, represents an image of the shipwreck taken from behind the stern section. In 2016, Figure 7.3B was taken from a similar position. What is evident from Figure 7.3B is that there are three instances of damage: (i) frames are broken (CDF 1), (ii) components of the top deck are broken (CDF 2 and CDF 3), and (iii) pigeonholes are severely corroded and wider (CDF 4). Besides, the supporting hull plates had disappeared by 2016, leaving large irregularly shaped holes to emerge. Perhaps more distinctive is the collapsed top deck and the gallery within these seven years from 2009 to 2016. The stern and gallery collapsed probably due to badly corroded frames supporting the top deck and the keel section. If the rate of corrosion of the pigeon holes, as observed between these two photographs, were to be taken into consideration, then the damage can be put into context. It would seem that the frames that held up the deck lost their structural integrity due to corrosion. As the result, they broke, leading to the collapse of the entire top section of the stern as evident from Figure 7.3B.

The fourth set of images from Eduard Bohlen were taken in 2010 and 2017 respectively (Figure 7.4A, and Figure 7.4B). Similar to Figure 7.3 (2009-2016), Figure 7.4 (2010-2017) represents a relatively identical period. The essence of analysing both is to gauge the Change Diagnostic Features (CDF) from different angles. There are key CDFs that are not wholly visible from an angle in Figure 7.3A and Figure 7.3B. This necessitated the need for an image from another angle (Figure 7.4) to be fully utilised to appreciate the physical change over time.

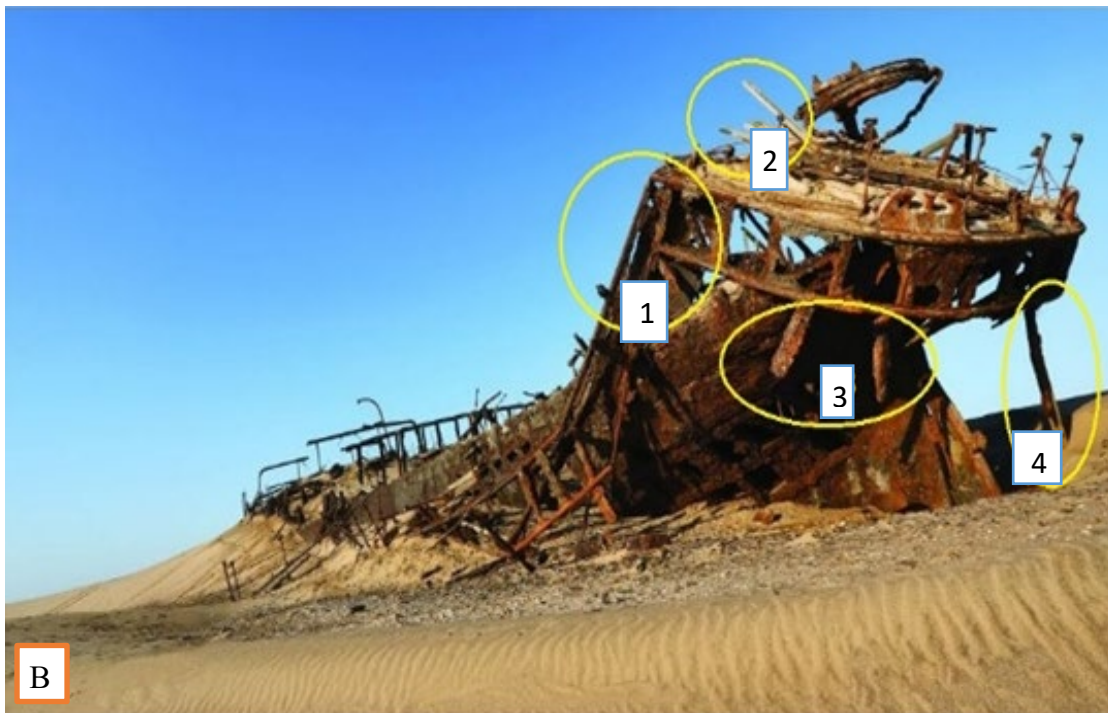


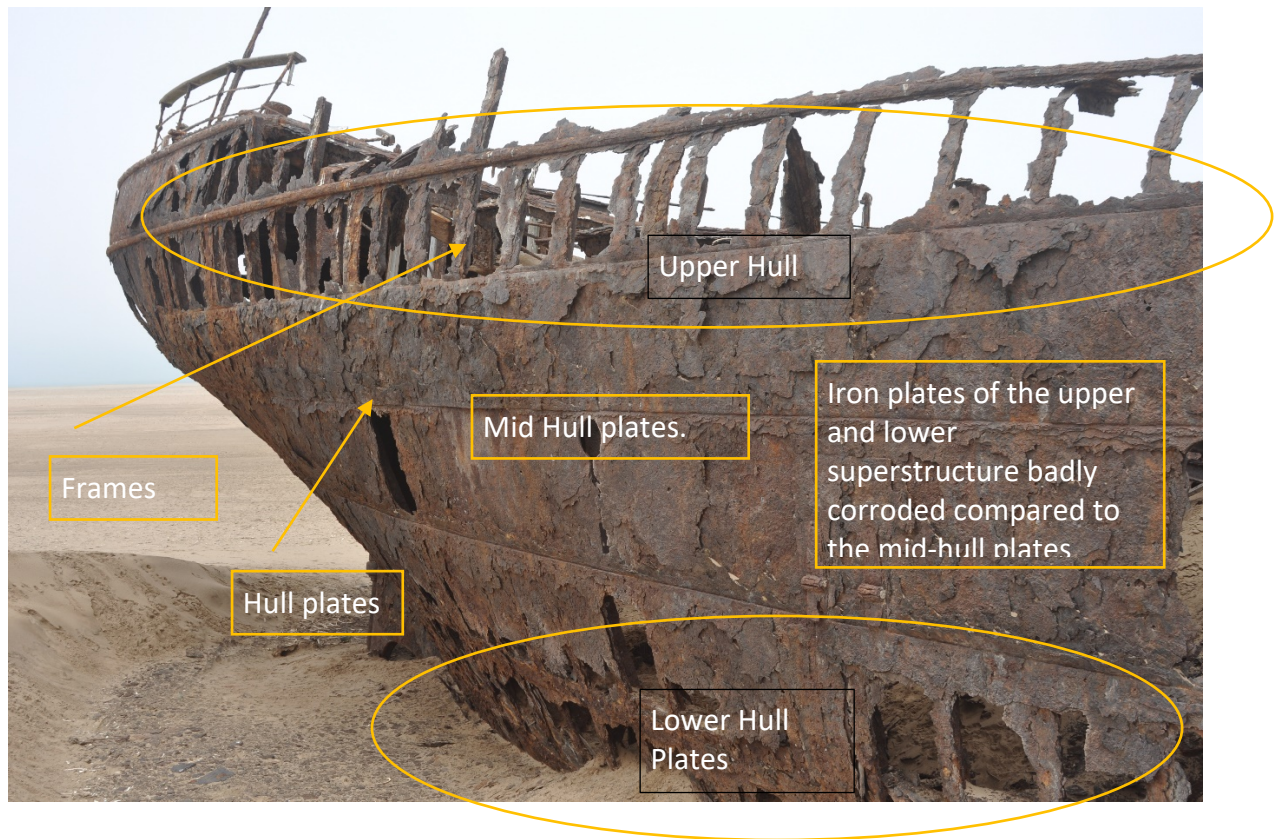
Figure 7.4. Photographs illustrating structural changes over time. Photograph A was taken in 2010 while Photograph B was taken in October 2017. Both images, taken from the same angles, were provided by the WUC (Source: Frank Wittneben and WUC).

Key indicators of deterioration are shown using the circles in Figure 7.4b (CDF 1-4). A collapsed rail guard and frames that broke at the right angle is shown in CDF 1. The flared and broken top deck components are represented in CDF 2. In CDF 3 and CDF 4, broken frames hanging under the ship's significant changes are evident over these seven years (2010 and 2017). These changes are attributed to accelerated progressive corrosion and wind action.

Figure 7.5 photographs indicate a close-up view of the stern section from the seaside. As illustrated in the photograph, there seems to be a general weakness in the structure of the hull in the upper and lower proximity of the superstructure as evidenced by the holes in the frames. The hull in both proximities has significantly disappeared. It is not apparent why this is the case. I postulate that the lower section of the hull, next to the keel has badly deteriorated as a result of sandblasting effect by the wind and sandblasting likely occurs on the lower section of the shipwreck. The same is unlikely to be said with the upper section of the hull as illustrated in Figure 7.5. Furthermore, the midsection of the hull is in better condition compared to the upper and lower section. This led me to postulate that perhaps the upper and lower sections were constructed from thinner iron plates compared to the mid-section. This probably has to do with the fact that cargo occupied the midsection hence it was reinforced with thicker plates, this explains why the plates have not delaminated and fallen off the frames at the same rate as the upper and lower proximity.

Shown in Figure 7.6 are badly corroded frames and quarterdeck, also known as poop deck or stern deck. The photograph was taken in November 2011. It further shows the cracks on the plates of the stern section. The badly corroded frames and cracks on the plates likely led to the collapse of the quarterdeck. What is clear in this photograph is the nature of the badly corroded superstructure.

## Close up photographic analysis of the hull



7.5. Photograph taken in November 2011, showing a close view of the corrosion and delamination of the hull of the Eduard Bohlen, including the deterioration of the upper and lower hull plate (Source: Frank Wittneben and WUC).

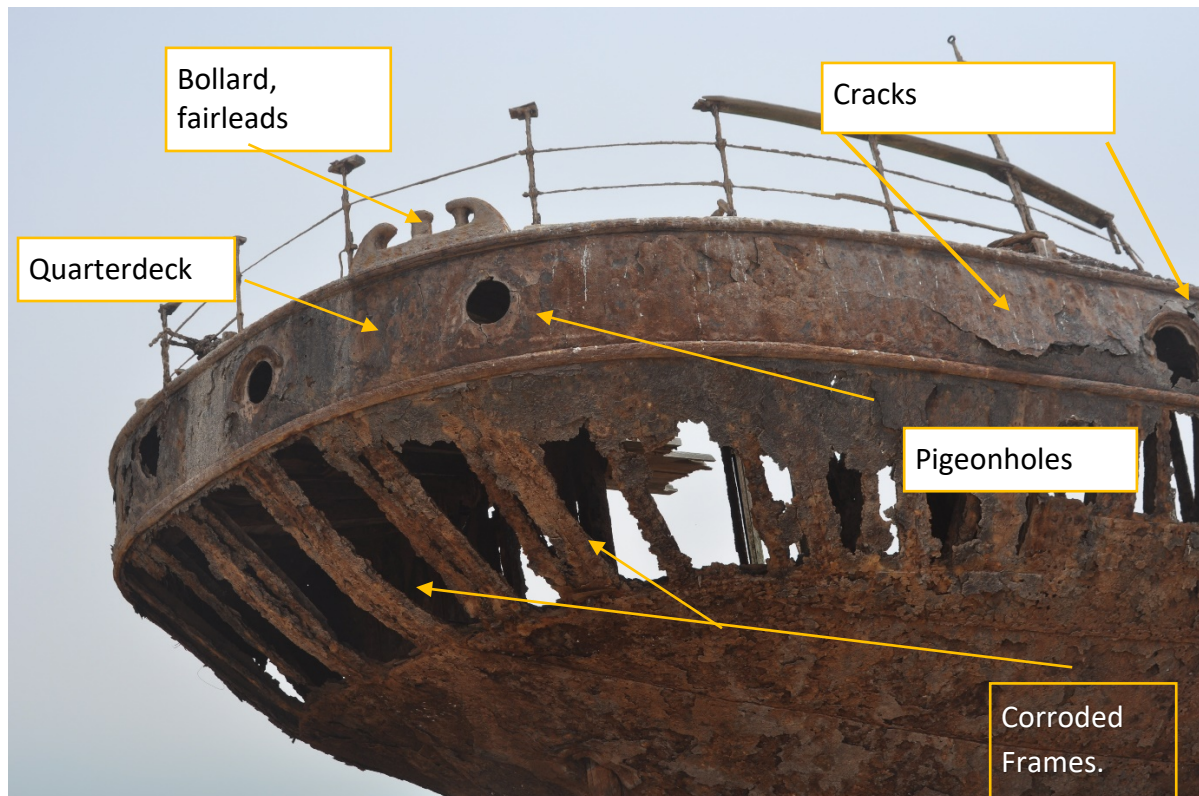


Figure 7.6. Close up photograph of the quarterdeck or poop deck, taken in November 2011, showing cracks on the plates and badly corroded frames, this likely led to the collapse of the top deck. (Source: Frank Wittneben and WUC).

Figure 7.7. Photograph of the Eduard Bohlen indicating a view of the collapsed quarterdeck from the seaside. The image was taken in October 2017 by WUC, approximately three to five years since the collapse of the deck. It is no doubt that the frames holding the quarterdeck lost their structural integrity and broke as a result of corrosion. I postulate this because iron tends to bend under sheer weight and pressure, however, corrosion, in this case, caused the iron frames to break like wood. These were too thin, thus broke due to the weight of the quarterdeck exerted on the keelson.

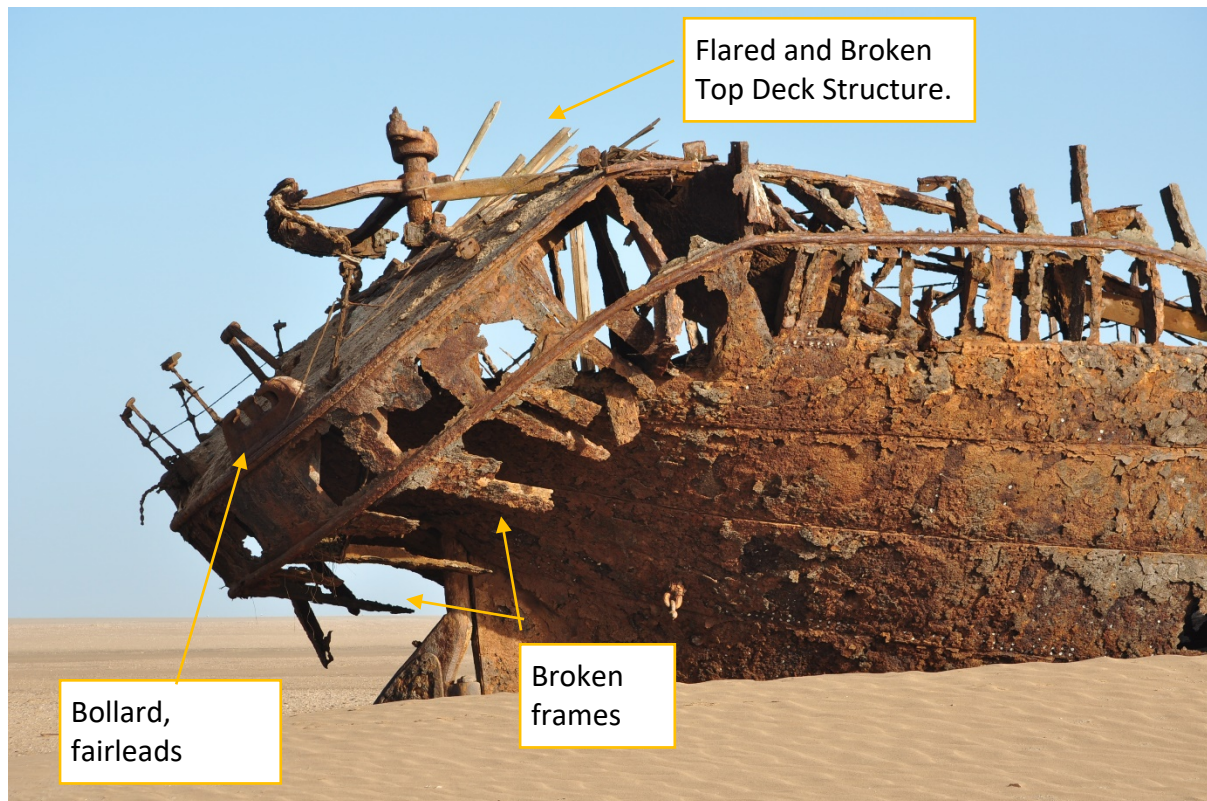


Figure 7.7. Eduard Bohlen picture was taken in October 2017. This Photograph indicates a close view of the collapsed deck and broken top deck structure (Source: Frank Wittneben and WUC).

