



Tanzanian Maritime and Underwater Cultural Heritage Program - TMUCH

Mafia Island

Maritime and Underwater Cultural Heritage Survey

March 2012



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Acknowledgements

We give our sincere thanks to Dr D. M. K.Kamamba, the Director of Antiquities for his material support to accomplish the survey. Mr. G. D Msumi, Warden in Charge of Mafia Island Marine Park, is thanked for hosting the team and providing diving and other field equipment. We also convey our gratitude to Mrs Amina Ameir Issa, Director of Antiquities, Museum and Archives of the Revolutionary Government of Zanzibar for facilitating team members from her department. The team also appreciates Mr Peter Kalonga, Mafia District Administrative Secretary and Mr. Gerald Mgoba, Acting District Executive Director for their encouragement and permission to allow the team conduct research in their area of jurisdiction. We acknowledge Dr. Bill Jeffery (CIE-the Centre for International Heritage Activities) for his help in the project design and assistance in organizing the report. Our utmost thanks go to the leaders of Juani, Chole and Mlongo villages as well as our respondents for constructive accounts. Peggy Wong of Hong Kong Underwater Heritage Group is thanked for the Chinese coins identification. Finally, the team thanks Vicki Richards and Jon Carpenter of Western Australian Museum, for providing advice on the conservation of the coins.

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Cover Photographs

Jumane Maburi (Department of Antiquities) Stephen Mndolwa (Mnazi Bay Marine Park) and Shamoun Ali (Department of Antiquities, Museum and Archives, Zanzibar) at Kisimani Mafia conducting GPS survey on the beach ruins with smaller images of round stone, and ceramic shard found amongst the underwater ruins

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All the photographs were taken by members of the MUCH team.

1. Introduction

The Tanzania Maritime and Underwater Cultural Heritage Programme started in 2009 with the aim to empower Tanzanians establish the Tanzanian Maritime Cultural Heritage (MUCH) Unit. Among other things, the programme imparts skills and knowledge to programme participants so that they are able to record, document and monitor underwater cultural heritage sites. With both technical and financial assistance from the CIE-Centre for International Heritage Activities, UNESCO and the Netherlands Government, the TMUCH team has implemented various projects in Zanzibar and Kilwa Kisiwani (see Ichumbaki 2011; Jeffery 2011; Jeffery and Parthesius 2012a, 2012b; Mahudi 2011, Parthesius and Jeffery 2012). Plans were made after the Kilwa survey to continue the MUCH surveys and in March 2012, the team conducted a two week survey on Mafia Island. The following report outlines what was implemented and achieved.

2. Mafia Island: Environment and Historical Background

2.1 Physical Environment

Mafia Island and its chain of small islets in the Indian Ocean lie approximately 120 km South of Dar es salaam and 20 km offshore from the eastern extent of Rufiji Delta (Figure 1). It is about 48 km long and 17 km wide at its widest point. Smaller Islands and islets are scattered to the west and south. The Island has a population of about 48,000 in which the main socio-economic activities are small scale farming, fishing and tourism.

The Mafia Island Marine Park area extends across some 822 km², more than half of the Marine Park area is less than 20 metres depth below mean tide levels. Most of the marine Park includes of much of Chole Bay, the extensive area south of the bay enclosed by Mafia, Jibondo and Juani Islands and several reef areas of south Bwejuu. The area hosts outstanding mosaic of tropical marine habitats including coral reefs, seagrass beds, mangroves and inter-tidal flats. It also has a number of outstanding of marine life such as sea turtles and a vast diversity of fish. Indeed, the park provides nesting grounds for two endangered species of sea turtles. Half a lowland coastal forest found along the eastern seaboard of the island is also within the park. A total of 14 villages lie whole or partly with the park boundary with a total of about 23,000 people living inside the park.

The eastern side of Mafia is exposed to the full force of Indian Ocean and a 33 km outer fringing reef stretches along the full length of the eastern seaboard and encompasses Mafia, Jibondo and Juani islands with kitutia reef lying at the southernmost point (Figure 2) (Mafia Island Marine Park, 2002).

