



RISING FROM THE DEPTHS

**Utilising Marine Cultural Heritage to Create
Social, Cultural and Economic Benefits in
Kenya, Tanzania, Mozambique and Madagascar**

Emergent Findings





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Cover image: *Heritiana Andrinjarisoa Rabekoto, Marovany Association Project Director, records an anchor from the wreck of SS Surprise in Salary Bay, Madagascar.*

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I would also like to thank my fellow academic investigators who were instrumental in formulating the original vision and research proposal: Colin Breen, Luciana Esteves, Annamaria La Chimia, Paul Lane, Solange Macamo, Garry Marvin, and Stephanie Wynne-Jones.

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We also owe a debt of gratitude to our non-academic partners in both the UK and East Africa, who acted as vital gateways to community groups, industrial sectors, and policymakers. Their roles as facilitators and advocates of the project were crucial. Key gateway partners included the British Institute in Eastern Africa (BIEA), the National Museums of Kenya (NMK), the Kenya Marine and Fisheries Research Institute (KMFRI), the Western Indian Ocean Maritime Science Association (WIOMSA), and the Universities of Pwani in Kenya, Dar es Salaam in Tanzania and Eduardo Mondlane in Mozambique.

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I also owe thanks to the Arts and Humanities Research Council (AHRC) for supporting this project through the Global Challenges Research Fund (GCRF), with special mention to Paul McWhirter for his support during the difficulties of Covid and the project reprofiling.

When we started the network in 2017, the concept of Marine Cultural Heritage creating social, cultural, and economic benefits for local communities through challenge-led research was not widely appreciated, and often a difficult sell, especially when talking to the ocean science community. I am pleased to say that now, in 2024, the importance of cultural heritage in helping to formulate sustainable development initiatives is more widely recognized. Thanks to the efforts of organizations like the Ocean Decade Heritage Network, ICOMOS, UNESCO, and private entities like the Ocean Foundation and the Honor Frost Foundation, marine heritage now has a recognized place in helping to meet the aims of Sustainable Development Goal 14 (SDG 14) and the Decade of Ocean Sciences for Sustainable Development to conserve and sustainably use the oceans, seas, and marine resources.

The Rising from the Depths network demonstrates that cultural heritage approaches can help ensure one of the key tenets of the UN Sustainable Development Goals: that “no one will be left behind.” To be successful, approaches to protect and sustainably use marine resources must respect and include the culture and traditions of coastal communities. Sustainable development initiatives must not only be scientifically and ethically sound, but they also have to be desired and supported by the very communities affected by them.

As a network of linked projects, Rising from the Depths represents a pioneering attempt to consider the Marine Cultural Heritage of East Africa in a coordinated and multidisciplinary way, uniting various existing capacities in the region and giving agency to local communities in the elaboration of research agendas, project design, and resource management.

Looking to the future, I am filled with hope and conviction that the foundations we have built together – bridging disciplines, cultures, and communities – will continue to inspire transformative change and empower local communities to play a central role in shaping sustainable development efforts across the region.

Ninawashukuru sana jamii za pwani za Kenya, Tanzania, Msumbiji na Madagaska.

Professor Jon Henderson

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Chancellor's Fellow in Global Challenges and Professor of Coastal and Marine
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Dhow, Mozambique.



RISING FROM THE DEPTHS



The Rising from the Depths Network

The Rising from the Depths Network was funded by the UK Global Challenges Research Fund (GCRF) through the Arts and Humanities Research Council Network Plus Scheme. As well as co-creating a research agenda and running a series of in-country workshops, the network funded 27 challenge-led projects across Kenya, Tanzania, Madagascar, and Mozambique. This document presents the results and ongoing impact of each of these projects and outlines the main insights garnered from the work that has taken place to date.



East Africa has an outstanding maritime heritage, ranging from the spectacular stone towns and mosques of the Swahili coast to the rich indigenous boatbuilding and fishing practices of coastal communities, not to mention a largely unstudied underwater resource.

Above: 19th century waterfront at Zanzibar Stone Town, Tanzania.

Left: Island of Mozambique World Heritage Site.



Below: Coral-built stone buildings dating to the 14th century at Gede, Kenya.

Introduction

The Rising from the Depths network set out to identify ways in which the submerged and coastal Marine Cultural Heritage (MCH) of Kenya, Tanzania, Mozambique, and Madagascar could stimulate ethical, inclusive and sustainable economic growth in the region, not only by supporting greater social cohesion and reducing poverty in individual states, but also by enhancing the value, impact and equity of development in the marine zone.

The governments of coastal eastern Africa aspire to transform their countries into thriving maritime gateways of trade and investment. Rising from the Depths has demonstrated that the past has an essential role to play, both in informing this development and in helping to ensure that it is ethical and sustainable.

The Rising from the Depths network represents a first attempt to look at the MCH of eastern Africa in a coordinated and multidisciplinary way, by uniting the various existing capacities in the region and giving agency to local communities in the elaboration of research agendas, project design, and resource management.

Marine Cultural Heritage

A clear definition of Marine Cultural Heritage is central to the Rising from the Depths approach.

Marine Cultural Heritage (MCH) is a catch-all term for all coastal and marine areas affected by human maritime action¹. Consequently, our approach to the MCH of eastern Africa is comprehensive, including both tangible and intangible elements. Tangible remains encompass submerged marine sites, ports, harbours, coastal archaeology, maritime ecologies, and geology. Equally vital are the intangible components, which include cultural practices, artistic and linguistic expressions, local skills, and traditional and historical knowledge.

Our consideration of the reach of MCH is similarly broad and includes its relationship to economic development, environmental management, social justice, education and identity. The network funded activity encompassing a range of disciplines (archaeology, arts, anthropology, coastal management, environmental sciences, geography, law, museum studies, natural sciences, and social policy) bringing together African-based research teams to work with local communities, NGOs, third sector partners and marine industry stakeholders to utilise the full potential of MCH and create sustainable economic, cultural, and social benefits.

Globally, the potential and importance of MCH are yet to be fully realised anywhere. Critically, MCH is under threat everywhere, especially in the Western Indian Ocean, from natural forces, climate-driven coastal change, as well as intensification in coastal

¹ Henderson, J. (2019) Oceans without History? Marine Cultural Heritage and the Sustainable Development Agenda. *Sustainability*, 11, 5080. <https://doi.org/10.3390/su11185080>



Above: An undocumented shipwreck, Mozambique.

Left: Coastal erosion, Malindi, Kenya.



and offshore developments. As a result of these pressures, we are losing the MCH resource before we have had a chance to harness its potential. Local capacity in eastern Africa to undertake such activity is limited and urgently needs to be enhanced through investment in research-based training and public engagement.

Taking this holistic approach to marine heritage, the Rising from the Depths network has funded activity that has integrated scholarship on eastern Africa’s coastal built heritage, underwater sites, environments, natural resources, legal structures, material practices, and living traditions into new conversations, resulting in an enhanced understanding of the value of the region’s MCH.

The Challenge

Kenya, Tanzania, Mozambique, and Madagascar are developing countries and, as a result, are among the most vulnerable to the impacts of geopolitical turmoil and environmental change. They are also the focus of global resource exploitation: major offshore oil and gas discoveries are driving international investment, as is the development of ‘super ports’ to facilitate maritime trade. While port construction and offshore exploration for oil and gas deposits are bringing some economic benefits to eastern Africa, these developments, along with activities such as underwater cabling, dredging, pipeline laying, and underwater mining, are threatening the region’s rich submerged and coastal MCH – the latter already at risk from rising sea levels. In addition, while donor countries and investors certainly profit from such developments, it is less clear how much of this profit trickles down to local communities, particularly those most at risk. Coastal communities in the region already face challenges caused by coastal erosion, dwindling fish resources, and unsustainable fishing practices – infrastructure developments can exacerbate these problems from increasing coastal erosion to developers grabbing land and forcing people to move. The fast pace of this change risks exposing already vulnerable coastal groups to greater risks of exploitation (ranging from low pay to modern slavery) and insecurity (climate, food, shelter, land) ultimately compromising human, environmental and cultural rights at the individual and community level.

Development and investment agreements rarely take account of cultural heritage, even though access to it is considered a fundamental human right,² and the potential value of cultural heritage in promoting sustainable, resilient societies is increasingly recognised on a global scale. The role MCH could play in development aid success (and the success of private instruments for development) particularly in relation to coastal infrastructure and offshore extraction projects has not yet been realised, and research in this area is lacking. Similarly, little attention has so far been paid to whether international foreign investment agreements adequately respect and protect MCH.

² ICOMOS. *The Stockholm Declaration: Declaration of ICOMOS Marking the 50th Anniversary of the Universal Declaration of Human Rights*; ICOMOS: Paris, France, 1998; Available online: www.icomos.org/en/what-we-do/focus/human-rights-and-world-heritage/179-articles-en-francais/ressources/charters-and-standards/372-the-stockholm-declaration (accessed on 1 February 2024).



Above: Lamu Old Town Waterfront, UNESCO World Heritage Site, Kenya.

Left: Construction of port infrastructure at Lamu, Kenya, as part of the LAPSSET Project.

Below: Liquefied natural gas extraction, Tanzania



Climate and environment changes through increased storm activity and rising sea levels are also having a dramatic impact on coastal and maritime sites in eastern Africa while protection projects and adaptation strategies often further compound issues due to the lack of historical baseline data. The broader geopolitical and economic landscape does not bode well for the future protection and enhancement of the coastal and maritime resources in this part of the world.

ODA recipient countries such as those in eastern Africa lack the capacity to properly emphasise the contribution to development that can be made by the protection and promotion of cultural rights. These issues – the importance of heritage for cultural, social and economic development, and the need for capacity building – are particularly relevant in the context of the MCH of eastern Africa.

It is the main contention of the Rising from the Depths network that MCH has an important, but so far largely unappreciated, role to play in the long-term sustainability, and ultimately the success, of coastal and marine development. It is only by embracing MCH that the social, environmental and economic pillars of development can be fully realised.

Inception

Rising from the Depths is an interdisciplinary network project that was funded for five years (2017–22) by the United Kingdom Global Challenges Research Fund (GCRF) through the Arts and Humanities Research Council. The GCRF was a £1.5 billion fund, drawn from the UK's Official Development Assistance (ODA) commitment, which was created in late 2015 to support research projects that use interdisciplinary academic expertise to address challenges faced by developing countries. GCRF projects set out to establish equal partnerships between UK researchers and researchers in countries across the Global South to promote research which underpins the welfare and economic development of countries on the OECD Development Assistance Committee (DAC) eligibility list. In order to become eligible for such funding, research under the GCRF had to have a 'main objective which is directly and primarily relevant to the problems of developing countries.'³

The network originally came together in 2017 as a consortium of Global North and Global South universities. Through a subsequent programme of outreach and engagement led by university-based researchers, a broader network beyond academia was established involving government partners, NGOs, and local community groups.

The RftD network is coordinated by PI Jon Henderson based in Archaeology (University of Nottingham 2017–20; University of Edinburgh 2020–present), supported by an interdisciplinary academic team of researchers from a further seven Higher Education institutions: Colin Breen, Environmental Science, Ulster University; Luciana Esteves, Coastal Change and Management, Bournemouth University; Annamaria La Chimia, Law and Development, University of Nottingham; Paul Lane, Biocultural

³ UKRI. *Official Development Assistance Global Challenges Research Fund Guidance*; UKRI: Swindon, UK, 2017.



Rising from the Depths planning meeting in Nottingham, 2018.

Co-creation meeting with UK academics at the University of Roehampton, London 2018.



Heritage and Deep History, University of Cambridge; Solange Macamo, Heritage Management, Eduardo Mondlane University; Garry Marvin, Anthropology, University of Roehampton; and Stephanie Wynne-Jones, East African Archaeology, University of York.

As members of the academic team were not eligible under AHRC rules to receive funding for research projects from the network, academics based in eastern Africa were deliberately left out of the official academic team to ensure that they could fully participate in and benefit from the funding stage. East African oversight in the co-creation and delivery of the network was provided by an East African Advisory Group coordinated by Solange Macamo with representatives from each country (Solange Macamo, Eduardo Mondlane University, Mozambique; Ibrahim Busolo, Pwani University, Kenya; Emanuel Kessy, University of Dar es Salaam, Tanzania; and Chantal Radimilahy, University of Antananarivo, Madagascar).

In order to deliver tangible, relevant outcomes, the network included a range of key non-academic partners in the UK and eastern Africa who acted as gateways to community groups, industrial sectors, and policy makers as well as facilitators and advocates of the project. Key gateway partners include the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Western Indian Ocean Maritime Science Association (WIOMSA), the Kenya Marine and Fisheries Research Institute (KMFRI), and the British Institute in Eastern Africa (BIEA).

Methodology

From the outset, the network was keen to avoid being overly prescriptive in its approach to agenda setting. We were conscious that the majority of academic-led programmes have tended to be formulated in the Global North, and defined in terms of Western priorities and perspectives. Rather than develop an initial SWOT or LOGFRAME analysis, we initially opted for a discursive-led approach to allow the full inclusion of the Global South ‘voices’, and for full co-production of the network agenda. The innovative approach that underpins the network lay in this initial formulation of a broad Theory of Change approach, followed by the generation and co-production of multiple series of autonomous Global South-led initiatives and project schemes. A consensus was established recognising heritage as a key driver of sustainable community development, and this was the emergent foundational principle. The funded projects were then allowed full freedom to explore and develop this principle in their work.

The first year (October 2017–October 2018) focused on data gathering and scoping to build the network, forge new collaborations, and identify the immediate needs in each country through consultations with a wide range of academic, community, and marine stakeholder groups. Consultation meetings and events were held throughout Kenya, Tanzania, and Mozambique, involving academics from Higher Education Institutions, NGOs, government organisations, and community groups (insert photo near here).

In May 2018, a UK consultation meeting with UK academics was held at the University of Roehampton to consolidate the research themes identified in the African meetings



and to explore potential UK research community contributions. Additionally, the network and its funding opportunities were promoted at several international conferences and smaller meetings throughout the year, notably at the 24th Society of Africanist Archaeologists Biennial Conference in Toronto (June 2018) and at the 15th PanAfrican Archaeological Congress in Rabat (September 2018).

As a result of this co-creation work, a research agenda was formulated⁴ and open funding calls were held to distribute the Rising from the Depths funding budget of £800,000. Three open funding calls were held; these took place in September 2018, January 2019, and finally in October 2019. The first call accepted individual projects applications for up to £100,000 (Large), the second up to £50,000 (Medium), and the third up to £10,000 (Small).

The first two funding calls considered any project that was relevant to, or dealt with some aspect of, MCH in eastern Africa, provided they were collaborative, co-produced, challenge-led, and, most importantly, had a clear aim to produce economic, cultural and/or social benefits for coastal communities in the region. Eligible organisations for funding encompassed universities, government institutions, non-governmental organisations (NGOs), and civil society organisations (CSOs); also, teams could include partners from business and industry.

The evaluation process for applications followed standard UK funding board procedures, conducted by independent expert peer reviewers to ensure confidentiality and mitigate any conflicts of interest. Evaluation panels were constituted of members from the core academic institutions of the RftD network alongside external project partners, including reviewers from overseas and non-academic backgrounds. Unsuccessful applicants from the initial call were offered feedback and encouraged to resubmit their proposals for consideration in the second call. Notably, several revised applications found success through this process.

GCRF network projects introduced a new way of allocating research funding as organisations based in the region could be directly funded, enabling them to lead research initiatives. Also, regardless of the composition of the team, at least 50% of costs had to be allocated to the eastern African countries involved to meet UK Overseas Development Aid requirements for direct benefit. In line with the GCRF funding model, project teams in the first two calls were structured with a Principal Investigator responsible for project leadership, accompanied by up to three Co-Investigators from eligible institutions in the UK and eastern Africa. This team composition mandated the inclusion of at least one researcher from Kenya, Tanzania, Madagascar, or Mozambique, alongside a UK-based researcher. Projects could be led by Principal Investigators from either eastern Africa or the UK.

In consultation with the AHRC, in the third and final call the requirement for a UK partner was removed to allow the network to support projects which were entirely conceived and directed by eastern African organisations. This was done to deliberately



Scoping meetings were held throughout 2018 with a wide range of academic, community and marine stakeholders including (from top left clockwise): the Bidi Wa Kasi women's group in Mida Creek, Kenya; ocean scientists at the Kenya Marine and Fisheries Research Institute; lawyers from the Nairobi Law School; academics and researchers based in the UK; UNESCO officials, NGOs and government representatives at a UNESCO State Parties session in Paris; community leaders at the Ilha de Mozambique; as well as school children in Kilwa, Tanzania (centre).

Rising from the Depths co-creation network meeting poster, 28 February 2018, Maputo, Mozambique.

4 Henderson, J., Breen, C., Esteves, L., La Chimia, A., Lane, P., Macamo, S., Marvin, G. and Wynne-Jones, S. (2021) Rising from the Depths Network: A Challenge-Led Research Agenda for Marine Heritage and Sustainable Development in Eastern Africa. *Heritage*, 4, 1026–1048. doi.org/10.3390/heritage4030057



Dr Colin Breen, Rising from the Depths Co-I, at a co-creation meeting with academics and researchers at Eduardo Mondlane University in 2018 in Maputo, Mozambique.

strengthen in-country scientific capacity and overcome the perception of the concerns of the Global North dominating research discourses.

The final call not only funded new standalone projects but also supported initiatives aimed at disseminating the broader objectives of the network (the importance and utility of MCH in eastern Africa). Furthermore, it facilitated the establishment or strengthening of links between existing projects, with an eye towards ensuring the long-term sustainability of MCH based research in the region.

In the end, 27 projects were funded across the three calls from a total of 73 applications. Together, these projects constitute an interconnected knowledge base encompassing cross-disciplinary research, capacity building, policy development, and public engagement. They have significantly enhanced research capacity across the region, leading not only to new social, cultural, and economic opportunities for local communities, but have also enhanced the awareness, preservation, and use of MCH in eastern Africa.



Word cloud in answer to the question "What are the main challenges facing the Ocean?" based on responses from academics, researchers and government officials attending a co-creation event held at the KMFRI in Mombasa, 2019.



Word cloud in answer to the question "What is important about the Ocean?" based on responses from academics, researchers and government officials attending a co-creation event held at the KMFRI in Mombasa, 2019.

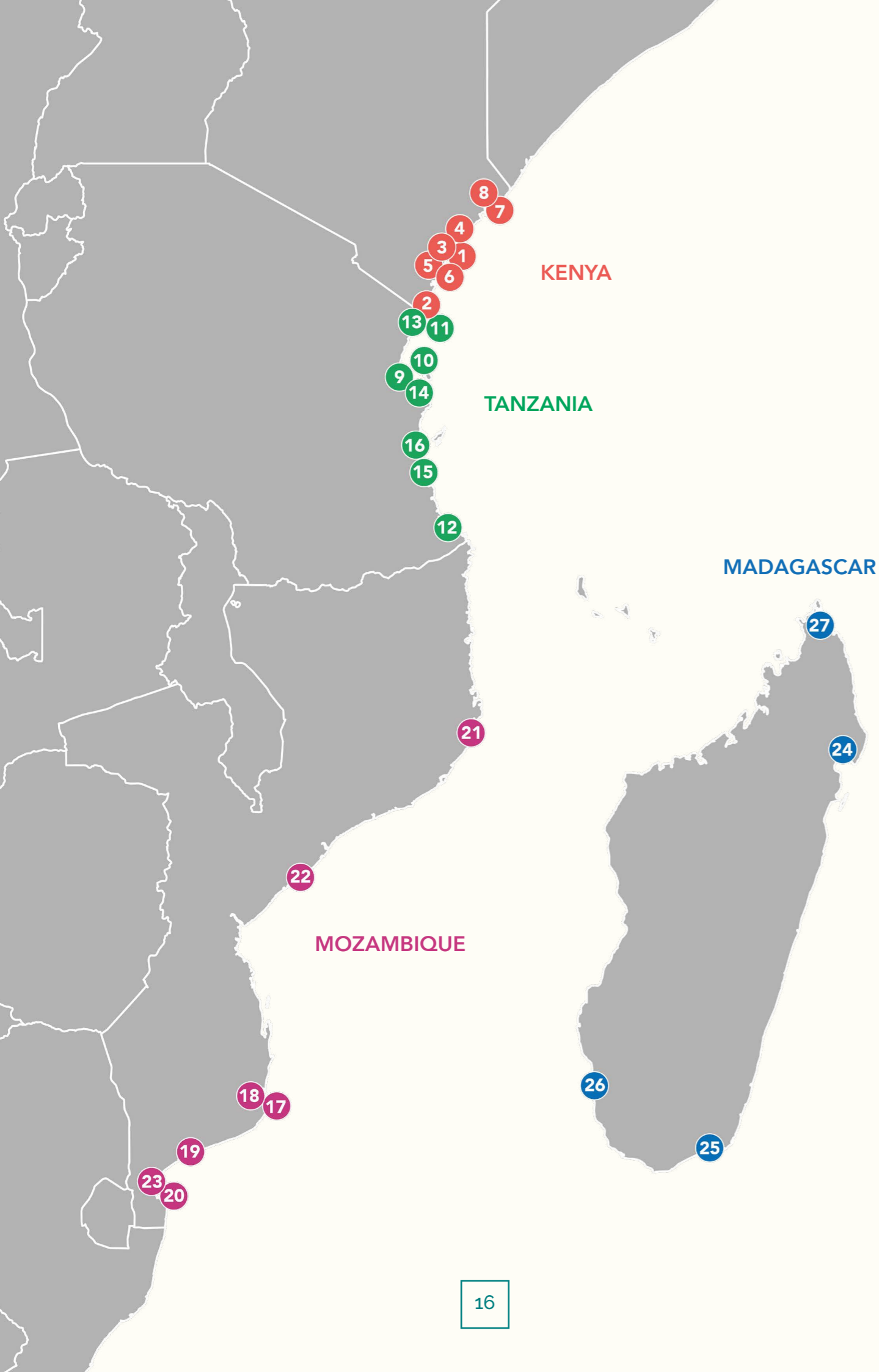


RISING FROM THE DEPTHS



PROJECT HIGHLIGHTS

Dhow representation, Mozambique Island.



Rising from the Depths Projects

- 1 CoaAst (Coastal Aural Archive of Spaces & Time), Bamburi Beach
- 2 Establishing a Framework for Traditional Heritage Knowledge in the Sustainable Development of East African Small-Island and Coastal Communities (TheK-EA)
- 3 Mtwapa: the Utilisation of Marine Cultural Heritage by a Multicultural Community
- 4 MUCH to Discover in Mida Creek
- 5 Palm, Sand and Fish: Traditional Technologies of the Daughters of the Azanian Coast
- 6 Protecting Marine Cultural Heritage Through Bio Cultural Community Protocol in Kilifi County
- 7 Protecting the Past, Preserving the Future: Blended Finance and the Protection of Marine Cultural Heritage in Lamu Port
- 8 'Shoring Up Marine Cultural Heritage: Extending Madagascar's 'Festival of the Sea' with Lamu's Anidan Children's Shelter, Kenya
- 9 Bahari Yetu, Urithi Wetu (Our Ocean, Our Heritage)
- 10 Creating Pwani: a New Maritime Heritage Space for Zanzibar
- 11 East Pemba Maritime Heritage Project
- 12 Futures Through Underwater Pasts: a Search for Mongalo
- 13 Historia Ziliyoficha Za Ardhi na Bahari (Hidden Histories: Stories of People and the Sea)
- 14 Incorporating Marine Cultural Heritage Protection into Tanzania's National Adaptation Plan
- 15 The Kisima: Historic and Future Well Management at Kilwa Kisiwani, Tanzania
- 16 Musicalizing Marine Cultural Heritage in Tanzania
- 17 CoastSnap Mozambique
- 18 Community Involvement and Social Investment for a Sustainable and Inclusive Management of Maritime Heritage in Mozambique: Towards a New Framework
- 19 Embracing Social Learning in the Management of Ecosystem Services in Chonguene District, Gaza Province
- 20 Making Maritime Museums Matter in Mozambique
- 21 Marine Cultural Heritage in Northern Mozambique
- 22 Reviving a Maritime Past: the Architectural and Ecological Heritage of Chinde
- 23 WITH Coastal Style: Women's Identity, Textiles and Heritage in Mozambique
- 24 Discover Your Cultural Heritage
- 25 Reharbouring Heritage
- 26 Study and Implementation of Network System by a Fishers' Community for the Survival of Marine Cultural Heritage, Tsifota, Southwest Madagascar
- 27 Using Fishers' Traditional Maritime Knowledge to Improve Small-Scale Fisheries Management in Northern Madagascar



- 1 CoaAst (Coastal Aural Archive of Spaces & Time), Bamburi Beach
- 2 Establishing a Framework for Traditional Heritage Knowledge in the Sustainable Development of East African Small-Island and Coastal Communities (TheK-EA)
- 3 Mtwapa: the Utilisation of Marine Cultural Heritage by a Multicultural Community
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- 5 Palm, Sand and Fish: Traditional Technologies of the Daughters of the Azanian Coast
- 6 Protecting Marine Cultural Heritage Through Bio Cultural Community Protocol in Kilifi County
- 7 Protecting the Past, Preserving the Future: Blended Finance and the Protection of Marine Cultural Heritage in Lamu Port
- 8 Shoring Up Marine Cultural Heritage: Extending Madagascar's 'Festival of the Sea' with Lamu's Anidan Children's Shelter

Project Highlights: KENYA

Shoring Up Marine Cultural Heritage: Extending Madagascar's 'Festival of the Sea' with Lamu's Anidan Children's Shelter, Kenya.



1 CoaAst (COASTAL AURAL ARCHIVE OF SPACES & TIME)

AREA: ARTS (Medium Grant)

PI: Anna Troisi (Bournemouth University)

Co-Is: Paula Callus (Bournemouth University),
Gauti Sigthorsson (University of Roehampton),
Mwadime Wazwa (National Museums of Kenya)

Partners: Comensum Mangrove Rehabilitation
Groupss, Il Corpo Nel Mondo ACSD, Majaoni
Seaview Academy, National Museums of Kenya,
University of the Arts London, Bournemouth
University, University of Roehampton, Fort
Jesus Museum, Majaoni Primary School, Lifog
Centre Primary School



CoaAst created an archive of aural memories collected by children from two local schools in the coastal community of Bamburi Beach, near Mombasa, Kenya. They were visualised and made available to the public online and at the Fort Jesus National Museum of Kenya, raising awareness for the area's MCH among the public and policymakers.

Performance at Majaoni Primary School.

HIGHLIGHTS

- MCH map and knowledge transfer**
Local young people recorded the community's memories and oral history, enabling the creation of a visualised map of MCH traditions as well as transgenerational knowledge transfer. This allowed for a better understanding of how the community perceives landscape, cultural, environmental, and economic changes in the area and how those changes affect their everyday life.
- Public platform**
The aural archive, visualised as a map, was shared at an exhibition at Fort Jesus Museum in Mombasa, and through digital platforms, thereby expanding awareness.
- Youth empowerment for policy change**
The children, coordinated by their teachers, were equipped with audio recorders and searched for memories in the village, the shore, and in their homes. Involving the children and the community to create an archive of memories will help policymakers to better understand how the community perceives landscape, cultural, environmental, and economic changes in the area and how those changes affect everyday life.



From the "Preparation for Marriage and Education" recording.



Children depicting their memories.

RESOURCES

Media:

- Video (YouTube): [Majaoni Primary School for CoaAst \(AHRC/GCRF\)](#)
- Aural archive hosted on SoundCloud: <https://soundcloud.com/coaast-bamburi>

Events:

- An exhibition at the Fort Jesus National Museum of Kenya in Mombasa
- The local schools host a permanent exhibition, with QR codes linking to the online exhibition
- Presented at the Design Biennale in London in 2023

Web Resource:

- Article: [COAASST – Coastal Aural Archive of Space and Time](#)



This project examined how Traditional Heritage Knowledge (THEK) amongst island and fishing communities in Kenya and Tanzania can be harnessed to inform modern approaches to the sustainable use of marine and coastal resources. Focusing on the linkages between past and modern fisheries governance systems, the project revealed that practical engagement with local fishers and awareness of their beliefs and practices is vital if new development initiatives are expected to be sustainable, while also investigating the drivers of THEK evolution and the gender dimensions of THEK.



Local community meeting in Kwale.

2

ESTABLISHING A FRAMEWORK FOR TRADITIONAL HERITAGE KNOWLEDGE IN THE SUSTAINABLE DEVELOPMENT OF EAST AFRICAN SMALL-ISLAND AND COASTAL COMMUNITIES (THEK-EA)

AREA: ENVIRONMENTAL SCIENCE
(Medium Grant)

PI: Chris McGonigle (Ulster University)

Co-Is: Chepkemboi Labatt (Kenya Marine and Fisheries Research Institute), Mwanahija Shali (Institute of Marine Sciences, Zanzibar), Renison Ruwa (Kenya Marine and Fisheries Research Institute)

Partners: Kenya Marine and Fisheries Research Institute; Ministry of Agriculture, Natural Resources, Livestock and Fisheries: Pemba North Region; Fishers Local Administrator and Fishery Committees (VFC) in Pemba Island-Tumbe and Ndagoni; Fishers Local Administrator and Fishery Committees (BMU) in Kwale County-Funzi Island and Vanga; Mchongo Self-Help group; National Museums of Kenya; Shimoni-Vanga forum; Ulster University; Institute of Marine Science, University of Dar es Salaam



Co-investigator Ms Chepkemboi Labatt interviewing local fishermen on field work in Kenya and Tanzania.

HIGHLIGHTS

- Documentation of MCH
The community values and intangible MCH resources of Pemba, Tanzania and Kwale, Kenya were documented together with lived experiences and stories, with members of each of the local communities discussing the meaning of forgotten practices. Four virtual tours of cultural sites for each village – two in both Kwale and Pemba – were made with a drone, allowing communities to see drone images of their sacred places, which prompted memories that had been missed when using traditional research methods. The information gathered was shared with local schools and relevant bodies to help them monitor changes in their environment and culture, using the results to talk to their elders about the places, practises, and food, thus propagating their history and increasing THEK. Sacred places that are absent from policy documents need to be made visible and fully considered to give them greater recognition locally and globally.
- THEK mapping
Mapping of cultural assets determined the spatial extent of THEK and its relationship to landscape management and use (inventory of fishing grounds, fishery practices, GPS tracking of the fishing fleet, culturally important flora and fauna, sacred sites and locations), thereby identifying sustainable economic activity potential, which is critical as both poverty and dependence on the marine environment are increasing. Across the two jurisdictions of Kenya (Kwale) and Tanzania (Pemba), four local cultural maps were produced after consultation with the wider community and a targeted field campaign. These highlight fishing practices and cultural sites in a geospatial domain, an approach which demonstrates fishing practice in a broader context and not simply as a point – emphasising that understanding the spatial dynamics of artisanal fishing activity is essential for policy rather than just point data as is the norm.