As indicated, the collapse of the quarterdeck of the Eduard Bohlen is likely due to corrosion. However, human activities as a result of tourism and recreation activities could be a cause for the damage (Figure 7.8). As elaborated in Chapter six, the Eduard Bohlen site is vulnerable to human activities due to ease of access.

The Eduard Bohlen, being a world-famous shipwreck, is no doubt popular amongst tourist and recreational enthusiasts. As can be seen in Figure 7.8, recreational activities such as the race to the wreck, which seem to have become an annual event where people compete to reach the Eduard Bohlen. In Photograph A, a large number of people participating in the event can be seen. It is very difficult even for event organisers to monitor what each of the participants is doing around the wreck. Some people might be extracting agents as alluded to by Harris *et al.*



(2012) might be removing souvenirs from the wreck. Others might negligently damage the already fragile wreck through physical contact or walking in the wreck and decks for close inspection. This is so because there is no conservation monitoring plan for the wreck that could be used by tour operators that frequent this wreck. A plan should be formulated by the national heritage council and the National Museum of Namibia as custodians for Namibian heritage. Therefore, I argue that there is a great likelihood that human activities over the years might have accelerated the gradual deterioration of the Eduard Bohlen.



Figure 7.8. Tourism and recreation activities around the Eduard Bohlen are also a threat to the integrity of the wreck. Photograph A shows an athlete crossing the finish line, Photograph B picture is illustrative of a group of participants in the annual event called race to the wreck (Source: racetothewreck 2020).

## Analysis of the shipwreck site: Orientation and sedimentation morphology

Figure 7.9 map indicates the location of the Eduard Bohlen. What can be identified from this satellite image is the geological and physical aspects in the locality of the shipwreck. The physical environment has a great influence on the rate of deterioration of a shipwreck (Manders *et al.* 2013).

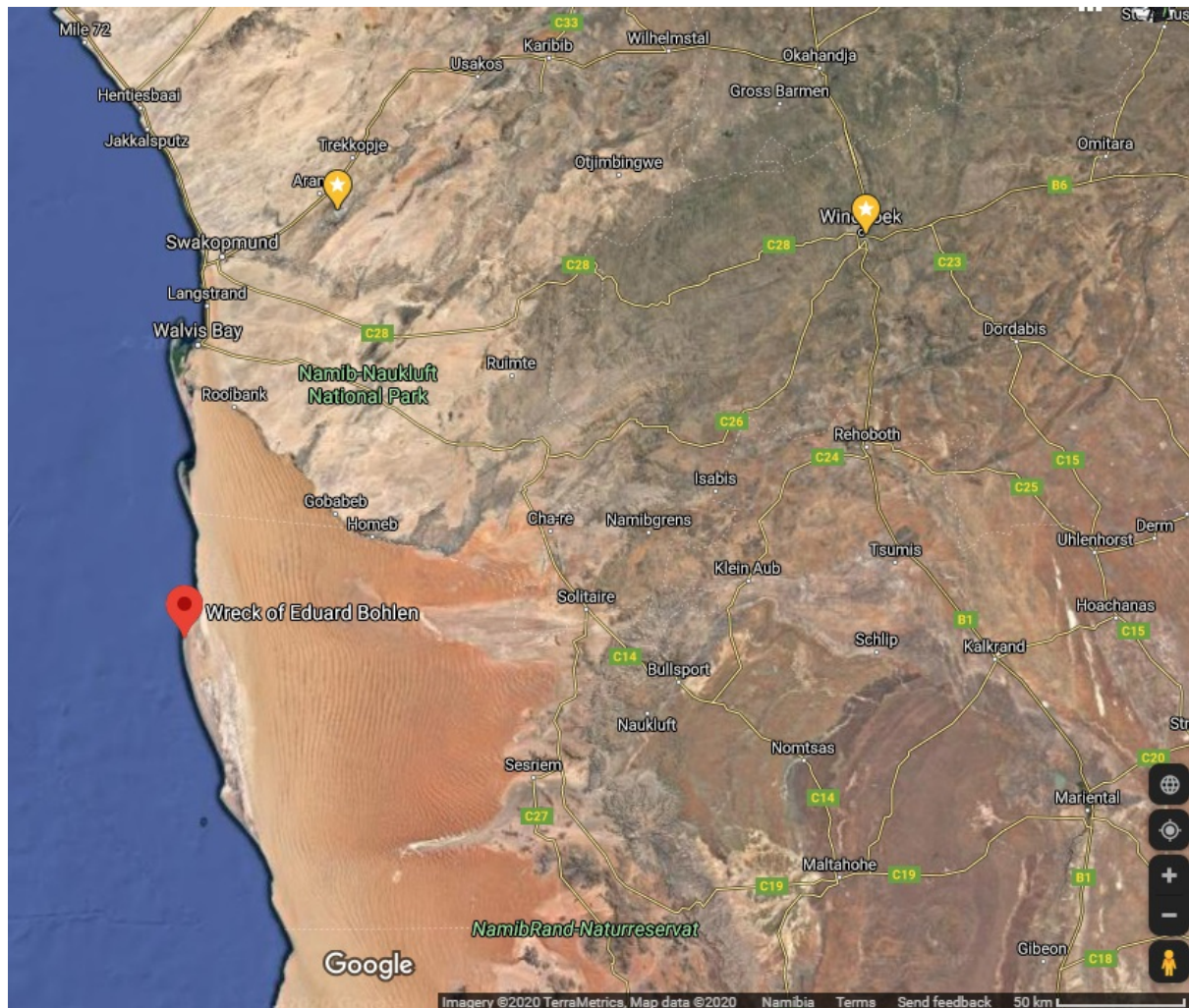


Figure 7.9. A Namibian map indicating the location of Eduard Bohlen (Source: Google Maps, 2020).

The shipwreck site is located on the spit of Conception Bay. The spit is constantly changing because of the accumulation of sand due to ongoing sand deposition. According to Harris *et al.* (2012), the Namibian coast is a rapidly changing coastlines, affected by deposition and erosion. Besides, the wreck is located approximately 500 meters from the shoreline. Harris *et al.* (2012) state that in 2010 the wreck was located about 339 meters from the shoreline, and in 1973 it was about 500 meters from the shoreline. Recent satellite imagery, taken in 2020 from Google, indicates that the ship is still about 500 meters from the shoreline. This means two things: (i) that the wreck is not submerged in the water during high-tide, indicating that corrosion is

caused by humidity rather than direct contact with saline water and (ii) confirms that the Namibian coastline is rapidly changing. The description above of the changing spit on which the Eduard Bohlen is located is a direct consequence of coastal erosion and deposition, as indicated in Figure 7.10.



Figure 7.10. The photograph was taken in October 2017 showing the Eduard Bohlen mid-section and bow section covered by sand. This is due to sand deposition and erosion (Source: Frank Wittneben and WUC).

Figure 7.11 shows a large-scale map of the shipwreck site, clearly indicating the movement of sediments. According to this illustration, about 3/4 of the ship is covered by sand, particularly the bow area which is almost completely covered by sand. Figure 7.10 shows a picture indicating a vertical view of the midsection and bow section covered in sand. Furthermore, Figure 7.11 indicates that the stern side of the shipwreck is exposed, rendering it vulnerable to weather elements. The stern is vulnerable because it is oriented facing the southern direction,

and thus exposed to the prevalent south westerly winds. As a result of these prevalent winds, the stern side of the ship receives most of the erosion and sandblasting effect.

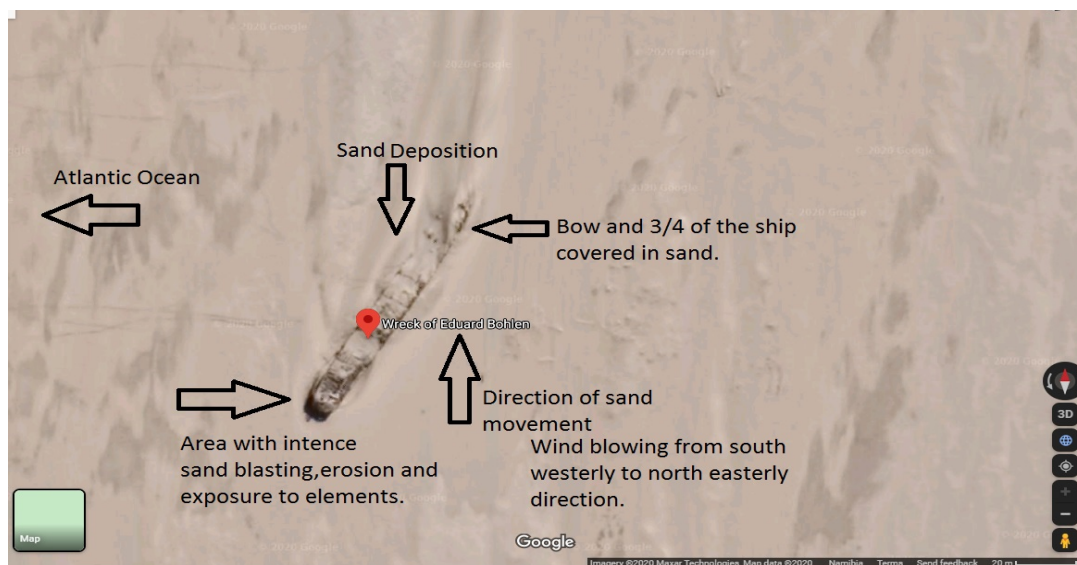


Figure 7.11. Map orientation analysis of Eduard Bohlen shipwreck site (Source: Google Maps, 2020).

Moreover, and as an additional danger, the ship acts as an obstacle blocking sand from being blown. This effect leads to the deposition of sand on the ship. In other words, the ship seems to be a threat to itself. As already outlined, sandblasting and corrosion happens at the stern section of the wreck. This is the area most threatened by visiting tourists. What attracts people to the area behind the stern is that the bow section is completely buried in the sand. In contrast, the stern section is visible and visitors appreciate it more. It is this exposure of the stern that has made it susceptible to both natural and human elements. This, therefore, explains why the stern section has rapidly corroded and collapsed compared to other portions of the shipwreck.

### Wind, pH, Salinity and humidity at Walvis Bay

As part of my data collection, I travelled to the Namibian coast. During December 2019, before the COVID-19 lockdown, I collected samples of the coastal waters to determine the salinity

and pH value. I collected a sample (600 ml of water) at Walvis Bay and took it to the University of Namibia (Sam Nujoma Campus) in the town of Henties Bay. The laboratory is located approximately 100 kilometres from Walvis Bay along the coast. My interest in such analyses was informed by the deterioration rate of iron shipwrecks. The results sourced from the analyses I conducted are presented in Table 7.1.

Table 7.1. pH, prevalent wind direction and speed, and salinity readings are taken at Walvis Bay.

<b>Readings of pH and salinity were taken at Walvis Bay. Annual average wind direction, wind speed taken for Walvis Bay (windfinder.com 2020).</b>	
pH	6.11. The average sea salt pH is 7.5 to 8.4
Prevalent wind direction	South West Annual average
Salt Concentration	3.5 %
Wind Speed	7-8 knots picking to 9 knots in July.

I discovered that the acidic level of 6.11 from the sample I collected is slightly below the world average of between 7.5 to 8.4 ph. It is not clear at this point whether or not pH influences the deterioration of metal shipwreck components. According to MacLeod (2016), during in-situ corrosion measurement of several WWII shipwrecks in Chuuk lagoon in the Federal State of Micronesia, it was established that pH measurement is important in determining the rate of corrosion for a submerged iron shipwreck. The more acidic the water is indicative of iron

reaction with seawater, the release of iron during oxidation leads to a change in pH level of the local water to be slightly acidic. Therefore, the pH is used as a measure to indicate and test whether or not corrosion is happening in seawater. However, in another publication, Macleod (2002: 705) states that “In the great lakes of the United States and Canada, the corrosion behaviour of iron is dominated by the natural alkalinity of freshwater”. Therefore, alkaline pH levels do affect the rate of corrosion of iron negatively to some extent in freshwater, but the same thing has not been established in saltwater. Macleod’s (2016) study established that acidic water is an indicator of corrosion in a saline environment — the more acidic water around a shipwreck is, the greater is the likelihood that corrosion is taking place. The Eduard Bohlen is located onshore, and I thus, argue that pH level measurements taken at Walvis Bay do not influence the deterioration rate of the Bohlen or any other wreck that is either onshore or submerged informed by the observation in Macleod study.

In addition to the water sample collected, I was able to establish the direction of wind prevailing in the study area. The prevalent winds and wind speed at Walvis Bay reflect the annual range (Windfinder 2020). Westerly to southwesterly winds is dominant at Walvis Bay, bringing cold temperatures from the cold Atlantic Ocean. The humidity levels resulting from cold winds blowing from the sea affects the shipwreck because it is accompanied by humidity. There are exceptions in September to November, a period during which easterly-winds blow from the interior bringing hot weather to the coast and scattering the humidity.

The implication of these prevalent winds and wind speeds, accompanied by sand, is that it results in accelerated deterioration of the exposed stern section of Eduard Bohlen. As indicated in Table 7.1, the average wind speed at Walvis Bay is between 7 and 8 knots which translates to 12 to 14 kilometres per hour. This peaks in July ranging to more than 16 kilometres per hour. When this wind speed is whipped with sand, sandblast of shipwrecks results.