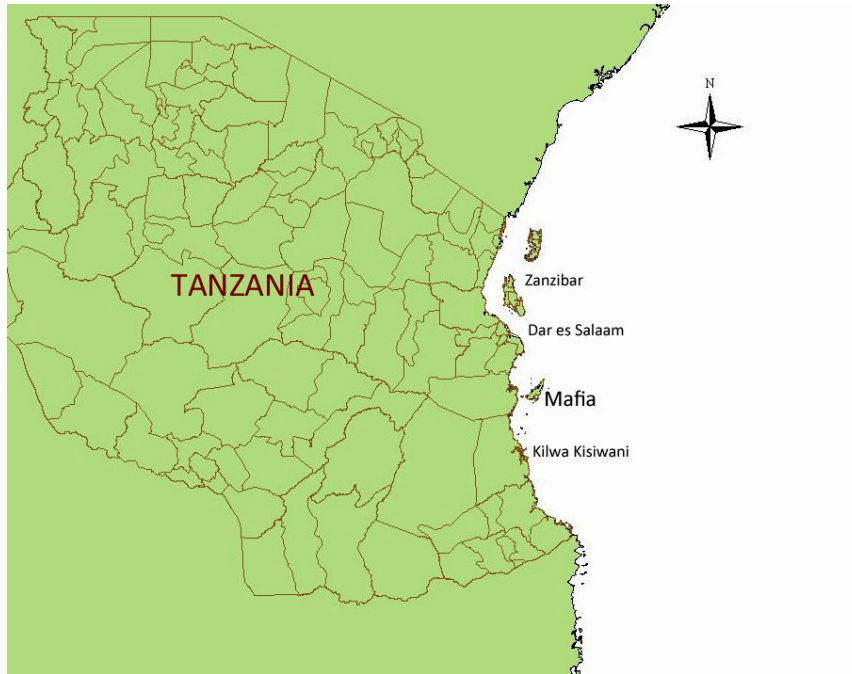


Figure 1: Map of Tanzania showing location of Mafia Island

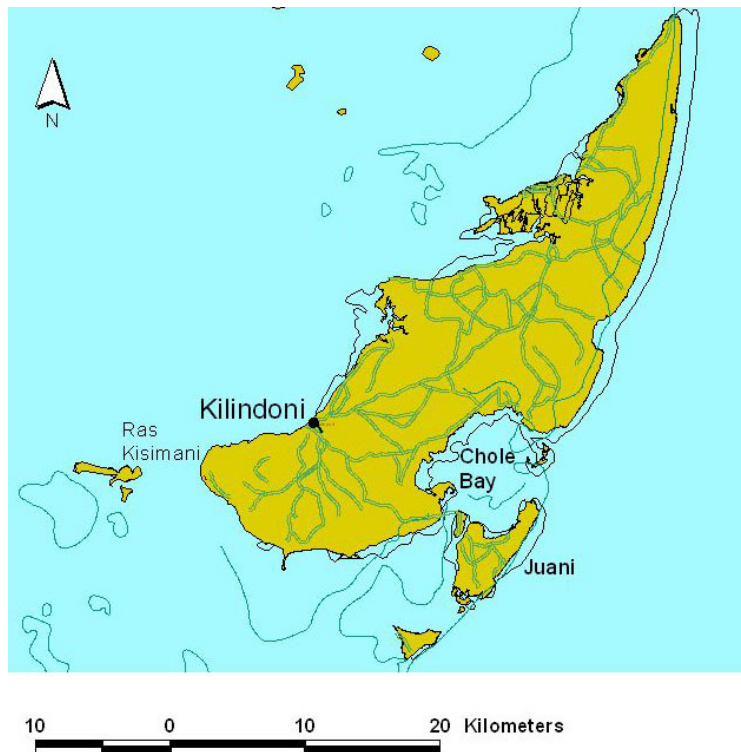


Figure 2: Map of Mafia Island showing location of Ras Kisimani

2.2 Climate

The climate of Mafia Island, which is hot and sub-humid, is influenced by two monsoon winds and the north flowing East African Equatorial current. The northeast monsoon blows from November to March while southeast monsoon blows from June to October. The long rains are observed in between the changing monsoons. The average annual rainfall is 1,900 mm and average temperature of 26.6° C (Semesi & Ngoile 1993).

2.3 Mafia Historical Background

The history of Mafia archipelago has been influenced by colonial control starting from sultanate of Kilwa (11th -15th c. AD), Portuguese (16th -17th c.AD), Oman Arabs (18th .c AD), Germany (AD 1890 -1915) and British (AD 1915-1922). The colonial control has socio-political impact of the Islands (Christie, 2011).

Several scholars have been debating on the names of the archipelago. Baumann (1957 [1985]) portrayed that in the late 19th c. AD the main Island of Mafia was referred as “Chole Shamba” and small island refferd as “Chole Mjini”. Chole shamba literally meaning Chole’s farm and Chole Mjini named due to Arab elites who living on the small Island following the sacking of Kua by sakalafa in 18th c. AD . Ingrams (1942) suggest that the name Mafia was introduced following the arrival of the Portuguese in the late 16th to the early 17th c. AD, as a simplification of their spelling *Monifiyeh*. Mafia Island Marine Park, 2002) described that the word Mafia appears in the Kilwa chronicles as “Monfia” and it seems to have been so- named and included in the domain of the first sultan of Kilwa whose father, Ali bin Hassan, had sent his son to conquer the area around 1000 A.D. The Portuguese later occupied the Indian Ocean are thought to have shortened the word to Mafia.

Mafia have been actively involved in the long distance trade trading links around the Indian Ocean (Chami 1999:8). The involvement of Mafia in trading networks was strengthened by its relationship with the sultanate of Kilwa after incorporation in the 11th c. AD (Chittick 1961:1). Kilwa’s control in Mafia became a base of establishment of Kisimani Mafia (Chittick 1961:1). This is also revealed by coins that are recoverd at both

Kisimani Mafia and Kua (Freeman-Grenville 1962:147). The excavation of Kilwa coins from Kisimani Mafia date the occupation of Kisimani mafia to be 11th -13th c. AD (Wynne - Jones 2006:4). Portuguese arrived on the 16th c. AD and took over a control of Mafia (Baumann 1957 [1895]:5). They built a fort at east coast to control and maintain the trade routes with the far east of the island.