- Evidence-based programmes based on traditional knowledge and bio-indicators for the modern fisheries sector

The continued under reporting of subsistence fisheries ignores culturally restrictive practices affecting biodiversity. There are gendered dimensions to this construct, as there are spatial differences between inshore gleaning and seaweed farming when compared to offshore access that fall along gendered lines. Fishing practice is the visible biocultural link between cultural heritage, identity, and the current state of natural resources. The absence of certain practices reflects the loss of biodiversity and increased fishing efforts. An international peer review article from this work is currently under consideration for publication in *People and Nature* (Labatt et al., in preparation).

- National conferences showcasing findings

A presentation was requested by the Kenyan focal point for the documentation of intangible cultural heritage and a Malawi cultural expert indicating the need for such work elsewhere. McGonigle (PI) and Chepkemboi Labatt (Co-I) met with UNESCO at the National Museums of Kenya, and further reinstated links with Kenyan Marine and Fisheries Directorate and the Institute of Marine Sciences, Zanzibar.



Local community meeting in Kwale to discuss traditional knowledge and practices.



Gathering the views of local children in Kwale.

RESOURCES

Media:

- Documentary screened at the Zanzibar International Film Festival 2023, and at two villages on Pemba (Ndagoni and Tumbe). As of 2024, the final version is being edited to include new footage recorded in July 2023, showing participant and audience responses to the film.

Web Resources:

- Rising from the Depths website: [Establishing a Framework for Traditional Heritage Knowledge in Sustainable Development of East African Small-island and Coastal Communities \(Thek-ea\)](#)



3

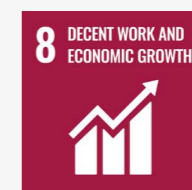
MTWAPA: THE UTILISATION OF MARINE CULTURAL HERITAGE BY A MULTICULTURAL COMMUNITY

AREA: ARCHAEOLOGY
(Medium Grant)

PI: Wycliffe Omondi (National Museums of Kenya)

Co-Is: Ibrahim Namunaba (Pwani University)

Partners: Mtwapa Beach Banda Operators, Shimo La Tewa Ward Community Based Organisation, National Museums of Kenya, Government of Kilifi County, Pwani University, University of Edinburgh, University of Nottingham



This project was founded in the knowledge that the National Museums of Kenya (NMK) was planning to build a perimeter fence around Mtwapa Heritage Site (MHS), cutting off accessibility for local people, and causing tension within the community. To combat this, the project collected data on the resources and challenges faced at the site, and brought together key stakeholders to bridge the gap between the local people and the site management, resulting in a community-based organisation that gave the community a voice in the management of the site.

Above: Sacred spaces within the Mtwapa Heritage Site are actively used by the local community. Rituals such as the tying of coloured ribbons on this sacred tree within the site are carried out to maintain close relationships between the living community and their dead ancestors, as well as marking a link to nature, the landscape and the historic site.

HIGHLIGHTS

- Management platform and community-based organisation

A platform was created for local community members to define and discuss the heritage values of Mtwapa Heritage Site (MHS), giving the local community a voice in the management of MHS, and leading to the formation of Shimo La Tewa Ward Community Based Organisation (CBO), and new signage in the area. This signage will be uploaded onto the NMK website so that other heritage sites across Kenya can replicate its success.

- Advancing awareness and engagement

A mixed methodological approach combined engagement workshops, focus group discussions, interviews, photographic documentation, and field observations to help to understand the tensions between local community members and NMK in the management of MHS and raise awareness among policy makers of communities' ability to define their own MCH values, informing the future management of heritage sites so that they are more community-oriented. The project is changing NMK's approach to managing heritage sites by highlighting the value of including the community in decision making processes. A site that was once seen as a barrier to community usage of the local beach is now at the heart of local plans. Increased understanding between NMK and the local community has ensured more effective protection of the site, now and in the future. Moreover, community members can now access and use the sacred site more often. However, NMK still needs to develop a workable neighbourhood engagement strategy that includes MHS's immediate surroundings for the benefit of the site's



The project enabled the community to design and develop signage at Mtwapa Heritage Site.



New MHS signage.



Ruins of houses at Mtwapa Heritage Site dating to between AD 1100 and 1750.

preservation. If this is not implemented soon encroachment may continue, leading to the destruction of this heritage site.

- MCH-related income generation

Further work in the area introduced income-generating activities at MHS such as beekeeping, the uzio traditional fishing system and MCH tour guides. Shimo La Tewa CBO has also developed a tree nursery project at MHS as a source of income, with over 3,000 tree seedlings (indigenous trees and fruit trees). To enhance the visitor experience at the site, the seedlings have been given name tags with local and common names and their uses. Members of the CBO act as scouts at the site, helping to reduce cases of illegal harvesting of trees at MHS to zero over the last year.

RESOURCES

Media:

- [Video footage](#) showing the use of the beaches

Web Resource:

- Rising from the Depths website: [Mtwapa: Utilisation of Marine Cultural Heritage by a Multicultural Community](#)

Mr Jambo Haro (second from right), the NMK Head of Coastal Sites and Monuments, meets members of the local community at the Mtwapa Heritage Site.





Above: Bidii na Kazi Women's group members and their locally made canoes for ecotourism.

4 MUCH TO DISCOVER IN MIDA CREEK

AREA: ARCHAEOLOGY (Large Grant)

PI: Caesar Bita (National Museums of Kenya)

Co-Is: Wes Forsythe (Ulster University), Mark Lamont (Open University), Simone Grassi (Documentary Institute in Eastern Africa), Pentti Turunen (Documentary Institute in Eastern Africa)

Partners: Mida Creek Conservation and Awareness Group (MCCAG), Mida Creek Conservation Fishing and Awareness Group (MCCFAG), Crab Shack Eco Camp, Sudi Island Nature Group, Eagle Camp, Watamu Marine Association, A Rocha Kenya, Malindi Tourist Market Association, Jitahidi Women Group, Community Forest Association, Kipepeo Butterfly Project, National Environment Trust Fund (NETFUND), Wildlife Clubs of Kenya, National Museums of Kenya, Kenya Wildlife Services, Kenya Forest Service, British Institute in Eastern Africa, Documentary Institute in Eastern Africa, Tofo Life (Mozambique), County Government of Kilifi, Nottingham University, University of Edinburgh, Ulster University, Bournemouth University



MUCH to Discover in Mida Creek is a first-of-its-kind in Kenya initiative showcasing marine cultural heritage (MCH) as an asset that can be sustainably utilised for community development. It has gathered great interest at local and national levels, with both the Kilifi County and Kenyan government continuing close working relationships with Mida. The MUCH to Discover in Mida Creek project, in cooperation with all relevant stakeholders in the region, undertook research to identify the most appropriate and sustainable MCH Additional Alternative Livelihoods (AAL) initiatives to develop in Mida Creek. The project has demonstrated multiple methods and ways in which MCH can be used as a resource to enhance sustainable economic development for coastal communities, and for climate change mitigation alongside the natural environment. The project highlighted the role of women, led by the Bidii na Kazi women's group, in managing and harnessing the natural marine heritage and cultural capital of Mida Creek. Significantly, local communities in Mida have embraced MCH and are emulating Bidii na Kazi women by establishing their own mangrove nurseries, bee keeping, and butterfly farming ventures, thereby linking cultural practices with economic and environmental sustainability. Overall, with Kenya working towards developing its Blue Economy, the Mida Creek project has established a legacy and acts as a valuable blueprint, with the government using Mida as a case study through National Museums of Kenya (NMK) as it seeks to develop MCH in other areas along the coast.



The Dhow House Interpretation Centre constructed by the community during the project.



The Bidii Na Kazi women documented their own work and created videos for their website.



Bidii na Kazi women fencing plots for plant nurseries.

HIGHLIGHTS

- Identifying marine cultural heritage (MCH) as a resource towards SDGs

Archaeological and anthropological researchers assessed the area, producing a geospatial and photographic record of coastal wrecks and MCH and discovering seven ancient settlement sites of the little-studied coastal Waata people, and presented the results to communities to harness local economic development alongside preservation – the sites have become part of the ecotourism attractions in Mida. This was completed through collaborations with the National Museums of Kenya (NMK), the British Institute in Eastern Africa (BIEA), the Documentary Institute of East Africa (DIEA) and Ulster University.
- MCH education

Community awareness of MCH was raised, notably within schools, with the development of an educational outreach programme that included visits to 30 schools around Mida and Arabuko Sokoke Forest to present on MCH and environmental conservation.
- Additional Alternative Livelihoods (AAL) expansion

Using Participatory Action Research (PAR) and Community Science methods, community members learned the process of building the traditional canoes and dhows that are used today in the creek’s ecotourism circuit. Other sustainable AAL initiatives include working with fishing, marine biodiversity, archaeological sites (the historical monuments of Kirepwe and Chafisi), marine life, mangroves and mangrove forests, medicinal plants, shipwrecks, and local cuisines.
- MCH-minded infrastructure construction

Through local community traditional house construction training, an eco-friendly wooden floating Dhow-House restaurant was built, along with a boat yard and a fence fish trap.
- Climate mitigation

Mangrove reforestation and community training in climate change adaptation, establishing female-led mangrove nurseries and planting over 300,000 seedlings. Bidii na Kazi women sell the seedlings at KSh 30 per piece, and this investment has attracted other women’s groups around Mida to establish their own nurseries. Because of this, an area of over three acres which was previously eroded by rising sea levels has now been replanted with mangroves. On Kenya’s National Tree Planting Day in 2020, women at Mida Creek sold 70,000 mangrove seedlings and planted 7,000 seedlings as climate change mitigation.
- Bidii na Kazi female empowerment

Working with the Gede National Museum, the Dhow-House has been used as a centre where women are trained in bookkeeping and financial management. Linking MCH to sustainable development, Bidii na Kazi women are custodians of MCH conservation as they maintain mangrove nurseries, and engage in beekeeping and butterfly farming ventures.



RESOURCES

Media:

- [Mida Yetu Ecotour](#), including the Mida Boardwalk, Mangrove conservation in Kirepe Island

Press:

- The Star Kenya article: [Kefri to plant 250,000 mangrove trees in Coast creeks](#)
- The Star Kenya video feature: [Kefri to plant 250,000 mangrove trees in Coast creeks](#)
- Baraka FM: [KEFRI to increase Mangrove cover in the Coast by planting 250,000 trees](#)
- Telesule: [Freddie del Curatolo in “Le Mie Prigioni \(dorate\)” – Nona Puntata “Mida Creek”](#)
- The Star: [Habitat saving meets fine dining at Dhow restaurant](#)
- KBC Channel 1: [Kilifi women conservationists lament lack of market for mangrove seedlings](#)
- KBC Channel 1: [Kilifi maritime conservation group devise alternative means of livelihood to cope with Covid-19](#)
- K24 RV: [Utunzaji mikoko](#)

Web Resources:

- [Mida Yetu Facebook page](#)
- Rising from the Depths website: [Discovering MUCH in Mida](#)
- Rising from the Depths website [Boat Mapping – MUCH to Discover in Mida Creek](#)

Papers:

- Bitu C., and Wes F. 2023. [An Outport for Gedi? Archaeological Survey in Mida Creek, Kenya. Heritage 6, 7366–7380](#)
- Bitu, C. 2021. The Role of the National Museums in MUCH Management and Regional Capacity Building: Current Research in Kenya. In Parthesius, R. and Sharfman, J. (eds.) *Maritime and Underwater Cultural Heritage Management on the Historic and Arabian Trade Routes*: 99–116. https://doi.org/10.1007/978-3-030-55837-6_6
- Bitu, C, 2022. *Utilising Maritime Cultural Landscapes for Sustainable Community Development: Case of Mida Creek, Malindi Kenya*. Pan Africa Archaeological Conference, Zanzibar.
- Bitu, C. 2023. MUCH Utilizing Marine Cultural Heritage: the Successful Story of Mida Creek. *Uchumi Samawati Endelevi. Kenya Coast Blue Economy (KECOBE)*. Issue 2, Mombasa:11–15.



5 PALM, SAND AND FISH: TRADITIONAL TECHNOLOGIES OF THE DAUGHTERS OF THE AZANIAN COAST

AREA: TRADITIONAL KNOWLEDGE
(Medium Grant)

PI: Freda Nkirote (National Museums of Kenya)

Co-Is: Matthew Davies (University of Cambridge)

Partners: National Museums of Kenya, County Government of Kilifi, Bigfoot Creatives, Pottery Practitioners, Basketry Practitioners, Makuti Practitioners, British Institute in Eastern Africa, University College London



Understanding how to best preserve and utilise marine-based traditional technologies, namely basketry, weaving, and pottery making on the Kenyan coast to benefit women's groups and their heritage. Community-led research identified lucrative products, which were produced following workshops for young people and women, and then promoted through exhibitions, signage, and partnerships with museums and government agencies.

County officials viewing products made by the project's participants.

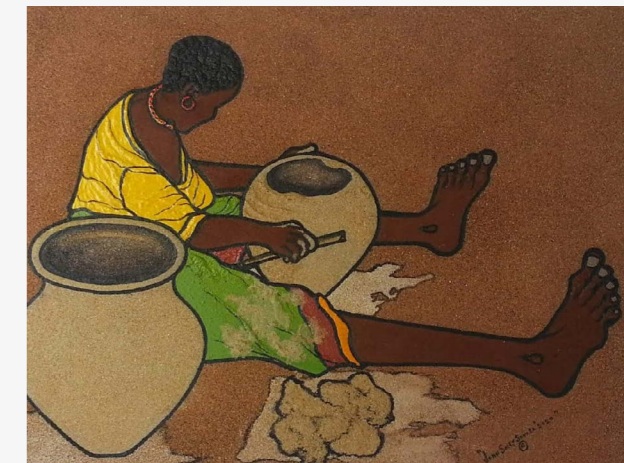
HIGHLIGHTS

- Development and exhibition of products integrating MCH**

Through collaborative community research on traditional technologies, the community brainstormed new products that integrate MCH and environmental sustainability, such as containers made from repurposed plastic bottles. The products, alongside a variety of flyers, signs, and posters, were unveiled by the Minister of Education, together with the Director of Culture of the County of Kilifi, greatly enhancing the visibility of the women and their marine cultural heritage. Three exhibitions were installed to launch and sell the items, including at the British Institute in Eastern Africa (BIEA).
- Female and youth empowerment**

Skills were transferred intergenerationally through workshops set up by the project, and there has been a significant increase in the number of young women engaging in the trade. This has diversified the women's livelihoods, and included young people who previously viewed traditional crafts as having low economic benefit.
- Community collaboration and policy engagement tools**

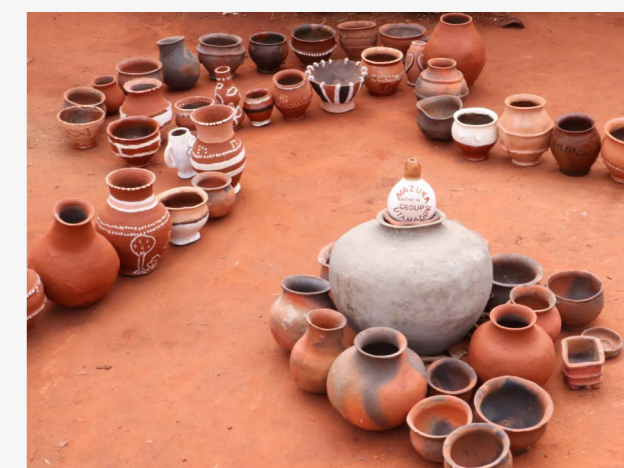
Various policy engagement tools were developed, including a map and database of the MCH resources for traditional technologies, a pictorial booklet, and various activities conducted with stakeholders and government officials to enhance awareness, engaging multiple levels of governance.



Artistic impression of a potter by John Savala, an artist working on the project.



Exhibition of the women's products at Fort Jesus, Mombasa.



Improved pots from Mazuka potters.

RESOURCES

Media:

- Map of MCH in Kilifi County
- Popular Book, Marine Cultural Heritage: *Traditional Technologies of Kilifi Women*
- Short videos on product launches
- Marketing materials including fliers, posters, and a picture book
- Several artworks (including pottery, basketry, makuti, coir products)

Exhibition:

- Exhibition at British Institute in Eastern Africa (BIEA)
- Rising from the Depths website: [Palm, Sand And Fish: Traditional Technologies of the Daughters of the Azanian Coast](#)



**Marine Cultural Heritage:
Traditional Technologies of Kilifi Women**

Image, left: Cover of the popular book produced during the project: Marine Cultural Heritage: Traditional Technologies of Kilifi Women.



Image, right: Jumba la Mtwana, Kenya.



6

PROTECTING MARINE CULTURAL HERITAGE THROUGH BIO-CULTURAL COMMUNITY PROTOCOL IN KILIFI COUNTY

AREA: POLICIES & GOVERNANCE
(Medium Grant)

PI: Mercy Gakii (National Museums of Kenya)

Co-Is: Freda Nkirote (British Institute in Eastern Africa), Angela Kabiru (National Museums of Kenya)

Partners: The County Government of Kilifi, Kilifi County Community Based Organisations (Giriama, Chonyi, Kambe and Rabai), National Museums of Kenya, The British Institute in Eastern Africa, Natural Justice



Local communities are actively seeking recognition of their customary systems of governance and management, including their traditional knowledge and practices, and their roles in the conservation and sustainable use of biological diversity. Whether intentional or not, the failure to involve and respect these communities has led to conflict, a deterioration of otherwise constructive relations, and negative impacts on the environment. The project empowers local communities within Kilifi County with a biocultural community protocol that can be used to negotiate with external actors and in advocating for their rights.

Angela Kabiru handing over the protocol to Neema Katana, Cultural Officer, Kilifi County.

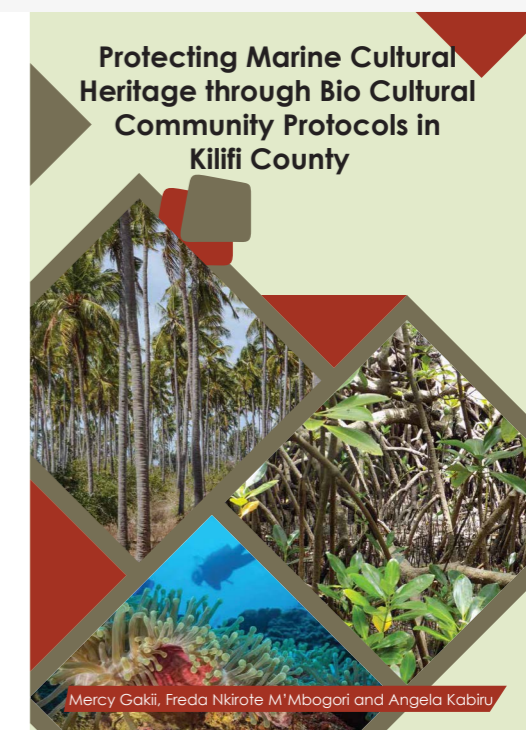
HIGHLIGHTS

- Mapping MCH**
MCH resources have been mapped in cooperation with Kilifi County communities, including elders and young people.
- Advancing rights**
Supported Mijikenda communities, namely the Giriama, Rabai and Chonyi, in documenting their customary values, rights, and rules regarding their heritage, increasing awareness and ownership of these concepts.
- Established a biocultural community protocol**
Set out clear terms and conditions to governments and the private, research, and non-profit sectors in the form of rules for engaging with indigenous and local communities and accessing their local resources and knowledge. The document strengthens communities' negotiating capacity to promote more equitable agreements with third parties, and documents customary laws on rights and access to marine cultural resources in order to govern access to, protection, and benefit-sharing of the region's MCH. It incorporates views from the Kilifi indigenous people, taking into consideration the marine resources that are important for the promotion of MCH for the social, cultural, and general wellbeing of local communities.
- Advanced sustainable growth**
The biocultural community protocol is expected to stimulate ethical, inclusive, and sustainable economic regional growth, over the medium to long term.

Right: final report produced and distributed.



Above: Mangrove Forest in Mtwapa.
Below: Mercy Gakii handing over the protocol to the Matsangoni community group.



RESOURCES

Media:

- *Biocultural Community Protocol* copies shared with community groups and county governments. A database of the MCH resources and the Biocultural Community Protocol will also be available on the Usable Past Platform.
- Geographical Information Systems database of the marine heritage resource
- Map of Kilifi women's traditional techniques

Papers:

- Final report: *Protecting Marine Cultural Heritage Through Bio Cultural Community Protocol in Kilifi County*

Web Resources:

- Exhibition at British Institute in Eastern Africa (BIEA)
- Rising from the Depths website: [Protecting Marine Cultural Heritage Through Bio Cultural Community Protocol in Kilifi County](#)





7

PROTECTING THE PAST, PRESERVING THE FUTURE: BLENDED FINANCE AND THE PROTECTION OF MARINE CULTURAL HERITAGE IN LAMU PORT

AREA: LAW (Large Grant)

PI: Daria Davitti (Lund University, Faculty of Law, previously University of Nottingham)

Co-Is: Laura Wills (University of Nottingham), Omolo Joseph Agutu (Kabarak University)

Partners: Katiba Institute, Lamu Fort, National Museums of Kenya, Save Lamu (coalition of community-based organisations), Lamu Youth Alliance, Lamu Beach Management Unit, Representatives of Kwasasi Village in Lamu County, Kabarak University, University of Nottingham, Kenya Ports Authority, County Government of Lamu, Kenya National Commission for Human Rights, Kenya National Commission for UNESCO

This project aimed to provide insight into how the international human rights framework can strengthen the protection of MCH, and how legal protections may support claims to access information and participation for the protection of local and indigenous communities in Lamu Port, Kenya. The project was particularly focused on the involvement of local people and recognition of their rights in the Lamu Port development.



Traditional boat building at Lamu.

HIGHLIGHTS

- Integration of human rights and MCH in international legal frameworks
Elevated the role of the right to science and culture as an independent human right in international legal frameworks, particularly with regard to communities' right to participation in decision-making processes and policy making.
- Private-Public Partnership (PPP) financing model and Lamu Port
Since the construction of a 32-berth port in the UNESCO World Heritage site of Lamu commenced, the project has faced significant resistance from local communities due to its interference with their traditional fishing waters and, in turn, their livelihoods and traditional cultural practices. This project therefore examined the MCH impacts of Lamu Port in relation to development finance, analysing the applicable legal frameworks and interactions between law, development, and human rights.
- Productive stakeholder dialogue
Sparked a dialogue between different stakeholders in both the private and public spheres, on legal protection requirements pertaining to the right to MCH, a key first step towards protective policy in the region. The project highlighted further tensions between development objectives and the rights of indigenous communities, primarily due to development objectives prioritising economic aspects of sustainable development at the expense of environmental and social sustainable development.



Focus group with local people.



Traditional Swahili house at Lamu.



Traditional basket weaving.

RESOURCES

Paper:

- Davitti, D., Omolo, J., Thuo, L., and Wills, L. (2021). '[Lamu Port Project, Kenya – Human Rights Implications from the Perspective of Marine Cultural Heritage: Framework and Guidelines for Training and Examination of Free, Prior and Informed Consent.](#)' In *Rising from the Depths: Programme Report*, The Rising from the Depths Network.

Web Resources:

- University of Nottingham, Human Rights Law Centre: [Blended Finance and Human Rights](#)
- Rising from the Depths website: [Protecting The Past, Preserving The Future: Blended Finance And The Protection Of Marine Cultural Heritage In Lamu Port \(Kenya\) And Tolagnaro \(Madagascar\)](#)

Lamu old town waterfront, Kenya.



8

SHORING UP MARINE CULTURAL HERITAGE: EXTENDING MADAGASCAR'S 'FESTIVAL OF THE SEA' WITH LAMU'S ANIDAN CHILDREN'S SHELTER

AREA: ARTS (Medium Grant)

PI: Jonathan Skinner (University of Surrey)

Co-Is: Corrie Wingate (Anidan Children's Shelter), Anne Nderitu (Anidan Children's Shelter)

Partners: Anidan Children's Shelter, Arts Care Northern Ireland, University of Surrey, SEED Madagascar



This project innovated and consolidated the Festival of the Sea approach from the project 'Rehabouring Heritage' in Madagascar in order to realise a living marine cultural heritage festival project at a local coastal festival in Lamu, Kenya. This aimed to complement existing sustainable development projects and local festivals through engaging with important local issues addressed through the community around Anidan Children's Shelter.

Children at Anidan Children's Shelter with the 'marine' cyanotype prints designed during the project.

HIGHLIGHTS

- Youth education about intangible MCH
This exercise worked with children on food security and living marine cultural heritage using dance, cyanotype printing, mural art, and the digital arts, thus developing resilience in the community intergenerationally.
- Skill and capacity-building
In accordance with the project 'Rehabouring Heritage', these collaborative networks fostered further work and the exchange of skills in the creative industries. A unique and intergenerational audience were given the platform to raise awareness of their cultural heritage, and the challenges which face its preservation. Established connections between local community and UK artists.
- Community-building and arts
The project released several short films as well as extensive social media postings, and project communications surrounding the children's artistic creations.

RESOURCES

Web Resources:

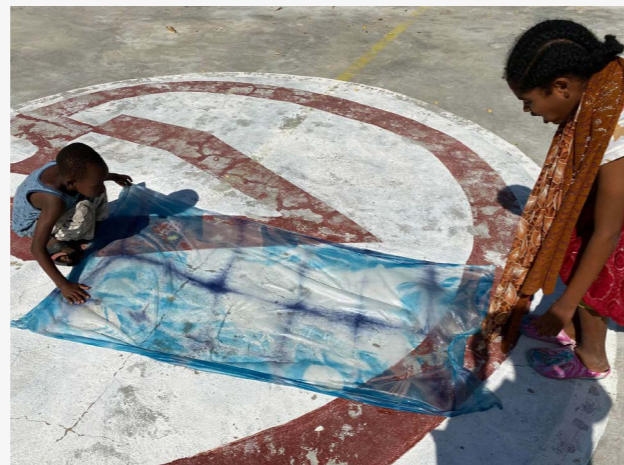
- Rising from the Depths website: [Shoring Up Marine Cultural Heritage: Extending Madagascar's 'Festival Of The Sea' Amongst The Orphaned Young Of Lamu's Anidan Children's Shelter, Kenya](#)
- Rising from the Depths website: [Shoring Up Marine Cultural Heritage: Extending Madagascar's 'Festival of The Sea' With Lamu's Anidan Children's Shelter, Kenya](#)
- [Anidan Arts Facebook Page](#)



Collecting items along the shoreline to make cyanotype prints.

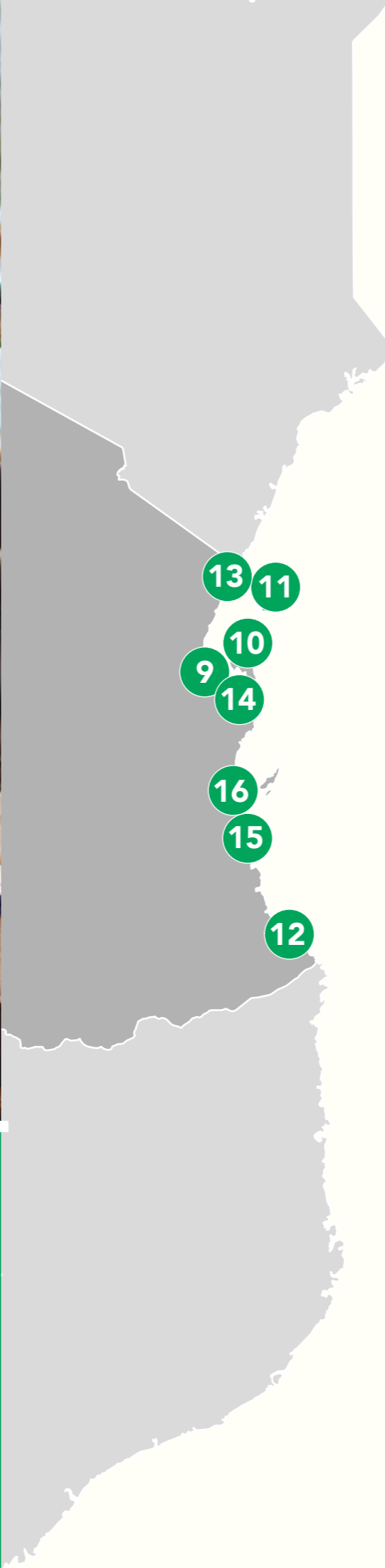


Preparing the cyanotype prints.



Above: Laying the prints out to dry.
Opposite: Children at the shelter working on the project.





- 9 Bahari Yetu, Urithi Wetu (Our Ocean, Our Heritage)
- 10 Creating Pwani: a New Maritime Heritage Space for Zanzibar
- 11 East Pemba Maritime Heritage Project
- 12 Futures Through Underwater Pasts: a Search for Mongalo
- 13 Historia Ziliyoficha Za Ardhi Na Bahari (Hidden Histories: Stories of People and the Sea)
- 14 Incorporating Marine Cultural Heritage Protection into Tanzania's National Adaptation Plan
- 15 The Kisima: Historic and Future Well Management at Kilwa Kisiwani, Tanzania
- 16 Musicalizing Marine Cultural Heritage in Tanzania

Project Highlights: TANZANIA

A fisherman shows off his catch on Bagamoyo beach alongside the Bahari Yetu, Urithi Wetu ngalawa logboat commissioned by the project and built by master boatbuilder Mzee Alalae Mohamed.



9 BAHARI YETU, URITHI WETU (OUR OCEAN, OUR HERITAGE)

AREA: CULTURAL HERITAGE, TRADITIONAL KNOWLEDGE (Large Grant)

PI: John P. Cooper (University of Exeter)

Co-Is: Elgidius Ichumbaki (University of Dar es Salaam), Lucy Blue (University of Southampton)

Partners: CHAMABOMA-Bagamoyo boatbuilders' NGO; WANawake Utamaduni na TOno in Kaole (WAUTO-Kaole) women's mangrove-whelk NGO; Bagamoyo District Council; The National Museum of Tanzania; University of Exeter; University of Southampton; University of Dar Es Salaam



The Bahari Yetu, Urithi Wetu (BYUW) project was an unprecedented heritage-driven engagement with the contemporary maritime life of a test-case Tanzanian town, Bagamoyo, where the heritage resource was not archaeological or architectural, but embodied by the daily breadwinning activities of the community, such as the building of wooden boats, small-scale fishing, and fish processing.

University of Dar Es Salaam student Miza Alex guides Bagamoyo school children around the Bahari Yetu, Urithi Wetu community exhibition.

