

Aesthetic, Cultural and Spiritual Services from Coastal and Marine Environments

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Opposite page: Fort Jesus in Mombasa Island, built in the XVI century, a UNESCO World Heritage Site. © Alex Wafula.

INTRODUCTION

The interaction between human culture and the coastal and marine environment in the Western Indian Ocean (WIO) region has over time produced unique cultural products, practices and cultural influences. Several historical and archaeological sites exist, some attached to the region's rich maritime history, with slave trade as an important component. Evolution of cultures over the years (Seland 2014) provide people with a range of heritage values, cultural identities and certain forms of spiritual services (UNESCO 2003). Some of these landscapes have also attracted significant tourism due to their aesthetic and historical value. Equally important are traditional knowledge systems and institutions, some of which are given anecdotal or mythical reference, yet which illustrate existence of customary systems of resource management and local people's understanding as well as appreciation of ecosystem functioning (Cinner and Aswani 2007, Masalu and others, 2010). Marine resources, either used for cultural transactions or for direct consumption, are also part of the cultural heritage associated with the ecosystem, providing a range of benefits for the sustenance of coastal livelihoods. Certain historical sites and landscapes have however suffered from poor management (Duarte 2012), owing to factors that include changing value systems and physical intrusion, calling for concerted management efforts. At the same time, while some of the intangible heritage in the WIO region remains quite vibrant and dynamic, others are

declining in cultural significance (Cinner 2007, Sunde 2013). Integration of customary systems in the management of resources is indicative of the region's desire to support a holistic approach to management. This chapter presents and discusses some of the services derived from cultural products and practices in the WIO region and their significance in the management of the coastal environment.

CULTURAL PRODUCTS

Cultural products within the WIO region refers to objects that have been constructed or appropriated through human labour and thought. They are described hereby under two categories: cultural products constructed through human cultural interactions, and those obtained directly from the marine environment for human consumption.

PRODUCTS OF CULTURAL INTERACTIONS

Maritime history (including the slave trade involving WIO countries) extends from the late first millennium AD to the early 20th century and led to the development of a number of sites, many of which have been absorbed into local people's identity (Seland 2014). These sites include natural or cultural landscapes or seascapes, and can be traced back to the evolution of human settlement, and the resulting unique cultures of the people of the region. A major indicator of this cultural heritage is provided by the ascribed

World Heritage Sites. Twenty nine of 1 007 World Heritage Site “properties” are found among the ten states of WIO region, with twelve of these (see Table 18.1) located within the coastal zone (UNESCO 2014). The aesthetic and historical value of some of these sites are sources of tourist attraction (Bakker and Odendaal 2008a, Obura and others, 2012). With regard to their value in terms of cultural ecosystem services, an added tribute is where the “cultural component has evolved to sustain the biodiversity and ecosystem integrity on which it is dependent” (Abdulla and others, 2013).

Natural landscapes of cultural significance include the sacred *Kaya* forests situated along the coastal plains and hills of Kenya. The *Kaya* forests are known to have been the settlement of nine coastal Mijikenda ethnic groups in the former Coastal Province of Kenya (Abungu and Githitho 2012). They have rich botanical properties and certain sacred sites in the area are still maintained through a pattern of ritual practices in honour of the ancestors of the original inhabitants, overseen by community groups and elders. The *Kaya* are currently residual patches (from ten to two hundred hectares) of once extensive and diverse and lowland forest of Eastern Africa occurring within the Zanzibar-Inhambane Regional Mosaic (UNESCO classification, cited in Githitho 2003). They are botanically diverse and have a high conservation value, home to more than half of the rare plants along the Kenyan coast (Githitho 2003) thereby giving them a high biodiversity significance. *Tenets* elders still uphold preservation of the remaining *kaya* through testimonies of a past coastal people’s civilization and their right to maintain sacred places within the area for fear of displacement. Such commitment has contributed to the current ecological value of the area,

allowed protection of the forest, controlling although not totally preventing, the rate of destruction caused by encroachment for human activities such as farming and mining.

