

Robert Parthesius
Jonathan Sharfman *Editors*

Maritime and Underwater Cultural Heritage Management on the Historic and Arabian Trade Routes

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Introduction

This book brings together perspectives on maritime and underwater cultural heritage (MUCH) in selected Indian Ocean countries linked by the historic and Arabian maritime trade routes.

In the 1980s and 1990s, when terrestrial archaeologists were in the early stages of adapting their skills to the underwater environment, practitioners struggled to align public opinions on underwater cultural heritage with the heritage management principles applied to sites on land. Popular reporting of underwater discoveries by treasure hunters and a vocal media thwarted archaeologists' efforts to draw attention to the greater historical significance of submerged archaeological sites. Instead, the focus was placed firmly on European treasure ships and their economic value. Recognizing the potential negative impacts that unregulated salvage might have on historic shipwreck sites, flag states began drafting protective legislation to manage activities on wreck sites in national waters. While legislation addressed domestic challenges in European waters, it drove salvage operations into locations beyond the flag states' jurisdiction. Increasingly, pressure to protect European shipwrecks targeted by treasure mounted and regulation of salvage of historic wrecks in non-Western states was also encouraged. However, shipwrecks in foreign waters are viewed from multiple perspectives: they can, for example, be seen either as other people's heritage that exist accidentally in a state's inland waters, or as cultural connectors spanning the globe. They can even be viewed as an economic resource. The fluidity of perspectives has produced a variety of key pressures that have driven the processes of developing strategies to deal with a unique set of heritage challenges. From within this fragmented *milieu*, frameworks for national legislation and international convention evolved. For some, like India, South Africa and Sri Lanka, amendments to national heritage legislation were enacted. Others, like Mozambique, Tanzania and Kenya turned to international bodies such as UNESCO for guidance. All borrowed heavily from the *status quo* of maritime archaeological research, and management frameworks rooted in the Western context were exported into the Indian Ocean region.

This book explores how selected countries with active MUCH programs and management initiatives in place have adapted Western-based maritime

archaeological and underwater cultural heritage management methodologies to their own situations. It assesses how new heritage management burdens and pressures have been placed on states by outsiders wishing to conserve their own heritage in foreign waters and asks what the future holds.

To do this, the book gives the floor to some of the stakeholders involved in determining the *process* of developing underwater cultural heritage management and research strategies in non-Western contexts. It provides a baseline of the current state of underwater cultural heritage in countries selected because they all have active MUCH programs and management initiatives in place. Each country has taken a somewhat different approach to management and research thereby providing a unique perspective on the adaptation of accepted practices of the disciplines and a baseline of the current state of underwater cultural heritage in these countries. Authors have been selected based on their ability to report on the various approaches that countries/regions have taken to manage and research maritime and underwater cultural heritage in the distinctive contexts within which they work. Authors have focused on questions that address the past, present and future of MUCH in states linked by the network of the historic and Arabian trade routes. Authors illustrate a diversity of perspectives and analyse the drivers for the development of unique approaches to MUCH. Chapters discuss whether local heritage perspectives can locate national narratives within the context of current globalized thinking advocated by the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage and the 1972 World Heritage Convention. They explore how national approaches to maritime heritage have been developed to address needs and available capacity and where is the national MUCH narrative located within a national or international heritage narrative?

Each chapter outlines the development of MUCH in the author's home nation, provides an overview of current frameworks and activities, and looks to the future of research and management. Authors draw conclusions about the drivers behind the process of developing national approaches and perspectives and what the results have been. They explain whether the focus of development has been on management or research and if the MUCH vision has focused seaward or towards the hinterland. A common thread that binds the chapters will be an examination of how Western management and practice structures have been adapted to contexts where the binaries such as tangible and intangible, natural and cultural, and submerged and terrestrial become blurred.

It will examine, for example, how states have confronted management and research challenges of European shipwreck sites – traditionally the focus of underwater cultural heritage research and management – by utilizing the potentially dissonant approach of a shared cultural heritage framework promoted by the 2001 Convention on the Protection of Underwater Cultural Heritage amongst other international policy structures. It will explore how local maritime perspectives have been incorporated into, or obscured by, Western shipwreck narratives that are documented in archives and therefore more dominant in historical and archaeological record. The book raises questions surrounding the ways in which significance of heritage sites is determined. The dominance of Western MUCH perspectives is

illustrated when looking more broadly at globally significant port cities (now World Heritage Sites) and recognized trade nodes on the historical trade routes, the majority of which are deemed noteworthy based on their role in the European colonial period. The book asks how globalized and localized perspectives have been balanced in multiple contexts.

In Chap. 1 Robert Parthesius acquaints the reader with the current state of MUCH in the Gulf and on the Indian Ocean rim. He outlines the context from which MUCH practice in the Indian Ocean region has originated and explores the underlying challenges of applying 'global' tenets to environments and situations in which practitioners cannot conform. This lays the framework against which authors analyse the evolution and application of MUCH management and research strategies and reflect on the future of the field in their states. The chapter will discuss the evolution of the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, how sites and landscapes are assigned significance, and how approaches to heritage have been formed by conventions such as the 1972 World Heritage Convention. Parthesius draws conclusions from the emerging themes of local participation, network collaboration, stakeholder engagement and multi-layered heritage that have contributed to the need for non-Western states to shift the field away from the methodologies dictated by its European roots towards local and relevant approaches.

Rasika Muthucumarana outlines Sri Lanka's MUCH programme in Chap. 2. The chapter highlights early mitigation of potential threats of treasure hunting after the discovery of silver coins on an eighteenth century European shipwreck. This is followed by reflections on capacity building programs and research instigated by the Dutch as part of their 'mutual cultural heritage' initiatives following the discovery of the wreck of the *Avondster*. The chapter examines the impact of the programme on the narrative of the Galle World Heritage Site and maritime archaeology in Sri Lanka. Finally, the chapter outlines the shift in the focus of the work of the Maritime Archaeology Unit towards more locally relevant sites and heritage narratives.

Chapter 3 explores the formation and training of the Tanzanian MUCH Unit and analyses the challenges it faces in an environment where national political and financial support is lacking. Elgidius Ichumbaki discusses current and emerging research on Swahili maritime culture and its likely impact on future MUCH initiatives.

In Chaps. 4 and 5, Celso Simbine and Cezar Mahumane provide an overview of MUCH management and practice in the Mozambican environment as that nation emerges from a sanctioned treasure hunting culture. The authors discuss the impact of treasure hunting on public perceptions of UCH. The chapters show why Mozambique is strongly in favour of ratifying and implementing the 2001 Convention, and outline the vision for developing maritime archaeology through regional collaboration, community engagement and locally focused research.

In Chap. 6, Caesar Bitu outlines the status of MUCH in Kenya. The chapter discusses terrestrial research associated with maritime culture, in particular Swahili culture and European maritime culture associated with sites such as Fort Jesus. Bitu examines how external interests have shaped the MUCH agenda in Kenya, from the Portuguese wreck in Mombasa to Chinese influence at Lamu.

Jonathan Sharfman discusses the South African MUCH context in Chap. 7. He shows how political, social and economic pressures shaped the MUCH narrative in that country and how legislation developed reactively. The chapter analyses new approaches to MUCH being applied in South Africa and examines their efficacy as a future model for the field.

In Chap. 8, Eric Staples discusses the Omani perspective of UCH. With a focus on experimental reconstructions of Bronze Age boats, the chapter examines the use of non-Western historical sources and terrestrial archaeological evidence to interpret ship construction methods, local shipbuilding techniques and regional maritime heritage. The chapter shows the challenges of interpreting archaeological and historical data in the absence of the vast archives held by European seafaring nations. The chapter also highlights the need for shifting focus from MUCH sites associated with European expansion to new data emerging from non-Western regions.

In Chap. 9, Alok Tripathi examines the technical development of MUCH management in India, the first state in the region to implement UCH legislation and strategy. The chapter highlights the scope of maritime archaeological research and reflects on the future of MUCH management in India.

Robert Parthesius and Jonathan Sharfman draw conclusions from the similarities and differences identified in the approaches of the selected states by examining the broad MUCH themes that emerge from the chapters and reflect on MUCH practice and future approaches.

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Abbreviations

AAHM	Asian Academy for Heritage Management
ACHA	African Centre for Heritage Activities
AWW	Arqueonautas Worldwide
CIE	Centre for International Heritage Activities
DAA – UEM	Department of Archaeology and Anthropology – Eduardo Mondlane University
DAC	Department of Arts and Culture
EASSY	East Africa Sea System
EIA	Environmental Impact Assessment
WMCA	Environmental Management and Coordination Act
GACIM	Cabinet of Conservation of Mozambique Island
ICOMOS	International Committee for Monuments and Sites
ICUCH	International Committee for Underwater Cultural Heritage
MADP	Maritime Archaeology Development project
MAU	Maritime Archaeology Unit
MHT	Maritime Heritage Trust of Sri Lanka
MUCH	Maritime and Underwater Cultural Heritage
NAS	Nautical Archaeology Society
NMHA	National Museums and Heritage Act
NMK	National Museums of Kenya
OUV	Outstanding Universal Value
PGIAR	Post Graduate Institute of Archaeological Research
PI	Partimonio Internacional
SAHRA	South African Heritage Resources Agency
SLSAC	Sri Lanka Sub-Aqua Club
STAB	Scientific and Technical Advisory Body
STCDA	Stone Town Conservation and Development Agency
TEAMS	The East Africa Marine System
UAW	Underwater Archaeology Wing
UCH	Underwater Cultural Heritage
UNESCO	United Nations Scientific, Educational and Cultural Organization

VOC	Dutch East India Company
WHC	World Heritage Convention
WHS	World Heritage Site

Chapter 1

Trading Places: Negotiating Place in World Heritage



Robert Parthesius

1.1 Introduction

The World Heritage Convention was adopted by the General Assembly of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1972 (UNESCO 1972). Over 45 years it has become UNESCO's most successful program, ratified by almost 200 countries and with over a thousand heritage sites of Outstanding Universal Value (OUV) to humankind being inscribed onto the World Heritage Register. The establishment of the World Heritage program brought with it a fundamental change in the perception of international heritage management and is now seen as a powerful tool to preserve heritage worldwide.

The World Heritage Convention (WHC) offers opportunities for countries to call upon assistance from both UNESCO and the World Heritage Fund to support them in their endeavors to meet their obligations for protecting and managing globally relevant sites. A belief in shared responsibility for the identification and protection of world heritage makes the program a significant globalizing power, especially when intent, resources and actions are aligned.

Despite the significant role of maritime activities, shipping and seaborne cultural exchange, heritage sites under water (often shipwrecks), defined as movable heritage in the WHC and therefore not eligible for inclusion, is absent from the narratives of the WHS.

The Convention on the Protection of Underwater Cultural Heritage (2001 Convention) was adopted by the UNESCO General Assembly in 2001 (UNESCO

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2001). In 18 years, it has been ratified by just 62 states.¹ By comparison, the 2003 UNESCO Convention on the Safeguarding of Intangible Heritage, adopted two years later, already has 178 signatories (UNESCO 2003).² In light of recognized threats to underwater cultural heritage, as discussed in the chapters of this book, and a growing interest in the protection the resource, it is perhaps curious that the 2001 Convention has found little traction in nations where it is most needed. This chapter will reflect on what differentiates perceptions and approaches to underwater cultural heritage through comparisons between the World Heritage Convention and the Convention on the Protection of Underwater Cultural Heritage with specific focus on the historic port cities of Galle, Stone Town and Mozambique Island that have been inscribed into the World Heritage List and have significant maritime heritage associated with them.

World Heritage Sites (WHS) bring several benefits to the nominating countries. The inscribed “properties”³ are perceived as places of prestige. Not only do they generate resources through tourist revenues (UNESCO 2012), but generally also serve as important elements in national identity (Labadi 2007, p. 160). In contrast, Maritime and Underwater Cultural Heritage (MUCH), often understood as “shipwrecks”, is largely inaccessible without specialist equipment and training; is generally accidentally present by its nature and, therefore, may not be seen as the heritage of the country in which it is situated. As such, perceptions of the value of MUCH may be downgraded in identification and management contexts. Consequently, the importance of ratifying the 2001 Convention and acceding to its obligations is seen as an unnecessary burden to many states. The 2001 Convention is, however, the best option for MUCH engagement and management in states where legislation is absent or ambiguous.

An analysis of the principles of the Conventions and the way in which they currently impact on management codes in the case study contexts provides a platform for examining the approaches applied to MUCH. It examines the methodologies applied by the state parties in identifying and nominating sites for WHS status as well as the manner in which UNESCO assesses applications, approves site status and determines management strategies. This highlights the ambiguous principle of a world community committed to shared responsibility for the protection of sites of Outstanding and Universal Value juxtaposed with a site nomination process that is exclusively driven by sovereign nations (UNESCO 1972, article 6). This is in contrast with the antiquarian approach to assigning significance adopted by the 2001 Convention where significance is determined by age – sites submerged for 100 years or more.

Based on the outcome of this comparison and supported by observations made during fieldwork undertaken on these sites over the years, some preliminary conclusions surrounding the efficacy and perceptions of the Conventions can be drawn and the potential of applying an alternative approach to the conceptualization of heritage

¹<http://www.unesco.org/eri/la/convention.asp?KO=13520&language=E&order=alpha> accessed 7 December 2019

²<http://www.unesco.org/eri/la/convention.asp?language=E&KO=17116&order=alpha> accessed 7 December 2019

³ UNESCO terminology

can be presented. Such an approach might contribute to overcoming the major flaws of the current system and assist communities to become more involved in the selection and management of these sites through identifying their own stake and negotiating their space in heritage. An active, ongoing heritage program that aims to understand the mechanism of heritage creation and management in a local and global context and to explore alternative approaches that could contribute to a more inclusive and holistic approach underlies the research presented in this chapter⁴ and the status of MUCH in the countries discussed in this book.

1.2 The Framework for a Convention on the Protection of Underwater Cultural Heritage

The 2001 Convention on the Protection of Underwater Cultural Heritage had its roots in an identified need to protect heritage in international waters. An increase in looting of shipwreck sites prompted site stakeholders to act against treasure hunters and the loss of cultural material. This specific need meant that the Convention was drafted with the protection of shipwreck sites foremost in the minds of the individuals tasked with preparing the text. While the document defines MUCH more broadly, it remains shipwreck focused both in its wording and in its implementation. The convention requires a degree of universality, however, to justify its global nature. For this, it defines MUCH as a shared or common heritage. This becomes immediately evident in the first paragraph of the preamble to the Convention which acknowledges the international nature of MUCH and its role in connecting people and cultures. Unlike in the World Heritage Convention, MUCH is not defined by “outstanding universal values” but by time, as will be discussed in more detail below. In the absence of the universal significance indicators laid out in the World Heritage Convention, the sites and objects that are shared between nations and cultures are for the most part those related to shipping and seaborne activities. Within the management framework of the Convention on the Protection of Underwater Cultural Heritage, shipwrecks are, therefore, the predominant “shared” heritage resource.

The structure of Convention on the Protection of Underwater Cultural Heritage was based on the 1996 ICOMOS Charter on the Protection and Management of MUCH, which is itself rooted in the 1990 ICOMOS Charter for the Protection and Management of Archaeological Heritage. The 1996 Charter defines MUCH as “submerged sites and structures, wreck-sites and wreckage and their archaeological and natural context”, a maritime archaeological focus that has carried over to the 2001 Convention (see the Rules in the Annex to the Convention on the Protection of Underwater Cultural Heritage). The nature of the maritime archaeological

⁴This program was initiated by CIE–Centre for International Heritage Activities as part of their program on Culture and Development. Since 2006 CIE has cooperated with many local partners, Leiden University and New York University Abu Dhabi being the main academic partners. Since 2016 Dhakira–Centre for Heritage Studies at NYUAD has coordinated the research and activities.

discipline with its roots in the excavation and study of European wrecks has further entrenched the position of shipwrecks in the 2001 Convention.

The synonymous understanding of MUCH and shipwrecks is reinforced in practice. The threat of treasure hunting has focused attention on wreck sites, as has archaeological work. Shipwreck sites dominate popular and academic media. Globally, maritime archaeology has emphasized shipwreck sites above all else (Terry-Chandler 2000).

1.2.1 Contradiction Between Universalism and Nationalism

At the core of the World Heritage Convention is the idea that heritage with “outstanding and universal values for humankind” is the shared responsibility of the world community. Similarly, the Convention on the Protection of Underwater Cultural Heritage envisages underwater heritage as “an integral part of the cultural heritage of humanity” and as a common heritage element that connects people and nations. This implies global stewardship of sites and a collective obligation to protect them, raising challenges at both national and international levels. In the case of WHS, identification is the remit of states who nominate them, usually within the context of national narratives (Askew 2013; Elliot and Schmutz 2012; Graham et al. 2000; Labadi and Long 2010; Rudolff 2010). By contrast, in the framework of the 2001 Convention, heritage underwater becomes significant after 100 years whether states identify it or not. Since WHS are positioned within national narratives, states willingly take ownership of sites and implement agreed management strategies. The nature of shipwrecks blurs the lines of ownership. Wreck sites exist by accident and may have no local relevance. They may be the heritage of foreign states. Since heritage and ownership are tightly related they become a contested and often divisive phenomenon raising questions around the universal significance of MUCH which are not addressed by the 2001 Convention (Fig. 1.1).

The Convention on the Protection of Underwater Cultural Heritage has been significantly challenged by issues of universalism which are illustrated not only in how the Convention defines MUCH and prescribes the implementation of various tenets of management, but in the Convention as a whole. Because it was rooted in a specific need for protection of (European) shipwreck sites, it is particularistic at its core. To appeal to non-European stakeholders in whose waters European shipwrecks exist (and who were expected to manage shipwrecks on behalf of foreign states), it was necessary to draft a broad definition of MUCH beyond this specific site type. This has impacted on efforts to define universal significance values of MUCH in the 2001 Convention, a hurdle that has not yet been overcome. As a result, the Convention struggles to identify the universal nature of MUCH which led to its drafters assigning a time-based value to cultural significance. In this regard, the Convention adopts a static approach to the cultural resource. The Convention on the Protection of Underwater Cultural Heritage is, by necessity, couched in global terms, but is a Convention drafted primarily to protect shipwrecks using a maritime archaeological management approach.



Fig. 1.1 The emblem of the Dutch East-India Company on the 17th Century warehouse in Galle, Sri Lanka was later replaced by the English and is now part of the narrative of the World Heritage Site © Robert Parthesius 2003

Efforts to merge universalism with particularism create a paradox where many non-European countries see the concept of universalization of heritage more as an attempt at Europeanization of their culture (Blake 2000; Cleere 2001). Through the OUV of the World Heritage Convention, the diversity of culture has been reduced to a set of standardized themes and criteria (Thomas 2000), which have been conceptualized, explained and understood from a European perspective. “The language of heritage that suffuses the world is mainly Western” (Lowenthal 1998a, b: p. 5). This is one of the reasons for the quantitative over-representation of World Heritage sites from the European region on the World Heritage List (Cleere 1996, p. 229; Labadi 2005; Elliot and Schmutz 2012; UNESCO 1994a), and the focus on European shipwrecks in the context of the Convention on the Protection of Underwater Cultural Heritage. Interestingly, by defining significance by age, the Convention on the Protection of Underwater Cultural Heritage may offer a platform for the inclusion of a much broader set of cultural sites. Unfortunately, this has not yet been the case and MUCH has remained rooted in a Eurocentric domain.

1.2.2 Practical Issues Analyzed Through Concrete Examples

To test the presence and impact of Eurocentrism in heritage practice, sites located in the global South needed to be identified. This, in turn, needed to be followed by an examination of the approaches applied to assigning significance to MUCH sites specifically. Why were these particular sites deemed valuable and worthy of attention and management? To illustrate the processes at work in the MUCH context, comparisons between the 2001 Convention and WHC need to be made. It was prudent, therefore to select case study examples that met a broad set of criteria. Additionally, to assess the inclusion (or exclusion) of multiple perspectives in the classification of heritage values, case study sites needed to have a clear connection to the global, national and local past. Finally, sites with maritime connections would provide opportunities to directly compare WHS with adjacent MUCH. For this purpose, the Galle (Sri Lanka), Stone Town on Zanzibar off the Tanzanian mainland and Mozambique Island (Mozambique) World Heritage Sites on the historic maritime trade routes are appropriate models that link multiple cultures across more than two millennia.

The traces of vast maritime trade networks have left an indelible mark on the global cultural landscape. Strategic nodes such as Galle, Zanzibar and Mozambique Island were crossroads of commercial and social activities in a maritime trade network that connected economic hubs throughout the Indian Ocean and linked them to European, Arabian and Atlantic Ocean port cities.

The rise of the Umayyad Caliphate in the seventh century and the Abassid Caliphate in the eighth century catalyzed long-distance trade in the Indian Ocean basin. Whereas Roman era maritime trade had resulted in the establishment of trade ports at strategic sites along the East African, Arabian and Indian coasts, the developing trade routes that were centered in the Islamic world expanded parallel to the terrestrial Silk Roads to connect Far Eastern dynasties with emerging south-east African city states such as Mapangubwe and Great Zimbabwe and established European markets.

The development of trade hubs at Galle, Zanzibar and Mozambique Island was a result of their unique strategic locations as well as their proximity to valuable trade commodities. Galle is advantageously located to access Chinese, Indonesian, Indian and Arabian markets and is central in the monsoon trade winds climate system (Parthesius 2007, 2010). Zanzibar is equally well located in the trade winds system, providing access to Arabian and African commodities. Being an island, Zanzibar can be defended from foreign hostilities making it a relatively safe port for trade with the coastal cities of mainland Africa. Mozambique Island lies towards the southern extent of the early Indian Ocean trade network and, from the sixteenth century onwards was also the African hub between Asia and Europe for an expanding Portuguese empire. Like Zanzibar it is an easily defendable island providing a safe harbor for trade vessels accessing the African mainland, the western Indian Ocean islands or an inter-continental stopover.

UNESCO has granted these three sites World Heritage Site status as examples of the outstanding and universal cultural heritage values that exemplify a globally

relevant past. All three sites have significant MUCH resources associated with them. Dozens of other underwater archaeological sites, in the Galle historic harbor have impacted on the interpretation of the WHS (Green et al. 1998). More than 20 wrecks, severely impacted by treasure hunters, have been located around Mozambique Island (Duarte 2012). Although shipwrecks have not been a focus at Zanzibar, it's intangible maritime culture makes it an important case study site (Breen 2016; Jeffery and Parthesius 2013). The sites are comparable in that they are all three historical port cities connected through trade and shipping routes to a global network. They served as crossroads for cultural exchange allowing for the development of cosmopolitan communities at each site. The locations were colonized and decolonized and all three are still very much 'living heritage sites' (Pereira Roders 2010; Hitchcock 2012; Bandarin and Oers 2012; Rajapakse 2013).

Despite the significant role of maritime activities, shipping and seaborne cultural exchange, MUCH, defined as movable heritage in the World Heritage Convention and therefore not eligible for inclusion, is absent from the narratives of the WHS.

1.3 Background to the Site Nomination Process, Inscription and Management

1.3.1 Criteria, Guidelines and Experts

Heritage sites of Outstanding and Universal Value for humankind can be inscribed on the World Heritage List by the intergovernmental World Heritage Committee if they meet one of the ten criteria established by the 1972 Convention. Since inception, the prescribed nomination and management procedure has evolved from a primarily conservation-focused process with its roots in western, expert organizations (Elliot and Schmutz 2012) into a process, which is also politically charged (Meskell 2013; James and Winter 2015).

A State Party intending to nominate a WHS in its territory has to go through various bureaucratic steps (UNESCO 2011). Having identified potential sites, State Parties need to submit documentation, including a Statement of Outstanding and Universal Values of the nominated site, in a Nomination File motivating WHS status. UNESCO's World Heritage Centre can advise and assist in drafting this exhaustive documentation file. The nominated cultural heritage site is then evaluated by UNESCO's expert body, ICOMOS. The World Heritage Committee, at their annual meeting, will then decide regarding inscription based on the nomination file and the expert evaluation.

After the site is inscribed onto the World Heritage Register, the responsible authorities of the State Party must implement an agreed upon conservation management plan. Periodic ICOMOS missions to the site report on how it is managed.

In contrast, as described above, the Convention on the Protection of Underwater Cultural Heritage applies to any cultural remains that have been submerged or partially submerged for 100 years or more. The 2001 Convention puts the onus on the State Party, rather than international experts, to determine a management plan for

sites (preferably conservation *in situ*).⁵ The Convention on the Protection of Underwater Cultural Heritage urges States to draft legislation in line with the Convention's broad intent and regulate management through national statutes. Although an ICOMOS subcommittee, the International Committee for Underwater Cultural Heritage (ICUCH) has been established, its role in monitoring the implementation of the Convention by State Parties is limited. Instead, the Convention establishes a Scientific and Technical Advisory Body (STAB) made up of experts from member states to assist member states. The STAB is unfunded.

1.4 An Introduction to the Case Study World Heritage Sites

1.4.1 Sri Lanka

Old Town of Galle and its Fortifications

In 1988, the 'Old Town of Galle and its Fortifications' was inscribed onto the World Heritage Register based on criterion iv of the ten criteria listed in the Operational Guidelines (whc.unesco.org). The site was deemed 'to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history'. ICOMOS designated Galle as "[...] an outstanding example of an urban ensemble which illustrates the interaction of European architecture and South Asian traditions from the 16th to the 19th centuries. Among the characteristics, which make this an urban group of exceptional value is the original sewer system from the 17th century, flushed with sea water controlled by a pumping station formerly activated by a windmill on the Triton bastion. However, the most salient fact is the use of European models adapted by local manpower to the geological, climatic, historic and cultural conditions of Sri Lanka. In the structure of the ramparts, coral is frequently used along with granite. In the ground layout all the measures of length, width and height conform to the regional metrology. The wide streets, planted with grass and shaded by suriyas, are lined with houses, each with its own garden and an open verandah supported by columns - another sign of the acculturation of an architecture which is European only in its basic design" (ICOMOS 1986, p. 2–3). Today on its website, UNESCO highlights Galle as ('simply') being the best example of a fortified city built by Europeans in south and South-East Asia (Wijeratne 2005; UNESCO 2017).

In many respects, Sri Lanka seemed to be an ideal new member of the World Heritage Site community. They had established a competent authority for the conservation and management of Galle, and involved local stakeholders in the

⁵It should be noted that the 2001 Convention supplies its own set of management guidelines in an Annex. The Rules contained therein have been drafted in line with maritime archaeological "best practice". As a result, although management decision-making lies with the State Party, they must be made within a limiting framework determined by UNESCO and associated advisory bodies.

nomination process. In an effort to ensure continued broad buy-in and management support, the State Party established the Galle Heritage Foundation in 1994. The Foundation's design envisaged active participation from experts and professional bodies as well as representatives of residents and other interested parties (Wijeratne 2005, p. 2) in order "to promote the preservation, conservation and development of the Galle Fort together with its historic hinterland as a historic city center and as an area of archaeological interest, and to promote interest among the residents of the Galle Fort in the preservation of houses, buildings and other property within the Fort" (Galle Heritage Foundation Act 1994). The strength of the Galle Heritage Foundation lay in its ability to attract local support and identify the need for expanding the site's heritage context. A proposal to expand the site boundaries to include the historic harbor and to enlist the support of the Maritime Archaeology Unit, which had been established in 2001 and had participated in the excavation of the *Avondster* shipwreck that lay in front of the Fort, illustrated the broader thinking of the Foundation (Parthesius et al. 2005; Parthesius 2007). The inclusion of maritime elements in the narrative also highlighted the limitations of the WHC in extracting the relevance of historic Galle to multiple stakeholders. In the Sri Lankan example, national heritage management frameworks made provisions for the protection of MUCH but, within the context of the development of the 2001 Convention on the Protection of Underwater Cultural Heritage. MUCH narratives associated with Galle were shaped by the heritage layer that had been selected as significant in the WHS. The history of Europeans in South-East Asia was supported by the existence of a European shipwreck (Fig. 1.2).



Fig. 1.2 The 'Black Fort' in Galle, Sri Lanka is amongst the earliest remains of the Portuguese maritime colonial expansion in the 16th Century © Robert Parthesius 2000

Experts applauded the establishment of the Foundation and encouraged the stakeholder-rich organization to play a greater role in coordinating management. However, despite the broad and inclusive set-up of the Foundation, the international heritage experts repeatedly considered its efforts insufficient to meet UNESCO's requirements. Expert mission in 1998, 2001 and 2002 noted the slow uptake of conservation recommendations resulting in "serious deterioration and deformation of the existing cultural-historic fabric" and the poor state of "the main historic buildings" (UNESCO 1999, 2001, 2005).

The 2004 tsunami delivered a devastating blow to Galle and the World Heritage Site. Construction and reconstruction work following the tragedy needed to address not only the heritage challenges, but also the socio-economic fallout that flowed in the disaster's wake. For UNESCO, the conservation of the World Heritage Site was paramount. Although Sri Lankan stakeholders had committed to, and implemented, a site rehabilitation program, UNESCO was anxious that new building works such as a cricket stadium and the expanding modern port, both crucial to the socio-economic reconstruction of Galle, were encroaching into the WHS buffer zone and impacting on the visual aesthetics of the site. An apparent lack of regulation of building and renovation activities within the site boundaries raised further concerns (Boxem et al. 2012). According to UNESCO these challenges stemmed from problems in the planning and buildings permission processes, a lack of professional capacity and monitoring ability on site, a lack of advice and guidelines for private and public owners, a lack of a strategy for tourism, and a lack of archaeological and historic research on which to base conservation decisions. Furthermore, UNESCO's World Heritage Centre lamented the lack of a comprehensive conservation management plan. Despite efforts by Sri Lankan authorities including the Galle Heritage Foundation to draft and submit management plans, conservation strategies had not been approved by the World Heritage Centre by the time of writing (mid-2017) (Fig. 1.3).

The Foundation's recognition of the importance of the wreck of the *Avondster* in the Galle WHS brings some of the shortcomings of both the WHC and the Convention on the Protection of Underwater Cultural Heritage into focus. The site's history is deeply rooted in, and reliant on, maritime connections across the globe, yet management of the wrecks of the ships that facilitated these connections are not part of the WHS framework. The Convention on the Protection of Underwater Cultural Heritage, on the other hand, provides protection for submerged sites, but does not recognize the meanings of sites within a broader heritage landscape. Neither convention offers an opportunity to contextualize MUCH and the global links created by maritime activities.

The inscription of Galle onto the World Heritage Register raises the question about UNESCO's emphasis on the preservation of architectural colonial heritage and the implementation of western management principles. To what extent has the international community of experts managed to establish a dialogue with the local heritage practitioners? How does the focus on a singular grand narrative which is exclusionary and renders static understanding of the past influence the socio-political development and change of the site?



Fig. 1.3 With the support of international partners Sri Lanka built capacity in Maritime and Underwater Cultural Heritage Management. On the historic jetties, the Maritime Archaeological Unit established their conservation laboratory © Robert Parthesius 2001

1.4.2 *Tanzania*

The Stone Town of Zanzibar

The Stone Town of Zanzibar was unsuccessfully nominated to be inscribed in the World Heritage List in 1982. The reasons for the decision of the sixth session of the World Heritage Committee “that the Old Stone Town of Zanzibar which had been nominated by Tanzania should not be considered further for inclusion in the World Heritage List” (UNESCO 1982) are unclear from the meeting minutes, but the need for the establishment of the Stone Town Conservation and Development Agency (STCDA) in 1985, in line with Zanzibar’s move towards inscription of Stone Town on the World Heritage List appears to indicate that the absence of a UNESCO approved management authority and conservation management plan may have contributed towards its rejection.

Tanzania’s application was finally successful and in 2000 Zanzibar joined the prestigious community of world heritage sites (Hitchcock 2012). Stone Town was inscribed on the basis of criteria ii, iii and vi (whc.unesco.org):

(ii) to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape-design: - The Stone Town of Zanzibar is an outstanding material manifestation of cultural fusion and harmonization.



Fig. 1.4 The roadstead at Zanzibar Stone Town World Heritage Site. The slave trade is an important component of both the World Heritage and the Maritime Heritage narrative. © Robert Parthesius 2010

(iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared: - For many centuries there was intense seaborne trading activity between Asia and Africa, and this is illustrated in an exceptional manner by the architecture and urban structure of the Stone Town.

(vi) to be directly or tangibly associated with events or living tradition, with ideas, or with beliefs, with artistic or literary works of outstanding universal significance: - Zanzibar has great symbolic importance in the suppression of slavery, since it was one of the main slave-trading ports in East Africa and also the base from which its opponents, such as David Livingstone, conducted their campaign (UNESCO 2000; ICOMOS 2000) (Fig. 1.4).

Efforts to implement a management plan after inscription were only partially successful. A 2011 assessment by experts deployed to Zanzibar by the World Heritage Committee concluded that interventions to counteract the decay of the historic fabric of the site had fallen short and that the Stone Town should be placed on the list of World Heritage in Danger should Tanzanian authorities fail to address the challenges (Hitchcock 2012). A 2013 mission report concluded that management interventions may have negatively impacted on the Outstanding Universal Value of the property rather than ensured its conservation. ICOMOS missions concluded that a 'lack of adequate management and development control at the property as a whole,' resulting in 'serious concern that the current conditions at the property have remained largely unaddressed, with no significant progress having been made in terms of reversing the decay in most of the building stock in spite of

recommendations by the Committee over several sessions since 2007 ... would warrant considering inscribing the property on the List of World Heritage in Danger' (UNESCO 2014).

As was the case in Sri Lanka, the criteria for the nominating of Stone Town as a WHS highlighted the significance of maritime and underwater cultural heritage in the formation of the site and in its historic development but could not include submerged cultural resources in the management framework. The dynamic maritime culture that exists on the island is rooted in maritime histories and traditions. The sea still pays a significant role in Zanzibari identity but goes unrecognized in the authorized cultural narrative that defines the site.

As had been the case at Galle, expert missions failed to recognize the challenges of establishing a management strategy that addressed both conservation needs and the demands of a dynamic, living heritage site that must accommodate the daily requirements of its inhabitants. Despite lamenting the lack of support by stakeholders who actively participated in, and contributed to, site development, heritage experts deployed by the World Heritage Centre continue to criticize the management efforts of the STCDA for not meeting the demands of a conservation strategy focused on the tangible fabric of the site (Fig. 1.5).

In the absence of a clear legal structure for the protection of MUCH in Tanzania, the 2001 Convention on the Protection of Underwater Heritage would provide an important framework for MUCH management and may serve to raise awareness of this aspect of Zanzibar's history. While the absence of legislation has not resulted in



Fig. 1.5 Decorated dhow at shipyard outside Stone Town. Maritime traditions are still a dynamic part of the intangible heritage on Zanzibar © Robert Parthesius 2009

significant impacts on submerged sites, as has been the case in Mozambique, it, together with the WHS emphasis on the built environment, means that maritime heritage is downplayed and appears to receive little public attention.

1.4.3 Mozambique

Mozambique Island

Mozambique Island is inscribed on the UNESCO World Heritage List on the basis of the criteria iv and vi:

(iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history: - The town and the fortifications on the Island of Mozambique are an outstanding example of an architecture in which local traditions, Portuguese influences and, to a somewhat lesser extent, Indian and Arab influences are all interwoven.

(vi) to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance: - The Island of Mozambique bears important witness to the establishment and development of the Portuguese maritime routes between Western Europe and the Indian sub-continent and thence all of Asia (Fig. 1.6).



Fig. 1.6 Entrance to the Capitania at Mozambique Island World Heritage Site. This former naval base is the Island's tangible connection with a maritime landscape connecting Europe, Africa and Asia © Robert Parthesius 2014

After inscription onto the World Heritage List in 1991, Mozambique Island struggled raise the capital required to conserve buildings and infrastructure on the site. In 1993 and 1994 UNESCO's assessment missions noted with concern the deterioration of the buildings in the stone town on the northern end of the island. In response, the State Party developed a detailed program for the rehabilitation of the Island, including a strategy to address aspects such as infrastructure, social, economic and cultural development, tourism, housing, education and archaeology. In the Mozambique instance, UNESCO recognized the need for a strategy that addressed social challenges of a living heritage site as well as conservation needs, but again appeared to adopted a top-down exclusionary management approach. UNESCO recommended that an international funding specialist and a conservation architect oversee restorations to the buildings of the stone town (UNESCO 1993, 1994b). A 1995 expert mission provided an outline of a comprehensive integrated sustainable conservation and rehabilitation program for the period 1995–2000, which was to be funded by external donors. As in Sri Lanka and Zanzibar, projects focused on the built environment and included re-adapting the fortress for commercial use and the upgrading or restoration of monumental buildings, including the palazzo, the Custom's house, the warehouses, the church of Misericordia, the School of Arts and Crafts, the mosque, residential structures in the Stone Town, the market place, and the hospital. Non-heritage infrastructure, as mentioned above, was also to be upgraded (UNESCO 1995). In 1996 with assistance of the World Heritage Fund, UNESCO presented a comprehensive and detailed action plan entitled 'Mozambique Island – an agenda for sustainable human development and integral conservation' to the Mozambican authorities outlining their vision for the Island. Although it foresaw the establishment of a national steering committee to coordinate various ministries and their respective departments in achieving conservation and development goals, the goals themselves were determined by western experts. The new comprehensive social and economic program for the island had two main aims: The rehabilitation of the human settlement regarding infrastructure, education, health, and the inclusion of an overall cultural component, consisting of cultural tourism, a handicrafts program, centers for artists and creative arts, maritime archaeology, the enhancement of national heritage legislation, and the physical restoration of the cultural heritage. (UNESCO 1997).