Moreover, the shipwreck acts as an obstacle to the wind, leading to the deposition of sand on the mid and bow section of the wreck. Winds have resulted in the complete burial of the mid-section and bow section of the shipwreck. The effects of the winds can be observed in Figure 7.10 and 7.11, which shows that the bow section of the ship is completely buried. As an indirect benefit resulting from the burial of the portions (mid and bow sections) of the Eduard Bohlen shipwreck, the buried section is likely in a relatively good state of preservation compared to the exposed stern section.

In terms of salt concentration levels, laboratory results established that it is about 3.5% at Walvis Bay (see Table 7.1). This percentage is equivalent to the world average for seawater, which is recommended at 3.5%. The implication of salt content on the deterioration rate of shipwrecks cannot be understated. The higher the salt content, the greater the risk of corrosion on an iron shipwreck. Thus, the average salt content recorded at Walvis Bay can be used as a benchmark for salt concentration along the Namibian coast, meaning that, it is the average concentration. According to L'Hour (2015), it has been established that iron in a saline environment corrodes at a rate of about 0.1mm per year, 1mm per decade, and 1 cm per century. However, the rate of the Eduard Bohlen is slightly lower than this, because it is located onshore, not directly submerged in the seawater as L'Hour statistics imply. Therefore, it is safe to assume that most shipwreck located onshore in Namibia corrodes slightly lower than 0.1 mm per year. Nevertheless, those shipwrecks located offshore in the Atlantic waters off the Namibian coast are within the corrosion range of 0.1mm per year as indicated by L'Hour above, because they are submerged in seawater.

Furthermore, as established in Figure 7.12, the average humidity at Walvis Bay is relatively high, at 86 %. High humidity level always manifests itself in the form of water vapours such as fog along with the coastal areas (Werz 2007). Such water vapour is salt-laden. As a

consequence of gravity, the vapours settle to the ground in the form of tiny water droplets. It is these saline droplets that react when it comes in contact with iron.

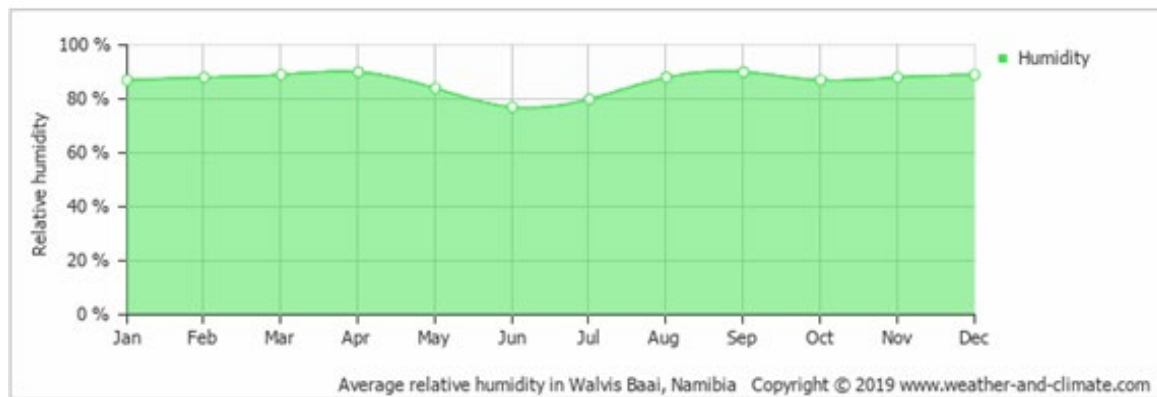


Figure 7.12. Average humidity levels at Walvis Bay. September is the most humid month and June is the least humid month (Source: Weather-and-Climate 2020).

The implication of high humidity that is salt bearing is the rapidly accelerated corrosion of exposed iron shipwrecks. Thus, it is reasonable to argue that coastal humidity is responsible for the corrosion of the Eduard Bohlen. This is demonstrated by the rapid deterioration of the shipwreck as observed in Figures 7.1 to 7.7.

Figure 7.13 indicates the role played by a museum in preserving and promoting underwater cultural heritage. I took the photograph at the Swakopmund Museum during the data collection phase. However, it is important to note as discussed in this chapter that humans can become extracting agents. These artefacts were probably removed from the Eduard Bohlen when it wrecked in 1909 as souvenirs. It is likely that over the years, souvenir hunters have decimated the wreck through the removal of artefacts.



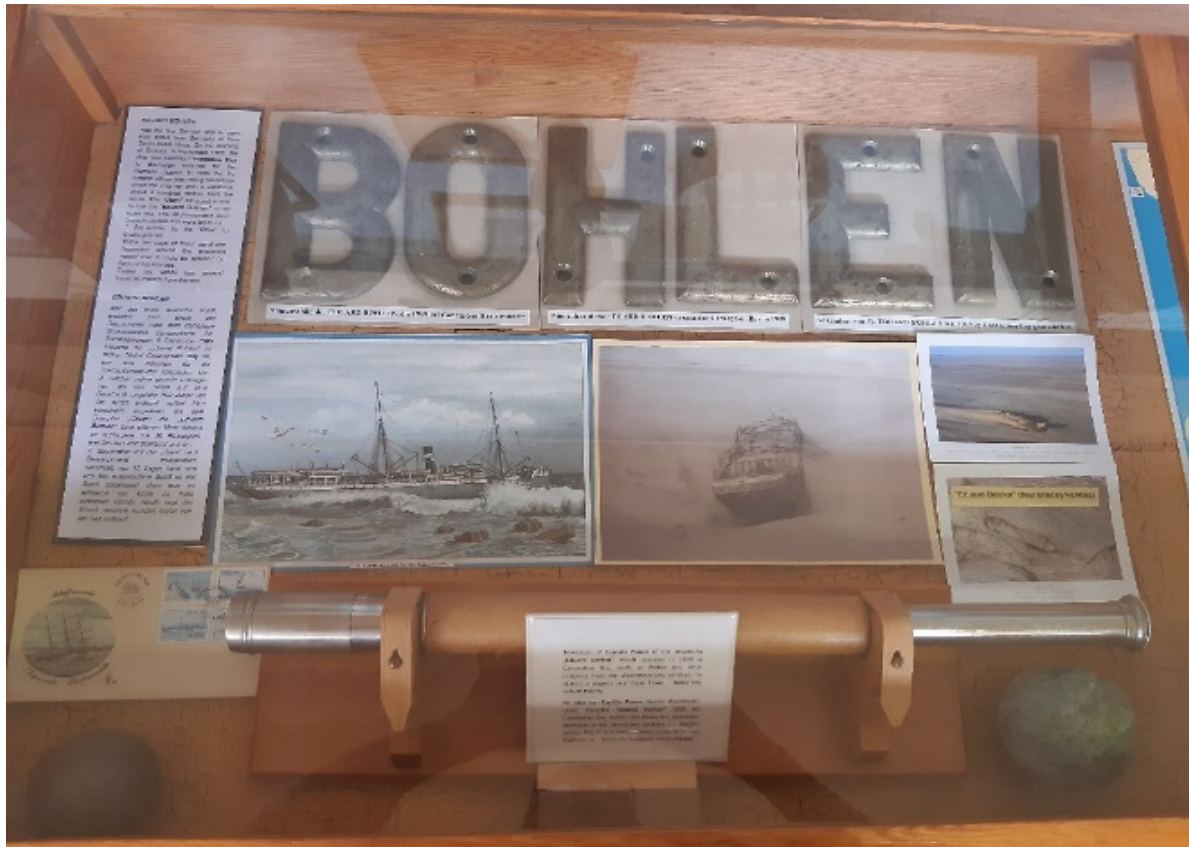


Figure 7.13. Eduard Bohlen artefacts were taken from the wreck when it foundered. Humans can become extracting agents.

This chapter illustrated the gradual deterioration of Eduard Bohlen. Photographs taken over a period of almost 30 years indicate accelerated corrosion, presenting fast deterioration as indicated by badly corroded features of the wreck. Data collected from Walvis Bay indicating humidity levels, wind speed, wind directions, pH and salinity content likely had an impact on the deterioration of the Eduard Bohlen. My analysis of these measurements impact on Eduard Bohlen is limited since it may be that the same measurement-do not apply along the rest of the Namibian coastline spanning a total of about 1, 572 kilometres (Werz 2007). This makes a dependable conclusion not definite. Data collection on the Eduard Bohlen was limited in this study as a result of COVID-19. However, the data collected at Walvis Bay should be a benchmark that can provide insight into how other shipwrecks are continuously affected.

Some shipwrecks, that are in better condition than the Eduard Bohlen, are popular with tourist. Among these are the Otavi, which sank in 1966 and the Dunedin Star that sank in 1942. The latter is in a bad shape since it has been salvaged for scrap over the years. Other tourists' attractions are the City of Baroda, which sank off the Reef of Doodenstad about 50 miles south of Luderitz in 1943. Zeila shipwreck (see Figure 7.14) is a recent shipwreck that foundered in 2008 in a high surf zone 15 kilometres from Henties Bay. Due to the Zeila location, it is popular with tourist, even though it does not meet the 100 years threshold as per the 2001 UNESCO Convention provision.



Figure 7.14. Photograph A – myself with the Zeila shipwreck in the background near Henties bay. Photograph B, the close-up image of the Zeila shipwreck. This (Zeila) was a Namibian fishing vessel that was purchased and got stranded on its way to India in 2008.

The popularity of the wreck with tourists makes it economically significant. Furthermore, Winston sank in 1970 close to Ugab River and Monte Rose sank in 1977. These are shipwrecks that sank during or post WWII period. They would also be subject to the same fate as Eduard Bohlen if there is no intervention made by heritage authorities.

## Conclusion

What is clear from this chapter are the following two points: (i) the analysis of the Eduard Bohlen physical condition assessment was a success despite not physically travelling to the shipwreck area due to COVID-19, and (ii) Eduard Bohlen was the only sample within the study area selected because of the availability of archival photos taken for almost 30 years which made physical assessment not necessary, especially with the lockdown imposed within the study area.

What was generated from this analysis is the fact that the Eduard Bohlen has greatly deteriorated within this period under discussion. So much so that it is unbelievable that within 30 years, the onshore iron wreck can be reduced from a recognisable ship structure to rubble, owing to corrosion. This is highlighted in the CDF analysis of paired photographs from 1990-2017. Natural threats in the form of chemical reaction of salt bearing humidity and iron leading to corrosion. As well as physical abrasion of sand whipped wind on the metal wreck (sandblasting) particularly the exposed section has been observed and is a major threat. This is not precluding the possibility of human-induced threats. Human activities have been observed through desktop analysis because the site is frequently visited by tourists and recreationists. The conclusion reached from this analysis is that the site is deteriorating at a faster pace, therefore urgent intervention is necessary to prevent the loss of what remains. Since this wreck was selected as a representative sample. Other popular shipwrecks along the Namibian coast are likely in danger of meeting the same fate or worse as the Eduard Bohlen.

## Chapter 8: Discussion

### Introduction

This chapter presents a discussion of the results and their implication on the research objectives of my study. The discussion is based on five critical points. First, and as I presented in Chapter Three, it is important to understand the legal frameworks applicable to the management of Namibian heritage. I thus presented brief historiography of heritage legislation in Namibia, providing an insight into its evolution as well as the various international conventions to which Namibia is a signatory. I principally highlighted that the Namibian heritage legislation evolved from the South African heritage legislation of 1969 as a result of the political links between the two countries. Thus, I scrutinised the development of Namibian heritage legislation to appreciate the existing legal framework. The study sought to explore the value derived by the country from its support of international instruments used to manage MUCH in general. What derives from this discussion is that the NMN is a latecomer in the management of underwater heritage. Second, I reviewed specific responses from heritage institutions and organisations about the extent of their involvement in protecting MUCH in Namibia.

Third, my discussion in this chapter reviews the findings I presented in Chapter seven about the current state of conservation of the Eduard Bohlen. The research sought to critically assess the state of deterioration and what that means for the future existence of this shipwreck. By extension, I highlight that other onshore shipwrecks will meet the same fate if no intervention is implemented. Fourth, I discuss, concerning Chapter five, the implication of Namibia lacking a comprehensive database of MUCH. This serves as a significant input, informed by the assessment conducted of the five shipwrecks in Chapter four. I assessed these five shipwrecks through the use of the best international practice, focusing among others on historical, scientific, aesthetic, and spiritual significance. Fifth, my discussion in this chapter shall also reflect the findings presented in the preceding chapter, Chapter 7. This chapter is, therefore, a

broad reflection on the critical points presented in the thesis thus far. The scrutiny is informed by the objectives of the study as listed in Chapter One. This was done to enable the reader to appreciate the merits of the research presented.

## The implications of my research findings

As indicated in the introduction to this chapter, my discussion is a reflection of the various critical points raised thus far. My discussion shall be informed by three critical factors: (i) legislative framework, (ii) threats to the Eduard Bohlen, (iii) the role of heritage institutions in the management of MUCH. I further review the legacy of my research project to the general management of MUCH in Namibia.

## The implication of my results with regards to legislation framework

One research objectives in this study were to explore the extent to which existing legal frameworks make provision for the protection of underwater cultural heritage in Namibia. Namibian heritage legislation provides for blanket protection of all shipwrecks older than 35 years. This is a significant provision that partially protects Namibian MUCH. While such is noted, and as I shall show in this chapter, more still needs to be done. The ratification of the 2001 Convention on the protection of underwater cultural heritage by Namibia is imperative for the overall protection of MUCH. Some infrastructural development projects have had Heritage Impact Assessments (HIAs) conducted and have applied the principles enshrined in the 2001 Convention. Although this convention has not been ‘domesticated’ in Namibia, the benefit of enacting this legal instrument within the national legal framework cannot be overstated. Doing so will enforce greater compliance towards protecting MUCH, increasing the number of HIAs in the country and safeguarding maritime heritage in Namibia. Shipwrecks in Namibia have been threatened by the prevalence of fishing companies and mining activities. The fact that Namibian authorities regularly attend training platforms and meetings organised

by UNESCO is a positive sign that the country might be moving in the right direction towards domestication and application of the Convention statutes.

What became evident from the study is the fact that existing legal instruments are twofold. First, they are partly weak but relatively sufficient in protecting Namibia's MUCH. The source for the weakness of the legislation is the inability of the Namibian institutions tasked with heritage management to adequately implement the existing legal avenues and enforce these for the protection of MUCH. This is a substantial challenge in which the competent authorities, particularly the NHC, are finding difficult to address. This needs to be resolved because failure to do so will threaten Namibia's irreplaceable cultural heritage. Second, heritage legislation in Namibia is generally weak in the protection of MUCH. In particular, there are three specific areas of weakness, namely, (i) limited reference to MUCH in the existing legal instruments, (iii) the evident challenges with the implementation of key statutes of the heritage legislation, and (ii) weakness of environmental laws in Namibia.