In 17th century AD Mafia Island was primarily occupied “by slaves of wealthy persons who still reside at Kua and Kisimani Mafia” (Revington 1936:34). Local traditions of these towns were raided in the 18th century AD by the Sakalava people from Madagascar who “arrived with small canoes called ‘laka’ and captured many people” (Piggott 1941a:25). Although the captives were later recovered, Kua was never reoccupied and following the attack, the sultan’s seat of power was moved to Chole Island (Revington 1936:34).

At early 18th c. AD Mafia became under the control of the Imams of Muscat. This was strengthened when Sultan seyyid Said shifted his residence to Zanzibar and the islands become part of his territory (Baumann 1957 [1895]:6). In 1890, Germans took control of Mafia after the boundaries of Germany and British were defined (King 1917:117). In 1912, the German administration moved from Chole to Kilindoni, the recent capital of Mafia. In 1915 Mafia was seized by British troops and in 1922 Mafia was given to Tanganyika territory (Revington 1936:35). The Kilwa Chronicle goes on to record that some of the sons of the first Kilwa sultan settled on the southwestern tip of Mafia Island, which today is called Kisimani Mafia.

British troops took control of the island during the First World War, and Mafia subsequently became part of the League of Nations Trusteeship Territory of Tanganyika, which became independent in 1961 and in 1964 joined with Zanzibar to form the United Republic of Tanzania. During the British period more European-owned coconut plantations were established in the south, and the capital of the island was moved to its present location, Kilindoni. The Arab plantations fell into decline after the freeing of the slaves in 1922. For an interesting account of the last manumission document issued by the Germans in 1911 to a slave born on Chole.

The oldest ruins on Mafia are located at Kisimani Mafia near to Kilindoni. Many of them have now been washed into the sea, but, according to the archaeologist Neville Chittick, who conducted excavations there in the 1950s, the earliest strata of mosques date from around the tenth and eleventh centuries. Another British archaeological expedition on Juani island in the 1950s uncovered coins dating from the thirteenth to the fifteenth centuries (Freeman-Grenville 1957). Although many archaeologists place Kua to that time period, others place it at a later date.

The most recent archaeological work on Mafia has been conducted by the Tanzanian archaeologist Felix Chami whose work has pushed much further back in time the origins of the Swahili peoples of the coast, their links with both the interior of Africa and the Indian Ocean. He has recently excavated a cave on Juani Island (news.bbc.co.uk/2/hi/africa/1924318.stm, Accessed 8 March 2012).

3. Project design

The project was implemented from 28th February to 6th March 2012. The major activities implemented were site investigations with the purpose to building a good relationship with local communities, commencing the collection of oral histories, and to implement surveys that would provide details on the nature and extent of some sites. A team of 6 staff out of the existing 14 trained staff participated in the project.

3.1 Community Engagement

This was seen as one of the most important aspects of the project. Mafia Island Marine Parks advised on the community members and groups that should be consulted and engaged in the project. The initial consultation was with the Mafia District Officials (Mr. Peter Kalonga - District Administrative Secretary and Mr. Gerald Mgoba – Acting District Executive Director). During this time, the aims and activities of the project were discussed. An initial consultation with the community on Mafia Island before any work commenced was carried out although this was not too fruitful as some people were not ready to provide the relevant information.

During the course of the project a number of days were spent by the team talking with the community of Chole and Juani Islands. This included gaining oral histories but also in general discussion about the project. On one occasion, a resident from Mlongo, Mr. Salum Mapoy joined the team in a safari to the Kisimani Mafia site. All the people we spoke to were very interested in the project and eager to help about general background history and specific site histories. Meeting with the community on Chole and Juani took place on 1st March, being the first day of the project (Figures 3 & 4). The meeting was used to discuss the aims of the project and the likelihood of implementing a more comprehensive project at Mafia. The importance of community engagement and benefits to the community were stressed.

Members of the Chole and Juani community were keen to discuss the issues of engagement and benefits, highlighting how groups in the past had come to Island to work promised to engage and provide benefits to the community but only minimal results had been forthcoming. It was stressed that at this very early stage of the project we could not promise what types of benefits could be achieved but we stressed that this was an important aim of the project. Some benefits that may come out of a project were discussed and included employment and economic gain in association with increased tourism, training for employment activities, and helping in educational activities for school children (in part to assist in improving living standards) .

In regard to more immediate benefits, the community were keen to see appropriate community individuals engaged in the project and highlighted divers as those that could play an important role and it was readily agreed that they should be engaged in future work.



Figure 3: Group that met at Juani Island 1st March 2012. From left to right standing, Dr. Bill Jeffery, Ahmadi Selemani (Village chairman), Steven Mndolwa and Mohamedi Omari. From left to right seated: Ahmadi Salamala Mbwana, Mwalimu Omary, Humphrey Mahudi, Chris Ngivingivi, Ame Mshenga, Ahmadi Feruzi Mponda, Mwichambi Ahmadi, Mwalimu Nyikombo, Hassan and Salumu Rashid Omary.....