The program required the establishment of a UNESCO office on the Island, the secondment of international experts to oversee conservation and development goals, and funding from international donor agencies and foreign governments. Conservation focused on the colonial infrastructure of the island, including the San Sabastian fortress, identified buildings in the stone town and other selected sites as described above as well as infrastructure for water and sanitation, electricity, transport and communication.

Despite UNESCO's interventions, many buildings in the stone town continued to deteriorate and were on the brink of collapse (UNESCO 2006). It was noted with concern that the approach had led to the local perception that UNESCO owned the site and was thus responsible for initiating action (UNESCO 2007b). Island stakeholders felt disenfranchised and excluded from the site and the narrative that had

been produced. It was, however, noted that the people on the island were enthusiastic and willing to participate in the rehabilitation of the site and the conservation of the island's heritage.

The State Party established a Cabinet of Conservation of Mozambique Island (GACIM) to manage the site but expert missions continued to submit poor reports and by 2008, Mozambique Island was in danger of being placed on the List of World Heritage in Danger. In response, the Mozambican authorities prepared an emergency plan that could be put into action by the GACIM (UNESCO 2008). Subsequent assessment missions in 2009 and 2010 noted steady progress in addressing the issues that had had been identified (UNESCO 2009, 2010). By the end of 2010, Mozambique Island was no longer being considered for the List of World Heritage in Danger (UNESCO 2010).

Notwithstanding the gains, the missions noted some serious problems in relation to the transformations of urban space in the Macuti town affecting both the urban layout and traditional layout of individual houses. The use of modern building materials, made necessary by the growing scarcity of the traditional building materials, were deemed to be affecting the authenticity of the property. To mitigate this, it was proposed that residents be relocated to newly established residential plots. Again, it appeared that UNESCO desired the preservation of the tangible heritage at any cost and that local voices were to be excluded or ignored.

UNESCO has, however, begun to recognize that there are problems with its approach and has made efforts to integrate multiple perspectives into the OUVs of WHS. In this vein, Mozambique Island retrospectively adopted a statement of Outstanding Universal Value in 2015 that begins to acknowledge the alternative heritage narratives (UNESCO 2015) (Fig. 1.7).

Included in this has been the maritime nature of the Island. However, while the role of the maritime past in the Island's development is contained within the criteria for nomination of the site for inscription onto the WHS register, the sites associated with this maritime past are not included in the WHS itself. In the Mozambican instance this has had dire consequences for the shipwreck sites that surround the Island. The issuing of permits for the commercial salvage of historic wrecks has resulted in significant loss of cultural remains. Excavation works have destroyed sites and dispersed objects into private collections across the globe without endowing the island community with the tangible links to their past. In addition, by removing the objects associated with wrecks around the island, salvagers have robbed local communities of opportunities for economic development through cultural tourism. Most significantly, the concessions granted to commercial salvage companies excluded local stakeholders from accessing the sites associated with the Island's history thereby breaking links to the past and devaluing maritime heritage. As is the case in Zanzibar, Mozambique Island has a vibrant living maritime history and exists within a landscape that is imbued with the vestiges of maritime activities, including, for example, shipbuilding traditions, intangible maritime history, and a fishing-based economy. Interviews with island residents have showed that perceptions of the value of this heritage have been diminished through exclusion and non-recognition (Sharfman 2017).



Fig. 1.7 Fishermen repair their nets at Mozambique Island World Heritage Site. Past and ongoing maritime traditions should be an integral part of heritage narratives © Robert Parthesius 2015

1.5 Global Management Strategies

The focus of management strategies can be understood through analysis of the evolution of management conservation plans, or lack thereof. All three WHS have faced similar problems in meeting obligations prescribed in the rules and guidelines and in the outcomes of monitoring by ICOMOS as an expert organization. All three sites appear to experience recurrent patterns in the challenges they face. These challenges appear to arise from static management practices derived from nomination documents/management plans that are proposed and sanctioned by ICOMOS. In particular, management plans tend to focus primarily on the built fabric of the sites. These elements require costly conservation and maintenance and are often perceived to be representative of a Eurocentric vision of the significant site elements. Periodic missions by ICOMOS continually raise and critique the insufficiencies of the state parties' protection and management measures aimed at the built environment without examining management contexts or stakeholder perspectives. During the annual meetings of the World Heritage Committee the state parties get reprimanded and ordered to take measures under threat of having their WHS placed on the endangered sites list.

All three sites have experienced challenges to the management of their MUCH either as a result of absence of legislation or as a result of a devaluation of the character and significance of MUCH. While heritage practitioners have promoted the

need for ratification of the 2001 Convention on the Protection of Underwater Cultural Heritage, governments have been hesitant to accede to the treaty. This appears to be partly based on an unwillingness to take on the obligations of the Convention and partly because the value of MUCH is unrecognized. The former is based on capacity and economic constraints, but the latter may be a consequence of the Convention itself. As discussed, its (perceived) focus on a singular, shipwreck narrative based on age has excluded opportunities for multiple stakeholders to identify and express the MUCH layers that resonate most with them. In addition, the 2001 Convention fails to truly promote and value the significance of MUCH. Instead, it states that MUCH is significant only if it is verifiably old – a stance that limits the inclusion of, for example, intangible heritage. The assignment of significance criteria that exclude MUCH sites in the WHS nomination process further promotes a particular layer of the past while obscuring others. The economic benefits derived from WHS status also play a role in promoting a dominant narrative at the expense of others.

To meet prescribed obligations and in their efforts to manage cultural resources both above and below the water, all three sites have had to accept external technical assistance and funding, often controlled by UNESCO or Western State Parties. Wrapped in capacity building, conservation, and community engagement programs the UNESCO/Western perspective and systems for management are established without addressing the specific problems attached to the socio-economic structure of the “living heritage site” and are not always sensitive to the cultural context (Fig. 1.8). (Pereira Roders and Grigolon 2015; Winter 2014)



Fig. 1.8 Flagstaff point at Galle World Heritage Site. Heritage education and local community perspectives are key for sustainable heritage management strategies © Robert Parthesius 2004

To illustrate the impact of disconnecting management strategies from local perspectives it is necessary to examine the contexts and management constraints at the case study sites. A primary challenge to site management at the three sites lies in site use. Galle, Stone Town and Mozambique Island are part of contemporary towns/cities in which people live and work. For many, the pursuit of livelihood takes precedence over the heritage fabric of the sites that make up the authorized heritage landscape. In addition, the narratives supported by the WHS and shipwrecks, may be of varying significance to local populations. By focusing on the Dutch period buildings at Galle, for example, the World Heritage Committee-approved management strategy takes a western heritage management stance that deals specifically with preserving structures in a manner that satisfies a particular version of “authenticity” pinned to a period of Dutch occupation of the site. The approach results in a static interpretation of the past (Labadi 2010). This may not tally with the heritage of current city populations. In the same way, the focus of commercial salvors, maritime archaeologists and heritage managers on shipwreck sites means that western management principles, including *in situ* conservation and limited access to sites and objects, have been the primary strategies applied to MUCH identification and management strategies.

Materials conservation, heritage architecture or maritime archaeology are specialized practices in which western-educated practitioners serve as gatekeepers. In living heritage sites where residents use, and potentially alter sites for contemporary activities there is a need for the application of local knowledge systems and conservation processes. Often such practices utilize available materials and may replace rather than conserve deteriorating architectural features in order to adapt to contemporary social needs. Within the UNESCO management framework, such practices are seen as impacting on the authenticity of sites and altering the narratives associated with them.

At Galle, conservation strategies advocated by UNESCO’s missions and management strategies might have intensified problems related to broad-based stakeholder ownership of the site. Large numbers of resident and non-resident expatriates and hoteliers have invested in property in the fort, attracted by the “museulization” of the old town. (Samarawickrema 2012). This has resulted in the original population being driven out and has further supported the restoration of the site to reflect a narrow vision of Galle’s colonial period. Through gentrification, the narratives that reflected Galle’s position in a vast, multi-cultural network of traders and societies are diminished. In such instances, where stakeholder voices are excluded from narrative development, UNESCO and heritage experts become the sole heritage producers.

The exclusion of local stakeholders from heritage spaces and heritage production limits access to the benefits of good heritage management and site conservation that the 1972 and 2001 Conventions seek to promote. In the absence of visible economic advantages for Mozambique Island residents, management strategies aimed at both the terrestrial built fabric and the submerged sites have been seen as being in conflict with development goals. The suggestion that the reuse of buildings for commercial purposes or the opening of access to wreck sites, and the potential economic

benefits associated with it, should be abandoned in favor of the heritage sites is frustrating for many. While historic Mozambique Island is celebrated as a globally significant historic crossroads of cultures by heritage practitioners, modern Mozambique Island is condemned for the same reasons.

As is observed to varying degrees at many non-western sites, the approved management strategies for all three case study sites have necessitated the inclusion of a network of western or westernized experts and high-level State Party representatives vetted by the academe, UNESCO, ICOMOS and the World Heritage Committee. Individuals assessing sites within the policy framework of the 1972 and 2001 Conventions tend to exclude stakeholder, non-practitioner and local input. Wijeratne (2005, p. 6) provided a striking example in his interaction with the World Heritage Centre's visit to Galle after the tsunami had hit. "We [the conservators of the site] thought we had a glorious opportunity at gaining encouragement and moral support for our work. We thought that they [the people from UNESCO] would take the trouble to meet the planners involved in the preparation of development proposals for Galle, the Galle Heritage Foundation and ICOMOS Sri Lanka. Unfortunately, they met only the government officials from the Ministry of Culture and National Heritage during the deliberations, and hence the report they prepared is not conclusive. We would in the future like to see the participation of all stakeholders in these visits so that the authoritative reports that are compiled as a result will be more comprehensive. We all know, that in most countries, the vision of the salaried officials of the state is not always what is best for the culture and its cultural heritage". This approach was further illustrated by UNESCO's opposition to the construction of a cricket stadium – an activity at the core of community life in Galle and Sri Lanka as a whole – as it would obscure the view onto the heritage property.

Similar conflicts between heritage management and maintenance of living, evolving culture have been experienced at the three case study sites. However, as described, management focus has begun to shift in recent years and multiple perspectives are now being included in OUVs of WHS and in the interpretation of maritime cultural landscapes. Encouragingly, UNESCO's 2013 mission report on Zanzibar Stone Town included discussion, although brief, aimed at the integration of concerns raised by community stakeholders in 2012. While the majority of concerns focused on community rights to access parts of the Stone Town, some touch on the denigration of the intrinsic heritage values of the site caused by unregulated development (UNESCO 2013). Although the report's formal heritage industry phrasing of community concerns raises questions as to the extent to which local voices are adequately reflected, the tensions and challenges for management created by conflict between preserving Stone Town as an "authentic" eighteenth/nineteenth century city state on the one hand, and allowing current populations to determine the evolution of the place in which they live and work, is evident. This is not to say that local stakeholders did not value the fabric of the site, but rather that they valued it for different reasons (Rajapakse 2013; Hitchcock 2012).

The STCDA conceded that the management of Stone Town was complex, that the project was subject to multiple forces, and that economic pressures that might be offset by commercial and touristic needs must be given due consideration. To

accommodate these, necessary upgrades of the port and hospitality sector infrastructure are required (ICOMOS 2013b, p. 8).

Recent developments at Mozambique Island support the proposition that there are positive shifts in management thinking. Despite being nominated to the World Heritage list based almost exclusively on European heritage significances in 1991 (only two lines in the preamble of the ICOMOS recommendation refer to African and Arabian presence on the island), the Mozambican authorities, together with partners, have provided a space for diversification of narratives. The recently adopted retrospective SOUV begins to recognize contributions and role of non-western culture not only to the development of the island but also to global maritime trade. In addition, the approved conservation management plan for the island seeks to preserve the integrity of both the tangible heritage as well intangible heritage elements, many of which are only now beginning to be explored.

The same is true within the MUCH context. Community participation in both heritage management and heritage production has been placed at the top of the strategic MUCH management agenda. Community monitors have been trained to dive so that they can access submerged sites and have been designated as custodians of MUCH resources. While expert input is still provided, it has been shifted to a supporting role. Local stakeholders are beginning to identify and present alternative narratives that have thus far been on the periphery. Heritage professionals from Mozambique are the first respondents in instances where skills that are not available in the local community are required. International expertise is requested, and provided, only when national capacity is absent. This approach does not exclude international investigators from conducting research at the island, but ensures local participation and local management voices are always present.

The impact of the “old” UNESCO accredited management system remains evident at Mozambique Island. The challenge of transferring ownership to stakeholders is perhaps paramount in this regard. The perception that UNESCO or authorized heritage practitioners own the site and are, therefore, the decision-making authority must be changed. This, as will be argued below, will create opportunities for resident stakeholders to trade places with heritage experts to tap into the economic and social benefits envisaged by the 1972 Convention and, to a lesser degree, by the 2001 Convention.

The perspectives of UNESCO and the State Party and even the distant stakeholders (former colonizers) of World Heritage Sites and shipwrecks are well documented through the bureaucratic record keeping of the formal heritage industry, but local communities are often disenfranchised. There is a recognized need to create an open platform for community voices to be heard in heritage creation and the management of the past. This core concern of Critical Heritage Studies was recognized by UNESCO as the fifth “C” (community) in the Budapest Declaration in 2007, following which many initiatives have been undertaken in order to work inclusively and prioritize local community perspectives (UNESCO 2007a). In all case study sites, the recognition of the need for inclusion of local perspectives has come relatively late in the process. Examples of the stakeholder groups that were formed in Galle (Galle Heritage Foundation), Stone Town (Stone Town Development and

Development Authority / Women Reclaim Space on World Heritage) and Mozambique Island (Association of Mozambique Island, GASIM) illustrate such efforts.

1.6 What Discussions Are Emerging from Current Research and Approaches?

Despite many initiatives and official strategies, UNESCO has not yet proven to be an efficient change agent. After decades of discussions on fundamental issues like recognizing intangible aspects of heritage (UNESCO 2003) and the safeguarding of cultural diversity (UNESCO 2005) in a globalizing process, UNESCO opted to diversify its Conventions instead of amending existing treaties (Labadi 2013; Smith 2015). The challenges of drafting new conventions are highlighted by the 2001 Convention on the Protection of Underwater Cultural Heritage. While this Convention is arguably inclusive of multiple elements of the underwater cultural heritage, the dominant focus on shipwrecks that has been observed in its implementation provides another example of the persistent Eurocentric perspective on global heritage. The Convention grapples unsuccessfully to assign significance to MUCH that resonates broadly.

The resultant gap between western/global heritage values and local stakeholders has had negative consequences. On a practical level, many countries and local heritage authorities are unable to compete on the western-focused heritage playing field and, have given up nominating new WHS as a result. For developing countries, it is especially difficult to strike the balance between the conservationist principles of UNESCO and the social and economic development needs of a region.

These challenges are of particular relevance to the authorities tasked with the management of historic port cities such as those outlined in the case studies. At sites where communities continue to live, management decision-making must weigh up methodologies to find the best way to serve both heritage protection and community development while at the same time implementing the right strategies to retain World Heritage status. Often such strategies reduce the heritage sites to a resource for the international tourist industry which ultimately leads to further gentrification based a nostalgic view of the past and further separates communities from their history. This process of attenuation of cultural diversity in turn leads to reduction of broader development opportunities.

This ongoing institutional mindset is reflected in the Grand Narratives of these sites, rooted in both fixed criteria for outstanding and universal values and the national political and economic agenda of state parties, leads to sanitization of the past. The implications of the World Heritage Program for these historic port cities illustrate the struggle between UNESCO's heritage principals and the practical capacity and developmental needs of the various stakeholders. This makes us question whether it is possible that these universal values are shared or contested due to the multi-layered complexity of the sites? How do heritage managers at all levels

deal with these complexities created by an international stakeholder base? Are the current communities that are linked with ‘living heritage sites’, such as those described in the case studies, the most entitled stakeholders, or should their way of living and their development needs be made secondary to the Eurocentric idea of authenticity and integrity? Would it be possible to change the system from within? Does the World Heritage Program first need to be “decolonized”?

1.7 Incorporating Shipwrecks into Maritime Cultural Landscapes: Some Thoughts on an Alternative Approach

The challenges of relevance and significance ascribed to MUCH, and shipwrecks in particular are clearly illustrated by efforts to implement an approach based on the 2001 Convention at case study sites. At Mozambique Island and Galle, the relevance of shipwreck sites and subsequent actions aimed at management and research has been determined by outside factors. In Mozambique, treasure hunters have identified wreck sites that satisfy their goals and in Sri Lanka funding has determined which wrecks are given prominence. In the case of the *Avondster* the desire of Dutch funders to promote their own heritage interests added to the development of a context in which the maritime historical influences on Galle are portrayed. While maritime influences are recognised elements within the universal values assigned to the WHS, the known shipwrecks have driven the official narratives in a particular (Eurocentric) direction.

The challenge of overcoming the notion that maritime heritage in the Indian Ocean is shipwreck focused and European, can be addressed by re-contextualizing the resource and expanding it outside of the confines of the 2001 Convention. UNESCO forms a closed, distant agent within heritage creation and management that helps the world to develop long-term strategies around the idea of universalism from a theoretically non-partisan perspective – the same identification and management principles are applied to sites irrespective of their location or management authority. Yet the nationalistic set-up of state level implementation of both the World Heritage Convention and Convention on the Protection of Underwater Cultural Heritage prevents practitioners developing approaches that are truly universal. A Critical Heritage approach, with priority given to the (current) local community also produces a methodology that is too narrow. The term “local community” may in itself be problematic at living heritage sites. Because the population of these historic port cities is dynamic and has changed significantly over time, “local” could refer as easily to the local elite who often take the initiative for nomination but are not necessarily connected historically to the site as to current populations with direct ancestral links (Hitchcock 2012). I would argue that these site types in particular have a very broad pool of stakeholders who are capable and entitled to contribute to site identification, interpretation and management under a genuinely universal approach (Fig. 1.9).



Fig. 1.9 Past meets present: Abandoned Portuguese fort with local dhow at Kilwa Kisiwani World Heritage Site, Tanzania. © Robert Parthesius 2008

Segments of the stakeholder community currently have limited or no access to the heritage creation and management process. Stakeholders are be further divested of access by the processes of heritage management. As we have seen, the priority of the World Heritage Program still lies in the preservation of the architectural fabric of sites or cities even at the cost of the existing social fabric and the cultural and economic development of communities. The same is true for the shipwreck-dominant perspective of MUCH. The work of UNESCO as the “authorized” organization for the determination of heritage significance often culminates in standardizing and calcifying meanings and interpretations, stripping them of their multiple voices and their ever-changing, multifaceted and grassroots values and modes of appreciation. Synergy between the various conventions has so far not been successful in making a shift from the Eurocentric/nationalistic approach to a one that acknowledges the diverse and more fragmented heritage values and narratives.

A much better vision on the concept of heritage could be achieved by thinking of heritage values as a complex and dynamic landscape. By recognizing the illusion of the concept of pre-existing heritage and by understanding that heritage is in fact made by people in an ongoing social process that assigns contextual values and meanings to specific sites, histories, and practices, it becomes increasingly accessible from multiple perspectives and narratives (Smith 2006). From this position it could be argued that, given that the case study sites were longstanding cultural hubs

long before being canonized, UNESCO policy may even be a threat to the preservation of that living tradition of cultural exchange and cultural diversity – the true core value and significance of these sites.

Current research and work, including culture and development programs (often classified as capacity building), in Asia and Africa has revealed this often contested nature of heritage interpretation and the limitations of the current Eurocentric management approaches that neglect or dismiss local and indigenous knowledge systems. From this experience the concept of an open definition and a complex heritage landscape that exists on multiple levels has been developed. The model offers opportunities to experiment with ways of recording narratives (including management systems) and with ways of making them available for the continual evolution of heritage “montages”, uses and (re)conceptualizations that an integrated heritage approach requires. This process also allows for an expansion of data collection, archiving and display practices.

This book examines the current position of MUCH in States on the historic trade routes in the Indian Ocean to determine how an approach encouraged by UNESCO and the 2001 Convention has impacted on the development of maritime archaeological practice and MUCH and how non-western states have developed their MUCH management and engagement strategies to individual and unique contexts.

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Chapter 2

The Development of the Maritime Archaeology Unit, MUCH Management and Current Research Projects in Sri Lanka



Rasika Muthucumarana

2.1 Introduction

Like many other countries, underwater archaeology in Sri Lanka had its roots in treasure hunting and the informal recovery of artefacts from shallow waters. In the early 1960s, sports divers Arthur C. Clarke, Mike Wilson and Rodney Jonklaas' chance discovery of silver coins on a wreck near the Great Basses lighthouse shone a spotlight on this field. It was called the "Silver Wreck" because it was carrying sacks of Mogul silver coins minted in Surat, India and dated 1702. (Clarke 1964: 19–21). Since its discovery, many silver coins from the wreck have been taken out of Sri Lanka and sold. While a few are now in foreign museums, the great majority were stolen and ended up in private hands or in jewellery. Even today, coins are sometimes being secretly sold in Sri Lanka. In his book the "The Treasure of the Great Reef" (1964), Arthur C. Clark describes in detail not only the treasures recovered, but also the complexity of legal ownership of the salvaged artefacts. The interest generated by this incident made the Sri Lankan government and scholars think about the positive contributions that could be made by the nation's underwater cultural heritage, and recognize the need for this type of heritage to receive special attention. (Fig. 2.1).

The discovery of the Silver Wreck and subsequent looting of this and other wreck sites during the 1970s stimulated authorities and practitioners to examine their underwater cultural heritage management and legislative frameworks (Devendra and Muthucumarana 2013). While the Merchant Shipping Act of 1971 allowed the State to lay claim to all abandoned wrecks in Sri Lankan territorial waters, archaeologists with innumerable sites on land could pay little attention to maritime archaeology. Scholars and government officials therefore recognized the need to amend

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Fig. 2.1 Silver coins from Great Basses Reef (1702) © Rasika Muthucumarana

legislation and proposed establishing a separate dedicated group to carry out the tasks of researching, managing and protecting underwater cultural resources. With the promulgation of the National Aquatic Resources Research and Development Agency Act (no. 17 of 1981) maritime archaeological sites were identified as “national aquatic resources” (Section 42¹) and the National Aquatic Resources Agency (NARA) was tasked with managing wreck sites. NARA’s expanded mandate encouraged the formalisation of capacity for maritime archaeology and underwater cultural heritage management and the agency arranged workshops around the presentation of academic papers on maritime archaeology and maritime history to motivate stakeholders to initiate dialogues on the subject.

The first of these occurred in 1986. At the *First National Archaeological Congress of the Post Graduate Institute of Archaeological Research* (PGIAR), P. U. Weerawardhana, of the Department of Archaeology, presented a paper entitled ‘A Theoretical Framework for Maritime Archaeology and the Maritime History of Sri Lanka’. In 1990, to celebrate the centenary of the Department of Archaeology, two maritime archaeologically themed papers were presented: one by M. Redknap on ‘Developing Programmes for Maritime Archaeological Survey’, and another by Devendra, Jayatilake and Fernando on ‘The Search for the Maritime Heritage’. The presentations and discussions created enthusiasm for underwater cultural heritage and helped to raise awareness of the field. Non-professional groups, including the Maritime Heritage Trust of Sri Lanka and the Sri Lanka Sub Aqua Club actively supported the early initiatives taken by government and their members volunteered for projects to, for example, raise and conserve, using traditional drying methods, an

¹ “aquatic resources” means all living and non-living resources contained *in or beneath* the medium of water [my italics].

ancient log boat discovered by gem miners at Kuru Ganga. The Sub-Aqua Club began training divers at Galle harbour. This led to the discovery and examination of several shipwreck sites near Galle. By the close of the 1990 conference, it was clear that formal governmental regulation of activities would be a requirement if maritime archaeology was to continue to develop. The Archaeological Department's *Centenary Seminar* concluded by adopting a resolution:

"... which recommended that the Archaeological Department, at the start of its second century, establishes a maritime archaeology unit with all the necessary statutory powers to assume control of and to initiate all maritime archaeological activity in the country" (Devendra and Muthucumarana 2013: 52).

The resolution further proposed that the unit interact with all relevant stakeholders. In addition, the interest generated by these papers led Prof. Seneka Bandaranayeke, Director of the PGIAR, to call an informal meeting of divers, archaeologists and enthusiasts from other disciplines to formulate an action plan. Among the participants were two associations: The Maritime Heritage Trust of Sri Lanka (MHT) and the Sri Lanka Sub-Aqua Club (SLSAC). Also present was the National Aquatic Resources Authority, which set up an inter-Ministerial Committee on shipwrecks to prevent the destruction of underwater cultural heritage and to propose and draft a legislative framework to regulate maritime archaeological activities through amendment of the Antiquities Ordinance (no. 9 of 1940). Although the proposal was approved at ministerial level, it would not reach Parliament until 1998 when the Antiquities (Amendment) Act (Act 24 of 1998) was passed thereby transferring control of archaeological work within Sri Lanka's territorial waters to the Archaeological Department (Section 3, Section 16 (1) and (3)). NARA's assigned task was a difficult one as there were close to fifteen government institutions involved one way or the other in managing marine resources, including the Department of Archaeology, the Central Cultural Fund, the Post Graduate Institute of Archaeology and, as an external stakeholder, the Maritime Archaeology Department of the Western Australian Maritime Museum.

The purpose of bringing together an array of stakeholders was not just to develop management strategies, but to pool their resources to assist in establishing a multi-purpose project (later known as the Galle Harbour Project) with the primary aim of training maritime archaeologists and providing conservators with skills specific to maritime archaeology. Additionally, the project would compile a database of the shipwrecks of Galle Harbour. While a lack of funds continued to inhibit immediate positive action (Devendra 2006: 34–49), the project enabled Sri Lanka to begin the implementation of a research and training programme for capacitating archaeologists and practitioners who would form the core of a broad national underwater cultural heritage initiative without waiting for legislation to be finalized. The project allowed a team of specialists from the Western Australian Museum's Maritime Archaeology Department, led by Jeremy Green, and their Sri Lankan counterparts to begin work at the historic port of Galle on the south-western coast of Sri Lanka. The programme for capacity building and the collection of data relating to submerged archaeological sites initially focused on conservation of waterlogged finds (1992–1993), then expanded to include diver training (1993–4) and finally full



Fig. 2.2 Conserving a stone anchor found from Galle Harbour © Patrick Baker

excavation of a shipwreck site after 1996. Excavation training also included a magnetometer survey of Galle Harbour and the inspection of located wreck sites in 1996 and 1997. As the project progressed, the Department of National Museums provided premises for the creation of a conservation laboratory and exhibition space (Devendra and Muthucumarana 2015). For Sri Lanka, the Galle Harbour project marked the start of its globally recognised maritime archaeological programme and warrants further discussion. (Fig. 2.2).

2.2 Galle Harbour Project 1992–1998

The Galle Harbour Project was initiated in 1992 with the prime objective of training a core group of maritime archaeologists. Training was directed by Jeremy Green with assistance from other maritime archaeologists from Australia, and in conjunction with Sri Lankan counterparts made up of a team of amateur divers from the Sri Lanka Sub-Aqua Club, led by the late Gihan Jayatilake, and a team of divers from the Sri Lankan Navy. Training in conservation of waterlogged objects, scientific recording, underwater photography and setting up of a conservation laboratory was also carried out.

Following a visit to Galle in 1996, the Hon. Lakshman Jayakody, then Minister of Cultural Affairs, realized that a harbour development project taking place in the area would have an adverse on effect historic wrecks. He issued instructions that Galle Bay be surveyed for shipwrecks before a new port was built there (Devendra

2006: 34–49). The funds were allocated, and the work was undertaken by a Sri Lankan-Australian team. The Central Cultural Fund provided most of the conservators and archaeologists as well as the facilities for this work. The whole seabed of Galle Bay was surveyed using a Side Scan Sonar and a magnetometer. During these remote sensing surveys, the multi-national team located 26 significant sites out of the 160 identified anomalies (Devendra and Muthucumarana 2013). Amongst these sites were pre-colonial stone anchors, European ships from the seventeenth and eighteenth centuries, more modern ships and other important isolated objects such as cannons, ceramics and anchors (Devendra and Muthucumarana 2013; Devendra and Muthucumarana 2015). It is significant that even at this early stage, Sri Lanka recognised that its maritime heritage extended beyond just the shipwrecks. In assessing the maritime archaeological potential of Galle Harbour, the project therefore included the harbour itself, the European fort and other cultural heritage associated with Galle in its heritage inventory (Green, Devendra and Parthesius 1998).

Of the sites identified during the Galle Harbour Project, one wreck site was of particular interest to the research team. In 1993, harbour upgrades and storm water runoff had exposed the *Avondster*, a Dutch ship wrecked in 1659 (Parthesius, Millar and Jeffery 2005; Parthesius 2007). Since the site was potentially under threat from coastal erosion, a decision was taken to implement a rescue archaeology programme that could serve both to conserve the site and to facilitate training for the expansion of capacity in Sri Lanka's developing Maritime Archaeology Unit (MAU) (Parthesius et al. 2003; Devendra and Muthucumarana 2013).

From a legislative standpoint, it is important to note that the Archaeological Department's management authority did not extend to the sea at this time, although, it did have management powers over internal waters including lakes, rivers and lagoons, all of which were considered to be part of the land. As mentioned above, the amendment to the Antiquities Act which finally gave the Director-General powers to conduct archaeological work in Sri Lanka's territorial waters occurred only in 1998, the same year that the Galle Harbour Project concluded.

2.3 Formation of the Maritime Archaeology Unit and the *Avondster* Project 2000–2004

The *Avondster*, wrecked on 2 July 1659, is an important site for many reasons. The wreck site itself is a time capsule in every sense of the word and was an ideal training site for future scholars. Additionally, it was a fine example of shared heritage between Sri Lanka and the Netherlands. It also had links to England, in that the 30 m long, two-decked ship was originally an English vessel that had been captured and modified by the Dutch for use on the Batavia–Netherlands run. (Fig. 2.3).

The vessel first appears in the records in 1641, when she was bought by the English East India Company and renamed from *John and Thomas* to *Blessing*. The *Blessing* made two return voyages between Europe and the East before being



Fig. 2.3 Participants of the Avondster Project (2001–2004)

deployed to the Asian regional trade routes around 1645, making only one more voyage to England in 1650. The ship was captured by the VOC in the waters around Persia in 1652 after the outbreak of the Anglo-Dutch War and was sent to Java where she was renamed *Avondster*. In 1654 she was sent to the Netherlands, where she stayed for a few months, possibly being refitted and modified. In 1655, she was recommissioned for trade in Asian waters. After a long career, and with repairs becoming costly, the aging ship was relegated to short-haul coastal voyages in the service of the Dutch East India Company, and was finally wrecked on 2 July 1659 while anchored in Galle Harbour (Green et al. 1998:21–26,50–60; Parthesius et al. 2003).

When the shipwreck was discovered in 1993, the main features of the *Avondster* that were visible were some iron cannons, an iron anchor with wooden stock still attached to the shank, the remains of a typical Dutch ship's galley made of brick with lead sheeting, and many other artefacts. A strategy for a maritime archaeological excavation was drafted to safeguard the site and, in light of the adoption of the 2001 Convention in the Protection of Underwater Cultural Heritage, was designed using the Articles and Annex of the Convention (Devendra and Muthucumarana 2015). An underwater archaeological unit was to be formed in Galle on a permanent basis to carry out the work of a “competent authority”. Funding, primarily allocated to undertake a capacity-building exercise for maritime heritage management, was provided by the Netherlands Cultural Fund, (Parthesius et al. 2003:4–5). The Customs and Excise building and facilities in the old city of Galle were handed over

to the CCF by the Department of Archaeology in 2001. The *Avondster* Project itself began that same year.

The project was a fine opportunity for many of us to start becoming involved with, and proficient in, this new field. The wreck lies in shallow water very close to the dive station, providing opportunities for novice and amateur divers alike. Because of this, we had more time for training and fieldwork programs. The Avondster project also provided funding for the experts, advanced training and equipment that supported our efforts.

The site was surveyed, recorded and excavated systematically. Because the aim was not only the excavation of the shipwreck, but also that the team was trained in different methods and theories, it was a slow process. Despite this, three major excavations were undertaken in the bow, stern, and amidships, respectively. During the excavation of the bow, a large quantity of coiled rope was located, protected by layers of sand. In addition, a collection of pulley blocks, wheels, deadeyes, and cannonballs were found. The rope and wooden artefacts appeared to be well preserved but, in fact, were quite vulnerable. Furthermore, the rope was spread all over the bow section, complicating the fieldwork. The excavation area was subsequently covered to protect the site for future research (Parthesius et al. 2003; Parthesius 2007).

In 2002 the regional advisor for culture noted the progress made with the *Avondster* project, the capacity of the Sri Lankan team trained by the Dutch and Australian partner institutions, and the facilities and equipment of the maritime archaeology unit. Realizing the opportunities that the site represented as a training venue, the regional advisor initiated discussions with officials of the Sri Lankan Government regarding the possibility of offering the MAU facilities to host regional training workshops in the conservation and management of the underwater cultural heritage as part of the Sri Lanka's contribution to the collaborative efforts of state parties as envisaged by the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage. (Fig. 2.4).



Fig. 2.4 *Avondster* (1659): Lifting one of the iron cannons; Anchor before conservation © Rasika Muthucumarana

2.4 A New Beginning: Starting After the Tsunami

At the end of 2004, which also marked the end of the *Avondster* Project, the premises of the MAU were devastated by a tsunami. The entire building and all facilities were destroyed, and 80% of the retrieved artefacts were reclaimed by the sea (Devendra and Muthucumarana 2015). Fortunately, the most important resource - the trained team - was spared, and all the data was intact as the backups were stored in the Netherlands. With the help of well-wishers from all over the world, particularly the Netherlands and Australia, and with the great commitment of Sri Lanka, the MAU was operational within three months in new premises in the Galle Fort, in the face of with many new problems and challenges, it took almost a year to fully reorganize and rebuild the Unit and establish research and field work programs. Most of the initial work was focused on documentation: putting old records and archives together, making artefact databases and monitoring shipwreck sites. From March 2005, the MAU team began to carry out field work and conservation work using exclusively local funds and local administration. Resources were provided by the Central Cultural Fund which, although operating under a Ministry, does not get budgetary support from the government. Instead, it depends on tourist ticketing to the cultural sites and undertaking archaeological and conservation projects to support its operations. (Fig. 2.5).

The MAU faced significant challenges between 2005 and 2008. As a developing country Sri Lanka had many other priorities, including economic issues such as unemployment, lack of investment and poverty. These problems were exacerbated by more than 20 years of war costing approximately 1.7 billion US\$ per year, and the developing global financial crisis, both of which served to counter the potential



Fig. 2.5 Conservation Laboratory © Rasika Muthucumarana



Fig. 2.6 Grape shot/Lead Muscat balls from the *Avondster* (1659) © John Carpenter

for tourism. The result was that the Central Cultural Fund had difficulties paying even the basic salaries of its employees let alone funding fieldwork and so, while the conflict also saw destruction of underwater cultural remains in the war zones, poor funding availability meant that very limited field work could be done. The MAU was primarily limited to documenting shipwreck sites, conducting archival research, conserving artefacts and further studying. (Fig. 2.6).

After 2006, the MAU had the opportunity to expand out of the Galle Harbour and work with other shipwreck sites along the south coast, mainly to protect and manage sites in danger such as the *SS Conch*. Not knowing the historic value of this wreck, the authorities had given permission to a salvage group to break it up for scrap. At the time, salvage permits were issued without considering the historical value of the wrecks and without informing all relevant institutions. Wrecks were under severe threat as looters destroyed sites using explosives and heavy machinery to collect valuable scrap or saleable objects. Large pieces of iron were blasted and salvaged using lifting barrels. This not only destroyed archaeological evidence but impacted on the surrounding environment. In other coastal areas, unemployed local groups are the main parties engaged in looting and the destruction of shipwrecks. People who lost their income due to the crisis in the tourism industry were also among them and some politicians were directly involved in these salvage operations or gave support to these activities in other ways (Muthucumarana 2012).

In the case of the *SS Conch*, local diving centres had stood against salvage activities long before the Department of Archaeology and other authorized agencies took action. In fact, they were responsible for alerting the relevant institutes regarding the issue. To stop salvage permanently and legally evidence to prove the archaeological value of this wreck was needed. While the wreck is known among divers in the Hikkaduwa area as the *SS Conch*, the first oil tanker wrecked in Sri Lanka in 1903,



Fig. 2.7 *SS Conch* wreck site © Rasika Muthucumarana

there is a lack of historical evidence to confirm these commonly held views (Muthucumarana 2008). (Fig. 2.7).

After inspecting the site and searching archives, the MAU managed to provide the historical data for the ship: The *SS Conch* was one of the world's first oil tankers, and was built by W. Gray & Company of England in 1892. The *Conch* was part of a fleet belonging to M. Samuel & Company, which later became the Shell Oil Transporting Company. She sank near Akurala on the south coast of Sri Lanka on her way to Madras in India from Novorossiysk on Russia's Black Sea coast. The site is well known among wreck divers because of its location in clear blue water (Devendra and Muthucumarana 2013). Following the MAU's investigation of the site, salvage activities were stopped and the wreck is now protected.

The research and fieldwork related to the *SS Conch* was one of the first individual researches carried out by MAU after 2005. Few international publications were done, but in 2007 three members of MAU participated in the *International Seminar on Maritime Archaeology* in India and presented a paper on the *SS Conch*.

The fight against the salvage groups was not ended. After several years of continuous awareness programs and institutional actions, many other departments and organizations have also raised their voices to protect shipwrecks. An Inter-ministerial committee on wrecks was formed under the Ministry of Fisheries and Aquatic Resources, which managed to bring together more than fifteen government agencies and ministries. As the first step, all salvage operations were stopped until the committee could develop long-term management planning and a database of wreck sites. It is expected that this will take several years. In the meantime, if there is an application for salvage of a shipwreck, it must be brought in front of the committee and if any committee member objects, permission to salvage will not be given.