The existing legal instruments, in particular, the Namibian Heritage Act of 2004, do not provide enhanced protection to MUCH. Instead, a greater focus is solely on shipwrecks. According to UNESCO, underwater cultural heritage comprises more than shipwrecks. Other important underwater cultural heritage includes ancient caves, ancient fishing traps, or any other cultural heritage partially or completely underwater qualify to be defined as MUCH. This is an issue because as demonstrated in chapter five, Namibia has multiple cultural heritage sites, such as Lake Otjikoto, Zambezi floodplain, as well as the Cuvelai river basin. These important heritage localities need protection by the NHA under the maritime and underwater cultural heritage section. By having the current legal instrument significantly focused on shipwrecks alone, Namibia does not have sufficient legal tools to adequately manage underwater cultural heritage in general which includes inland water such as lakes, rivers and floodplains. It is my view, and that expressed by UNESCO as well, that all underwater cultural heritage including those found

within the inland waters deserve protection. As I have highlighted before, this is important because Namibia in particular and Africa in general, has historically been linked more to inland waters as opposed to the sea, as a result, there is more indigenous underwater cultural heritage found within inland rivers and lakes as opposed to the sea. It is my view that an inclusive focus on both shipwrecks and inland underwater cultural heritage will greatly improve the value that African people attach to underwater cultural heritage. This decolonisation of underwater cultural heritage is imperative and I have highlighted several sites in Namibia that qualify to be protected under the 2001 UNESCO convention. Among those are the Cuvelai drainage basin and the Zambezi floodplains that get submerged annually for at least five to six months. Sense of ownership and ability to relate to heritage is important in the overall value of heritage. Thus a shift towards valuing indigenous underwater cultural heritage will potentially see the involvement of the governments in availing funds to safeguard all underwater cultural heritage as politicians relate to them. I demonstrated how the post-colonial African governments have been focusing on allocating more funding for promoting heritage associated with the struggle for independence. It is my view therefore that a shift in valuing underwater cultural heritage among governments would significantly change only when underwater heritage could be directly associated with indigenous Africans. Doing so will highlight the least considered history of these shipwrecks, in favour of the European origins of these heritage resources. Promoting underwater archaeology as such would enhance its greater significance.

Currently, there is also a general ambiguity of the entire NHA in protecting shipwrecks. For instance, the heritage legislation stipulates that shipwrecks that are older than 35 years and not claimed by their owners are to be repossessed and belong to the State. There are no existing regulations concerning procedures to protect such wrecks. This makes the existing heritage law significantly weak in protecting MUCH.

The weakness of the heritage legislation in the protection of underwater heritage can be extended to the inability of heritage authorities to create the national register. The National Heritage Council (NHC) does not have a heritage register that serves as the database for all the heritage sites or objects that have been proclaimed in the country. It is worrying that such an important instrument is not available to heritage authorities, enabling them to record both terrestrial heritage and MUCH in such a valuable database. This is, in my view, in direct violation of the NHC mandate. What the implication of this weakness means is that Namibia heritage institutions will face difficulties in managing the institution (NHC) which is a set back towards the protection of all heritage in the country. Therefore, to address this challenge a review of the current Heritage Act is imperative. Such a review shall, First; explicitly be clear on the inclusivity of all maritime and freshwater heritage. Second, statutes of the 2001 UNESCO convention need to be reflected in the provision of the Act (domestication of the convention statutes). Such a review is imperative so that some of the concerns raised by the current week legislation are addressed for Namibia`s MUCH to be comprehensively protected. As I have highlighted, the fact that the NHA does not state it as a compulsory exercise for AIA/HIA to be done is worrisome given the fact that economic activities such as mining and fishing take place in Namibia territorial waters potentially put MUCH at risk. Therefore it makes much sense for this aspect to be highlighted by legislation to compel the mining and fishing industry to conduct AIA. Needless to say, these are stakeholders that should contribute positively towards safeguarding underwater cultural heritage through research funding. It may even be worthwhile for a certain percentage fee paid by these company for AIA to be channelled towards the conservation and research effort of Namibia`s underwater cultural heritage.

What was discovered during the research, when engaging employees of the NHC, was that the institution is understaffed. As the result, it cannot carry out its mandate. This inability to



adequately manage Namibia's heritage is further illustrated by the fact that there has been only one heritage site proclaimed since independence in 1990. All the other proclaimed heritage sites in the country attained such status before independence.

The implications of not having the database are severe. A database is a requirement for State parties that have ratified the 2001 Convention on the protection of underwater cultural heritage. With specific reference to Namibia, the database was developed by NUF/WUC members and not by the heritage authorities in the country. While noting the existence of this database, there are three areas of concern: (i) it has no map for ease of reference, (ii) it is not adequately comprehensive nor is it continually updated, and (iii) the database is not available to the national heritage authorities for management purposes.

A map is critical for a shipwreck database. Not having Namibian shipwrecks appropriately identified within a map is a significant limitation. It is an important factor to have a map, particularly a digital map integrating GIS, clearly indicating the absolute location of these heritage phenomena. Without a map, it is difficult for heritage authorities to make informed management decisions about relative distance calculation to other known places. Such information is imperative for locating shipwrecks during research and curation. As mentioned already, such a map is imperative when presenting concerns currently faced by heritage authorities, such as funding. Need for legislation amendment will also be easily motivated when a map indicating the extent of Namibia's MUCH is available. Mining, fishing companies and coastal developers will find such a map handy and will be instrumental in conducting archaeological impact assessments. Thus this database and the map that has been drafted in this thesis takes consideration of all heritage that is older than 100 years. This is in harmony with the 2001 UNESCO convention. I hope that such a map can be digitized and be made as readily and easily available to the general public in Namibia and abroad. Good lessons from Australia and Europe can be used as best practice. It would thus be easy to integrate such a

map with other countries such as South Africa, The South African Heritage Resource Agency has a database that could be integrated with Namibia and other southern African countries for the greater good in the protection of African maritime and underwater cultural heritage.

Furthermore, it is best practice to have a shipwreck database updated regularly, because shipwrecks are continuously discovered, and old ones are destroyed over time, thus losing their significance. Such information must be regularly available to heritage authorities for management purposes. The existing unpublished database was compiled and held by Mr Gunter von Schuman and the NUF/WUC. This database was last updated in 1994. Mr Gunter von Schuman states that copies of the existing database were given to the NMN many years ago. However, Respondent One from the NMN confirmed that the entity does not have any knowledge of the existence of this database within its records. It is thus unclear whether the database was misplaced due to a lack of interest or appreciation of shipwreck as cultural heritage. The absence of this database at the NMN or even NHC speaks volume on the status quo and the need for drastic change. The research questions in this thesis were meant to establish the quantitative value of shipwrecks older than 100 years. It was discovered that there are 40 shipwrecks and two UCH older than 100 years. This is a significant number that should be appropriately managed by the heritage authorities. So far the heritage authorities had primarily focused on the Oranjemund shipwreck and Lake Otjikoto UCH as the only MUCH Namibia has. Such a narrow view has reduced the significance of this heritage in the public domain and government. It is such perception that makes the government of the day not value underwater cultural heritage or the need to fund it. From this thesis, a true picture has emerged on the extent (inventory) and significance of MUCH found in Namibia, particularly those older than 100 years as per the 2001 UNESCO prescription. Besides, these shipwrecks are the most vulnerable ones to natural deterioration given their age, hence the need for protection and conservation efforts.

The weakness of legal instruments is not only limited to the heritage laws. The Environmental Act of 2007 is also weak in protecting MUCH. The significance of the environmental legislation is that it provides for the implementation of the Archaeological Impact Assessments (AIA) and Heritage Impact Assessments (HIA) within the broader Environmental Impact Assessments (EIA). The weakness of this legislation is that it focuses solely on EIAs and less on HIA. In other words, those tasked with implementing the legislation (environmental commissioner) tend to ignore the HIAs and AIAs. This leads to loopholes since for an EIA to be conducted a private consultant has to be involved. Such consultants assess if there are archaeological or heritage artefacts within an area. This is ambiguous because consultants are often not able to identify archaeological objects because they focus on the natural fauna and flora and less on heritage. Ideally, therefore, a trained government or private archaeologist should be involved in the preliminary assessment. The existing mode of Operandi does not fully serve the principles upon which the environmental Act was founded to serve. In this case, the protection of Namibia's cultural heritage through the provision of EIA is not respected. It would thus be convenient for NHC to work in sync with the Ministry of the environment in ensuring that before environmental clearance are issued heritage impact assessment in the sea and coastal areas need to be conducted. This can be implemented now since the current environmental act makes provision for this to be done.

As highlighted in Chapter four, an example demonstrating the problem with this mode of Operandi is in the case of Ohorongo granite hill mining. The Chinese company mining in that area had been given an environmental clearance certificate by the authorities. What is concerning, however, is that the environmental clearance certificate was granted without the HIA having been conducted. This demonstrates that, in practice, clearance certificates are issued by the office of the Environmental Commissioner without much regard being given to heritage preservation.

Fishing companies have taken advantage of the weaknesses in the implementation of heritage and environmental legislation. This puts shipwrecks and other UCH in danger. There is a prevalent presence of trawling fishing vessels along the coast. These vessels belong to several local and foreign companies. These companies do not adhere to the provision of the law concerning HIA before commencing with fishing activities on the Namibian seas. Therefore before commencing with fishing activities, HIA ought to be conducted to ascertain that there are no shipwrecks or other UCH on the seabed because trawl fishing methods employ fishing nets that drag on the seabed. If there are shipwrecks in such an area they can be destroyed in the process.

It is not only mining and fishing companies that are a threat to the safeguarding of shipwrecks. There have also been several coastal development projects. Among these are harbour extensions and infrastructure development (including land reclamation activities) have become a real threat towards MUCH. Therefore AIA/HIA need to take precedence.

While environmental laws have identified weaknesses in the protection of underwater heritage, some mining companies such as Namdeb have enacted environmental policies within their organisations. There remains, however, several companies that do not have similar environmental policies. Environmental policies that take the protection of underwater heritage as a priority. Also, environmental legislation requires that companies must pay for mitigation activities resulting from their actions that threaten heritage and the environment. Yet, it was the Namibian government that paid for all mitigation costs including retaining the sea wall for about six months. This accumulated millions of dollars in expenditure. This may be interpreted as an indication of Namdeb not fully respecting and adhering to environmental legislation and its very own environmental policy.

## Threats to Eduard Bohlen

Natural and human threats were emphasised in Chapter seven when the findings were presented from various assessments I undertook. As a case study, my assessment principally focused on identifying the natural and human factors affecting the Eduard Bohlen shipwreck. The assessment took various forms. I made use of photographic evidence to assess evident damage. I specifically used the IAT to assess the deterioration of the Eduard Bohlen shipwreck, whereas the stern section was the most affected. The damage to the rail guard and frames was a major factor in the stern section, leading to the gallery and quarterdeck, tilting backwards and collapse. The frames had previously provided support to keep the stern in place. The corrosion of the Eduard Bohlen for about 30 years from 1990 to 2020 has been profound. Because of the gradual deterioration over the years, there have been fundamental changes to the physical integrity of the Eduard Bohlen. These changes have permanently altered the physical appearance of the shipwreck. This physical alteration of Eduard Bohlen reveals that natural threats such as corrosion are a major problem for onshore iron shipwrecks.

As outlined in Chapter four, corrosion is caused by a chemical reaction between sodium chloride and iron. Corrosion is a natural process and is inevitable, especially for iron shipwrecks that are either in water or onshore. There are many shipwrecks onshore that are impacted in the same way as Eduard Bohlen. Shipwrecks such as the Otavi located close to Luderitz, the Zeila wreck 15 kilometres from Henties Bay, though a recent wreck, sank in 2008 is facing a similar fate. If no intervention is implemented, the Skeleton Coast of Namibia, famous for its shipwrecks will have no shipwrecks soon. Besides corrosion levels, the aggressive weather along the Namibian coast has manifested itself through winds of up to 9 knots or 16km/h (Windfinder.com 2020) that have led to the accumulation of sand on and besides the shipwreck. Sandblasting has become a key component in the progressive

deterioration of Eduard Bohlen. The coverage of shipwrecks by sand acts to shield the wreck from storms, currents and strong wind. Sandblasting is more profound and destructive particularly for the shipwrecks located onshore. For Eduard Bohlen, sandblasting has affected the stern section that is facing the windy direction.

Natural factors are not only limited to corrosion and sandblasting. Moreover, shipwrecks are threatened by chemical threats (i.e. salinity, pH, humidity, etc.) as evidenced by Eduard Bohlen. I discovered that the salinity level along the Namibian coast, based on the sample collected from Walvis Bay, is within the normal world average range of 3.5 %. The pH, however, is slightly acidic. Humidity levels are very high on the coast with an average of 86%. Such humidity from seawater or coastal environment has a detrimental effect when it reacts with iron since the moisture is salt bearing. The threat on iron shipwrecks, especially the Eduard Bohlen, is severe. The rapid deterioration of the Eduard Bohlen, in particular the hull, is a direct consequence of chemical reaction (MacLeod 2016). The stern section of the Eduard Bohlen is exposed, unlike the mid and bow sections which are covered by sand. As a result of this exposure, corrosion primarily occurs at the stern section, more so than the mid and bow sections.

To reduce this damage by natural elements it is advisable that sand is occasionally used to cover the shipwreck, alternatively in order not to reduce the aesthetic appeal of the shipwreck.

As observed in Chapter seven, human activities might have impacted the shipwreck, through souveniring and physical contact of the fragile shipwreck. This is worrying because other than the environmental permit given to those travelling along the Skeleton coast, there is no monitoring or specific guidelines given on how tour operators or any other persons venturing around the shipwreck are meant to conduct themselves. Unfortunately, as has been demonstrated, these heritage institutions do not have any management plans for Eduard Bohlen

or any other shipwreck along the Namibian coast, except for the Oranjemund shipwreck. This revelation on the damage of Eduard Bohlen should be a wakeup call that management plans for all shipwrecks in Namibia especially the 40 wrecks highlighted in chapter five need to be outlined. This can be done through comprehensive research and field work by competent authorities to ensure that the vulnerable shipwreck strict code of conduct is issued for researchers and tour operators venturing on the Namibian coast.

I argue that two natural threats have caused the most damage. These are corrosion and sandblasting. They have resulted in the progressive deterioration of the Eduard Bohlen shipwreck. Secondly, unregulated human activities around the shipwreck might have had a detrimental effect on the Bohlen as already underscored. This is not precluding the possibility that there are many other mechanical and physical factors affecting shipwrecks in Namibia.

To provide further context to the threats identified with regards to Eduard Bohlen, I presented the significance of five shipwrecks in Chapter four. The purpose of assessing these shipwrecks was to have a representative sample that can be used as a means to identify if Namibian wrecks, in general, are culturally significant and deserve conservation. This is a fundamental aspect used in the classification of heritage objects. I have observed in chapter four that significance assessment includes various criteria. All five shipwrecks in this study are significant in one way or the other. Some shipwrecks score high in academic and scientific significance such as the Oranjemund shipwreck. Other shipwrecks score high in social and economic significance such as the Eduard Bohlen wreck. Shipwrecks such as The Kent score high on historic significance, which is important in understanding the use and construction of a 19<sup>th</sup>-century British passenger ship that ventured off the Namibian coast and possibly traded with indigenous people. Shipwrecks such as the Vlissingen that sunk off the Namibian coast in the 18<sup>th</sup>-century assists academics in understanding the changing pattern of trade monopoly in the

Far East, and the type of currency that was used in the trade. Such knowledge is important because it corresponds with the historic weakening of the Portuguese empire in the Far East.