Figure 4: Group that met at Chole Island 1st March 2012. From left to right standing: Saidi Mshangama, Hassan Nahoda, Mabruki saidi (Village chairman) Tawakal Rajabu, Humphrey Mahudi. From left to right half seated: Bill Jeffery, Issa Hassan, Ame Mshenga Steven Mndolwa and Chris Ngivingivi.

4. Oral Histories

A total of 6 individuals from Chole and 11 from Juani were interviewed. The team members who involved in the interview were: Chris Ngivingivi, Humphrey Mahudi, Steven Mndolwa, Ame Mshenga and Bill Jeffery. The collection of oral histories and their transcriptions were an important part of the project. The oral histories included from general histories of Mafia Island and some of the historical rulers, to more specific details about sites.

- Informant claims there is a sunken ship (wooden ship) between Jibondo and Juani Islands. According to Mr. Mshangama the ship sunk at around 1970's. It was an Indian ship which hit the reef and collapsed, some Indians were rescued. Some wood were salvaged by the fishermen and were used to make the traditional boats.
- The elders also mentioned about black stones which are scattered at the site.
- Another elder explained about an anchor which was salvaged and kept at the shore and used by the fishermen but later on it was destroyed.
- The elders who were interviewed talked about the submerged town or city at Kisimani Mafia.
- Some information was passed onto the team about a very old shipwreck which is being followed up by the Department of Antiquities.

The interview at Mlongo was on 3rd March 2012 narrated the history on Kisimani Mafia. Among the interviewed persons are: Awami Juma (Acting Village Chairman), Fhaki Juma (Village executive officer) famous elder Ayubu Abdrahman Mtondolwa, Maulidi Pango. Faswaha Jumanne, Salum Mapoy, Sharuweni Omari, Maulidi Jumanne Mkungumwe and Yasin Saidi.

The town was submerged due to floods which was a curse from God after the wrong doers. Then the town split into which one portion remained on the land and the other portion washed by water. Salumu Mapoyi told about the dhow keel which survived since 12th century (Figure 16). He told that the keel remnant of the dhow which was under construction in a house compound before the floods. He also narrated about the 3 round stones remains which have the hole at the middle (see Figures 20, 21 & 22). He mentioned that these objects were used to chain slaves who were in transit to Bagamoyo or Zanzibar.

There are extensive coral outgrowth some few metre from the end of building remain, the believe that the coral grow over the wall remains and they named as “Mwamba ukuta”

They also narrated about the relation between Kisimani Mafia and Kua domains including the enmity of rulers of the two domains. The story is “One day a Queen from Kua prepared a party and asked a ruler of Kisimani Mafia to send his people to join the party. The Kua Queen had a secret wish to kill Kisimani Mafia people; he dug a hole and furnished properly to be a dinning lounge for visitors. When visitors were having their meal the ruler commended his people to block the entrance hole and all people died. The ruler of Kisimani Mafia was unhappy and he thought on revenge. After some days passed, he constructed a big dhow and when the dhow completed he invited people from Kua to come for the party of launching of the dhow. When the visitors arrived, they were all arrested and lied down towards the sea. Then the dhow was launched into the sea over their bodies (acted as rollers) and all the people who had layed down died. Then God was not happy with this and brought flood as a punishment to people of Kisimani Mafia and many died. A ruler of Kisimani Mafia informed his fellow Kua Queen that flood has devastated killed people. Kua ruler as amazed and and ask in Arabic “Ma’afir” (meaning nobody there). This was marked the origination of the name Mafia¹ .

¹ This story was told differently (vice versa) with people at Chole and Juani

5. Kisimani Mafia Site Investigation Survey

5.1 Site survey

A team of six members of UCH Tanzania started investigating a submerged town of Kisimani Mafia (Figure 5). This was done during day 2 after gathering information from respondents. The survey began by the team snorkeling around the site so as to identify potential underwater material remains. The searching also involved one person towed by a boat all over a site while snorkeling for about 30 minutes. The team of three people started to develop a site plan by recording GPS coordinates along the Highest Water Mark (HWM) and Lowest Water Mark (LWM). Potential building remains between these marks were recorded (Figures 6 and 14).

On day 3, divers divided into two teams in which each team constituted 3 divers. The divers surveyed underwater building remains by establishing a baseline which runs adjacent to the shore. The first diving team laid baseline line (30 metres) and record GPS position at the start and at the end line. Then offset measurements which run perpendicular from the baseline after every 3 metres were recorded after locating furthest distance of building remains or ceramics. The second diving team laid a second baseline which stretches from the end of the first line for another 30 metres (figure 14).