The *Conch* is now protected as a historical wreck.

2.5 Over the Seas – International Relations

Following a proposal made in 2003 for the establishment of an Asia-Pacific regional ‘Centre of Excellence’ field training facility, the First Initial Training of the Trainers Program was held in Galle in 2006. This one-month field school was implemented by UNESCO and the Central Cultural Fund. A systematic training course exposing participants to subjects outside their purely practical experience was conducted for a team of 12 local trainees and one from the People’s Republic of China. The MAU was further earmarked to be upgraded to a Category II centre to operate ‘under the auspices of UNESCO’. Under this framework it would contribute to the execution of UNESCO’s capacity building, information exchange, and research programmes. It would be legally independent, but associated with UNESCO by contract. The centre was to be housed in Galle, which, as a world heritage site was an ideal location for both local and regional marine archaeologists to study shipwrecks, providing access to more than 30 wrecks in the vicinity.

UNESCO and ICCROM organized a “Cultural Impact Assessment and Maritime Archaeology” Field School in Galle in April 2007 under the Asian Academy for Heritage Management (AAHM). AAHM is a network of institutions throughout Asia and the Pacific offering professional training in the field of heritage management. The training was implemented in partnership with the Post-Graduate Institute of Archaeology of the University of Kelaniya, the Central Cultural Fund and Flinders University in Australia. It offered 18 individuals from AAHM member institutions in 8 countries the opportunity to study heritage conservation with leading experts in the field. Galle provided the real-life context for the training. The curriculum of the 9-day field school consisted of lectures on topics ranging from conservation legislation to underwater archaeology, field trips to heritage sites in Galle as well as diving sessions at several underwater heritage sites in the bay of Galle. The contacts made with participants were valuable for the MAU in expanding its experience and in making connections, especially with Flinders University enabling further education.

In April 2008, the second phase of the UNESCO regional program, the Advanced Training the Trainers course, was successfully held in Galle. The trainees were drawn from the Maritime Archaeology Unit, the Department Archaeology, Department of National Museums and the Sri Lanka Navy. More focus was placed on field work and developing teaching skills. The 11 trainees of this workshop were put to work on two wrecks near Hikkaduwa - the *Earl of Shaftsbury* and an unknown steam wreck at depths of 11 m and 9 m respectively. Plans were made to build infrastructure to bring regional trainees to a field school in early 2009.

Unfortunately, due to the (then) ongoing war and a consequent lack of response from the local institutes and administration, Sri Lanka was not in a position to fulfil the requirements of this ambitious plan and the field school programme was shifted to Bangkok. MAU personnel have undergone training there and alumni of this programme, representing several nations, have conducted fieldwork under Sri Lankan leadership on Sri Lankan sites. Although Sri Lanka lost the project, the post-training

fieldwork opened a new dimension to the maritime archaeology of Sri Lanka and led to finding the oldest shipwreck in the region, the Godawaya wreck.

2.6 Godawaya: The Wreck That Was Promised

At the end of the 2008 field school, a need to find a shipwreck of Asian origin to use for training activities was identified. In October 2008, the MAU initiated an exploration campaign funded by the UNESCO Bangkok office to find suitable sites along the south coast. The plan was to study the wreck sites in an area stretching from Great Basses reef to Matara. After recording the shipwreck sites around Great Basses the exploration team moved to Godawaya where, a few years earlier, two divers (R. Sunil and G.B. Peminda) from the fishing village had found wooden remains and artefacts from the sea. Following their lead, the MAU team dived to a depth of 32 m in an area between Godawaya and Hambanthota. There they found a wooden wreck on a sandy bottom, covered with corals and sea plants the wooden mound/hull was surrounded by hundreds of potshards. Furthermore, there was some complete pottery, glass ingots, stone objects and iron materials on the site (Muthucumarana 2009). (Fig. 2.8).

Godawaya is the shipwreck that was promised. For a long time, marine archaeologists had looked for a wreck that showed physical evidence of shipbuilding traditions and marine trade in the pre-colonial era. The artefacts and samples raised from the wreck proved that it was at least 2000 years old (later confirmed by radiocarbon dating), making it the oldest shipwreck site found in the Asia-Pacific region (Muthucumarana et al. 2014).



Fig. 2.8 Godawaya wooden wreck site © Rasika Muthucumarana

The MAU was, however, not able to further investigate the shipwreck site or to start a proper project. The war and ongoing economic crisis in the country impacted on every aspect of day-to-day life. No maritime archaeological activity was carried out during this period, leaving the Godawaya site in danger. The site was exposed to the public and the MAU did not have a proper plan to protect the site if looting occurred. In addition, the development of the new harbour at nearby Hambantota necessitated ongoing blasting of the seabed and dumping huge amount of debris near the wreck. These activities further threatened the site. Finally, in 2010, the MAU managed to get some funds from its annual budget from the Central Cultural Fund, UNESCO and the Netherlands Cultural Fund to start exploring and documenting the Godawaya wreck. An international team comprised of experts in diving and underwater archaeology from India, Indonesia, Malaysia and the Philippines participated in the assessment with the MAU. A mound of timber or planking on the northern side of the baseline was recorded in detail. Based on collected data, a preliminary site map was created. Large numbers of potsherds were noticed during exploration. Many black and red wares and at least two large jars of at least 1.3 m height have been observed. Black and red ware has a special place in the archaeology of the Indian subcontinent and the earliest date of the ware goes back to the 3rd millennium BC and continues with some variation until the early centuries of the Christian era (Gaur et al. 2011).

After the fieldwork, a site plan was produced with the measurements taken. The samples taken from the sites were analyzed and dated in collaboration with the National Institute for Oceanography in Goa. The research data was published in several international journals, giving wide publicity to the Godawaya shipwreck. (Fig. 2.9).



Fig. 2.9 Large clay jars from Godawaya shipwreck site © Rasika Muthucumarana

In the absence of an effective management plan, the site remained in danger. Without funds to carry out fieldwork and further research, the MAU sought international collaboration, but the situation was turned into a political game at both national and international level. The site and its research rights were given to a foreign institute by Sri Lankan authorities without consultation with the local team. From 2011 to 2014, the international collaboration project and excavation slowly purged the local team members from the project and when Sri Lanka came out of its financial crisis after the war, the Godawaya site was out of reach of MAU. While fieldwork was ongoing and many international scholars and students were participating, archaeologist from MAU were excluded. Only a few local archaeologists from the Department Archaeology had the opportunity to work at the site, but without research rights. It was unethical and in juxtaposition of the principal reasons for which the MAU was originally established. Many of the international scholars and institutes who supported Sri Lanka in the development of maritime archaeology objected to the situation, but could not do anything until it became an internal issue. In 2014 the MAU decided to raise international awareness of their struggle. With the support of many well-wishers and after long effort the project was stopped by the authorities. It took another three years before the MAU could recommence fieldwork at Godawaya.

2.7 Reaching the East Coast

Sri Lanka's economy stabilized after the war and the tourism industry was gradually growing. The east, north and northwest coast lines were cleared by the security forces and opened to the public. With this favourable financial situation, the Central Cultural Fund could again put more money towards the MAU and from 2011 it started working along the northwest coast and slowly reached the north and east coasts. Hardly any archaeological work had been done in these areas after 1985. For security reasons, only the Sri Lanka Navy had the privilege of diving there. Many eighteenth and nineteenth century shipwrecks can be found along these coasts. The east coast is especially abundant with wrecks of steam powered and World War II ships, including some significant historical wrecks, such as *HMS Hermes*, *HMAS Vampire* and *SS British Sergeant*.

HMS Hermes was the world's first ship to be specifically designed and built as an aircraft carrier. Launched in 1919, she served in the United Kingdom's Royal Navy for 23 years. She was docked in Trincomalee, Sri Lanka, after the fall of Singapore to the Japanese in February 1942. The same Japanese fleet that had mounted the attack on Pearl Harbour bombed Colombo Harbour on Easter Sunday, 1942, and then moved on to Trincomalee. Heeding the order to leave the harbour and seek safety at sea, *Hermes* steamed out escorted by *HMAS Vampire*, leaving her aircraft on shore. Both were spotted by Japanese aircraft off Batticaloa (south of Trincomalee), bombed, and sunk on 9 April 1942. *Hermes* sank with the loss of 307 men, including the captain. *Vampire's* captain and seven crewmen were also killed.



Fig. 2.10 SS British Sergeant wreck (1942) at Kayankeny, East Coast © Rasika Muthucumarana

The wreck of the *Hermes* lies on the seabed at a depth of more than 50 m, while the *Vampire* has never been located.

The MAU has been exploring and documenting the shipwrecks, old harbours and other maritime cultural heritage sites along the east coast since 2012. Apart from the shipwrecks they have found the remains of Buddhist and Shiva temples beneath the cliff of Fort Fredrick, Trincomalee in 2017. Hundreds of stone pillar and some stone carvings/figures have been located. Most of these are the remains of the temples on the cliff which were thrown into the sea after being destroyed in war. Sir Arthur C. Clarke and his team found some of these remains in the 1960's near the Shiva temple, but the majority of these newly found remains can be located on the west side of the Fort. (Fig. 2.10).

2.8 Conclusions: Preserving the Past for the Future

The amendment of the Antiquities Ordinance in 1998 to bring Sri Lanka's territorial waters under the jurisdiction of the Department of Archaeology showed the importance given to maritime archaeology in Sri Lanka. The formal adoption of the rules of the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, which Sri Lanka hopes to ratify soon, is a further step in the right direction and will give a strong structure and guidelines to safeguard the nation's underwater cultural heritage. While the Convention will provide further mechanisms to protect submerged heritage, Sri Lankan legislation already provides strong protection and a framework for management. There is still a need, however, to find pathways to effectively apply legislation to better protect the UCH in this country. Although

there are many institutes and ministries that have a stake in the management of underwater cultural heritage there are only few institutions which truly deal with it. The weakness of diluting the jurisdiction of the enforcing authorities has been a drawback to this important area of archaeology.

The development of the MUA through the *Avondster* Project has contributed significantly towards this challenge. The project successfully and sustainably capacitated the MAU, established a conservation facility and contributed towards a maritime museum. From 2005 the MAU team has carried out fieldwork and conservation work using local funds and local administration, as had been planned at the inception of the program. Despite the loss of material and infrastructure after the 2004 tsunami and the challenges imposed by economic crises and war, the MAU remains active. It has relocated its facilities to the Galle Fort and continues to conduct research around Sri Lanka. (Fig. 2.11).

The *Avondster* Project raised some important questions for heritage managers and maritime archaeologists. Most significant were those surrounding issues of determining heritage significance and an official heritage narrative. Dutch funding focused attention on not just the Dutch shipwreck, but the European sites associated with maritime culture in the Old Town of Galle. Churches, warehouses and other infrastructure were singled out as being of particular significance while local influences on historical development were less prominent. This did not, however, deter Sri Lanka from approaching its maritime heritage from a local perspective. Sri Lanka has successfully leveraged European-focused projects to provide a field



Fig. 2.11 Maritime Archaeology Unit and the Conservation Laboratory at Galle Fort in 2013 © Rasika Muthucumarana

school setting in which a governmental heritage management team could acquire the necessary skills applicable to various aspects of excavating, curating, displaying and managing underwater archaeological finds and apply them in the local context. The establishment of the maritime archaeology research laboratory and museum at Galle offered spaces in which the team could gain conservation and collections management skills and the necessary proficiencies required to interpret and display recovered finds for public consumption (Parthesius 2007). By establishing infrastructure, including a museum, a laboratory and an active maritime heritage team, Sri Lanka capacitated itself to effectively manage its underwater cultural heritage by applying the proven UNESCO heritage model (and by applying the accepted rules and standards for underwater heritage management of the 2001 Convention) to its national management and research agenda. This approach to developing management capacity and systems has proved to be highly effective in the Sri Lankan setting. Local teams and heritage managers have “recognized European maritime influences within a framework of *shared cultural heritage* or *heritage of dual parentship*” (Sharfman 2017: 68) in instances where European expansion has clearly impacted on local culture but have also ensured that national and local cultural sites and markers have not been suppressed. Despite their origins in the *Avondster* Project and other European shipwreck sites, Sri Lanka’s subsequent maritime archaeology programmes have purposefully included research aimed at local shipping and waterborne trade activities. Archaeological and ethnographic investigations have, for example, documented local ship construction techniques and examined seagoing outriggers, river craft, and longboats used in internal waters (Devendra and Muthucumarana 2015). Maritime research has also focused on sites outside of traditional shipwreck excavations, including ports and other infrastructure related to trade and social development. Sri Lanka’s decision to take a holistic and locally inclusive approach to UCH has contributed to the success of its maritime archaeology, the development of the MAU and the underwater cultural heritage management programmes it has undertaken. (Fig. 2.12).

Furthermore, Sri Lanka has promoted a management environment in which capacity for administration and research of underwater cultural heritage was developed, despite political, financial and environmental challenges. This, in turn, promoted success in the application of official legislation and formal management practices. As a result, the MAU has enjoyed broad appeal and has remained relevant to both local and international stakeholders. The team and infrastructure have endured for almost two decades and the MAU continues to carry out research programmes (see MAU newsletters²) and participate in international projects such as the archaeological re-assessment of Galle Harbour carried out in 2007. (Fig. 2.13).

Work carried out in Galle over the past three and a half decades has continued to attract attention from researchers and global heritage institutions as a model for international cooperation, national capacity building and the development of

² <http://isaw.nyu.edu/publications/awol-index/html/www.mausrilanka.lk/261f0958585da5c179eec2f6b0ef39868862336.html> [onward link expired] or <https://finders.academia.edu/RasikaMuthucumarana>



Fig. 2.12 Unidentified steam wreck at Komari, East Coast © Rasika Muthucumarana



Fig. 2.13 Stone pillar heads and remains from Trincomalee temple site © Rasika Muthucumarana

regional expertise. Efforts to capitalize on the successes of the *Avondster* Project and establish a regional Category II training facility for maritime archaeology and UCH management illustrate this.

Sri Lanka's maritime archaeological programmes and operations have, however, not been without challenges. Political jockeying both at national and international level has, on occasion, threatened to polarise stakeholders, their international networks and national support, such as in the case of the Godawaya shipwreck. The

early successes of the programme have been tempered by individuals and organisations who have attempted to usurp the authority of local managers and practitioners, or underestimate the abilities of the MAU. These have, at times, attempted to take strategic decision-making powers and status away from local authorities and researchers. While external research or capacity building entities may have the interests of development of maritime archaeology and underwater cultural heritage protection at heart, interventions have been viewed as exclusionary or outright confrontational. (Fig. 2.14).

Despite the challenges, Sri Lanka can be used as a model for development of human and institutional capacity and for the development of an inclusive and broadly relevant approach to UCH. Sri Lanka has promoted its national heritage agenda by being both inclusive of external contributors, and sensitive of its own stake in the UCH lying in its waters. It has defined a national maritime historical narrative that recognizes the multiple layers of a complex UCH landscape and the perspectives of multiple states and individuals in creating that landscape. Through intergovernmental partnerships, Sri Lanka has established national capacity suited to the national context but operating within the frameworks of classic UCH models and internationally accepted UNESCO standards and best practices.



Fig. 2.14 The MAU team in 2014

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Chapter 3

Methodological Approaches to Researching Maritime and Underwater Cultural Heritage Along the Swahili Coast in Tanzania



Elgidius B. Ichumbaki

3.1 Introduction

Tanzania is a multi-ethnic country with over 120 ethnic groups. The tribal societies speak various vernacular languages but nearly all groups understand and speak Kiswahili, the national language. Speaking one language has been considered as one of the engines for peace and togetherness that continue to prevail among the Tanzanians. Relative peace must have been in place in the region for centuries. Development of maritime trade along the Tanzanian coast and its spread to the interior could not have happened had too many conflicts among coastal communities occurred.

The maritime history of the Tanzanian coast, stretching over 1000 km from Tanga in the north-east to Mtwara in the south-east, has been described regularly (Breen and Lane 2003; Lane 2005; Pollard 2007, 2008, 2011; Ichumbaki 2011, 2015, 2017; Pollard and Ichumbaki 2017), but not exhaustively. While available evidence suggests the littoral as the most important from a maritime archaeological perspective, there is also a need to consider other water bodies such as lakes and rivers that might have facilitated human activities and settlements (Ichumbaki 2011). Regrettably, much of the maritime archaeological work undertaken in Tanzania, including excavations and surveys, inter-tidal and foreshore mapping, remains focused on the coast itself. Little has been done underwater.

There is, however, a diversity of projects focused on Tanzania's maritime past. These research projects were implemented based on different approaches. This paper, therefore, highlights and discusses the maritime approaches that have been

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applied in Tanzania. The usefulness and limitations of these approaches are discussed alongside the gaps that, if addressed, may result in the sustainability of Tanzania's MUCH.

3.2 Maritime History of the Tanzanian Coast

The maritime history of the Swahili coast, an area of which the coast of Tanzania forms a large part, has been presented in numerous publications (see for example Horton and Middleton 2000; Horton 1996; Chittick 1984, 1974). These scholarships discuss how, for centuries, trade and cultural interactions existed between the Tanzanian coast and other parts of the Indian Ocean world. Although the question of when such contacts began remains debatable (Kusimba and Walz 2018; Ichumbaki 2017; Fleisher et al. 2015), multiple corroborating sources, including archaeology, historical documentation, and language, indicate that the communities that lived along the Tanzanian coast experienced and practiced a maritime culture (Chami 2001, 2006a, b, 2009a, b). It is important therefor to contextualize this culture and summarize both documentary and archaeological evidence that signify the “maritimeness” of the region.

Archaeological data recovered from both the coast of Tanzania and further inland shows that regional communities have a long tradition of being active participants in their maritime environments. Stone artefacts recovered from various coastal sites as well as from the islands off Tanzania, for example, indicate that regional interaction was common even during the Stone Age (Chami 2009b; Kessy 2009a, b; 2010; Knutsson 2007). The importation of volcanic rocks from either Kilimanjaro or Comoro Island for toolmaking in the Kuumbi cave on Unguja Island, clearly reflects an interaction between and among the island dwellers and mainland communities (Kessy 2010). Such interaction was accompanied by exchange of trade goods such as beads made of faience and carnelian materials, and cowry shells recovered from Ngorongoro in north-east Tanzania (Leakey 1966; Sassoon 1968).

At a global level, maritime activities, including ocean navigation, were well established in the Indian Ocean by the first millennium CE allowing the interaction between cultures from the Mediterranean and the Nile valley, across Mesopotamia and down the Red Sea to Arabia and the Indian Ocean, including the Swahili coast (Ichumbaki 2017). Evidence for this is corroborated by ancient written documents such the *Periplus* and *Ptolemy* texts showing that the Tanzanian coast interacted with other world economies from at least that period. A good example is the exchange of cassia, cinnamon and metal objects between Swahili people and people from southwest Asia (Miller 1969). Civilizations in the form of stone town complexes such as Kilwa Kisiwani emerged as a result of connections associated with this trade. It was at such stone towns where various populations met, settled, intermarried, conducted trade, and flourished (Chittick 1974), linking merchants, cultures and societies from various parts of the Indian Ocean World together (Pollard et al. 2016).

The tenth-century CE Arab geographer Al-Masudi and fifteenth-century CE navigator ibn Majid describe connections between Kilwa Kisiwani, the Middle East, Indian Subcontinent and East Asia at time when Omanis and Persians sailed the East Africa coast trading in slaves, mangrove poles, ivory, leopard skins, iron and gold (Sheriff 2010). In the eleventh century BCE, Ali bin al-Hasan established the Kilwa Kisiwani sultanate, issuing coins and trading extensively. Evidence of trade has been found in the form of ceramics from the Gulf, Aden, Yemen and the Red Sea (Pollard et al. 2016) and strong religious links are illustrated in the construction of Great Mosque (Wilkinson 1981; Sutton 1998). An increase in wealth was seen in the thirteenth century, when the Great Mosque was renovated and extended (Ichumbaki 2016), the Small Palace (Husuni Ndogo) and Great Palace (Husuni Kubwa) emporium were built along with stores for lime making and reef coral causeways to guide vessels into the harbour (Chittick 1974; Pollard and Ichumbaki 2016). In 1331, Moroccan traveller Ibn Battuta described Kilwa Kisiwani as “a beautiful and well-constructed town” (Freeman-Grenville 1962: 31). This wealth has been associated with the move of the gold trade from Mogadishu to Sofala on the modern Mozambique coast because Sofala was closer to gold mines on the Zimbabwe plateau (Horton and Middleton 2000; Sutton 1998).

It is clear that from about one and half millennia ago, Tanzania’s coastal areas and myriad of islands together with some parts of the hinterlands played a pivotal role in long-distance trade systems (Wyne-jones and LaViolette 2018; Ichumbaki 2017; Walz 2013). Through the established ports and cities along the Tanzanian coast and probably the entire Swahili region, Africa, Europe, the Middle East and Far East were, and still are, connected.

At the Swahili seaports, traders exchanged various commodities including mangrove poles, spices, gold, ivory and slaves, as mentioned above, as well as bringing their customs and lifeways to the Tanzanian coast. This resulted in a blending of local and international values, traditions and cultures (Horton and Middleton 2000; Wynne-Jones 2016). Modern-day Tanzanian societies living in coastal areas and beyond reflect these early interactions in all facets of daily life. Many of the influences that have shaped Tanzanian coast are linked with maritime activities and these goings-on are embodied in ships and submerged sites that make up Tanzania’s MUCH. Despite the role of MUCH in the development of Tanzania’s global trade network, it has, historically, received little attention from heritage researchers, practitioners and managers. It was not until recently that the Government of Tanzania began to recognize the importance of the country’s UCH.

For about three decades now, initiatives to study and preserve the MUCH of the East African region have been in progress (Breen et al. 2001; Breen and Lane 2003; Lane 2007, 2012; Duarte 2012). In Tanzania, such initiatives began in 2009 when Tanzania’s Department of Antiquities, in collaboration with the Dutch NGO CIE – Centre for International Heritage Activities, established the Tanzania Maritime and Underwater Cultural Heritage – TMUCH programme (Mahudi 2011; Ichumbaki 2011; Jeffery and Parthesius 2013). This programme aimed to promote the socio-economic value of MUCH and position it within the broad scope of Tanzania’s heritage context. A team of 14 members was drawn from a number of governmental

departments and institutions including the Department of Antiquities in the Ministry of Natural Resources and Tourism, National Museum of Tanzania, Marine Parks and the University of Dar es Salaam (Mahudi 2011; Jeffery and Parthesius 2013). The team was trained to carry out archaeological surveys and assessments on both terrestrial and submerged sites. Training and the practical works on maritime archaeological sites were introduced through the established Nautical Archaeology Society (NAS) training structures.

This training structure was preferred because it had been established as an international training programme specifically aimed at individuals and groups who were not maritime archaeologists, but who wished to attain the skills, techniques and methodologies applied to the discipline. The training gave the team members an opportunity to follow a structured curriculum that provided them with the necessary knowledge to work on maritime archaeological sites in Tanzania. After taking theoretical classes, the team undertook preliminary investigations at the sites of Kilwa, Mafia and Zanzibar. Among others, the activities of the team included identifying, surveying, assessing, managing and presenting the maritime landscape of Tanzania to the general public. Unfortunately, these activities could not extend after the first field expeditions because of lack of financial resources.

Despite the limited opportunities for MUCH research, sites along Tanzania's coast contain a unique representation of a melting pot of cultures from Africa, the Middle East, Europe and the Far East and represent global contact and development. The coast of Tanzania is dotted with maritime sites which capture different heritage aspects representing multiple events. Sites such as Bagamoyo, Mafia Island, Kilwa Kisiwani, Mikindani, Pangani and Zanzibar are maritime landscapes that include submerged and terrestrial sites that are representative of multiple facets and peoples of Tanzania's heritage. These sites and many others which have not been fully investigated offer a point of departure for long term MUCH research and interpretation in Tanzania.

3.3 MUCH Research Methodological Approaches

The UNESCO 2001 Convention on the Protection of Underwater Cultural Heritage continues to gain traction across the globe. Similarly, as awareness of MUCH continues to increase, heritage managers and maritime archaeologists need to assess the *status quo* of management practice and activities aimed at archaeological research. Consequently, there is a need to assess the methodologies suited to specific national and regional contexts in line with the global requirements (Parthesius, this volume). This section, therefore, presents and discusses the methodologies for MUCH research and management that are context specific in Tanzania, including the collection of oral histories, coastal and inter-tidal surveys, excavation and mapping.

Local oral histories collected in the coastal regions have been used to reconstruct the maritime past (Pollard 2008; Mahudi 2011; Jeffery and Parthesius 2013). At Kilwa Kisiwani, for instance, oral histories revealed cosmologies surrounding a



Fig. 3.1 Survey at Jiwe la Jahazi where dispersion of basalts and pottery, coral reef causeways and a dhow-like islet were recorded in Kilwa Kisiwani © Elgidius Ichumbaki (2019)

‘dhow-shaped’ coral limestone islet called ‘Jiwe la Jahazi’ (see Fig. 3.1). This site lies on the fringing reef over 1 km south of the entrance to Kilwa Kisiwani Harbour, between two coral-reef causeways. The memory of Kilwa Kisiwani’s people is that the islet represents a ship that aimed at attacking Kilwa and was turned to stone (Pollard et al. 2016: 357–9). Surveys based on these local narratives report various black basalt stones on the foreshore, which local people identify as the weapons of the invaders. The basalt at ‘Jiwe la Jahazi’ consists of sub-angular to sub-rounded small boulders and cobbles concentrated on the seaward edge of the sharp limestone bedrock. Pollard et al. (2016) suggest that these basalt stones are ballast from a ship that ran aground on the reef.

The distribution of pottery located in the same area was also recorded, including coarse red ceramics with thickened rims and flat bases. These also exhibit incised and molded bands, one of which had a clear slip on the inner surface. Such ceramics have also been reported in other coastal areas including Manda in the Lamu Archipelago, Unguja Ukuu on Zanzibar, Sohar in Oman, and Siraf in the Arabian Gulf and dated to the late eighth to tenth century (Chittick 1984: 84–91; Juma 2004: 113–7; Priestman 2013: 474–6). Pollard et al. (2016) interpreted the dispersion of both basalt ballast and pottery as an indicator of a shipwreck site. It was because of the oral histories described above that further exploration of the site was conducted allowing researchers to confirm that the site was the wreck of a vessel carrying imported goods from the Gulf and underscoring the maritime potential of the area.

Several surveys have been undertaken to complement the collection of oral histories. For instance, various maritime landscape surveys have been conducted in a comparative assessment of Kilwa Kisiwani with other Swahili coastal sites, such as at Bagamoyo and Kaole (Pollard 2007, 2008; Pollard et al. 2012). Among their objectives, these surveys have aimed to build an image of the social and economic significance of the coast, sea, and associated built maritime infrastructure. The analysis of previously unknown features such as stone causeways at Kilwa (Pollard 2011) and ports and harbours along the entire coast of Tanzania (Pollard and Ichumbaki 2017) are examples of the survey outcomes. Furthermore, researchers have conducted coastal and intertidal surveys and excavations that indicate sailing routes between settlements. Analysis of the availability of resources at each port shows how far foreign traders travelled before stopping for supplies, trade, or transshipment of cargo. Results of these surveys and excavations provide reasons as to why some ports along the Tanzanian coast became bigger than others, and touch on issues of safety, political stability, trading opportunities, marine resources, and climate (Pollard and Ichumbaki 2017) (Fig. 3.2).

Through excavating coastal archaeological sites, researchers have managed to further reconstruct Tanzania's maritime history. For instance, working in Pangani along the northern coast of Tanzania, Elinaza Mjema (2015, 2016) challenges a hypothesis that Zanzjan settlements (eighth to thirteenth centuries CE) collapsed



Fig. 3.2 A nearly complete port recorded on an area with dispersion of ceramics and other cultural objects on the seabed at Kilwa Kisiwani port © Richard Bates (2015)

without contributing to the formation of post-thirteenth century Swahili culture. By excavating Swahili sites, Mjema recovered pottery and beads which challenge the overemphasis of external influence on cultural continuity and change. Results of the analysis of local and imported ceramics, faunal remains and glass beads from Pangani Bay indicated a negligible difference in materials and economic traditions from the late first to second millennia CE. Recovering such a continuous cultural sequence, according to Mjema (2015), indicates that although maritime trade became highly sophisticated during the Swahili period, early involvement in long-distance oceanic trade and contact began in the Zanjanian period.

In an effort to reconstruct the maritime archaeological sequence of the Tanzanian coast, geophysical and diving surveys have also been undertaken, including side scan sonar surveys around Kilwa Kisiwani to get a clearer picture of the environment and identify anomalies. SCUBA diving surveys followed the geophysical survey to ground-truth and investigate in detail the possible shipwreck sites. For safety reasons, the diving undertaken so far has been restricted to anomalies at less than 20 m depth (Pollard et al. 2016).

To sample a wide variety of environments to determine preservation and distinguish natural from cultural features, Pollard et al. (2016) employed two-diver circular searches to investigate anomalies both outside the harbour and within the harbour confines. Other areas of potential interest were explored using a swim line search with three to four divers. The surveys identified a wreck site that lies on a slope that dips gently from a depth of about 1 m to a depth of 1.5 m over a 1 ha area at the Kilwa Kisiwani port. Researchers recorded an artefact dispersion on the seabed around 100 m from the low water mark that included a medieval stone anchor, local pottery, and imported pottery from south-west Asia (Pollard et al. 2016: 359).

3.4 The Future of MUCH in Tanzania

Despite being in its infancy, the maritime research already conducted in Tanzania is beginning to reveal the extent and range of maritime cultures and traditions and provides evidence for wider maritime activity that connected the Tanzanian coast to the Indian Ocean region. The Indian Ocean, and the many lakes and rivers in Tanzania, did and continue to serve as routes to link people and their traditional systems. The Swahili port stone towns and cities were intrinsically connected to a wider mercantile maritime world, ensuring that the region became one of the most culturally dynamic and diverse in history. It was, and continues to be, a region undergoing continuous transformation and has been subject to a variety of anthropogenic and natural drivers of change. Regrettably, Tanzania and the whole East African region has little capacity to explore and protect this rich maritime heritage. The few explorations that have been conducted have mainly concentrated on the terrestrial sites with little attention on the submerged cultural heritage. Thus, there is a need to study the submerged heritage and rescue it for both present and future generations.

In developing a strategy for MUCH, Tanzania has taken an approach that takes account of international, national and local perspectives. Early initiatives, including archaeological excavations and the collection of oral histories, focused on terrestrial sites that provided insights into the development of Swahili maritime culture, an important element in local and national identity. While these recognized international maritime connections, they also analysed local impact and local cultural evolution. The emphasis of maritime research in the Tanzanian context was on coastal sites and connections with the hinterland. Tanzania's engagement with its maritime past was, therefore, driven by research with a local, terrestrial focus. As research threw light on the broader maritime framework that influenced coastal cultures, however, Tanzania recognized the need to find a pathway for examining the infrastructure and vehicles that facilitated Indian Ocean connections and trade networks. To this end, the Department of Antiquities sought to develop capacity and management mechanisms for underwater research, as described above. These initiatives, supported by organisations such as CIE – Centre for International Heritage Activities, were underpinned by UNESCO's various international management frameworks. While Tanzania has positioned itself within an international framework, its approach and research remain focused on national narratives and sites of national relevance. As such, Tanzania's MUCH approach is driven by local stakeholders and local needs (Fig. 3.3).

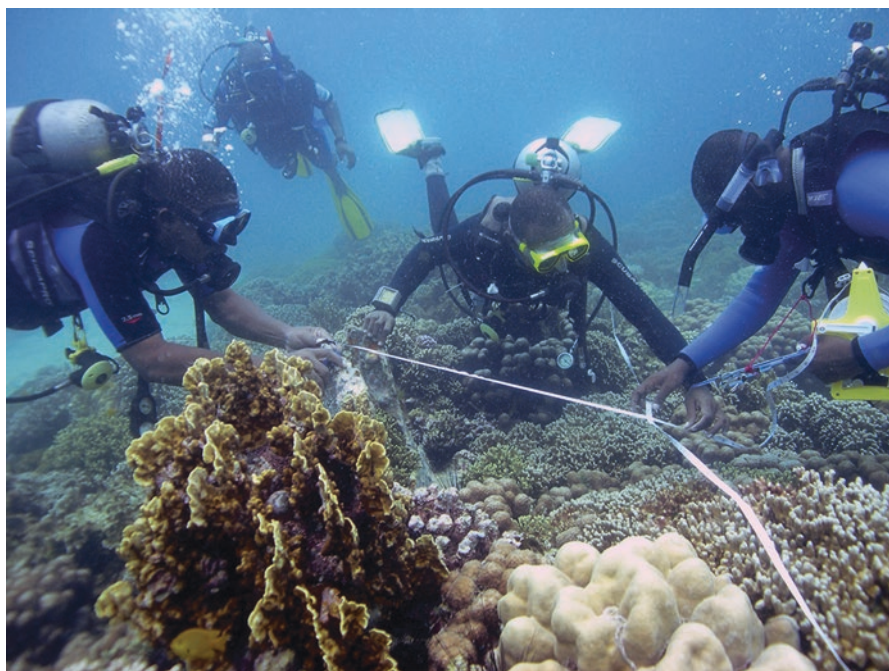


Fig. 3.3 Nautical Archaeology Society training at Zanzibar in 2010 © Robert Parthesius (2010)



Fig. 3.4 Stone Dhow at Kilwa © Elgidius Ichumbaki

Despite the growing body of research, Tanzania's capacity and funding constraints have limited its ability to engage with submerged cultural sites. Underwater research sites have, for the most part, been selected because of the availability of funding or the interests of visiting researchers and international organisations. While these external interests may be convergent with national foci, such as the development of the Swahili culture and exchange between the coast and the hinterland, it will be interesting to ascertain whether they have resulted in genuine collaboration with Tanzanian academics and have benefited government agencies as intended. Future work will determine what the role of international/external researchers and organizations have been in driving the research agenda and determining the types of sites and narratives that have been selected for investigation (Fig. 3.4).

3.5 Conclusion

In concluding, I want to draw attention to the fact that the coast of Tanzania is currently experiencing major developmental investments particularly due to the discovery of large offshore oil and gas deposits. The coastal region's offshore exploration for oil and gas is accompanied by an expansion of existing maritime infrastructure and the establishment of new ports (e.g. at Mtwara and Tanga) to facilitate not only the anticipated expansion of the oil and gas industry but also trade with Arabian

Gulf countries. Furthermore, the proposed initiatives to establish a major port at Bagamoyo and Marine Terminal Storage in Tanga as part of the East Africa Crude Oil Pipeline lead to further destruction of MUCH sites. Notwithstanding the economic, developmental and employment opportunities these investments are going to create, because Tanzania's antiquities law does not directly protect underwater heritage nor has Tanzania ratified the 2001 Convention on the Protection of Underwater Cultural Heritage, marine cultural heritage resources (both terrestrial and submerged) are going to be negatively impacted. This is unfortunate given the region's rich maritime history. However, as awareness of MUCH has increased, and as threats to submerged heritage have been identified, there has been recognition of the need to develop a management framework to assure sites protection. As a result, as Tanzania continues to establish its MUCH research and management programs, it must take cognisance of international best practice as specified in the 1972 World Heritage Convention and the 2001 Convention on the Protection of Underwater Cultural Heritage, for example, and apply it in a context that is relevant to both national and international stakeholders. Furthermore, in light of this and the relatively few shipwrecks that have been located and recorded (see Ichumbaki 2015), Tanzania must determine how UNESCO's best practices (as included in the 2001 Convention, for example) are useful and applicable in the context of an approach to heritage management and engagement that recognizes the full landscape in its scope.

Notwithstanding the challenges, initial maritime research conducted in Tanzania, as has been presented in this paper, has begun to reveal new evidence of the region's crucial position on maritime trade routes. These routes have been sailed for centuries linking Tanzania with other parts of the world including India, China, the Arabian Gulf, Europe and the Middle East. It is therefore a call to save these patrimonies before they are lost.

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Chapter 4

New Approaches to Protect Endangered Shipwrecks Around Mozambique Island



Cezar Mahumane

4.1 Introduction

Mozambique is emerging from an almost two-decade long period during which activities aimed at underwater cultural heritage were dominated by treasure hunters and commercial salvage of shipwrecks. Mozambique heritage managers and maritime archaeologists are now faced with the challenge of establishing an approach to MUCH that includes an assessment of the impacts of activities undertaken to date, the development of research strategies, the drafting of management policy and the expansion of the scope of MUCH to include national and local narratives in a history predominantly perceived as one of European shipwrecks and colonial expansion. This chapter, together with that of Simbine provides an overview of the developing research and management methodologies that form the framework for Mozambique's emerging approach to MUCH.

Mahumane provides an overview of the management challenges that have faced Mozambique in the last two decades and outlines work being undertaken to assess and mitigate for treasure hunting and commercial salvage of historic wrecks – a necessary precursor to developing strategies for policy development and research approaches. While these are necessary steps to ensure a sustainable future for Underwater Cultural Heritage, archaeological research must continue. Simbine describes a research project taking place at Mozambique Island, a site which has been significantly impacted by treasure hunting and the resulting perceptions of Underwater Cultural Heritage (UCH) Together, these chapters illustrate the challenges faced by archaeologists and heritage managers and the solutions that are being found to conduct research within a difficult context.