HIGHLIGHTS

- Education and celebration**
 Traditional nautical knowledge recorded and disseminated: Shared the skills of boatbuilders and fishers, types of boats and fishing techniques, and more MCH through academic publications, public exhibitions in Bagamoyo and at the University of Dar Es Salaam, and a documentary film facilitating the public recognition of artisanal builders as valuable knowledge-holders worthy of respect. The exhibitions attracted hundreds of schoolchildren, students, and members of the public.
- Established a community-led NGO**
 Through ethnographic engagement with boatbuilders, the idea for a boatbuilders' association materialised, rather than the initially envisaged maritime cultural centre. Upon listening to the builders, it became clear that the best way to achieve a sustainable artisanal boatbuilding industry would be to provide institutional support to builders in co-operative boat building and educating a new generation. The CHAMABOMA-Bagamoyo NGO changes the constitutional and official standing of boatbuilders in Bagamoyo District by giving them a representative organisational voice within the community. It is officially registered with the Bagamoyo District Council and has gathered more than 20 members. The organisation has since arranged apprenticeships and organised collective boat-builds among members valued at \$30,000 (as of December 2021).
- Community awareness and engagement**
 The awareness, knowledge, and capacities of communities were developed through free exhibitions for schools and the public, producing multi-



The project research team works with local fishers to map the fishing areas of the nearby Mlingotini Lagoon, close to Bagamoyo.

level open-access online outputs that recorded and promoted contemporary maritime heritage, and provided fieldwork opportunities for early-career academics and heritage professionals. The exhibitions attracted hundreds of schoolchildren, students, and members of the public. Together with the open-access academic publications and documentary film, these constituted free and accessible educational resources at multiple levels of learning. This engagement sparked public debate around the heritage value of 'traditional' activities that are also driven by economic, developmental, and environmental factors. A stakeholder meeting was held in December 2020 that brought maritime practitioners (boatbuilders, fishers, etc.) together with heritage professionals and relevant government agencies and policymakers.

RESOURCES

Web Resources:

- Behind the scenes film: [Musicalizing Marine Heritage – Short Documentary \(Bahari Yetu/Our Ocean\)](#)
- Music video: [Bahari Yetu Urithi Wetu](#)
- Documentary film: [Building a Ngalawa Double Outrigger Logboat in Bagamoyo, Tanzania: A Craftsman at his Work. 3D Model and Documentary Film Files](#)
- International Wildlife Film Festival (short film): [BAHARI YETU \(OUR OCEAN\)](#)

Events:

- 'Bahari Yetu, Urithi Wetu'. Free public exhibition held on 6–7 March 2020, BOMA Building, Bagamoyo, Tanzania. Curated by the BYUW project researchers.
- 'Bahari Yetu, Urithi Wetu' Free public exhibition held November–December 2020, University of Dar Es Salaam, Tanzania. Curated by the BYUW project researchers.
- Academic presentations at the Indian Ocean Conference (Exeter, Jan 2020), the UNESCO UCH training programme (Nairobi, July 2021), ExArch (Exeter, Mar 2021).
- Maritime Week at the University of Dar Es Salaam in November–December 2020: documentary film première (attended by the Executive Secretary of the Tanzania Film Board) and music video officiated by the Executive Director General of the Tanzania Arts Council, and a stakeholder meeting alongside the exhibition.

Papers:

- Cooper, J.P., Ichumbaki, E.B., Blue, L.K., Maligisu, P.C.M., & Mark, S.R. (2022) ['When the "Asset" is Livelihood: Making Heritage with the Maritime Practitioners of Bagamoyo, Tanzania.'](#) *Heritage*, 5(2), 1160–1198
- Ichumbaki, E.B., Cooper, J.P., Maligisu, P.C.M., Mark, S.R., Blue, L., & Biginagwa, T.J. (2021) ['Building a Ngalawa Double-Outrigger Logboat in Bagamoyo, Tanzania: A Craftsman at his Work.'](#) *International Journal of Nautical Archaeology*, 50(2), 305–336. DOI: 10.1080/10572414.2021.2018243
- Cooper, J.P., Blue, L., Ghidoni, A., & Ichumbaki, E.B. (2021) ['Contemporary Wooden Watercraft of the Zanzibar Channel, Tanzania: Type and Technology, Continuity and Innovation.'](#) *International Journal of Nautical Archaeology*, 50(2), 243–271. DOI: 10.1080/10572414.2021.201591

Web Resources:

- University of Exeter: [Bahari Yetu, Urithi Wetu: Our Sea, Our Heritage](#)
- Arts and Culture, University of Exeter: ['Our Ocean, Our Heritage!': Tanzanian stars make music in support of maritime heritage conservation](#)
- Music Video: [Bahari Yetu Urithi Wetu](#)
- Documentary film: [Building a Ngalawa Double Outrigger Logboat in Bagamoyo, Tanzania: A Craftsman at his Work. 3D Model and Documentary Film Files.](#)
- International Wildlife Film Festival (short film): [BAHARI YETU \(OUR OCEAN\)](#)



10

CREATING PWANI: A NEW MARITIME HERITAGE SPACE FOR ZANZIBAR

AREA: MUSEUM STUDIES (Medium Grant)

PI: Mark Horton (Royal Agricultural University)

Co-Is: Laura Basell (Queen's University Belfast), Abdallah Khamis Ali (Government of Zanzibar)

Partners: Pemba Museum; Government of Zanzibar; Tanzania Ministry of Natural Resources and Tourism; Tanzania Ministry of Blue Economy and Fisheries; The Division of Antiquities, Government of Tanzania; East Pemba communities; Zanzibar Department of Museums of Antiquities; Zanzibar Heritage Foundation; University of Leicester; Royal Agricultural University; Queen's University Belfast



This project aimed to showcase Zanzibar's maritime heritage through the creation of innovative displays and interpretations, including crafts, visual media, and performance. This was achieved in a special gallery in the Pemba Museum (Chake Chake) with original artwork, ethnographic collections, artefacts, and explanatory texts in ki-Swahili and English. Materials were also collected in Zanzibar for a second display in the Stonetown.

Traditional boatbuilding on Zanzibar.

HIGHLIGHTS

- **MCH preservation**
One team from the Zanzibar Heritage Foundation collected astronomical traditions from mariners in Pemba. A second project looked at the coastal forest preserved around ancient cave sites in southern Zanzibar and recorded medicinal and useful plants and their Swahili names.
- **Innovative MCH showcase**
Working with the results of the East Pemba Maritime Heritage project, museum and archaeological collections, and ethnographic material collected by the Rising from the Depths network, the project digitised the innovatory displays and interpretations to create a virtual museum showcasing the maritime cultural heritage of the Zanzibar archipelago.
- **Career development**
The project trained local museum curators in Zanzibar and Pemba in recording maritime cultural heritage, collecting ethnographic materials, and setting up museum displays and exhibitions.

RESOURCES

Web Resources:

- Rising from the Depths website: [Creating Pwani: A New Maritime Heritage Space for Zanzibar](#)
- 4D Heritage Team: [Learning from the past to sustain our future](#)



Part of the display in the Pemba Museum in a room devoted to the Rising from the Depths research, here showing fish traps and nets collected by the project.



Boat model of a mtepe (traditional sewn boat) commissioned by the project. These vessels were last built in the 1920s, yet memories of how they were constructed still survive.



Ship model on display in the former orphanage building in Zanzibar.



11 EAST PEMBA MARITIME HERITAGE PROJECT

AREA: CULTURAL HERITAGE, TRADITIONAL KNOWLEDGE (Large Grant)

PI: Mark Horton (Royal Agricultural University)
Co-Is: Laura Basell (Queens University, Belfast), Abdallah Khamis Ali (Government of Zanzibar), Abdallah R. Mkumbukwa (University of Zanzibar)

Partners: Royal Agricultural University; University of California, Santa Cruz; Wolfson College, University of Oxford; University of Cambridge; Scottish Association for Marine Science; Nutri-San (UK); Nutri-San (Vietnam); World Wildlife Fund (Netherlands); World Wildlife Fund (Coastal East Africa); Zanzibar Heritage Foundation; Tanzania Ministry of Tourism and Heritage; Tanzania Ministry of Blue Economy and Fisheries; Pemba Museum; Local communities including Tumbe, Shumba, and Kojani; The State University of Zanzibar; UN Capital Development Fund (East Africa)

Fibreglass boats are increasingly replacing traditional wooden boats for fishing.

This project investigated the surviving intangible cultural heritage on the coast of north-east Pemba Island, Zanzibar, Tanzania, through studies of material culture, fishing practices, boat building, and craft production, linked to a study of ruined sites of the 18th and 19th centuries. The information is being used to sustain the maritime communities, conserve the fish and shellfish stocks, and protect the local cultural heritage. These towns have restricted access to fresh water and farmland and have therefore relied on the sea for their sustenance. Recent changes in demographics and in the availability of piped water have resulted in rapid societal change.

HIGHLIGHTS

- MCH resources and dependence research

The MCH of the north-east Pemba Island towns was examined through baseline studies of fishing and shell collection, through maritime crafts (boat-building, sail-making, rope making, and basketry), and the collection of archaeological survey data to demonstrate long term continuities. The fisheries project examined the local fishing industry in detail through interviews, the collection of fish data, and participating in fishing trips with local fishers. The ethnographic project examined the maritime industries, particularly boat building and its associated industries, including rope making (for example using baobab fibre), blacksmithing, and sail-making. The archaeological study examined the known ancient sites in northern Pemba, and undertook site surveys (including the use of UAV photography), architectural drawings, and test pits at each, revealing a lack of fish bones in the archaeological assemblages.



Captain Hamad from Zanzibar's Blue Economy Ministry visiting a seaweed farm experiment at the Scottish Association for Marine Science, Oban, with Mark Horton and San Chui, a seaweed investor on Zanzibar.



Women from Michenweni sorting shellfish from the shallow waters in northern Pemba.



Project Investigator Abdallah Khamis interviewing Kojani boatbuilders as they construct a dug-out from a mango tree trunk.

- Women's role in MCH

The project mapped the highly detailed knowledge of the maritime environment revealed by the women during their work, particularly basketry and shellfish collection. There was an interesting contrast between shellfish collection in west Pemba, largely for export, and that on east Pemba, which was for domestic consumption.

- Reconciling government fisheries policies

The project uncovered a clear conflict between government attempts to increase productivity and the long-term sustainability of the East Pemba fisheries. In order to sustain the resilience of both reefs and fisheries, the government is advised to support traditional fishery methods, and to identify why harmful fishing methods, such as ring net fishing, should be prohibited.

- Analysing seaweed farming productivities and diversification potential

The study demonstrated that the two non-native seaweed species which are primarily grown locally, *Eucheuma alvarezii* (*cottonii*) and *E. denticulatum* (*spinosum*), are not economically profitable, and how the production of the more valuable *cottonii* variety was declining due to disease and increasing sea temperatures, leaving the farmers increasingly reliant on the less valuable *spinosum*. This project garnered a visit from the Ministry for the Blue Economy and Fisheries, a presidential delegation, to examine new directions in seaweed farming at the Scottish Association for Marine Science (Oban), and to learn how to apply them with international investment on Zanzibar.

- Capacity training and museum exhibit

Staff at the Department of Museum and Antiquities were trained in ethnographic and archaeological methods, which included conducting interviews, making photographic evidence (still and videos), and transcribing and translating over one hundred interviews into English. A marine cultural heritage display was developed in the Pemba Museum, located in the Chake Chake Fort.

RESOURCES

Media:

- Video: [Fishtrap Making in East Africa for the East Pemba Maritime Heritage Project with SAAH's Dr L. Basell](#)

Exhibition:

- Pemba Museum MCH exhibit

Web Resources:

- Rising from the Depths website: [East Pemba Maritime Heritage Project](#)
- Rising from the Depths website: [Preserving the Maritime Cultural Heritage on Pemba Island, Tanzania – The Technologies Are Changing](#)
- Royal Agricultural University: [East Pemba Maritime Cultural Heritage](#)



12

FUTURES THROUGH UNDERWATER PASTS: A SEARCH FOR MONGALO

AREA: ARCHAEOLOGY (Small Grant)

PI: Nancy Rushohora (Stella Maris Mtwara)

Co-Is: Peter Campbell (Cranfield University),
Valence Silayo (Tumaini University Dar es
Salaam College)

Partners: Mgao Village Executive Council;
Dangote Cement Company; Department of
Antiquities, Mtwara Rural District (Education
and Culture); Mtwara Water Supply and
Sanitation Authority (MTWASA); University
of Dar es Salaam; Cranfield University; Stella
Maris Mtwara; Tumaini University Dar es
Salaam College



This project sought to establish the location of Mongalo, a settlement that underwent several important transformations in its history. It was a major settlement under the Kilwa Sultanate, dating from approximately AD 800 until AD 1505. Following the Portuguese destruction of Kilwa, it experienced an period of independence from both Arab and European control. While operating as a Makonde kingdom, Mongalo was frequented by European traders before eventually succumbing to colonial forces. However, European archives and maps from the 16th to the 18th centuries record the Makonde kingdom of Mongalo south of Kilwa and north of Cape Delgado, and extending inland towards the traditional Makonde homeland in the highlands. The settlement is perhaps best known for its later development into a slave-trading centre in East Africa, as detailed in European sources.

Surveying the intertidal region.

The significance of the Futures Through Underwater Pasts project is in revealing this independent, indigenous African kingdom which existed for a period between Arab and European control of East Africa.

The ruins of the ancient settlements cover both sides of the Mambi River and Sudi Bay, and comprise at least four sites from different periods. Community leaders expressed the wish to be more informed about the history of the area and the need to teach the history and heritage of this site in schools. The project built on Rushohora's previous research in Lindi by developing a school education program and a textbook. The community leaders are in favour of restoring some of the structures in order to create a historical visitor trail for the village.

The location was determined through several sources providing interdisciplinary evidence. The village of Mgao marks a maritime border between Lindi and Mtwara, and includes geographical, linguistic, and archaeological evidence. The project documented the tangible and intangible heritage of the site, collected memories of the prosperity and demise of the site, and involved the community in exploring how to use the site's past and present developmental infrastructures for economic gain.

HIGHLIGHTS

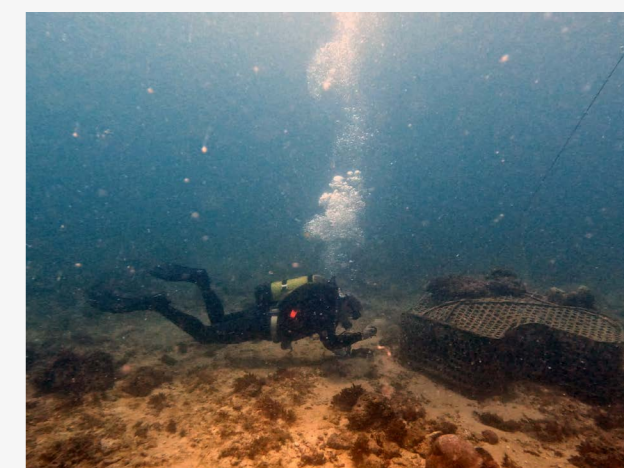
- Identification of the location of Mgao
The project documented the tangible and intangible heritage of the site, and collected memories of the prosperity and demise of the site. This was the first time that the submerged archaeological extent of the site had been explored and documented, and a cultural impact assessment was carried out to confront the economic port development and industrial projects.



16th-17th century beads from the excavation area.



Remains of the ruins at Mgao believed to be associated with the French slave trade in Tanzania.



Underwater survey in Sudi Bay.

- Community memory centre

The site has been evaluated for its potential for renovation and use as a community memory centre. The proposed centre would be based in the ruins of the coral-stone buildings, presenting information about the settlement's history. An underwater project is also ongoing to uncover the extent of the underwater cultural heritage. A future field season exploring the underwater cultural heritage of Sudi Bay is currently being planned.

- Policy and heritage management action

The project has the potential to influence cultural heritage management policies, particularly those which involve the recording of marine heritage as part of Tanzania's cultural heritage. This has already been realised at the local/community and local government level, through acknowledgement of the importance of preserving Mgao's cultural heritage. For example, the project report has been submitted to the antiquities office with the intention of including Mgao on Tanzania's list of cultural heritage sites. It is expected that the results and outcomes will lead to reflection on Tanzania's current national law protecting underwater cultural heritage sites.

- Established framework for the future

The successes of this project resulted in its methodologies being used as a pilot for the future reconstruction of the monumental ruins by involving the community and using the past and present developmental infrastructures for economic gain. The Mgao community received training on developing projects for economic gain, including the use of the coast and monuments for entertainment and tourism. The project is now developing several threads to continue the research. The Imagining Futures Through Un/Archived Pasts project team met with



A coral reef within the survey area.



Example of a traditional fish trap.

community leaders about preserving local memories and a number of University of Dar es Salaam student projects are archiving local community memories and records. Members of the University of Mauritius visited community leaders with a view to furthering the research on the French slave trade. Cranfield University and Transylvania University intend to use marine geophysics to map Sudi Bay and its submerged archaeological sites.

- Future plans include:

1. Producing a feature-length documentary film about the historical, archaeological, anthropological, and architectural research concerning this site in order to raise awareness of it. In this film, which has a human dimension, the project hopes to contribute to reconciling the various conflicting memories and histories of the site (from Tanzania and Mauritius as well as correlating the archival/archaeological/oral evidence).
2. Producing an interactive slave trade map for UNESCO and countries of the region that reflects this new discovery and other sites we have been researching during the past decade.
3. Securing the official collaboration of the University of Dar es Salaam and the State University of Zanzibar in the research and applying to UNESCO for the site to be listed on the regional list of sites associated with slavery.
4. Contributing to conservation efforts for the structures, developing the buildings as a memory centre for the community.

RESOURCES

Events:

- The project outputs were disseminated through workshops and meetings: [Tamasha la Utalii wa Mali Kale katika Kijiji cha Mgao Mtwara, Magofu, Makaburi, Fukwe safi na UvuviPa](#)

Papers:

- Rushohora, N., & Silayo, V., '[Imagining Futures Through Un/Archived Pasts: The Tanzania Workshop](#)' Presented at the University of Dar es Salaam, 11 December 2020
- 'Imagining Futures Through Underwater Pasts.' Presented at the IF Tanzania Lab, National Museum, Dar es Salaam, 28 March 2022
- Rushohora, N. (2022) 'Past, Present and Future Memory of the French Slave Trade in Southern Tanzania.' Presented at the Imagining Futures Dialogues series, 3 May 2022
- 'Imagining Futures Through Underwater Pasts: The past, present, and future of Tanzania's southern maritime cultural landscape.' Presented at the Crossings in the Indian Ocean: Memory and Heritage conference, State University of Zanzibar, 8–9 November 2021
- Rushohora, N. (2021) 'Imagining Futures Through Underwater Pasts: The past, present, and future of Tanzania's southern maritime cultural landscape.' *Anais de História de Além-Mar* (In Press)
- 'Archives Against the Grain: Uncovering the independent African kingdom of Mongalo.' Prepared for Imagining Futures Through Un/Archived Pasts Collected Works (In Press)

Web Resources:

- Rising from the Depths website: [Futures Through Underwater Pasts Fieldwork](#)
- Imagining Futures Through Un/Archived Pasts: [Futures Through Underwater Pasts: the Search for Mongalo](#)



13

HISTORIA ZILİYOFICHA ZA ARDHI NA BAHARI (HIDDEN HISTORIES: STORIES OF PEOPLE AND THE SEA)

AREA: ANTHROPOLOGY (Large Grant)

PI: Thembi Mutch (University of Sussex)

Co-Is: Aida Mulokozi (Dar es Salaam Centre for Architectural Heritage)

Partners: University of Sussex; HakiRasilimali; University of Reading; University of Roehampton; Greenwich Museum; Pitt Rivers Museum; Mwambao Coastal Community Network; The Nelson Mandela African Institution of Science and Technology; Dar es Salaam Centre for Architectural Heritage (DARCH)



This project investigated the personal histories of vulnerable community groups living around Tanga Port to uncover the 'hidden histories' of MCH and explore their hopes for the future through stories of the past. Hidden Histories is a detailed qualitative pilot project that uses oral histories, co-creation, storytelling, and knowledge gathering to add important texture and detail to fulfilling the Sustainable Development Goals.

Zawadi sorting fish.

HIGHLIGHTS

- UNESCO briefing

The Hidden Histories team produced a UNESCO Briefing on the role of intangible cultural heritage in coastal Tanzania.
- Oral histories recorded

The project interviewed villagers, farmers, and fishermen on their 'lost skills', hopes for the future, and opinions on modernisation in a small coastal village in Tanzania. It took eight years to set up, and the interviews are remarkable, with a wealth of intangible cultural heritage and pride underscoring the need for qualitative research with people affected, ahead of developing the Blue Economy.
- Maximising Blue Economy resources

The consultations included discussions around mono-culture and artisanal farming in Africa, and how to maximise productivity alongside depleting fish stocks.
- Prioritising the voices of the 'excluded' and marginalised

The project engaged with people including older and younger women, squatters and seasonal workers, and local heritage staff.
- A change in Tanzanian law

The constitution now recognises the value of intangible cultural heritage, and protects it.



Bi Asha (Asha Juma).



Mama Mwamvua weaving.

RESOURCES

Exhibitions:

- Photographic exhibition for public access, displayed as part of the [Film Africa series at SOAS](#) in SOAS Library 2023
- Pitt Rivers Museum, Oxford fixed exhibit featuring photos and audio interviews from Historia Ilyofichwa in December 2023 as part of its exhibition of Makaramo figures: [We have literally no idea, "Uliziiba kutoka kwetu"](#)
- Pitt Rivers Museum, Oxford public engagement and school events on witchcraft, superstition, and religion (spring 2024)
- Public engagement events: Royal Africa Society and ASUK Liverpool University [African Studies Association Conference](#).
- Photographic exhibition, film screening and public talk in 2022

Paper:

- [UNESCO Hidden Histories Briefing Document](#) (July 2018–November 2021 RfD funded project)

Web Resources:

- Hidden Histories website: [Hidden Histories: untold stories of land and sea](#)
- Rising from the Depths website: [Hidden Histories; Untold Stories Of People And The Sea In Tanzania](#)
- Writers Mosaic: [In Praise of the Ordinary](#) 2023
- Museums Association, [Museums Journal, Preserving Africa's Intangible Heritage](#) 2023
- African Arguments: ["Kids tell us it's pointless": Tanga's hidden histories of land and sea](#) 2022

Image opposite: Women sorting seaweed they have gathered in Tanga lagoon.





14

INCORPORATING MCH PROTECTION INTO TANZANIA'S NATIONAL ADAPTATION PLAN

AREA: LAW (Medium Grant)

PI: Hayley Roberts (Bangor University)

Co-Is: Tara Smith (Bangor University), Elinaza Mjema (University of Dar es Salaam), Noah Pauline (University of Dar es Salaam)

Partners: Bangor University; University of Dar es Salaam; The National Museum of Tanzania; The Division of Antiquities, Government of Tanzania



This project identified opportunities to incorporate MCH into Tanzania's National Adaptation Plan (NAP) in order to deliver increased economic and cultural benefits to local communities. It convened an interdisciplinary research-based workshop to bring together academics, non-governmental organisations, and policymakers to examine the viability and feasibility of including MCH as a priority in Tanzania's NAP.

HIGHLIGHTS

- Evidence-based proposal

This project has provided tangible evidence for the proposal that MCH should be included as a climate adaptation priority in countries' National Adaptation Plans (NAP), and has demonstrated the benefits of doing so in Tanzania specifically.

Bringing the catch in, Tumbe fishing village Pemba Island, Tanzania, July 2019.

- Community workshops
The outcomes from the workshop have formed the basis for the Policymakers' Summary and the recommendations. The workshops were recorded and made available on the RftD website for public viewing, enabling engagement with a wider audience.
- Distribution of policymakers' summary
Augmented by desk-based research, this summary was disseminated to policymakers and other key stakeholders in Tanzania. Its records promulgate the workshop discussions and include textual options that the Tanzanian Government may use in developing the NAP.



Mr Chris Ngvingivi, from the Department of Antiquities in the Government of Tanzania, gives a presentation on the value of Tanzania's marine cultural heritage and how the government could integrate efforts in empowering institutions and people with authority in dealing with MCH related issues.

RESOURCES

Events:

- Led and recorded interdisciplinary community workshops: [Workshop "Tanzania's Marine Heritage: A Climate Adaptation Priority"](#)
- 'Marine Cultural Heritage as a Climate Adaptation Priority: A Tanzanian Case Study' Addressing Marine Plastic Waste as a Climate Adaptation Priority in Indonesia Workshop, August 2021
- 'Incorporating Marine Cultural Heritage Protection into Tanzania's National Adaptation Plan', Rising from the Depths: Marine Cultural Heritage and the Environment Workshop, October 2021
- 'Marine Cultural Heritage and Climate Adaptation in Tanzania Workshop', December 2021
- 'Marine Cultural Heritage and Climate Adaptation', Law, development and cultural heritage: protecting communities and the sustainable development of Marine Cultural Heritage Workshop', March 2022

Papers:

- Roberts, H., Mjema, E., & Pauline, N. (2022). ['Tanzania's Maritime Heritage: A Climate Adaptation Priority: Summary for Policymakers.'](#)
- Contribution to ['Coastal Systems: Monitoring, Protection and Adaptation Approaches'](#) in the *Journal of Marine Sciences and Engineering*
- 'Marine Cultural Heritage and Climate Adaptation' (for the Royal Commission on Ancient and Historical Monuments in Wales, in press)

Web Resources:

- Rising from the Depths: [Incorporating Marine Cultural Heritage Protection into Tanzania's National Adaptation Plan](#)



15

THE KISIMA: HISTORIC AND FUTURE WELL MANAGEMENT AT KILWA KISIWANI

AREA: ARCHAEOLOGY (Large Grant)

PI: Elgidius B. Ichumbaki (University of Dar es Salaam)

Co-Is: Edward Pollard (University of Dar es Salaam), Jean-Christophe Comte (University of Aberdeen)

Partners: University of Dar es Salaam; University of Aberdeen; Tanzania Ministry of Natural Resources and Tourism: Division of Antiquities; WAUMAKI Kisiwani; Discovery Programme, Centre for Archaeology and Innovation Ireland; Kilwa Kisiwani Ruins Committee; Women Enterprise Group; Kilwa District Council; Tanzania Wildlife Management Authority (TAWA)



This project examined stone-lined wells at the UNESCO World Heritage Site of Kilwa Kisiwani, Tanzania, and reviewed historical freshwater management techniques. It investigated whether reduced access to fresh water from wells had contributed to the decline of the maritime city state at different stages of its history, and how water management can alleviate present and future water shortages and allow the development of local industry, including inclusive tourism.

The Kisima Kuuu well on Kilwa Kisiwani, renovated during the project, now serves as the primary source of fresh water for the local community.

HIGHLIGHTS

- Increased community and policy makers engagement, resulting in well renovation

Discussions were facilitated at the district level, with community authorities, and among the local community to deliberate on the results and co-design water access solutions. The collaboration between the research group and the village government engaged district authorities to renovate one of the wells. Approximately ten years ago, the district government had built a new well close to Kisima Kikuu (Great Well), one of the historic wells, but it stopped working after four years. For nearly two years, the well had not been reworked. During the research and following engagement between the researchers, village, and district authorities, the well was renovated and continues to function today.

- Archaeological survey
The project documented 26 coastal water wells used during different periods in Kilwa Kisiwani's past to understand the geographical, geological, and seasonal climate complexity of the area. It found that medieval water management in Kilwa Kisiwani was in the form of cisterns, channels, and basins surrounding the wells. The team conducted excavations at three wells – Mbengo, Nguruni, and Kisima Kikuu – revealing sequences of use from the early Iron Age and maritime trade with the Middle East from the 1st millennium.
- Documented intangible cultural heritage
The team recorded oral traditions, narratives, practices, and manifestations connected to the



The Shangani cisterns on Kilwa Kisiwani in 2015, destroyed by local people mining coral stones to use as building materials.

groundwater wells. As part of its ethnographical studies, the project recorded the 'dos and don'ts' that the local people have established to manage and protect both freshwater and coastal marine resources.

- Capacity building
Students and junior staff from the University of Dar es Salaam participated in a joint fieldwork with collaborators from the Universities of Aberdeen, St. Andrews, and Dar es Salaam, as well as the Antiquities Division of the Ministry of Natural Resources and Tourism. The collaborative fieldwork enabled students and junior staff to learn about various issues in coastal archaeology, hydrology, ethnography, etc., thus building capacities among Tanzanians.

RESOURCES

Media:

- Included in the [“Bahari Yetu” song and music video](#), sung in Kiswahili to musicalise MCH

Papers:

- Lubao, C., & Ichumbaki, E. (2023). ‘Fishing Songs from Kilwa Kisiwani, Tanzania: A Case Study of Intangible Maritime Cultural Heritage on the Swahili Coast.’ *Journal of Maritime Archaeology*, 18, 1–31. DOI: 10.1007/s11457-023-09356-5
- Pollard, E., & Ichumbaki, E. (2020). ‘Valuing the Swahili Cultural Heritage: A Maritime Cultural Ecosystem Services Study from Kilwa, Tanzania.’ *Conservation and Management of Archaeological Sites*, 21:4, 230–255. DOI: 10.1080/13505033.2020.1794344
- Miza, A., & Ichumbaki, E. B. (2023). ‘“Unless we Value the Intangible Heritage, the Tangible will never be Safe!” Linking the Tangible and Intangible Aspects of Heritage Sites in Africa.’ *Heritage & Society*. DOI: 10.1080/2159032X.2023.2230752
- Chirikure, S., Ndoro, W., Bugarin, F., Lerna, S., Ichumbaki, E., & Lwoga, N. (2021). ‘Usable Past: Forum: UNESCO and Heritage Tourism in Africa.’ *African Archaeological Review*, 38, 513–533. DOI: 10.1007/s10437-021-09454-6

Web Resources:

- Rising from the Depths website: [The Kisima Project: Historic and Future Well Management on Kilwa Kisiwani, Tanzania](#)
- Rising from the Depths website: [“We Learnt What It Means To Do Interdisciplinary Research” University of Dar Es Salaam Students Narrate](#)



16

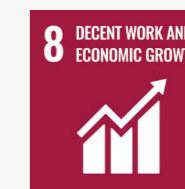
MUSICALIZING MARINE CULTURAL HERITAGE IN TANZANIA

AREA: ARTS (Medium Grant)

PI: Elgidius B. Ichumbaki (University of Dar es Salaam)

Co-Is: Richard Bates (University of St. Andrews), Claudia Lubao (University of Dar es Salaam)

Partners: Bagamoyo Arts and Cultural Institute; Bagamoyo local community; Kilwa local community; Nafasi Art Space; Tanzania Arts Council; Imagination Sound Studio; University of Exeter; University of Southampton; University of St. Andrews; University of Edinburgh; University of Dar es Salaam



A song and accompanying music video were utilised to promote marine cultural heritage (MCH), especially through the results of RtfD-funded research projects in Bagamoyo and Kilwa, Tanzania. This community outreach initiative included composing, recording, producing, and distributing a song and music video outlining the challenges facing local communities along the coastal zone. The song ‘Bahari Yetu’ and its music video received media attention and distribution throughout Tanzania, Kenya, Uganda, Burundi, and Rwanda, popularising MCH values.

Some of the ‘Bahari Yetu’ cast during the filming of the music video.

HIGHLIGHTS

- Produced 'Bahari Yetu' audio song and music video

This raised awareness of MCH in Tanzania and beyond. The launch of the song was officiated by the Executive Secretary of Tanzania's Arts Council, who in his remarks appreciated the initiative and promised to encourage other artists to create songs that raise awareness of the cultural heritage of Tanzania. The song is based on Bongo Flava (East Africa's popular local music genre) and was made by popular Tanzanian rapper Claudia Lubao, famously known as #Chemical, and two singers, Innocent Omary and Salum Bavuga, famously known as #Centano and #Honest, respectively.

- Capacity development

Training and hands-on experience was provided for junior researchers, students, junior music producers, and junior camera personnel, who aim to continue composing and recording music that promotes heritage in Tanzania.