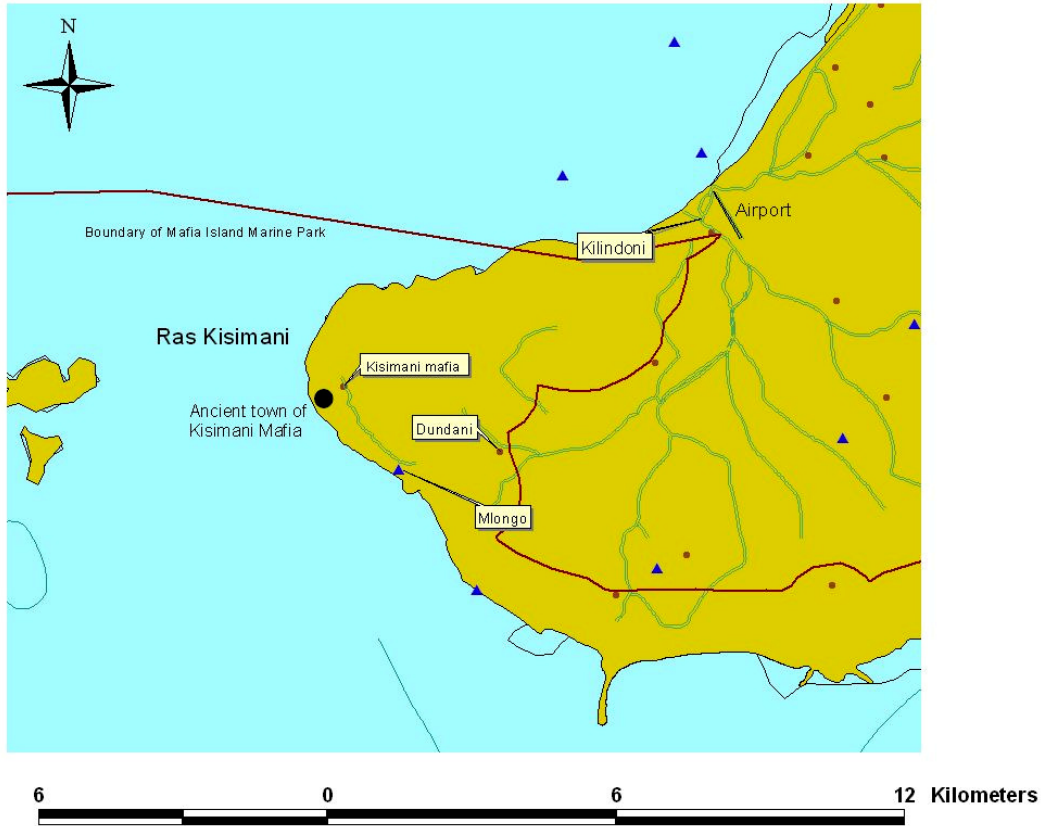


Figure 5: Kisimani Mafia site location

5.2 Survey of Features between High and Low Water

In recording high and low water mark revealed that the building remains stretches for about 500 metres from west to east (Figure 6).

Many building remains were located in the area, but also three wells and three large round stones with holes at the mid were identified. According to oral history the three stone with hole at mid were used to chain slaves who were in transit to slaves markets in Zanzibar and Bagamoyo and two can sometimes be seen at very low water (see Figure 20-22).



Figure 6: A view of some of the Kisimani Mafia ruins on the beach at low tide



Figure 7: One of the wells found intact on the beach.



Figure 8: Ceramic shards collected from the beach (small shards) and some from underwater (larger shards) Scale: 10cm on the left, then 20cm



Figures 9, 10, 11: Ceramic shards collected from the beach, scale in cm



Figure 12: Coins found on the beach



Figure 13: Kilwa minted coin on the beach

5.3 Underwater survey

The team managed to lay a baseline of 60 metres and a total of 20 offset measurements were taken. The average distance of the offset was 11 metres and furthest offset point was 19.3 metres. Also the keel of a dhow was observed at longitude 564954 and latitude 9121634. The oral history narrates that the keel is a remnant of dhow which was under construction in one of the house yard before the floods.