Other landscapes of historical significance, include the island of Mozambique (Mozambique), Le Morne cultural landscape (Mauritius), Kilwa Kisiwani and Songo Mnara (Tanzania); Fort Jesus and Lamu (Kenya) and Stone Town (Zanzibar). Each of these represent particular archaeological and architectural evidence of a past history of interaction of local communities with other cultures through maritime trade and communication, pre-dating colonial settlement in the region with slave trade as an important component since the end of the first millenium. **Mozambique Island** is a natural landscape integrated into the Indian Ocean trade networks since pre-colonial times up to the 20th century. It was also used as a Portuguese trading-post on the route to India in the 16th century (Duarte 2012, Silva 2014). The interaction of trading cultures, primarily Portuguese, Indian, Arabian with local traditions is reflected by the remarkable architectural diversity visible in the current settlement (Silva 2014), adding a strong structural significance to the site. **Le Morne Cultural landscape in Mauritius**, located in one of the least developed coastal areas on the island, encompasses a natural fortress that was used as a retreat for escaping slaves in the 18th and early 19th centuries who took shelter in caves and on the mountain slopes of Le Morne Brabant. Le Morne’s slave escapees were later to interact with labourers of the indenture system of Mauritius with whom they are strongly linked and together comprise the present day Mauritian Creole society and culture (Bakker and Odendaal 2008b).

Table 18.1. World Heritage Site properties within the WIO region and year of designation.

	Country	Natural sites with cultural value	Cultural structures of value
1	Kenya		Lamu Old Town (2001) Sacred Mijikenda Kaya Forests (2008) Fort Jesus Mombasa (2011)
2	Madagascar	Tsingy de Bemaraha Strict Nature Reserve (1990)	
3	Mauritius		Apravasi Ghat (2006) Le Morne Cultural Landscape (2008)
4	Mozambique		Mozambique Island (1991)
5	Seychelles	Aldabra Atoll (1982) Valee de Mai Nature Reserve (1983)	
6	South Africa	iSimangaliso wetland (1999)	
7	Tanzania		Ruins of Kilwa Kisiwani/Songo Mnara (1981) Stone Town of Zanzibar (2000)

Ruins of Kilwa Kisiwani and Songo Mnara (Tanzania) are remnants of once prosperous settlements which later developed into important cities linked to the Indian Ocean and Red Sea trading networks along the Swahili East African coast from the 9th to the 19th centuries. These settlements declined in their trading prominence before the arrival of the Portuguese. **Fort Jesus** (Kenya), built towards the end of the 16th Century is another landmark illustrating Portuguese fortified architecture. **Lamu Old Town**, located on a small island off Kenya's north coast, served as an important commercial and cultural interface between the ocean and hinterland between the 5th and 19th centuries. It declined in prominence from 1896 onwards under British rule, but revived later through restoration efforts as an attraction for Swahili culture and tourism (Bremner 2013). The remarkable **Stone Town of Zanzibar**, said to have developed from a fishing village in the 12th century, is renown for its history, archaeological and aesthetic values and is currently a famous tourist destination (Awadh 2007). Its historical attraction, coupled with the Zanzibar spice tours and trades in uniquely crafted doors and brass-studded wooden caskets, contribute significantly to local livelihoods. The heritage of these sites is also related to development and expansion of Swahili coastal culture including the language. Archaeological studies on the Swahili coast also document a rich heritage of artefacts linked to trade and commerce, which have been of interest to research and tourism (Breen and Lane 2003), and in depicting aspects of cultural identity of the 'Swahili' people. Physical intrusion (and in places degradation) in all of these historical sites and low capacity in the management of intangible heritage has however threatened their aesthetic appeal and thus people's reference to them as significant in terms of cultural value. Yet they bear witness to a rich history of diverse interactions with the

coastal environment, a necessary attribute of coastal identities.

Evidence of underwater cultural heritage that strengthens the WIO region's past connections to ancient navigation and maritime trade routes along the Indian Ocean is growing. Some examples include archaeological assets uncovered around the Island of Mozambique (Duarte 2012) and in Tanzania (Ichumbaki 2011, Jeffrey and Parthesius 2013). These resources are being subjected to severe threat by treasure hunting activities. Unfortunately, underwater heritage of outstanding value, in Mozambique Island for instance, has not been considered as a component of World Heritage classification.