After the weakening of the Portuguese, Dutch ships became frequent visitors on the Namibian coast, stopping for trade and refreshment on the Namibian coast on their outbound or inbound voyages to the Far East. Such shipwrecks, like Vlissingen, have potential economic benefit if a museum were to be created to present such heritage to tourists and local populations. These five shipwrecks provide a perspective on the significance of shipwrecks in Namibia. I argue that the value of these shipwrecks can be used as a benchmark in the interpretation of the importance of all Namibian shipwrecks. However, heritage management priorities should be given to those significant shipwrecks under threat either from natural or human elements, and legal instruments are established or strengthened for their safeguard. This suggests that proclamation of shipwrecks as national heritages as per NHA provision should be attainable. Furthermore, the criteria covered in chapter four can be used as a benchmark for drafting guidelines for assessing the significance of shipwrecks when conducting an HIA or assigning value to shipwrecks.

## The role of heritage institutions and organisations

What comes out from this discussion regarding the extent to which heritage institutions are involved in MUCH management is the fact that NMN/NHC does not adequately protect underwater heritage as per the existing legislation mandate. The NMN only initiated a dedicated underwater heritage section at the museum after the discovery of the Oranjemund shipwreck in 2008. Furthermore, NMN is not suitably involved in MUCH management, when compared to the non-governmental entity NUF/WUC. This can be attributed to the fact that NMN has principally focused on one shipwreck (Oranjemund shipwreck). The organisation does not have a comprehensive database, nor do they have a detailed management plan for



shipwrecks on the Namibian coast, let alone having an idea of where these shipwrecks are located. NMN/NHC is not aware of any threats (natural or human) affecting these shipwrecks nor are they generating any revenue from them. Also, NMN does not have the staff capacity to manage and conserve MUCH. In contrast, NUF/WUC has members with significant interest and passion for the management of MUCH in Namibia. While their members may not necessarily be academically trained in the management of MUCH, the zeal and passion to protect underwater cultural heritage have ensured that the institution created a functional list of inventory. They are better informed of MUCH in Namibia than the heritage institutions mandated by national legal instruments. The weakness of this state of affair is that Namibian heritage will disappear in the long run because it is the prerogative of institutions such as NMN/NHC to seek funding and have management plans to adequately protect and conserve Namibia's underwater cultural heritage. This thesis thus highlights some of the key issues that the NMN/NHC need to take up, this include but is not limited to the database and map produced in this thesis and how it can be used for management, public awareness and seeking funding. Also, the lack of human capacity in particular maritime archaeologist is a significant issue that the NMN/NHC need to take up and address. Qualified staff on either NMN or NHC is instrumental in conducting research, accessioning, updating the MUCH database, attending conferences, seeking funding and collaborating with the organization in the research project. Without such staff among the workforce of NMN/NHC, it is difficult for the organization to function and protect Namibia's MUCH effectively.

Before the discovery of the Oranjemund shipwreck, the NMN had relied on NUF/WUC to carry out projects. The NMN was a depository for countless reports and manuscripts concerning Namibian shipwrecks produced by NUF/WUC which were not adequately disseminated.

The research findings have unearthed that the MOUs signed between the two institutions (NMN/NHC and NUF/WUC) dating from the early 1990s never yielded any desired results. This is manifested in the shipwrecks that are decaying on the Namibian coast despite reports sent by NUF/WUC to NMN. The fact that the institution is not aware of any existing shipwreck inventory highlights the fact that without qualified personnel to collate and decipher data, it will not yield any expediency.

The NMN is not extensively involved in the active management of MUCH as should be the case. Since 2008, the NMN has been extensively involved in the management of the Oranjemund and great strides have been made to date. The institution has effectively conserved the Oranjemund shipwreck, however, more still needs to be done to ensure comprehensive protection of Namibian MUCH. Training of maritime archaeologist is another stride made by NMN. I am a beneficiary of the training opportunities provided, having attained qualifications in maritime archaeology from Bristol University in the UK. I studied through funding provided by UNESCO and efforts from NMN to ensure the institution is capacitated. Since I left the employ of the institution in March 2017, I am yet to be replaced with qualified personnel with similar qualifications in maritime archaeology. However even though I have left the NMN, I have always availed myself to provide the necessary expertise where such becomes necessary. To summarise what I have articulated here, the heritage authority will have to do more to safeguard Namibia's MUCH. The issues that I have highlighted in this thesis are crucial for the overall conservation, management and protection of MUCH in Namibia. I have made some strides in highlighting how such issues I have raised can be implemented based on the best practice case study underscored in this thesis. I have also provided practical examples of where this has worked through the case studies. Lastly, the heritage institutions as the competent authority have the overall prerogative to implement such issues, thus recommendations are mainly addressed to the two institutions NHC/NMN.

## Significant legacy created by my research project

The creation of a comprehensive map indicating the location of all known shipwrecks along the Namibian coast is critical. This milestone was achieved by integrating a database of shipwrecks recorded over the years together with those identified and reported by the NUF/WUC. With specific reference to the shipwrecks recorded by the WUC, the location of shipwrecks is relative. While this is a limitation, it is still a significant advancement from the current situation whereby there is no updated database as has been the case before. I formulated the consolidated map by taking into consideration the provisions of the 2001 UNESCO Convention on the protection of underwater cultural heritage. As a result, the research only focused on those MUCH that is older than 100 years. Having an adequate database is critical in that heritage authorities are provided with a comprehensive list of shipwrecks to prioritise as per the convention Namibia ratified in 2001. Most significantly, the map is comprehensive in the sense that it is updated including MUCHs that have been discovered in the past few years. In particular, I have added freshwater UCH from the Cuvelai river basin and the Zambezi flood plains. These heritage sites are important to the indigenous communities, and their significance cannot be ignored. Giving them equal priority as shipwrecks will ensure the realisation of the significance of this heritage among black Africans since they will identify themselves with such heritage. It is my view that this will go a long way in protecting all MUCH in Namibia, as well as ensuring that the government prioritises funding for the protection of such heritage. I have highlighted how liberation struggle heritage is given funding priorities simply because the people in power identify themselves with such heritage thus the same can be accorded to shipwrecks. I have made some strides in ensuring that shipwrecks are also given the same funding priorities and that the public (all Namibians) identify themselves with such shipwrecks. I have done so by highlighting the need for an inclusive interpretation

of shipwrecks. This is imperative to ensure that African/black Namibians identify the positive story of their ancestors from these shipwrecks. Such an inclusive interpretation will go a long way in ensuring that Namibian heritage is well funded, appreciated and enjoyed by all Namibians regardless of ethnic or racial background.

Furthermore, I have demonstrated that Zambezi floodplains and Cuvelai river basin meet the criteria set by UNESCO in its definition of underwater cultural heritage. Addressing the significance of underwater heritage from these locations would not only ensure that there is the inclusivity of Africans in the discussion about UCH. Such initiatives focusing on the flood plains, the tradition of building canoes, and river transportation, would allow for the active participation of Africans in the appreciation and protection of their UCH. Their inclusion in the comprehensive database is an illustration of applying sensitivity and inclusiveness that should be considered in further MUCH research in Namibia.

Underwater cultural heritage in Africa needs to significantly focus on heritage with direct relevance to indigenous people. As highlighted this does not mean that Africans cannot find a voice or relate with shipwrecks of European origin within their territories. Some of the shipwrecks of European origin are attached to narratives that provide insights about Africans. For example, I earlier discussed the historical significance of the Dunedin Star. Not only is the significance of this shipwreck tied to the cargo (i.e., ammunition and weapons) discovered inside the ship, but there are also historical narratives about the roles played by Africans at the time of its foundering. Africans assisted in rescuing passengers from the ship and such narratives are important because they provide varying voices when telling the history of shipwrecks. This also helps to challenge the popular narrative that considers shipwrecks as symbols of European colonialism in Africa. Such narratives are detrimental to the long-term survival of shipwrecks and must be challenged.

Besides underwater heritage from the river and lakes, as well as the Dunedin Star, I demonstrated that the Eduard Bohlen has historical significance that involved African indigenous communities. At first glance, the ship symbolises German colonial adventure in Namibia. However, an in-depth consideration of its provenance reveals that the ship was used as a floating prison during the German-Herero war. During this war, the Eduard Bohlen became a symbol of colonial resistance since it was not only used to incarcerate prisoners of war, but some of them were further transported to South Africa to work as mine labourers. The men and women who were imprisoned and transported on the ship are martyrs who sacrificed their lives in pursuit of freedom, in their battle with a superior armed German foe. Such significance, while being a painful history, provides this shipwreck with an added Namibian relevance. Just as the Robben Island in South Africa was used to incarcerate political prisoners during Apartheid; today it is appreciated as a national heritage. It is my view that Eduard Bohlen should be accorded the same significance.

Each shipwreck has a story to tell about the indigenous people. Thus, it is very important to consider the historical context when interpreting the significance of shipwrecks of foreign origin. This does not only ensure inclusive interpretation and acknowledgement of the role played by black Africans but also encourages politicians to allocate the necessary funding for the management of such shipwrecks linked to the broader history of the country. What has been prevalent in Africa, generally speaking, is that politicians have often favoured liberation heritage and has provided the necessary funding for such. There have even been new heritage sites (i.e. Omuguluwombashe) created in Namibia to help commemorate the glorious triumph of Namibian men and women over the Apartheid South African colonial power. Such heritage epitomises their role in liberating the country from the colonial scourge of Apartheid South Africa.

## Chapter 9: Recommendations and Conclusion

### Introduction

I present recommendations and provide concluding remarks in this chapter. The results of the research objectives and aims are reflected in the recommendations. This enables the reader to understand why such recommendations are appropriate in light of the results presented in this thesis. Such recommendations are in line with best practice approaches from around the world and the 2001 UNESCO Convention on the protection of underwater cultural heritage as best practice. The recommendations take into account the deprived economic situation in the country, thus inexpensive, yet effective measures are recommended.

### Recommendations

First, I recommend that the NHA be reviewed to better integrate the protection of MUCH as well as the provisions of the 2001 UNESCO convention on the protection of underwater cultural heritage. It would be ideal, as part of the review process, to include aspects related to archaeological or heritage impact assessments. This will compel fishing companies, mining companies, and coastal developers to carry out heritage assessment before undertaking activities that are potentially detrimental to MUCH. The comprehensive review of the NHA will help ensure that Namibian shipwrecks, both onshore and offshore, are protected since fishing and mining are a threat to shipwrecks themselves. This can be done through mandatory impact assessment, this is feasible since currently by law mandatory environmental impact assessment is done. This can also be done through the creation of synergies between the competent authorities and the stakeholders on how to find common ground to work together for the safeguarding of underwater cultural heritage, specifically through mutual understanding as opposed to commands.

Second, I recommend that there be a proactive approach by the National Heritage Council in assessing the significance of MUCH in general and Namibian shipwrecks in particular. This will ensure that more heritage in the country is proclaimed as National heritage as per the provision of the existing NHA. In particular, I encourage the NHC and NMN to take practical steps for the subsequent proclamation, as national heritage objects and sites, of key shipwrecks, as discussed. The specific five shipwrecks are discussed in Chapter four can be used as a benchmark by authorities regarding what criteria to be used and how significance assessment should be done. Having these sites defined as of national significance will provide them with an additional layer of protection, whereas companies that want to carry out activities in the given area would exercise care and need to conduct AIA beforehand.

Third, What I uncovered in this study was that some MUCH, like the Eduard Bohlen, is deteriorating rapidly. If no intervention is made, then it is likely that this wreck will further disintegrate, particularly the exposed stern section. Therefore to prevent further deterioration of the Eduard Bohlen wreck as well as other exposed MUCH, it is recommended that best international practices are considered. Among these practices are the following:

- Temporarily cover the stern section of the Eduard Bohlen while plans are devised and initiated to restore the collapsed section to its pre-2012 position. This is a sustainable alternative, the Avondster shipwreck case study in Sri Lanka is one such example, the covering of sand worked to protect the shipwreck from being damaged by wave action. Similarly, sand bags will work in covering parts of the Eduard Bohlen that are vulnerable to the sand blasting effect.
- The permanent solution to slow down the rate of corrosion should be sort by competent authority and other stakeholders among others. It is highly

recommended that such solutions are recommended upon thoroughly investigating and analysis of the shipwreck physical condition by a qualified maritime archaeologist. In the event that such a personel is not available in Namibia the competent authorities can outsource such from other countries.

- Another alternative could be to erect barriers in front of the badly damaged stern section of the wreck to act as a windbreaker so that sandblasting effect does not continue to deteriorate the wreck further. It is hoped that tourism would be encouraged and the site will retain its historical, aesthetic, cultural and economic value. Again this method has not been tested but a suggestion that could theoretically work temporarily while a more sustainable method is sort.

Fourth, the MUCH database compiled in this study should be incorporated into the general operations of NMN and NHC. In this way, the database would become part of the tools used by heritage authorities in managing Namibia's MUCH. Moreover, such a database should be digitised with the help of specialists. A digital GIS map-based database or a map similar to the one I presented in this thesis should be preferably formulated and made available online so that the public has access to it. Besides, community members should be encouraged to view the MUCH database and update it on an ongoing basis. As highlighted already these databases can be used to seek funding, encourage researchers, drum up support from politicians and lead to improved legislations aimed at safeguarding this important heritage.

Fifth, I recommend that more effort is placed towards providing an inclusive interpretation of heritage sites. Doing so is critical, particularly in presenting an alternative voice that has not been given space to exist. What has generally been emphasised in the reviews of MUCH is the Europeanness of this heritage. The African stories of these MUCH are often ignored, a disturbing process that does not promote inclusivity and nation-building. This can be done



through research. Again the assessment of the five shipwrecks can be used as a benchmark on how to inclusively interpret shipwrecks of foreign origin with a local African perspective. According to Sharfmann *et al.* (2012), South Africa has incorporated a broad set of heritage themes and sites associated with the maritime context and water into the scope of MUCH. In doing so, MUCH becomes more inclusive and relevant to all South Africans. Thus, South Africa has successfully developed programmes to help in the challenges of management of UCH. This was done by developing a strong MUCH policy, international convention alignment, awareness raising, and training initiatives. I have a strong feeling that Namibia's competent authorities can learn significant lessons from South Africa in order to develop local MUCH management and implementation.

Sixth, indigenous skills linked to MUCH, such as canoe building tradition of communities living alongside rivers and lakes, particularly Zambezi flood plains and Cuvelai river basin, should be studied and documented. Research towards submerged heritage sites in rivers, lakes and floodplains would contribute to the enhancement of the 2001 UNESCO Convention's definition of UCH in the country, particularly among indigenous African people. Acknowledging and appreciating indigenous knowledge ensures that African countries that have ratified or are considering doing so must not feel disenfranchised by the Convention that prioritises the preservation of European heritage. Such heritage is linked directly to African tradition and culture that has been ongoing for centuries.