- Integration of RftD projects across Tanzania

'Bahari Yetu' built on other projects funded by RftD, namely Bahari Yetu Urithi Wetu and The Kisima projects in Bagamoyo and Kilwa, respectively, and on Digitizing Cultural Heritage for Sustainable Preservation and Development in Tanzania, which was funded by the Scottish Funding Council GCRF.

- International media distribution

The song was produced in Kiswahili (with English subtitles), and aired on radio stations and televisions whose coverage reaches beyond Tanzania, with impacts in other Swahili-speaking countries such as Kenya, Uganda, Burundi, Uganda, and



Screenshot from the 'Bahari Yetu' music video.



"People respected the sea and made it their friend". Screenshot from the Musicalizing Marine Heritage documentary.



Filming the 'Bahari Yetu' music video.

Rwanda. The project highlighted how media presentation can promote MCH and motivate other cultural heritage studies to utilise the creative industry to promote various forms of cultural heritage.

RESOURCES

Media:

- Behind-the-scenes documentary: [Musicalizing Marine Heritage – Short Documentary \(Bahari Yetu/Our Ocean\)](#)
- Music video: [Chemical x Centano x Honest – Bahari Yetu \(Official Video\)](#)
- Song distributed across [Spotify](#), [Apple Music](#), [YouTube Audio](#), [AudioMack](#), [Bahari Yetu](#), and [Amazon Music](#)
- Mzuka Kibao: [VIDEO | Chemical ft Centano & Honest – Bahari Yetu | Download MP4](#)

Press:

- NowThis News: [Conservationist Works to Educate About Destructive Fishing Practices](#)
- UNESCO: [New Tanzania's Bongo flava song released to promote the importance of marine cultural heritage](#)

Paper:

- Report: Ichumbaki, E.B., & Lubao, C.B. (2020). [Musicalizing heritage and heritagizing music for enhancing community awareness of preserving world heritage sites in Africa](#). *International Journal of Heritage Studies*, 26, 415–432



Project Highlights: MOZAMBIQUE

WITH Coastal Style Project, (left to right): Alice Augusto Tembe, Adelina Fabião Mondlane, Cristina Vicente N'Calane and Maria Chihole Katembe.



- 17 CoastSnap Mozambique
- 18 Community Involvement and Social Investment for a Sustainable and Inclusive Management of Maritime Heritage in Mozambique: Towards a New Framework
- 19 Embracing Social Learning in the Management of Ecosystem Services in Chonguene District, Gaza Province
- 20 Making Maritime Museums Matter in Mozambique
- 21 Marine Cultural Heritage in Northern Mozambique
- 22 Reviving a Maritime Past: the Architectural and Ecological Heritage of Chinde
- 23 WITH Coastal Style: Women's Identity, Textiles and Heritage in Mozambique



17 COASTSNAP MOZAMBIQUE

AREA: COASTAL MANAGEMENT (Large Grant)

PI: Luciana Esteves (Bournemouth University)

Co-Is: Jaime Palalane (Eduardo Mondlane University), Pilale Isequiél (Lúrio University)

Partners: Associação Megafauna Marinha (AMM); Josina Machel Primary and Secondary School, Tofo; Josina Machel Primary and Secondary School, Mozambique Island; 16 de Junho Primary and Secondary School, Mozambique Island; Ponta do Ouro Primary School, Ponta do Ouro; CoastSnap Ghana; CoastSnap Brazil; World Bank; Bournemouth University; University of East Anglia; Eduardo Mondlane University; Lúrio University; Universidade Zambezi



Photos taken from Tofo station (bottom) show large sediment mobility and the formation of a 'beach lake' also visible in Google Earth images (top), arrows indicate a fix position for reference.

CoastSnap is a citizen science and low-cost coastal monitoring approach that uses photographs shared by the public to facilitate the analysis of shoreline changes. CoastSnap Mozambique installed the first CoastSnap stations on the African continent to gather beach change data at four sites where little or no previous knowledge was available. Additionally, the project promoted coastal literacy by producing educational materials for local schools and surveying cultural values and perceptions. The project installed four CoastSnap stations in three locations across Mozambique: two on Mozambique Island and the others in Ponta do Ouro and Tofo, all of which are tourist locations. The project organised workshops with local stakeholders and community members at each location and obtained fieldwork data relating to the local topography using a drone and DGPS.

HIGHLIGHTS

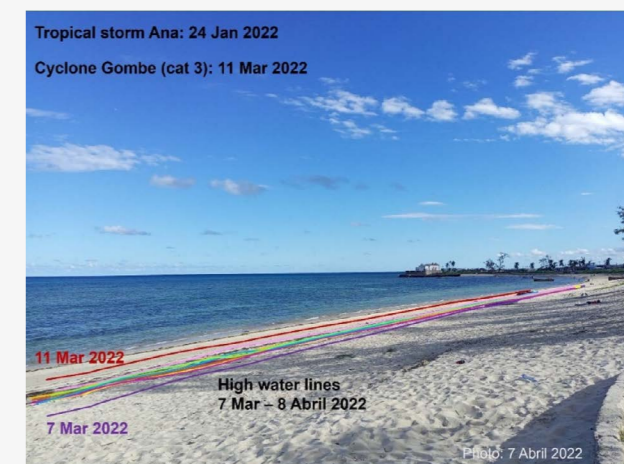
- Citizen science data**
The project produced cost-effective data for the long-term in a country with scarce data, through engaging participation from a wide range of individuals and organisations. CoastSnap Mozambique advanced the understanding of the local beach morphology and the perceptions of cultural values associated with the coast.
- Advancing ocean literacy**
The project produced educational material (a guide and four posters) in Portuguese to promote coastal literacy among local teachers and their pupils.
- Youth education and the arts**
Activities included a competition between schools for the most creative project or the largest number of CoastSnap photographs shared, with funds to purchase arts materials, and the participants could produce drawings, panels, recordings, videos, or collages using photographs taken from their local CoastSnap station.
- Coastal monitoring**
The findings suggest that Praia Miami in Mozambique Island is quite stable, but large beach changes were seen in Tofo and Ponta do Ouro, which may have implications for the safety of beach users and coastal property.
- International collaboration**
The CoastSnap approach was discussed with partners in Ghana and Brazil.



Dr Ernesto Macaringue taking the first photo 'snap' from the CoastSnap station in Tofo beach.



Project partner AMM incorporated content of the guide and posters in the lectures that they deliver every year to schools in the Inhambane area as part of their educational programme.



Analysis of high water marks (drift line) at Miami, Mozambique Island, suggest a resilient beach after the landfall of cyclone Gombe.

RESOURCES

Media:

- #CoastSnapTofo [time-lapse video](#)
- Featured on [CoastSnap Portugal's Twitter](#)
- [Short video](#) showing timelapse of photos received from Mozambique Island (Fortress Beach) until March 2020

Events:

- [Video presentation](#) (2 min) of CoastSnap Mozambique results for Praia Miami, Mozambique Island
- [CoastSnap workshop](#) in Toulouse, France in 2019

Papers:

- Report: Esteves, L.S., Ballesteros, C., Muaivevela, I. and Abubakar, I.H., 2023. [CoastSnap Mozambique: an experience of citizen science in Africa during the Covid-19 pandemic](#). In: P. Wang, Royster, E., Rosati, J. (Eds), *Proceedings of Coastal Sediments 2023* (11–15 April 2023, New Orleans), 872–880.
- Report: Becker, A., Brown, J., Bricheno, L., and Wolf, J.: (March 2020) [Guidance Note on the Application of Coastal Monitoring for Small Island Developing States](#); National Oceanography Centre
- The [guide](#): Esteves, L.S., Muaivevela, N. & Abubakar, I., 2022. Aprendendo sobre as mudanças na costa. Projecto CoastSnap Mozambique

Web Resources:

- Article in [UniLurio's newsletter](#)
- Rising from the Depths: [CoastSnap Mozambique Project is Launched! A Citizen-Science Coastal Monitoring Initiative \(Part 1\)](#)
- Rising from the Depths: [CoastSnap Mozambique](#)



18

COMMUNITY INVOLVEMENT AND SOCIAL INVESTMENT FOR A SUSTAINABLE AND INCLUSIVE MANAGEMENT OF MARITIME HERITAGE IN MOZAMBIQUE: TOWARDS A NEW FRAMEWORK

AREA: CULTURAL HERITAGE, TOURISM (Large Grant)

PI: Patrizia Riganti (University of Glasgow), Antonio Hogueane (Eduardo Mondlane University)

Co-Is: Keila Meginnis (University of Glasgow)

Research Assistant: Yang Wang (University of Glasgow)

Partners: UNESCO Maputo Office (Mr Paul Gomis, UNESCO Representative and Head of Office; Mr Marcos Cherinda, Senior Programme Coordinator for Science & Technology, Technical and Vocational Education and Higher Education and Research); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) (Dr Alison Heritage); University of Glasgow; Eduardo Mondlane University; Kaleidoscopio



Fishers in Inhambane. © Antonio Hogueane

This project responded to the unique challenges faced by Mozambique's rich and varied marine cultural heritage by bringing together experts from the UK and Mozambique to create a novel, value-based, participatory framework which could help unlock the potential of that heritage for the local community in Inhambane and Maputo.

HIGHLIGHTS

- Value-based, participatory MCH framework

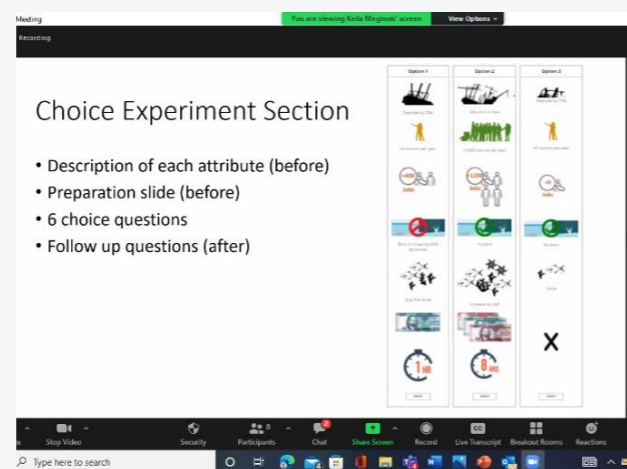
The project created and promoted an MCH framework for the valorisation and conservation of MCH in Inhambane and Maputo, advancing heritage-led sustainable development and local policymaking engagement. Through community engagement, the historic and sociological mechanisms influencing the appreciation and appropriation of the MCH by the local communities were defined. Awareness, pride, and ownership of MCH were raised through a challenge-led approach that included informal engagement with key stakeholders to co-analyse political and practical barriers, using the complementary expertise of the project team and the advisory board to assess the social benefits associated with MCH conservation, and arranging a workshop and forum including academics, industry, policy makers, and communities.

- Capacity building and partnerships, research consortium

The project worked closely with partners to enhance capacity building in the sector of cultural capital valuation and nurture key links between local and international conservation stakeholders (UNESCO headquarters and International Centre for the Study of the Preservation and Restoration of Cultural Property [ICCROM] headquarters). There were discussions on the possible development of an ICCROM hub in Mozambique, under the ICCROM Youth.Heritage.Africa Programme, in cooperation with the national government.



Typical canoas.



Screenshot from training meeting.

- Mapped MCH

The project used a desk-top approach to map Mozambique's key MCH assets and to review the landscape for MCH conservation in the country (the legislative framework, key stakeholders' attitudes, and policy constraints). The purpose was to obtain an overview of the challenges to MCH conservation in Mozambique, which informed the development of the valuation study.

- Valorisation of MCH

A discrete choice experiment (DCE), a survey-based, non-market economic valuation technique, was applied in Maputo and Inhambane to articulate the economic benefits of local marine heritage. The results were analysed using econometric models to estimate the economic values respondents associated with alternative MCH conservation scenarios.

- Community voice in policy

The project carried out in-depth interviews with fishermen, women, residents, tourists, religious leaders, academics, and politicians to gather diverse opinions to enable a bottom-up approach to meeting societal needs and aspirations and engender a sense of ownership of the project's outcomes. The project raised debate among key stakeholders including the Mozambique Ministry of Culture and Tourism facilitated by UNESCO's Maputo office.

RESOURCES

Media:

- Short tourism documentary on MCH in Mozambique

Event:

- Workshop: [Workshop on MCH in Mozambique \(June 2022\)](#)

Papers:

- Report: Riganti, Patrizia & Hogue, Antonio & Meginnis, Keila & Wang, Yang. (2022). [Valuing the Social Benefits of Marine Cultural Heritage Conservation in Mozambique](#)
Project title: [Community Involvement and Social Investment for a Sustainable and Inclusive Management of Marine Heritage in Mozambique: Towards a New Framework.](#)
- Plan for establishing an ICCROM Hub in Mozambique

Web Resources:

- University of Glasgow: [Maritime Heritage In Mozambique](#)
- Rising from the Depths: [Community Involvement and Social Investment for a Sustainable and Inclusive Management of Maritime Heritage in Mozambique: Towards a New Framework](#)



19

EMBRACING SOCIAL LEARNING IN THE MANAGEMENT OF ECOSYSTEM SERVICES IN CHONGOENE, GAZA PROVINCE

AREA: TRADITIONAL KNOWLEDGE (Medium Grant)

PI: Zacarias Alexandre Ombe (Universidade Pedagógica)

Co-Is: Olalekan Adekola (University of York), Alana Sengulane (Universidade Pedagógica), Kate Crinon (University of Ulster)

Partners: Maciene District local communities; Boane Municipality local communities; Municipality of Boane; Chongoene District authorities; Gaza Provincial authorities; University of York; Save University; University of Ulster; Universidade Pedagógica, Eduardo Mondlane University



This project aimed to transform ecosystem service management policy and practice approaches through an innovative application of social learning theory to advance understanding of the role of local knowledge systems in ecosystem service management. The project combined social learning activities and interviews to generate data, resulting in primary school curriculum integration as well as a cultural ecosystem services information centre.

Focus group conversation as a social learning tool.

HIGHLIGHTS

- Identified the ecosystem services provided by MCH
- Few studies are available regarding ecosystem services in Mozambique, and no studies exist on the perceptions and threats relating to coastal ecosystem services. Therefore, this project used qualitative research methods such as focus group discussions, informal interviews, and field visits, and found that the study area presented benefits related to cultural services and nutrition, particularly due to the variety of fish that can be found in the area. During the focus group discussions, the following factors were found to be of central importance: the promotion of ecosystem services, including the sand dunes; water from the sea; fresh air; the cool breeze; the fruits of wild trees; the shade; the beach with its clear and fresh water; and the materials for baskets weaving, sieves, and ornaments. The results of this study revealed that the majority of Chongoene District households continue to rely on agriculture as the main source of income, more so than in other rural districts of Mozambique. As such, extreme weather or prolonged drought are important drivers of change in the availability of ecosystem services. Management challenges include the use of unsustainable fishing practices in the sea and lakes, the allocation of land for agriculture and pastures, and the provision of water and land for residence construction.



Alana Sengulane, Zacarias Ombe and Varsil Cossa (assistant archaeologist from Eduardo Mondlane University).



Msikire Sacred Forest in Maciene.

- Services hub
The project created a cultural ecosystem services centre, which is a hub for useful information on ecosystem services and the local cultural heritage of Mozambique.
- MCH educational outreach
Following the identification of diverse ecosystem services in Chonguene, the environmental and cultural heritage education has been enhanced in the region through local school programmes, and further dissemination has been conducted through workshops and seminars with local community members and stakeholders. The study results were integrated into curriculum at both primary and secondary levels to enhance understanding of cultural services among the younger generation, thereby ensuring that long-term knowledge is maintained.
- Continuing research
An interdisciplinary research group at the University of Save will continue the study of ecosystem services, involving local communities and their resources.
- Mapping MCH in the face of port development
A new port infrastructure is in development, which constitutes a significant threat to marine ecosystems and the resilience of local people, as it will eliminate access to essential ecosystem services on the coast. This research has helped to improve the compensation criteria by highlighting the value of these services to be included in future development mitigation plans. Furthermore, a discussion and MCH mapping exercise was held in the Changana language and was recorded and translated into Portuguese and English.

RESOURCES

Event:

- Seminar on African Heritage as a Source of Humanity, Innovation and Resilience: [Heritage Day 2022 at Eduardo Mondlane University](#)

Paper:

- Ombe, Z. A., Sengulane, A. M. H., Adekola, O., & Crinion, K. (2021). 'Embracing Social Learning in the Management of Ecosystem Services in the Chongoene District, Gaza Province, Southern Mozambique'

Web Resource:

- Rising from the Depths: [Embracing Social Learning in The Management of Ecosystem Services in Chonguene District, Gaza Province, Mozambique](#)



20 MAKING MARITIME MUSEUMS MATTER IN MOZAMBIQUE

AREA: MUSEUM STUDIES (Small Grant)

PI: Rosalie Hans (University of Nottingham)

Co-Is: Daniel Caetano Roupinho Inoque (Instituto Superior de Artes e Cultura)

Partners: Museu das Pescas in Maputo; Museu da Marinha Mozambique; Naval Museum; Instituto Superior de Artes e Cultura Mozambique; University of Nottingham



The project investigated the narratives, potential, and interactions of two local maritime museums – Museu das Pescas in Maputo and Museu da Marinha, on the Island of Mozambique – with the local community, and their role in providing social and economic benefits, identifying key stakeholders for long term collaborative community engagement. This pilot project aimed to discover opportunities for maritime museums in Mozambique to deliver social, economic, and cultural benefits to their community audiences, and if and how these audiences wish to engage with the museums.

The front of the Museu da Marinha.

HIGHLIGHTS

- Museum and community connection

The project studied the Museum of Fisheries in Maputo and the Naval Museum on Mozambique Island, exploring their respective narratives and potential for economic and social sustainable development. The project acted as a connecting factor between the museum and the community, promoting local culture and engagement in cultural life. A community advisory committee was set up to discuss proposals for exhibitions, educational projects, and outreach programmes to ensure that information on maritime lives and culture is up-to-date and relevant to local audiences.

- Inclusive and participatory research

Local communities designed strategies to improve the social and economic impact of the two museums, constructed mainly with international aid.

- Researched potential of MCH

Ideas included organising a broad, interdisciplinary conference in Mozambique; holding a photographic exhibition with portraits of boat owners with their boats, reflecting the change in ownership from mainly men to women as saving schemes are more successful among women; and a seafood gastronomy fair to celebrate fishing culture while also addressing the issues of sustainability encountered by artisanal fishermen – and women.

- Youth education

An environmental education programme was developed for fishermen and women and invested in younger generations of heritage



Group photo with the participants of the workshop organised in Maputo together with the Co-I Daniel Inoque.



Exhibition at the Museu das Pescas in the Port of Maputo.

practitioners and museum professionals by providing chances to learn through paid internships, involving them in research projects, as well as setting up new heritage and museum studies programmes designed to meet the changing demands of working in the 21st century.

RESOURCES

Event:

- Development Studies Association (DSA) conference: [“History and Development: Practicing the Past in Pursuit of ‘Progress’” Panel](#)

Papers:

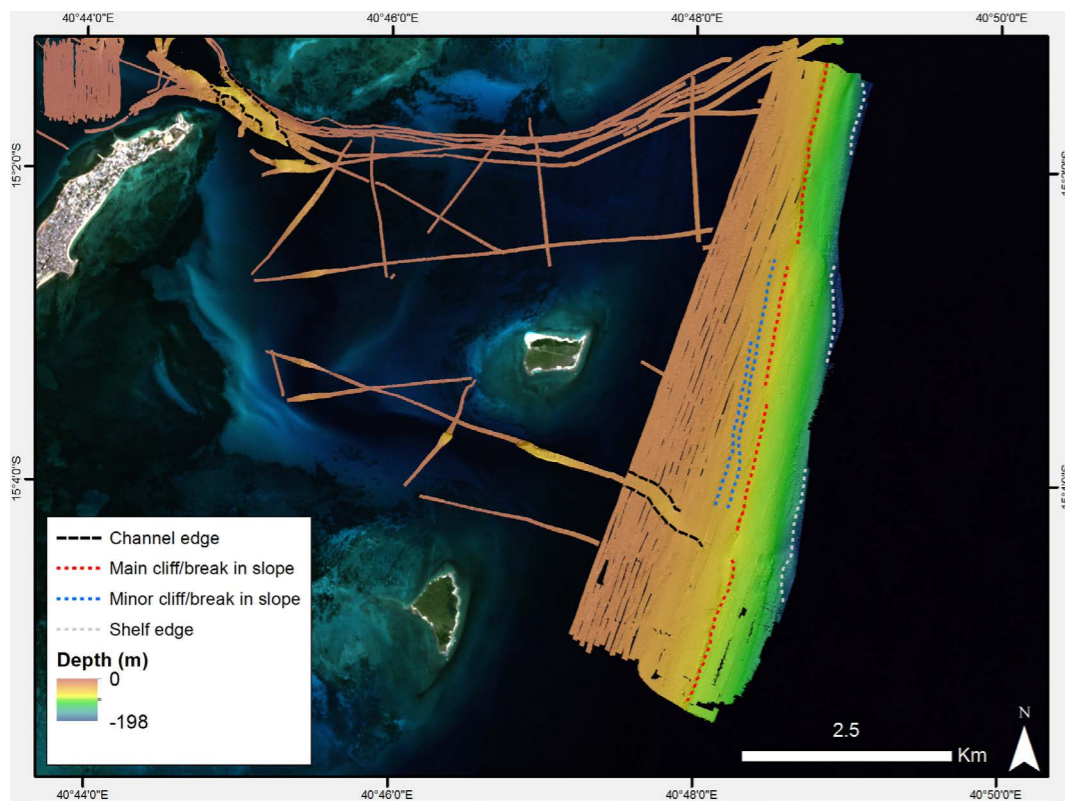
- Hans, R. (2018). 'Who Shapes the Museum? Exploring the Impact of International Networks on Contemporary Museums in East Africa.' In: Laely, T., Meyer, M., & Schwere, R. (Eds.), *Museum Cooperation between Africa and Europe. A New Field for Museum Studies*. Bielefeld: Transcript and Kampala, Fountain Publishers
- Hans, R. (2018). 'Redefining Contemporary Museums – An East African Perspective.' In: Soares, B. B., Brown, K., & Nazor, O. (Eds.), *Defining the Museum of the 21st Century: Plural Experiences*. ICOFOM
- Stokes, D. (2020). 'Museum Cooperation Between Africa and Europe: A New Field for Museum Studies.' *African Arts*, 53(3), 95–96. doi.org/10.1162/afar_r_00544

Web Resources:

- Heritage Research: [Rising from the Depths](#)
- Rising from the Depths website: [Making Maritime Museums Matter in Mozambique](#)
- Writing from the Depths website: [Snapshots of research in Maputo, Mozambique – Rosalie Hans](#)

Fisherman, Mozambique Island.





21 MARINE CULTURAL HERITAGE IN NORTHERN MOZAMBIQUE

AREA: ARCHAEOLOGY (Large Grant)

PI: Wes Forsythe (Ulster University)

Co-Is: Ricardo Duarte (Eduardo Mondlane University), Ana Santos (University of Roehampton), Ruth Plets (Ulster University)

Partners: Camões – Instituto da Cooperação e da Língua, Gabinete de Conservação da Ilha de Moçambique (GACIM), Museum of the Island of Mozambique, Aga Khan Foundation, Associação dos Pequenos Empresário de Hotelaria e Turismo da Ilha de Moçambique (APETUR), Instituto Oikos, União das Cidades Capitais de Língua Portuguesa (UCCLA); Ulster University; University of Roehampton; Eduardo Mondlane University, Lúrio University, University of KwaZulu-Natal



The survey area at Ilha de Mozambique. Potential submerged landscape features visible on the offshore part of the multibeam echo sounder data.

Although inscribed on the UNESCO World Heritage list, Mozambique Island's heritage faces considerable conservation challenges in maintaining its historic building stock. The island was considered in danger in 1996 and almost removed from the list. It has since seen some improvement, but there are severe deficiencies in the skilled labour and resources needed for conservation. The project explored the value and scope of MCH around the waters of Mozambique Island, created local capacities and studied the Island's marine historical, archaeological, and environmental record and its importance within local communities today. The project also explored ways to enhance and protect the island environment through using MCH to improve the economy and culture by aligning it with other strategies in order to facilitate improved environmental outcomes.

HIGHLIGHTS

- **Raised MCH awareness and value**
Community participants explored issues of understanding, access, socio-economic benefits, and cultural value in relation to MCH. To facilitate this interest and to collect information on the cultural importance of the site, the project hosted a workshop and conducted 20 semi-structured interviews with island stakeholders representing the business, fishing, heritage, government, NGO, and education sectors.
- **Heritage practitioner capacity building**
The project provided education and tools, strengthening the capacities of regional heritage practitioners, underwater archaeologists, and local residents in understanding past and present human impacts on sensitive cultural and natural systems. The project also supported a UNESCO training event providing training on geophysical techniques.



Onboard training to UNESCO delegates, Centro de Arqueologia Investigação e Recursos da Ilha de Moçambique personnel.



Traditional fishing practices in Northern Mozambique.

- **Underwater remote sensing**
The project developed and deployed innovative remote sensing technologies, which had not formerly been employed in the area, and which provided a vital new dimension to understanding MCH and the region more widely. A sub-bottom profiler (SBP) was used to detect geological and sedimentary features, and the data derived from the SBP was complimented by a multibeam echo sounder (MBES), deployed across the deep shelf fronting the Baie de Mozambique and the shallow historic

anchorage behind the Ilha de Mozambique. The underwater surveys revealed evidence of post-Ice Age sea-level rise and the processes by which it occurred, evidence which represents a major step in broadening the geographical scope of the regional model of sea-level change. The work also modelled future sea-level change caused by climate change to demonstrate the potential impacts this may have.

- Identified areas for improvement in MSP and heritage protection

The network of community stakeholders exemplified the need to protect local livelihoods from over-exploitation and unsustainable development, and helped the project to highlight weaknesses in policies like the Política e Estratégia do Mar. The discussions around fishing underlined the need to curtail damaging and/or illegal fishing techniques (e.g., using mosquito nets or capulanas (Mozambican sarong), fishing too close to the shore, damaging nurseries, net dragging). The case can now be made for enhancing the protection of the island by considering precedents set for natural assets, such as the establishment of Marine Parks that benefit both the environment and local economies. To fully protect the natural and cultural assets of such parks, it is essential that the MCH of local communities is integrated into the early stages of park development.

RESOURCES

Exhibition:

- Project exhibition and brochure on display at Eduardo Mondlane University in Maputo and exhibition at CAIRIM (Centro de Arqueologia Investigação e Recursos da Ilha de Moçambique) on Mozambique Island

Paper:

- Santos, A.M.S. and Forsythe, W. (2022) 'Research Report: Ilha de Moçambique and Marine Cultural Heritage – November 2021'

Web Resources:

- Rising from the Depths website: [Marine Cultural Heritage in Northern Mozambique](#)
- Rising from the Depths website: [Northern Mozambique Project – Geophysical Survey Overview](#)
- Rising from the Depths website: [Marine Cultural Heritage In Northern Mozambique – Underwater Survey and Long-term Climate Change](#)



22 REVIVING A MARITIME PAST: THE ARCHITECTURAL AND ECOLOGICAL HERITAGE OF CHINDE, MOZAMBIQUE

AREA: BIOCULTURAL HERITAGE, ARCHAEOLOGY (Small Grant)

PI: Roberto Mussibora (Eduardo Mondlane University)

Co-Is: Joaquim Campira (Eduardo Mondlane University), Manuel Chigarisso (Chinde Government), Francis Masse (Northumbria University; previously University of Sheffield)

Partners: Eduardo Mondlane University, University of Sheffield, Northumbria University, Chinde Government, Chinde High School; District services of public works and housing of Chinde; Maritime Administration of Chinde; Chinde Catholic Church; Electricidade de Moçambique; Central Committee of the FRELIMO Party in the Chinde District; Caritas



Joaquim Campira (co-researcher) identifying the species and current mangrove slaughtering area.

The project registered and documented the architectural and ecological heritage of the coastal city of Chinde, Mozambique, to create the first inventory of its cultural assets, and identify threats, value, and management needs. Its findings reiterate that despite the beauty and monumentality of the properties in Chinde, these properties were not inventoried or catalogued in the National Inventory of Cultural Heritage of Mozambique, with the result that Zambezia was one of the provinces with the fewest properties classified in Mozambique. Therefore, this project attempted to publicise the architectural diversity, richness, and grandeur of Chinde's properties, which date back to the time of the British Concession, the Portuguese colonial period, and post-independence. Most of these properties are threatened with disappearance due to coastal erosion, which is advancing at alarming speeds and which destroys at least two properties worthy of classification every year. This project made it possible to document these at-risk properties.

HIGHLIGHTS

- MCH documentation
Through participatory processes, the project assessed Chinde's architectural and ecological marine heritage with a view to its inclusion in the National Inventory of Cultural Heritage, in collaboration with local government. It was possible to identify and map Chinde's architectural heritage in areas affected or threatened by coastal erosion, and ways to mitigate this threat.
- Capacity building
The project held workshops at local schools, and trained local actors to document, manage, and disseminate this rich cultural heritage. This training made it possible to engage young



Former Port Authority Office Building
"Capitania do Porto".

- students in recognising the importance of Chinde's maritime cultural heritage, and to foster their sense of belonging.
- Integrated management plan and sustainable tourism development
The collected data informed the creation of an integrated management plan to effectively mobilise Chinde's MCH as part of the region's sustainable economic development, advancing new routes to draw tourists towards this region of Mozambique. Local awareness of the importance of cultural and ecological heritage is being increased through workshops in local schools.
- Biocultural heritage and mangrove preservation
The study is based on documentation by

photography, maps, structured and semi-structured interviews with the local population to understand the challenges and threats of this type of heritage and ways of mitigation. All interviewees were unanimous in stating that coastal erosion originated from mangrove cutting along the banks of the Zambezi River, on the side of Chinde village, after the rural exodus from Luabo to Chinde in the Civil War period. Refugee populations in Chinde saw the mangrove as a support, where they used the mangrove for logging, building new homes, firewood and charcoal.

- Inventory of Chinde's architectural heritage
The project produced an inventory which includes existing architectural assets eligible to be classified as cultural heritage at provincial and national levels, aggregating the basic information that allows assessment of the current situation of each property. Due to technical-logistical constraints, COVID-19 restrictions, and the natural weather that affects Mozambique, it has not yet been possible to publish this document; however, it is expected that it will be published in 2024.