The only natural seascapes in this list, the **Aldabra Atoll** (Seychelles) and **iSimangaliso Wetland Park** (South Africa), represent areas of unique terrestrial and marine biodiversity. Aldabra Atoll is referred to as a rich biodiversity laboratory and very attractive for tourism. Its remoteness and inaccessibility have meant that it has minimal human interaction, which account for its good conservation quality (Obura and others, 2012). The iSimangaliso site in contrast, which includes lake, wetland, sand dune and marine systems, also includes centuries-old fishing traditions (see Box 18.1).

PRODUCTS FOR DIRECT CONSUMPTION: FOOD AND OTHER UTILITY VALUES

Many products from coastal and marine ecosystems have been appropriated for direct use by coastal people for household consumption, health care, ornaments and income. During the Indian Ocean trade, cowrie shells are said to have fulfilled a function similar to copper coins as token currency, although their monetary value was recognised. Together with Indian beads made of semi-precious stones, cowrie

BOX 18.1.

ISIMANGALISO'S MULTIPLE CULTURAL ASSETS

iSimangaliso, which means '*miracle and wonder*' is documented to have exceptional natural beauty and aesthetic quality, which have been a tourist attraction. Traditional fishers and harvesting communities settled on the fringes of the park, are now organized under traditional authorities, but depend on the area for food and income. Their claims to resources are supported by archaeological evidence of a large repository of Stone Age and Iron Age sites, which indicate that people have

inhabited the area for thousands of years (Abdullah and others, 2013). Its designation as a World Heritage Site led to the establishment of co-management systems, the development of ecotourism, fishing permits and an increasing influx of recreational fishers. The introduction of these modern management structures have been strongly criticized by local communities who feel that their livelihoods have been stymied at the expense of other ecosystem services.

BOX 18.2.**TABOOS AND MANAGEMENT EFFECTIVENESS IN MADAGASCAR**

In Madagascar, the institution of *Dina*, an important part of the traditional justice system at village level that employed taboos, rituals and observance of sacred places, regulated human interaction with resources, and was instrumental in marine

resource use practices (Cinner 2007). The government in Madagascar has incorporated the cultural system of *Dina* into the official legal system and has been encouraging communities to create *Dina* regarding management of natural resources.

shells were the primary currency in the East African slave trade, and also as domestic currency (Chaudhuri 1985). The most common was the *Cypraea annulus* or the ring cowrie obtained from Zanzibar (and other areas) by Arab traders. Their value as exchange currency however eroded and evolved into objects for ornaments or as artefacts for tourist consumption (Chaudhuri 1985). Mangroves have also been harvested by coastal people for diverse uses (including as medicine, for building poles and fuel wood) and have been commercially exploited for centuries (Mainoya and others, 1986). The commercial exploitation of mangroves in East Africa was intensified during Arab rule, and its wood was a prized resource used for building in Zanzibar, and exported to the Middle East. In Tanzania, trade of mangrove timber was taken over by the Germans in 1893, and in 1901-2, the colonial government in Kenya reported significant export value from mangroves (Curtin 1981). The most preferred mangrove species for the mangrove poles and wood was the genus *Rhizophora* (*mkandaa*). Mangroves continue to be a very valuable resource to coastal communities and to be exported to the Middle East.

Other products include certain species of seagrasses such as *Enhalus accoroides* and *Halophila* spp which have traditionally been used as remedies for different human health problems (Mesaki and Salleh 2008). People of Chwaka Bay had many traditional and religious uses for seagrasses, including aesthetic, and understood its function in fish production (Mesaki and Salleh 2008). Traditional salt production and coral lime making have also historically been part of coastal community livelihoods. Producing brine from boiling sea water was common practice, usually in small amounts, with salt used for dietary, medicinal, preservation and other uses (Zezeza 1997). Local salt production and lime making have however been very destructive to mangrove forests because of clearing for salt pans, or cutting of wood for boil brine or burning corals to make lime. In addition, unregulated uses of mangroves for household consumption and commerce have ultimately affected the productive ability of mangrove ecosystems, hence the quality of other ecosystem

services, including provisioning of food.