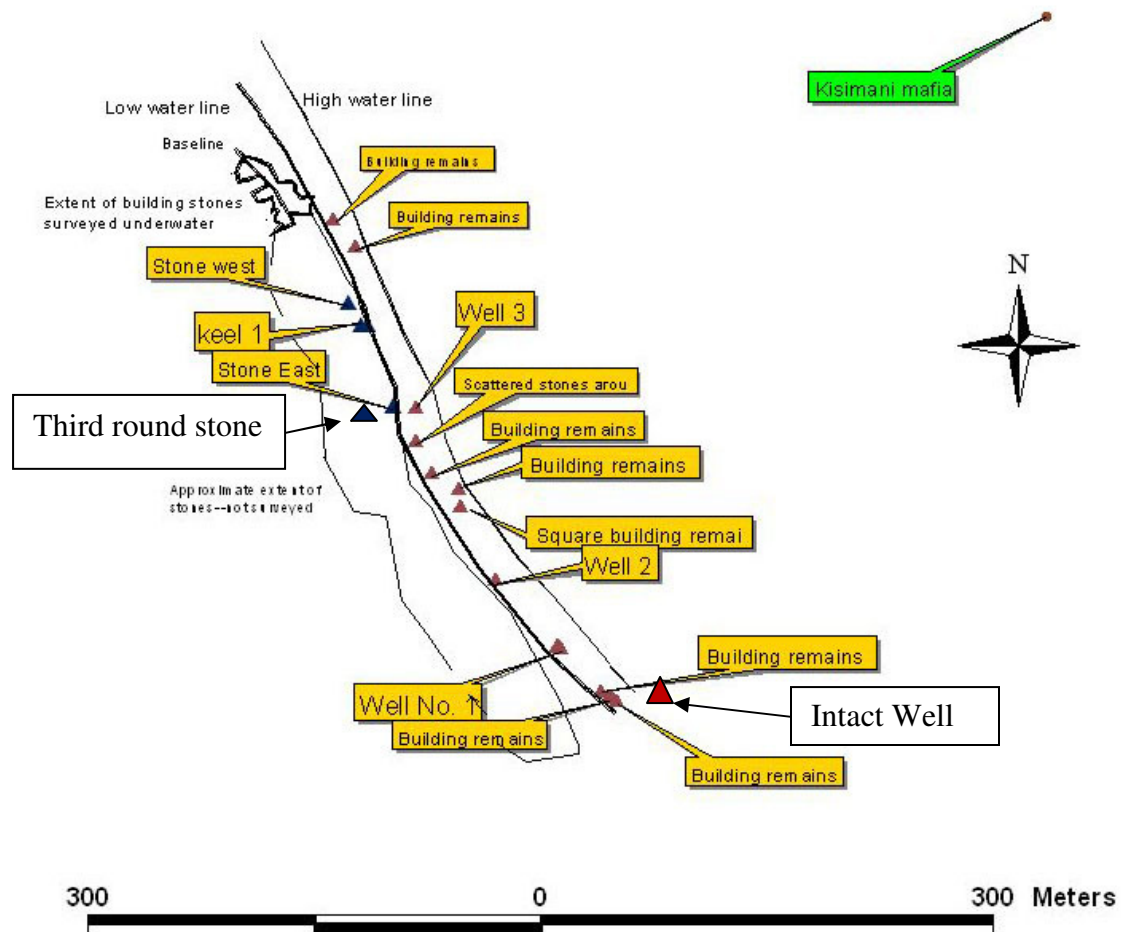


Figure 14: Kisimani Mafia site plan

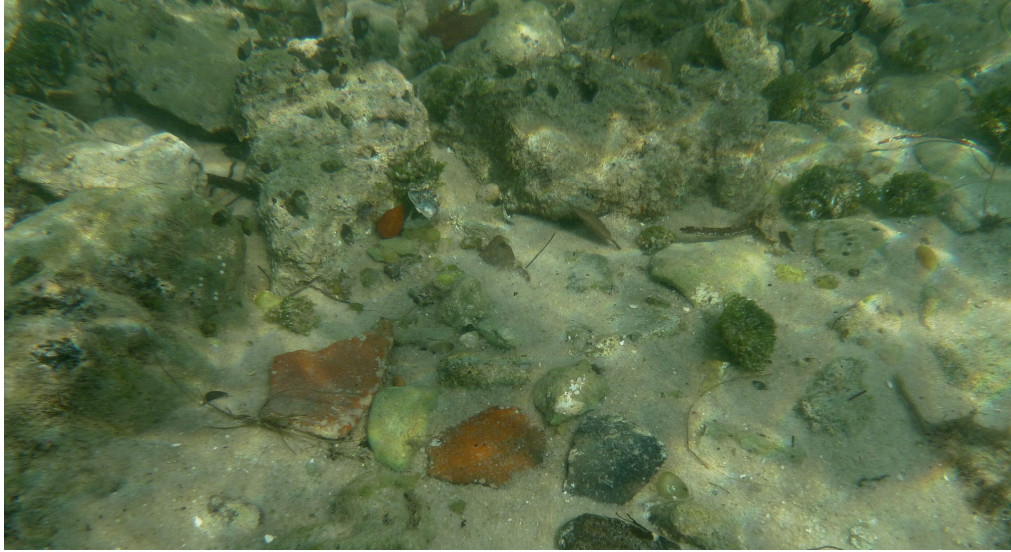


Figure 15: Building ruins underwater with some ceramic shards

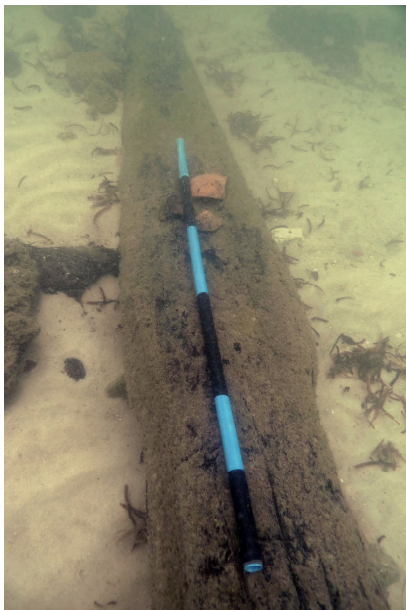
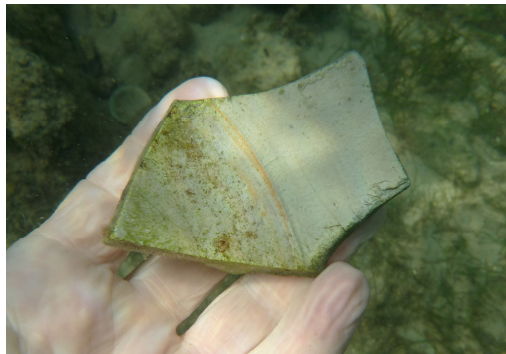