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The interventions on 24 known shipwreck sites by a consortium made up of Arqueonautas Worldwide (an enterprise established in 1995 as a private share holding company in Madeira, Portugal) and Património Internacional (AWW/PI) produced a worrisome situation at Mozambique Island. This situation was officially ended in 2014 when the Mozambican Government cancelled permits issued to Arqueonautas and sent a delegation from the Department of Archaeology and Anthropology at Eduardo Mondlane University (DAA-UEM) to assess the results of the salvage work carried out over the 14-year duration of the permit. The assessment report stressed the urgent need to develop a research and protection strategy for Mozambique Island shipwrecks, especially the *São Sebastião Fortress Shipwreck* (IDM-002) and the *Nossa Senhora Da Consolação* (IDM-003) – two important sites from sixteenth and seventeenth centuries respectively – which presented signs of deterioration. In response to this need, fieldworks campaigns were carried out between in 2016 and 2017 with the aim of establishing the basic conditions to research, monitor and protect these endangered shipwrecks. Priority was given to the *Nossa Senhora Da Consolação* site (IDM-003) where exposed ship structure indicated an immediate threat to its fragile condition.

The fieldwork assembled archaeologists from DAA-UEM in collaboration with international and national institutions including the Slave Wrecks Project; George Washington University; Smithsonian Institution National Museum of African American History and Culture; IZIKO Museums of South Africa; African Centre for Heritage Activities; Diving with a Purpose; Texas A&M University; US Naval Heritage Command as well as the Associação dos Amigos da Ilha de Moçambique; Associação dos Pequenos Operadores Turísticos and Associação Islâmica da Ilha de Moçambique.

This chapter presents the results of the work carried out on *São Sebastião Fortress Shipwreck* and the *Nossa Senhora Da Consolação* to establish any remaining opportunities for extracting significant archaeological information from these sites and to determine strategies for stabilizing this endangered heritage.

4.1.1 Background to the Underwater Cultural Heritage of Mozambique Island

Located in northern Mozambique in Nampula province, Mozambique Island is 3 km long and 200–500 m wide. Together with São Lourenço, Goa and Sena Islands it forms an archipelago covering an area of 445 km² (Arkitektskolen I Aarhus 1985; Omar 2013). Due to the monsoon winds, which blow from the North during the summer and from the South during the winter, and its geographical position on the East African coast, Mozambique Island has played an important role as a link between Africa and Persia, China, India and Indonesia since the first millennium CE (Duarte 1993), and later with the establishment of the *Carreira das Índias*. Despite this, little is known about the various early ships which sailed towards Mozambique

Island. The ships were complex vehicles and their construction relied mostly on practical knowledge and tradition that is quite unknown today (Castro and Fonseca 2006: 97). Many of these ships were loaded with passengers, crew and enormous quantities of cargo as well as carrying the ideas and cultures of their passengers and crew (Castro and Fonseca 2006: 97) and for millennia Mozambique Island witnessed the development of an intense maritime trade culture, that created a socio-economic connection and fostered cultural fusion. The traces of these interactions are observable in the shipwrecks, some with exceptionally well-preserved hulls. In undisturbed archaeological contexts, these provide important clues to reconstruct a still largely unknown cosmopolitan past (Duarte 2012: 65).

The importance of the UCH around Mozambique Island was first recognized in 1960 by Quirino Da Fonseca, who undertook the first underwater research program (Fonseca 1964). Using photo-interpretation, Fonseca was able to identify the remains of four shipwrecks, characterized by large agglomerations of ballast stones and large artifacts such as anchors, rifle barrels, ballast fragments and cannon ball concretions.

In 1998 and 1999, the DAA-UEM, in partnership with Brown University and the US National Park Service, led a preliminary study in the areas previously described by Fonseca, underlining the importance of the UCH around the island and in its vicinity (Duarte 2012: 76). Archaeologists located several underwater sites in front of the São Sebastião Fortress and near Cabaçeira Pequena characterized by agglomerations of ballast stones. In view of the importance of the sites, a monitoring program was established in the same year, setting up a non-destructive survey strategy to map the sites (Duarte et al., 2015) (Fig. 4.1).

Unfortunately, this initiative was stopped when the Mozambican government awarded an exclusive concession of 700 km along the coastline of Nampula Province to AWW/PI (Duarte 2012: 77; Lane 2012: 17). The result was that the UCH of Mozambique Island was heavily impacted from 1999 to 2014 (Duarte et al., 2015).

As will be described, the results of Arqueonautas' salvage activities were assessed in 2014 by DAA-UEM in cooperation with an international technical team assembled under the auspices of the Slave Wrecks Project. The assessment results revealed the destruction perpetrated by Arqueonautas and the resultant limitations they imposed on archaeological interpretation (Duarte et al., 2015). In this sense, the assessment report addressed the urgent need to develop a research and protection system in order to explore the possibilities for gathering new archaeologically significant information from the sites.

Among the sites disturbed by Arqueonautas, two, commonly identified as IDM-002 (*Espadarte* or *São Sebastião Fortress shipwreck*) and IDM-003 (*Nossa Senhora Da Consolação*), were totally excavated and now present signs of deterioration of exposed material. Between July and August of 2016, a preliminary fieldwork campaign aimed at drawing up strategies for managing IDM-002 and IDM-003, and by extension other UCH sites at Mozambique Island, was launched.



Fig. 4.1 Location of the 24 shipwrecks identified at Mozambique Island

4.2 Recent Approaches to Mozambique Island's Underwater Cultural Heritage

For many years the Underwater Cultural Heritage (UCH) of Mozambique Island was affected by the salvage operations of Aqueonautas Worldwide, whose actions included the auctioning of Ming porcelain recovered from *São Sebastião Fortress shipwreck* in Amsterdam in 2004 (Bound 2002, 2004; Christie's 2004; Anonymous 2008; AWW/PI 2014). These salvage activities not only had a negative impact on the state of the cultural resources themselves, but also prevented access to these resources by scholars (Duarte 2012: 63). For years AWW/PI pillaged the UCH of Mozambique Island, despite pressure on the government from national and international scholars and institutions as well as the Mozambique Island community to cancel commercially oriented activities and allow specialists to develop proper research strategies for UCH.

The destruction of UCH by AWW/PI prompted Ricardo Duarte, in his 2012 article *Maritime History in Mozambique and East Africa: The Urgent Need for the Proper Study and Preservation of Endangered Underwater Cultural Heritage*, to

not only denounce the nature of Arqueonautas' activities, but also delineate the need for proper scientific research and preservation of UCH at Mozambique Island through building the capacity of national experts and educating government and public groups. Duarte (2012) also addressed the need for Mozambique and other East African nations to ratify the UNESCO 2001 Convention on the Protection of Underwater Cultural Heritage to strengthen the protection of UCH and promote investigation of a common underwater heritage that is poorly known.

Pressure exerted by national and international scholars and institutions as well as by the local community of Mozambique Island contributed to the government's 2014 decision to halt AWW/PI's activities and appoint the DAA-UEM – the legal repository for archaeological heritage – to assess the state of UCH around the island. The assessment report, produced in 2015, revealed that the nature of destruction of UCH was severe due to the poor documentation, conservation and mitigation methodologies used by AWW/PI. This imposed serious limitations the possibilities for archaeological re-interpretation (Duarte et al., 2015).

In the context of this reality, a meritorious effort is being made to implement initiatives to promote the tenets of the 2001 Convention and the Rules outlined in its Annex. These endeavors are supported through UNESCO's promotion of regional cooperation and development throughout Africa (Duarte 2012: 73). By following these guidelines, Mozambique has been developing training and research programs for Maritime and Underwater Archaeology at Mozambique Island that will champion protection and monitoring of the UCH. Training and capacity building includes Mozambican and international archaeologists and is being developed by national institutions with support from international partners.

Mozambique has made significant strides in studying and protecting UCH since the policy changes of 2014. In 2016, Mozambique hosted two important UNESCO meetings, the first took place at Mozambique Island to consult the local community on the safeguarding of UCH within the framework of the 2001 Convention. The second meeting took place in Maputo, where several experts from African countries joined to take decisions about promoting the ratification of the 2001 Convention and improving cooperation between African countries to protect and document their UCH.

Since 2011, DAA-UEM has been developing national capacity by training a new generation of archaeologists and cultural managers through a course in Archaeology and Cultural Heritage Management. The new generation of archaeologists have already contributed to current heritage management strategies for the UCH of Mozambique Island. This program, intended to protect and research the island's maritime heritage above and below the water, is being carried out by the Department of Archaeology and Anthropology in collaboration with international partners including CIE – Centre for International Heritage Activities, the African Center for Heritage Activities, IZIKO Museums of South Africa, Texas A&M University, the US National Park Service's Submerged Resources Center, the US State Department, George Washington University, IFAN-Cheik Anta Diop University, Diving With a Purpose, Smithsonian National Museum of African American History and Culture, the Slave Wrecks Project and the US Ambassador's Grant for Cultural Protection.

Such cooperation and collaboration has presented opportunities for knowledge exchange and the evolution of research methodologies that promote relevant and implementable protection activities to safeguard maritime heritage and submerged archaeological sites. It has established archaeological investigations that adhere to international best-practice standards, and helped to build local capacity in terms of archaeologists, curators and local monitors. The program also aims to stimulate public awareness of the importance of protecting the UCH of Mozambique Island.

4.2.1 The São Sebastião Fortress Shipwreck (IDM-002)

This wreck was first located near the São Sebastião Fortress in 1960 when Quirino Da Fonseca completed his underwater survey at Mozambique Island. The site was relocated in 1998–1999 during archaeological surveys carried out by archaeologists from the DAA-UEM. The site was characterized by a large agglomeration of ballast stones scattered along the coral slope (between 5 and 10 m of depth) and material deposited down the slope in the direction of the channel entrance to a depth of about 40 m, in the deepest part. Several types of Martaban jars were found, as well as a big anchor (Duarte et al., 2015). Evidence of wooden structure underneath the ballast stones was visible, which led the DAA-UEM archaeologists to consider the possibility of having found a sixteenth century Portuguese galleon, an extremely rare example of a poorly understood shipbuilding technology (Castro 2008). The site was identified as a candidate for a long-term investigation and conservation program (Duarte 2012, Duarte et al., 2015). Time would prove that this site was one of the most important – if not the most important – examples of a sixteenth century Portuguese Indiaman found to date.

Between 2001 and November 2002, under the direction of Mensun Bound, AWW/PI carried out extensive commercially focused excavation operations on the wreck site. Bound established a web of permanent datum points for accurately mapping the terrain and shipwreck features (Bound 2002). The site was divided into three areas: shallow (5–10 m), medium (10–18 m) and deep-water areas (18–35 m), covering an area of 2640 m² (Bound 2002, 2004; Mirabal 2010). Excavations were begun in the medium area, which was considered of higher “archaeological” importance, based on three porcelain vessels found there and due to the site’s pronounced slope. Having completed preliminary excavations, work moved to the shallow area (Bound 2002; Mirabal 2010). In the process of moving the ballast stones in shallower water, a 3 m long bronze cannon was found and hull timbers began to appear along with some porcelain, but in lesser quantities than in the middle area (Bound 2002). According to Bound’s own report, by November 22nd, less than 1 month into the excavation, 14 tons of ballast stones had been removed from the shallow area (Duarte et al., 2015). By November 25th Arqueonautas had recovered 252 Ming porcelain artefacts of which 98 were intact (Bound 2002) and operations returned to focus on the medium depth area. 36.7 tons of ballast stones were removed (Bound 2002, 2004). Two weeks later, following a path of scattered artifacts into the

channel, attention moved to the deep area, which was considered to not contain “significant” artifacts (Bound 2002). However, the presence of iron concretions and small earthenware fragments were reported.

In the last week of January 2002 in-water visibility in the area had dropped and efforts were concentrated on the continual removal of ballast. During this process, seeds and cowrie shells were found mixed in with the ballast stones (Bound 2002, 2004).

Work continued for another 8 months, finally ceasing in September 2002. The result was the recovery of porcelain with commercial value and the displacement of 85.7 tons of ballast stones. The rest of the year was spent recording the extensive hull remains, whose unique importance seems to have been understood by the archaeological director. A trivial description of the hull is available and a further study of it was promised but nothing has been published.

Although a map of the hull was eventually produced, it looks like the tracing of a photographic mosaic (Filipe Castro pers. comm. 2016). There are no sections, no tags, no thorough description of the hull remains, no mention of a timber catalogue, no pictures of details and construction features, and no sections (Filipe Castro pers. comm. 2016). The documentation of the characteristics of this important structure is far from complete and is scientifically unacceptable (Duarte et al., 2015). The hull structure was left unprotected, exposed and fast deteriorating (Fig. 4.2).

The porcelain recovered from the *São Sebastião Fortress Shipwreck* was sold at auction in Amsterdam by Christie’s in 2004. In 2009 Alejandro Mirabal reburied the almost completely destroyed hull remains under a thin layer, two ballast stones



Fig. 4.2 Ballast pile on *São Sebastião Fortress Shipwreck* in 2014

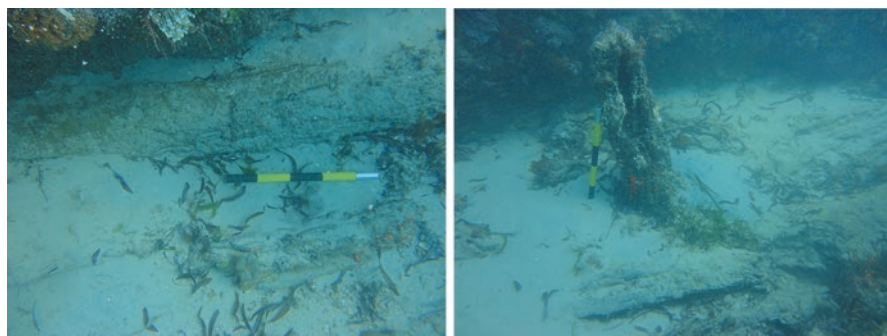
thick, using 60 of the more than 80 tons of ballast stones that had been removed during excavation (Mirabal 2010) (Figs. 4.3 and 4.4).

When the AWW/PI's permit was canceled in 2014, the DAA-UEM led a team in assessing the impact of activities on IDM002. The assessment team found the remains of the wreck in a deplorable state – destroyed, abandoned, eroded and with traces of timbers exposed to continuous deterioration. The conclusion was that by exposing the site the Arqueonautas interventions had significantly aggravated the detrimental environmental effects of currents, oxygenation and biological organisms thereby accelerating deterioration. Of greater concern from an archaeological perspective was the detrimental physical impact of excavation and recovery activities (Duarte et al., 2015).

Fortunately, ballast stones appear to still cover a significant portion of undisturbed structure. AWW/PI's operations would have been focused on the recovery of porcelain objects of commercial value and because of that, important sections of the shipwreck, where porcelain was unlikely to be found, have not been destroyed. This suggests that part of this shipwreck might still contain archaeological information with scientific value.

4.2.2 *The Nossa Senhora Da Consolação Shipwreck (IDM-003)*

This wreck is located 1 km north of the São Sebastião Fortress, between Mozambique Island and Cabaçeira Pequena. The area is characterized by shoals and coral heads which developed along the narrow channel entrance. The first reference to this wreck is found in the 1998 fieldwork activity reports of archaeologists from the DAA-UEM, who described the ballast stone piles, coral formations, sand and mud sediments, shells, and marine grass near Cabaçeira Pequena. This site was relocated and labeled IDM-003 by AWW/PI in 2001. The site was totally excavated between 2005 and 2006 (Mirabal 2007; AWW/PI 2014; Duarte et al., 2015). The main objective of this excavation was to systematically remove all ballast stones in order to



Figs. 4.3 and 4.4 Exposed wood on *São Sebastião Fortress Shipwreck* in 2014

entirely expose the remains of the hull structure that had survived underneath (Mirabal 2007). This was achieved by systematically removing ballast using a grid network installed across the entire site as a mapping control tool (Mirabal 2007; Duarte et al., 2015). The mapping process of the hull was done using measurements, photographs, and drawings and, in order to help with interpretation, a photomosaic of the entire remaining structure was done using 158 photos, each covering 2 m × 2 m, from a total of 731 photos taken (Mirabal 2007).

According to the Mirabal's reports (2004, 2005, 2006, 2007) many artifacts that were part of the ship's cargo were found during excavations, including lead seals, elephant and hippopotamus tusks, olive jars, martaban jars, ceramic lids, leads ingots, Chinese porcelain, copper kitchen ware and fine glass small jars.

Based on archival evidence, AWW/PI tentatively identified this wreck as the seventeenth century Portuguese Indiaman *Nossa Senhora Da Consolação* (Mirabal 2001, 2007; AWW/PI 2014). Fonseca (1964) provided a brief description of the *Nossa Senhora da Consolação Nau*, saying that it sunk about a kilometer away from São Sebastião Fortress in 1608 during the third Dutch siege of Mozambique Island when D. Estevão de Ataíde ordered her to be burnt to avoid her falling into Dutch hands.

When AWW/PI completed their excavation activities, the wooden hull structure was left unprotected for 3 years, during which time many degradation factors drastically affected the site. Only in 2009 do AWW/PI's reports describe the site reburial process. This was achieved by covering the exposed timbers with a very thin layer of ballast stones (one to two stones deep) that left some of the wood structure and cannons exposed (Jeffery 2011; Duarte et al., 2015; Mahumane 2016).

Bill Jeffery visited IDM-003 in 2011 and reported on his observations of the condition of the wreck. His description noted that "*a thin layer of ballast stones covers an area of seabed of about 25 × 10 meters and a considerable amount of timber from the ship's hull can be seen in amongst and outside of the ballast. At least one concreted cannon can be seen ... in a disturbed state*" (Jeffery 2011). This situation highlighted the poor methodology utilized by AWW/PI, not only for site reburial, but also during all of their interventions on this wreck.

The results of the assessment undertaken in 2014 revealed a worrisome situation at the *Nossa Senhora Da Consolação* site. In terms of interpretation and even methodologies many irregularities were noted, including the limited, or missing, descriptions of artifacts suggesting selective collection. No association was made between artifact positions, stratigraphy and hull structure found under 3 meters of excavated sediment. For example, a complete locally produced pot was found during excavations. This important and unique archaeological find was ignored and no descriptions of its position nor association with the wreck were made. Five thousand kilograms of lead Ingots found on the wreck were sold (Duarte et al., 2015) (Fig. 4.5).

The 2014 assessment confirmed Jeffery's appraisal. The site was characterized by the presence of a thin layer of ballast stones scattered over an area of 30 × 15 m between which the large timbers of the hull structure were exposed and subject to deterioration. Many fragmented objects, mostly pottery, were also observed. There is an iron canon concretion in the central part of the site and coral concretions



Fig. 4.5 Exposed cannon on *Nossa Senhora Da Consolação* shipwreck in 2016

surround the site and are growing under the cannon concretion (Duarte et al., 2015; Mahumane 2016). Both Jeffery (2011) and Duarte et al., (2015) highlight the urgent need to protect the site from further deterioration and recommended setting up a monitoring system on the shipwreck.

In 2016 and 2017, in response to these recommendations the DAA-UEM, in cooperation with the Slave Wrecks Project, launched three fieldwork campaigns aimed at recording the condition of the *Nossa Senhora Da Consolação* shipwreck site using non-disturbance methods in order to draw up effective protection strategies for the site. The fieldwork was also an important opportunity for providing training for the new generation of Mozambican underwater archaeologists and international archaeologists from Senegal, South Africa, Brazil and the USA. It was also an opportunity to provide training for local community monitors to safeguard the integrity of the UCH (Fig. 4.6).

In 2016, a fieldwork campaign led by archaeologists from DAA-UEM in collaboration with international local institutions was launched. The campaign aimed to establish a foundation to research, protect and monitor the *São Sebastião Fortress* and *Nossa Senhora Da Consolação* wreck sites. Initial efforts focused on mapping and assessing their condition, so that a mitigation and stabilization plan could be drawn up. In comparing the state of conservation of these wrecks, it was seen that the *São Sebastião Fortress Shipwreck* was the more stable of the two, although it is possible to see timber reliefs and some timber structures through a thin layer of ballast stones. The state of conservation of the *Nossa Senhora Da Consolação* was poor. A thin layer of ballast stones, between which much degraded timber, pottery shards and iron cannon concretion are visible, was noted.



Fig. 4.6 Exposed wood on *Nossa Senhora Da Consolação* shipwreck in 2016

4.2.3 Preliminary Results of the Monitoring Process

In this context, priority was given to the *Nossa Senhora Da Consolação* site. All the timbers and objects visible on the surface were mapped and a photomosaic system was developed to monitor changes to the site. This information could be used to develop stabilization strategies. In this process, it was important to define what needed to be recorded, establish consistent recording methods so that nothing important was overlooked (Steffy 1994: 192), and employ a combination of photography and drawings to map the site. This was important in order to establish how the materials were spread over the site and draft a monitoring system (Mahumane 2016: 27–28) (Fig. 4.7).

In 2016, a second fieldwork season was completed. The extent of the impact of various forces affecting the *Nossa Senhora Da Consolação* site was noticeable. In order to properly monitor the changings on the site, several non-disturbance methods combining low and high technology were again applied, producing good results. While the output generated by applied technologies must be used to record the data that are central to any archaeological activity, it is also necessary to bear in mind that the purpose of any archaeological recording is to transfer the ground based record into a form accessible, not just to the site archaeologists, but also to potential users as accurately as possible (Smith 2006; Yamafune et al., 2016). The challenges presented by this needed to be considered when collecting and interpreting site data.

All the data collected from the *Nossa Senhora Da Consolação* shipwreck site was processed using the tridimensional software Agisoft PhotoScan® and the



Fig. 4.7 Exposed ceramic on *Nossa Senhora Da Consolação* shipwreck in 2016

two-dimensional software Inkscape®. The combinations of these software packages provided quick results and a realistic view of the site, which has proved an important advantage in monitoring changes taking place. The usability of high technology tools such as PhotoScan and the diversity of potential data obtained – such as 3D measurements, 3D reconstruction, orthophotography and vector restitution – make these ideal recording tools.

A three-dimensional model of the *Nossa Senhora Da Consolação* was produced and used for different purposes, such as the production of two-dimensional maps, analysis of ballast stone distribution and its relief, mitigation strategy development, and monitoring of the site.

4.2.4 Mitigation of Threats

Unprotected submerged archaeological structures and objects located in marine areas with intensive human activities and environmental impacts are subject to accelerated deterioration (Manders 2011: 15). Such conditions were observed on the *Nossa Senhora Da Consolação* shipwreck site. The area is generally characterized by a narrowing channel with several shallows, coral formations and varying currents which transport sediments and displace archaeological materials from their original position. The action of currents and waves creates abrasion forces over the timbers which contributes to accelerated deterioration rates. These are further

aggravated by the action of biological organisms which erode timber surfaces and internal structures (Manders 2011).

An iron cannon concretion with coral concretion developing over it lies in the central section of the *Nossa Senhora Da Consolação* site. The exposure of iron cannons to oxygenation may precipitate the acceleration of deterioration of the organic structure of wood with which it is in contact (Manders 2011: 15–16). Some timber features are visible between ballast stones around the iron cannon concretion as well as in a second coral concretion developing over timbers on the central part of the site. The resulting degradation of timbers and cannon structures on the site affect its integrity and pose a direct threat.

Fishing also threatens this site. Because wrecks form new marine habitats, fishing over wreck sites is common. At Mozambique Island, damage to wreck sites from fishing is exacerbated by the removal of ballast stones to use as weights (Duarte et al., 2015). The threats imposed by fishing were visible on the *Nossa Senhora Da Consolação* where some fishing net debris were found during the mapping process.

Mozambique Island's UCH had been significantly impacted by treasure hunting activities over the last 14 years (Duarte 2012; Pringle 2013; Duarte et al., 2015). Although sanctioned treasure hunting activities around the island were officially halted in 2014, souvenir hunting and opportunistic looting by divers involved in the uncoordinated scuba diving tourism activities which are developing in the region still pose a threat to the island's UCH (Duarte 2012: 13). Authorities have not established a system of oversight for recreational diving when, after the cancellation of AWW/PI's permits, the sites became publicly accessible. In response to this situation, a group of monitors from the Mozambique Island community are being trained to deal with threats and help effectively protect this important UCH.

After analyzing the threats caused by natural and human factors and assessing the state of preservation of the *Nossa Senhora Da Consolação* an experimental mitigation strategy was adopted in order to stabilize and protect the site. In 2017, geotextile was used to cover all the exposed features of the site and effectively protect it. Geotextiles are finely woven or non-woven synthetic fabrics and are commonly used by coastal engineers to prevent coastal erosion. They have also been used as physical barriers to protect against shipworm on archaeological sites due to their effectiveness at preventing the larvae from settling on the wood (Manders 2011: 29). The flexibility of geotextile makes it an ideal material to mold around timbers which are standing proud of the seabed (Manders 2011: 29) (Fig. 4.8).

4.3 Conclusion

AWW/PI's activities undoubtedly impacted the state of preservation of the wreck sites around Mozambique Island and, as a result, robbed researchers of the possibility of interpreting the significant archaeological information contained in the island's UCH. The methodologies adopted by this group demonstrated their



Fig. 4.8 Laying geotextile over the *Nossa Senhora Da Consolação* wreck site in 2017

exclusive interest in collecting objects of commercial value and their actions are likely to provide a paradigmatic example of how allowing such priorities to guide excavation practices can have detrimental archeological effects.

The decision by the Mozambican government to cancel AWW/PT's permits in 2014 is a reflection of more than 14 years of advocacy pressure led by Mozambican archaeologists supported by international colleagues and local community campaigners – all of whom fought to establish initiatives governed by best practice in the region, and for the development of national capacity in research and conservation in underwater archaeology. There is still some local pressure on the Mozambican government to ratify the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage and meetings hosted in 2016 have showed the need for ratification, not just for Mozambique, but for Africa as a whole.

It is now time to assess what can be done and delineate research and mitigation systems to stabilize and preserve the important UCH at Mozambique Island in particular. The activities accomplished until now, have been guided by the best practices outlined in the 2001 Convention and its Annex (Fig. 4.9).

Although the sites around Mozambique Island have been affected by salvage activities, Steffy (1994: 189) notes that no matter how sparse or scattered a wreck is, assessing the wealth of information which remains unrecognized will depend on the methods applied to access it and the ingenuity of those who analyze it. The hull structures of the *São Sebastião Fortress* and *Nossa Senhora Da Consolação* shipwrecks may be beyond preservation, but information is always there, waiting to be recorded and shared. Using archaeological recording and analysis techniques, it may, for example, be possible to determine the original hull form and reconstruct it (Crisman 1993: 305). With this in mind, initial efforts have focused on surveying



Fig. 4.9 *Nossa Senhora Da Consolação* shipwreck site protected with geotextile in 2017

the sites in their present condition and, based on outcomes, drawing up mitigation strategies to protect and stabilize them.

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Chapter 5

The Maritime Archaeology of Mozambique Island: Lessons from the Commercial Gathering of Beads and Porcelain for Tourists



Celso Zefanias Simbine

5.1 Introduction

Mozambique Island is rich in terrestrial and underwater cultural heritage. While the island has an extensive history, archaeological work has been focused on sites from within the period of European occupation dating as far back as the fifteenth century CE. Objects associated with this segment of the Island's past, particularly porcelain, glass and metals, have been targeted by both organized salvage groups and informal collectors wishing to capitalize on their commercial value. Little is known about the Porcelains, European wares and beads (Duarte 1987; Madiquida 2007) that are prevalent in these archaeological assemblages and further study of these objects is required for better understanding of both local and regional history. At the same time, it is important to examine the impact of informal and unregulated collection of archaeological remains on the composition of archaeological collections, the management of heritage sites, and the development of various heritage narratives at Mozambique Island.

Aware that the islanders participate extensively in the accumulation of archaeological remains for the purpose of making jewelry for resale, the focus of this work is on objects collected in the course of these commercially motivated activities. It describes the methods used by the islanders to recover archaeological remains and assesses the impacts of these activities, both in terms of heritage engagement and as a factor in heritage management. Historical interpretation of the material collected from the beaches of Mozambique Island is also undertaken. This work provides an initial contribution to the scientific knowledge of archaeological remains deposited on the beaches of the island, the impacts of the practice of informal collecting of

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3. The presence of 24 identified ships sunk around the island loaded with numerous trade cargoes;
4. Sites being targeted by collectors making them a finite but important resource in the island's economy; and,
5. The availability of limited archaeological collections, including the porcelains, European wares, glass beads which are target of commercial excavations and collections. These objects were uncovered during preliminary surface surveys and excavations carried out along shore, in the *São Sebastião* Fortress, and in the interior of the island (Sinclair 1985; Duarte and Meneses 1996; Madiquida and Miguel 2004). Considering that research into the ceramic artefact sequences from the historical period of Mozambique Island has not yet been widely published and that the archaeological context of porcelains, European wares and glass beads is almost completely unknown, this work has few precedents.

5.2 Archaeological Context

Because ceramic evidence from Mozambique Island is limited, it was necessary to contextualize the collections within a broader context of other coastal or interior trade nodes from the same period. To this end, collections of porcelains and European wares from Sofala and Nova Mambone in the center and south of Mozambique (Dickinson 1971), Cachombo and Zumbo (Ramos and Rodrigues 1978), and the Inhambane gulf (Stephens 2003) were used as reference samples. Further comparisons were made between the archaeological and informal collections from Mozambique Island with data from ceramic assemblages excavated from a variety of sources including earlier digs at Mozambique Island and Ibo Island by Sinclair (1985), Duarte and Meneses (1994) and Madiquida and Miguel (2004), and from Quissanga beach and Foz do Lúrio by Madiquida (2007), supplemented with evidence from ceramics excavated from Degue-Mufa by Macamo (2006), the assemblages of porcelain and European wares excavated in the Inhambane gulf (Stephens 2003), Nova Mambone (Dickinson 1971), Zumbo and Cachomba (Ramos and Rodrigues 1978) (See Fig. 5.1).

Archaeological evidence from Mozambique is currently limited to smaller samples dating from just the sixth century onwards, with post seventeenth century Chinese porcelains and European ware being the dominant ceramic types. Islamic wares, including Sassanian-Islamic pottery, found at early harbours like Chibueni in the Inhambane province on the southern coast and Chinese porcelains, European wares and glass beads recovered during excavations at inland markets like Degue-Mufa in the Tete province are evidence of long-distance trade between sixth to seventeenth centuries (Sinclair 1982; Sinclair et al. 1993 Macamo 2006),

The collections of European ware in the comparative collections showed that imports of this ceramic type into Mozambican trade harbours only started at the end of the seventeenth century, coinciding with the emerging trend for Portuguese

traders to acquire goods from the Mozambican mainland that could be traded in India for more lucrative goods destined for European markets (Duarte 1993; Madiquida 2007). At the same time, the Dutch, having the same trade ambitions as the Portuguese, exported glass beads and ceramics to Mozambique Island. Finally, in the eighteenth century, the island became part of the English long-distance trade network (Roque 2013).

The collection of ceramic sherds used in this study display common decoration motifs, such as landscapes, floral patterns and house scenes across various ceramic types and across various periods. Stephens (2003), Ramos and Rodrigues (1978: 56–66) and Dickinson (1971) observed that the porcelain of the Ming dynasty, dated between the fourteenth and seventeenth centuries, are decorated with floral patterns, animals, landscapes, ships and houses. Similarly, Sassoon noted that the decoration appearing on European wares of the seventeenth to nineteenth centuries was similar to the patterns on Chinese porcelain. He argued that this was because the European wares were reproductions of Chinese porcelain commissioned for the export market (1981).

5.3 Historical Context: Trade of Chinese Porcelain, European Ceramics and Glass Beads in the Fifteenth to Nineteenth Centuries

5.3.1 *Ceramics*

The manufacture and trade of blue and white Chinese porcelain began in Ching Te Chen with the Yuan Dynasty (1279–1368 AD), but had shifted to Jingdezhen, during the Ming Dynasty (1368–1644 AD) and the Qing Dynasty (1644–1911 AD) when European maritime trade was at its peak (Tripali et al. 2011). Sassoon (1981) observed that the Ming Dynasty (1368–1644 AD) made and traded significant amounts of porcelain, becoming well known for the high quality of the fine, white paste used to make durable objects beautifully decorated with blue-cobalt motifs. Depictions of dragons, phoenixes, plants, butterflies, deer, houses, ships and human figures are most frequent (Tripali et al. 2011). The recognition of the artistic and economic value resulted in the Ming and Qing Dynasties quickly establishing trade links with different ports in Africa, Europe, and South-west Asia (Sen 2006). The high proportion of Ming Dynasty porcelain compared to European ceramics and Islamic dishes recovered during archaeological works carried out at Kilwa, Gedi and Manda, for example, highlights the volume of traded Chinese porcelain (Chittick 1974). Ibn Battuta's fourteenth century reports on his voyage commissioned by the Yuan Empire, provides further useful insights the porcelain trade (Sen 2006). In the reports Ibn Battuta (XIV AD) stated:

The Chinese porcelain exported to India had notable properties recognized worldwide, because these objects could fall down from a great height without breaking and could be

used for hot food without changes to the color or deterioration. The Chinese clay used to make the porcelain possessed good qualities after being fired between 1250 °C to 1300 °C, resulting in perfect and resistant objects (Ibn Battuta XIV quoted by Sen 2006: 433).

Lockard (2010) indicates that the Indian (Goa, Cacilut, Cochin and Quilon), Sri Lankan (Ceylon) and Maldives archipelago trade ports were primary nodes in the established trade network between the East African Coast and Chinese trade ports of Macau, Hangzhou, Nanjing and Guangzhou and the South-west Asian trade ports of Sumatra, Malacca and Batavia. In this network of trade, India exchanged gold purchased from Africa for Chinese porcelain. After acquiring Chinese porcelain, India exported it to African trade ports aiming to acquire more gold and other trade goods (Chittick 1980). Between the fifteenth and sixteenth centuries, Chinese porcelain began to reach European trade ports in small quantities and was only affordable for the elite (Cavanaugh and Yonan 2010). By the beginning of the seventeenth century, European imports of decorated porcelain quantities had increased significantly (Gerritsen 2009). As Europeans became aware of the economic value of Chinese porcelain, they began to investigate the manufacturing processes and decorating techniques used in Chinese production (Cavanaugh and Yonan 2010). As Europeans became aware of the economic value of Chinese porcelain, they began to investigate the manufacturing processes and decorating techniques used in Chinese production (Cavanaugh and Yonan 2010), and so, in the seventeenth century Dutch Delftware production expanded significantly followed, at the end of the seventeenth century and beginning of the eighteenth century, by Portuguese Faience ceramic reproductions produced primarily in Lisbon and Coimbra (Sassoon 1981). Although the Delft potters refined production methods to produce high quality and widely prized ceramics, the Portuguese imitations were characterized by heavy glazed earthenware, made from thick cream or gray paste of poor quality fired between 900 °C and 1250 °C, which did not shine and broke easily when it fell from a low height (Chittick 1974).

Knowledge of Chinese porcelain production, was first brought to Europe by François d'Entrecolles de Xavier (1664–1741) who, in 1698, had traveled to Jingdezhen with the purpose of recording the methods of porcelain manufacture (Cavanaugh and Yonan 2010). His reports are a considerable source of information for the study of the Chinese porcelain (Gerritsen 2009: 123). Regarding porcelain manufacture, François d'Entrecolles de Xavier (1723) wrote:

Authentic porcelain of resistant paste was made in China since the beginning of the 9th century and its manufacture was significant in the Jingdezhen city for a period of five dynasties. Each produced porcelain of resistant paste, but it was improved in each dynasty. The making process involved combination of petuntse, a rock of feldspar common in eastern China, and kaolin clay. The two substances were milled and mixed in specific proportions and, after that, were oxidated at extremely high temperatures between 1250°C to 1400°C until it transformed into an object of porcelain (d'Entrecolles de Xavier 1723 quoted by Cavanaugh and Yonan 2010: 5).

Notwithstanding d'Entrecolles de Xavier's report on the manufacturing process of Chinese porcelain, Europeans did not succeed in making ceramics of the same quality (Cavanaugh and Yonan 2010: 7–8).

5.3.2 *Glass Beads*

The presence of glass beads of Arabian, Indian, Indo-pacific and European origin at Mozambique Island suggest that trade and commercial contacts between Arabian and Indian merchants developed from the first half of second millennium CE (Madikida 2007: 24). Europeans joined the long-distance trade network that included Mozambique Island from middle of second millennium onward (Roque 2013: 194), and between 18th–nineteenth centuries shipped large quantities of commercial cargo, and particularly glass beads to western markets (Karklins and Barka 1989: 95). As with ceramics, the collection of glass beads recovered at Mozambique Island is small. Research into glass beads undertaken in Chibuenne by Wood (2011) has therefore been used for comparison.

Glass beads found in southern African archaeological sites originate primarily from India, Sri Lanka (Robertshaw et al. 2010: 1902), and the Middle East (Chittick 1974). Figure 5.2 below, illustrates the long-distance trade connections between Mozambique Island, an early trade harbour with other ports around the globe from the middle of second millennium CE to the nineteenth century. During this period glass beads, together with porcelain and European wares constituted one of main products marketed worldwide.



Fig. 5.2 Worldwide long-distance trade of Porcelain, European ware and glass beads

5.4 Understanding Informal Surface Collections from Mozambique Island

A field survey to collect and document ceramics deposited along the coastline of Mozambique Island was conducted in 2015. An initial reconnaissance survey along the Island coastline was made to identify the locations where collection or informal excavation of archaeological remains was being undertaken and to procure information regarding these activities from islanders who participate in them.

Over 5 days, the collection and excavation procedures of three male youths were monitored in thirteen spots along the Island coastline (Fig. 5.3) in order to record collection and excavation methods and to assess the impacts of commercial activities. Detailed observations and photographic records were made of all the different steps of the collection process, including identifying the instruments used. Collectors were also interviewed.

