

Research Article

Sociocultural and economic aspects of the ancient Roman reported metropolis of Rhapta on the coast of Tanzania: Some Archaeological and historical perspectives



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Abstract

Two thousand years ago, the Romans had knowledge of the western Indian Ocean seaboard. The East African seaboard was then known as Azania. The capital of Azania was recognized by the Romans as Rhapta. The unknown author of the Periplus of the Erythrean Sea seems to have visited the region himself and reported about the territory and its main settlements. However, Claudia Ptolemy, the geographer, got his information about the territory from skippers some who had been to Rhapta several times. After his third century report no more is heard about Rhapta. The search for the Azania settlements and particularly of Rhapta began from about 1950s in the colonial times. It is the research endeavor of the third author of this paper from the mid-1990s in the region of the Rufiji delta and the Mafia Island in south east Tanzanian coast that provided some clue to the location of Rhapta. With more recent research in Mafia archipelago, it is now apprehended that Rhapta got submerged on the northern side of the archipelago offshore of the Rufiji delta. With collected data from recent underwater and terrestrial archaeological surveys and available Roman historical reports, we can discuss socio cultural and economic aspects of Rhapta.

Keywords: Rhapta, Rufiji, Mafia, Roman, Transoceanic

Introduction

There are three ancient Roman documents that report about the territory of Azania. The first is that of Pliny the Elder of early first century AD which reports about ancient spice trade in Azania. Pliny's work was discussed by Miller (1969). The second is the Periplus of the Erithyraen Sea of the same period by an unknown author. The Periplus of the Erithyraen Sea describes the travel route to Azania to as far as to what was then recognized as an emporium of Rhapta (Casson, 1989; McLaughlin, 2018). The third document is that of Claudia Ptolemy of the third century AD. The document provides the Geography of Africa showing the location of Azania in East Africa. Rhapta, which was by that date had grown to a metropolis, is shown on latitude 8° south at a navigable river. People on that region are recognized as Rafiji very similar to the modern-day Rufiji people. An Island of the same latitude offshore the river is known as Mafiaco similar to the modern-day Mafia Island (Freeman Grenville, 1962). It is these historical records that led the third author, his colleagues and their predecessors to conduct research on the Rufiji delta and Mafia archipelago to look for the elusive emporium/metropolis of Rhapta. The most recent research data is presented and discussed below.

From the 1950s in the colonial era, historians and archaeologists like Gervace Mathew and Neville Chittick endeavored to look for the elusive metropolis of Rhapta and other Roman reported settlements (Mathew, 1975,

Chittick, 1982). As noted above, it was latter, that the third author and his colleagues followed suite in search of the metropolis in the Rufiji delta and Mafia archipelago (Chami and Mapunda, 1998; Chami and Msemwa, 1997; Valerian and Chami, 2012). It is in this area that colonial scholars had also thought Rhapta was located (Mathew, 1975; Chittick 1982; Stahl, 1965). In these works, led by the third author, many settlements of the Early Iron Work (EIW) period dating to the Roman period were found. Some of the sites had Roman beads, glass and others had pottery from different ancient worlds (Chami, 1999a; 1999b; 2001; 2003; 2006). With the fascinating results it was thought that Rhapta had been found or was near to be found on the delta of the Rufiji River (Hayford, 2012). It was the discovery of Mwamba Ukuta, a submerged site on the northern side of Mafia Island, which prompted Alan Sutton, a European diver, to invite the third author to visit it to verify if it was Rhapta which he had been looking for (Bita, 2019). This episode was an impetus to the underwater archaeology work that followed. The search began with archaeological survey of the whole of the Mafia archipelago and re-excavation of sites previously found to contain Roman materials. Several publications on these works have been done all pointing to the existence of Rhapta on the Mafia archipelago (Shikoni et al, 2019; Rayno et al, 2020; Mandela and Chami, 2021; Chami, 2021; Bita et al, 2021). It will be shown below that recent underwater archaeological research conducted by this team has yielded more data on the Roman existence in the area of Mafia archipelago and Rufiji

delta. The problem being dealt with in this paper is whether we have now really discovered the elusive emporium or the metropolis of Rhapta. With the discovery of this ancient city, it is optimum time to start to discuss the socio-cultural and economic aspects of Rhapta mentioned in the Graeco-Roman documents.

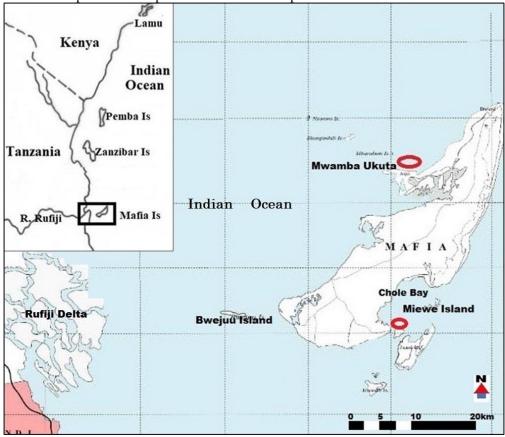


Fig. 1: Map of Tanzanian coast with Mafia and Rufiji delta areas studied in this research.