Seventh, although there exists a Memorandum of Understanding (MOU) between the NMN and NUC/WUC on cooperation, such a corporation need to be strengthened even more. Following the annexures of the 2001 UNESCO convention on UCH, as a best practice model. The NMN and NHC should enhance their operational model to integrate and prioritise the protection and management of MUCH following the obligation of Member states. This can be done through consultation with institutions such as University of Namibia that have qualified

personells such as maritime archaeologist to assist in the formulation of such models and beyond.

Eighth, I recommend that heritage authorities consider integrating infrastructural provisions near the identified shipwrecks. This would help provide heritage authorities with a potential source of revenue. This is particularly relevant in the face of the current uncertain economic crisis. It is likely the heritage sector will be among the most hit especially following the COVID-19 pandemic. Capacity building programmes and encouraging academics to study maritime archaeology and conservation of artefacts from a maritime environment are key for effective management of Namibia's MUCH. The heritage authorities should ensure funds are availed for these important endeavours. What this study revealed is the lack of human capacity and trained personnel. The NHC and NMN need to have a trained maritime archaeologist and conservator to manage decaying Namibian shipwrecks. The fact that during data collection, senior management at both institutions declined to respond to my questionnaires, indicates the lack of responsibility as per the mandate of the institutions. Which I feel is undermined by the lack of trained personnel to answer questions related to MUCH.

## Conclusion

I based my research on four key research questions:

1. What is the quantitative value of shipwrecks older than 100 years in Namibia, and what cultural or historic significance do these shipwrecks have?
2. Under what physical condition are shipwrecks along the Namibian coast?
3. To what extent do the existing laws protect Namibian shipwrecks and other underwater cultural heritage?; and
4. To what extent are heritage authorities involved in the management and protection of underwater cultural heritage in Namibia?

In addition to these four key research questions, the research project was informed by three aims:

1. Establishing a Namibian legislative framework and its provision towards the protection of maritime and underwater cultural heritage.
2. Formulate a comprehensive database and a blueprint guide on the management of underwater cultural heritage in Namibia; and
3. Conduct an assessment of the state of preservation of shipwrecks within the study area.

Based on my research findings, I was able to successfully deliver on the research questions and aims. I delivered on the mandate through several different means. Question 1 and aim 2 revealed that the existing database is not comprehensive and is outdated. A comprehensive database that includes shipwrecks that sank as recent as 2020, plus a map of Namibia's MUCH older than 100 years as per the 2001 UNESCO Convention provision was created during this

research. I recommended that such a database should be included in the NHC and NMN activities and be utilised in management decisions and future research of Namibian MUCH. Furthermore, significance assessments of the five shipwrecks in Chapter four via a literature review revealed that shipwrecks are not only significant to qualify for proclamation as heritage sites/objects, but they reveal the positive role played by indigenous Namibians. These roles range from colonial resistance, bravery, provision of labour to the colonial economy and understanding precolonial indigenous communities on the Namibian coast. Inclusive interpretation of shipwrecks is encouraged to ensure the continued appreciation of such heritage by all Namibians.

Question 2 and aim 3, were achieved in the sense that results revealed the Eduard Bohlen is deteriorating rapidly due to natural elements such as corrosion and sandblasting, and possible human activities. Recommended measures include inexpensive but effective covering of the wreck with sand, coating the wreck with anti-corrosion material, and erecting a barrier to reduce sandblasting effect.

Question 3 and aim 1 were successfully delivered through desktop study. Results of such a research activity revealed that Namibian legislation, in general, is weak with regards to safeguarding and protecting MUCH. A crucial element about conducting impact assessments as a requirement for mining and fishing companies is missing, and further aligning the local legislations with that of the 2001 Convention has not yet been done. As a result, it renders the local legislation pertaining to underwater cultural heritage weak. As such a review of the NHA was recommended to ensure that it adopt the provision of the 2001 UNESCO convention on UCH as best practice in ensuring that MUCH are protected comprehensively. Human threats to MUCH in Namibia are an undeniable reality due to activities taking place at the coast without AIA or HIA. The implementation of existing legislation is also key in protecting Namibia's MUCH, as I have demonstrated that even though the legislation is weak for reasons

highlighted, the existing one is equally not being enforced adequately due to, among others, lack of qualified personnel.

Question 4 was achieved since the results revealed that heritage institutions, namely the National Museum of Namibia and National Heritage Council, are not actively involved in MUCH protection. This was particularly the case before the discovery of the Oranjemund shipwreck in 2008. It appears, from the research findings, that there was an existing MOU between NMN and NUF/WUC whereby the latter was delegated by the former to carry out MUCH activities. However, the significant challenge has been, as the researchers discovered, that heritage entities do not have qualified personnel to take practical steps to protect these shipwrecks. As a result, the partnership did not yield the desired results. Nonetheless, NUF/WUC has carried out activities to renovate and safeguard these wrecks through private donations from NGOs and tour operators. I thus recommend that the partnership between NMN and NUF/WUC be strengthened. ensure that Namibia's MUCH is protected, researched, and conserved according to best practice.

I have outlined the key steps followed in undertaking this research. Doing so enables the reader to appreciate the research questions and aim, the methodology used, the research findings I presented, as well as the discussion, recommendations, and conclusions, reached.

The success of this thesis, therefore, will not only ensure that it becomes a cornerstone and building block for future research in the quest to protect preserve Namibia's Maritime and Underwater Cultural heritage. But also that the practical recommendations outlined will be adopted by competent heritage authorities and organisations alike to research, manage, and conserve Namibia's Maritime and Underwater Cultural Heritage, both *in-situ* and *ex-situ*.

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## Appendixes

### Appendix I. Ethical clearance - University of Pretoria



Faculty of Humanities  
Research Ethics Committee

4 December 2018

Dear Mr Mowa

**Project:** Assessing the Namibian underwater cultural heritage  
**Researcher:** E Mowa  
**Supervisor:** Dr N Ndlovu  
**Department:** Anthropology and Archaeology  
**Reference number:** 17400032 (GW20180837HS)

Thank you for your response to the Committee's correspondence.

I have pleasure in informing you that the Research Ethics Committee formally **approved** the above study at an *ad hoc* meeting held on 4 December 2018. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should your actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely

**Prof Maxi Schoeman**  
**Deputy Dean: Postgraduate and Research Ethics**  
**Faculty of Humanities**  
**UNIVERSITY OF PRETORIA**  
**e-mail: PGHumanities@up.ac.za**

cc: Dr N Ndlovu (Supervisor)

Prof I Pikirayi (HoD)

Fakulteit Geesteswetenskappe  
Lefapha la Bomotheo

Research Ethics Committee Members: Prof MME Schoeman (Deputy Dean); Prof KL Harris; Mr A Bizos; Dr L Blokland; Dr K Booyens; Dr A-M de Beer; Ms A dos Santos; Dr R Fasselt; Ms KT Govinder Andrew; Dr E Johnson; Dr W Kelleher; Mr A Mohamed; Dr C Puttergill; Dr D Reyburn; Dr M Soer; Prof E Taljard; Prof V Thebe; Ms B Tsebe; Ms D Mokalapa

## Appendix II. Permission letter - NMN



REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

NATIONAL HERITAGE AND CULTURE PROGRAMMES

Tel: +264 61 – 276800  
 Fax: +264 61- 221916  
 Enquiry: Mrs Esther Moombolah - /Goagoses

Private Bag 13186  
 Windhoek, Namibia

18 October 2018

TO WHOM IT MAY CONCERN

**RE: Research Permission letter for Eliot Mowa**

The above-mentioned matter refers.

This letter serves to inform you that Mr Mowa Eliot a student conducting a research as part of his thesis with the University of Pretoria has been granted permission to conduct interviews with Heritage managers of the National Museum of Namibia. This permit allow him to conduct interviews with any of the heritage managers provided personal consent is sort from the respondents and the interview may not go ahead if this is not obtained. Furthermore he has permission to access shipwreck archival data that is available in Oranjemund.

Please don't hesitate to contact the above mentioned contacts for any further information regarding this permission.

Yours Sincerely,

**Esther Moombolah - /Goagoses**  
 Director: National Heritage and Culture Programmes

*All official correspondences must be addressed to the Permanent Secretary*

## Appendix III. Permission Letter - NHC



### National Heritage Council of Namibia

52 Robert Mugabe Avenue • Private Bag 12043, Ausspannplatz • Windhoek, Namibia  
(061) 244 375 • Fax: (061) 246 872 • E-mail: [salomon@nhc-nam.org](mailto:salomon@nhc-nam.org)

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#### OFFICE OF THE DIRECTOR

Enquiries: Ms. E. Stanley

07 November 2018

**TO:** Mr. Eliot Mowa  
University of Namibia – Katima Mulilo Campus  
Faculty of Education – Education, Social Science & Commerce Department

Dear Mr. E. Mowa

**RE: PERMISSION TO INTERVIEW NHC STAFF**

This letter serves as a response to your email dated 18 October 2018. The National Heritage Council of Namibia is the national administrative body responsible for the protection of Namibia's natural and cultural heritage.

It is against this background that you are granted permission to come and interview the staff of the National Heritage Council of Namibia

Yours in Heritage Management

Rev. S.M. April  
Director

Date: 07/11/18




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**Council Members:** Dr. Bennett Kangumu (Chairperson), Ms. Elizabeth Karigus (Vice-Chairperson), Ms. Sanet Steenkamp (Permanent Secretary), Mr. Sebastian Kantema, Ms. Welma Davies, Ms. Charlene Keja-Kaereho, Ms. Kaatry Imalwa, Mr. Jeremias Goeieman, Ms. Magdalena Martinuessen, Mr. Francis Kooper, Mr. Herman Rutz, Dr. Mutjinde Katjua, Mr. Jens Wiedow, Dr. Hendrik Tjibeba, Mr. Clement Daniels



## Appendix IV. Consent Letter

**Project Title: Assessing the Namibian Underwater Cultural Heritage.**

Mowa Eliot  
P.O.BOX 233  
Katima Mulilo  
Namibia  
Email:esmowa@gmail.com  
Mobile: 0812066372

**Dear Participant**

### **Letter of Consent**

#### **Identification of Investigators & Purpose of Study**

You are being asked to participate in a research study conducted by Mr Mowa Eliot from University of Pretoria. The purpose of this study is to gain an understanding on Namibia's underwater cultural heritage and what your institution is doing and has done in safeguarding them. This study will contribute to the researcher's completion of PhD thesis.

#### **Research Procedures**

This study consists of a Survey that will be administered to individual participants. You will be asked to provide answers to a series of questions related to Namibia's underwater cultural heritage.

#### **Time Required**

Participation in this study will require less than an hour of your time, and it will require only one session.

The investigator does not perceive more than minimal risks from your involvement in this study.

The investigator perceives no risks are possible from your involvement with this study

#### **Benefits**

Potential benefits from participation in this study include gaining an understanding and appreciation of Namibia's rich underwater cultural heritage as a whole. As some issues that you might not be aware of will be made clear.

#### **Confidentiality**

The results of this research will be presented at the University of Pretoria. While individual responses are obtained and recorded anonymously and kept in the strictest confidence, aggregate data will be presented representing averages or generalizations about the responses as a whole. No identifiable information will be collected from the participant and no identifiable responses will be presented in the final form of this study. All data will be stored in a secure location accessible only to the researcher. The researcher retains the right to use and publish non-identifiable data. At the end of the study, all records will be stored at the University of Pretoria.

#### **Participation & Withdrawal**

**Project Title: Assessing the Namibian Underwater Cultural Heritage.**

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind. However, once your responses have been submitted and anonymously recorded you will not be able to withdraw from the study.

**Questions about the Study**

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact the researcher at the address given at the top right of the page.

**Giving of Consent**

I have read this cover letter and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions. I certify that I am at least 18 years of age.

\_\_\_\_\_  
Name of Participant (Signed)

\_\_\_\_\_  
Date



\_\_\_\_\_  
Name of Researcher (Signed)

\_\_\_\_\_  
Date

## Appendix V. Shipwreck assessment sheet

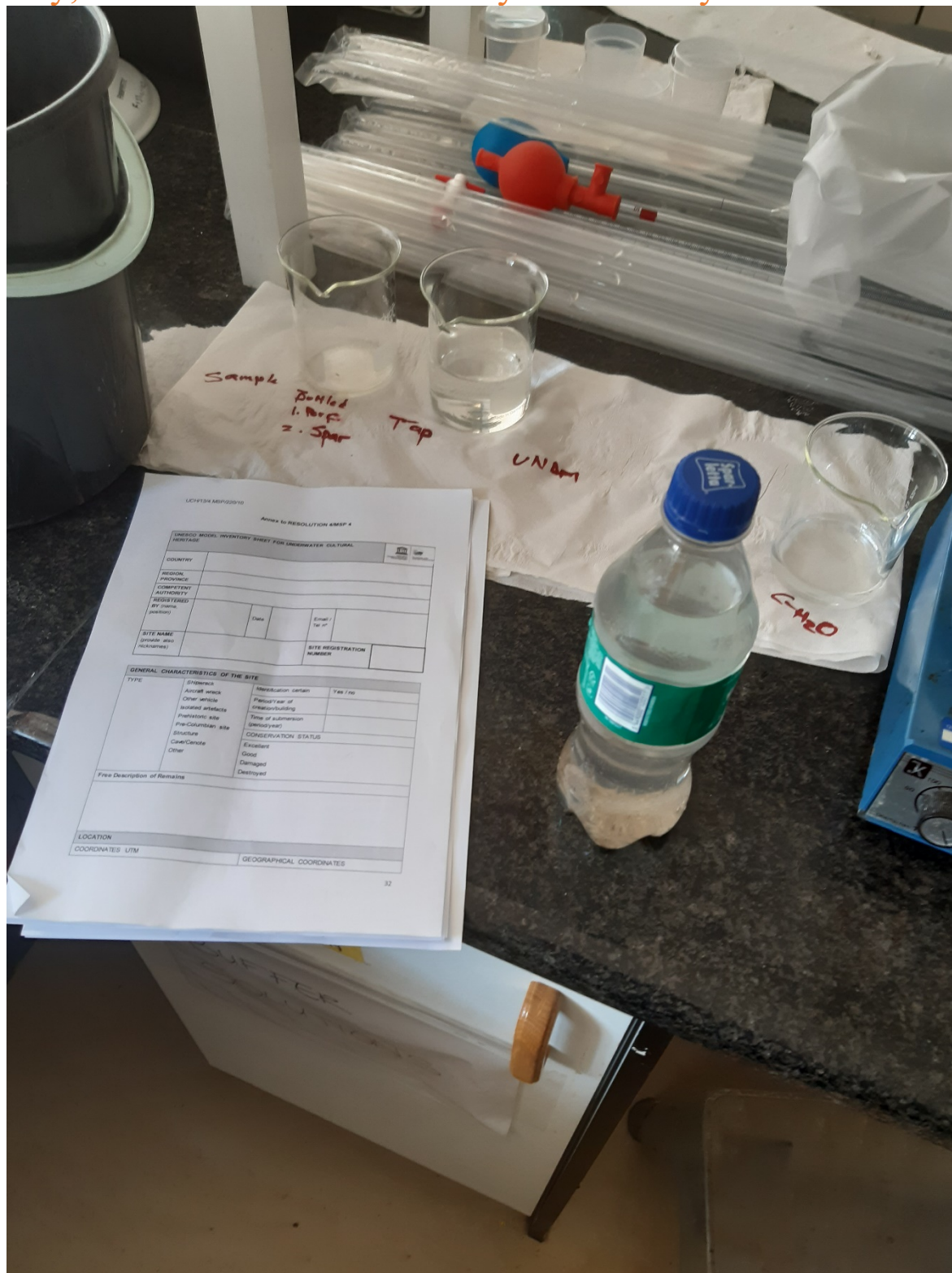
UCH/13/4.MSP/220/10

### Annex to RESOLUTION 4/MSP 4

UNESCO MODEL INVENTORY SHEET FOR UNDERWATER CULTURAL HERITAGE					 		
<b>COUNTRY</b>							
<b>REGION, PROVINCE</b>							
<b>COMPETENT AUTHORITY</b>							
<b>REGISTERED BY</b> (name, position)		Date		Email / Tel n°			
<b>SITE NAME</b> (provide also nicknames)				<b>SITE REGISTRATION NUMBER</b>			