On 28 January the instruments and methods for excavation and collection of archaeological remains utilized a youth of 16 years old were recorded in 4 spots (S1, S2, S3 and S4). Pickaxes were used to smash the rocks and reach the archaeological deposits. Five litre plastic containers with a small opening were used to remove sand and pack it into 25 or 50 kg bags. The bags and contents were taken to a flat clean surface where they were deposited and carefully washed in order to recover small glass beads and gold particles. S1, located on Areal beach, in front of the *Nina Cinema* is covered by coral rocks. Excavation at S1 unearthed an assemblage of thirty-eight objects – seven Chinese porcelain sherds, three twentieth century Portuguese ware sherds and twenty-eight beads recovered from a depth of 30 cm. S2, located on the beach adjacent to the *São Sebastião* fortress, is covered by coral rocks and sand. Alfane again used pickaxes to smash the coral rocks to reach artefacts. An assemblage of eight objects – two glass fragments, two copper objects, two glass beads and two coins (unidentified owing to concretion), was recovered from a depth of 70 cm. S3 and S4, are both also located on Areal beach. S3 produced three Dutch or Portuguese wares dating from the eighteenth century while one



Fig. 5.3 The Mozambique Island showing areas explored for the present study

English willow pattern sherd from the 1800s, one English floral decoration sherd and one fifteenth century Chinese porcelain sherd from Qing Ming were collected on the surface at S4.

On 29 January excavations undertaken at S5, a sandy area located on the beach facing the mainland and adjacent to the *São Sebastião* fortress were observed. Four Chinese porcelain sherds were found on the surface, one coral stone bead was unearthened from 10 cm, and one English ceramic sherd from the mid-1800s was extracted from 20 cm depth.

Excavation continued at S6 located at a rocky spot on Areal beach on 30 January. Sixteen Chinese porcelain sherds from the Ming Dynasty period (fifteenth to sixteenth century) and one bi-chromatic Indian glass bead (red in black) were recovered from a depth of 20 cm. Through further washing five glass beads and two English stone ware sherds were found. At S7, eleven glass beads were recovered from a depth of 10 cm and during sand washing a further three fragments of local unidentified ceramic, probably belonging to the Sancul pottery tradition relatively dated to seventeenth to nineteenth centuries (Sinclair 1985: 8; Duarte 1993: 61), three Chinese porcelain sherds from the late Qing Dynasty (nineteenth century) and two twentieth century Portuguese ware sherds were recovered. Six Chinese porcelain sherds from early Ming Dynasty (fifteenth century) and one English willow pattern from late 1800s were collected from the surface at S8. At S9, a very rocky spot in front of the *São Sebastião* fortress, twenty-five Chinese porcelain sherds and nine European ware sherds were collected.

Following observations of the collection activities, interviews with the youths were completed. During these interviews, the youths revealed that collecting and selling of archaeological remains was their main economic activity. The proceeds are put towards enrolment at school and support for their families. Further efforts to interview youths were unsuccessful. Individuals refused to answer questions for two reasons: Firstly, they requested reward for supplying information. This was deemed unacceptable as it may have increased the possibility that respondents would provide false information in order to benefit from payments. Secondly, potential respondents were concerned that interviewers were being deployed by the Municipal district offices with the objective of identifying individuals whose actions were eroding the beaches and impacting archaeological materials. From a positive perspective, this showed that local authorities are working against the destruction of archaeological heritage and the environment.

On 31 January excavations continued at S10, located in a rocky area on Areal beach. Six glass beads were found. Further washing of sand produced two small Chinese porcelain sherds.

Later in the day, a small market in front of the *Escondidinho* hotel was identified as the hub from which archaeological materials are sold after being processed into jewelry. An interview was conducted at the market with a jewelry seller to better understand the processes of “recycling” the porcelain and beads collected at the beaches into jewelry.

Survey work continued at S11, S12 and S13 at Santo António beach in front of *São Lourenço* fort and Macaride beach near the bridge on the south side of the

Island on the 1st of February. Oral sources revealed that the south side of the Island is often monitored by Municipal district officials because gold objects found in this area spur many people to participate in collection activities which, due to smashing of coral rocks, has had a particularly severe coastal erosion impact. As a result of Municipal monitoring, the islanders no longer excavate on the south side of the island. Collection was therefore limited to the surface. Six Chinese porcelain sherds from the Ming and Qing Dynasties and three Dutch ware sherds from 1700s were collected at S11. Three mid-1800s English ware sherds and two Chinese porcelain sherds from the Ming Dynasty (sixteenth century) were recovered from S12. Two Ming Dynasty sherds and four fragments of Portuguese painted ware from twentieth century were retrieved at S13. Physically, all three spots are sandy and a little rocky.

Later in the day a member of the Association of Goldsmiths of Mozambique Island, was interviewed to obtain information regarding the price of purchasing archaeological remains such as silver and gold coins, porcelain sherds and jewelry made from recovered objects. From discussions it became clear that the retrieval of archaeological objects from the beaches of Mozambique Island by unemployed youths was driven by economic benefits derived from their sale.

5.5 Methods and Materials Used to Collect and Excavate Archaeological Remains

Because archaeological remains on the beaches have been largely exhausted, informal excavation is an arduous activity. Between 2001 and 2010 many glass beads, Chinese porcelain sherds, coins, rings and gold and silver threads were scattered along the coastline of the island and easy to collect (from interview with Abdal Abudul 30-01-15). Today excavation and collection requires pickaxes to smash coral rocks, sacks to collect and move sand, containers to dig and pack sand into sacks and to transport water from the sea to wash sand (Figs. 5.4 and 5.5), shells to use as scrapers or spades, metal foil to magnetize smaller gold remains and flat coral rocks to wash sand in order to recover small beads and small gold remains.

The methods and materials used to excavate at the beaches depends on the physical features of each spot. Excavations undertaken at sandy spots do not require pickaxes. Big shells or five-litre containers are utilized to pack sand into sacks, and then transport it to the flat rocks for washing (Fig. 5.6). This process comprises spilling a little water on the sand and hand sorting to find small remains such as beads and gold remains (Fig. 5.7). Excavations undertaken at rocky spots require pickaxes to smash the coral rocks and reach archaeological remains deposited in inaccessible but visible holes. Interviews with Abdal Abudul (30-01-15) and Fernando Leonel (31-01-15) revealed that the *São Sebastião* fortress beach is the most excavated because glass beads, gold, porcelain remains and other objects from the numerous shipwrecks are most frequently deposited along this section of the

Fig. 5.4 Pickaxes and drums used to recollect archaeological objects © Simbine, 2015



island's coastline (see Fig. 5.1). The interviews also showed that the *São Sebastião* fortress, Areal and Santo António or Marangonha (in front of a Hindu cemetery) beaches are heavily excavated because large amounts of archaeological materials are scattered in these areas after storms. There is, however, a considerable reduction in archaeological remains. The beaches at Macaride, Litine and Estéu are not dug often owing to pollution and to low occurrence of archaeological remains with commercial value.

5.6 Analysis of the Archaeological Remains

Porcelain and European wares: the analysis of 72 Chinese porcelain sherds and 33 European ware sherds collected at the thirteen spots during the observation period (for details see Table 5.1), showed decorative motifs similar to those found in Kilwa, Gedi and Manda by Neville Chittick (1974) suggesting long-standing trade relationships between Asiatic, Islamic and Swahili merchants both post- and pre-European trade expansion into East Africa (Chittick 1974: 333). This supported previous research carried out on Mozambique Island by Sinclair (1985), Duarte and Meneses (1994) and Madiquida and Miguel (2004). The blue and white and black and white Chinese porcelain and European wares recovered from the beaches of Mozambique

Fig. 5.5 Filing a bag with sand © Simbine, 2015



Island were also found at Inhambane, Zumbo, Cachombo, Degue-Mufa, Quissanga beach, Ibo Island, Foz do Lúrio and Sofala. They represent a variety of historic periods in Mozambique. The appearance of Chinese porcelain and European ware sherds with naturalistic decorative motifs indicates trade and commercial contacts developed in the second half of the second millennium CE between the Island and the Indian Ocean trade network. (Plate 5.1).

Beads: the beads collected on the Island may be divided into two types: (1) local beads made with shells and coral stones; (2) glass beads of different colours – most are monochrome (transparent white, blue, yellow, butterscotch orange, black, red, brownish red and green), two are dichromatic (white and blue and red and black) (Plate 5.2). It is important to assert that no chemical or X-Ray analysis of these beads has been undertaken. They are only described by comparing their colour and shape with other beads from previously excavated sites. The beads have varied shapes: tubular, cylindrical, spherical and oblate (Robertshaw et al. 2009), the features of these beads seem to indicate that they are of Indian origin (Wood 2012, paper VI). These beads are similar to those excavated in the *São Sebastião* fortress at Mozambique Island (Sinclair 1985; Madiquida and Miguel 2004), at Ibo Island (Sinclair 1986), in Chibuenene (Sinclair 1982; Wood 2012, paper III) and at Degue-Mufa (Macamo 2006).

Of the 86 beads collected from Mozambique Island: 16 are shell, one is coral stone, one is gold, and 68 are glass (for more details, see Table 5.2). The gold beads

Fig. 5.6 Washing sand to gather beads and gold particles © Simbine, 2015



Fig. 5.7 Informal collector washing and sorting excavated materials

Table 5.1 Analysis of Chinese porcelain and European ware sherds from Mozambique Island

Spots	context	Type	Colour	Shape	Total	TCP	%	TEW	%
1	30 cm	Ming and Qing dynasties	Blue and white	2 bases, 4 rims and 1 unidentified	10	7	6.67	3	2.86
		Portuguese ware twentieth century	Blue and white	1 base and 2 unidentified					
3	Surface	Portuguese blue and white tin-glazed	White, green and red, blue and white	1 base plate 2 rims	3	—	—	3	2.86
4	Surface	Qing dynasty seventeenth to nineteenth centuries	Blue and white	1 unidentified	3	1	0.95	2	1.90
		English willow late 1800s	Blue and white	2 rims plate					
5	Surface	Ming and Qing dynasties	Blue and white	1 base, 1 rim and 2 unidentified	5	4	3.81	1	0.95
	20 cm	English printed mid-1700s	White and lilac	1 base					
6	20 cm	Ming dynasty fifteenth to sixteenth centuries	Blue and white	3 bases plate and 13 unidentified	18	16	15.24	2	1.90
	Cleaning sand	English stoneware	Green and white; blue and white	1 rim and 1 unidentified					
7	Cleaning sand	Qing dynasty seventeenth to nineteenth centuries	Blue and white	3 unidentified	5	3	2.86	2	1.90
		Green transfer printed whiteware late eighteenth	White, light blue and light green	2 unidentified					
8	Surface	Qing dynasty seventeenth to nineteenth centuries	Blue and white	3 rims and 3 unidentified	7	6	5.71	1	0.95
		English willow late 1800s	Blue and white	1 rim					

(continued)

Table 5.1 (continued)

Spots	context	Type	Colour	Shape	Total	TCP	%	TEW	%
9	Surface	Chinese porcelain from different periods	Blue and white; green and white; black and white	5 bases, 2 rims, 18 unidentified	34	25	23.81	9	8.57
		English late 1800s and Portuguese wares painted 1800s	Blue and white; green and white	1 base plate, 4 rims and 4 unidentified					
10	Cleaning sand	Chinese porcelain	Blue and white	2 unidentified	2	2	1.90	–	–
11	Surface	Ming and Qing dynasties	Blue and white	1 rim and 5 unidentified	9	6	5.71	3	2.86
		Dutch wares 1700s	Blue and white; green and white	1 base plate and 2 unidentified					
12	Surface	English printed mid-1800s	Blue and white	1 base and rim saucer, 1 base and 1 rim	3	–	–	3	2.86
13	Surface	Ming dynasty sixteenth century	Blue and white	2 unidentified	6	2	1.9	4	3.81
		Portuguese painted ware twentieth century	Green and white	3 rims and 1 unidentified					
Total					105	72	68.56	33	31.43

were traded around the fourteenth century (Wood 2005: 87), and glass beads were traded from about 1600 up to the mid-1830s and significant numbers have been unearthed in southern African sites of this period (Madiquida 2015: 151). The opaque brownish-red, cylinders and oblates are known as Indian red. The black, blue, yellow, green, orange and blue-green were Indo-pacific beads made in India from about the second century BCE to the seventeenth century CE (Wood 2012, paper III: 2) and in Sri Lanka between first and tenth centuries CE (Wood 2012: 13 in Madiquida 2015: 151).

The import of glass beads impacted on the social differentiation within Bantu speaking communities from south of the Zambezi river (Macamo 2006: 305). Research into the distribution of glass beads between different social levels within communities from Shashe-Limpopo showed that the Shashe-Limpopo elite imported these beads in exchange for gold, ivory and probably animal skins and slaves who were taken to Mozambique Island where trade goods from the Indo-pacific region,

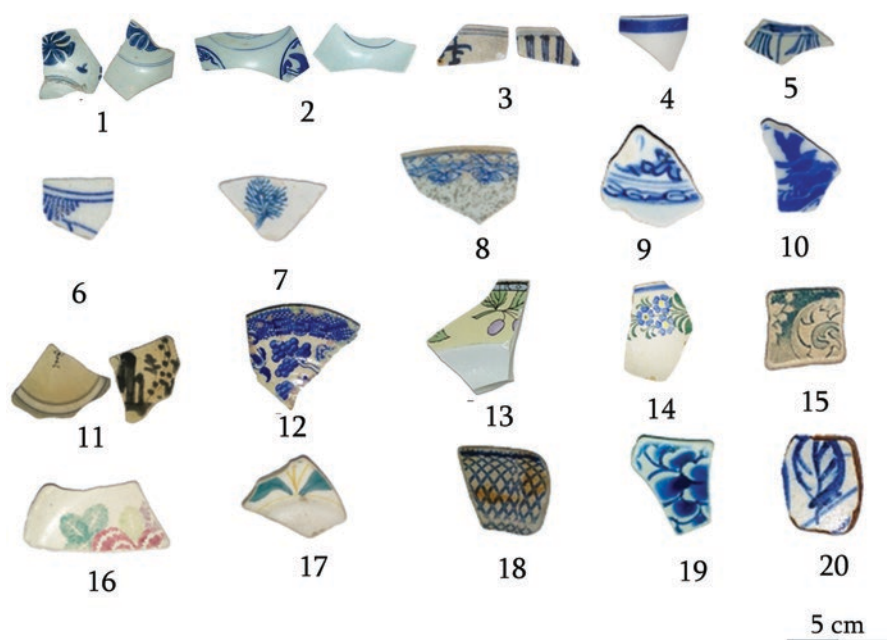


Plate 5.1 Chinese porcelain and European ware sherds from the beaches of Mozambique Island (1–5) Chinese porcelain, Ming Dynasty fifteenth to sixteenth; (6–10) Chinese porcelain, Qing Dynasty seventeenth to nineteenth; (11, 13, 19) twentieth century porcelain; (12, 14, 18) English willow late 1800s; (15) Green transfer printed whiteware late eighteenth; (16, 17) Portuguese ware twentieth century; (20) Portuguese blue and white tin-glazed. The decorative motifs are mainly naturalistic scenes (identification by the author)

Asia and Europe and America crossed (Wood 2012, paper I: 52). Many monochrome beads found in thirteenth-century sites of the Shashe-Limpopo (Wood 2009: 228), are similar in colour and shape to those collected on the beaches of Mozambique Island as well as those recovered from the wreck of the *Henrietta Marie*, which sank in the Florida Keys in 1700 (McGhee 2007: 387–9).

5.7 The Impact of Informal Collection of Archaeological Remains

An analysis of objects recovered through informal collection provides opportunities for basic evaluation of the porcelain, glass beads and European ware found on the beaches of Mozambique Island, but does unstructured recovery impact on the potential for in-depth archaeological interpretation. Arguably, none of the material was found in its primary archaeological context. Objects from shipwrecks, terrestrial sites, dumping or loss are scattered along the beaches by currents and other

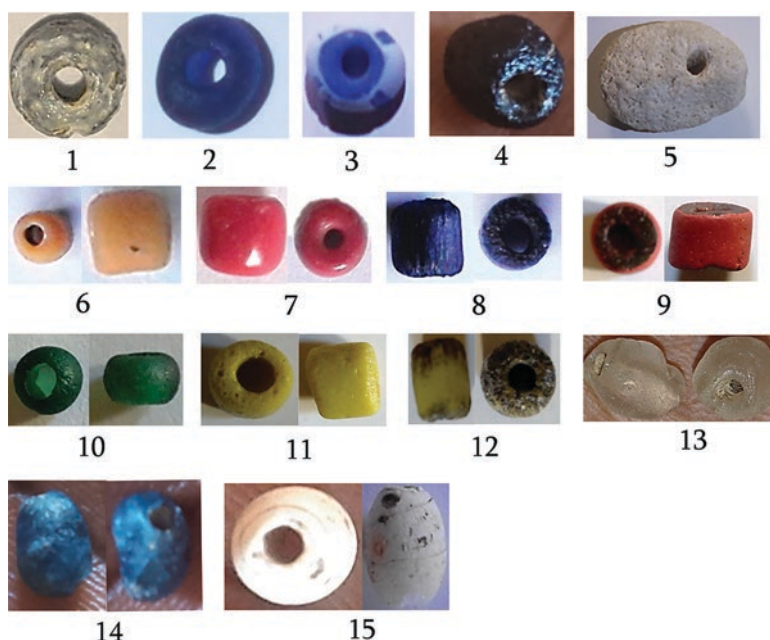


Plate 5.2 Beads from beaches of Mozambique Island

(1) Gold bead, spherical in shape; (2) Blue glass bead, oblate in shape; (3) White and blue glass bead, oblate in shape; (4) Black glass bead, tubular in shape; (5) White stone coral bead, oblate in shape; (6) Butterscotch-orange glass bead, oblate in shape; (7) Brownish-red glass bead, oblate in shape; (8) Black glass bead, cylindrical in shape; (9) Red in black small bead, cylindrical in shape; (10) Green glass bead, oblate in shape; (11) Yellow glass bead, small cylindrical in shape; (12) Yellow glass bead, cylindrical in shape; (13) White transparent glass bead, tubular in shape; (14) Blue glass bead, tubular in shape; (15) Shell bead, tubular in shape

environmental actions. Material excavated from below the surface was also decontextualized during collection. In spite of this, the location of objects, taken in conjunction with an analysis of environmental and human catalysts, may allow archaeologists to trace their origin to sites or places and perform more meaningful investigation. However, the removal and dispersal of archaeological remains through informal collection undoubtedly impacts on research potential and results in data loss. Additionally, there is a perception that the sale of heritage objects has negative social consequences for the island community (Sharfman 2017). This is of deep concern for heritage managers, especially in the Mozambique Island context as described by Mahumane in this volume.

It must be noted that some positive impacts of informal collection and excavation activities were reported. Specifically, they are important for subsistence, aiding the families of individuals involved in informal excavation, collection and sale of the archaeological heritage. Archaeological remains that are converted into bead necklaces, wall ornaments, porcelain pendants and chains made from melted silver coins are priced between \$4 and \$40 depending on the size and condition of the porcelain

Table 5.2 Beads colours and type distributions by Spots

BC/T	S1	S2	S3	S4	S5	S6	S7	S10	TCB/T	Total %
Gold	1	–	–	–	–	–	–	–	1	1.2
Shell	2	–	–	2	6	–	6	–	16	18.6
White	2	–	–	–	1	–	–	–	3	3.5
Orange	5	–	–	–	–	–	–	–	5	5.8
Yellow	10	1	–	3	6	2	7	2	31	36.0
Green	6	–	–	1	1	–	1	1	10	11.6
Blue	2	1	–	2	1	1	–	–	7	8.1
Coral stone	–	–	1	–	–	–	–	–	1	1.2
Black	–	–	–	1	1	1	2	1	6	7.0
White in blue	–	–	–	–	1	–	–	–	1	1.2
Red in black	–	–	–	–	–	1	–	–	1	1.2
Brown	–	–	–	–	–	1	–	1	2	2.3
Red	–	–	–	1	–	–	–	1	2	2.3
Total	28	2	1	10	17	6	16	6	86	100

BC/T Bead Colours/Type and *TCB/T* Total Colours Beads/Type

sherds and silver coins. The depletion of ceramics from the breaches of Mozambique Island is evidence though, that the practice of informal excavation, collection and sale of archaeological material is detrimental to the study of the cultural heritage of the Island and adjacent regions, as mentioned. The negative impacts of collection and sale of archaeological remains include the depletion of heritage material and the export of cultural objects from the island or even the country. These activities also have negative environmental impacts in that they accelerate beach erosion. While local authorities have forbidden excavation and collection activities resulting in an observable decrease in the number of people who practice these behaviors, informal collection of archaeological remains is still prevalent. Thus, alternative, viable solutions need to be formulated and examined in order to mitigate this problem. Amongst these is the revision of legislation concerning the authorization of sale of archaeological objects – law n° 10/88 of 22nd of December 1988 and Regulation of Archaeological Heritage Protection (decree 27/94) – that is neither clear nor functional. It is also necessary that education concerning the importance of the terrestrial and underwater archaeological heritage that exists on the island and adjacent regions is promoted. This archaeological resource can be studied through collaboration between archaeologists and the local community to reconstruct the history of the Island.

Several key factors have driven the development of maritime archaeology and perspectives on the maritime cultural landscape in Mozambique to date. Most significant has been the activities of treasure hunters that compelled archaeologists and heritage managers to focus their work on the management and protection of European shipwrecks, as described by Mahumane in this volume. This focus, together with the predominantly Eurocentric narrative ascribed to the Outstanding Universal Values of the Mozambique Island World Heritage Site, and the limitation

of access to sites under the control of AWW/PI, has left the island community feeling disconnected from their own heritage, without a voice in determining heritage significance and marginalized from management structures (Sharfman 2017). Because island residents have been excluded from heritage, particularly maritime heritage, objects associated with this facet of the island's past have become dissociated from the heritage deemed significant to the community. It is interesting to consider whether the assignment of commercial value to ceramic shards and glass beads by local collectors and tourists is a consequence of the treasure hunter's development of narratives to increase the value of objects offered up for formal sale, and whether continuing exploitation of the historical resource is a further marker for the impact of treasure hunting on archaeological sites.

5.8 Conclusion: A Snapshot of Underwater Cultural Heritage in Mozambique

Mozambique has had a divided approach to MUCH management. Shipwrecks have been viewed as a commercial resource and have been exploited as such, but have also been recognized as a source of valuable archaeological or historical data which must be preserved and studied. It is unfortunate that the former has dictated the activities aimed at MUCH. Salvage of "treasure ships" has dominated the UCH narrative, marginalized communities to whom sites are significant, and forced archaeologists and heritage managers to concentrate their efforts on an agenda for policy change above their own research focus. After almost two decades, Mozambique has only just begun to address issues of MUCH in a context which promotes conservation and archaeological research and is beginning to explore new pathways for management. While salvage activities have undoubtedly impacted negatively on Mozambique's shipwrecks, archaeologists and heritage managers are now in a position to develop an approach that gives a voice to multiple stakeholders at multiple levels. Mozambique Island offers an opportunity to test the efficacy of a new approach in a context which reflects the challenges of the past. Treasure hunting activities have influenced local, national and international perceptions of underwater cultural heritage, MUCH management and conservation benefits and it is now necessary to redefine the resource. Mozambique is burdened with a MUCH legacy shaped by commercial salvage in which perspectives of UCH are limited to European treasure ships lying accidentally in national waters. In their efforts to act in line with the tenets of the 2001 Convention on the Protection of Underwater Cultural Heritage, practitioners are challenged to assess the impact of salvage, redress negative perceptions, develop a relevant research strategy and implement research activities that meet both their own interests and those of a community that feels it has been excluded from its own past. In this context, Mozambique faces new pressures that will define its approach to MUCH management and expand its scope from the established colonial shipwreck. To do this, new research programs are

including local narratives into the dominant European shipwreck historical perspective, opening spaces for communities to showcase their maritime past in a locally relevant way and promoting a broader landscape approach to research. At the same time, projects are revisiting shipwrecks that have been impacted by treasure hunting to assess sites and develop stabilization strategies. In this way, Mozambique has adopted an approach to MUCH that focuses on both management and research in order to promote and conserve MUCH and reconcile a marginalized local historical narrative in a global context.

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Chapter 6

The Role of the National Museum in MUCH Management and Regional Capacity Building: Current Research in Kenya



Caesar Bitu

6.1 Introduction

Archaeological works on the coast of Kenya have revealed that the coastal belt has been settled from the Pleistocene, through the early pre-Islamic and Islamic periods to the present (Kusimba 1999). Throughout these periods, communities who settled along the coast established themselves as fishermen, farmers or traders. The fishermen learnt the art of fishing, construction of boats and sailing. At the same time, the Kenyan coast has been visited by seafarers from China, Persia, and Greece from as early as 2000 BCE (Hourani 1963). Excavations along this coast have recovered evidence in the form of shipwrecks, ceramics, architectural designs, beads and glass confirming that the Kenyan coast was globally connected. Archaeological evidence is supported by historical documentation that mentions trade in animal products (skins and horns) metal and spices between Asia, Europe and the East African coast (Chami 1994, 1999, 2006, 2009; Sheriff 2002). Documents also refer to the exporting of slaves from the Swahili coast as soldiers, domestics and agricultural labourers to reclaim the marshlands of southern Iraq. By end of seventh century these slaves were numerous enough to stage a revolt in Baghdad. There are also reports of Zanj slaves reaching China as early as seventh century (Stigand 1913; Mathew 1963; Whitehouse and Williamson 1973; Sheriff 2002).

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6.2 Locating the Kenyan MUCH Narrative Within the Heritage of the Historic and Arabian Trade Routes

Kenya is a maritime country with a coastline with many small islands and navigable channels. It was a major player in transoceanic maritime trade across the Indian Ocean. Through the centuries, communities who settled along the Swahili coast established themselves as fishermen, farmers or maritime traders. Influenced by ancient trade links, they adopted Islam and became middlemen in the Africa-Indian Ocean maritime trade network. Global maritime relationships were established, forming the basis for the development and wealth of this coast from the late 1st and early 2nd millennia CE. This led to the foundation of major urban communities from the Lamu Archipelago in the north through Mombasa to Vanga on the south Kenyan coast. These early coastal and island settlements include Mombasa, Lamu, Pate, Faza, Dondo, Ungwana, Siyu, Kilepwe, Mambrui, Malindi, Gedi (Kirkman 1964; Freeman-Grenville 1975; Chittick 1984; Horton 1987; Kusimba 1999; Whitehouse 2001; Chami 2006; Bitá 2014b) (Plates 6.1 and 6.2).

Communities on the Kenya coast established and sustained long and continuous history of interaction with the Indian Ocean. For centuries voyages based on regular and predictable monsoon winds took ships between the Swahili coast, the Persian Gulf, the Indian subcontinent, China and, later, across the Atlantic as far as Europe and the Americas. The Graeco-Roman sources such as the anonymous *Periplus of the Erythrean Sea* (40–70 CE) and Ptolemy's *Geography* (140 CE) are testament to the longevity of this seafaring tradition (Freeman-Grenville 1975; Chami 1994; D'Souza 2008; Hollingsworth 1951; Dato 1970; Freeman-Grenville 1975; Huntingford 1980; Wright 1984; Kirwan 1986; Chami 1994, 2006) (Plate 6.3).

Historic texts and archaeological research describe the use of sewn boats in settlements predating Swahili culture (Freeman-Grenville 1975), and the later Arabian and Portuguese dominance of the Swahili coast are reflected in the shipwrecks, artifacts and monuments along the Kenyan coast. These documents and objects show the Swahili settlers as both cultivators and merchants who traded ivory and tortoise in exchange for metal objects (Stigand 1913; Casson 1989; Horton 1990).



Plates 6.1 and 6.2 Ancient towns along the Kenya coast with Arab remains; and one of the ruined mosques in Malindi, Kenya (Bitá 2012)

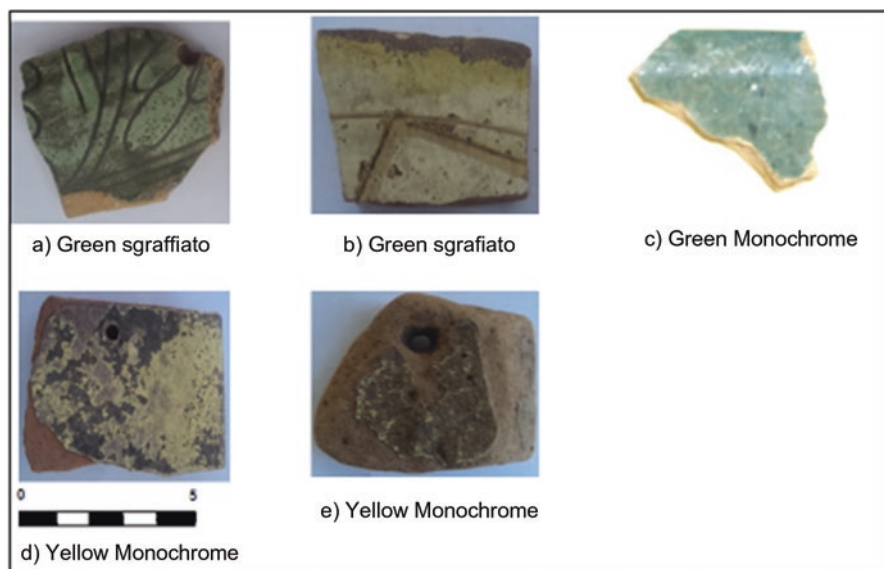


Plate 6.3 Islamic graffito from archaeological excavations on the Kenya Coast (Bita 2012)

Maritime cultures and activities are still practiced in this region. For example, religious practices and traditional boat building styles that have been practiced for centuries continue to play a role in the lives of the coastal people. Archaeological works on the coast of Kenya have recovered evidence in the form of shipwrecks, ceramics, architectural designs, beads and glass that confirm that the Kenyan coast was connected to the Arabian Gulf.

6.3 Kenya's Maritime and Underwater Cultural Heritage Landscape

The Kenyan coast is part of the western Indian Ocean region commonly referred to as the 'Swahili coast' which, for over 2000 years, was a major player in the ancient transoceanic maritime trade in the Indian Ocean. Kenya had vibrant international trade contacts with India, China, Portugal, Arabia, Burma, and Indonesia among others. The remnants of the ships and cargoes associated with these connections lie buried in our oceans. Fascinating traditions including sailing, fishing and boat building styles, together with the infrastructure resulting from these ancient interactions remain as reminders of this past. Kenya's MUCH consists of the sum of these shipwrecks, traditions, sites and monuments associated with both long-distance maritime networks and interactions with the hinterland. Three major trade hubs formed the core of Kenya's maritime cultural landscape.

6.3.1 *Mombasa*

To date, the island town of Mombasa has been at the centre of research associated with the Kenyan maritime cultural landscape. The small coralline island, situated at approximately 4°4' S and 39°43' E, is about 5 km north to south by 4 km east to west and covers an area of about 14.5 km². Research has shown that Mombasa town existed from at least 1000 CE, and continued to flourish until the early sixteenth century (Boxer 1960; Freeman-Grenville 1975; Sassoon 1982). The island's old port is in a relatively sheltered position, with deep-water anchorages on its eastern side rendering it an important and strategic trading center on the East African Coast for many centuries. Mombasa has been a gateway to the interior and its western harbour of Kilindini is now Kenya's main port, and indeed one of the major ports on the East African coast. In the early 1590s the Portuguese made Mombasa a base from which to control the East African coastal trade and, apart from a brief period in 1631–2, they dominated Mombasa and other strategic points along the Swahili coast until they were expelled by the Omanis in 1698 (Lynch 1999). During their time in Mombasa, they constructed several churches and fortifications, including Fort Jesus, a monumental edifice which still towers above the coastline today (Kirkman 1964) and which is now a World Heritage Site (WHS) (See Fig. 6.1).

Mombasa was one of the most vibrant port cities of the east African coast and traded with Sofala, Zanzibar, the Far- and Middle-East, India and China. Ivory, rhinoceros horns and high-quality tortoise shells were exchanged for lances, hatchets, daggers, awls and glass (Matthew 1963; Sheriff 2002). Arab Geographer Al-Idrisi (1099–1165 AD) and Moroccan traveler Ibn Battuta (1304–1377 AD) who visited Mombasa in 1331, noted that it was a prosperous trading town (Freeman-Grenville 1975). Duarte Barbosa, a Portuguese voyager of the fifteenth century, said, “Mombasa is a place of great traffic and a good harbour where small crafts and great ships were moored, bound to Sofala, Cambay, Malindi and other ports.” During the pre-modern period, Mombasa was an important trading centre for spices, gold, ivory, millet, sesamum and coconuts (Boxer and Azevedo 1960).

6.3.2 *Malindi*

The material remains of maritime trade illustrate the central role of Mombasa in the Indian Ocean network. Terrestrial archaeological studies have unearthed Sassanian Islamic pottery dating from the twelfth to fifteenth centuries CE originating from the Arabian Peninsula (Sasson 1980; Rory et al. 2007; McConkey and McErlean 2007). Other ceramics include Chinese porcelain, Indian and local wares. Underwater archaeological studies have investigated shipwrecks including the seventeenth century *Santa Antonio De Tanna* (Sassoon 1980; 1982; Piercy 1977, 1978), *Globe Star*, *Sussex*, *Ahmad* and *Kota Menang* (Patience 2006; Bitu 2009a, b). Researchers have recovered cargoes of Far- and Middle-Eastern wares, European



Fig. 6.1 Map of Kenya with areas of MUCH concentration (Bita 2010)

and local artifacts, ivory and copper from these shipwrecks (Blot 2015; Piercy 1978; Sassoon 1980), while recent underwater surveys have recovered historical period composite and Indo-Arabian type stone anchors (Plates 6.4 and 6.5).

Malindi is located 120 km northeast of Mombasa and about 250 km south of Lamu. It has formed part of the Indian Ocean trade network since the early centuries of the last millennium CE. The town appears in ninth century Chinese records (Freeman-Grenville 1975:7; Kirkman 1964) and was visited and described by Arab

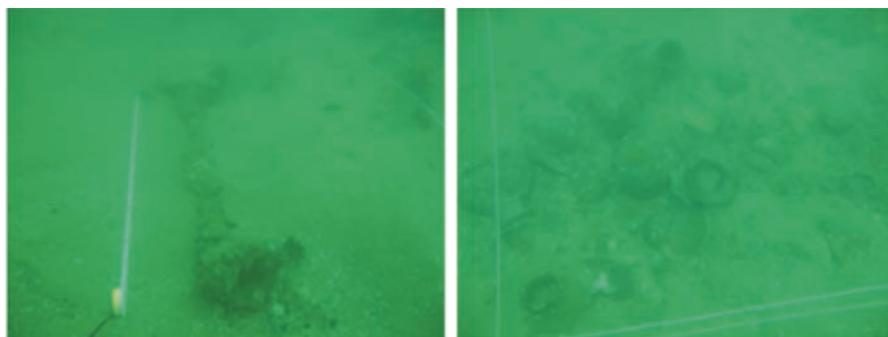


Plates 6.4 and 6.5 Ivory inside Ngomeni Shipwreck and a black glazed jar (Bitu 2014b)

and Portuguese traders in the twelfth and fifteenth centuries CE respectively (Freeman-Grenville 1975; Inghams 1962; Ross 1995; Hall 1996; Sassoon 1980). The Chinese explorer *Zheng He* is said to have visited the town in the fifteenth century and was given a giraffe as a present by the ruler of Malindi (Kirkman 1964:86–89). At the time it was a thriving town. It continued to grow, prompting the Portuguese to make it their headquarters for international trade links between Europe and the Indian sub-continent throughout the sixteenth century (Boxer 1960; Freeman-Grenville 1975; Kirkman 1964, 1974; Hourani 1963; Martin 1973, 1975; Martin and Martin 1978; Sutton 1990; Bitu 2005, 2011, 2012). Maritime archaeological surveys have identified a variety of submerged sites of the coast of Malindi including the sixteenth century *Ngomeni* Shipwreck, 25 km north of Malindi Town (Bitu 2014b, c). Materials recovered in the wreck include stone ballast, stone anchors (large coral stones with holes in the middle), lead plates, straps and strips, copper ingots, Islamic green and black glazed pottery, cinnabar, wooden buckets, animal horn, ivory, concreted artifacts and many others.

6.3.3 Lamu

The Lamu archipelago is composed of several islets, the main inhabited islands being Lamu, Manda, and Pate, all with ancient towns with the same names. Ancient settlements in this archipelago are important landmarks in the history of the Swahili Coast. They were important centres of the northern Swahili world with some, like Manda and Pate, showing evidence of very early occupation (Chittick 1984; Horton 1987:290–322) with Pate town being among the earliest sites founded on the East African coast (Wilson and Omar 1997; Kusimba 1999). Research indicates that Pate fully participated in the development of the Swahili culture and grew to be one of



Plates 6.6 and 6.7 Shipwreck site in Lamu with iron anchor and pottery (Bita 2014b)

the most politically influential and economically prosperous communities on the Swahili coast (Wilson and Omar 1996:453–554; Wilson and Omar 1997:31–76). For many years Pate Island served as the gateway to Lamu for ancient sea travelers. Even now, locals refer to its eastern shores as *mlango wa Lamu* (gateway to Lamu). The Portuguese used this route to control Western Indian Ocean trade (Freeman-Greenville 1975:50–112; Kirkman 1964:86–117) and before this, Arabian seafarers dominated the coastal strip using the same route for trade with the Persian Gulf (Chittick 1979:273–277; Chittick 1984; Hall 1996). Underwater surveys in the waters of the archipelago have uncovered several sites. These include a shipwreck site with massive iron anchors, pottery and concreted anomalies some with ancient muskets (Bita and Wanyama 2007) (Plates 6.6 and 6.7).