Socio-cultural aspects of Rhapta in the Roman documents

The Periplus of the Erythrean sea is of the opinion that Rhapta was the capital of Azania and hence the location of the ruler of Azania (Casson, 1989; Mclaughlin, 2018). However, it is reported that there were many communities in the region of Rhapta each behaving like an independent state. This could mean that the communities respected each other with some kind of cultural relationship as it was reported earlier by the visiting Greeks that the communities of that region were of extended families with much respect to the elders (Oldfather, 1961). This kind of social-cultural aspect has been maintained in this region of Africa up to today.

Another aspect indicated in the Periplus is that of the nature of the people in Rhapta, who are said to be big bodied. Some scholars have erroneously thought these were non-Bantu speakers (Sutton, 1994-5). Against that opinion it should be noted that most Bantu speakers are of large bodies. Moreso, the Romans and their Greek predecessors recognized people of this region of Azania as tillers or owners of soil which is the cultural characteristic of Bantu speakers from the ancient time (Phillipson, 1976; Soper, 1971). It is noted above that on the map of Claudia Ptolemy the people of the Rhapton River are recognized as Rafiji which is a corruption of the modern-day Bantu speakers known as Warufiji. These people are settled in the whole area of the Rufiji River and Mafia archipelago either fishing or cultivating

coconut, rice and other types of crops. The products of these ancient agricultural activities are more elucidated in the discussion below.

Another socio-cultural aspect is the report in Periplus that there were foreigners in the metropolis of Rhapta who were trading, settled and intermarrying with the local people (Casson, 1989; Huntingford, 1980). These foreign people particularly Hommerites from the middle East could speak local language (Casson, 1989). This social-cultural aspect indicates that Rhapta was cosmopolitan with the Romans also contributing in this aspect and also speaking the local language. Pliny also reported of people from South East Asia coming to Rhapta for trade (Miller, 1969; Beaujard, 2018; McLaughlin, 2018). Chinese also reported to have been to Azania which they termed it as Zesan (Hill, 2004). This is an important sociocultural aspect because Rhapta is viewed also with the presence of the Romans as cosmopolitan.

Another important tradition is that of sailing and fishing. The people of Rhapta are reported to have sewed boats which they used for sailing long distances and for fishing. Fishing activity is also reported to be of baskets. Turtle whose shells are reported to be exported were captured in this way. Hunting activity from which elephant ivory and Rhinoceros horns for trade were probably obtained was another cultural activity. It will be shown below the recent finding of the above fishing tradition in Mafia archipelago.

The other cultural aspect of Rhapta is architecture. It is obvious that the metropolis of Rhapta as reported by Claudia Ptolemy would mean that it was a well built and planned city. It must have had a perimeter wall for security. Most sites of that time in the region were of Bantu speakers. They are found to be of mud and wattle (Chami, 2006; Valerian and Chami, 2012; Waltz and Kwekason, 2022). It will be shown below that despite Rhapta having been settled by the same kind of people with pottery of the Early Iron Working (EIW) tradition being found in the underwater site, walls of better build houses and perimeter wall of cement/lime have been observed. Boulders of the perimeter wall have been verified by specialist to be of concrete, a tradition first practiced by the Romans (Delate, 2001). It is therefore obvious that the Romans also settled in Rhapta, since despite evidence for concrete, many sherds of terra sigillata pottery including amphorae have been found underwater in Mwamba Ukuta, Chole and in other places around Mafia and Rufiji delta (Shikoni et al, 2019; Mandela and Chami, 2021; Bita et al, 2021).

Economic aspects of Rhapta in the Roman documents

Probably the main economic aspect is that of trade in which foreign traders came to Rhapta to obtain locally available goods and to bring foreign goods for exchange. This economic aspect is reported in the historical records since the time of Greek visitors (Casson, 1989; Mclaughlin, 2008; Huntingford, 1980, Oldfather1961). Exported materials included coconut oil, ivory and rhinoceros horns. Spices, gold and iron have also been mentioned by some scholars as exports of the port of Azania (Chami, 1999b; Horton, 1996). Imported goods included metals of better quality, glass materials, wine and assorted grains and decorative materials such as kohl. It will be shown below that items such as amphorae and glass objects which could have brought goods such as wine and kohl respectively have been found in the region. It will also be shown that remains of other Mediterranean and Asiatic objects such as ceramics and beads have been recovered in the region. It has been mentioned above that products of fishing, hunting and agriculture were part of exports.