RESOURCES

Event:

- Presentations in the province of Zambezia and in a seminar of the Department of Archeology and Anthropology of the Eduardo Mondlane University

Web Resources:

- Rising from the Depths website: [Reviving a Maritime Past: Architectural and Ecological Heritage of Chinde, Mozambique](#)
- Rising from the Depths website: [Heritage at Risk in Chinde, Mozambique](#)



23

WITH COASTAL STYLE: WOMEN'S IDENTITY, TEXTILES AND HERITAGE IN MOZAMBIQUE

AREA: TRADITIONAL KNOWLEDGE, MUSEUM STUDIES (Medium Grant)

PI: Sarah Worden (National Museums Scotland)

Co-Is: Valda Marcos (The Fisheries Museum), Moises Timba (The Fortress Museum), John Giblin (National Museums Scotland)

Partners: Eduardo Mondlane University; Museum of the Sea; The Fortress Museum; The Fisheries Museum; National Museums Scotland; Mozambique Government: The Ministry of the Sea, Inland Waters and Fisheries



The project recorded and promoted women's identities and concerns linked to MCH in Katembe District, Maputo, Mozambique. Heritage is a developmental issue in Katembe, where the construction of the largest suspension bridge in sub-Saharan Africa is projected to generate massive population growth, putting community cohesion at risk from urban expansion. By researching and disseminating the history and contemporary relevance of an iconic object that is ubiquitous in coastal women's lives, the capulana, a mass-produced printed cloth that has become a symbol of Mozambican heritage, this project has promoted women's heritage as a developmental resource which can contribute toward social justice, education, and identity in the face of social upheavals.

Capulana featuring a rectangular design representing Mozambican sea faring trade with a map of Africa filled with fruits in the centre, circa 1990s.

HIGHLIGHTS

- Women's empowerment through MCH

As reported by the United Nations Development Programme, Mozambique is ranked 180th of 189 countries for gender equality. This project aimed to directly address the gender imbalance in recorded MCH history and future development in Mozambique by identifying, understanding, and promoting women's identities and concerns as a form of empowerment through an exploration of the MCH embedded in the capulana.

- Community events and elevated MCH awareness

By recognising and utilising the potential of the capulana as part of MCH, this project created social and cultural benefits for the community through local school, university, and museum events, creating a focal point for women to come together and share stories.

- Museum and multi-media exhibitions

The project exhibited maritime-themed capulana from Maputo in the Fisheries and Fortress Museums in Maputo, in the Katembe Community School, in a mobile community exhibition in Katembe led by the Fisheries Museum; and in the National Museum of Scotland in Edinburgh. These exhibits displayed the maritime-themed capulana with the voices of women from Katembe's fishing community (collected through in-depth interviews) and included a short film introducing the aims of the Rising from the Depths project and the exhibition. A multi-media website hosts the online exhibition, which will promote and preserve the



Fresh fish market stalls, Katembe, November 2018.



Capulana cloth circa 1990s, National Museums Scotland Mozambican textile collection.



Members of the Katembe research group, wearing matching capulanas, are among the first to visit the exhibition at the Fortress Museum in Maputo.

project findings online for over ten years. The National Museum of Scotland collection will be published through its publicly accessible online catalogue, making these collections available internationally for future research and storytelling.

- Collaboration and capacity-building

The Fisheries and Fortress Museums in Maputo is undertaking a long-term project researching coastal and river fishing communities in Mozambique from north to south, and because of this project the museum has introduced the capulana as a new subject area for research and incorporation into the curriculum. The project built on the existing working relationship between the museum and the members of the Fishing Community Council in Katembe. The project also trained early career researchers in community-based survey work and material heritage studies.

RESOURCES

Events:

- Introduction to WITH Coastal Style Project, Dr Sarah Worden, Launch Workshop, Fortress Museum, Maputo, Mozambique, July 2019
- WITH Coastal Style Project, Dr Sarah Worden, ICOM UK conference, Leeds, March 2020
- WITH Coastal Style Project, Dr Solange Macamo, Africa Heritage Day Workshop, University of Eduardo Mondlane, Maputo, Mozambique, 5 May 2021
- WITH Coastal Style Project, Dr Sarah Worden, Rising from the Depths Workshop, online, 3 December 2021
- Exhibition at the 8th European Conference on African Studies in Edinburgh, UK

Press:

- SFM Soico (Radio Mozambique) interview with P-I Sarah Worden, July 2019
- SFM Soico (Radio Mozambique) interview with Co-I Moises Timba, May 2021
- Radio Mozambique and Flash Radio interviews with project photographer Yassmin Fortes Maputo, May 2021

Web Resources:

- National Museum of Scotland. [WITH Coastal Style Project Online exhibition](#)
- National Museum of Scotland Research Repository: [Women identity textiles and heritage in Mozambique](#)
- National Museum of Scotland blog: [Women's Identity, Textiles and Heritage \(WITH\): Coastal Style in Mozambique – Reflections And Online Gallery](#)
- Rising from the Depths: [Women's Identity, Textiles And Heritage \(WITH\): Coastal Style In Mozambique](#)
- International Council of Museums: [National Museums of Scotland visit Mozambique with ICOM UK](#)

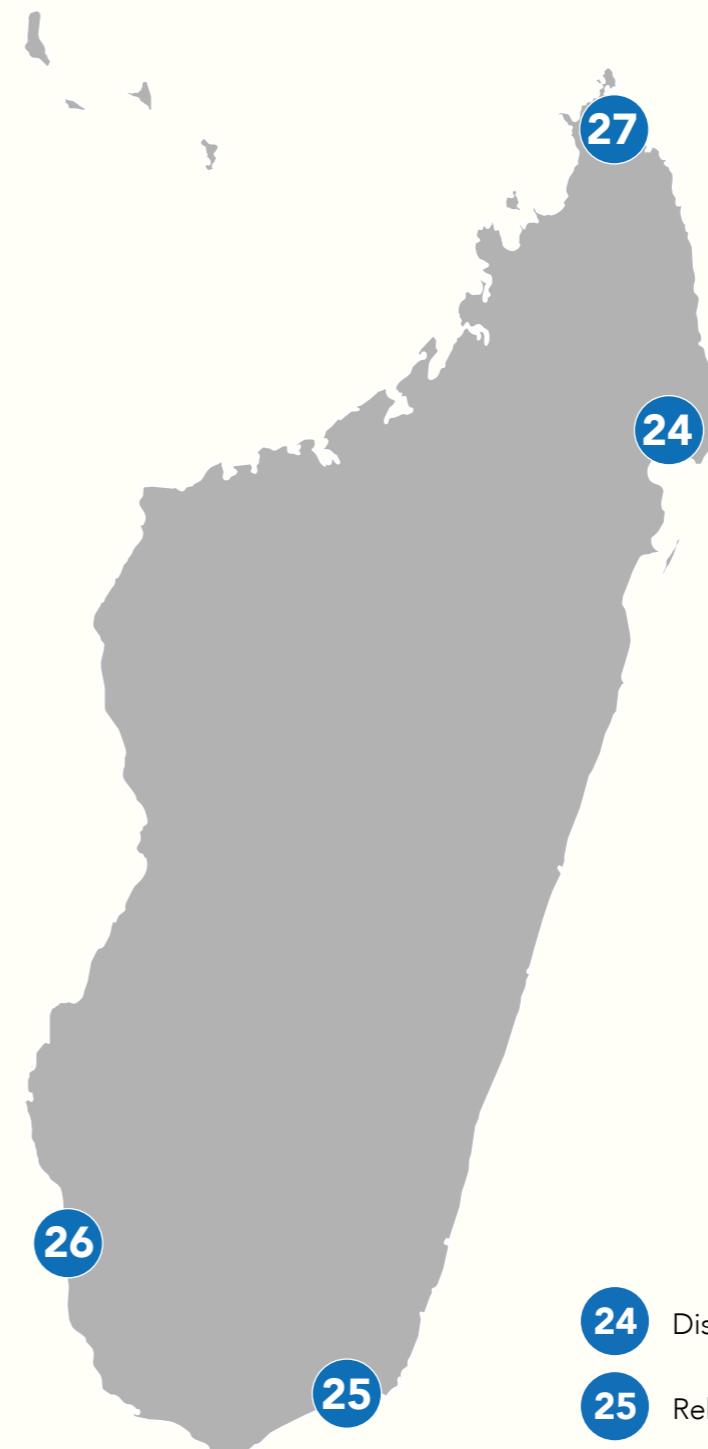
Image opposite: Making Maritime Museums Matter exhibition at the Museu da Marinha, Mozambique Island.





Project Highlights: MADAGASCAR

Fishing canoes on the beach of Tsifota village.



24 Discover Your Cultural Heritage

25 Reharbouring Heritage

26 Study and Implementation of Network System by a Fishers' Community for the Survival of Marine Cultural Heritage, Tsifota, Southwest Madagascar

27 Using Fishers' Traditional Maritime Knowledge to Improve Small-Scale Fisheries Management in Northern Madagascar



24

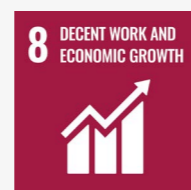
DISCOVER YOUR CULTURAL HERITAGE

AREA: CULTURAL HERITAGE (Small Grant)

PI: Richard Tommy Andriavalomahefa
(University of Antananarivo)

Co-Is: Oniravaka Annita Ramanankierana
(The Institute of Civilization – Museum of Art and Archaeology (ICMAA)), Sabe Nelas Fanny (ICMAA), Séraphin SUM HEURNG Rafanomezantsoa (ICMAA)

Partners: Conservation Centre sur la Communauté (C3) Madagascar; Madagascar National Parks, Madagascar Ministry of Education; Madagascar Ministry of the Environment; Western Indian Ocean Marine Science Association (WIOMSA); The Institute of Civilization – Museum of Art and Archaeology (ICMAA); Coastal villages in the Diana region; University of Antananarivo



View of Ilôt Madame from the former site of Compagnie des Indes, in Sainte-Marie.

The project sought to increase awareness among authorities and community members of the importance of MCH, notably after the ratification by Madagascar of the UNESCO Convention on the Protection of the Underwater Cultural Heritage in 2015 and several cases of treasure-hunting and looting of underwater archaeological sites in the seas around the island of Sainte-Marie. The project created information panels and booklets sharing maritime histories of the area for local institutes and collaborated with local authorities in developing effective management systems to regulate heritage sites.

HIGHLIGHTS

- MCH awareness and knowledge dissemination

The value of MCH resources was raised among local authorities and community members on Sainte Marie Island through media, schools, exhibitions, booklets, and participatory workshops.

- Effective heritage management system

Designed in cooperation with local authorities to regulate and control the access and valorisation of each site towards sustainable and responsible tourism initiatives, this project increased cooperation and capacity among local authorities, heritage practitioners, and tourism operators through the design and installation of panels describing the archaeological vestiges already identified in their region, their history, and other essential information concerning the local MCH.



Meeting the schoolchildren.



The team meets the headteacher of a private high school.

- Educational materials
The project designed MCH educational materials for the school district of the Island of Sainte Marie. Following this, the local representative of the regional education authority (under the supervision of the Ministry of Education) asked the project to publish more posters and booklets in order to reach all of the island's schools.

- Heritage surveys
Surveys of over 225 people (with respondents between 9 and 61 years old) were conducted on the island of Sainte-Marie about MCH concepts and served as the basis for developing the outreach strategy.
- Project scope
Awareness-raising activities have begun on Sainte-Marie. The project is intended to cover Madagascar, as the Great Island is home to countless archaeological sites both on land and in the sea.

RESOURCES

Workshop:

- Rising from the Depths : [The 3rd Rising from the Depths Workshop: People, Time and The Sea](#)

Web Resource:

- Rising from the Depths website: [Discover Your Cultural Heritage](#)



25 REHARBOURING HERITAGE

AREA: ARTS (Large Grant)

PI: Jonathan Skinner (University of Surrey)

Co-Is: Lisa Bass (SEED Madagascar)

Partners: SEED Madagascar, Arts Care Northern Ireland, Anidan Children's Shelter; University of Roehampton; University of Surrey



This project aimed to examine, test, and innovate the living MCH in southern Madagascar through the expressive participatory arts, specifically puppetry, dance, visual arts, traditional design, ethno-drama, and modern craftwork. The finale of the project included a unique 'Festival of the Sea' contribution to the local seafood festival, with a particular focus on raising awareness of fishing community issues and showing how MCH contributes to tourism enterprise in the region.

Participant procession during the Festival of the Sea.

HIGHLIGHTS

- Trans-national Festival of the Sea

This project developed and extended the Festival of the Sea concept in Madagascar, in the form of a two-day festival promoting local traditions, MCH, and UN Sustainable Development Goals in fishing communities. It trained local artists and fostered a co-participatory sustainable development practice with artists from the UK, Kenya, and Madagascar; charity stakeholders from SEED Madagascar and Anidan Children's Shelter; and local populations in Sainte Luce, Madagascar and Lamu, Kenya.

- Empowering local businesses and artists

Small businesses benefited from the festival, and entrepreneurs sold their weaving and wares. Local awareness of the work of the agreed laws and customs – the dina – was consolidated and spread throughout all sectors of the community, from the very young to the very old. The singers, dancers, and musicians gained regional exposure by performing on stage to a large audience.

- High attendance and MCH awareness

The festival had over 2,000 attendees, and hundreds attended the political rallies, conservation events and puppetry shows – all of which stressed the no-take zone protecting the local lobster fishing industry. In Madagascar the festival attracted radio, newspaper, and national TV coverage.



Painting local wildlife at the Festival of the Sea.



Live music at the Festival of the Sea.



"Festival of the Sea" opening title of short film.

- Community collaboration and no-take zone implementation

The local community became festival stakeholders, established ownership of the event, and expressed a desire to expand the marine resource conservation zone to new villages. During the festival, there were meetings with the village chiefs, local fishing organisations responsible for local law-making (dina), and local government representatives – resulting in additional villages joining the periodic no-take zone policy.

RESOURCES

Media:

- University of Roehampton London: [Festival of the Sea](#)
- Short Film on YouTube: [Festival of the Sea – Sainte Luce, Madagascar \(June 2019\)](#)
- Video on YouTube: [Festival of the Sea procession](#)
- Video on YouTube: [Group Dodomy Festival of the Sea auditions](#)
- Smith and Willing: [Silent Disco Short Film](#)

Paper:

- Long, S. (2017). 'Short-term impacts and value of a periodic No Take Zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar.' *PLOS ONE*, 12, e0177858

Web Resource:

- Rising from the Depths website: [Rehabouring Heritage – Festival of the Sea](#)
- Rising from the Depths website: [Festival of the Sea Reflective Blog – Bronagh Corr McNicholl](#)



This project set up a network of community actors, including integrating representatives of the Vezo fishing communities of the south-west region of Madagascar, to mobilise communities to participate within a system of safeguarding and development value of Madagascar's marine cultural heritage. This region has suffered the actions of pillaging and treasure hunting their rich underwater archaeological sites involving the fishing community for many years.



Cannon on the Winterton wreck.

26

STUDY AND IMPLEMENTATION OF NETWORK SYSTEM BY A FISHERS' COMMUNITY FOR THE SURVIVAL OF MARINE CULTURAL HERITAGE, TSIFOTA, SOUTHWEST MADAGASCAR

AREA: ARCHAEOLOGY (Medium Grant)

PI: Rabekoto Andrinjarisoa Heritiana (Marovany Association)

Co-Is: Jeannette Faranirina (Marovany Association), Garry Momber (Maritime Archaeological Trust)

Partners: Plateforme Régionale des Organisations de la Société Civile Atsimo Andrefana (PFR OSC AA); The University of Toliara; Direction Régionale de la Communication et de la Culture; Agence Universitaire de la Francophonie; Maritime Archaeological Trust; Soariake Association; The Ocean Farmers; Wildlife Conservation Society; Salary Diving; the Regional Direction of Communication and Culture of South West Madagascar; Regional Platform of Civil Society Organisations in Atsimo Andrefana; Indian Ocean Trepang; Maritime Archaeological Trust; Marovany Association



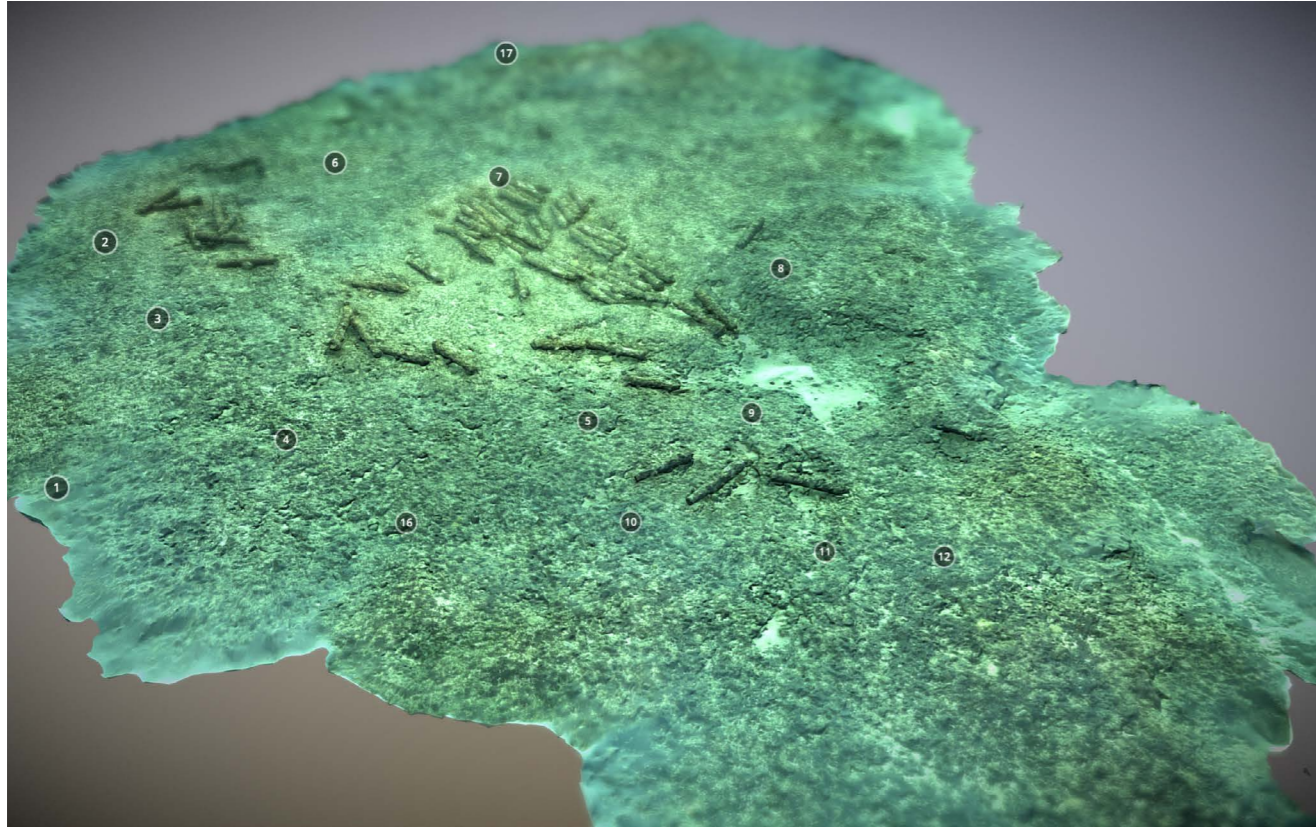
Surveying the Nossa Senhora do Carmo wreck.

HIGHLIGHTS

- Collaboration with six fishing villages on MCH protection
The project worked with six fishing villages to raise awareness and capacities, training 13 facilitators on the protection of MCH in relation to the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage, signed by Madagascar. Specifically, it educated local Vezo communities on how to safeguard and protect the wrecks of the Winterton (1792), Nossa Senhora do Carmo (1774) and the SS Surprise (1885) in their maritime territory in order to promote the sustainable development through the promotion of tourism in the south west region.
- Photogrammetry surveys of the shipwrecks
The Maritime Archaeology Trust, with the support of the Marovany Association, conducted 15 dives and took over 25,000 photographs of the three main wreck sites and five

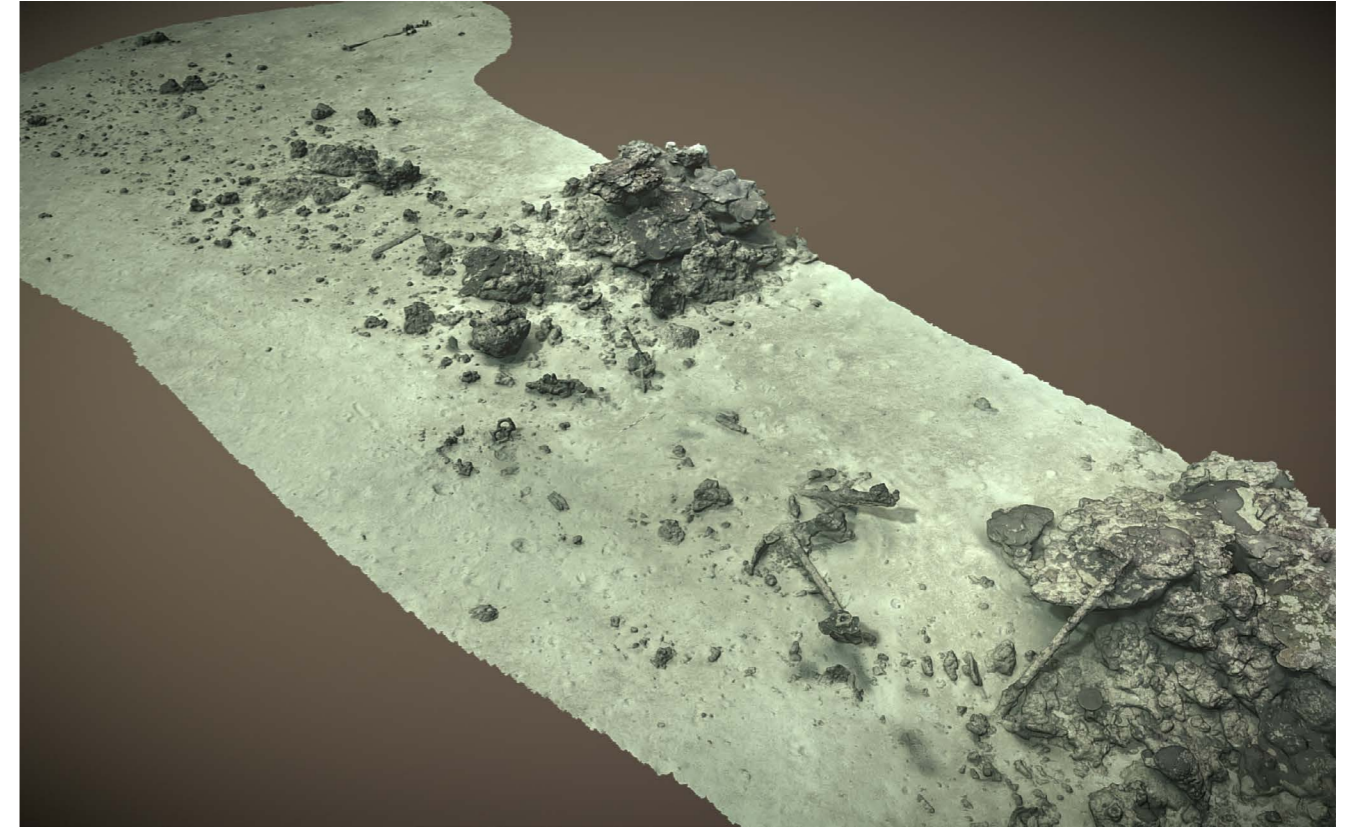
associated artefact scatters. The sites have now become integral parts of the natural reef and have been colonised by benthic communities.

- MCH integrated into MPA management
Through community training, the project integrated further skills and MCH values into the management system of the Soariake Marine Protected Area, where the main three underwater sites are located. This process included working with the mayor and integrating the Vezo fishing communities in the research and the establishment of the network system, with two representatives from each village.
- Fishing community behaviour change
The fishing communities are currently committed to protecting the three underwater archaeological sites by promoting social inclusion and a sense of belonging with the marine cultural heritage.



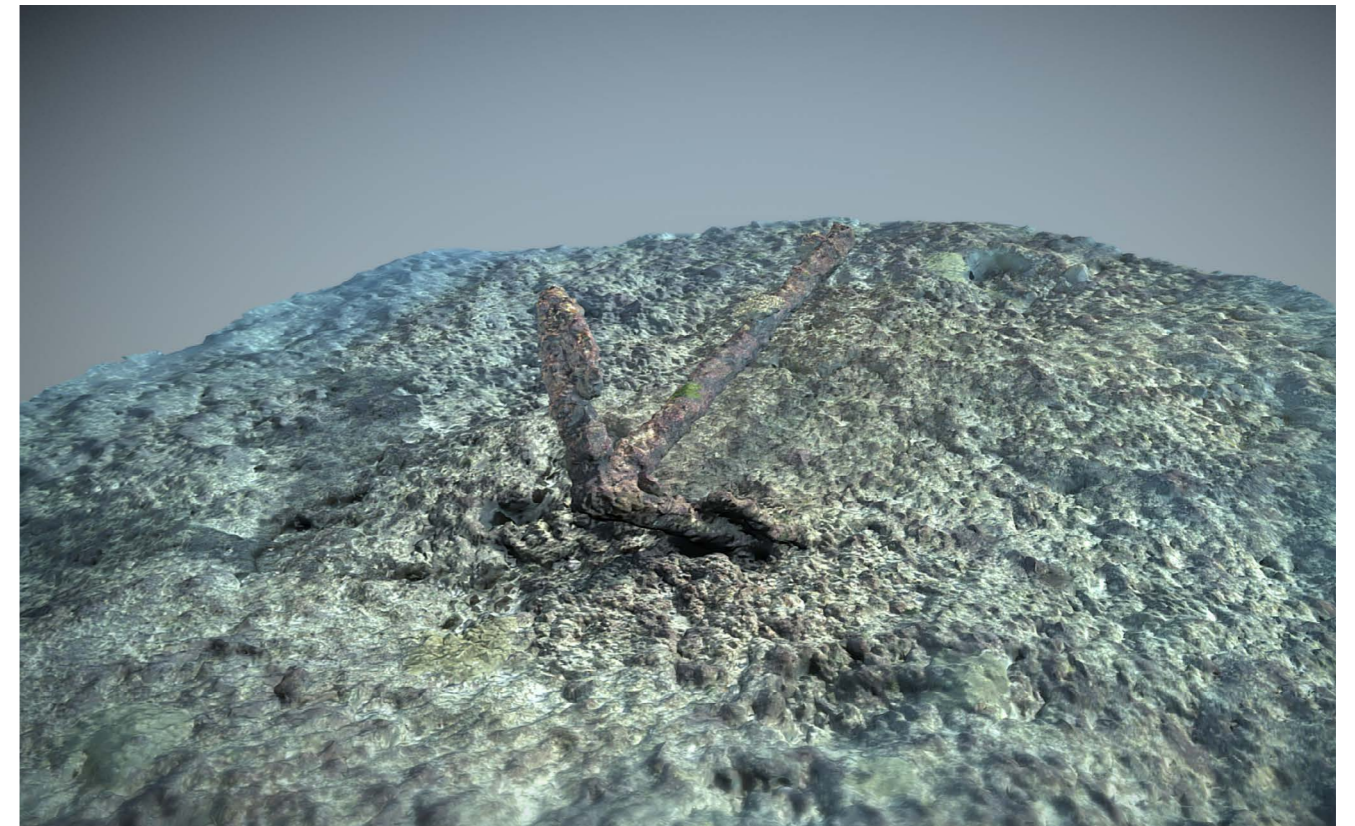
Photogrammetric model of the main Nossa Senhora wreck site, over 60m across and featuring a full cargo of guns being transported to Goa, India <https://skfb.ly/ouws6>

3D photogrammetric model of the Nossa Senhora anchors <https://skfb.ly/ovNnT>



3D photogrammetric model of the SS Surprise wreck <https://skfb.ly/owTwA>

3D model of the Winterton anchor <https://skfb.ly/ouuzN>



HIGHLIGHTS (continued)

- **MCH documentation**
Assessment and dissemination of the underwater cultural heritage of the area has advanced knowledge, management and elaboration of responsible tourism circuits.
- **Policy engagement**
The project suggested the implementation of a regional decree concerning the protection and community management of underwater archaeological sites.



The combined Marovany Association and Maritime Archaeological Trust underwater survey team.

RESOURCES

Events:

- Participation in the scientific event ‘Summer University 2nd edition 2020’ at the University of Mahajanga, published in a Revue des Sciences, de Technologie et de l’Environnement volume 2 <https://portal.issn.org/resource/ISSN/2709-8192>
- Presentation to Marovany and Vezo leaders: On 15 May 2022, a presentation was given to 35 members of the Marovany Association and the leaders of the five Vezo villages from the Tsifota Commune. The presentation showed the results of the mission and placed it in context with the ‘Implementation of network system by a fishers’ community for the survival of marine cultural heritage.’

Media:

- Digital underwater museum: created interactive, online digital models to promote eco-tourism, bringing additional income to the region. The models promote SCUBA diving routes, attracting divers to Salary Bay and helping them to navigate the wrecks.
- *SS Surprise*: <https://sketchfab.com/3d-models/ss-surprise-1885-salary-bay-madagascar-af8a679b09934bf0a7b0ee0838cf19d4>
- *Nossa Senhora do Carma*: <https://sketchfab.com/3d-models/nossa-senhora-1774-salary-bay-main-wreck-4e598facc3149798fd21dceb87e6be6>
- *Nossa Senhora do Carma* anchors: <https://sketchfab.com/3d-models/nossa-senhora-crossed-bower-anchors-madagascar-26354da2a3d743c8b9e84e34cf0673a3>
- *Winterton* anchor: <https://sketchfab.com/3d-models/anchor-of-eics-winterton-salary-bay-madagascar-8411b34687ee4d54a2c382e0feefb815>

Web Resources:

- Rising from the Depths website: [Involvement of the Vezo Fishing People in the Protection of the Underwater Cultural Heritage](#)
- Rising from the Depths website: [Attempt of Depredation of the Wreckages Failed in Salary North](#)
- Rising from the Depths website: [Data Collection in The Villages by Fishers’ Community in The Farming Township of Tsifota, Southwest Madagascar](#)



27 USING FISHERS’ TRADITIONAL MARITIME KNOWLEDGE TO IMPROVE SMALL-SCALE FISHERIES MANAGEMENT IN NORTHERN MADAGASCAR

AREA: TRADITIONAL KNOWLEDGE (Large Grant)

PI: Chris Poonian (C3 UK)

Co-Is: Lalarisoa Rakotoarimino (Conservation Centre sur la Communaute Madagascar)

Partners: Madagascar National Parks; Madagascar Ministry of Education; Madagascar Ministry of the Environment; C3 UK; Conservation Centre sur la Communaute Madagascar; Western Indian Ocean Marine Science Association (WIOMSA)



This project represents a collaborative effort between Conservation Centre sur la Communaute, C3 Madagascar, local fishing communities, and various stakeholders. The initiative focuses on documenting and integrating Traditional Heritage Knowledge (THeK) into the Malagasy legal framework to improve the sustainability of small-scale fisheries in northern Madagascar. The project utilises a multidisciplinary approach encompassing field research, taboo analysis, and knowledge dissemination strategies.

Launching the new children’s books which integrate traditional ecological knowledge and ocean literacy.

HIGHLIGHTS

- Documented Traditional Heritage Knowledge (THeK)

The project trained a field team who conducted field surveys focused on exemplifying the uses of the traditional knowledge of local fisherman for the social, economic, and cultural benefit of vulnerable groups within coastal communities. Although this information is passed down through generations, it is largely undocumented in the western Indian Ocean region, and as such, is under significant threat from poorly regulated development, population dynamics such as migration, and the effects of climate change such as coastal erosion.