Other important maritime cultural heritage on the Kenyan coast includes maritime structures such as jetties, anchorages and sacred sites. There are also fish landings, boat building sites and sites of other maritime practices. The Kenyan coast has witnessed competing powers such as the rival Arab rulers, Portuguese, Germans, British and Italians (Coupland 1938; Kirkman 1964, 1974; Martin 1973, 1975) who have erected marine structures including redoubts, forts like Fort Jesus, Siyu Fort and Lamu Fort, as well as habitable caves, escape tunnels and military bunkers (Bita 2009b, 2013a, b). Further, communities who settled along this coast established themselves as fishermen, traders and sailors. In the course of exploiting the Indian Ocean, these communities have built moorings, anchorages, jetties or sea walls, some still in use and more in ruins (Bita 2008, 2009a).

Sacred sites are manifestations of the relationship between people's beliefs and the elements of the maritime environment. Many are located in rock shelters and caves, as well as in 'secluded places' on the seaward side of cliffs. The traditional ritual paraphernalia include talismans: white and red pieces of cloth or mixed colours of red, blue, white and black. These are mostly strategically placed so as to come in contact with sea water at high tide. Similarly, other maritime practices from this coast, including boat building and fishing styles, depict the varied relationships between humanity and the sea since historical times (Plates 6.8 and 6.9).



Plates 6.8 and 6.9 Ancient Siyu Fort in Pate Island in Lamu and a sacred site on coral in Mombasa

6.4 Management of Maritime and Underwater Cultural Heritage in Kenya

Since the beginning of the twentieth century, the Kenyan coast has witnessed increased terrestrial archaeological research. However, with the exception of the survey and excavation of the *Santa Antonio de Tanna* shipwreck in Mombasa in the early 1980s (Piercy 1977, 1978; Lynch 1999), there was little underwater archaeological activity, despite the fact that the excavation of this Portuguese frigate was the first instance of an underwater archaeological expedition in sub-Saharan Africa. In subsequent years, Kenya has sought to build on this success. Efforts employed include sustained studies of MUCH through National Museums of Kenya (NMK), training personnel, development of an underwater artifact conservation laboratory, drafting relevant legal statutes and empowering institutions involved in management and preservation of MUCH. Furthermore, Kenya has entered into bilateral agreements with countries that have more developed underwater archaeological capacity; developed a database of its MUCH; and enjoys good rapport with stakeholders. Authorities have strived to stimulate awareness in the field of marine heritage and coastal management amongst the general public and in schools through public archaeology programmes run by the NMK and other means (Bitu 2010). *The author is currently the Secretary, UNESCO Africa Regional Committee on Underwater Cultural Heritage and has published several articles on underwater archaeology and presented professional underwater archaeology papers at several international conferences.*

These efforts are currently supported by the country's legal framework. The National Museums and Heritage Act (NMHA) forms the legal framework for formal protection, conservation, presentation, research and management of cultural heritage resources in Kenya. Under this Act, historical sites and monuments, archaeological sites, artifacts etc. are protected. The Act recognizes underwater cultural heritage and declares that any shipwreck older than 50 years within Kenyan waters is a declared National Monument and automatically protected (Kenya Republic 2010). This statute establishes the NMK as a State body with a mandate of

custodianship of national heritage on behalf of the Kenyan public and government, and provides for the identification, protection and conservation of sites and monuments in Kenya. It gives the NMK the powers to put in place sound policies for managing heritage sites and materials. This legal framework together with municipal and state legislation, international conventions, and professional “best principles and practices” for cultural heritage resource management (Odiaua et al. 2010) provides the structure and mandate for managing underwater cultural heritage. The first set of legal principles and laws are inferred in the preamble to the Kenya Constitution in which the people of Kenya commit themselves to respect and recognize the environment as national heritage and promise to sustain it for the benefit of posterity: *“We the people of Kenya ... respectful of the environment, which is our heritage, and, determined to sustain it for the benefit of future generations ...”* (Kenya Republic 2010).

The second part of the legal framework is provided by both the Constitution and Section 5(1n) of the National Museums and Heritage Act, 2006. Section 42(a) of the Constitution establishes a clean and healthy environment, including its protection and conservation for the present and future generations, as a fundamental human right. While Section 69(1e) assigns the State powers to establish systems of environmental impact assessment, environmental audits and monitoring. Section 69(2) again assigns everyone the duty to cooperate with state organs and other persons to protect and conserve environment and ensure sustainability in development and use of natural resources (Kenya Republic 2010). In Section 5(1n) of the National Museums and Heritage Act, the NMK, as the custodian of natural and cultural heritage, is given powers to ensure that environmental impact assessments (EIA) for any planned development project are carried out using recognized experts. The assessment study from the NMK perspective should focus on any developmental activity that poses negative impact to cultural heritage including destruction, damage and threats to integrity and significance. Sacred places and sites or objects of archaeological and paleontological interest (antiquities) are known to occur within the natural physical environments and thus this leads to the conservationist and archaeological thesis that “every parcel of land has potential for archaeological heritage, unless proven otherwise, through archaeological scientific study” (Kiriamia et al. 2010). In the letter and spirit of this statute NMK may formulate sound policies and actions to regulate conservation and management of heritage resources. A Cultural Heritage Impact Assessment study therefore becomes a mandatory statutory requirement for any development about to take place on or near a heritage site (Kenya Republic 2006).

The Environmental Management and Coordination Act, (EMCA, See Kenya Republic 1999) provides further clarity. This statute sets out the responsibilities and procedures for conducting Environmental Impact Assessments, including Cultural Heritage Impact Assessments. Some guidelines and regulations are further established by this Act (see Kenya Republic 2002). In addition, the law clearly makes EIAs mandatory for all development projects whether private, public, individual or corporate and allows for Lead Agencies to make submissions on concerns arising from their mandate or lines of work. This is supported by Section 47 (1), (2) and (3) of the Physical Planning Act, 1996 (Kenya Republic 1996). This legal tool prohibits

alteration, demolition and extension of buildings with architectural value, and provides that all regional and development plans, consider all declared heritage or heritage resource deemed to have been declared under National Museums and Heritage Act, 2006.

Cultural Heritage Impact Assessments are an important tool not only for cultural resource management, but also environmental conservation as they draw the attention of developers to the potential negative impacts of a proposed development. They seek to suggest mitigation measures against the negative impact that projects may have on cultural heritage resources before such a development project is implemented. Cultural Heritage Impact Assessment studies identify, through scientific means, the extent and range of archaeological and cultural heritage resources on a site of a proposed development and propose rafts of mitigation measures to offset potential negative impacts. These, in most cases, have included documentation, rescue excavation, *in-situ* preservation, and relocation of the cultural assets and/or abandonment of the project. The collected or rescued archaeological record is salvaged for posterity through conservation in national repositories/museums and can be accessed for exhibitions and scholarship. Cultural Heritage Impact Assessments are therefore not an antithesis to national economic development, but a mandatory legal requirement in the national development process in Kenya. The value of heritage impact assessments for the protection of underwater cultural heritage is illustrated by the following examples:

1. *Maritime Archaeological Impact Assessment for the SEACOM, The East Africa Marine System (TEAMS), East Africa Sea System (EASSY) and LION 2 (Telkom/Orange) undersea fibre optic cables in the Tudor Channel, Mombasa.*

Cultural Heritage Impact Assessment for SEACOM, TEAMS, EASSY and LION 2 were done as a prerequisite to the laying of undersea fibre optic cables in the Tudor channel in front of Fort Jesus Museum. Tudor Channel is the channel that leads to the ancient port of Mombasa and along which Fort Jesus World Heritage Site (WHS) stands. The study was a necessity to mitigate the impact of the cable project on submerged cultural heritage in the creek area. The main objective of the maritime impact assessment was to identify, document and evaluate MUCH resources within the project area, assessing all impacts which might result from the project and to make recommendations on viable alternatives for managing unavoidable impacts on all heritage resources. The impact assessment surveyed six shipwrecks including the famous *Santo Antonio de Tanna* wreck, and several anomalies in the creek (Sassoon 1980; Forsythe et al. 2003; Patience 2006; Rory et al. 2007; McConkey and McErlean 2007). Mitigation involved rerouting the cables in some sections to avoid impacts to the shipwrecks (Bitu 2009b; Bitu and Wanyama 2011).

2. *Maritime Archaeological Impact Assessment Study for the dredging of Kilindini Harbour and Port Reitz container terminal Mombasa, Kenya.*

This government project was undertaken by Kenya Ports Authority, the State Corporation charged with managing ports in Kenya. The project involved deepening and widening of the channel that leads to the modern Kilindini harbour in Mombasa to allow large sized vessels to enter the port, and the construction of a new container

terminus. NMK carried out the underwater and terrestrial archaeological impact assessment in areas earmarked for dredging and land reclamation. NMK surveyed and suggested mitigation measures for management of the cultural heritage resources including shipwreck sites, ancient archaeological sites and historical objects.

The study found that the project area has high potential for palaeontological remains such as fossil ammonites, petrified wood and archaeological lithic implements which suggest presence of coastal Stone Age culture. The area also contains remains of early colonial history and World War II ammunition. It is home to sacred sites, some still in use by local people. The *Ahmadi* (1909) and *Derna* (1954) shipwrecks lie in the access and navigation channels. The CHIA recommended that dredging be restricted to areas outside a 50 m radius from the location of the shipwrecks and the wrecks were recommended for gazettelement to be declared national monuments. All collected palaeontological and archaeological materials were deposited at national archaeological repository at the Fort Jesus WHS, and are accessible to researchers, students and members of the public through exhibitions and other media (Bita and Wanyama 2012).

3. *Heritage impact assessment for the construction of a retaining seawall at Fort Jesus World Heritage Site, Mombasa, Kenya.*

This study was an intervention to survey and rescue MUCH in an area proposed for a sea wall. It arose from concerns of possible destruction of cultural heritage on the Fort Jesus WHS, a significant symbol of the interchange of cultural values and influences between the African and Europe. The remains of shipwrecks lie in the waters on the eastern periphery of the Fort (see Fig. 6.2) and reflect past trading and administrative functions of the city of Mombasa (Sassoon 1980; Patience 2006; Bita 2009b, 2013a, b, 2015a, b, 2016). Extensive erosion of the coral reef also poses a serious threat to this WHS. This prompted the Kenyan Government through NMK to initiate a CHIA to identify and document the cultural heritage resources in the proposed development area and to identify possible impacts on cultural heritage.



Fig. 6.2 Map of Mombasa showing the submerged cultural heritage (Bita and Wanyama 2012)

Suggestions and/or recommendations for measures/mitigation and/or salvage of heritage resources to mitigate irreversible negative impacts that the project might inflict were also to be included in the assessment. The study resulted in the rescue of vulnerable parts of the archaeological record in the intertidal area of the seawall. These are now being conserved for posterity and safe keeping in the NMK repositories in Mombasa. Additionally, the study recommended mitigations for underwater cultural heritage to be adopted by the project to ensure conservation of the shipwrecks in the development area, including a 200 m long retaining sea wall, in the intertidal zone, to cushion the ancient Fort from sea erosion.

International conventions to which Kenya is State Party offer a final layer of heritage protection. For instance, Article 4 of the 1972 UNESCO Convention on World Natural and Cultural heritage compels State Parties to identify, protect, conserve, present and transmit cultural and natural heritage for future generations. Similarly, article 5(c) empowers the State Party to develop scientific and technical studies or research or formulate operation methods that would enable it counteract the dangers threatening cultural and natural heritage. The UNESCO Conventions that have been ratified by Kenya, provide professional guidelines for heritage management (www.unesco.org/culture/laws). Kenya, despite being the first country in the region to have initiated an underwater archaeological expedition and legally recognizing the value of underwater cultural heritage, is yet to ratify the 2001 Convention on the Protection of Underwater Cultural Heritage. The ratification process is however underway with relevant documentation and communication already initiated.

Finally, Kenya is working on a Maritime Cultural Heritage Policy; an important tool for MUCH management. The legal framework of this document will be guided by the international instruments such as UNESCO 2001 Convention on the Protection of Underwater Cultural Heritage and the United Nations Convention on the Law of the Sea.

6.5 National Maritime Heritage Initiatives

6.5.1 Inclusivity

In order to ensure the efficacy of its underwater cultural heritage management framework, implementing authorities such as the NMK have endeavoured to establish a strong rapport with local communities where cultural heritage is located and integrate them in management of sites, especially those that are tourist attractions. This has led to a growing public interest as illustrated by an increase in handing over underwater archaeological artefacts to the NMK, especially by fishermen. In addition, the institution coordinates research into maritime heritage in collaboration with other governmental institutions and stakeholders such as Kenya Wildlife Services, Kenya Ports Authority, the Ministries of Fisheries and Education, Kenya Marine and Fisheries Research Institute and local Universities.

6.5.2 *Training and Capacity Building*

Kenya views its maritime heritage as a critical element of the country's wellbeing. In addition to its intrinsic value, Kenya views its maritime cultural heritage as a resource that can be continuously utilised for the economic benefits to the country. As such, the country endeavours to conserve, protect and sustainably use its rich MUCH to generate income through tourism and through the creation of employment opportunities for the ever-expanding young population. To do this, Kenya has embarked on a series of activities to upskill individuals to participate in MUCH projects and programs.

As with many nations around the world, underwater archaeology is not an established academic discipline in Kenyan universities despite there being archaeology, anthropology and history departments. However, given Kenya's drive to train its heritage practitioners it is anticipated that a demand for underwater archaeological academic programmes in local universities will increase. Already two underwater archaeologists have been trained through the Sino – Kenya Underwater Archaeological Project which also led to a maritime survey of the Kenyan coast and the partial excavation the Ngomeni Shipwreck (Bita 2011, 2013b, 2014b, 2015a). Three experts in conservation of underwater materials have been trained through bilateral agreements (Bita 2014a). Kenya has also endeavored to engage and participate in international and regional capacity building workshops, including: Advanced Training in *In-Situ* Preservation of Underwater Cultural Heritage: UNESCO Foundation Course (October, 2011), Rayong, Thailand, Underwater Cultural Heritage Management: 3rd UNESCO Foundation Course (February/March, 2011), Bangkok, Thailand, NAS Introduction to Foreshore and Underwater Archaeology; Part I and III (February 2011), Bangkok, Thailand, NAS Introduction to Foreshore and Underwater Archaeology; Part I and II (March 2010), Alexandria, Egypt, Maritime Cultural Heritage Preservation, Presentation & Education: International Training Workshop (April 2010), Alexandria, Egypt, Maritime and Underwater Cultural Heritage Management (Regional Workshop and Training) (February/March 2010), Robben Island, Cape Town, South Africa, Professional SCUBA Diving: Professional Scuba Association International (PSAI), Pro Dive Training Centre. Hong Kong (2007) and Integrated Coastal Zone Management (July 2006), Zanzibar, Tanzania. Kenya has also organized and facilitated a regional UCH training course in Mombasa Kenya in collaboration with UNESCO *December 2015 (UNESCO)*.

The country has also participated in a number of UNESCO regional and international conferences on UCH, including the first Africa Conference on the Protection of the Underwater Cultural Heritage in Yenagoa, Nigeria (2013) and hosted the second Africa Conference on the Protection of the Underwater Cultural Heritage in Malindi in 2015. These conferences brought together participants from 12 African countries (Kenya, Gambia, Guinea Bissau, Guinea, Ghana, Mali, Niger, Seychelles, South Africa, Tanzania, Togo, Namibia, Senegal, Ivory Coast, Mozambique, Sudan, Madagascar and Nigeria) to inform African States about the advantages of

Archaeology to spear-head research and conservation of maritime heritage. In addition, NMK has a fully developed conservation laboratory for underwater materials.

6.6 Conclusions

Kenya was the first country in the region to officially recognize its UCH. Its rich maritime history had long formed part of the archaeological, and national narratives and the broadening of the scope to encompass sites underwater was a natural extension. Kenya's legislation and approach to archaeology, history and heritage was underpinned by recognition of national title and local relevance of the past. Even during the excavation of the *Santa Antonio De Tanna* shipwreck by Texas A&M's Institute for Nautical Archaeology, the involvement of the NMK ensured local participation and ownership. Kenya has continued to develop its MUCH capacity and infrastructure through partnerships with external stakeholders and international heritage agencies such as UNESCO. Through its engagement with UNESCO and by utilizing UNESCO's status and infrastructure, Kenya has been able to further establish itself in a leadership role in MUCH management in Africa.

Kenya has a global, outward-looking perspective on MUCH that recognizes the role of the Swahili in a global trade network. Kenya's approach to MUCH research and management has, therefore been partly driven by the activities of external stakeholders wishing to access their heritage in Kenyan waters. While this approach has partially skewed awareness of MUCH towards shipwrecks and foreign interests, it has allowed Kenya to address its own capacity and research needs in a field that is underfunded globally through ensuring that resource users are compliant with its management frameworks. This has proved successful not only in the academic context, but in the requirements for developers to conduct impact assessments. In doing this, Kenya has developed a blended research/management focus and has been able to begin to investigate broader maritime cultural landscapes and national contexts. The NMK, as the custodian of cultural heritage in the country, has witnessed a growing public interest in UCH in the region.

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Chapter 7

Maritime and Underwater Cultural Heritage in South Africa



Jonathan Sharfman

7.1 South Africa's Legislative Framework

South Africa has promoted itself as a heritage policy leader on the African continent but has struggled to find a relevant and implementable framework for management and research aimed at its MUCH. For the most part, treasure hunters, legislators, and later archaeologists and heritage managers, have adopted a reactionary approach to submerged cultural resources. Influenced by the politics of the day, external pressures and changing public sentiment, it has taken South Africa almost half a century to develop its current, predominantly management focused approach to underwater cultural heritage.

Although legislation that regulates activities aimed at archaeological sites was promulgated in the 1960s (National Monuments Act, no.28 of 1969) legal frameworks aimed underwater cultural heritage generally, and shipwrecks more specifically, have been a more recent addition to South Africa's heritage management systems (Gribble and Sharfman 2013). It was not until the National Monuments Act (Act 35 of 1979) was amended a decade later that shipwrecks were recognized as heritage resources potentially worthy of protection (Deacon 1993). Even then wrecks could only be declared as significant at the discretion of the relevant government Minister. To assist the Minister, a committee was established by the National Monuments Council to draw up a list of wrecks deemed to meet the criteria for nomination to the national register. These included wrecks that carried valuable cargoes or represented landmark events in South Africa's history. Despite their best efforts, however, none of the wrecks listed were ever formally protected. This may have been partly because the majority were not located but, more significantly, was the result of apathy towards the resource even amongst individuals appointed as

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custodians. An internal memorandum drafted and circulated by Jalmar Rudner, then Director of the National Monuments Council, advised that the responsibility for shipwrecks off the South African coast lay with the nations from which they originated and whose heritage they were (Rudner 1986). The memorandum implied that while European colonial expansion and influence were significant to the development of South Africa, the ships themselves were merely the vehicle by which European culture had spread. His views were supported by a committee established by the Department of Transport in 1983 to draft a policy for the management of historic shipwreck sites. The committee concluded that:

It is unacceptable ... that a wreck which is still lying on the seabed or even on rocks or on the shore ... be declared a national monument ... above all, it cannot be of value to the general public. (Department of Transport 1983:21).

Heritage managers' reluctance to incorporate shipwrecks into South Africa's heritage conservation framework, exacerbated by a lack of maritime archaeologists, allowed treasure hunters to control the narratives surrounding shipwreck sites and their contents, and entrench their activities in wreck management frameworks. Despite its underlying rationale the 1979 legislation could not be effectively implemented and commercial exploitation of historic wrecks continued unabated. And so, while legislators had sought to regulate activities, they had instead reinforced the maritime historical narrative produced by treasure hunters and the salvage community whose focus lay firmly on the recovery of spectacular objects and the promotion of the romantic notions of seafaring in the past (Gribble and Sharfman 2013).

In the 1980s, as the numbers of divers began to increase, an increasing number of valuable shipwrecks were located and salvaged. Reports on the recovery of treasures from the sea prompted greater numbers of amateurs to target and loot wreck sites, including those that had been found by others. Faced with the loss of revenue, salvors sought to utilize heritage legislation, supported by salvage law, to safeguard their rights on sites that they had themselves discovered. However, since the law placed formal protection only on those wreck sites that were protected by ministerial decree and since no sites were listed, it offered little benefit to either heritage managers or treasure hunters.

For archaeologists the implications of the loss of archaeological material resulting from continued and widespread coastal exploration and the discovery and salvage of wrecks were negative. At the same time, treasure hunters could not leverage legislation to secure exclusive access to valuable sites. This prompted further amendments to the National Monuments Act in 1986. Most significant, was the addition of a blanket protection for shipwreck sites older than 60 years, which required individuals who wished to disturb them in any way to obtain a permit from the National Monuments Council. The amendment further stipulated that permits for work on vessels wrecked before 1850 would only be issued in exceptional circumstances (Gribble and Sharfman 2013). Regulations would later be added that required salvors to contract an archaeologist to supervise excavations on ships wrecked prior to 1850.

The new permitting system specified the State's rights to a portion of recovered finds. Through a collaborating museum, the state was entitled to up to 50% of all materials. In return for these objects, the cooperating museum was mandated to assist with conservation of finds and to provide storage for artefacts to which the state was entitled. In an effort to retain archaeological and historical data, legislation required that activity reports be submitted at regular intervals during excavation project life cycles including submitting a final report.

Legislators, heritage managers and archaeologists hoped that this more rigorous and controlled framework for regulating activities on historic shipwrecks would stem the loss of data that had resulted from unrestricted recovery of archaeological material (Smith 1988). Unfortunately, faced with minimal archaeological capacity, limited infrastructure, and a lack of funding for conservation and storage of objects, the legal amendments made in 1986 did little to curb treasure hunting and commercial salvage. The National Monuments Council was especially challenged to fulfil its oversight role. In the absence of supervision of commercial projects by qualified archaeologists, heritage managers were forced to rely on the salvors reports for much of their site, archaeological or contextual data. When, in 2001, John Gribble, then maritime archaeologist at SAHRA – the South African Heritage Resources Agency (the agency that replaced the National Monuments Council after promulgation of new heritage legislation in 1999), undertook a high-level analysis of the products of the permit system between 1982 and 2000, he concluded that over an 18-year period, of the 141 applications received, including applications from archaeologists, for work on 105 shipwreck sites, only 53% of permit holders had submitted interim reports and only nine final reports had been received. 78% of the 106 permits issued had been for commercial projects, 22% for archaeological excavations or rescue archaeology. 30 published articles on just ten of the sites made up the full extent of the body of knowledge that had been produced in almost two decades of activities aimed at shipwreck sites (Gribble 2001).

Gribble's conclusions brought the shortcomings of the permit-based policy framework into stark focus. The permit system had not resulted in significantly increased access to archaeological material for heritage managers and researchers; had not discouraged salvage of historic shipwrecks, including those wrecks prior to 1850; nor had it increased research output. Several key weaknesses associated with the legislation contributed to its ineffectiveness. Firstly, despite an interest in maritime history, the primary objective of salvage was the recovery of objects with resale value, often at the expense of historically significant artefacts with little economic value. Secondly, salvors and treasure hunters with little or no archaeological experience failed to see the significance of recording context. In their eyes, it was time consuming and added no economic value to finds. In those instances where salvors did map sites, they were ill equipped to interpret material and its context. Gaps in the archaeological record, the dispersal of recovered finds through sale, and capacity constraints meant that archaeologists themselves were unable to study recovered collections. Although archaeologists participated in work on some sites, salvors resented the intrusion of "ivory tower" academics who they believed had unrealistic expectations of underwater work (Smith 1988). In addition, treasure hunters argued

that little scientific data was recoverable from scattered sites that had been destroyed by the sea. As a result, salvors did not declare everything that they had found and there was widespread distrust of government interventions and museums which might retain some of the more commercially valuable items for their own collections, thereby robbing salvors and investors of reward (Shapiro 2011 *pers. comm.*, Valentine 2014 *pers. comm.*). It became increasingly difficult for heritage managers to convince salvors to carry out time consuming, potentially loss-making archaeological work beyond the minimum requirements stipulated in permit conditions.

The permit system, through sanctioning salvage, further entrenched a salvage culture in underwater cultural heritage management, increasing the threat from treasure hunters, looters, souvenir collectors and divers in general.

As South Africa transitioned politically in 1994, legislators began re-examining policy. The National Monuments Act was replaced by the National Heritage Resources Act (25 of 1999), and the National Monuments Council became SAHRA in 2000. The new Act drew heavily on examples for underwater cultural heritage management included in international legislative frameworks. Drawing on what they observed in foreign legal structures, legislators responsible for drafting the Act attempted to strengthen policy aimed at shipwrecks by incorporating them into the existing framework that governed archaeological sites on land. While the blanket protection of shipwrecks older than 60 years was retained, the sites, and associated wreckage, were included within the definition of “archaeological” (Sect. 7.2 of the National Heritage Resources Act).¹ This, they believed, would mean that the same ethics, standards, and methodologies that applied to terrestrial archaeological sites would be applied to shipwrecks (Fig. 7.1). Heritage managers tasked with implementing the legislation hoped that this would effectively put a halt to commercial salvage of historic wrecks. It did not. Salvors stridently opposed the rescindment of a permitting system that allowed for the division and sale of objects recovered from historic wrecks and argued that since the Act was silent on commercial salvage (and the annulment of the permit system) it should be read as condoning continued commercial activities. Salvors pointed to several sub-clauses contained in the Regulations associated with the National Heritage Resources Act that related to the sale of specific categories of heritage objects and that implied that archaeological material may be sold under certain circumstances. In addition, it was argued that the precedent that had been set over two decades of regulation should guide heritage managers in the absence of explicit policy.

The salvage lobby further argued that the value of its work had been misrepresented by heritage practitioners and that they were producing more data than maritime archaeologists through their salvage work. Since the small pool of professional maritime archaeologists were largely employed in administrative roles, they

¹ *The National Heritage Resources Act (25 of 1999), 2(2)(c) defines “archaeological” to include “wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic [...], and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation”.*

Fig. 7.1 Divers inspect an anchor in Table Bay, Cape Town © Jonathan Sharfman



argued, they did not produce significant research data. Salvors, on the other hand, continually brought new objects to the surface and showcased them through the media. They pointed to collections donated to museums by treasure hunters and to the reports that they had supplied to heritage managers. These representative collections were, they asserted, preferable to having nothing at all (Johnston 1993; Bennie 2006; Brandt 2006). This, the treasure hunters insisted, showed that maritime archaeology was of little value and that it produced no new insights into past ways of life. Practitioners responded by arguing that the collections that had been provided to museums had little provenance or contextual information, were incomplete representations of archaeological assemblages, and were made up of the objects that salvors deemed to be of low commercial value (Boshoff 1999). Furthermore, because treasure hunters' research focused on the recovery of cargoes, the contents of which were already known through the historical documentation, the salvage of such items added little to historical knowledge.

Finally, the salvor lobby argued that shipwrecks could be better utilised as a commercial resource that contributed towards the creation of employment opportunities

and economic development. By not recovering fast corroding objects from the sea floor, heritage managers were doing a disservice to a nation who would benefit more from potential for tax revenue, job creation and tourism than from the production of archaeological knowledge.

SAHRA's legal advisors, supported by the Department of Arts and Culture (DAC) agreed that applications for permits for commercially motivated shipwreck projects should be considered, despite such projects being fundamentally incompatible with contemporary archaeological thinking, until such time as policy was specifically amended. Salvage activities continued unabated in the early 2000s.

In 2006 SAHRA's MUCH Unit, finalized a Shipwreck Policy that clarified the legal ambiguities that had led to the decision to continue to issue salvage permits for historic wrecks and closed the loopholes that had been identified in the National Heritage Resources Act (Sharfman 2017). The policy was based on the tenets of the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage. While SAHRA could not amend legislation directly, its policies could elucidate its interpretation of ambiguous legislation and clarify its position on areas where legislation was silent. As such, the MUCH Unit argued that it was within its legal jurisdiction to develop a policy that outlawed treasure hunting. Using arguments based on international best practice and accepted maritime archaeological trends, the policy addressed gaps in South Africa's heritage legislation. It was again met with staunch opposition from the treasure hunting community who lodged an appeal directly with the DAC, under whose authority SAHRA falls.

The DAC's legal team scrutinized the arguments put forward by both SAHRA and salvors, but erred on the side of the latter. SAHRA's MUCH Unit had no choice but to repeal the policy and revert again to issuing permits to treasure hunters. Heritage managers could do little but demand that permit applicants met the requirements laid out in the Regulations.

While SAHRA's hands were tied, museums and individuals enjoyed greater freedom to set their own research agendas and to determine their own stance on commercial salvage. National institutions such as Iziko Museums of South Africa took a position of refusing to collaborate on projects whose goals were not archaeological in nature. Since the requirement for salvage teams to include an archaeologist when working on pre-1850 wrecks had been promulgated in Regulations and international pressures to halt salvage mounted, practitioners increasingly shied away from collaborating on treasure hunting activities. The exodus of professionals and institutions away from commercially motivated excavations meant that the minimum requirements for permits were difficult to meet and no permits were being issued by 2009.

Despite the failure of salvors to meet permit requirements, obtaining a permit was by no means impossible. Practitioners therefore continued to lobby the DAC and the South African government to ratify the 2001 Convention and formally end exploitation of historic wrecks. When South Africa finally acceded to Convention in 2015, its obligations to consider commercial salvage of historic wrecks came to an end. However, as Gribble and Sharfman (2013, paragraph 12) suggested: "The net result [...] was the unquantifiable loss of archaeological and historical material and information as sites fell victim to often indiscriminate commercial salvage."

The implementation of a functional protective regime for South Africa's MUCH took almost three decades to implement. It appears that a degree of apathy from decision makers in government prolonged the enactment of policy that halted the commercial exploitation of shipwreck resources. It is important to understand the causes underpinning government's reluctance to support archaeology as a viable alternative to treasure hunting. I have argued that the manner in which South Africa's maritime cultural narrative had been created and disseminated has informed policy and public perception (Sharfman 2017).

7.2 The Impact of the MUCH Narrative in South Africa on Legislation

Until recently, South Africa's MUCH narrative focused almost exclusively on shipwrecks. This was driven by two primary elements. Firstly, perceptions of what constituted the UCH had been shaped by how the public has been exposed to the resource and by how the value of the resource has been promoted. Because the sub-discipline of maritime archaeology is a relatively recent addition to archaeological practice, perceptions have generally been shaped by the mythology of treasure hunting. In their efforts to raise the value of recovered finds, treasure hunters have done an exceptional job generating enthusiasm for their activities by promoting the romance of shipping and shipwrecks and selling the adventure, danger and excitement of their quest to recover vast fortunes. This has focused public attention on the commercial value of wreck sites at the expense of historical significance. Archaeologists, on the other hand, have delivered their discoveries through often dry, scientific publication and academic seminars that focus on the outcomes of their research and interpretation rather than the process of data recovery itself. Spectacle has been prized over historical.

Public perceptions of UCH have been unintentionally reinforced by efforts to stem the loss of historical and archaeological data. Heritage legislation has reacted to the activities that pose the greatest threat to UCH, namely treasure hunting activities. Since these are aimed almost exclusively at shipwreck site, policy has focused specifically on this area. South Africa's National Heritage Resources Act is a useful illustration of this: shipwrecks are the sole elements identified in the definition of underwater cultural heritage.

Together, these two elements – the visibility of treasure hunting over archaeology, and legislation focused exclusively at shipwrecks – has meant that maritime archaeology and treasure hunting are largely indistinguishable in the public eye and that the terms *underwater cultural heritage* and *shipwrecks* are the same. As I have pointed out: “the shipwreck focus of the maritime heritage [has] meant that whatever the predominant narrative on *shipwrecks* was, [has] determine[d] perceptions of underwater cultural heritage and the maritime past” (Sharfman 2017: 60). This has meant that the perceived value of *historic wrecks* determines the value placed on the management of UCH. It is in the interests of those wishing to exploit the

shipwrecks to downgrade their significance. The determination of significance took different forms during South Africa's political evolution. For the apartheid government, shipwrecks represented markers of a European heritage and culture that needed to be promoted as superior to local culture in order to justify segregation and oppression. For this political system, the outputs of treasure hunting – riches and valuable trade goods – showcased the glory of Empire and the pre-eminence of the West, while the outputs of archaeology – the realities of the hardship and tyranny of shipboard life – diminished the supremacy of European culture. Porcelain cargoes, bronze cannons and chests of silver coins reinforced the notion of physical and economic dominance, while lice combs, harsh living conditions and disease underscored poverty and forced labour.

In post-apartheid South Africa, the narrative surrounding the significance of shipwrecks could again be exploited in favour of the promotion of commercial salvage. Treasure hunters argued that shipwrecks, and by extension all underwater cultural heritage, were irrelevant to the African historical narrative. In South Africa, this debate drew on the thinking of the 1970s, 1980s and early 1990s. Treasure hunters claimed, much as Rudner (1986) had, that the shipwreck sites were other people's heritage. As South Africans struggled integrate their oppressive colonial past into an emerging African narrative while shedding the relics of the apartheid regime, shipwrecks could be easily categorized as the heritage of the oppressor and irrelevant to South Africa's new national identity. It was, salvors claimed, an uncomfortable reminder of a difficult past, and the economic benefits of recovering and selling historical objects far outweighed the archaeological significance of the history of the "other". Within the context of South Africa's post-apartheid challenges, heritage managers and maritime archaeologists found it difficult to contradict the assertion that the proceeds from salvage could contribute to rebuilding the nation. Heritage practitioners needed to re-contextualise UCH within the broader national and local heritage narratives and dissociate it from its shipwreck specific focus.

For lawmakers operating within the new dispensation, it was difficult to justify assigning resources to a heritage that had been continually appropriated and shaped by a treasure hunting lobby who had successfully enthralled the public with stories of pirates and treasure and captured both the official and public imaginations, and limited the definition of maritime heritage to include only shipwrecks. Salvors had successfully persuaded policy-makers that nothing could be learned from wreck sites. Most significantly, they had convinced South Africans that this heritage was irrelevant in a post-apartheid society.

7.3 Beyond Shipwrecks: Developing a New Approach to MUCH

By 2008, underwater cultural heritage practitioners found themselves at a crossroads. MUCH managers at SAHRA could convince neither their organization nor the DAC that their efforts to conserve submerged cultural resources were worthy of

financing or additional capacity, or even that UCH should be managed at all. They had failed to expand a definition for UCH beyond shipwrecks and had failed to engage the broader South African public. For most, UCH was irrelevant, a heritage that most would never see and that didn't resonate with the contemporary South African milieu. In a final effort to promote UCH, SAHRA together with the Dutch NGO CIE – Centre for International Heritage Activities implemented a Maritime Archaeology Development Programme (MADP) funded by the Dutch Government. Although it had been designed as a tool for increasing capacity and awareness in UCH through training and public participation, the MADP would impact fundamentally on South Africa's approach to UCH.

SAHRA's then CEO, Sibongile Masuku, insisted that the MADP should appeal to a broad audience and incorporate aspects of UCH beyond colonial shipwreck sites. To do this, it was decided that the MADP should be hosted at the Robben Island World Heritage Site and that it should contribute towards the Robben Island Museum's strategic management plans. This was a watershed period for MUCH in South Africa which contributed to a shift in UCH management thinking and a re-evaluation of the scope of the field. The MADP forced MUCH practitioners to begin to identify the complex maritime links between South Africans and the sea. Not only was there a vast historic shipwreck collection, but also an extensive maritime chronicle composed of myriad site types, both tangible and intangible, cultural and natural, that were broadly relevant to all South Africans (Fig 7.2). To immediately broaden the scope of the discipline, the MADP coined the phrase *maritime and*



Fig. 7.2 The author briefing divers prior to them exploring a wreck site in Simons Town, Cape Town © Jonathan Sharfman

underwater cultural heritage (MUCH). The term intended to make the field more inclusive by linking multiple sites associated with maritime history to submerged sites.

The MADP highlighted the proposition that just as the spatial contexts of objects on sites provided data for interpreting site-specific behaviours, so the connections between sites within geographically diverse cultural systems were relevant for understanding bigger social structures. The MADP encouraged maritime archaeologists and MUCH managers to adopt a maritime cultural landscape approach to their methodologies. This had significant implications for both practice and management. SAHRA was able to re-describe UCH within landscapes that were unambiguously significant and relevant to South Africans and their historical development. SAHRA's MUCH managers incorporated intangible sites, cosmologies, oral histories and multiple narratives into their management approach. As a result, a broader spectrum of MUCH stakeholders was identified and, since SAHRA had not yet explored the broader scope, stakeholders became drivers behind the identification of MUCH and, at the same time, owners of their heritage.

The lessons of the MADP prompted SAHRA to initiate other projects to test the efficacy of this new approach. Its Eastern Cape Oral History Project, an endeavor designed by the African Centre for Heritage Activities (ACHA) illustrated the Agency's new approach to MUCH. The project recognized and acknowledged the role of heritage in identity creation and that heritage ownership and management should be positioned at both local and national levels (Fig. 7.3). The project also recognised the challenges of developing sustainable heritage management strategies in a context where economic survival is of primary concern and heritage management is low on the agenda.



Fig. 7.3 Storytelling and oral histories provide new evidence on maritime cultural landscapes © Jonathan Sharfman

The expansion of the scope of MUCH and the adoption of a landscape approach facilitated participation in projects with global reach. Programmes such as the already established Slave Wrecks Project, a multi-partner, multinational programme spearheaded by Iziko Museums, the George Washington University, the Smithsonian Institute and the United States National Park Service, for example, incorporated a network of partners working on submerged and terrestrial sites and archives on four continents.

South Africa's MUCH currently enjoys unprecedented legal protection. The evolution and promulgation of strong heritage policy, the ratification of the 2001 Convention and the adoption of a new approach to MUCH has garnered public and institutional support.