GENERAL CHARACTERISTICS OF THE SITE			
TYPE	Shipwreck	Identification certain	Yes / no
	Aircraft wreck	Period/Year of creation/building	
	Other vehicle	Time of submersion (period/year)	
	Isolated artefacts	CONSERVATION STATUS	
	Prehistoric site	Excellent	
Pre-Columbian site	Good		
Structure	Damaged		
Cave/Cenote	Destroyed		
Other			
<b>Free Description of Remains</b>			
<b>LOCATION</b>			
COORDINATES UTM		GEOGRAPHICAL COORDINATES	

Appendix VI. 600ml bottle filled with seawater from Walvis Bay, tested at UNAM laboratory Henties Bay.



Appendix VII. Multi tester used to test pH and salinity level of the water University of Namibia, Henties Bay



Appendix VIII. Outside Swakopmund Museum, Anchor plus Norwegian whale harpoon gun – Some of the maritime cultural heritage on display.



## Appendix IX. Walvis Bay Museum Maritime and underwater cultural heritage on display



Steering wheel of the Hugo Tug Boat



Unidentified ship Anchor

## Appendix X. Known shipwrecks from Kunene to Walvis Bay (Source: Von Schumann 1994)

<b>Name Of shipwreck</b>	<b>Approximate date of Wrecking</b>	<b>Approximate Location</b>
Acme	07/1893	Kaiserin Auguste Bucht
Alecto	1899	18 degree latitude
American Whaler	1812	Cape Frio
American Whaler	1824	Cape Frio
American Whaler	19 <sup>th</sup> century vessel	Cape Frio
Ann	08/01/1845	Ambrose Bay
Anita 1	1954	Pelican point
Atlantic Pride	07/03/1971	16 and half north of Toscanini
Atlantic	1977	20 mile north of Torra bay
Annebelle	01/08/1969	Vineta
Andreas Pretorius	15/11/1969	North of Swakopmund
Bassie 2	19/05/1981	Sank off Cape Cross
Berenice	21/08/1967	42 miles south of Ambrose Bay
Benguella Stroom	04/09/1967	4 and half miles north of Wlotzka Baken
Benguella Eagle	05/06/1973	20 miles north Toscanini
Bradford City	01/11/1941	Torpedoed 200 miles NW of Walvis bay
Clan Alpine	13/01/1890	26 miles of Cape Frio (Refloated).



Congo	05/11/1961	North of Walvis Bay
Cantania	20/07/1968	North of Cape Frio
Coen Steytler	14/08/1969	North of Cape Cross
Dunedin Star	29/11/1942	370 miles North of Walvis Bay.
Drambuie	17/06/1969	Near Toscanini
Deona Z	05/08/1975	South of Toscanini
Doric Star	03/12/1939	Sunk Graf Spee SW of Walvis Bay
Erycina (Bark)	04/09/1896	Cape Cross
Espiegle	04/09/1852	Espiegle Bay north of Kunene
Fifeness	20/06/1969	Sank off Toscanini
Gertrud Woermann	20/11/1904	30 km north of Swakopmund
Girdleness	21/11/1975	Ugab river mouth
Gunfi	03/1978	Off Toscanini
Henrik Ibsen	04/1896	Cape Cross
Hamburg (tug)	15/09/1914	Swakopmund
Happiness	26/06/1969	Sank off Wlotzka Baken
Haverst Dawn	30/04/1980	Palgrave Point
Hesko	1800	In vicinity of Kunene River Mouth / Tiger Bay.
Hyacinth	-	-

Islander (am Trawler)	10/07/1973	5 miles South of Cape Frio
Jal Sea Condor	07/1978	Sank south of Kunene River
Kaiyo Maru no1	25/05/1978	South of Rocky Point
Karimona	23/09/1971	7 and half mile north of Mowe Bay
Luanda	1969	Sank NW of Toscanini
Mossamedes	24/04/1923	Cape Frio
Mutine	1911	South of Kunene
Mowe	1913	Swakopmund
Monte Rose	05/06/1973	19 miles north of Toscanini
Munutum River	1850	Whaler wreck
Nonidas (Tug)	13/11/1905	Swakopmund
Natal (Schooner)	1882	Tiger Bay
Natal Coast	30/04/1955	Gertrud Baken
Odyson	12/1967	250 miles SW of Walvis Bay
Orion	1845	North Coast
Orca	01/04/1978	South of Torra Bay
Otavi	29/07/1966	Sank W of Swakopmund
Ogden Harbour	1700	Sail ship wreck
Portuguese Caravelle	1700	Cape Frio
Portuguese Sailship	1715	Tiger Bay

Recovery	25/08/1900	Swakopmund
Rosemary	02/01/1968	Near Mowe Bay
Ruigteveld	29/08/1970	South of Ugab River
Sudwest (Tug)	02/11/1904	Swakopmund
St Croix (tug)	24/05/1930	6 miles north of Walvis Bay
Sir Charles Elliot(tug)	03/12/1942	4 miles north of cape Frio
Suiderkus	16/01/1977	1.5 miles north of Mowe Bay
South West Marlen	02/06/1968	Near Mowe Bay
South West Seal	21/06/1976	16km north of Ugab River
Spey Royal	05/05/1977	North of Wlotzka Baken
Taurus	26/05/1954	Near Swakop River Mouth
Viente E.Oito de Maio	11/11/1966	2 and half mile north of Toscanini
Vipava	07/07/1968	16 miles north of Swakopmund
Volunteer	10/1869	Espiegle Bay
Windhuk (Tug)	20/07/1911	Swakopmund
Winston	17/10/1970	2 miles south of Ugab River
Zeehaan	-	40 miles west of Walvis Bay

## Appendix XI. Known shipwrecks, Walvis Bay to Orange River mouth (Source: Von Schumann 1994)

<b>Name of shipwreck</b>	<b>Approximate date of wrecking</b>	<b>Approximate location</b>
Auckland	20/02/1909	West Coast Possession Island
Atlantic Harvester	27/05/1967	Mercury Island
Balgowan Castle	08/1904	Easter Cliffs
Bali	24/12/1910	Penguin Island Lz
Brandaris	05/08/1968	12 miles north of conception bay
British Prince	01/11/1915	Possession Island
Bradford City	01/11/1941	22.59`5 lat 09.49E Long. U68
Barge 77	06/1963	Chameis Bay
Canute	03/1861	Ichaboe Island
Cawdor Castle	30/07/1926	Few miles South of <i>Eduard Bohlen</i>
City of Baroda	02/03/1943	Reef of Doodenstad 50 miles south of Luderitz
Colinstar	02/1965	Chamais Bay. Diamond Digger
Consortium Omega	09/07/1981	Conception Bay
Dee	06/02/1905	Possession Island
Daphne	23/11/1845	Ichaboe Island

Diaz	08/02/1926	North Cliff near Saddle Hills
Dolphin	18/01/1960	Conception Bay
Eagle	26/05/1861	South of Sandwich Harbour
<i>Eduard Bohlen</i>	05/09/1909	7 miles south of Conception Bay
Flora	31/03/1859	South of Walvis Bay
Hope	14/05/1804	South of Walvis Bay, American whaler
Heraclides	26/10/1907	Hottentot Bay
Hunsbrook	07/11/1919	9 miles South of Walvis Bay
Gamsberg	02/06/1981	Sandwich Harbour
Hondeklip	07/1928	Meob Bay, Fire onboard
Hoefeld 1	23/11/1968	North of Meob
Hans die Skipper	08/05/1970	Conception Bay
Jane	1852	Possession Island
Kent	05/07/1850	Hottentot Bay Barque
Kate	31/07/1926	Possession island near Maridal
Limpopo	01/01/1930	Sylvia Hill
Magna	21/07/1911	Luderitzbucht harbour
Maridal	23/01/1926	Possession Island
Nautilus	06/03/1919	Possession Island

Nafsiporos	05/07/1969	Chamais Bay
Otavi	14/07/1945	Spencer bay
Oinoussai	28/08/1967	60km north of Oranjemund
Oceana Star	26/02/1975	Conception bay
Sea Star	1900	Steeple Rock, north of Luderitz
Sea Flower	01/1969	Sandwich Harbour
Solingen	04/11/1904	Hottentot Bay
Shawnee	16/02/1976	15 miles north of Conception Bay, American.
Tilly	01/02/1885	Close to Luderitz Harbour
Tong Wha 107	17/04/1972	10 miles north of spencer bay
Torness	05/1955	Sandwich Harbour
United Trader	16/12/1974	10 miles north of spencer bay(Dynamite Blast)
Valkyrie	18/10/1965	South of Meob
Vikingur	21/01/1967	75 miles south of Walvis Bay.
<b>Unidentified wrecks</b>		
Spanish Galleon		Pieces found South of Bogenfels
Old East India ship		Sandwich Harbour
American whalers		Conception Masts of at least three ships

Dutch 1748 shipwreck		Meob
Various sail ship planks		South of Meob Bay
Wreck near Easter Cliff		Malcom Campbell party
Sailer 1843 van Reenen bought		Wrecked near Luderitz
Various wreck pieces		Dreimaster Bucht
Parrow buried French sailors 1912.		Wreck north of Meob Bay

## Appendix XII. Questionnaire - NMN Respondent 1

Project Title: Assessing Namibia's Underwater cultural Heritage by Mowa Eliot: University of Pretoria

Interview questionnaires on the management of Namibia's underwater and maritime cultural heritage: For National Museum of Namibia and National Heritage council of Namibia staff members.

### PART I: General

- a) For how long have you worked for this institution  
..... 7 years .....
- b) What is your position and job description?  
..... Museum technician .....
- c) How would you define or describe underwater cultural heritage?  
It is archaeological material that has cultural and historical significance that has been submerged underwater for at least 10 years.
- d) What underwater cultural heritage projects, studies or documents have been completed by your institution (For example: Shipwreck excavation, shipwreck conservation study or assessment of shipwrecks and other underwater cultural heritage sites).  
The onward project to conserve the rescued artifacts.

In your view, have these projects improved management of these cultural heritage by your Institution? Yes, the artifacts are being stabilised and deterioration is averted.

How is this cultural heritage resource information managed in your office? (For example: paper filing, spatial GIS database, oral records, photographs etc.)

1. Paper filing
2. Computer database

- e) Do you have a database of underwater cultural heritage? ..... Yes No .....
- f) If the answer is yes to above question how many underwater cultural heritage sites do you have on record in your office? ..... 5438 .....

If the answer is no why is it that a shipwreck database is unavailable?

No survey had been carried out yet. The survey is scheduled for 2020-2021 financial year.

Does your institution have a mandate to manage shipwrecks along the Skeleton Coast?

Yes

If the answer is yes. What management plans do you have in place?

To be done when the survey has been carried out.



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- g) If no who has the mandate to manage these shipwrecks?.....
- h) If the answer is yes are these shipwrecks being conserved in-situ. What measures have been taken in assessing the shipwrecks? *To be determined once the survey is carried out.*

#### Part II Threats

- a) Do you believe or are aware of the maritime and underwater conservation challenges the country is faced with? If so what is your institution doing towards mitigating this?  
*- Lack of funds*  
*- Lack of human capacity*
- b) What are threats to Namibia's Maritime and Underwater cultural heritage that you are aware of? (both natural and human)  
*Mining*  
*Tourism : Lack of awareness*
- c) What is your institution doing towards mitigating these threats?  
*- Archaeological impact management assessment will be enforced before mining activities along the coast are carried.*  
*- Raise public awareness by way of exhibitions, social media and publications.*

#### Part III Legal

- (a) Namibia is a signatory to the 2001 convention on the protection of underwater cultural heritage since 2011. Has the country competent authorities' national museum and national heritage council taken any step to implement the statute of the 2001 convention into their national laws? *Yes*
- (b) If the answer in (a) above is yes what steps has the competent authority taken to realise that?  
*Cooperation has been reached between Namibia and international institutions and experts in the process of implementation of the Statute of the 2001 Convention.*
- d) Do you think the 2001 convention statutes are implementable in Namibia if not state why and if yes motivate your views?  
*Yes. It will enhance the efforts to conserve and preserve underwater cultural heritage.*

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- e) Do you think Namibia has enough resources to implement the convention statutes? motivate your view.

No. Economic recession had resulted in budgetary cuts to culture programmes that also includes underwater heritage programmes.

#### Part IV Revenue

- a) Is your institution realising or benefiting from revenues generated from Namibia's tourist industry through the visitation of shipwrecks? Motivate or give reason for your position.

No, because we are a non-profit making institution.

- b) Most tourist come to Namibia to see shipwrecks and Lake Otjikoto for their historical importance what should be done to enhance revenue from these cultural resources?

Diving tourism should be introduced and interested tourists must pay to visit underwater archaeology sites.

- c) What is the biggest/greatest stumbling block in the protection of Namibia's underwater cultural heritage?

-Lack of funds towards key programmes  
-Lack of expertise

#### Part V Capacity building

- a) Apart from the 2001 convention are there any bilateral or multilateral treaties/MOUs the country has with other countries and partners towards safeguarding and promoting underwater and maritime cultural heritage? Mention these.

Yes: A memorandum of understanding between Namibia and Portugal to promote, safeguard the Orange and shipwreck and train Namibians as Underwater archaeologists and conservators

- b) Does the institution has the skills and trained personnel in managing/advising underwater and maritime cultural heritage? mention the existing skills among staff members.