CULTURAL PRACTICES

Customary marine resource use systems, largely upheld through taboos, myths and traditional ecological knowledge, make an important part of coastal people's cultural heritage (see Box 18.2). These practices have been known to regulate resource use patterns, or to restrict certain forms of behaviour around ecosystems that are known to be detrimental to the system. Traditional patterns of closed seasons for the octopus fishery in response to resource cycles (or in response to perceived or proven resource abuse) have been known to be practiced in Nosy Fay in Madagascar (Cinner 2007), and in Kizimkazi in Menai Bay, Zanzibar (Masalu and others, 2010). In the northern coast of KwaZulu Natal Province in South Africa, among the Kosi Bay fishing community, a number of shared norms and rules relating to access, ownership and use of the *utshwayelo*, a decision-making, dispute resolution and monitoring system still exists. This is in addition to shared cultural rituals and rites that reinforce the distinctive culture and customary system of the area (Sunde 2013). Oral histories and anecdotal evidence also establish existence of traditional coastal forest and mangrove protection systems such as in Vikokotoni, Tumbatu and Chunguruma villages, in Zanzibar (Masalu and others, 2010). In some areas, preserving sacred forests and peninsulas, where use of mangroves was restricted by traditional beliefs about spirits and undesirable consequences, served to protect the mangrove forests, intertidal/shoreline areas and the associated marine organisms (Shalli 2011).

A somehow similar approach to the recognition of the *Dina* system in statutory policies and practices is found in the National Small-scale Fisheries Policy of South Africa, and the Menai Bay Marine Park regulations (Zanzibar). The Small-scale Fisheries policy of South Africa (2012) provides for the state to "recognise the existence of any rights conferred by common law, customary law or legislation to the extent that these are consistent with the Bill of Rights"

(RSA 2012). Such initiatives, that respect indigenous people of the area and their traditions, are illustrative of the region's appreciation of the iterative relationship between people, cultures and their environments (Tengberg and others, 2012).

However, except for a few areas, traditional or customary systems are largely in decline, and their current effectiveness in coastal and marine resource management is complicated to establish without a concerted in-depth study and careful ethnographic documentation. Modernization and intensification of the cash economy has led to fishing pressure both in terms of populations, and (destructive) technologies, and market pressures have served to weaken or erode such customary management systems (Cinner and Aswani 2007, Masalu and others, 2010, Shalli 2011). Furthermore, the role of cultural systems for resource management have declined with the erosion of the traditional authority of elders or local leaders, and failure by central governments to recognize traditional authority (Tobisson and others, 1998). These factors also led to the collapse of the traditional closed seasons for prawn fishing in Chwaka Bay (Zanzibar) that used to be maintained jointly by inhabitants of Chwaka and Charawe villages. The decline in these management systems has also partly resulted from the deterioration in quality of aesthetic and spiritual services offered by the coastal and marine environment.

Recently, changing belief practices, where communities refer to modern religions to guide their interaction with resources, has been applied as a management strategy. In Misali Island (Zanzibar) for example, participation and support of local Muslim elders was embraced in the management training for the Misali Island Conservation Area, a small MPA off the west coast of Pemba Island. This island comprises a closed sanctuary area and a larger area open to traditional forms of fishing by local communities (Khalid and Thani 2007). This strategy was taken after realizing that local people in the area placed much trust in messages from the Muslim religion and its elders, which could also influence how sensitive they should be in their interaction with marine ecosystems.