7.4 A Legislative Review

While the MADP allowed South Africa to take a significant step towards advancing its maritime archaeology and underwater cultural heritage approach, it required a holistic policy framework that accommodated and supported its cultural landscape perspective. While the National Heritage Resources Act provides an operational structure, the broad tenets of international agreements such as the 1972 World Heritage Convention, the 2001 Convention on the Protection of Underwater Cultural Heritage and the 2003 Convention on the Safeguarding of Intangible Heritage offer an overarching structure for future policies for universal management and protection of MUCH.

South Africa's MUCH currently enjoys unprecedented legal protection. The evolution and promulgation of strong heritage policy, the ratification of the 2001 Convention and the adoption of a new approach to maritime and underwater cultural heritage has garnered public and institutional support.

7.5 Conclusion

Although South Africa's perspective on MUCH has been informed at different times by treasure hunters, politics, archaeologists and practitioners, its approach to MUCH has always paralleled its national view of the impact of its maritime past. This has been variably introspective and global, inclusive and exclusive and has constantly changed to suit developing, contemporary thought.

It is necessary to understand the fundamental motivations behind management efforts to understand how underwater cultural heritage is perceived in South Africa, why it has been perceived in that way, and what these perceptions have meant for management and engagement. Traditionally, South Africans have looked towards the hinterland in interpreting the impact of historical events on the South African political milieu (Brown 1987), while maritime archaeologists and MUCH

practitioners have looked towards the sea and foreign lands in determining significance of MUCH sites. Treasure hunters on the other hand, asked the public to engage with MUCH in a manner which best suited their commercial goals. Most recently however, South Africa has adopted an approach to MUCH that offers opportunities and contexts for multiple views of the resource (Fig. 7.4). By adopting a maritime cultural landscape approach, it is possible to view the maritime past from local and global perspectives, to relate to the heritage at an individual or group level and to understand the significance of sites and practices within multiple contexts. Empowering the public to engage with their pasts has created opportunities for heritage managers to better identify significant sites and practices and to develop strategies for management that not only promote the safeguarding of heritage but position it within a beneficial social and economic context (Sharfman 2017) (Fig 7.5).

South Africa has made significant progress in its approach to MUCH management. It has transitioned from a framework that benefited individuals with access to equipment and the underwater environment to a context in which multiple stakeholders can take ownership of- and contribute to- the heritage narrative. Management has evolved an engaged policy and research framework that is beginning to holistically position individual sites within broad heritage narratives.

Fig. 7.4 Local perspectives on the heritage of the sea © Jonathan Sharfman





Fig. 7.5 Mapping the maritime cultural landscape © Jonathan Sharfman

Despite this positive progression, however South Africa has lost momentum and fails to fully embrace MUCH at an institutional level. Government input and support is constrained by budgetary considerations. SAHRA's MUCH Unit has shrunk and continues to lose qualified professionals. Universities continue to reject proposals to develop academic programmes aimed at training MUCH practitioners, and funders shy away from financing maritime archaeological research projects. Only Iziko Museums has an active, well-funded research program. South Africa's status as a continental leader in MUCH research and management is slipping making the future of South Africa's MUCH uncertain.

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Chapter 8

Maritime Heritage in the Sultanate of Oman



Eric Staples

8.1 Introduction

This seafaring heritage stands in sharp contrast to the heritage of Oman's interior, with its focus on date-palm agriculture, pastoral nomadism, and Ibadi Islamic textual heritage. The existence of these two heritage narratives, one focused on an "isolated" mountainous and desert interior, and the other on the more culturally pluralistic and cosmopolitan littoral societies located on the coast which engaged in long-distance seafaring, is a central theme in the study of Oman's past. This duality has created an inherent tension in the field of Omani heritage studies.

While this relationship with the sea has existed for millennia, and the sense of history has always been important in Oman, the self-conscious study of this relationship as a "heritage" worthy of preservation and study within nationalist boundaries is arguably a more recent phenomenon. The definition of cultural heritage is a complex topic, beyond the scope of this chapter, but for the purposes of this discussion, it is acknowledged that cultural heritage is an often-contested process of building meaning from selected cultural elements in the past to create a present understanding of that past. As such, it is a socially constructed process that reflects both historical and contemporary concerns. It is not a static object, but rather a processual series of negotiations between multiple actors on how to represent the past.

It was not until the latter half of the twentieth century, when Oman underwent a period of nation-state building, that an explicitly national narrative of its maritime heritage emerged, distinct from a general historical understanding and appreciation of the past. This transformation took place when two historical factors combined, the generation of petroleum-related wealth based on the discovery of oil reserves, and the ascension of the current ruler, Sultan Qaboos Al Bu Said, to the throne in

E. Staples (✉)
Zayed University, Abu Dhabi, UAE

1970. The Sultan, armed with new-found oil wealth, undertook a series of ambitious infrastructure and nation-state building projects to transform Oman into a modern unified nation. An essential element of this process was the study and preservation of its heritage, and the creation of new national narrative to foster a sense of national cultural and historical identity. The Ministry of Information and Heritage was established in 1975 (later modified to the Ministry of Heritage and Culture in 2002) and tasked with fostering the research and preservation of the nation's heritage. Other entities, including The Office of the Adviser to His Majesty for Cultural Affairs, the Ministry of Tourism, the Ministry of Foreign Affairs and the Ministry of Awqaf and Religious Affairs, as well as a variety of national and international universities, and private heritage companies, have also subsequently become involved in the study and preservation of heritage in its many varied forms in the last three decades, creating a healthy developing interest in Oman's national heritage.

An in-depth study of the significant amount of heritage activity spanning a wide variety of disciplines over four decades by such a diverse group of organizations and individuals in Oman is obviously well beyond the scope of this chapter. However, I will attempt to selectively survey of some of the more significant attempts that the government of Oman has undertaken, usually in partnership with other regional and international actors, to research and promote its maritime heritage specifically. During the formative stages of the nation-building process, the Omani government has played a central role in constructing a series of maritime heritage narratives in order to create a national heritage consciousness, in multiple disciplines, including history, ethnographic material culture surveys, museum exhibits, maritime archaeology, and experimental archaeology. This chapter will provide a brief overview of these efforts, with a particular focus on experimental archaeology.

First, a discussion of efforts related to textual-based maritime history is required, as the textual-based narrative often provides the broad framework within which other heritage actors operate or are challenged. An essential part of any nation-building effort is the construction of a national story that prioritizes the exploits and achievements of the ancestors of the inhabitants of the modern nation. It is therefore no surprise that a variety of secondary texts in Arabic and English have been written on the history of Oman to fulfill this purpose. Oman has a rich Arabic historiography that existed prior to the creation of the modern nation-state, including historical texts such *Tuhfat al-a'yan* (al-Salimi 2013), *Fath al-mubin* (Ibn Raziq 2001), and *Kashf al-ghumma* (al-Izkawi 2013), and which form the basis for the modern narrative. In the Anglophone literature, general works such *Oman* by Donald Hawley provide a non-specialist account of its history, while other works, such as those by John Wilkinson, provide a more academic and detailed perspective. Wilkinson, largely acknowledged as the main English-language historian of Oman, acknowledges the important role the sea played in its past, but largely focuses on the interior, with a particular emphasis on Ibadi textual sources and agricultural patterns (Wilkinson 2009, 2010, 2013). In fact while all of the Arabic and English general historical narratives at times include maritime activities, they do not primarily focus on the sea throughout, and works devoted to maritime history specifically are less frequent. The first such publication in English, *Oman: a Seafaring nation*, originally

published in 1979, provides the broad narrative in an accessible and non-academic format. Efforts in Arabic to deepen Omani maritime historiography were undertaken in subsequent decades, with the 1993 publication of a critical edition of a previously unknown manuscript of the fifteenth-century Arab navigator Ahmad b. Majid, which contained navigational poems, two of which were previously not available in other manuscript collections (Ibn Majid 1993). The noted Yemeni historian Hasan Salih Shihab, who edited the Ibn Majid volume, subsequently published a monograph on Oman's maritime history entitled *Min ta'rikh bahriyyat 'Uman al-taqlidiyya (A maritime history of traditional Oman)* in 2000 (Shihab 2000). Jum'a al-Khaduri (2012) has also published on the naval history of Oman. These works have been supplemented by the work of local historians, in particular that of the Suri historian Hamud al-Ghaylani, who has published multiple volumes on the history of the maritime port of Sur located in the Sharqiyya (Eastern) region, including one on ship-building (al-Ghaylani 2006), as well as a more general narrative (al-Ghaylani 2016).

In English, the efforts regarding maritime historiography have been sporadic. The most thorough examination of Oman's maritime material culture to date, Vosmer's 2007 dissertation, entitled "The development of maritime technology in the Arabian Gulf and western Indian Ocean, with special reference to Oman", is primarily archaeological rather than textual. Bathhurst's 1972 article on maritime trade and the Ya'rubid state, as well as Risso's monograph *Oman and Muscat: An early modern history* (1986), both examined early modern maritime trade in the region. Volumes have also been written on European early modern involvement in the region, such as those by Floor (2006, 2014), and al-Salimi and Jensen's (2016) voluminous multivolume collection of all available documents in Portuguese archives related to Oman, translated into Arabic and English. Other works such as those by Bhacker (1994), Sheriff (2010) and Nicolini (2004) have periodically included Oman in discussions of larger regional maritime networks. Various government publications, notably *Oman in history* (1995), devote sections to its maritime past. Agius (2002, 2005, 2008) in his trilogy on maritime culture in the Gulf and western Indian Ocean discusses aspects of Oman's maritime culture. Donaldson's 1979 dissertation on artisanal fishing in Oman documents fishing practices in a period on the cusp of modernization. In 2017, two edited volumes entitled *Oman: a maritime history*, and *The ports of Oman*, were published in order to create the beginnings of an academic maritime meta-narrative, and to combine historical and archaeological work in a two-volume work (al-Salimi and Staples 2017a, b).

This is a far from an exhaustive survey of Oman's maritime textual historiography, but it does indicate that historians have periodically made an effort to construct an explicitly maritime national narrative focusing on Oman's relationship with the sea. The majority of the efforts to study Oman's maritime heritage have been undertaken by archaeologists and ethno-archaeologists rather than historians, and there are large portions of Oman's maritime past that have been largely ignored by historians to date.

8.2 Ethnographic Research

A series of ethnographic maritime and material culture documentation projects have also been undertaken to document and preserve rapidly disappearing pre-oil maritime material culture. The pioneering figure in this regard is Tom Vosmer, who led Earthwatch teams in 1993–1999 in conjunction with the Western Australia Maritime Museum to document the wooden boats of Oman. They conducted fieldwork in Dhofar, Batinah, Sharqiyyah and Musandam, which subsequently led to publications on Omani traditional wooden craft (Vosmer 1997). In addition, the German boat specialist Norbert Weismann has also made a series of boat-documentation trips to the Sultanate beginning in the 1990s, making detailed construction drawings of specific vessels, which led to publications on several types of Omani vessels, in particular the *badan* and *ghanja* (Weismann 1998; Dziamski and Weismann 2010; Weismann et al. 2014). Additional documentation was undertaken in the twenty-first century as well (Burningham 2007; Vosmer 2007; Blue et al. 2014). These boat documentation endeavors have been essential, as they provide a technical record of a disappearing wooden sailing craft tradition, which has been rapidly becoming extinct due to the equally rapid modernization of marine industries in the region. These boat documentation projects have been periodically supplemented with oral histories, recording memories for posterity. One such interdisciplinary maritime project, the Maritime Footprints Project, was a joint collaboration between the Ministry of Culture and Heritage, Sultan Qaboos University, the University of Southampton and the Ministry of Foreign Affairs. Its goal was to undertake a maritime landscapes survey of Masirah Island, documenting archaeological sites, existing wooden boat remains, and oral histories in an integrated fashion (Blue et al. 2014). Although the project did not continue beyond its initial season, the interdisciplinary model applied suggests a potentially useful research methodology.

8.3 Museums and Exhibits

The government has also made serious efforts to integrate the narrative of maritime heritage into their museographical tradition for both domestic and international audiences. Domestically, for example, the Museum of the Frankincense Land in Salalah under the direction of the Office of the Adviser to His Majesty the Sultan for Cultural Affairs has a maritime gallery with an informative collection of boat models, and Sur has both a local maritime museum and the *Fath al-Khayr* exhibit area Fig. 8.1. The recently opened National Museum incorporates a Maritime History Gallery as an important part of its displays, and there are plans to open another Maritime Museum in Sur, Oman, a popular port for boatbuilding and trade. Internationally, Oman has organized a variety of exhibits, such as the *Oman et la Mer* exhibit in Paris in 2013, as well as traveling exhibits with National Geographic and other partners.



Fig. 8.1 The *ghanja Fath al-Khayr* on display in Sur. (Photo courtesy of Norbert Weisman)

8.4 Archaeology

Archaeology has provided significant information regarding Oman's maritime past. A variety of coastal sites have been excavated, the most prominent being Sumhuram, al-Baleed, Masirah Island, Ra's al-Hadd, Ra's al-Jinz, Qalhat, Ras al-Hamra', and Sohar. These sites hold a wealth of artefacts attesting to sustained maritime trade in the Indian Ocean in different eras and epochs. The Ra's al-Hadd and Ra's al-Jinz Bronze Age artefacts, in particular an assemblage of bitumen fragments, are particularly significant for understanding early long-distance seafaring (Cleuziou and Tosi 1994). Middle Islamic sites such as Qalhat (Agius 1999; Vosmer 2004; Bhacker and Bhacker 2004; Rouguelle et al. 2010, 2012; Vosmer 2017) and al-Baleed (Costa 1979; Zarins 2007) indicate that Oman was participating in trade extending as far as China. In addition, a collection of sewn ship timbers have been excavated in the Middle Islamic site of al-Baleed, giving insight into Indian Ocean sewn-plank construction practices (Belfioretti and Vosmer 2010).

Underwater archaeological surveys have been less frequent than coastal archaeology, but have nonetheless been conducted in Qalhat, Musandam, Masirah Island, Duqm, Dhofar, and the Hallaniyat Islands. Vosmer led the first documented underwater archaeological survey of the Middle Islamic harbor in Qalhat in 1997–1998, which resulted in the discovery of the largest assemblage of Middle Islamic stone anchors on the Arabian Peninsula (Agius 1999; Vosmer 2004) Fig. 8.2. However, surveys in 2003 and 2004, which included remote sensing surveys, failed to reveal further significant finds. The Ministry of Heritage and Culture has undertaken subsequent maritime archaeological surveys with a variety of international

Fig. 8.2 Raising a stone anchor at the medieval harbor of Qalhat. (Image courtesy of Tom Vosmer)



organizations. They collaborated with a Chinese team in 2008 for a remote sensing survey, looking for the sunken ships of the Chinese admiral Zheng He. They have also worked with the Western Australia Maritime Museum and Southampton University to undertake a desk-top and targeted coastal survey of the Omani coast, which included remote sensing surveys in selected locations of the coast.

Perhaps the most well-known of the underwater finds is the recently publicized excavation of the *Esmeralda*, one of the ships of Vasco da Gama's 1502–1503 fleet, which was jointly overseen by the Ministry of Heritage and Culture and the shipwreck recovery company Blue Water Discoveries (Mearns et al. 2016). While this wreck is of international historical significance, there has been less evidence to date of local wrecks, which would provide even more historically significant evidence, due to the paucity of properly excavated “dhow” shipwrecks. No historically significant indigenous shipwrecks have as of yet been found, and not a single

non-European Indian Ocean wreck authoritatively dated to the period prior to the twentieth century has been excavated in Oman. Rather, the Omani government has relied on alternative methods to celebrate and research the ships that connected them with the rest of the world in the past: the field of experimental archaeology.

8.5 Experimental Archaeology

The Omani government's endeavors in the fields of experimental archaeological reconstructions have been perhaps one of the most innovative efforts to preserve its maritime heritage. Due to its rather unique nature in the region, the rest of this chapter will focus on this area. Maritime experimental archaeology is not a new field, but, in the last several decades, has slowly emerged as a distinct sub-field of maritime archaeology. To date, however, most maritime experimental archaeological projects have been located in Europe, North America and Australia, with only a handful recognized as authentic being undertaken by other nations. That one nation would fund not just one but several experimental archaeological reconstructions is unusual to say the least.

A distinction must be made between authentic reconstructions based on archaeological, historical and ethnographic data with a high degree of material integrity, as opposed to popular, "adventure" reconstructions, only loosely based on historical and archaeological evidence, which often have a host of modern technological advantages such as engines, and other modern facilities and materials hidden within. Even within authentic reconstructions, there are different types of experiments. Reynolds outlines several different types of experiments in the field, two of which are relevant to this discussion (Reynolds 1999). The first is the construct: a one-to-one scale construction based on archaeological evidence built to test a hypothesis. The second type is the eventuality trial: a "large-scale, often *longue durée* experiment that can investigate complex systems and chart variations caused by unexpected and rare eventualities" (Outram 2008). This involves operating a construct over an extended period of time. In a maritime context, this usually means constructing a replica or reconstruction, and then testing it with a sea journey over a significant period of time to observe its changes and limitations. The Omani government has funded a variety of experimental reconstructions of both types. Not surprisingly, those that include a sea journey are the most well-known. Three of these projects will be discussed in this chapter: *Sohar*, the *Magan Boat* series, and *Jewel of Muscat*.

Oman's experimental reconstructions first began with *Sohar*. In 1979 the Omani government agreed to fund Tim Severin's proposal to reconstruct the fabled Sinbad's hypothetical sewn-plank ship that would have sailed the Indian Ocean in the early Islamic period. The sewn-plank vessel was built in Sur, Oman, and sailed from Muscat to China in 1980–1981. It was sewn together with coconut fiber, using a team of shipwrights from Kerala, India, and rope workers from the Lakshadweep Islands. It was primarily a hypothesis based on iconographic and textual evidence,

as in 1980 there was no archaeological evidence of Early Islamic Indian Ocean vessels on which to base such a reconstruction. Rather it used a current nailed dhow type, the *būm*, which was still in use in the Gulf in the twentieth century, and which resembled earlier iconography found in Portuguese maps and thirteenth-century Arabic manuscript drawings, and built it as a sewn-plank vessel. Thus, while it was an experimental reconstruction, it was not an *archaeological* reconstruction, since it relied exclusively on ethnographic and iconic evidence. In spite of this limitation, however, the construction and sailing of *Sohar* proved that a sewn-plank vessel could sail from Oman to China. The book on the project, *the Sinbad Voyage*, written by Tim Severin (1983), as well as a documentary film on the project, provided a general account of how a sewn-plank boat was built and sailed, and popularized the voyage to an international audience.

The next phase of experimental reconstruction explored an even earlier period of Oman's past, the development of long-distance maritime trade in the Bronze Age. The *Magan Boat* project involved the construction of several Bronze Age "Magan Boat" hypotheses between 2000 and 2005, exploring ancient shipbuilding techniques. This was initiated when the French-Italian Archaeological Mission, supported by the Ministry of Heritage and Culture, discovered an assemblage of bitumen fragments in the Bronze Age site of Ra's al-Jinz in the early 1990s. Many of these fragments contained impressions of reeds and matting on one side, and barnacles on the other, indicating that they were most likely used to waterproof vessels. The fragments were chemically identified as coming from Iraq, further indicating long-distance trade links with Mesopotamia (Cleuziou and Tosi 1994; Carter 2012). In 2000–2005, Tom Vosmer in partnership with the French-Italian Archaeological Mission undertook the construction of a series of models of the hypothetical composite craft, built of a combination of reed bundles, reed matting, timber, bitumen and leather. First, 1:20 scale model was made, and then a 1:3 scale 4.6-meter craft, known as *Magan Boat I*, was launched and tested in Khawr Hajar (Vosmer 2001). A subsequent full-sized 15-meter vessel, *Magan Boat II*, was built in Italy in 2002, and put in the water, but did not undergo sea trials. With the successes of the first two constructions, the Ministry of Heritage and Culture in partnership with the University of Bologna undertook the construction of a third "floating hypothesis": *Magan Boat III*. This was a 13-meter reed vessel, built in Sur, Oman, in 2005. While the initial sea trials were successful, the vessel unfortunately sank on its journey to India.

The third voyaging experimental archaeological reconstruction was the *Jewel of Muscat* project in 2008–2010. This was an ambitious joint Oman-Singapore government initiative to construct a replica of a ninth-century sewn-plank ship that sank off Belitung Island, Indonesia, and then sail it from Muscat to Singapore. The *Belitung wreck*, found in 1998 and salvaged in 1999–2000, was filled with Chinese ceramics and other artefacts from the ninth century. Although the cargo was primarily Chinese, the timber remains of the vessel and the sewn features strongly indicated that it originated from the western Indian Ocean region. The remains of stitching of the through-beam were remarkably similar to the stitching of a through-beam on a regional vessel called a *battīl* that had been documented in Musandam,

Oman, which fostered the Oman connection to the shipwreck (Flecker 2000, 2011). The Singapore government bought nearly the entire cargo of the Belitung wreck from the salvage company in order to preserve it, and the Omani government offered to build a reconstruction of the original ship and give it to Singapore as a gift from the Sultan.

Although it was a sewn-plank vessel like *Sohar*, *Jewel of Muscat* was much more closely based on archaeological evidence, due to the documentation of the Belitung hull remains. The design team was composed of the archaeologist who documented the wreck, Michael Flecker, maritime consultant Nick Burningham, and the project director of construction, Tom Vosmer. Once they had formulated a design based as closely as possible on the available evidence, a 1:15 scaled model was made, and water tank and wind tunnel tests were undertaken to test the efficiency of the design. Similar to *Sohar*, a team of Indian shipwrights and rope workers were brought to Oman to build the vessel, working with a cohort of Omani trainees in order to relearn the lost art of sewn-plank boat building. Once the vessel was built and sea trials were completed, an international crew under the command of the Omani Captain Saleh al-Jabri successfully sailed across the Indian Ocean over a six-month period, stopping in India, Sri Lanka and Malaysia on their way to Singapore (Fig. 8.5). Particular attention was paid to documentation throughout the construction and sailing trip, with a documentation team tasked with documenting the project in depth. The project was recorded with a series of daily and monthly reports, as well as a large amount of photographic and video evidence. Each component on the vessel had an individual measurement report and stitching history. In addition, the vessel underwent a 3-D scan both prior to its launch in Muscat, and after its arrival in Singapore. The journey itself was documented with a digital navigation system, which recorded a variety of data including hull speed, wind speed, apparent wind angle, the strength of the current and course over ground (Vosmer et al. 2011; Vosmer 2011), and traditional navigational experiments were conducted as well (Staples 2013). On a popular level, two National Geographic documentaries were made, one on the construction, and the other on the journey across the Indian Ocean, to educate international audiences about the project.

One of the relevant themes of this edited volume is the degree to which national narratives regarding maritime heritage incorporate themselves into larger transnational narratives such as the Maritime Silk Route, and Islamic and/or Arabian trade routes. These experimental archaeological reconstruction voyaging projects are perhaps the most obvious examples of Oman's efforts in this regard. Each of these heritage constructions has in its own way consciously emphasized Oman's role in a much larger narrative of regional trade and celebrated their participation in Indian Ocean trade networks. Although the *Sohar* project took place prior to the popularization of the concept of Indian Ocean studies and a 'Maritime Silk Route', the project consciously celebrated Omani trade with China in the Early Islamic era, and Tim Severin deliberately connected Oman's seafaring past to the larger literary figure of Sinbad. The *Magan Boat* project was an exploration into the earliest forms of long-distance maritime technology, and the attempted voyage to India in 2005 was a deliberate attempt by the Omani government and European archaeologists to

place Oman, in the form of ancient Magan, at the center of the discussion of the development of long-distance ‘international’ maritime trade in the Bronze Age. The *Jewel of Muscat* project, recreating the historic trade route described in earlier Arabic geographical texts such as the ninth-century *Akhbar al-Sin wal-Hind*, was perhaps most explicit in its incorporation of Oman within the larger narrative of Indian Ocean trade, emphasizing Omani participation in the Maritime Silk Route, which has been labeled as the longest maritime trade route in the world until the late fifteenth century. The international nature of the cargo, and the diplomatic aspects of the project as a bi-government initiative between Oman and Singapore, played a significant role in this emphasis on international connections.

However, the Omani government and private universities have also been involved in the other type of experimental reconstruction, the 1:1 construct not tested at sea. These have primarily been vessels built for exhibition in museums and archaeological parks. The core of the *Jewel of Muscat* team, a group of archaeologists, historians, shipwrights, model-makers and rope workers under the direction of the Ministry of Foreign Affairs, collectively referred to as Oman Maritime, built most of these reconstructions in conjunction with other national organizations such as the Ministry of Heritage and Culture, the Office of the Adviser to His Majesty the Sultan for Cultural Affairs, and the German University of Technology. Two were built for the National Museum in Muscat. The first was a 5-meter *Magan Boat*, known as *Magan Boat IV*, which is a central display for the Pre-history and Ancient History Gallery. This iteration of the *Magan Boat* incorporated more timber frames than the previous versions, as well as a reveal of the different phases of construction, exposing the layers of bundles, matting and bitumen covering. Also included as the centerpiece of the Maritime History Gallery is a replica of the nineteenth-century sewn-plank fishing boat known as a *beden seyad*. This replica is based on a construction plan drawn by the French naval officer Admiral François-Edmund Pâris when he visited Muscat in 1838. This simple yet elegant vessel, comprised of only five large planks and no frames, is highly emblematic of Oman’s fishing heritage. In addition, a hypothetical iconographic reconstruction of a thirteenth-century sewn-plank craft, the *Hariri Boat*, has been built for the Museum of the History of Islamic Science at the German University of Technology. This was a floating hypothesis based on manuscript drawings and archaeological evidence available from this time period Fig. 8.3. In addition, nailed vessels have been reconstructed. A replica of the last sailing *sambūq* of southern Oman, named *al-Dhi’b*, was based on the vessel’s remains as well as previous boat documentation undertaken by Vosmer and Weismann. It was built and is on display in the Sumhuram Archaeological Park in Dhofar.

Although these vessels did not undergo sea trials or an extended voyage at sea, their construction still provided a wealth of information regarding reed, sewn-plank and nailed-plank construction. Documentation techniques similar to those used for the *Jewel of Muscat* project were used for these reconstructions, providing valuable data regarding the different vessel types. For instance, the *Hariri Boat* used a single-wadding method of sewing the boat together, different to the double-wadding method used to build *Jewel of Muscat*. Documenting this technique with stitching



Fig. 8.3 The *al-Hariri Boat* and the *beden seyad* under construction in the Oman Maritime boat-yard. (Photo courtesy of the author)

histories provided an in-depth analysis of the amount of construction time and technical differences between single- and double -wadding stitching, often comparing the same rope-working teams stitching the two different methods. This provides some insight into the differences between the two traditions, and elaborates on the diversity evident in sewn-plank construction in the region.

8.6 Community-Based Heritage Efforts

Almost all of this discussion has focused on government-driven and international academic initiatives. However, this is only one part of the maritime heritage landscape of Oman. There has also been considerable ‘grass roots’ and community-based interest in Oman’s maritime past that, while supported by the government, has not always been initiated by them. While this is not the primary focus of this chapter, it still deserves mention as a significant aspect of the maritime heritage environment in Oman. This is particularly the case in areas where a strong sense of pride in the connection with the sea exists, such as in Musandam in northern Oman, and the port of Sur, in the Sharqiyya, as well as on the Batinah Coast. For example, in Musandam the inhabitants, and in particular the Kumzari tribe, have made a concerted effort to preserve their maritime heritage. They still take care of their historic wooden fishing craft, the *battil* and *zārūqa*, in spite of their reliance on

Fig. 8.4 The stem decoration documented during the Earthwatch ethnographic survey. (Photo courtesy of Roger Garwood)



modern fiberglass fishing boats, and integrate them into current fishing practices, towing them with motorboats, and using them to haul in and store nets, and fish. They continue to decorate the vessels with goat skin and cowrie shells (Weismann et al. 2014) Fig. 8.4. A local boat builder, who makes a living manufacturing modern vessels, nonetheless had a 13-meter *battil* built which was displayed and won awards during the 2014 Dhow Festival in Qatar.

There is a similar communal interest in maritime heritage in Sur. In 1993, the town used a budget surplus to purchase the last sailing *ghanja*, a vessel type specifically associated with Sur, to return it to its historic home. This *ghanja*, named *Fath al-Khayr*, had been built in Sur's boatyards in 1951–1952, and sailed as part of the port's merchant fleet for many years, before eventually ending up in Yemen. The town purchased the vessel from its Yemeni owner, and brought it back to Sur to display next to the local lagoon, where it is still presently located (Dziamski and Weismann 2010). Local historian Hamud b. Hamad al-Ghaylani has written extensively about maritime topics, and the community created a small local maritime museum to celebrate its heritage (al-Ghaylani 2006, 2016). Sur holds the only commercial wooden dhow-building yards in the nation, which are primarily building modern wooden dhow yachts for Qatar, and has a local musical group that sings and dances the sea shanties of the past for select events. Similar activities are also undertaken in the Batinah, and local enthusiasts preserve old boats, and travel to the regional dhow festivals to represent their particular community. Although these activities are often supported by ministry funds, they are often initiated by the local communities themselves, and provide an important counterpoint to the interesting work being conducted by government and international actors mentioned previously.

8.7 Conclusion

The Omani example provides an interesting case study in the examination of approaches to MUCH. Engagement with maritime heritage takes place at multiple levels and has been initiated by multiple stakeholders. What makes this approach unique within the nations described in this volume is that each stakeholder group has identified elements that are specifically relevant to their own contexts, which they wish to present more broadly and have adopted individual approaches to achieve those aims. Projects instigated by the State have positioned Oman within a broad international context and highlighted the role of the region in trade and exchange. Often, while these programs have been instigated nationally and have addressed national research questions, they have been overseen by international experts. At the same time, they have incorporated multiple knowledge systems (oral histories, ethnographies, historical research and archaeological data) held by role players at multiple levels. In attaining project goals, the binaries of tangible and intangible heritage have been crossed. These projects have targeted international and national audiences.

Preservation of maritime heritage at the local level has utilized a different approach. Knowledge is held within communities and the maintenance of maritime tradition is of local significance. This form of heritage management serves to uphold local identity through preserving significant identity markers rather than merely safeguarding tangible sites and objects from the past. Heritage management serves community needs while reinforcing national narratives.

Oman has clearly stated its heritage management goals and, through ratifying the 1972 World Heritage Convention has established a foundation for its heritage management approach. It has, however, remained flexible enough to adapt international rules to the local context. Instead of taking a conservationist approach to its maritime history through preservation of tangible heritage sites, Oman has focused on reconstructing the past to position itself with these broad contexts. By supporting local management initiatives, Oman has also been able to develop local expertise and capacity to implement this approach. Where capacity shortfalls exist, required expertise is sourced to temporarily fill gaps. The recent discovery and investigation of Vasco Da Gama's *Esmerelda* illustrated the efficacy of the approach. Oman could both adhere to international archaeological best practice as laid out in treaties such as the 2001 Convention on the Protection of Underwater Cultural Heritage by selecting investigators that met standards, and drive the research focus by deploying national experts to the project.

With all of this activity, it is clear that MUCH is thriving in Oman, particularly in the last two decades in which the nation has actively pursued conducting research and publication in the fields of maritime experimental archaeology, underwater archaeology, ethnography, and history, as well as promoting maritime museums and exhibits. There has been considerable effort made to incorporate Oman's maritime heritage within a larger Arabian and Islamic trade routes context while still stressing the nationalist elements of maritime heritage projects. These have consistently

emphasized Oman's "cosmopolitan" relationships with the Indian Ocean world. Both *Sohar* and *Jewel of Muscat* celebrated Omani participation in what is popularly referred to as "the Maritime Silk Route", and *Magan Boat III*, which sank on its way to India, explored Bronze Age maritime trade connections. Inevitably, they have emphasized the Omani role in these trade routes, as most nationalist narratives do, but have acknowledged other actors as well.

However, there is room for improvement in the field. Two steps in particular would further advance the field of maritime heritage studies in Oman. First and perhaps most important, while Oman has largely conformed to most of its stated guidelines, to date the Sultanate of Oman has not signed the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. Becoming a member of the Convention would establish Oman much more firmly in the international and regional networks of maritime heritage, and indicate to the world that it is a leader in the region in maritime heritage studies.

Second, the creation of an independent academic institute tasked with researching and publishing at an academic level on all aspects of Oman's maritime heritage would establish an institutional base specifically focused on maritime heritage that would ensure the long-term stability of the field. The brief summary above has indicated that much of the previous work have been a variety of often independent projects undertaken by different organizations. This institute would be given a mandate to engage in an interdisciplinary array of activities, as much more research and active academic publication needs to be undertaken to diversify and enrich the field. More in-depth studies of archival sources and other primary-source documentation would deepen our understanding of specific eras such as the Early and Middle Islamic or periods that are currently little studied from a maritime perspective. More oral histories need to be undertaken and organized into a single database accessible to local and international researchers. Further underwater archaeological surveys, with a particular focus on locating and excavating indigenous wrecks, are perhaps most vital. Methods of construction for European ships are relatively well-documented, but there are still significant unanswered questions regarding ship construction in the region for each era, from the Bronze Age through to the Early Modern periods. An Indian Ocean wreck dated prior to the modern era would be a truly invaluable and historic find that could exponentially expand our understanding of ship construction in the region. In addition, such an institute would create a new generation of Omani academic specialists in maritime heritage, that could connect international academic and local community-based heritage efforts within a single organization (Fig. 8.5).



Fig. 8.5 *Jewel of Muscat* under sail. (Photo courtesy of Alessandro Ghidoni)

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Chapter 9

Underwater Archaeological Research and Heritage Management in India: Inter-departmental Collaboration and Utilization of State Infrastructure



Alok Tripathi

9.1 Introduction

The right combination of materials, technology, navigational skills and proper use of natural or mechanical forces results in a successful sea voyage. The tiny boats and giant ships that have criss-crossed the oceans and enriched cultures since antiquity are a testament to this. In the same way, a suitable combination of knowledge, tools and technology, archaeological skills and judicious utilisation of available infrastructure results in the successful study, preservation and management of the underwater cultural heritage that reflects these activities. On the other hand, small mistakes may have a heavy cost, resulting in disaster.

Humanity's interest in its past is age old and the systematic study of remains of the past has helped in reconstructing history. In India, although the first systematic investigation and documentation of archaeological sites and remains started as a short-term project in 1861, it has endured until today and still investigates vast areas of the country that remain archaeologically unexplored.

With developments in the field of science and technology new tools have become available to search and study the human past not only on land but also underwater. This access to earth's inner space has resulted in the development of underwater archaeology. There are several sunken sites and places of historical importance along the coast of India and in 1981 a team of Oceanographers was assigned the task of searching for the sunken remains of Pumpoohar on Tamil Nadu coast (Vora 1987: 159–164). This geophysical survey off Kaveripattinam marks the beginning of underwater archaeological research in India (Tripathi 2006: 65).

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9.2 Beginnings

The vast waters surrounding India provided an active environment for travel of ideas, technology, people and cultures. As a country surrounded by sea on three sides and encircled by mighty rivers which facilitated cultural and economic exchange, India cannot reconstruct its history without the inclusion and proper study of its underwater cultural heritage. Fortunately, India was quick to realize the importance of this heritage resource and soon after underwater archaeology began to gain acceptance as a sub-discipline of archaeology, a proposal to establish a national maritime archaeological program was included in the VI Five Year Plan (1979–1984). Although the proposal submitted to the government of India for a full program could not be materialized, underwater archaeological activities started in India in the last quarter of the last century.

Motivated by the outcome of the underwater investigations on the Tamil Nadu coast, S.R. Rao, a retired archaeologist from the ASI, started a project: “Marine Archaeological Studies in Indian Waters”. The project’s initial work on lesser known sites remained unnoticed until underwater investigations started at Dwarka—a famous centre for pilgrimage associated with Lord Krishna. The project generated great publicity, but also resulted in an increase in unlawful explorations and retrieval of artefacts, not only by the public but also by archaeologists and other agencies. While these pioneers deserve credit for laying the foundation of underwater archaeology, none of them had practical training or proper exposure. A well-planned project directed at underwater cultural heritage requires infrastructure and a team that has expertise in various fields. Thus, when a project formulated by archaeologists with technical support of oceanographers, scientists and technicians in the National Institute of Oceanography got support from the Indian National Science Academy and the Archaeological Survey of India (ASI), the beginnings of India’s development of the field of MUCH was characterized by interdepartmental co-operation. This approach remains the backbone of maritime archaeology in India today.

9.3 Advancing MUCH in India

During early fieldwork activities, hired divers took instructions from archaeologists onboard dive vessels and reported on the objects they had seen or the work they had carried out on the seabed. This method of working led to several misconceptions and misinterpretations but no sincere efforts were made to spread the knowledge or develop MUCH for quite some time. Discouragement between institutions further hampered the progress of the discipline considerably. Although the ASI, the premier institution for the protection of cultural heritage in the country, received regular budget provisions from the government, little went toward MUCH activities which were not promoted. Decision makers were, therefore, given a false

impression that the department would not be able to conduct these complex and costly operations underwater. The only option for the ASI was to collaborate with ongoing projects. In this process of collaboration, young archaeologists were also trained.

While the search and study of underwater cultural heritage continued to attract many people and organizations and collaborative efforts went some way to developing the field, this branch of archaeology could not evolve as desired. Therefore, notwithstanding regular attempts, it took around two decades for the ASI to start a separate division, the Underwater Archaeology Wing (UAW), dedicated to underwater archaeological research and heritage management. International exposure of trained underwater archaeologists increased awareness and the myths surrounding the practice of maritime archaeology were dispelled. MUCH research began to be recognized in its own right. The establishment of the UAW in 2001 was the turning point, marking the beginning of systematic studies of underwater cultural heritage. The UAW, following legal procedure and international best practices, generated awareness about the underwater cultural heritage in younger generations.