Figure 16: Keel seen underwater



Figures 17, 18, 19: Ceramic shards underwater

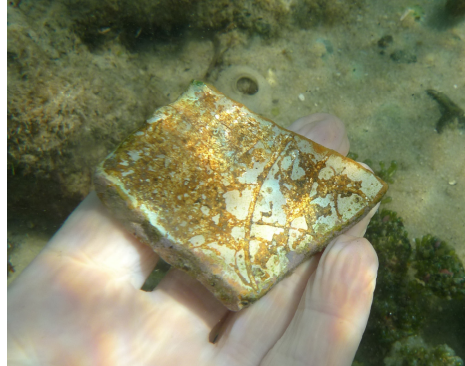




Figure 20: Stone east (as marked on site plan)



Figure 21: Stone seaward of stone east



Figure 22: Stone west

5.4 Preliminary Assessment of Coins

Of the 31 copper coins recovered from the beach at Kisimani Mafia four were ‘foreign’ and the other 27 were smaller. The smaller coins, all similar in shape and size (16 mm diameter) were presumably minted at Kilwa Kisiwani from 11th to 14th/15th century as some show the names of the different Sultans of Kilwa Kisiwani which helped Chittick to date the Kisimani Mafia site (Figure 23).



Figure 23: Kilwa Kisiwani coin of Sultan Ali bin al-Hasan

Two of the foreign coins were Chinese, one identified as a *kai yuan tong bao* coin from the Tang Dynasty (618 to 907). The *kai yuan tong bao* coin is fully intact (24 mm in diameter) but very corroded, the other was only a fragment and it has not been identified (see Figure 23 and 24). Only one side of the *kai yuan tong bao* coin was clear enough to identify the marks, there appeared to be no mark on the reverse side although it could be covered with concretion or corrosion product.



Figure 24: Tang coin after cleaning with citric acid (lime juice) the area circled could be a mark similar to that found on the middle Tang coin (see Figure 26 below)



Figure 25: As found on the beach

Similar *kai yuan tong bao* coins were found on the Belitung shipwreck and excavated during the 1990s with the material controversially bought and displayed by the Singapore government (Krahl et al. 2010). The site has been dated from the Tang Dynasty; one Changsha bowl has an engraved date on its base, being 826. The remains are of an Arab dhow that it is thought to have commenced its voyage at the Chinese port of Guangzhou (and possibly included other Chinese ports) collecting goods such as the 55,000 Changsha ceramics to take back to ports in the Persian Gulf, when it was wrecked off the island of Belitung in the Java Sea in Indonesia. The researchers involved in the analysis of the recovered material concluded the coins were to be used for purchasing goods in south-east Asia. They also concluded that because the coins do not have a mint mark on its reverse side they were made before 845 (Krahl et al. 2010: 38). Little other literature has been found to date about Chinese coins.

The most useful information has come from a number of websites. The coin is from the Tang Dynasty. It was cast beginning in the year 621 AD during the reign of Emperor Gao Zu. The inscription reads [kai yuan tong bao](#), 開元通寶. These coins were basically valued for their metal and most *kai yuan tong bao* coins were well-cast and of a standard weight. They were therefore preferred by people who often also encountered small and underweight coins. Even though *kai yuan tong bao* coins first appeared in 621 AD they were actually cast for almost 300 years. Depending on subtle stylistic changes, these coins are generally recognized to be of three time periods, namely "early type" (621-718), "middle type" (718-732), and "late type" (732-907). Additionally, the molds from which the coins were cast were sometimes used by other kingdoms and dynasties even after the collapse of the Tang Dynasty. Finally, coins were frequently buried or hidden since there were no banks to keep money during those times. Sometimes these coins were accidentally discovered centuries after they were buried and were then returned to circulation. It is not surprising at all to discover *kai yuan tong bao* coins at a site dating from the 10th or 11th century. <http://primaltrek.com/chinesecoins.html>

Some examples of the Tang coins from the three different periods can be found in <http://www.zeno.ru/>



Figure 26: Early Tang coin (621-713)



Figure 27: Middle Tang coin (713-844), the coin found at Kisimani Mafia appears to have a similar mark (shown in circle)



Figure 28: Late Tang (845-907). This coin does not contain a mark on its reverse side as suggested in Krahl 2010.