- Integration of THeK into Malagasy law

The project transcribed and translated THeK and prepared it for publication, liaising with legal experts to understand the potential to integrate the findings into Malagasy law.

- Community research

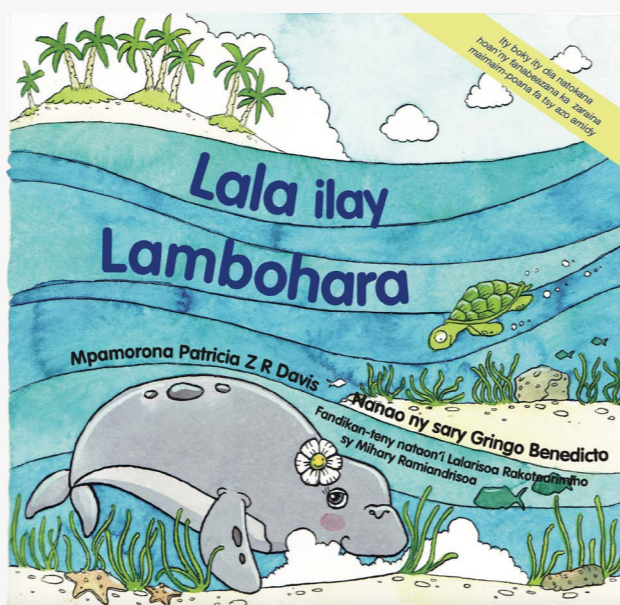
The study was conducted in the coastal areas of the Diana region of northern Madagascar at villages within three main sites: Nosy Hara, a marine protected area established in 2007; Diego Bay, which includes the main city of Antsiranana; and Ambolobozobe, which includes a network of smaller community-managed marine areas dominated by the Sakalava people. In order to both document and maintain the relevant traditional knowledge within and outside the community, the methodology comprised a unique, multidisciplinary, and holistic approach, using semi-structured interviews with key informants.



Above and below: conducting cultural surveys.



Below: image from the educational children's book, written in Malagasy.



- Taboo analysis

The use of fady – a network of taboos that act as codes of conduct and other traditional beliefs – was examined to determine the ways in which these ideas can be incorporated into sustainable marine resource management and stewardship, particularly taboos surrounding fishing and hunting. The taboos recounted by the informants fell into three broad categories for the purposes of this work: (1) sacred places, often believed to be the home of ancestral spirits; (2) going to sea, including fishing rituals and the items and behaviours that were prohibited at sea; and (3) hunting and fishing, including gear taboos and food taboos.

- Dissemination of knowledge

The project's findings informed local management plans for marine conservation, improving stakeholder inclusion and capitalising on traditional behaviours that are already well-supported in local communities. Part of this process was disseminating the knowledge to young people through theatre, song, and dance in coastal villages, to strengthen community resilience and to enhance the use of MCH for the benefit of local people and their environment. To combat intergenerational inequalities regarding the use of taboos in marine conservation, the information collected in this research was used to create a series of children's educational books in the Malagasy language, which were distributed throughout the schools in the region.

- Future impact

The outcomes of this project are anticipated to have a lasting impact on sustainable fisheries management and community resilience in northern Madagascar. The integration of THeK into Malagasy law is a significant step towards formalising traditional knowledge, ensuring its recognition and protection. The dissemination efforts, particularly through educational materials and community performances, contribute to cultural preservation and awareness. Moving forward, the project aims to complete the data analysis, refine youth engagement programs, and collaborate further with legal experts to navigate the integration of traditional knowledge into legislation. The experiences gained through RfTD funding will shape future endeavours, including thematic expansions, capacity building initiatives, and continued collaboration within the RfTD network. By actively engaging with local communities, leveraging interdisciplinary methods, and addressing cultural nuances, the project contributes not only to fisheries management but also to the broader discourse on marine cultural heritage in the western Indian Ocean region.

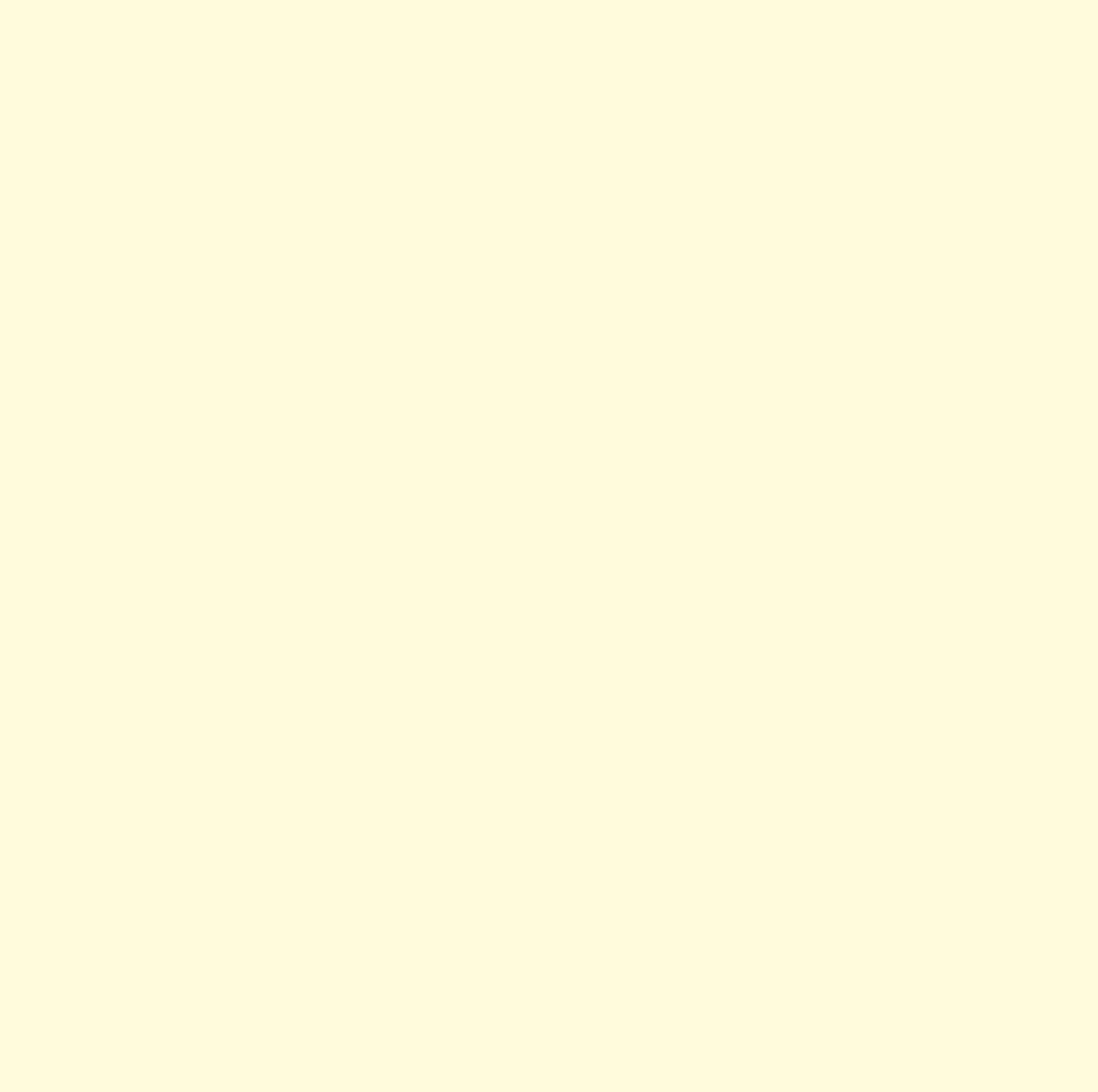
RESOURCES

Book:

- Download the children's book: [Lala ilay Lambohara](#)

Web Resource:

- Rising from the Depths website: [Using Fishers' Traditional Maritime Knowledge to Improve Small-Scale Fisheries Management in Northern Madagascar](#)



**RISING
FROM THE
DEPTHS**



**EMERGING
IMPACT**

Boat skipper, Mozambique.

The Rising from the Depths (RftD) Network has generated new knowledge about Marine Cultural Heritage (MCH) and the role it can play in addressing developmental challenges in Kenya, Tanzania, Mozambique, and Madagascar. It has demonstrated that the consideration of MCH in plans is not a barrier to development; rather, it should be regarded as a central facet of development if that development is to be ethically, environmentally, and socially sustainable.

Projects centring MCH contributed to positive change in a wide range of UN SDG priority areas:

- Over 90% of the funded projects contributed to **SDG 11 – Sustainable Cities and Communities** (many through engagement with cultural heritage and tourism). In the Sainte Luce conservation zone, *Rehabourning Heritage* attracted an audience of over 2000 local community citizens to celebrate their fishery skills and practice, and to advance the appreciation of a ‘no-take zone’ protecting the local lobster fishing industry, as part of a Festival of the Sea. In *MUCH to Discover in Mida Creek*, a new revenue-generating Dhow House restaurant used local resources and embodied sustainable *living heritage* practice.
- A fifth of the projects contributed to **SDG 4 – Education**. The *Bahari Yetu, Urithi Wetu* project was educational and celebratory, in that it ran free exhibitions for schools and the public, produced multi-level open-access online outputs that recorded and promoted contemporary maritime heritage, and provided fieldwork opportunities for early-career academics and heritage professionals. Many projects presented to, and worked with, local school children, while the *Using Fishers’ Traditional Maritime Knowledge in Northern Madagascar* project produced a children’s book, [Lala ilay Lambohara](#), to help to disseminate its message.
- A quarter of the projects contributed to **SDG 5 – Gender Equality**. Palm, Sand and Fish trained local women in new techniques which could help them to add commercial value to their traditional heritage products. In *MUCH to Discover in Mida Creek*, the involvement of women in economic activity, which is usually the preserve of men, is not only slowly changing the community perspective on gender roles; it is also directly generating income, contributing to progress against SDG 8.
- A quarter of the projects contributed to **SDG 8 – Decent Work & Economic Growth**. In the *Palm, Sand and Fish* project, the women’s basketry group’s sales improved greatly. Some women had previously stopped producing basketry due to the lack of market for their products, but then started to make these crafts again after seeing the benefits of using the new innovation for better sales.
- A quarter of the projects contributed to **SDG 10 – Reduced Inequalities**. In the *East Pemba Maritime Heritage* project, work to diversify the seaweed industry and make it more sustainable has provided employment for locally marginalised groups (women and young people).
- Over two thirds of the projects contributed to **SDG 14 – Life Below Water** through promoting sustainable coastal activity (tourism and agriculture including fishing). The *Embracing Social Learning in Chonguene* project drew attention to the impact of unregulated fishing on fish stocks by developing evidence to support a recommendation for a shift in government policy towards supporting traditional fishery methods, as well as identifying areas where harmful ring net fishing should not be allowed.
- One third of projects contributed to the **SDG 15 – Life on Land** through community involvement with heritage resources on the coast. The *Mtwapa* project brought together

National Museums of Kenya (NMK) with Mtwapa Beach Banda Operators with the aim of bridging the gap between local community members and NMK management. As a result, NMK revised its management approach to the land in order to listen to and learn from local heritage knowledge.

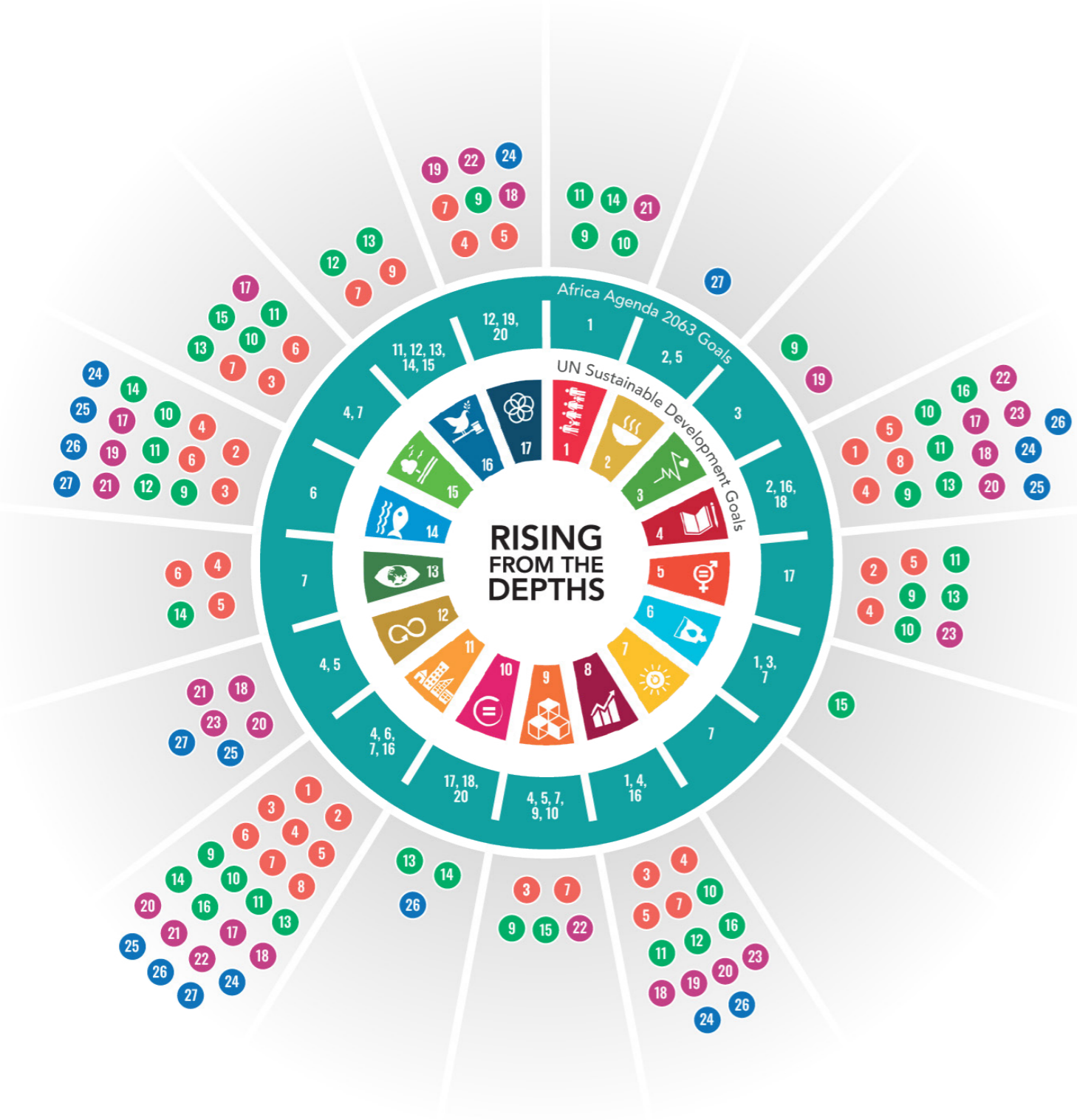
- Most of the projects delivered against multiple SDGs (as evidence below see the projects mapped against SDGs and the relevant AU 2063 Goals). For example, a new tourist initiative at Mida Creek (SDG 9) employed local women (SDG 5,8) and generated new revenue (SDG 9) for the local community whilst at the same time i) respecting local customs and traditions (SDG 11), and ii) not harming the local marine and coastal environment by adopting traditional building methods and resources (SDGs 14,15).

Although normally classified under the speciality of the lead PI, the majority of projects were fully interdisciplinary in approach, sharing the view of MCH as a resource that can inform solutions to present day challenges from the top down and the bottom up. A wide range of Arts and Humanities disciplines were represented, working alongside social science and environmental science approaches. Examples include:

- i. **Archaeology:** the *Reviving a Maritime Past* project surveyed the architectural and ecological heritage of Chinde in Mozambique to produce an inventory of cultural heritage. The Additional Alternative Livelihoods (AAL) initiatives developed during the *MUCH to Discover about Mida Creek* project were based on an archaeological and topographical survey of the tangible MCH in Mida Creek.
- ii. **Heritage studies:** *Incorporating marine cultural heritage protection into Tanzania’s national adaptation plan* convened an interdisciplinary research-based workshop bringing together academics, non-governmental organisations, and policymakers to examine the viability and feasibility of including MCH as an adaptation priority in Tanzania’s NAP.
- iii. **Law & Development Studies:** *Protecting the Past, Preserving the Future* reviewed the impact of port development initiatives in Kenya and Madagascar on local cultural practices and biodiversity, focusing on the role of development funds in each instance.
- iv. **Visual and performing arts:** *Musicalizing Marine Cultural Heritage* composed, recorded, produced, and distributed a song and video that outlined the challenges facing communities along the coastal zones and raised awareness among stakeholders of the values of MCH in Tanzania and beyond.
- v. **Biocultural Heritage:** *THEK-EA and Protecting Marine Cultural Heritage through Bio Cultural Community Protocol in Kilifi County* added heritage knowledge to the management of the marine environment and coastal community heritage.
- vi. **Underwater Cultural Heritage:** In Madagascar, the Implementation of a *Network system by a Fishers’ Community* project run by the [Marovany Association](#) developed a network of community actors (fishers) to safeguard the Underwater Cultural Heritage along the southwestern coast based on new photogrammetric surveys of local shipwrecks. Overall, only four projects carried out physical work on Underwater Cultural Heritage – this low number is a reflection of the lack of capacity in the region, but is also the result of the co-creation consultation process where the involvement of local communities steered research towards the coasts and the immediate concerns of coastal groups.

RftD Project Strategic Relationships

Diagram illustrating how the 27 Rising from the Depths projects (outer wheel) map on to the Africa Agenda 2063 Goals (middle wheel) and the UN Sustainable Development Goals (inner wheel).



UN Sustainable Development Goals

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequality
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace and Justice Strong Institutions
17. Partnerships to achieve the Goal

Africa Agenda 2063 Goals

1. A high standard of living, quality of life and well-being for all citizens.
2. Well educated citizens and skills revolution underpinned by science, technology and innovation.
3. Healthy and well-nourished citizens.
4. Transformed economies.
5. Modern agriculture for increased productivity and production.
6. Blue/ocean economy for accelerated economic growth.
7. Environmentally sustainable and climate resilient economies and communities.
8. A United Africa (Federal or Confederate).
9. Continental financial and monetary institutions established and functional.
10. World class infrastructure criss-crosses Africa.
11. Democratic values, practices, universal principles of human rights, justice and the rule of law entrenched.
12. Capable institutions and transformative leadership in place.
13. Peace, security and stability is preserved.
14. A stable and peaceful Africa.
15. A fully functional and operational APSA.
16. African cultural renaissance is pre-eminent.
17. Full gender equality in all spheres of life.
18. Engaged and empowered youth and children.
19. Africa as a major partner in global affairs and peaceful co-existence.
20. Africa takes full responsibility for financing her development Goals.

Bronze cannon on a wreck off the Island of Mozambique.



New understandings of Marine Cultural Heritage

The network drew in new areas of exploration and developed new knowledge, particularly in regard to the relevance of both tangible and intangible heritage to contemporary challenges.

Dr Caesar Bitu, National Museums of Kenya, stated that:

“Marine Cultural Heritage is a resource that in Kenya had not been previously given much focus as an incoming generating asset. Except for use of the oceans for fishing industry, industrial development and recreational activities, the Kenyan government has not invested much else in the resource. However, following the *MUCH to Discover in Mida Creek* project, the government are rethinking their approach. This project has brought forth the realisation by communities that Marine Cultural Heritage encompasses a wide range of aspects that had not been understood earlier. For instance, the local community in Mida did not view the mangrove forests and their use as being part of the Marine Cultural Heritage. Again, it was not within the communities’ realisation that there is within the Marine Cultural Heritage a huge potential for investment in incoming generating ventures.”

He continued:

“[The] focus on Marine Cultural Heritage has revealed that local communities are quite knowledgeable on how to sustainably utilise their marine heritage which many scholars and policy makers had not realised. An example is the use of canoes only in Mida as opposed to motorised boats. Locals in the creek argue that navigating motorised boats in the narrow channels impacts on the mangrove forest. Another local knowledge is the community themselves not harvesting the mangroves as this leads to erosion of their farm lands due to sea level rise. Kenya Forest Service and Kenya Wildlife Service, through this project found a complementing partner who is knowledgeable on matters environmental conservation.”

A holistic and inclusive definition of Marine Cultural Heritage (MCH) combining perspectives from scholars from the Global South and North with those of policymakers and members of local and indigenous communities was key to the success of the network.

A Marine Cultural Heritage outlook (prioritising human interaction with the sea in all its diversity) sits at the centre of the Rising for the Depths network and provides a conceptual framework that unites, stimulates, and informs sustainable activities and development approaches in the coastal and marine zone.

MCH therefore refers to both tangible remains such as shipwrecks, submerged settlements, coastal villages, harbours, and ocean biocultural heritage, and to intangible elements such as cultural customs, artistic expressions, local skills, and historical and traditional knowledge. The scope of MCH is far-reaching, encompassing links to economic growth and poverty reduction, environmental conservation, social equity, education, and cultural identity.

National heritage organisations have tended to focus on the management of physical sites and monuments, and as a result have generally undervalued the role of local communities and the importance of lived practices in constituting heritage. This was well illustrated during the *Mtwapa* project. The context of the project was that the local 14th century AD ruins have been managed as a national monument by the National Museums of Kenya (NMK) since 1982, and NMK were planning to construct a perimeter fence around the site to protect it. This was creating local tensions as it would have limited access for residents not only to a sacred site they use within the ruins, but also

to the beach. In response, the project engaged the local community and gave them an active role in the site's management with NMK, not only ensuring the continued preservation of the remains but guaranteeing that they remained part of the active life of the community rather than something they were excluded from.

MCH was not a term that was applicable or necessarily used by research teams when working with local communities given the diverse cultural, spiritual, and practical perspectives across the study area. Coastal communities referred to their maritime heritage using various terms depending on the specific cultural contexts and languages spoken. For example, across the Swahili speaking coastal zone, some communities used the term 'Maji', which means 'water' in Swahili, to encompass all aspects of the maritime past, while others preferred 'Bahari', meaning sea or ocean, to collectively refer both to past and contemporary activity in the marine zone. Dhow heritage, which refers to the use and construction of traditional sailing vessels, was widely recognised as reflecting a shared past and contemporary cultural identity, while the phrase 'Uvuvi na Bahari', translating to 'fishing and sea', was used by some groups as a term encompassing various maritime practices, including fishing traditions. In addition, many groups made reference to the importance of particular maritime spirits, ancestral beings, and sacred places, reflecting the diverse traditions and beliefs upheld across the region.

Although many local communities had no previous conception of MCH as a concept, the broad definition used by the network allowed marine cultural practices, knowledge, and skills that were actively practiced and acknowledged by the community to be included in it.

In Tanzania, the *Musicalizing Marine Cultural Heritage* project wrote, produced, and filmed a music video with the local community, with the aim of balancing economic development with environmental and cultural protection through spreading awareness of the tangible

and intangible MCH of Tanzania, including its coastal cultural monuments and traditional boat building methods, climate issues such as coastal erosion and rising sea levels, and community safety at sea. Through the song and video these themes were shared throughout multiple generational groups, stakeholders, and community members across Tanzania.

The core of the definition used – “all past human action in the coastal and marine environment” – recognises the importance of including contemporary activity and coastal living. Most importantly, this definition is inclusive of the belief systems and human–environment relationships that exist across the region.

The concept of MCH used during the RfD work was an intentionally broader and more holistic concept than that of Underwater Cultural Heritage (UCH), the definition typically used by UNESCO following the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage. MCH includes the range of underwater heritage covered in UCH, but further extends the definition to include all forms of heritage (tangible and intangible) associated with the sea, including the heritage of coastal communities. Further, replacing 'underwater' with 'marine' brings the discipline in line with the nomenclature used by the other marine sciences it actively engages with, such as marine biology, marine ecology, marine engineering, etc., as well as with marine stakeholders more widely, including developers and policy makers.

Failure to understand and effectively communicate the significant economic, environmental, social, and cultural value of MCH to policymakers, donors and within coastal communities themselves has resulted in environmental and cultural damage and loss.

There is now a pressing need to clearly articulate what MCH is, and to explain how putting it at the heart of processes of sustainable development in coastal communities will pay environmental, social, economic, and cultural dividends.



Fishing boats, Mozambique.

The lack of awareness of the role of MCH in terms of environmental protection (e.g., traditional mangrove planting – an element of coastal heritage in Kenya, helping to prevent coastal erosion, or establishing sustainable fishing practices respecting local traditions) or for economic development (e.g., re-engaging with traditional practices such as dhow boat construction as the focal point of niche tourism products, generating income for local enterprises) has sometimes meant that communities assent to coastal developments without fully understanding their impacts, or considering the potential for viable alternative livelihoods which are less damaging to their environment and heritage.

Some large development projects in East Africa – key amongst which is the Lamu Port, South Sudan, Ethiopia Travel Corridor (LAPSSET) – are capitalising on this low level of community awareness of the value of MCH in order to bypass appropriate consultation. This tactic prevents communities from giving legally-required free, informed, and prior consent to

development initiatives that can have a direct impact on their livelihoods and wellbeing.

The protection of Marine Cultural Heritage relies on our better understanding it and participating in decisions about its future.

Daria Davitti, PI of *Protecting the Past, Preserving the Future*, noted that with regard to LAPSSET, “There was a general feeling among respondents that the preservation of cultural heritage should not be done at the expense of the economic advancement of Lamu residents. It was perceived by local community members that the preservation of traditional fishing methods would lead to more poverty since this is done on a small-scale basis”. In a context where developers are offering money to secure consent to act, “residents would need to be shown the tangible (including economic) benefits of preservation of cultural heritage” if they were to be persuaded to make a more sustainable decision.

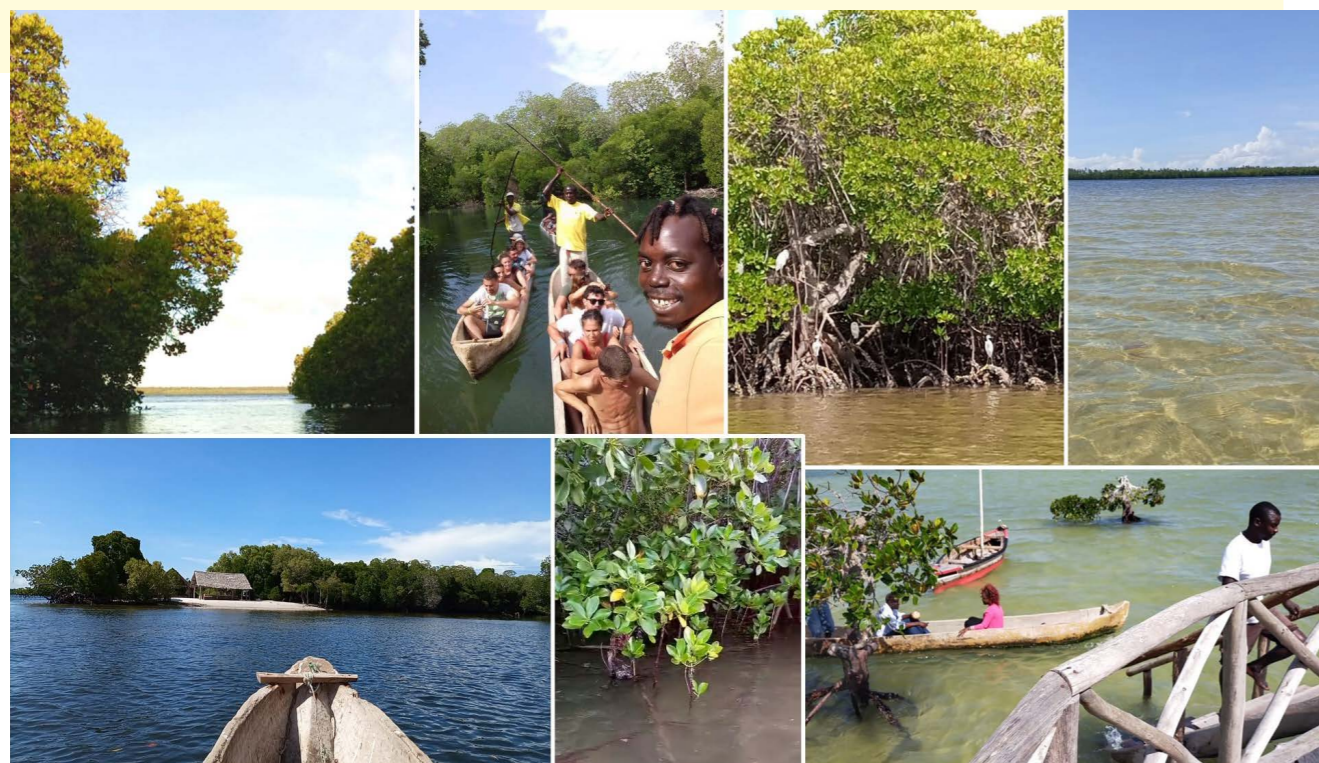
In analysing the LAPSSET project from a rights-based perspective, the *Protecting the Past, Preserving the Future* project demonstrated that much of the legal conflict around the Lamu Port project arose from a lack of understanding of intangible MCH, along with a limited understanding of why intangible MCH is key to protecting the future of Lamu Old Town. The use of the wider MCH definition in this project successfully drew attention to the ways in which forms of rapid industrialisation can negatively impact on the lives and livelihoods of indigenous and local communities. It also showed how an appeal to existing legal protections for culture and for public participation in cultural and political life could help to mitigate conflict.

Deploying MCH in the service of sustainable development supports rather than impedes ambitions to grow vibrant Blue Economies, whilst at the same time helping countries to meet other crucial development goals.

Continental and country-level development plans (such as [Africa 2063](#) and [Kenya Vision 2030](#)) prioritise the Blue Economy (BE) as a key pillar of growth over the next few decades. However, these plans currently marginalise Marine Cultural Heritage (MCH) as an integral element of BE development.

Action research in coastal communities around Mida Creek in Kenya showed that small-scale heritage-based enterprise led by women and youth can deliver on key economic development goals whilst also serving to protect and nurture fragile marine environments. The MCH-based additional alternative livelihoods (AALs) initiated in *MUCH to Discover in Mida Creek* have established a blueprint for human-scale coastal sustainable development. For example, through re-engaging with traditional fishing methods like basket fishing and fence fishing, local communities have developed new and sustainable enterprises.

Ecotours by canoe are offered to national and international tourists at Mida Creek taking in the heritage and wildlife of the tidal creek as well as including stops at the interpretation centre and restaurant.



These new approaches already form part of a wider regional coastal development policy. A good example is the successful reintroduction of traditional fence fishing in Mida Creek, which was communicated to the local fishing ministry, who then adopted it in their policy.

The initiatives provide alternative livelihoods (thereby helping to reduce poverty) and can support local and national governments in meeting other key development targets, especially those pertaining to women, girls, and young people, and coastal land and sea protection.

Table 1: How RftD projects help to deliver development objectives

	UNSDG*	Africa Agenda 2063*	Kenya 2030*
Alternative livelihoods	Goals 1, 2 & 8	Goals 1, 2, 4	Medium Term Plan III
Women and girls	Goals 5, 10	Goals 17 & 18	Medium Term Plan III
Youth	Goal 10	Goals 18	Medium Term Plan III
Environmental protection (land and sea)	Goals 11, 13, 14, 15	Goal 7	Medium Term Plan III
Blue Economy	Goal 14	Goal 7	Medium Term Plan III

*Sources: [Agenda 2063](#), [Kenya Vision 2030](#), [3rd Medium Term Plan](#), and [UN SDGs](#).