Yes - Henry Nakale diving skills & conservation of the rescued of material culture.

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- .....  
 .....  
 c) Is the government/your institution currently have capacity building programmes for underwater archaeology and conservation of maritime and underwater cultural heritage? How many personnel are trained in these fields? Or how many undergoing training?

Yes, 2 Staff members

- d) How many local and foreign researchers have shown or conducted research on Namibia's underwater and maritime cultural heritage and is the institution have this provision to allow them to do so

3 Researchers on average per year

- e) Are local researchers/personals benefiting in term of skills acquisition through collaboration with these foreign researchers? How so ?if not why?

Yes through publications.

- f) Would you please describe any steps that your institution has taken to build awareness and understanding about Namibia's underwater and maritime cultural heritage (e.g. attended awareness workshops, provided training to community on managing the heritage, trade fare etc.? How many of these and have you made follow up to gauge the impact it has on community.

- Awareness has been raised through presentations and publication of brochures.  
 - Mobile exhibitions

- g) Has your Institution designed strategies that identify specific maritime and underwater cultural heritage resources? Mention these

Yes - to carry out research on underwater Cultural Heritage on a yearly basis.

- h) Do you have any specific suggestions on how collaboration in the development of Namibia's Maritime and underwater cultural heritage, could be improved?

- Enhance the relationship between the key stakeholders namely: the navy, Namibia Scientific Society, NAM and Namport to come up with a national inventory, conservation strategies and programmes.

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i) Any Other suggestion or comment on the management of Namibia's maritime and underwater cultural heritage?

- More capacity building for the underwater cultural heritage staff

Thank you for your participation I greatly appreciate your time and effort to answer the questions above.

## Appendix XIII. Questionnaire - NFU/WUC Respondent 2

Project Title: Assessing Namibia's Underwater cultural Heritage by Mowa Eliot: University of Pretoria

Interview questionnaires on the management of Namibia's underwater and maritime cultural heritage: For National Museum of Namibia and National Heritage council of Namibia staff members.

### PART I: General

- a) For how long have you worked for this institut 1957-1997 Ship to Shore Telex Communication. Member of Windhoek Underwater Club for 33 years. Joined Namibia Scientific Society in February 1997.
- b) What is your position and job description? Librarian at Scientific Society. Member of the Marine Archaeology Section of WNI Underwater Club.
- c) How would you define or describe underwater cultural heritage?

The overall harsh environmental Namib Desert conditions and scarce fresh water in coastal areas have discouraged people from settling. However, archaeological sites at some sites are witness of human activity some 400,000 years ago. Due to extreme natural conditions there is however no coastal and Marine related traditional heritage of intangible nature. See publications on Skeleton Coast.

- d) What underwater cultural heritage projects, studies or documents have been completed by your institution (For example: Shipwreck excavation, shipwreck conservation study or assessment of shipwrecks and other underwater cultural heritage sites.

Since 1992 we from the Marine Archaeological section of WUC went annually on Marine survey trips between Luderitz and Kunene River Mouth. We have compiled reports. All reports were also handed to the N.H.C and Nat. Museum. On various trips we were also accompanied by members of the NHC. We never did excavations, as permit did not allow without supervision by land based Archaeologist.

In your view, have these projects improved management of these cultural heritage by your Institution?

When the Dutch Embassy was still in Windhoek, they accompanied us to Meob Bay to try and asses remains on 1747 Dutch East India Wreck Vlissingen. I personally gained tremendously as the Windhoek Dutch Embassy sent me to Amsterdam, where I studied in the VOC Archive under Prof. Dr. Bruno Wertz, who is an International recognized Marine Archaeological Expert.

How is this cultural heritage resource information managed in your office? (For example: paper filing, spatial GIS database, oral records, photographs etc.)

Besides the National Museum & NHC documents there is due to lack of funding no recognized Marine Historical Archive in Namibia. I have built up a private Shipping Library with over 1,200 publications. Members of WUC have built up a Photo collection. I am busy to compile a book on all ship wrecks I have recorded to date. In addition at the NSS Library is a list of ship wrecks between Kunene and Orange River.

- e) Do you have a database of underwater cultural heritage?.... YES
- f) If the answer is yes to above question how many underwater cultural heritage sites do you have on record in your office?. NSS Library list of Ship Wrecks available in Mowe Bay File. If the answer is no why is it that a shipwreck database is unavailable?

Personally I have researched and recorded information on ship wrecks at own cost and sponsored travel expenses in archives in South Africa, countries in Europe, England, America, Singapore, Hong Kong & Korea. From this information compiled under sponsored travel expenses, I am now busy to construct a comprehensive publication. The NSS allowed me to also work during official hours on this project.

Does your institution have a mandate to manage shipwrecks along the Skeleton Coast?

The Namibia Underwater Federation has a written agreement with the National Museum of Namibia. Thus a permit is issued to the Underwater Federation, whenever surveys are undertaken by the NUF in co-operation with the National Museum and the NHC.

If the answer is yes. What management plans do you have in place?

Besides Marine Archaeology we have an agreement with the National Museum that we Renovate also old mining infrastructure in the Sperrgebiet dating back to 1909. Here Wuc gets a sponsorship in support from various Tour operators, to uplift tourism.

On Google varies Ship Wreck listings contain South West Africa/Namibia Ship Wrecks.

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- g) National Museum of Nam/ National Heritage Council. WUC gets survey permit only. No qualified Marine Archaeologist with degree in Namibia available.
- g) If no who has the mandate to manage these shipwrecks?.....
- h) If the answer is yes are these shipwrecks being conserved in-situ. What measures have been taken in assessing the shipwrecks? h) Due to the rough Atlantic Ocean no ship wrecks are conserved. In agreement with the National Museum, ship wreck artifacts are on loan displayed at the Möwe Bay & Swakopmund Museums; & WUC in Windhoek. Ship wrecks of the Otavi, Eduard Bohlen, Shawnee and Zyla are good Examples of disintegrating relics of the Marine Heritage.

**Part II Threats**

- a) Do you believe or are aware of the maritime and underwater conservation challenges the country is faced with? If so what is your institution doing towards mitigating this?
  - ..... The NSS is supporting Marine Spatial Planning in Namibia and also MARISMA. ....
  - ..... Contact Person: Linda [Kasheeta@giz.de](mailto:Kasheeta@giz.de) and Skeleton Coast expert: Rodney.Braby@giz.de .....
- b) What are threats to Namibia's Maritime and Underwater cultural heritage that you are aware of? (both natural and human)
  - ..... Lack of Government financial support. Mining environment problems in general; No Government support to date to support BOM JESUS Wreck Museum development at Oranjemund. Stakeholders Germany, Portugal & Spain should be with their skills involved.
- c) What is your institution doing towards mitigating these threats?
  - ..... Presenting Public Debates; Distribution of fact based information
  - ..... Supported East Carolina University, Prof. Dr. Lynn Harris and Marine Archaeology Students.
  - ..... They compiled 164 pages report on conservation of Eduard Bohlen Wreck and others.

**Part III Legal**

- (a) Namibia is a signatory to the 2001 convention on the protection of underwater cultural heritage since 2011. Has the country competent authorities' national museum and national heritage council taken any step to implement the statute of the 2001 convention into their national laws?..... As far as is known, nothing heard off implementing Statute of 2001 Convention
- (b) If the answer in (a) above is yes what steps has the competent authority taken to realise that?
  - ..... The Namibia Scientific Society has invited members of GTZ and Marisma and taken them up along Skeleton Coast from Swakopmund to Kunene River Mouth during = .....
  - ..... 10 to 16. May 2020 with Route Africa Expeditions. Marine Spatial Planning and .....
  - ..... Ship Wrecks featured prominently.
- d) Do you think the 2001 convention statutes are implementable in Namibia if not state why and if yes motivate your views?
  - ..... YES
  - ..... UNESCO, MARISMA and private initiatives are important to provide expertise, and capacity. Implementation of regulations depends also on Government input. For that reason it is of cardinal importance that Government supports the implementation of a Marine Archaeologist Post with a degree as soon as possible at the National Museum of Namibia. The NUF needs Marine Archaeologist guidance to also excavate survivor whaler camp, covered by a dune.

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e) Do you think Namibia has enough resources to implement the convention statutes? motivate your view.

..... Government has currently due to Corona huge financial stress. Under current  
 ..... Economic situation implementation is out of the question. Nat. Museum will .....  
 ..... not support urgency, to appoint an Marine Archaeologist. ....

**Part IV Revenue**

a) Is your institution realising or benefiting from revenues generated from Namibia's tourist industry through the visitation of shipwrecks? Motivate or give reason for your position.

..... NSS is an NGO, library provides information to UNAM, NUST and International  
 ..... students. As such we do not receive Government financial support. In addition we  
 ..... support Learners with school projects. To generate funds we organize historical tours,  
 ..... which include trips into Skeleton Coast Park up to the Kunene River Mouth. Back-  
 ..... ground on ship wrecks such as Dunedin Star wreck site and others are included.

b) Most tourist come to Namibia to see shipwrecks and Lake Otjikoto for their historical importance what should be done to enhance revenue from these cultural resources?

..... Develop the BOM JESUS wreck at Oranjemund. Secondly development of tour  
 ..... Guides and development of Marine Archaeology capacity & skills. The  
 ..... Employment of a qualified Marine Archaeologist is of foremost urgency to  
 ..... also develop a Marine Museum at Swakopmund to draw attention of Tourism.

c) What is the biggest/greatest stumbling block in the protection of Namibia's underwater cultural heritage?

..... Its currently to late. Government did nothing to maintain the Eduard Bohlen  
 ..... Wreck of 1909. The Otavi wreck of 1945 is disintegrating. An outstanding  
 ..... Tourist attraction: the Kolmanskop at Swakopmund was removed. Lack of  
 ..... Interest with cultural authorities besides money problems at Government  
 ..... Institutions due to economic reasons.

**Part V Capacity building**

a) Apart from the 2001 conversion are there any bilateral or multilateral treaties/MOUs the country has with other countries and partners towards safeguarding and promoting underwater and maritime cultural heritage? Mention these.

..... The Luderitz Museum development with Pescanova is a probability. In  
 ..... addition the National Museum has a written agreement with the  
 ..... Namibia Underwater Federation on Marine Survey and restoration of  
 ..... old mining infrastructure in the Sperrgebiet to present improved historical  
 ..... past diamond mining activities for coastal tourism.

b) Does the institution has the skills and trained personnel in managing/advising underwater and maritime cultural heritage? mention the existing skills among staff members.

..... B) In government nobody known to have capacity to conduct building programmes  
 ..... for underwater archaeology & conservation of Maritime and Underwater Cultural  
 ..... Heritage. The private institutions, WUC and NSS, have only maritime ship wreck  
 ..... History and diving background.

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D) Attached front page report of Maritime Expedition in conjunction with the East Carolina University under leadership of Professor Dr. Lynn Harris. Permit was granted by the Director National Heritage Council 2010. It is known that during 1970's some American applications were turned down by the National Heritage Council.

At the Windhoek Underwater Federation section Marine Archaeology all current members with diplomas are between 60 to 80 years old. At the NSS ..... we have the same age problem of maritime members. Currently nobody ..... known amongst the younger generations of undergoing maritime training.

c) Is the government/your institution currently have capacity building programmes for underwater archaeology and conservation of maritime and underwater cultural heritage? How many personnel are trained in these fields? Or how many undergoing training?

..... C) As far as is known neither government nor any private institutions have capacity building programmes for underwater archaeology or conservation of maritime underwater cultural heritage. Due to age problems in the ..... Maritime field the employment of a young degree maritime archaeologist ..... is of cardinal importance for conservation of Namibian Cultural Heritage.

d) How many local and foreign researchers have shown or conducted research on Namibia's underwater and maritime cultural heritage and is the institution have this provision to allow them to do

so.....

e) Are local researchers/personals benefiting in term of skills acquisition through collaboration with these foreign researchers? How so ?if not why?

..... Foreign researchers could greatly assist locals to acquiring extensive skills. .... Dantika Diving, owner Chris Steenkamp has brought in British experts, who also trained divers in Lake Otjikoto. Dantika is bringing in German Marine experts in September/Oktober 2020. Dantika also had international film crews visiting ..... Namibia. Local divers were receiving professional diving training.

f) Would you please describe any steps that your institution has taken to build awareness and understanding about Namibia's underwater and maritime cultural heritage (e.g. attended awareness workshops, provided training to community on managing the heritage, trade fare etc.? How many of these and have you made follow up to gauge the impact it has on community.

..... Mr. Alfred Schleicher, turtle expert amongst others, is involved in excursions, ..... lectures and public talks. No follow up reports. Community training was not done in the past. ....

g) Has your Institution designed strategies that identify specific maritime and underwater cultural heritage resources? Mention

these..... Mr. Theo Schoeman, President of the Namibia Scientific Society is from ..... Time to time approached by maritime and underwater cultural heritage ..... Organizations from overseas. These visitors are normally linked with ..... Dantika. That includes Cave Diving & Research in Namibia. ....

h) Do you have any specific suggestions on how collaboration in the development of Namibia's Maritime and underwater cultural heritage, could be improved?

... Here Marisma should be approached to enable sustainable Ocean use in the Benguela ..... Current Region. GIZ could assist in Marine Heritage Development in the Skeleton ..... Coast Park. Overseas Maritime Museum experts should be approached for local ..... Training and updating of local Museums such as Mõwe Bay, Swakopmund, ..... Lüderitz and future development of a Maritime Museum at Oranjemund. Again, A local maritime degree archaeologist is of cardinal importance to take leadership.



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i) Any Other suggestion or comment on the management of Namibia`s maritime and underwater cultural heritage?

...  
 ... To gain on International expert knowledge our Government should co-opt with .....  
 Foreign Maritime Institutions for fast action in Namibia in the future. The .....  
 ... Fishing sector should not be neglected as over 200 trawler wrecks were recorded .....  
 ... since pre First World War along the Namibian Atlantic Coast. List of some  
 ship wrecks recorded is available at the Namibia Scientific Society Library. In  
 addition on Google are various ship wreck listings, which contain amongst others  
 South West Africa/Namibia ship wrecks.

Thank you for your participation I greatly appreciate your time and effort to answer the questions above.

Eliot, Your interest in Marine Heritage is very encouraging.  
 Please continue with your commendable input. You are always welcome to  
 Visit our Diving Club and its members. Social evenings are always Tuesday  
 Evenings from half past seven. Contact person is secretary Susan Martins.  
 Email: kgfnamibia@gmail.com. For reference purposes you always could  
 use me as your contact person.  
 Wishing you great success for the future.  
 Skeleton Coast has a lot of hidden secrets concerning old  
 Dutch and Portuguese lost treasures. Some artifacts are displayed at the  
 Swakopmund Museum and at the Windhoek Diving Club.

Another Swakopmund – Kunene River Mouth excursion has been organized  
 by the Namibia Scientific Society. Just waiting for Lockdown to be lifted.  
 30 interested participants have already booked.

Regards Gunter