Based on the information on similar Chinese coins from the Belitung shipwreck (which are dated to be in use within a few years around 826), these coins could be expected to be found at Kilwa Kisiwani which was being settled by people from the Persian Gulf from

the early to mid-9th century, however they would seem to be 200 years earlier than the recorded history of Kisimani Mafia (Chittick cited in Sutton 2002).

It is suggested however that these coins were not only in use for 300 years of the Tang Dynasty but well beyond. It could therefore be possible to find these coins on 11th/12th Century sites. Further historical research is required to see what other Chinese coins have been found at Kilwa Kisiwani, Kisimani Mafia and other Swahili ports along the East African coast and how they were used. It would also be of great interest to investigate the nature and extent of any other Chinese coins at Kisimani Mafia, especially those *insitu* underwater, where they would be in far better condition.

5.5 The Ceramic Assemblage

Varieties of ceramic artefacts were recovered during the survey and few (10) were analysed by one of the team; Elgidius Ichumbaki Bwinabona from the Department of History and Archaeology, University of Dar es Salaam. Among these ten potsherds, 6 were local dating from Early Iron Age (EIA) to trade and contact period and four were imported (see Figs. 9, 10, 11, 17, 18 & 19) dating to between 10th and 14th centuries. The local ceramics were analysed following Wynne-Jones' (2009: 30-36) scheme. Primary aim of the ceramic analysis was to identify key types and attributes, and outline their relationship to other published pottery types from the East African coast. It was hoped that this would help ascertain the possible chronological relationships of the assemblages, and their cultural and historical significance. In addition, it was hoped that this would also improve our understanding on the trade networks and interactions between Mafia and other communities of the Indian Ocean World.

The recovered and analysed ceramics might have been manufactured by hand from an initial thick coil of clay. Then, the forged clay was drawn up to form the body of the vessel using the paddle and anvil technique. This is a common technique which is still used by contemporary East African potters. Fabric was determined by breaking off a small section of a potsherd to reveal the type of clay and temper used following the procedures outlined by Orton *et al.* (1993: 69). The analysed local ceramics were made

from fine clay tempered with tempers including grit, shell grog, quartz, sand and organic matter. Apart from these local potsherds, four pieces of imported ceramics were also recovered from underwater. Based on the descriptions and classifications given by East African coast archaeologists (e.g., Chittick 1974:303-4, 1984:79-80; Wright 1984; Horton 1996:281-90; Wilson and Omar 1997:51-2; Radimilahy 1998:178-9; Chami 2002:32), the pieces are *sgraffiato*, hypothesized to be a Persian Gulf import (Horton 1996: 281-90; Fleisher 2003: 269). According to these scholars *sgraffiato* is the most common imported ceramic in eastern African coastal sites from the 10th-14th centuries (*ibid.*).

6. Conclusion and Recommendation

6.1 Conclusions

The Tanzanian MUCH team has carried on with implementing more site surveys in other parts of Tanzania, flowing on from the Zanzibar and Kilwa surveys. Mafia Islands is an important area historically and could potentially contain many significant maritime and underwater cultural heritage sites and histories, of which some of this information was obtained during this survey. Mafia Island is also important as it contains a large Marine Park which covers a good part of the island and reefs and the managers of this park are enthusiastic about helping to survey and manage cultural heritage sites in the marine park.

It is a 'responsibility' for researchers/site managers to ensure the local community share in all the various aspects of managing their heritage, from making decisions about what is done and what the outcomes will be, to being engaged in the work, and gaining benefits from the outcomes, amongst other things. The local community is the most effective site manager but they can't do it themselves; they need support so it is not just their responsibility in conserving and protecting sites. The most effective management is a collaborative one with all the different stakeholders.

The oral histories provided significant information on the location of underwater sites and relevant histories of the sites. Further meetings with respective local communities will be a stepping stone towards engaging the community on protecting and managing the sites.

This project initiated a survey of a significant site which from what was found has great potential in revealing more about the history of the site, of Mafia and its role in the trading network established by the Persians from the 10th century.

6.2 Recommendation

A number of recommendations are made to further the work on Mafia Island:

- The oral histories identified several potential underwater cultural heritage sites which need further exploration and hence documentation. It was just the start in documenting the oral histories, so more work can be done here.
- The underwater survey at Kisimani Mafia has only just begun with a greater portion of the site still to be surveyed. Therefore a lot of time is needed to conduct more survey and even excavation so that we can develop a good site plan which will be a road map for tourism and research purposes.
- The findings of the Kilwa coins were not unexpected but the Chinese coins were. Why were Chinese coins present at Mafia? This is an interesting question that could be partly answered by conducting a more thorough underwater survey and an excavation project to see if other Chinese coins (and from what period) are present. The coins found during this survey were found on the beach; those located underwater should be in much better condition and provide more accurate information. This work should be done in association with a desktop survey (contact with colleagues) of what Chinese coins have been found at other Swahili sites along the Kenyan, Tanzanian and Mozambican coasts.

It is also recommended that Stakeholders investigate further cooperation in the MUCH programme and develop a more comprehensive and strategic MUCH programme including the provisioning of the MUCH team with equipment so that site surveys can be carried out more efficiently and effectively.

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