DRIVERS OF CHANGE

The WIO region is increasingly witnessing a decline in the quality of cultural heritage due to both natural and anthropogenic factors. The dynamics of society and the evolution of cultures have changed people's value systems and hence

their uses of and interaction with the environment. The cultural value of many of the traditionally revered landscapes and seascapes, or customary practices, have deteriorated or eroded. Lack of skills to maintain intangible heritage is an important factor, as is the erosion of collective memory and oral histories to uphold the value of cultural assets through time (Bakker and Ondendaal 2008b). In addition, the competition between traditional and modern (commercial) resource extraction, overriding economic investments such as tourism and other forms of recreation, have negatively affected ecosystems and their productivity (refer to Chapters 5 and 6). At the same time, destructive resource extraction practices, combined with extreme weather events such as flooding and drought and their associated impacts on marine ecosystems, for example, through sedimentation and



Figure 18.1. Kilwa Kisiwani historical site aerial view. (c) Matthew D. Richmond.

acidification, also reduce productivity of the natural habitats that coastal communities have been using/protecting/depending on for their livelihoods (Cinner 2007) thereby diminishing their immediate cultural relevance.

The current unrecognised or unappreciated relevance of traditional values in resource management interventions has often led to conflict (Duarte 2012). It is also evident in the degree of scientific interest dedicated to cultural ecosystem services. More interest is placed on the economic or ecological valuation of the ecosystems (Bacuez 2009), instead of examining them for sustaining the intangible, non-physical or non-material benefits on which cultural heritage lies (Bakker and Odendaal 2008a). Many archaeological studies focus on tangible features such as “buildings, architectural remains, and other features such as numismatic

evidence [of coins or medals] and documentary sources, which underlie the tangible heritage” of sites (according to Bacuez 2009), neglecting ethnographic description - the intangible historical accounts of people through which society make connections of time and space that are useful in understanding contexts for resource management (Breen and Lane 2003).

In summary, impacts have been multiple, with cultural, social and economic ramifications at different levels. Key among these is the loss of the sense of identity attached to places, and hence, even the sensitivity towards the nature of human interaction in those places. Destruction and loss of much of the *Kaya* forests and groves (Githitho 2003) are among such outcomes. This is evident in many places where there is a decline in value of traditional knowledge systems and practices, with inadequate replacement of management institutions (Masalu and others, 2010). The deterioration of assets that provided cultural ecosystem services often also weaken their aesthetic appeal thereby affecting their attractiveness.

Increasingly, however, dedicated scientific research and attention to cultural artefacts including heritage sites, by management and policies in the region is having a positive impact (Jeffrey and Parthesius 2013). Through UNESCO and the World Monuments Fund for example, efforts to stem the deterioration of historical and archaeological sites led to the ruins of Kilwa Kisiwani and Songo Mnara (Tanzania) to be removed from the list of World Heritage in Danger in June 2014 (UNESCO 2014).

CONCLUSIONS: PROTECTION/MANAGEMENT OF CULTURAL HERITAGE

It is possible that subject-specific studies on ecosystem services may have limited the full appreciation of the impor-

tance of the aesthetic, cultural and religious ecosystem services in the region (Tengberg and others, 2012) and hence resulted in their neglect. Human pressures, leading to insensitive extraction of marine resources of value to the marine and coastal environment are also significant in this regard. Equally important is understanding how the protection of cultural artefacts should be pursued. The role of science in terms of providing a multi-disciplinary research approach (combining biological, sociological and cultural approaches) that will inform the policy making process on the value of cultural services in sustaining ecosystem health needs to be emphasised (Bakker and Odendaal 2008a, Githitho 2003, Tengberg and others, 2012).

In addition, because of the increasing realisation that sensitivity to local contexts is a necessary component in sustainable and inclusive resource management practice, it is important for the management of coastal land- and seascapes to include customary systems into the evolving policy and legal frameworks for management. At the same time, societal evolution also generates different perceptions of the value of cultural ecosystem services by different stakeholders. These differing perceptions sometimes also limit the monitoring or regulating of behavior that is detrimental to the ecosystem. It is therefore important to identify and harmonise perceptions on cultural ecosystem services from different stakeholders for management. Likewise, it is recommended that the significance of various levels of practices, belief systems or faiths that are used to uphold ethical relationships with nature, need to be identified, for possible integration in ecosystem management (Cinner and Aswani 2007). It is also important to up-scale local capacity building for management planning and monitoring of natural and cultural heritage, among both heritage managers and local committees assigned to monitor the conservation of archaeological sites.

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