Recommendations for development actors from traditional donor countries

- Amend definitions of heritage to be community driven and context sensitive and to include local practices, tools, languages, and cultures.
- Insert cultural heritage into existing impact assessments, alongside environmental impact, to ensure that duty-bearer obligations around the protection of human rights are met – including Article 27 on the right to participate in cultural activity – ahead of the initiation of large infrastructural projects. Inserting cultural heritage within existing environmental impact assessments in this way will balance the consideration of the environment and culture within planning processes, and enhance both.

Recommendations for policymakers and economic strategists

- Include heritage and culture more centrally in economic impact assessments, noting not just their intrinsic value but the contribution they make to other sustainable development goals.
- Take steps to more adequately understand the trade-offs between aggressive coastal development and the potential value of a thriving marine cultural heritage sector community and environmental stability.

Recommendations for local policymakers

- Consider how AALs can help to achieve local priorities related to economic growth, poverty reduction, and the purposeful participation of youth and women in public and economic life, whilst at the same time enhancing the protection of threatened marine environments.
- Support activities that re-engage with traditional practices (e.g., basket-weaving, mangrove farming, and fence fishing) to boost environmental protection and promote sustainable and circular local economic development.

Local musician awaits the auditions for the Sainte Luce Festival of the Sea 2019.



Mixed methodologies

The 27 devolved projects each had their own unique methodologies, often blending or combining methods from the Arts and Humanities, Social Sciences and Sciences.

Examples include:

- i. *Co-created ethnography between heritage and archaeology academics and a working maritime community:* using exhibitions and a documentary film as outputs is also particular to the humanities, enabling engagement between the emergent findings of the project with a wider public (Bahari Yetu).
- ii. *Participatory Action Research (PAR) and Community Science Methods:* within these methodologies, projects used mixed methods of data collection including questionnaires, cartography, focus groups, interviews, site surveys, and workshops (Mida Creek, Chonguene, Pemba).

- iii. *Ethnography and oral history:* the *Hidden Histories* project in Tanzania developed the personal histories of women farmers, elders, informal workers (i.e., taxi-drivers, veg sellers), fish traders, and craft-makers to uncover their stories of the past and hopes for the future.
- iv. *Combining traditional and scientific knowledge:* in projects such as *Using fishers' traditional maritime knowledge to improve small-scale fisheries management in northern Madagascar*, new methodologies of collating traditional knowledge in combination with traditional scientific and heritage studies were used to better manage and conserve heritage and coastal biodiversity.

Each of the RftD projects were challenged, interdisciplinary, and collaborative. This approach, which by necessity had to be flexible to the evolving situation on the ground through the life course of the project, meant that projects often moved away from their

original conception, in design if not intent. This is reflected in the interdisciplinarity of the network, and their projects, which spanned numerous disciplines within the Arts and Humanities, including archaeology, heritage studies, anthropology, history, and the arts, through to core sciences disciplines such as biology, ecology, geology, and oceanography.

Dr Elgidius Ichumbaki, University of Dar es Salaam and PI of the *Bahari Yetu* project, explained that:

“...our ethnographic engagement with boatbuilders prompted the development of the idea for a boatbuilders’ association, rather than an initially envisaged maritime cultural centre. By listening to the needs and concerns of builders, it became clear that the best way towards achieving a sustainable artisanal boatbuilding industry was to support builders institutionally in collaborating together and educating a new generation.”

Dr Freda Nkirote, the PI of the *Palm, Sand and Fish* project, described how the rich multi-disciplinary team enabled a robust and critical approach to new product design. Their challenge was that:

“... traditional technologies of MCH were quickly disappearing due to competition with plastics and metals. [This is due to] land losses as a result of development projects. The team worked collaboratively with fine artists, community members, sociologists, and anthropologists to come up with ways of producing competitive products which would have the ability to compete with the new market entrants. This collaboration, helped to look at the challenge in different ways and to understand how a multidisciplinary approach could be used to produce better results and to counter imminent loss of the knowledge and the raw materials.”

Boatbuilding at Bagamoyo, Tanzania.



Partnerships

The end of programme project evaluations revealed that 248 partnerships were created across the 27 funded projects, with 186 (75%) from the Global South and 62 (25%) from the Global North. The RftD devolved funding model enabled engagement with a large number of community groups (represented by the 106 *Non-academic partnerships – Global South* in Table 2, right) and NGOs (25 in total). These ‘ground level’ partnerships allowed the successful and continuous dissemination of findings, many of which were co-produced between academic and community partners.

Significant partnerships were also formed with policymakers in the four countries (for example, *Incorporating Marine Cultural Heritage protection into Tanzania’s national adaptation plan* worked directly with the Tanzanian Government, while *Embracing social learning in the management of ecosystem services in Chongoene* worked with a range of local Mozambican district authorities) and internationally (for example, policy-oriented workshops and final dissemination events in each country were held in partnership with UNESCO regional offices). Some of this activity led directly to changes in approach; for example, the UNESCO Nairobi office inserted Marine Cultural Heritage into their activities for Ocean Day (see the New Directions section below).

The programme’s commitment to equitable partnerships with L&MICs was demonstrated in part through its direct and devolved funding model. The self-identified gender balance of the Principal and Co-Investigators were as follows: 59% of Principal Investigators (PIs) were male (16), and 41% were female (11), while 54% of the Co-Investigators (Co-Is) were male (32), and 46% were female (27). Funding projects directly had an immediate impact on the trust between Global South and North partners, and increased the success of the

Partnerships	
Academic partnerships, Global North	39
Academic partnerships, Global South	53
Non-academic partnerships, Global North	6
Non-academic partnerships, Global South	106
Partnerships with policymakers, Global North	3
Partnerships with policymakers, Global South	16
Partnerships with NGOs, Global North	14
Partnerships with NGOs, Global South	11

Table 2: Numbers of partnerships by region and type

projects. As per the funding model, 24 projects (90%) consisted of mixed investigator teams from the Global South and Global North, with the remaining 3 projects (10%) consisting of entirely Global South members. 11 projects (41%) were led by Principal Investigator’s based in the Global South. The co-development and co-delivery of projects with local communities and organisations proved instrumental in identifying tractable and sustainable solutions to challenges. Equally, projects benefitted from being able to harness the existing knowledge, relationships, and expertise of the non-UK PIs.

The UK PI of *Bahari Yetu*, Professor John Cooper, said:

“I cannot stress enough the importance that Dr Ichumbaki’s pre-existing links to Bagamoyo played in the success of this project, nor indeed his ongoing energies in ensuring that every logistical and organisational aspect of the project within Tanzania happened on time and successfully.”

The nature of the engagement, which was continuous, equitable, and inclusive of community and academic partners alike was also instrumental in identifying successful ways of working.



Building Partnerships – the Bahari Yetu, Urithi Wetu project team, together with fishers, boat-builders and spiritual practitioners, at a co-creation event.

Dr Freda Nkirote, the PI of *Palm, Sand and Fish* said:

“The project demonstrated commitment to equitable partnership through consultative actions. The partnerships and community engagement was very successful as the innovation and creativity was a collective effort. All additions made to the pots and basketry were suggested by community members (practitioners), with artists assisting in the implementation, as some of the proposed changes were quite technical. The documentation and experimentation of various processes were carried out by community researchers in collaboration with the rest of the research team. Community members worked closely together, building new networks and relationships through this collaboration.”

It proved much more difficult than anticipated to engage marine industry stakeholders in the projects. There were some isolated examples of successful local industry engagement: In Pemba, global industry leaders in the use of seaweeds were actively engaged with RftD project personnel and UNCDF in exploring crop diversification. They visited other farms on Zanzibar and Pemba and had extensive

discussions with the Blue Economy Ministry about potential investments. In general, however, the perceived conflict between rapid coastal industrialisation and development (which are the focus of most East African coastal and blue growth development strategies in all four participating countries) and the preservation and conservation needs of fragile marine environments and heritages rendered this problematic.

Now that the network has (and is) presenting emergent and ongoing findings from projects about the value of MCH and its potential for co-existence in blue economy strategies, it is expected that industrial engagement should become easier.

Challenges

The COVID-19 pandemic was officially declared by the World Health Organization (WHO) on March 11, 2020. This resulted in a range of lockdown and travel restrictions in the UK and East Africa which made international travel, and often travel within the RftD countries themselves, impossible. Projects requiring fieldwork were disrupted or delayed due to travel restrictions and

health concerns, affecting the progress and timelines of various research projects. These travel restrictions, along with local social distancing measures, made it difficult for researchers to collaborate effectively with international partners, impacting the progress of collaborative research projects. Projects run by local communities and local African PIs were less affected, with the majority still able to carry out fieldwork, albeit on a more restricted basis. The decision to fund projects directly in the region without UK PIs by Call 3 proved to be significant in this respect. That said, during this period, many projects had to be adapted to virtual research methods and online collaborations, which required new skills and tools, but also provided opportunities for innovative approaches to research.

RftD was originally planned as a four-year initiative, but in response to the difficulties posed by the COVID restrictions, the Arts and Humanities Research Council (AHRC) allowed a no-cost extension for activities for a further year up to September 2022. International travel restrictions were gradually eased from July 2021, allowing UK researchers to return to the region and rejoin their projects.

However, while the COVID-19 pandemic was significantly impacting the operation of RftD projects in the field, a further unforeseen complication impacted the network. In March 2021, the AHRC, part of UK Research and Innovation (UKRI) sponsored by the UK government's Department for Science, Innovation and Technology (DSIT), announced that ODA research funding budget was to be cut. This was due to the government's plan, first announced in November 2020, to reduce its ODA funding commitments from 0.7% of Gross National Income to 0.5%. As a result of this, significant reductions in funding to projects supported by the United Kingdom Global Challenges Research Fund (GCRF), part of the ODA commitment, were expected and the AHRC asked all current GCRF projects to cut their remaining spending plans by 60%.

As RftD was entering its final year of operation these cuts had significantly less impact than on other GCRF projects that were just getting underway. That said, the majority of the funded research projects were still running, and many were still active in the field. In collaboration with RftD Project and Network Partners, the remaining funds were reprofiled (cutting 60% of remaining final costs) to ensure that existing obligations to all funded projects would be met in full. The primary concern was to ensure that no funding was cut to the 27 innovation projects and that they could continue and be completed at the agreed rate of funding. This was done to ensure that the EDI, ethics, and safeguarding considerations made at the project award stage would be maintained. To abruptly end or reduce any project funding would have impacted a large number of partners and beneficiaries in the region and put already at-risk communities under further pressure.

The reprofiling was achieved by cutting the central network travel and dissemination budget (held at Edinburgh) as well as the salary costs of the network Principal Investigator and two of the Co-Investigator team. Aside from this, the main reprofiling was in the final dissemination plan, which was moved to largely online activity and the delivery of in-country showcasing events. To ensure equitable access to dissemination activity, in-person events were held in each country in the study region run by proven network partners. The work was supported and facilitated by our collaborating universities in the UK and East Africa as well as network partners (in particular UNESCO Nairobi and UNESCO Mozambique in the region, and the National Museums of Scotland who hosted the final UK dissemination event).

Although the impact of the funding cut was minimised on the ground, there is no doubt that the period of uncertainty after the cuts were announced by UK government caused stress and anxiety to those involved in active projects, and that it affected the reputation of UK research partnerships in the region.

Next generation of researchers

Among the major challenges facing MCH in the region are expertise and capacity. As part of the Rising from the Depths initiative, nine international PhD studentships and one MRes studentship were funded and supervised by the participating UK universities. These covered topics related to MCH in archaeology, anthropology, heritage, law, development, coastal management, and environmental science. Most of these highly-skilled doctoral graduates have now returned to East Africa, assumed leading roles in government and academic institutions, and further embedded MCH practices across the region. These researchers constitute a new generation of early career researchers, ensuring that the impact and learning from the network will continue beyond the current funding phase.

Environmental Science

Ecology of the sacred: Defining the interactions between marine cultural heritage, traditional fishery systems and ecological conditions for sustainable development in the East African region

Chepkemboi Labatt, Ulster University

Supervisors: *Chris McGonigle and Colin Breen*

External Supervisors: *Mwanahija Salehe Shalli (Institute of Marine Sciences-Zanzibar, Tanzania) and Renison Ruwa (Kenya Marine and Fisheries Research Institute, Mombasa)*

Fisher communities have acquired knowledge through regular interaction with the marine environment, forming an identity that is incorporated into traditional ecological knowledge (TEK), which is then largely passed down to subsequent generations. Certain community behaviours are regulated through the introduction of restrictions or taboos, in the belief that they can influence the desired outcome of activities. This research set out to recognise, understand, and value these practices and the role that they can play in sustainable development. The plethora of indigenous knowledge gained by the artisanal fishermen is encountering threats arising from existing and emerging large-scale national development

Some of the Rising from the Depths doctoral researchers at a workshop meeting in Nottingham in 2019: (left to right) Victor Alati, Fasco Chengula, Wycliffe Omondi, Kisiaya Saruni Mwasumi, Lea di Salvatore, George Juma Ondeng (National Museums of Kenya curator), Amina Juma Hamza and Monicah Nkina Sairo.



projects geared towards the Blue Economy industries, and with it a whole culture risks extermination. Meanwhile, the changing seascapes are becoming more vulnerable to human pressures and natural climatic factors. Understanding the multidisciplinary nature of TEK is an avenue through which contemporary management initiatives can be compared with and enriched by customary governance structures. The overarching goal of this work is to better understand the linkages between maritime cultural heritage and ecological knowledge in the form of TEK, and to explore how best to apply them to inform sustainable development of marine ecosystems/resources.

Chepkemboi Labatt is a Senior Research Scientist in the Department of Oceanography and Hydrography at the Kenya Marine and Fisheries Research Institute, Mombasa.

Understanding changes in mangrove forests and the implications for community livelihood and resource sustainability in Kenya

Amina Juma Hamza, Bournemouth University

Supervisors: *Luciana Esteves and Marin Cvitanovic*

Mangrove forests support the livelihoods of many coastal communities in developing countries. This is in addition to the role the forests play in shoreline protection, biodiversity conservation, and carbon sequestration. However, around the world, mangroves are being lost at fast rates due to a combination of both human and natural causes. Mangrove losses have negative effects on fisheries, community livelihoods, and shoreline stability. In the history of the East African coast, mangrove poles formed a major regional trade commodity by the 9th century. Much of this trade was between Kenya and treeless Arab countries until 1982. At the beginning of the 20th century, Kenya was exporting an annual average of 483,000 mangrove poles from Lamu forests to countries in the Middle East. At the present time, mangrove extractions in Kenya are mostly used locally. Considering the multiple benefits mangroves provide to society, it is important to understand the drivers of changes

Amina Hamza guiding Crown Princess Victoria of Sweden and Crown Prince Haakon of Norway around a mangrove forest in Kenya in 2022 to highlight the benefits of mangrove conservation in reducing the impact of flooding and erosion along Kenya's shoreline. Both their Royal Highnesses are United Nations Development Programme (UNDP) Goodwill Ambassadors.



to their coverage, and the effects of these on coastal communities. The present study combines desktop surveys, participatory appraisal tools, remote sensing techniques, and modelling to understand past and present mangrove exploitation, the drivers of change, and implications to users, including adaptation options. Focusing on the Lamu case study, we shall be able to identify past and present drivers and trends of mangrove utilisation in Kenya. The study will develop a framework providing mitigation and adaptation measures to assist coastal communities and government agencies in current and future mangrove management planning.

Dr Hamza is a Senior Research Scientist at the Kenya Marine and Fisheries Research Institute in Mombasa. She is currently leading a [carbon credit accreditation project](#) for Lamu.

Law

Managing the social and environmental impact of great public works for the development of the East African coastal zone

Lea di Salvatore, University of Nottingham

Supervisor: *Anna La Chimia*

The East African coastal region is experiencing rapid economic growth driven by foreign investment and development aid, primarily directed towards large public infrastructure projects managed by private companies through Public Private Partnership agreements and financed by major international institutions. However, these investments have led to political and social unrest and exposed weaknesses in the inconsistent interpretation and application of national and international regulations. A significant challenge for the region is implementing an effective Integrated Coastal Zone Management (ICZM) strategy that balances economic interests with ecosystem and cultural heritage protection. Coastal zones, which are known for their unique biodiversity and resources, require focused research for their effective management. Furthermore, the region faces ecological pressures from climate change and population growth, necessitating development that is sustainable, resilient, and socially inclusive. Managing the environmental and social impacts of large public works in the region involves navigating various branches of law, including human rights, environmental law, procurement law, and bilateral investment treaties, along with local administrative procedures and international environmental law principles. Preventive actions, such as Environmental Impact Assessments (EIA), and remedial actions, like environmental restoration, play a crucial part. This project addresses these challenges by compiling legal frameworks, conducting on-the-ground data verification, and producing practical outcomes. The result is a practical toolkit designed for end-users and practitioners to improve the management of environmental and social impacts associated with large-scale public works.

Lea di Salvatore was recently a Research Fellow at the Center for Sustainable Development, Columbia University, New York.

Integrating cultural heritage with the development of the Blue Economy in Kenya: A framework for holding the state accountable

Joshua Mbinda Ngulu, University of Nottingham

Supervisor: *Anna La Chimia*

The concept of the Blue Economy is associated with promoting economic growth, fostering

social inclusion, and improving livelihoods while ensuring the environmental sustainability of oceans and coastal areas. However, this concept lacks a universal definition and is often interpreted primarily in terms of economic growth and environmental protection, neglecting the perspectives of the Global South. Africa, one of the “bluest” continents, possesses vast lakes, rivers, and an extensive ocean resource base, with thirty-eight of its fifty-four states being coastal. Over 90% of Africa’s imports and exports are conducted by sea, highlighting the continent’s geopolitical importance in international trade. Among African nations, Kenya holds significant potential in terms of developing its Blue Economy due to its strategic location along the Indian Ocean and rich inland waters. Despite the Blue Economy’s role in driving 92% of Kenya’s international trade, its opportunities remain underutilised.

Various donors support Kenya’s Vision 2030 agenda, with substantial aid directed towards major infrastructure projects and broader economic and social development goals. One flagship initiative is the Lamu Port and Lamu-Southern Sudan-Ethiopia Transport Corridor (LAPSSET) Project, which is financed largely by Chinese aid and constructed by multinational corporations. By 2018, China had invested over \$60 billion in African infrastructure, including seaports, underscoring the Global South’s appeal to Eastern investors. Although the LAPSSET project aims to spur regional economic growth, it poses risks to water quality, mangrove forests, fisheries, cultural heritage sites, land ownership, wildlife, and public health, including an increased HIV prevalence. Despite these significant adverse impacts on local communities, there is no clear consensus on responsibility for environmental and social risk mitigation in Chinese-funded projects, nor is there a definitive governmental response to these challenges. Against this backdrop, the present research evaluates the extent to which social, economic, and cultural rights are threatened in areas affected by such projects and identify necessary preventive or mitigating measures to protect local communities while leveraging the Blue Economy’s benefits. The work also proposes a reconceptualisation of the Blue Economy that integrates social, economic, and cultural rights from a Global South perspective.

Anthropology

Cultural heritage: An anthropological exploration of marine oral traditions among coastal communities in Bagamoyo, Tanzania

Kisiaya Saruni Mwasumi, University of Roehampton

Supervisor: Garry Marvin

Using a grounded theory approach, the study provides anthropological narratives of the intangible cultural heritage components of local people’s construction of the sea beyond the materiality of archaeological heritage: the ocean oral traditions, tales, cosmologies, rituals, songs, historical trajectories of the communities-ocean encounters, and ocean conservation knowledge practices. It examines the ways in which these communities utilise(ed) indigenous marine heritage and knowledge in the conservation and sustainability of marine ecosystems and how, in turn, the ocean forms a central part of the communities’ livelihoods.

Dr. Saruni is currently a Faculty Lecturer in the Department of Sociology and Anthropology at the University of Dar es Salaam, Tanzania.

Creative practices of local artists and heritage making on Lamu Island, Kenya

Monicah Nkina Sairo, University of Roehampton

Supervisor: Garry Marvin

This research examines the ways in which cultural creative practices can engender community resilience on Lamu Island in the context of significant social and economic destabilisation due to urbanisation and infrastructural development. The study deploys various ethnographic techniques including, but not limited to, participant observation, as well as the gathering of oral testimonies. The work reveals ways in which cultural-based economies can foster networks, develop social capital, and build synergies towards self-resilience.

Monicah Sairo is currently a Public Program Manager at the National Museums of Kenya, Nairobi.

Knowing weather, strengthening livelihoods: The role of Indigenous knowledge weather forecasting in fishing communities in coastal Tanzania

Fasco Chengula, University of Roehampton

Supervisor: Garry Marvin

This thesis examines all forms of indigenous knowledge systems of weather forecasting and the role such systems play in strengthening the rural livelihoods of the coastal agro-fishing communities in Tanzania. The study used ethnographic approaches and other qualitative research methods to generate understanding of coastal peoples’ weather folklore, cosmologies, local indigenous knowledge systems of weather forecasting, and the ways such knowledge systems might be utilised to enhance the sustainability of coastal rural livelihoods in a changing climate.

Dr Chengula is a Lecturer, Institute of Resources Assessment, University of Dar es Salaam.

Becoming and being: Embodiment, materiality, and sociality among artisanal fishers in a fishing village on the south coast of Kenya

Victor Alati, University of Roehampton

Supervisor: Garry Marvin

Gazi fishers handing out free fish to the local community after a good catch.



This research presents an ethnographic account of the Gazi fishing community in coastal Kenya through an exploration of what it means to be an artisanal fisher, what it means to live in a fishing village, and how a sense of meaning-making is nurtured to navigate an uncertain world. The study provides a deeper understanding of the role of local knowledge, coproduced with the communities, for the conservation and preservation of coastal and marine resources along the Kenyan coast. The research highlights the need to integrate knowledge derived from such ethnographic studies into fisheries policy and management programmes.

Dr. Alati is currently a Senior Research Scientist at the Kenya Marine and Fisheries Research Institute, Mombasa.

Archaeology

Community engagement in conservation and participatory management of cultural heritage sites along the coast of Kenya

Wycliffe Omondi, University of Edinburgh

Supervisors: *Jon Henderson and Arturo Rey da Silva*

This research explores the ways in which conservation and the use of cultural heritage sites by local communities can create environmental, cultural, and economic benefits. The research is based around four Kenyan coastal heritage sites, which are at different stages of development: Lamu Old Town World Heritage Site, Gede National Monument, Mtwapa Heritage Site, and Kilepwa Heritage Site. The study examines the balance between cultural heritage conservation and social-economic benefits to local communities. It advocates for the need to undertake community consultation before the commencement of any development, and promotes the empowerment of local people in the management and utilisation of heritage sites. The work presents management plans that acknowledge the local community use of monuments as well as facilitating the core mandate of the National Museums of Kenya, which is to protect and preserve these sites.

Wycliffe Omondi is currently a Curator at the National Museums of Kenya, Nairobi.

The Palace ruins at Gede, Kenya.



Demonstration of Virtual Reality tours of East African heritage sites at a Rising from the Depths networking event.



Creators, not content: Tools for community engagement at Kilwa, Tanzania (MRes Project)

Grant Bettinson, University of York

Supervisor: *Stephanie Wynne-Jones*

Digital tools are now integral to everyday archaeology and heritage practice. A wide range of these tools, workflows, and products are utilised across the breadth of practice for dissemination, monitoring, communication, and recording. Digital tools are often seen as inclusive, as they can provide access for a wide audience to the results of research and give space for broader participation in heritage debates.

The persistent challenge that arises from these tools is whether and how they benefit and engage communities. Are they the correct tools for the intended purpose? Do they reflect the principles of bottom-up design, inclusivity, respect, equality, diversity, well-being, and benefit upon which community archaeology was founded?

Using Kilwa Kisiwani and Songo Mnara in Tanzania as a case study area, this research reviews how digital heritage has been used for community engagement. Drawing on research with local community stakeholders, the work identifies the tools and workflows that show the greatest potential for community engagement.



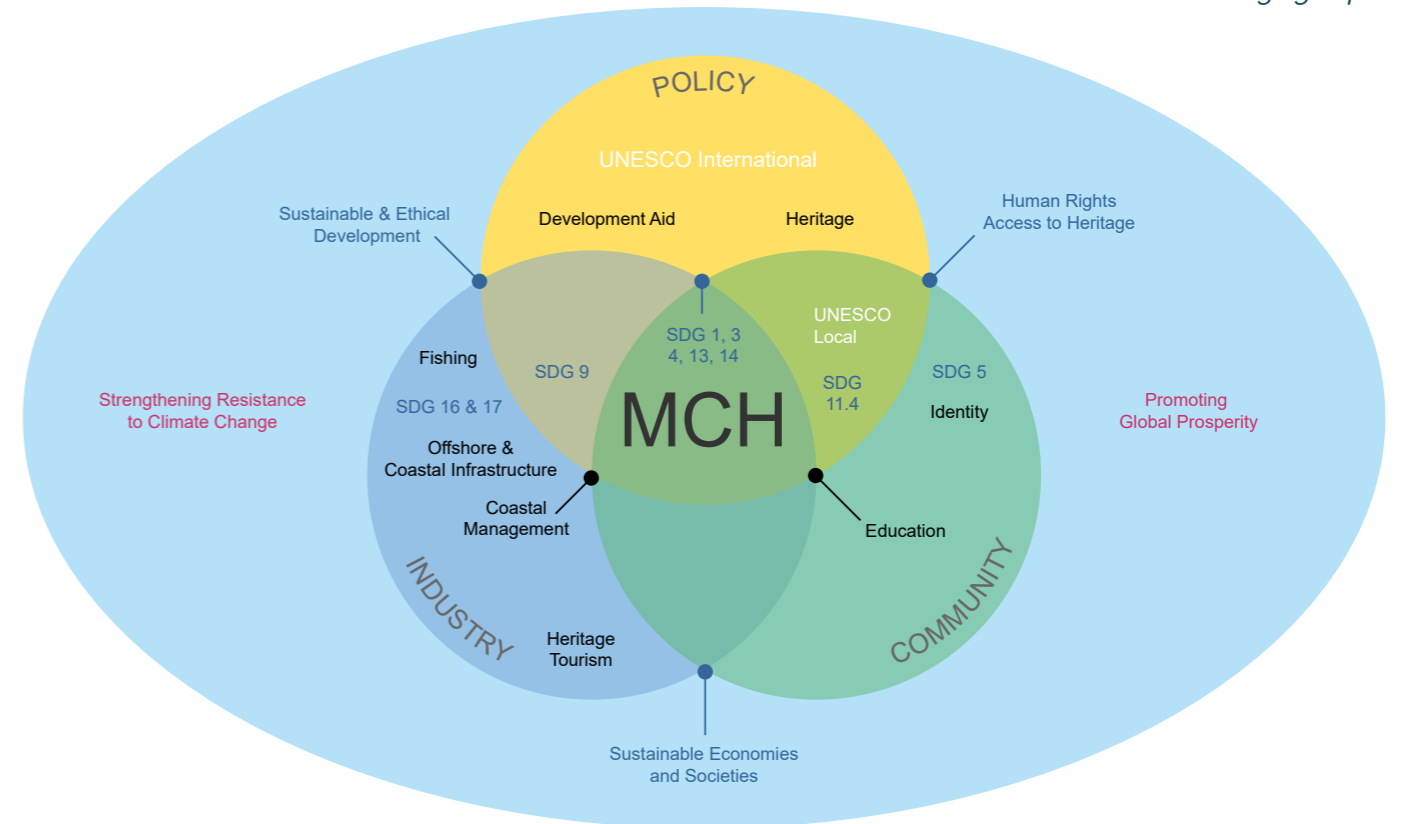
RISING FROM THE DEPTHS



KEY DIRECTIONS

Jon Henderson, Arturo Rey da Silva and Georgia Holly

Archaeological diver training as part of the UNESCO Rising from the Depths East Africa workshop in 2022.



Marine Cultural Heritage as a concept (prioritising human interaction with the sea in all its diversity) provided a framework that united, stimulated, and informed discussion of sustainable activities in the coastal and marine zone. Like the sea itself, MCH was seen as a connector that can link and give context to heritage tourism, economic initiatives, coastal management, infrastructure work, sustainable fishing, legal approaches, and governance. After all, these are practices carried out by people in the present, building on the practice of the past.

Following the completion of the 27 funded projects, a series of thematic workshops were held between November 2021 and April 2022 to explore a range of cross-cutting themes identified during the work: the Blue Economy, Community, Climate Change, World Heritage Sites, Gender, and International Aid. These themes intersect with the three theoretical spheres of action identified by the network during its conceptualisation and co-production phase: Policy, Community, and Industry. Marine cultural heritage was discussed as a powerful resource that can influence (and in turn be defined by) these three spheres.

The workshops brought project members together with a range of communities – government officials, policy makers, ocean scientists, artists, transmedia specialists, tourism industry professionals, international development lawyers, and environmental managers, as well as NGOs and local

communities themselves – to consider the social, cultural, and economic value of MCH in the region.

Following on from these workshops, the RftD Network, in partnership with the UNESCO Regional Office for Eastern Africa, organised a series of Policy Meetings in Nairobi, Dar es Salaam, and Maputo during June 2022 in order to gather together project members, local community representatives, government officers, and international agencies to debate the results of the projects, discuss the challenges identified, and to set up a series of recommendations to guide research, policy development, and heritage practice in the context of development in eastern Africa.

The following recommendations respond to the results of the debates and insights from these workshops, as well as from the final reports produced for the 27 projects within the Rising from the Depths Network.

Lamu residents protest at the construction of a port at the historic town. Image © ATP Tony Karumba



1. MCH, Industry, and the Blue Economy

Industry is one of the three main spheres within which an awareness and understanding of MCH can enhance sustainable development initiatives. Contrary to what is commonly thought, marine cultural heritage preservation can strengthen development rather than obstruct it. The marine environment is experiencing rapid growth in economic development and industrial activities, creating unprecedented pressure on the people, culture, and resources associated with it. This pressure is intensified by increasing coastal urban populations, intensified seabed exploration for energy resources, shipping industry expansion, and the construction of large megaports to accommodate new carriers. These factors collectively influence people's lifestyles, future prospects, and interactions with their past, significantly impacting their well-being, cultural identities, and the preservation of cultural heritage along coastlines and underwater environments.

Like other regions in the Global South, East Africa is grappling with the significant challenges stemming from rapid industrial and economic development, which often lacks a solid, inclusive, and egalitarian social

framework. Projects such as those undertaken by RftD in coastal ports like Lamu in Kenya, or in Tanga and Bagamoyo in Tanzania, serve as prime examples of this reality. However, rather than viewing this purely as a barrier to preserving culture and heritage, the RftD Network demonstrates how it actually presents an opportunity to bring stakeholders in the marine sector together to exchange data and, in accordance with international ethical and legal frameworks such as the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage or the World Heritage Convention, to enhance policies aimed at synchronising development with preservation efforts.