A good number of submerged sites and a few shipwrecks have since been investigated along the west coast in the Arabian Sea, and along the east coast in the Bay of Bengal. Investigations on the west coast include Bet Dwarka, an island in the Gulf of Kachchh (Sundaresh and Gaur 1998: 77–86; Tripathi 2013: 1–15), Dwarka (Rao 1988: 47–53; 1991: 51–59; Tripathi 1996: 49–58; 2013; Gaur et al. 2000: 67–74), Kindar Kheda, Kotada Bandar, Mithivirdi (Gaur et al. 2006: 21–25), Somnath (Gaur et al. 2002: 131–145), Sopara (Tripathi 1993: 67–74), Elephanta (Tripathi 1993: 67–74; 2004a: 116–123), Vijaydurga (Sila et al. 1998: 1–8), and Sindhudurga (Sila and Gaur 1997: 51–57). Sites investigated on the east coast include Tranquebar (Gaur et al. 1997: 118–126), Kaveripattanam (Vora 1987: 159–164; Rao et al. 1995–1996: 7–22), Arikamedu (Tripathi 2002a: 145–149), Mahabalipuram (Tripathi 2001–2002: 93–100; 2007: 127–139), and Visakhapatnam (Gangadharam 1991: 198).

Shipwrecks investigated in Indian waters include a steel-hulled wreck at Grande Island, a shipwreck at Sunchi Reef (Sila et al. 2001: 355–367), a shipwreck at St George's Reef (Sila et al. 2003a: 111–120), shipwrecks on Suheli Par Reef, steamships off Minicoy Island (Gaur et al. 1998: 225–236), a shipwreck off Tranquebar (Gaur et al. 1997: 118–126; Sila et al. 2003b: 225–237), and the first systematic investigations off Bangaram Island (Fig. 9.1) in the Arabian Sea (Tripathi 2004b).

Most of these early investigations consisted of preliminary surveys with a few dives for photo documentation and retrieval of some artifacts until the first systematic underwater excavation was conducted by the UAW in 2002 off Bangaram Island (Tripathi 2002b: 72–80; 2004b).



Fig. 9.1 A diver collects samples off Bangaram Island

9.4 Collaboration

India, surrounded on three sides by the sea, is prominently located in the Indian Ocean. It is a vast country with 1197 islands, a 7516 km long coastline, 1,55,889 km² of territorial waters and 20,13,410 km² of exclusive economic zone. With a maritime history spanning more than 5000 years, India is exceptionally rich in UCH and holds great potential for underwater archaeology. Search, study and preservation of underwater cultural heritage in such a vast area is not practically possible for any single agency. It can only be achieved with active collaboration with many agencies related with the sea.

Since its inception and being aware of its vast task and limited funding, the UAW has had a futuristic vision that recognizes the need for interinstitutional collaboration to achieve results. The UAW, as a policy therefore started working to bring associated agencies together. The efforts proved effective and from 2002 joint projects were initiated on underwater archaeological sites.

It is also pertinent to mention that the UAW was cautious in order to select only those collaborators whose integrity towards the protection of UCH was beyond doubt. Several lucrative offers of support from different quarters were examined carefully and rejected.

The rich UCH of the nation needs regular protection from treasure hunters and looters and the Government of India took firm decisions that no activity having any commercial interest was permitted in Indian waters. It is difficult, however, for research institutions to keep constant watch, whereas blue navies can do that easily. The Indian Navy is one of the most professional and effective forces in the Indian

Ocean. It has a large well-trained workforce and state-of-the-art equipment for survey, search and retrieval from great depths. The well trained and highly committed professionals of the navy could, with brief training, become a strong force to support underwater archaeologists in conducting research and heritage management. With this in mind, the UAW initiated collaboration with the Indian Navy to not only search for and protect India's underwater cultural heritage but also to create awareness about its importance.

Despite their primary tasks the Navy remained committed to activities directed at UCH and provided full technical support to conduct systematic archaeological studies on a regular basis. A large fleet of ships was a great asset to search for and survey underwater archaeological sites and shipwrecks. Specialised ships such as the diving ship *INS Nireekshak*, survey ships *INS Jamuna*, *INS Darshak* and *INS Nirdeshak*, amphibious ship *INS Ghorpad*, as well as smaller ships and speed boats were deployed for conducting hydrographic surveys and underwater archaeological investigations.

The Navy has been utilized to great effect. In 2002 the survey ship *INS Jamuna* (Fig. 9.2) carrying one helicopter, four survey motor-boats equipped with DOPS, side scan sonar, echo sounder, magnetometer, current meter, gravimeter, satellite navigation system, and other survey equipment carried out underwater surveys with great accuracy off Bangaram Island in the Arabian Sea (Tripathi 2004b). In 2005 *INS Darshak* surveyed the seabed offshore Temple at Mahabalipuram. Details of the submerged rocky outcrops running parallel to the coast were recorded in a sonar survey. This study was also helpful to identify changes that occurred in the area after



Fig. 9.2 *INS Jamuna*

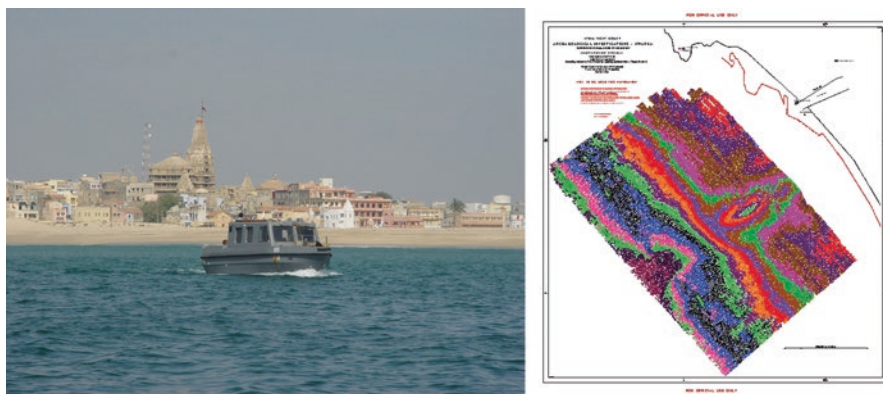


Fig. 9.3 Geophysical seabed data is collected, processed and analysed by naval hydrographers

the 2004 Boxing Day Tsunami. In 2006, an area off Dwarka was surveyed in great detail by deploying the survey ship *INS Nirdeshak*. The ship carried one integral helicopter, three survey motor boats, and state-of-the-art survey equipment including a multi-beam swath echo sounding system, an acoustic Doppler current profiler, a digital side scan sonar and DGPS position fixing systems.

Survey boats (Fig. 9.3) equipped with sonar systems operated from water depths of a few meters into deeper water while conducting bathymetric surveys. Data was transferred to well-equipped laboratories on board the vessels and experienced hydrographers prepared detailed bathymetric maps (Fig. 9.3) and three-dimensional models of areas of archaeological interest.

The availability of helicopters proved useful in reconnaissance and transporting personnel and materials. With the support of Indian Naval ships it became possible to work on sites hundreds of nautical miles away from the mainland.

The Indian Navy provided full support to teams of archaeologists for underwater excavations.

Naval ships carried out the challenging tasks of locating and relocating such sites with precision and could remain stationed on fixed locations with the help of the dynamic positioning system (DPS). This computer-coordinated system takes sensor inputs from Artemis microwave, hydro-acoustic transponders and cable angles from vertical/horizontal taut wires to keep the ship in a pre-determined point. This was very useful for carrying out uninterrupted diving operations and excavations at a particular site for long duration and to greater depths, despite different current, wave and wind conditions. The *INS Nireekshak* (Fig. 9.4) is not only equipped with DNS, but fitted with advanced diving facilities such as a saturation diving system, side diving stage, submarine rescue bell and air diving equipment to support saturation dives to 200 m. Due to availability of this equipment and these diving facilities it was possible to successfully conduct excavation to a depth of 54 m.



Fig. 9.4 *INS Nireekshak*

The *INS Nireekshak*'s complex saturation dive system consists of many subsystems. Two on-deck, six-person decompression chambers on the ship's main deck provide for prolonged duration dives of up to 4 weeks. An on-board submersible dive chamber is capable of supporting two divers to effect transfer of divers from living chamber to diving bell and vice-versa. The required gas mixtures, necessary supplies for communication and underwater video camera are supplied through the bell umbilical to support the divers at the work site and inside the bell. Emergency gas supply cylinders are installed on the bell and it is also fitted with an emergency drop system. An environment control system consisting of two Kinergetic-control master units, each supplying a habitat control unit, ensures the safety of divers inside the chambers during saturation diving. The mixed gas, pure helium and diving air, required for diving are stored on-board. Oxygen and therapeutic gases are stored on the upper deck. The ship is fitted with two high pressure air compressors. Another compressor is provided to charge the on-board bottles with a gas. It can be used to charge He-O₂ mixture containing oxygen up to a maximum of 21%. A gas mixer installed on the ship is capable of automatically mixing gases and the combination of helium and oxygen is supplied from the gas distribution panel to the diver. The surface diving stage fitted on the ship is capable of diving to a depth of 75 m. However, the depth is restricted to 55 m on air. It can carry two divers, who are supported through independent umbilicals (Fig. 9.5). The side diving system consists of a surface diving stage, stage handling system, two-diver umbilical of 100 m length, dive control post and stage handling post.



Fig. 9.5 Surface supplied divers prepare for deep dives

Inter-departmental collaboration between the Ministry of Culture (ASI) and the Ministry of Defense (Indian Navy) has proved highly effective for UCH management. The ASI-Navy collaboration resulted in both the first systematic underwater excavation and also the deepest underwater archaeological excavation in the region. Such explorations along the Tamil Nadu coast and off Elephanta in the Arabian Sea, as well as excavations off Mahabalipuram in the Bay of Bengal and sunken remains off Dwarka, are good examples of achieving high dividends from inter-departmental collaboration and effective utilisation of state infrastructure.

The scope of inter-departmental collaboration is not limited only to the Department of Archaeology and Navy. A number of other agencies, such as the National Institute of Oceanography, the National Institute of Ocean Technology, Maritime Boards, Port Trusts, Marine Police, Coast Guards, the State Departments of Archaeology, Universities and research institutes also may come together and share state infrastructure for more effective studies and management of underwater cultural heritage.

9.5 Conclusion

India's long history of heritage management and archaeology has framed its approach to MUCH. Since the inception of the ASI, heritage managers and archaeologists have adopted a national perspective in their work. While India has positioned its past within a global context, it has been cognizant of its own rich history and the impacts of external pressures on its own development. This inward-looking

approach has been incorporated into strategies for MUCH management and research. From the start, India sought to locate and investigate submerged sites of Indian origin before turning efforts to shipwrecks and sites associated with colonial expansion. In this regard, India has been a leader in maritime archaeology and MUCH. It has incorporated multiple perspectives into its strategies and has, to an extent, crossed the traditional divisions of tangible/intangible and natural/cultural by establishing partnerships between management agencies and incorporating MUCH into a broader cultural landscape.

India has been steadfast in promoting its national heritage agenda by limiting the pressures exerted by external stakeholders in defining a national approach and narrative. Through intergovernmental partnerships, India has established national capacity suited to the national context but operating within the frameworks of classic UCH models and internationally accepted UNESCO standards and best practices.

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Chapter 10

The MUCH of the Historic and Arabian Trade Routes



Robert Parthesius and Jonathan Sharfman

This book has explicitly explored perspectives of MUCH management around the western Indian Ocean. Strategies and approaches to the management of MUCH have differed within the varying political, social and economic contexts of western Indian Ocean states linked by the historic and Arabian trade routes. Despite differing approaches, however, all have recognized, to some degree or another, the significance of their maritime pasts and the value of conserving elements of the MUCH resource. All have taken steps, therefore, to manage the resource through the development of both legislative frameworks and the capacity required to identify, administer and study MUCH. This development has taken different forms driven by the needs and political facility of individual states.

In Sri Lanka, action was spurred by the threat of looting. Treasure hunting in the 1960s and 1970s stimulated Sri Lankan authorities to reexamine their legislative frameworks which, while offering potential protection to wrecks through legislation aimed at shipping, provided little real authority to heritage managers. The need for legislation focused on MUCH was broadly recognized across government departments ranging from museums to environmental management agencies. As a result, various legislation was promulgated that offered strong legal protection for underwater cultural heritage sites generally and submerged archaeological sites in particular. A decentralized approach to legislation has, however, produced some

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challenges as many institutions and ministries demand to be consulted in decision-making. Muthucumarana suggests that the ratification of the 2001 Convention may mitigate some of these issues through its requirement for the establishment of a “competent authority”. Sri Lanka’s Maritime Archaeology Unit is already capacitated and fulfils many of the requirements to fulfil the role of the competent authority. Ongoing capacity development, instigated through the *Avondster* project and becoming increasingly locally driven, ensures Sri Lanka’s ability to conduct MUCH research and manage the resource.

A centralized management authority could also alleviate some of the other challenges that Sri Lanka has experienced in recent years including political interference, international interventions that exclude local teams and funding. A single decision-making entity would allow Sri Lanka to standardize the requirements for international researchers’ approach to the MUCH resource and establish a single, clear policy framework that is applicable to all. The establishment of a central competent authority would also focus MUCH government funding streams. While Sri Lanka has successfully raised international funds, it has struggled to consistently allocate national funding to MUCH management.

Tanzania faces similar problems associated with decentralization. Here, however, these are exacerbated by several factors. Tanzania’s capacity and infrastructure are less developed than Sri Lanka’s, funding is not allocated to MUCH and heritage legislation, while being located and operationalized within a single ministry, is ambiguous on underwater cultural heritage. Although Tanzania’s heritage legislation protects archaeological and historical sites, it is silent on submerged resources. This has hindered heritage managers in developing a protocol for standards, methodology and best practice for MUCH. Ichumbaki has suggested applying the Rules outlined in the Annex to the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage as a foundation for the development of locally applicable policy. The ratification of the Convention would further support Tanzania’s efforts to firmly establish MUCH in the heritage management mindset. As in Sri Lanka, the formalization of a “competent authority” would benefit Tanzania. Currently, capacity created by training programs in the early 2000s is geographically and institutionally dispersed. This has made it difficult to implement research projects undertaken by the national team. Instead, international specialists from neighboring African countries and Europe are invited to carry out MUCH programs. This does not mean that Tanzanian archaeologists and heritage managers are uninvolved. Tanzania has taken a landscape approach to MUCH which links submerged and terrestrial sites. By taking this approach Tanzania’s strong terrestrial archaeological fraternity remains integral to MUCH and the narratives related to the nation’s maritime past.

Mozambique has also expanded its definition of MUCH to include terrestrial elements of the maritime cultural landscape. In the Mozambican instance, however, this has been driven by necessity. Despite legislation that treats underwater archaeological sites in the same way as terrestrial sites, there is a history of government sanctioned treasure hunting, especially on the northern coast and at Mozambique Island. Projects carried out for the purpose of selling archaeological

material were active for more than a decade. Government licenses were issued to companies to undertake excavations on shipwreck sites and to sell parts of recovered collections. Salvage companies promised capacity building, job creation and other benefits for local communities but delivered little. Although the location and identification of wreck sites required historical research, archaeological interpretation of sites was limited to the production of site maps and finds registers. Conservation efforts were limited. Going against the tenets of archaeological investigation, salvage companies excluded Mozambican stakeholders from accessing the sites and the material culture associated with their own heritage. Communities living in proximity to excavation activities were disconnected from an important facet of Mozambique's past and a key marker of local identity. In their efforts to reconnect with maritime history, Mozambique Island appealed to UNESCO, national institutions and experts to support initiatives that stopped treasure hunting and gave the island community a say in driving research directions and voice in the interpretation of the past. NGOs such as CIE – Centre for International Heritage Activities were enlisted to offer training that gave participants the skills to collect relevant MUCH data and assess cultural sites. Because the underwater sites remained in the hands of commercial license holders, community members focused on the intangible heritage associated with maritime histories and terrestrial sites linked to maritime activities and culture. At the same time, individuals such as Ricardo Duarte, national institutions such as the Eduardo Mondlane University and international experts exerted pressure on government ministries to revoke treasure hunting licenses and protect submerged cultural resources. When, in 2014, the Mozambican government acquiesced, capacity was readily available to assess sites and implement scientific research programs. Continued training of community monitors through the Salve Wrecks Project has further empowered local stakeholders to inspect and monitor submerged sites. Most recently, a Center for Archaeology has been established on the island.

Mozambican capacity continues to develop. The collection of archaeological and historical research data together with oral histories and community narratives has produced an interesting mix of stakeholder, student and local and international practitioner collaboration that will enrich the heritage of Mozambique. Despite this, Mozambique continues to face challenges to their MUCH. The narrative set by treasure hunters has been firmly entrenched in the public mind. Objects from shipwreck sites are continually sought out and recovered by community members hoping to be able to sell them to tourists. Mozambique is also facing a difficult task of policing a vast coastline by a (currently) small team of managers and practitioners.

Treasure hunting has similarly impacted on South Africa's efforts to manage MUCH. South Africa's strong legislation, which classifies shipwrecks as archaeological sites and administers them under the same ethical codes of practice as terrestrial sites, and its recent acceptance of the 2001 Convention have established a strong platform from which to protect submerged sites. Unfortunately, the precedents set by allowing and, for some time, supporting treasure hunting for almost half a century have weakened heritage managers position. Furthermore, in the absence of high profile maritime archaeological projects and in light of some

high-profile treasure hunting activities, public perceptions of archaeology and treasure hunting have been shaped by available information: for most, treasure hunting and archaeology are the same thing. The public also saw MUCH as being exclusively related to shipwrecks.

South African heritage managers and practitioners have fought hard to establish MUCH in the mainstream of heritage discourses and to establish themselves as a preferable alternative to treasure hunters. From a legislative perspective, heritage managers' struggle to legally stop treasure hunting only ended with an outright ban on commercial salvage of historic wrecks through the acceptance of the 2001 Convention. In the last decade South Africa has built capacity in the heritage management sector through programs such as its Maritime Archaeology Development Program and Nautical Archaeology Society training. This has resulted in capacity being available in heritage management agencies, museums and the private sector. In addition, South African practitioners enjoy good infrastructural support and have access to high-tech equipment.

Efforts to ensure public recognition of the relevance of MUCH to a broad cross section of South African saw archaeologists and historians working with coastal communities to collect oral histories and local narratives associated with the sea. This expanded the national voice beyond the exclusively shipwreck narratives that had been highlighted by legislation and treasure hunting.

Through its multiple programs, South Africa's approach to MUCH has developed into a combination of western-centered archaeological methodologies and ethics, and local narratives. By expanding MUCH access to a broad cross section of South African publics and by ensuring an inclusive research and management framework, South Africa has established an environment in which MUCH is relevant. Challenges of funding, government apathy and an absence of academic programs still hinder MUCH management. Souvenir hunting and small-scale looting persist and maritime archaeological projects are few. Despite this, South Africa's approach is a good model for establishing contextualized and locally relevant MUCH management frameworks.

Kenya has taken a more internationalist approach to managing and researching their MUCH. International expertise from China, Italy and others have supported Kenyan archaeologists and heritage managers in excavation and survey programs along the Kenyan coast. Kenya has centralized its internal expertise at the National Museums of Kenya. A small but active, MUCH group is stationed in Mombasa but projects in Lamu and Malindi, amongst others, consistently allow the team to engage with stakeholders across the country. International teams ensure that capacity is constantly developed and expanded. This is further supported by longstanding legislation that protects any site older than 50 years.

One of Kenya's strengths is its deep relationship with UNESCO. Kenya has already hosted one regional and one sub-regional meeting on the 2001 Convention and has hosted an African Underwater Cultural Heritage Training Program that saw participants from the sub-Saharan region complete Nautical Archaeology Society training courses.

Kenya's regional profile and presence has made it an African leader in MUCH. It collaborates closely with its neighbors in Tanzania and Mozambique to assist with surveys and assessments of maritime archaeological sites.

Oman and India present an interesting comparison. While there are some similarities, they also have divergent approaches. India has the oldest heritage legislation in the region and has an advanced framework for MUCH management and research. Inter-ministerial cooperation ensures infrastructure and capacity are available to MUCH managers and makes policing of underwater archaeological sites highly visible. India's focus has been on developing a local perspective while operating within classic models for maritime archaeology and heritage management.

By contrast, Oman's legislation does not specifically protect underwater cultural heritage. Although capacity is being established at managerial level, Oman has relied on international experts to carry out research and document the nation's MUCH. Research is carried out on a project by project basis (for example the Magan Boat Project and the recent excavations on Vasco Da Gama's ship) and there does not appear to be a long-term strategy for national development. Despite its reliance on international expertise, Oman, like India, has taken a nationalistic view on UCH. Research focus in both countries has largely been inward looking. Maritime archaeological or historical projects have examined local ships, local maritime narratives or sites/records that impact on the national historic record. This strategy has proved successful for both. Experimental archaeological reconstructions and historical research has raised the profile of Oman's MUCH and the pivotal role of Oman in Arabian maritime trade. The Omani government is enthusiastic about maritime history and has supported research and museum efforts, community-based projects and collection of oral histories and traditional shipbuilding techniques. India has established and capacitated management institutions, museums and university programs that promote and protect MUCH and take multiple perspectives into account.

The diversity of management and research approaches described in the chapters of this volume show that there is no "one-size-fits-all" approach to MUCH. States have adapted their strategies to local contexts while operating within country-specific political and economic environments. This diversity, bred from necessity, may be a contributing factor to the low uptake of the 2001 Convention which provides a model for MUCH management and research that is rooted in the challenges and methodologies of the western MUCH context. It should be noted, however, that the 2001 Convention does not pretend to be a blanket solution to management of UCH resources. Instead, it is designed to be a policy that sets minimum standards for activities aimed at UCH and which can be implemented through the drafting of national legislation that fits national needs. Without exception, the authors of this volume have stated that their states would benefit from ratification of the 2001 Convention on the Protection of Underwater Cultural Heritage, although for different reasons. It could be argued too that the adoption of an internationally agreed framework for heritage management may address common challenges. With odd exceptions, all the case studies presented here indicate a collective desire to see MUCH receive better funding, increased infrastructure, centralized

management and ongoing development at public and academic levels. Common threads run through the chapters which show a need for identifying links and pathways for collaboration not just through the drafting of bilateral, intergovernmental agreements, but by characterizing a deeper connection between states and people.

The attractiveness of adopting a shared or universal approach to heritage is illustrated by the successes of the 1972 World Heritage Convention. Although the 1972 Convention comes with its own set of problems (also rooted in its western approach to the identification of heritage sites and their significance), it has encouraged a global desire to identify places that resonate with humanity as a whole. This has, in turn, fostered international cooperation in funding, management and research. Despite the divergence of site types and associated narratives, World Heritage Sites and the nations in which they exist are linked by their contribution to the advancement of a global society. The appeal of the 1972 Convention has meant that 187 countries have ratified compared to just 63 who have ratified the 2001 Convention.

Would the identification of a common link support the ratification of the 2001 Convention and the management of MUCH? Using the 1972 Convention as a comparable framework it could be argued that it would. Although there are certainly many very local and localized aspects to MUCH as described above, it is predominately still seen as internationally connected heritage resource. Since the 1972 Convention is specifically drafted around universal connections, it is relatively easy to find common ground, but this is less clear when reading the 2001 Convention. Although it specifies the value of underwater cultural heritage to humankind, it fails to make those associations that are so easily recognizable in its 1972 counterpart. The landscape approach described above is baked into the 1972 Convention. Sites are linked by their contribution to the grand narrative of the human race. This could be applied to underwater cultural heritage in the same way. The mobility of ships, the impact of globalization and the cultural exchange and contact brought about by maritime activities mean that sites of common interest lie in the waters of coastal and landlocked states. While MUCH may mean different things to different people, there remains an object or narrative that is of common interest. This evokes a shared responsibility to protect and manage such elements.

The sea is a universal connector and the shipwrecks that represent the mechanism of global exchange are key in our understanding of the past. They represent complex interactions and historical developments. Their contribution to global development is perceived on multiple levels, however – for good (Omani, Swahili cultures), bad (South Africa and its colonial past) or neutral (India Mozambique, Kenya). All case studies represented in this book have a combination of these three elements to a greater or lesser extent. This creates a focus on a material and intangible culture far beyond the sites and the shores they exist and highlights their multiple meanings. It is no surprise then that the heritage related with the historical remains of ships have left different sentiments in the decolonized world.

Currently, the states discussed here focus on research or management solutions that suit the context of each nation. But, in light of the clearly identifiable connections between states and the significance of MUCH across borders, what does this mean for the international community and for sharing responsibility for the

management of a globally significant resource? While the 2001 Convention encourages collaboration between flag states of sunken wrecks, does it provide an effective tool/framework in all contexts? Despite the diversity of approaches, foci, legislation and capacity outlined in the chapters of the book, the goal of managing material and non-material culture is shared. Identifying a broader overarching context that allows states the autonomy of applying their own approaches but offers space for external stakeholders and multiple perspectives of the resource may serve to share the management burden.

10.1 A Maritime Cultural Landscape Approach to MUCH on the Historic and Arabian Trade Routes

A common thread running through this book has been the recognition of the importance and impact of MUCH in the development of coastal states and cultures. Supported by the 2001 Convention and the need to preserve tangible heritage, the current management frameworks focus predominantly on shipwrecks, as the mobile connectors of cultures and economies. It is important however, that a shift in thinking about MUCH is promoted in order to unlock a deeper universal links and contexts. Maritime pasts play a role in all of the national identities of the countries in this volume and in all of these identities is the acknowledgement of intercultural influence, and how global events have impacted on national evolution. This suggests that individual sites cannot be viewed in isolation but are, instead, elements in a greater historical and heritage system – the maritime cultural landscape (Fig. 10.1).

By adopting a landscape approach, it is possible to firmly establish commonalities between states and identify heritage and managerial links. The landscape approach allows interaction and encourages researchers to track cultural exchange over the region. Nationally, the landscape approach allows researchers and heritage managers to contextualize MUCH in national heritage narratives and make direct links between land and sea. For states like South Africa, for example, internal links were established through the identification of a national maritime cultural landscape that included local and global elements. South Africa was able to bring stakeholders together by showcasing a linked, if not shared, past in which multiple layers played a role and to which multiple perspectives have contributed. This proved an effective management tool. It remains questionable, however, whether this would provide a sufficiently firm framework across states at different stages of MUCH development. It is also unclear whether simply adopting a landscape approach would address issues of awareness and inclusivity.

Awareness, participation and inclusivity have been key in the successes of MUCH management described in these chapters. In South Africa, managers achieved greater success in protecting wrecks by expanding the MUCH narrative to include locally relevant intangible heritage. In Tanzania and Kenya, the inclusion of a wide stakeholder group facilitated development of MUCH and produced new



Fig. 10.1 Multiple elements in the maritime cultural landscape of Zanzibar © Robert Parthesius

data, and in Oman the participation of local experts and the inclusion oral histories was integral to the success of projects that relied on traditional boatbuilding techniques. Awareness has been fundamental in all approaches described here, be it at government or public level.

The challenges described by the authors have been exacerbated in instances awareness and inclusivity have not been negotiated. The recent activities in Mozambique illustrate this clearly. Low awareness and a lack of participation in treasure hunting endeavors excluded residents of Mozambique Island from their maritime past. This not only created anger, but also impacted the community on a more fundamental level. The perceived value of shipwrecks and shipwreck objects superseded the value assigned to local perspectives of maritime connections and overshadowed the role that local maritime traditions played in shaping Mozambique and the historic and Arabian trade routes more generally. It was not until initiatives stimulated people to record and valorize their own narratives that they began to reestablish themselves in the larger narrative and contextualize the world heritage site in different terms. This had also proved effective in South Africa where communities living near shipwreck sites were asked to record their maritime heritage, shipwreck related or not, and explore how each element had contributed to their community identity and the development of South Africa. As mentioned, despite expanding the appeal of MUCH, South Africa's heritage managers are still faced with a degree of apathy at government level. This can be attributed, in part, to short sighted thinking on the part of practitioners who focused on short term capacity building. In contrast, it has been possible to continue mentoring

individuals at Mozambique Island. Having been provided basic skill sets, communities are now taking ownership of their MUCH and is driving it in a direction that suits their needs and understanding of the resource. By creating at a longer-term vision for MUCH managers and stakeholders are ensuring that heritage stays relevant and that the tangible and intangible markers of heritage remain intact and in place.

To understand how a landscape approach can be actioned through legislation, it is worth returning to the international policy frameworks provided by the 1972 and 2001 Conventions. Taking cognizance of the fact that there does not appear to be a one-size-fits-all approach to MUCH management and engagement, we can still look at how each would be applicable to the protection of MUCH and how each would contribute towards promoting awareness, inclusivity and participation on a sustainable and locally relevant way within the maritime cultural landscape approach that binds it together.

UCH managers and practitioners have tended to focus only on the 2001 Convention, but does the more flexible and “acceptable” 1972 Convention offer a better model to encourage collaboration, participation and inclusion in positioning MUCH in a broader, global cultural landscape? Could the 1972 Convention provide the framework/theoretical structure for identifying important sites (and associated narratives) that resonate with both heritage practitioners and local stakeholders, while the 2001 Convention offers a practical methodology for research and physical protection?

Perhaps these questions can be best answered by hypothetically applying an expanded approach and policy framework to states represented in this book. As a first step, it is necessary to briefly explore the maritime cultural landscape that links the western Indian Ocean – the historic and Arabian trade routes. This trade network has profoundly influenced the evolution of western Indian Ocean culture. As a cultural system, the impact of seaborne trade is overtly displayed in the architecture, social structures and economies of the western Indian Ocean. Cultural, social and economic practices linked with the sea are central in survival and adaptation of populations both on the coast and in the interior. The modern concept of globalization with its roots in ancient Arabian oceanic trade has become the standard through which we make cultural links between nations and peoples. The trade routes reflect a turning point in human development. As such, is it enough to protect only the submerged archaeological sites 100 years old or older that are the focus of the 2001 Convention? Are these sites representative of this element of human history? Given its significance, we would argue that the 2001 Convention on its own is insufficient. The historic and Arabian trade routes, not as a collection of sites but as a cultural landscape, are undoubtedly “of outstanding universal value” meeting all six of the cultural criteria for selection for World Heritage Site status. For states struggling to protect, manage and research their underwater cultural heritage either through national legislation or through the application of the 2001 Convention and its rules, would the inscription of the tangible and intangible elements of the Arabian trade routes provide a logical and manageable framework for conservation? While

assessment of the World Heritage Site would be difficult, the approach offers several advantages. All of the states described above have ratified the 1972 Convention. Like the 2001 Convention, the 1972 instrument encourages collaboration and cooperation between states parties offering opportunities for the western Indian Ocean region to seek joint funding, develop joint strategies for identification and protection of heritage resources, and to determine locally relevant elements of heritage within the broader World Heritage Site context. Recent efforts to inscribe the Maritime Silk Route onto the World Heritage Register provide an exceptional backdrop against which to conceptualize serial nomination and develop the proposition. The association of sites with living traditions, belief systems, the spread of ideas and artistic endeavors inspired by trade and ocean use enhance the scope for management and protection beyond many national and international legislative frameworks and policies aimed at heritage conservation. In addition, the inclusion of living and intangible heritage in the management framework for maritime and underwater cultural heritage offers unique opportunities for inclusiveness beyond the traditional Eurocentric focus of the 2001 Convention. Significance is determined by universal resonance, not by age or environment. This does not imply that the 2001 Convention is without merit, is outdated, or is irrelevant. As a management tool the 2001 Convention and the Rules contained in its Annex is a crucial methodological management tool that legally protects the MUCH resource from salvage, looting or destruction through development and is a first line defense. But by expanding the scope of MUCH and by identifying the collective significance and universality of heritage associated with human interaction with water through the application of the tenets of the 1972 Convention, it is possible to promote humanity's inextricable links with the ocean in a manner that becomes globally and individually relevant to all.

Table 10.1 Summary of national approaches to MUCH

Sri Lanka	
Legislation	Strong legislation, haven't ratified 2001 Convention. The author believes ratification will help. Most significantly ratification might push Sri Lanka to establish a formal "competent authority". Currently management is decentralized and many institutions and ministries play a role.
Capacity	MAU has both infrastructure and personnel. Through the <i>Avondster</i> project they have been able to establish a museum and conservation facility.
Challenges	Political interference, international interventions that exclude local teams. Although international funding has been available at times there are still challenges in securing funding at national level.
Successes	Establishment and capacitation of the MAU and its infrastructure.
Approach	Capacity development and international cooperation supported by institutional development and legislation.

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Table 10.1 (continued)

Tanzania	
Legislation	Legislation not focused on maritime sites. Ratification of the 2001 Convention would assist in developing the team and establishing a methodology/best-practice for MUCH.
Capacity	Despite capacity development, Tanzania has struggled to keep the MUCH team active. Individuals have supported international researchers, but the team has not been able to carry out work as a team.
Challenges	Infrastructure and institutional development. Tanzania's team is dispersed across the country. Although this gives MUCH a wide presence, it is difficult to show results. Coastal development is having a negative impact on MUCH.
Successes	A growing body of research that focuses on maritime cultural landscapes and the importance of looking to the sea and submerged heritage. Connections between underwater sites and Swahili culture gives MUCH a strong local context.
Approach	A landscape approach with terrestrial focus. Research is largely directed at Swahili culture on land. Tanzania's approach examines international, national and local perspectives.
Mozambique	
Legislation	Legislation protects MUCH but, historically, has not been enforced in the same way as it has on land. Treasure hunting has been sanctioned by the state and state actors have been actively involved in the pursuit. Mozambique is currently considering ratification of the 2001 Convention.
Capacity	Capacity is growing. Several programs aimed at different sectors have created a good mix of stakeholder involvement and professional development. CIE has trained both community stakeholders and students. Recently, individuals from the community have been trained to dive and monitor underwater sites by the Slave Wrecks Project. Eduardo Mondlane University has actively encouraged and trained students in maritime archaeology.
Challenges	Treasure hunters have set the MUCH agenda and excluded nationals and legitimate researchers from accessing sites. In addition, Mozambique has a very long coastline and very few individuals to monitor or research MUCH.
Successes	The training of local stakeholders has proved successful in both promoting MUCH and protecting sites. While international researchers have focused on shipwrecks, local communities have been able to identify and promote locally relevant MUCH narratives. This has led to pressure being put on government to stop treasure hunting. An alternative MUCH narrative and community driven management methodologies have developed.
Approach	Training and community involvement have underpinned the Mozambican approach. Recently, archaeologists have begun documenting and analyzing maritime sites. Professionals, working with communities, are reclaiming the past.
Kenya	
Legislation	Legislation recognizes maritime archaeology (any site older than 50 years is a National Monument). Kenya has entered into several bilateral agreements to develop capacity and carry out research. Kenya and UNESCO have a strong relationship and the UNESCO Regional Office is very active in organizing meetings and workshops. Impact assessments are required for coastal developments.
Capacity	There is growing capacity in Kenya. Currently, the National Museums of Kenya have a MUCH team lead by a specialist maritime archaeologist.

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Table 10.1 (continued)

Challenges	Capacity and infrastructure still need expansion. Activities are still largely academic/research focused (this is both a challenge and a success).
Successes	Kenya has an active research program and is making MUCH publicly accessible through exhibitions, regional training workshops and international meetings.
Approach	Outward looking. Kenya recognizes the impact of international maritime connections on the development of its national culture and identity. MUCH is promoted through research.
South Africa	
Legislation	Legislation recognizes MUCH, but only as shipwrecks. At time of writing, South Africa is the only country in this volume to have accepted (not ratified) the 2001 Convention.
Capacity	South Africa has a comparatively significant maritime archaeological community. Specialist maritime archaeologists are employed in management agencies, museums and in the private sector. Infrastructure is comparatively good, especially hi-tech infrastructure.
Challenges	Treasure hunting and souvenir hunting remain a problem despite being outlawed. Apathy at government level has hindered development. There are few opportunities for research and excavation and no academic program for training new practitioners.
Successes	South Africa has hosted successful training and awareness raising programs in partnership with CIE and others. Research programs that are ongoing have been rigorous and have attracted global attention. South African researchers have made efforts to make MUCH more inclusive and with broader appeal.
Approach	A combination of western archaeological and management practices and the inclusion of local narratives. South Africa has tried to develop a more locally relevant approach to MUCH management that enlists assistance from local stakeholders to identify, record and protect sites and histories.
Oman	
Legislation	No legislation to protect MUCH.
Capacity	Although local heritage managers recognize and participate in UCH management and research, capacity is generally sourced internationally and on a project-by-project basis.
Challenges	Despite some high-profile research projects (Da Gama's ship, Magan project), there is little active underwater research. Much of the archaeological research has focused on terrestrial sites.
Successes	Experimental archaeological reconstructions and historical research has raised the profile of Oman's MUCH and the pivotal role of Oman in Arabian maritime trade. The Omani government is enthusiastic about maritime history and has supported research and museum efforts. Community-based projects and collection of oral histories and traditional shipbuilding techniques.
Approach	Highly local but within an international context. Research is done on a project by project basis. Inclusion of tangible and intangible heritage. Knowledge resides with local stakeholders.

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Table 10.1 (continued)

India	
Legislation	Strong and well-established legislation aimed at protecting MUCH sites.
Capacity	Capacity exists across institutions. India has large infrastructure available to MUCH including hi-tech survey equipment, ships, divers and trained archaeologists. A partnership between heritage management agencies and the Navy offers opportunities for research and exploration.
Challenges	Funding and competition for funds remains a challenge.
Successes	A well established legislative framework and access to infrastructure.
Approach	India has an inward-looking, nationalistic approach to MUCH. Local capacity focuses on local heritage. Research takes multiple perspectives into account but operates within classic models of maritime archaeology and heritage management.