During the Rising from the Depths implementation period, efforts were made to explore synergies among archaeology, heritage management, and activities in the marine sector with the aim of developing improved guidelines for policy development. Common interests and potential areas for future collaboration were identified, highlighting opportunities where development and heritage preservation can mutually benefit each other. This effort holds particular significance in

the Global South, where development in the marine zone outpaces the capacity of countries to study and leverage their marine cultural resources effectively. At present, the Environmental Impact Assessments (EIAs) carried out in advance of development fail to take full account of the impact on heritage with the focus centring on the natural environment – and when heritage is considered, it is normally restricted to the impacts on upstanding built heritage sites. EIAs that fully consider the full range of heritage, both tangible and especially intangible, and the weak enforcement mechanism on the part of States parties were identified as areas which need to be reinforced.

Continental and country-level development plans such as Africa 2063 and Kenya Vision 2030, prioritise the Blue Economy as a central driver of growth over the coming decades. However, these plans currently overlook the role of Marine Cultural Heritage (MCH) as a crucial component of development, reducing its positive impact purely to the increased revenues to be expected from heritage tourism¹. Governments are often eager to leverage heritage to boost coastal tourism, but it is crucial that these efforts are carried out both ethically and sustainably. Heritage practitioners are increasingly recognising that merely increasing tourism activities is an unsustainable approach, and can harm the very heritage they aim to preserve. Failure to understand and effectively communicate the significant economic, environmental, social, and cultural value of marine heritage, which go beyond its role as a recreational attraction, to policymakers, donors, and coastal communities is exacerbating environmental degradation, cultural damage, and the loss of tangible and intangible resources.

¹ Henderson, J. (2019) Oceans without History? Marine Cultural Heritage and the Sustainable Development Agenda. *Sustainability*, 11, 5080. <https://doi.org/10.3390/su11185080>

Key Directions

- It is imperative to explore how marine development in East Africa, as well as in the broader Global South, can be enhanced through the framework of Ocean Science for Sustainable Development promoted by the UN, and to integrate natural and cultural heritage into national development plans.
- The development of sustainable heritage tourism strategies should be a priority for marine heritage professionals, both to establish the importance of the resource and to ensure its protection. That said, the reach and importance of Marine Cultural Heritage should not be simply limited to tourism; heritage is an essential part of human culture which can provide data and knowledge that can inform future human action.
- There is an urgent need to clearly define what Marine Cultural Heritage entails, and to emphasise its importance in processes of sustainable development within coastal communities, highlighting the environmental, social, economic, and cultural benefits it offers.
- Marine Cultural Heritage, safeguarded by various international and national legal frameworks across different maritime zones, warrants special attention in corporate policies and should be integrated into national development agendas, particularly in the design and execution of Environmental Impact Assessments.

The Festival of the Sea held at Sainte Luce, Madagascar, in June 2019 was attended by over 2,000 local people.



Activities related to eco-tourism, heritage tours, and the Dhow House restaurant created tangible financial returns for the local community at Mida Creek.



2. MCH and Community

Traditional practices and livelihoods, such as traditional fishing, boat construction, beekeeping, and mangrove trading, have long been integral to East African coastal communities, and have contributed to the sustainability of local economies, social cohesion, and environmental and cultural stability. However, acknowledging and incorporating these practices and ways of life as part of a wider Marine Cultural Heritage remains a relatively new approach in archaeological and heritage-focused initiatives. As we have stated, rapid coastal infrastructure development along the East African coast is fundamentally altering the lives, cultural expressions, and identities of coastal inhabitants, as well as impacting their access to traditional livelihoods and natural resources. Decisions on development, coupled with narrow definitions of what cultural heritage is within national policies, are often taken without the prior, informed consent of the affected communities, and these decisions often have adverse impacts on them.

It is imperative to involve members of coastal communities inclusively and actively in Marine Cultural Heritage research, evaluation, and

management. Local communities possess invaluable traditional knowledge of their landscape, marine resources, historical events, and associated intangible practices. Without their participation, this knowledge would remain inaccessible. Understanding this knowledge is crucial to comprehending past human relationships with the marine environment, adaptive responses to change, and for charting sustainable paths for the future.

Recognising community values and livelihoods, and effectively translating these values into local and regional policies, has been a primary objective of the RftD Network. Neglecting this knowledge, along with the values and interests of communities, in the development of policies and strategies affecting the natural and cultural environment, risks eroding identities and severing historical connections to the environment, endangering the sustainability of livelihoods.

Failure to heed local knowledge may lead to legal disputes and undermine economic development, both by hindering industrial projects and by neglecting to recognise and leverage heritage assets. Conversely,

meaningfully involving communities can pay economic, political, and social dividends.

Community-led co-management and the sustainable use of natural and cultural marine resources bring economic, social, and cultural benefits, particularly when the traditional livelihood systems, practices, and beliefs and customary regulation frameworks of coastal communities are shared with national policymakers.

Local communities need to have a meaningful voice in decision-making processes, particularly when dealing with plans affecting their environment, livelihoods, and traditional practices.

The parameters and definitions of heritage should be co-defined by the local communities who embody and sustain it, and translated at a governmental level towards developing inclusive, participatory, and sensitive preservation policies.

Marine Cultural Heritage is not a static or limited entity that remains unchanged over time; rather, it undergoes continual evolution through processes of reuse, creation, and revaluation by the communities who imbue it with meaning or utilise it as a resource.

Key directions:

- The expertise and knowledge of coastal communities are crucial for sustainable coastal development, yet they are currently sidelined in policymaking.
- Politicians and decision-makers need more comprehensive and accurate information about Marine Cultural Heritage and the value ascribed to it by local communities.
- Marine Cultural Heritage plays a vital role in environmental protection, social cohesion, and justice, but it is often compartmentalised in policy discussions as only having a value to tourism.
- Traditional heritage knowledge and practices are impacted by a range of internal and external pressures which can lead to communities becoming disengaged with their past.

Kilwa Kisiwani World Heritage Site on the Swahili coast of Tanzania.



Swahili door at the UNESCO World Heritage Site of Fort Jesus, Mombasa, Kenya.



3. MCH and World Heritage

Five East African coastal heritage sites are on the UNESCO World Heritage List due to their Outstanding Universal Value. These sites include the old ports and towns of Lamu and Mombasa in Kenya, Zanzibar and Kilwa Kisiwani in Tanzania, and the Island of Mozambique in Mozambique. They are recognised as historical coastal settlements, examples of multicultural exchanges with unique architectural characteristics, and important repositories of traditional marine knowledge.

Despite this global recognition, the listings for these sites are not based on their Marine Cultural Heritage. Maritime and underwater heritage are rarely mentioned or included in their management plans, where such plans exist. Furthermore, the growing emphasis on coastal and marine infrastructure development, coupled with the promotion of international resort tourism as a key component of states' economic development agendas (as outlined in Kenya Vision 2030), is steering the management of these designated sites and World Heritage

coastal properties towards profit-orientated activities. This approach poses challenges to heritage preservation and places significant pressure on local communities and their environment, impacting their cultural identities and expressions.

It is widely acknowledged that while World Heritage status can undoubtedly bring numerous benefits and opportunities to the communities living around designated sites, it can also perpetuate and, in some cases, exacerbate inequalities². Moreover, the traditional definition of World Heritage status in sub-Saharan Africa has largely been rooted in conventional Western heritage concepts, which focus on aspects such as the environment, architecture, and archaeology, while often overlooking the intangible expressions associated with these tangible properties.

The Africa World Heritage Regional Action Plan for Africa (2021–2027) advocates for a more equitable and inclusive World Heritage List.

2 Labadi, S. (2017) UNESCO, World Heritage, and Sustainable Development: International Discourses and Local Impacts. In *One World Archaeology*, Springer Nature, 45–60. https://doi.org/10.1007/978-3-319-44515-1_4/COVER; Taruvinga, P. (2020) World Heritage, Sustainable Development, and Africa. *Oxford Research Encyclopedia of Anthropology*. <https://doi.org/10.1093/ACREFORE/9780190854584.013.240>

It highlights the importance of incorporating intangible heritage elements from the communities surrounding existing inscribed sites, as well as other forms of heritage, such as underwater cultural heritage. The Action Plan outlines specific objectives and actions aimed at addressing issues related to representation, capacity building, management systems, tourism impacts, infrastructure, climate change, and human and financial resources.

The RftD projects which have been conducted in designated sites and World Heritage coastal towns have underscored the significance of integrating marine heritage methodologies into their definition and management. Demonstrated in initiatives in Lamu (Kenya), Kilwa and Zanzibar (Tanzania), and the Island of Mozambique (Mozambique), Marine Cultural Heritage can be seen to enhance the Outstanding Universal Value of World Heritage Sites through community-driven and context-sensitive management approaches.

Key Directions:

- Marine Cultural Heritage should be incorporated into heritage policies, designation processes, descriptions of gazetted sites, World Heritage management plans, and impact assessments.
- To achieve this, increased research skills related to Marine Cultural Heritage are needed, along with comprehensive inventories of Marine Cultural Heritage linked to existing and proposed World Heritage sites.
- Implementing participatory, inclusive, and community-driven integrated management plans, which incorporate traditional customary practices, can ensure the representation of all forms of heritage and traditional livelihoods within these highly pressured World Heritage properties.
- There is a need to ratify the UNESCO Convention on the Protection of the Underwater Cultural Heritage, and to establish synergies with the World Heritage Convention and the Convention on the Safeguarding of Intangible Cultural Heritage, both of which are widely adopted by East African countries.

The important ruins of Jumba la Mtwana, a Swahili town dating from the 14th century AD on the Kenyan coast, are threatened by coastal erosion.



4. MCH and Climate Change

Heritage has the ability to expand our knowledge of past human uses of the environment, as well as to connect and catalyse human interactions with environmental resources in the present and future. This makes it a fundamental socio-environmental indicator for modern resource conservation, protection, and management. This is particularly the case in the field of marine resource management, where the activities of at-risk coastal communities are often overlooked. Climate issues such as coastal erosion and rising sea levels are negatively impacting the preservation of Marine Cultural Heritage, and in turn, are affecting the well-being of the local communities.

This project *Marine Cultural Heritage in Northern Mozambique* contributed to raising awareness of the cultural and environmental significance of Mozambique Island's underwater heritage, including mapping evidence of past sea level changes and climatic shifts. Through modelling past sea level changes, the project provided valuable insights into the region's vulnerability to climate change and, by involving the local community in discussions, identified areas for improvements in marine spatial planning (MSP), and in underwater cultural heritage protection, around the island.

CoastSnap Mozambique used citizen science methods to gather data on shoreline changes, improving the understanding of local beach morphology where data was previously scarce. By promoting coastal literacy and engaging local communities through educational materials and workshops, the project enhanced local capacity to adapt to coastal changes and supported sustainable community-led shoreline management.

RftD projects have evidenced the erosion of the archaeological sites and the loss of cultural practice and traditional knowledge due to changing weather patterns, declining fish stocks, and the limited availability of raw wood materials for traditional boat building. Cultural practices are repositories of knowledge in terms of relations with the environment over time, and they are also indicators of change and adaptation. *Incorporating marine cultural heritage protection into Tanzania's National Adaptation Plan* directly addressed the insertion of indigenous values and the knowledge of marine cultural heritage bearers into national plans to adapt to climate change.

Projects such as *Establishing a framework for traditional heritage knowledge in sustainable*

development of East African small-island and coastal communities (Thek-ee) and Using fishers' traditional maritime knowledge to improve small-scale fisheries management in Northern Madagascar have demonstrated that traditional knowledge and livelihoods can enhance current development practices and make them more viable, especially in terms of climate adaptation and sustainably maintaining natural resources. However, the effects of development policies that do not consider, respect, or include community beliefs and customs are putting these traditional practices at risk, ultimately rendering societies more vulnerable to the effects of climate change. Intergenerational knowledge transfer is being affected, along with the cultural understanding of the marine landscape.

The *Kisima Project* examined freshwater management through the study of historic wells at Kilwa Kisiwani, Tanzania, enabling the recording of groundwater levels and historical climate data to inform current and future water management practices. By engaging local communities and policymakers, the project facilitated discussions and contributed to the co-design of water access solutions, leading to the renovation of historic wells and the development of inclusive tourism initiatives.

Tangible remains, such as archaeological sites and landscapes, provide essential information for understanding human responses to climate change over time and the development of coastal ecosystems. Similarly, intangible heritage forms, like cultural beliefs and traditional knowledge, offer valuable insights into past climate change and adaptation strategies. By integrating these sources with environmental archaeological science methods, such as sediment coring and faunal analyses, we can create baseline data sets to assess how modern conditions are changing due to climate change.

Integrating Marine Cultural Heritage into marine policy and management is a necessary but often overlooked aspect of ocean sustainability. By excluding indigenous practices and failing to

recognise the importance of local action, coastal communities and their cultural heritage will be disproportionately affected by climate change pressures such as rising sea levels, coastal erosion, increasing storm frequency, freshwater salination, and habitat loss. Consequently, future predictions warn of irreversible damage to community resilience due to the destruction of their biocultural heritage and aquaculture.

Key directions:

- Marine Cultural Heritage data reflecting the full range of past human adaptation in the marine zone, including responses to extreme climatic events and sea level change, have the potential to improve the resolution and effectiveness of coastal and marine management strategies.
- There is a need to consider Marine Cultural Heritage within international, regional, and national development projects, along with understanding the dependence of local communities on their cultural landscapes within the marine zone.
- Climate mitigation activities and environmental initiatives should integrate tangible and intangible community values with the marine environment, including local fishing grounds, as well as taboos and traditions.
- Through integrating cultural and natural heritage provisions within impact assessments, Marine Spatial Planning, and Marine Protected Areas, both cultural and natural heritage resources may be better considered by development actors.
- By creating Biocultural Heritage Community Protocols, the relevance of various aspects of intangible heritage is clearer within local and international laws which protect human, social, environmental, and cultural rights.
- Economic valuations in policy and ecosystem services approaches should include cultural indicators which engage with intangible community values.

Participants in the *Historia Ziliyoficha Za Ardhi na Bahari (Hidden Histories: Stories of People and the Sea)* project.



The Bidii na Kazi Women's Group present their plans for the construction of a Dhow House Restaurant and Visitors Centre at Mida Creek in 2019.



5. MCH and Gender

Issues relating to gender were examined in a number of the RftD projects. Gender equality – ‘the equal valuing by society of the similarities and differences of women and men, and the roles they play... based on women and men being full partners in the home, community and society’ (UNESCO 2014) is a development priority at all levels, from the Intergovernmental (UN SDGs Goal 5), Continental (Africa Union 2063 Goal 17, and the 2003 Maputo Protocol), and State (Kenya 2030) to the County (Kilifi County Development Plan) levels.

In many coastal communities, traditional beliefs and practices dictate the appropriate roles and activities for men and women. These differences are shaped by cultural, social, economic, and historical factors, and can vary significantly between different communities and regions. While the division of roles and activities intersects with issues of class, race, poverty, ethnicity, age, or religion, it was clear in RftD that the ways in which marine heritage is identified, utilised, and preserved East Africa by local communities bring inherited cultural sexed roles and practices into conflict with approaches to Gender Equality in international development agendas (e.g., Africa 2063, UN

2030 Agenda). Whereas men and women were both identified as bearers of knowledge and have played key roles in the way marine resources have been traditionally valued and exploited, women have had a much more constrained role within the public and economic life of the community.

In all the RftD projects run by and involving indigenous communities, activities in the marine environment were found to be gendered. Men predominantly engaged in offshore and deep-sea fishing and were typically involved in activities such as boat building and maintenance, and in the construction of fishing gear like nets and traps. In contrast, women usually participated in nearshore and shallow-water fishing activities, such as collecting shellfish, seaweed, and other marine resources. They were also heavily involved in post-harvest activities, including fish processing, drying, smoking, and selling fish in local markets.

Attempting to simply change long-established intangible cultural practices without the consent of communities is deeply problematic and likely to cause more harm than good. Such a strategy would reflect the national agendas and values of

donor countries and could be viewed as neo-colonial in approach. Ultimately, it is only when practices start to be considered discriminatory at a local level that change can happen³.

A number of RftD projects considered the intersectional and complex role of gender roles amongst coastal communities, and tested innovative approaches to achieve gender-responsive impact through Marine Cultural Heritage.

The *MUCH to Discover in MIDA Creek* project in Kenya engaged with a well-established women's group, Bidii na Kazi, and supported initiatives which extended the range of AAL opportunities for women. Training in a range of marine heritage-based initiatives, some of which are traditionally led by men, led to new business opportunities for women. The women conceived of, designed, built, and now successfully run a traditional floating Dhow House Restaurant that also doubles as the Mida Creek Interpretation Centre. It also resulted in the recognition of the differences and inequalities between men and women, and in promoting activity to address the diverse needs, capacities, and contributions of women.

The Palm, Sand and Fish: traditional technologies of the daughters of the Azanian coast project engaged with female-led MCH practices (pottery, basketry, and traditional roofing materials). Currently, these practices are threatened due to offshore development agendas, the forces of globalisation, and the effects of climate change. The project, led by two Kenyan female PIs, worked with the women to develop innovative ways of improving production and sales to respond to changes in access to raw materials. They used the project to create awareness of the women's work, and of the relationship between their work and the sustainable use of the environment. The basket sales for the women's groups significantly rose as a result of their innovations. Some women who had stopped producing basketry due to lack of market returned to it after seeing the benefits of using the new innovation for better sales.

The *Protecting Marine Cultural Heritage through biocultural community protocol in Kilifi county, Kenya* project supported local communities in reflecting on their customary values, rights, and rules regarding their heritage. The project, similar to the approach taken on a number of RftD projects, arranged

³ Labadi, S. (2022) *Rethinking heritage for sustainable development*, London, UCL Press: 138–42.

Sign for the sale of coloured makuti by the Matsangoni Makuti Women's Group, part of the Palm Sand and Fish project.



meetings with women separately and in contexts/spaces where they felt comfortable to ensure that their voices would be heard, and gender disparities addressed. A Biocultural Protocol (BCP) document was produced by the community setting out clear terms and conditions to governments and the private, research, and non-profit sectors for engaging with indigenous and local communities, and accessing their local resources and knowledge. The document is expected to stimulate ethical, inclusive, and sustainable economic growth in the region. It has certainly strengthened the community's negotiating capacity to promote more equitable agreements with third parties.

Key directions:

- Understanding the gendered division of labour in East African coastal communities is essential in designing effective development interventions which can ensure equitable resource management, and empower both men and women.
- Addressing gender disparities can lead to more sustainable and inclusive growth within local communities.
- Women's involvement in income-generating Additional Alternative Livelihoods (AALs) based on Marine Cultural Heritage can be used to challenge

the prevailing norms relating to female involvement in public and economic life in a way that is sensitive to local values.

- Gaining a greater understanding of the attitudes of male community members to female participation in public, economic, and cultural life can inform a better design of activities aiming to achieve 'gender transformation' that seek to challenge existing – and locally-recognised – discriminatory practices.
- Women's knowledge of Marine Cultural Heritage is a distinct and fundamental aspect of the way in which coastal communities interact, manage, and utilise their surrounding natural and cultural marine environments. Ways of hearing from women in processes of conception, design, implementation, review, and evaluation need to be adapted to the local context and reviewed regularly by project/implementation teams and funders to check that they are having the intended effect on women's participation.
- Gender-sensitive indicators that move away from quotas and economic measurements and towards novel methods of monitoring the current and future contributions of women need to be developed.



RftD Co-Investigator Annamaria La Chimia runs a workshop on MCH and International Aid at the Nairobi Law School in 2019.

6. MCH and International Aid

Finally, the RftD Network identified that some of the main issues influencing (or constraining) Marine Cultural Heritage preservation and its utilisation for sustainable development are the very same mechanisms that finance these international research projects. As such, the UKRI Global Challenges Research Fund (GCRF) sought to align the outcomes of research to the UN's Sustainable Development Goals, encouraging the co-creation of research questions, and an equitable balance of leadership and funding between different regions (Global North and South). Marine Cultural Heritage should not rely exclusively on international aid, and yet national investment towards heritage preservation and capacity development in this area are virtually non-existent in eastern Africa or are negligible compared to the countries' economic investment priorities.

Official Development Assistance (ODA) mechanisms and international aid encourage heritage preservation projects to contribute to sustainable development, particularly the Sustainable Development Goals of the UN 2030 Agenda, and for the marine environment, the objectives of the UN Decade of Ocean

Sciences for Sustainable Development (2021—2030). However, the fragmented nature of aid mechanisms, which are split between the global efforts of intergovernmental organisations and the national interests of development agencies, has resulted in varying levels of impact.

In many cases, international aid funds the assessment and documentation of damage which has already been done to marine heritage by uncontrolled oil and gas extraction activities, when it could instead have been avoided. Furthermore, some practices in project design, implementation, monitoring, and impact evaluation have perpetuated inequalities and inadvertently masked ongoing issues with research funding in development contexts. These issues include the challenges of a) delivering long-term change with short-term funding, and b) measuring the impact of these efforts.

Historia
Ziliyoficha
Za Ardhi Na
Bahari-Hidden
Histories,
Tanzania.



Key directions:

- Development aid agreements very rarely take account of cultural heritage even though access to it is considered a fundamental human right⁴.
- Financed projects could aim to help to improve not only the heritage practice and knowledge of the region's maritime past, but also people's livelihoods, the policies directly or indirectly affecting MCH, and the promotion of ecosystem-based approaches.
- One of the main ways of influencing the outcomes of financed activities, and to improve aid performance, is to develop effective evaluation and monitoring mechanisms. Requiring project outcomes to be measured in terms of their contribution to the achievement of long-term sustainable development can encourage unrealistic self-assessments of impact.
- As RftD has shown, the co-creation and co-design of research projects by

academic stakeholders and different members of the community can target a wider variety of issues and provide invisible data that could make the assistance impact more sustainable. Community members are currently rarely involved in project design and funding application processes within ODA mechanisms.

- Changing or influencing policy change through research financed ODA projects can often be unrealistic, as this requires action and agency during extended periods of time in order to perform change at all levels of the decision-making and governance chain.
- There is a need to develop indicators of impact in consultation with community-level research participants.

4 ICOMOS. The Stockholm Declaration: Declaration of ICOMOS Marking the 50th Anniversary of the Universal Declaration of Human Rights; ICOMOS: Paris, France, 1998; Available online: <https://www.icomos.org/en/what-we-do/focus/human-rights-and-world-heritage/179-articles-en-francais/ressources/charters-and-standards/372-the-stockholm-declaration> (accessed on 24 July 2019).



RISING
FROM THE
DEPTHS



WHAT NEXT?

Dr Ernesto Macaringue taking the first photo 'snap' from the CoastSnap station in Tofo beach.

Through funding 27 challenge-led research projects across Kenya, Tanzania, Mozambique and Madagascar, the Rising from the Depths (RftD) network has demonstrated, and is continuing to demonstrate, how MCH can directly benefit East African communities and local economies through building identity and place-making, stimulating resource-centred alternative sources of income and livelihoods, and fostering ethical, environmental, and economically viable development pathways.

The funded projects have empowered local experts to work with coastal community members to identify MCH, preserve it, and utilise it to improve their livelihoods (with a number of projects creating tangible monetary incomes for local communities). The co-creation of the research agenda resulted in a focus on coastal community heritage. The network has empowered local communities, including vulnerable groups like women, young people, and elders, to explore sustainable economic endeavours, while reaffirming their role as keepers, heritage bearers, and providers within their communities. Important partnerships have been identified between local community members, institutions, and experts (academics and heritage practitioners) combining traditional and expert knowledge to produce the best available knowledge.

Taken as a whole, the projects have demonstrated that MCH can have impact in diverse areas such as education, gender equality, economic growth, and environmental conservation, aligning with multiple UN Sustainable Development Goals and fulfilling aspects of the African Union's Agenda 2063. By creating partnerships between the Global North and South, each were able to learn from each other and facilitate a research culture that was less western orientated, and more problem-focused.

Central to the network's philosophy is the notion that MCH is not something that should be passively preserved in isolation but is, instead, a dynamic resource that can aid in addressing contemporary challenges. The RftD projects not only preserved heritage but also became effective platforms for community development and dialogue, successfully blending traditional knowledge with scientific research to enhance policy-making and local livelihoods. MCH could be seen to add historical depth and local legitimacy to sustainable development projects and policies, enriching community engagement and promoting cultural continuity.

Looking to the future, it is crucial that the momentum generated by the RftD is not lost. The network has undoubtedly strengthened regional research capacity in the field and has contributed to the development of stronger coastal communities, while promoting a more widely appreciated and more sustainable use of the marine environment. A number of the RftD projects have secured further funding ensuring an ongoing legacy for the network. In addition, funding has been obtained from the [Honor Frost Foundation](#) to bring the knowledge and insights from the Rising from the Depths network to tackling challenges in the Eastern Mediterranean, many of which are analogous to those in eastern Africa: an increase in offshore development; intensified coastal infrastructural development; a background of political instability; and a lack of expertise and legal structures relating to Marine Cultural Heritage.

On the global stage, the example of Rising from the Depths was instrumental in the formation of the [Ocean Decade Heritage Network \(ODHN\)](#). RftD PI Jon Henderson was a founding member of ODHN and sits on the board. As a recognised partner of the UN Decade of Ocean Science for Sustainable Development 2021–30, ODHN promotes the role of archaeology and cultural heritage in achieving the aims of the decade to foster the

health of the ocean and allow the sustainable use of its resources⁵. As part of ODHN, the University of Edinburgh runs the [Cultural Heritage Framework Programme \(CHFP\)](#), an endorsed action of the UN Decade, that seeks to provide actionable and accountable steps towards the integration of Marine Cultural Heritage into the ocean sciences. At the core of the CHFP is the view that cultural heritage, both past and present, is an essential component of a sustainable and inclusive ocean system, and has so far been under-represented in ocean management, policy, and research.

Continuous efforts are needed to ensure the integration of MCH into broader development frameworks, especially in rapidly developing coastal regions. There is still a need to refine legal and regulatory frameworks to better integrate MCH considerations into environmental and economic planning. Additionally, there is a necessity to expand educational initiatives on Ocean Literacy that highlight the significance of MCH in addressing current societal and environmental issues. One example of such an initiative is CHFP's open-source public-facing magazine, [SeaVoice](#), which features engaging stories about culture and the ocean within the context of contemporary global challenges.

Through the promotion of interdisciplinary research and community-driven projects, emphasising co-creation and equity, the RftD network has provided a blueprint for integrating cultural heritage into sustainable development more widely. Moving forward, it's pivotal to entrench the learnings of the network into formal policies and frameworks, ensuring that MCH continues to thrive as a cornerstone of cultural identity, economic development, and environmental conservation across global coastal communities.

As the work of the network progresses, the focus will be on integrating our findings into policy through initiatives like CHFP, ensuring that the significance of MCH as a tool for fostering interdisciplinary dialogue and sustainable development is more widely recognised. The consideration of past and ongoing human impact and interaction with the ocean is central to the development of sustainable ocean practices in the present⁶. MCH is not just as a relic of the past but is a vibrant and integral part of the future of coastal and maritime regions.

- 5 Trakadas, A., Firth, A., Gregory, D., Elkin, D., Guerin, U., Henderson, J., Kimura, J., Scott-Ireton, D., Shashoua, Y., Underwood, C. and Viduka, A. (2019) The Ocean Decade Heritage Network: Integrating Cultural Heritage Within the UN Decade of Ocean Science 2021–2030, *Journal of Maritime Archaeology*, 14(2), 153–165. <https://doi.org/10.1007/s11457-019-09241-0>
- 6 Holly G., Rey da Silva A., Henderson J., Bita C., Forsythe W., Ombe Z.A., Poonian C. and Roberts H. (2022) Utilizing Marine Cultural Heritage for the Preservation of Coastal Systems in East Africa. *Journal of Marine Science and Engineering*, 10(5), 693. <https://doi.org/10.3390/jmse10050693>

“Perhaps what RftD colleagues might want to explore is a wider conception of the research framework, placing sustainability and environment alongside heritage as part of the programme, rather than only looking at these issues as objectives of heritage-based interventions?”

Professor John Cooper, UK PI of Bahari Yetu

“The RftD network should in future be a global authority that oversees and enhances maritime cultural heritage and environmental protection to mitigate community exclusion in MCH and environmental preservation. RftD should use the results of the project to assist governments to develop policies that articulate and seek recognition of community initiatives. This is key to recognising the contribution of communities and strengthening frameworks between institutions in achieving their national mandates of environmental conservation.”

Dr Caesar Bitu, PI of MUCH to Discover in Mida Creek, National Museums of Kenya

“RftD was an amazing project that really ‘turned the dial’ for the maritime cultural heritage. It would be very useful if the network can be continued in some guise, as a means of communication and research exchanges.”

Professor Mark Orton, UK PI of the East Pemba Maritime Heritage project

“Through prioritising the views of local communities and placing them at the centre of research projects, RftD has been so important to the development of marine heritage approaches in Mozambique. I have no doubt the RftD approach will impact the development of initiatives in the region for years to come.”

Dr Solange Macamo, RftD Col, Department of Archaeology and Anthropology, Eduardo Mondlane University, Mozambique



RISING FROM THE DEPTHS



SUMMARY FINDINGS

Heritiana Andrinjarisoa, Marovany Association Project Director, records an anchor from the wreck of SS Surprise in Salary Bay.

- The Rising from the Depths Network has demonstrated the importance and utility of engaging with Marine Cultural Heritage in eastern Africa.
- The 27 funded projects have created a network of experts, practitioners, and community members who understand the potential of marine natural and cultural resources to create sustainable cultural, social, environmental and economic benefits.
- The network has identified how the traditional knowledge and regulatory systems of coastal communities need to be integrated within policies and national narratives towards the achievement of sustainable development assets.
- In terms of policies, it has identified gaps and pathways to improve the existing legal frameworks and national development agendas through MCH.
- The co-creation of the research agenda resulted in a focus on coastal community heritage. The network has empowered local communities, including vulnerable groups like women, young people, and elders, to explore sustainable economic endeavours, while reaffirming their role as keepers, heritage bearers, and providers within their communities.
- The funded projects have empowered local experts to work with coastal community members to identify MCH, preserve it, and utilise it to improve their livelihoods (with a number of projects creating tangible monetary incomes for local communities).
- Important partnerships have been identified between local community members, institutions, and experts (academics and heritage practitioners) combining traditional and expert knowledge to produce the best available knowledge.
- Also, there have been important partnerships with UNESCO in awareness-raising, capacity building, and policy implementation guidance.
- The projects funded by RftD represent the first steps towards delivering heritage and community-centred, co-created research for sustainable marine development. Through this network, valuable partnerships have been formed to continue the legacy of the development-based results in region. Further work must be conducted to replicate, share, and evolve this research and its outputs within this region, and in others. A key foundation of this research sits with the industry and policy partners who need to recognise the importance of MCH and the centrality of community livelihoods when devising marine development projects and Blue Economy initiatives.

Drawings on the walls at Fort Jesus, Mombasa, Kenya.





*This book is lovingly dedicated
to the memory of Arafa Salim
Baya, inspirational leader of the
Bidii na Kazi women's group in
Mida Creek, Kenya.*