Methodology and findings

Three methods were employed in this research including underwater archaeology, terrestrial archaeological survey and interviews. The first underwater archaeological work in search of Rhapta in Mafia archipelago was conducted in 2018 and 2019 involving Abel Shikoni and Peter Mandela (Shikoni et al, 2019; Bita, 2019; Mandela and Chami, 2021). The purpose of the survey was to find out how the purported Rhapta settlement was linked to the other settlements in the archipelago. The work examined the submerged site of Mwamba Ukuta north of Mafia archipelago which is only visible during the times of low ocean tides (Plate 1).



Plate 1: Section of Mwamba Ukuta in Mafia archipelago exposed during low tides

Apart from those EIW sites which had been found previously by Chami and Msemwa (Chami and Msemwa, 1997; Chami, 1999c) no other site of the Roman period was found in this survey. However, a reexcavation of the site of Ukunju cave which had been found previously yielded many materials of the EIW and of transoceanic origin similar to those reported previously (Shikoni et al, 2019; Chami, 2004; Gupta, 2016; 2021). Underwater work around the island of Bwejuu and Kisimani Mafia, all closer to the Rufiji delta, also yielded transoceanic pottery of the Middle East and Mediterranean world dating to the BC/AD changeover time (Mandela and Chami, 2021).

Chole Bay

The next research by our team on the archipelago was that of 2021. This fieldwork involved land survey in the south of Mafia Island where an EIW settlement on the Island of Miewe on the Oceanside of Chole Bay was discovered. This was the first time this area was examined since archaeological works started on Mafia archipelago. The area is now considered to be part of Rufijji delta being the area onto which the river enters the main ocean. The ancient delta would therefore have included the island of Bweiuu. Chole Island and the other parts of Southern Mafia, including Juani and Jibondo (see Figure 2). The main river channel would have entered the main ocean via Miewe Island. The local people of the area are of the same opinion (Bita et al, 2021). The discovery of this ancient site at Miewe with EIW pottery and those of transoceanic nature suggests that the channel at Miewe was the main entrance to Rhapta and other related settlements of Rufiji and Mafia archipelago.

Underwater archaeological work at the nearby bay of Chole has yielded pottery of transoceanic connection. In an area covering 85m² near the current boat landing to Chole Island, several scatters of Middle Eastern pottery (Plate 2; Fig. 3 and 4) were found buried in sand and others embedded in stone on the sea floor. Slightly north west of this area inside the channel leading to Jibondo island (see Fig. 5), more spread of ceramics of Mediterranean origin including Roman terra sigillata (Plate 3) were recorded at depths ranging between 5 and 12m. Other materials recovered include a neck of an amphorae ringed with a metal (Plate 4), similar to one recovered at Ukunju Kuu cave in nearby Juani island (Shikoni et al, 2019; Chami, 2004; Gupta, 2016).

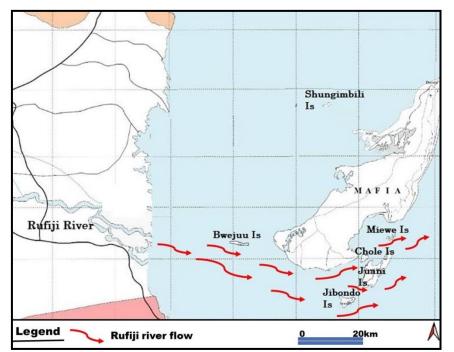


Fig. 2: Possible ancient Rufiji River delta and its flow to the main ocean.

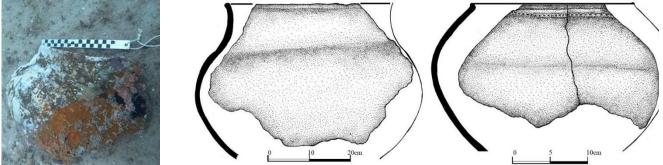


Plate 2 and Fig 3: Middle Eastern pottery. Figure 4: Far Eastern Ware



Plate 3: Roman Terra Sigillata and Plate 4: Neck of a metal ringed amphorae



Plate 5: The traditional fishing estate and basket like traps at Chole Bay.

This research discovered in Chole Bay large fishing farms / estates on flat areas of the shoreline where locals deploy long traditional fish traps (Plate 5). The area used for the fishing overlooks Chole Island with Miewe to the south (see figure 5). This area, as indicated above, lies within the ancient Rufiji delta and is the confluence between the entry to the Bay from Miewe Island, Jibondo and Juani channels. It is here the Rufiji River would deposit the rich hinterland alluvial soils which are conducive for small marine creatures that attract fish. This deposition created the sandy intertidal area where locals would deploy their fishing basket traps at low tides. Graeco Roman records have mentioned local people of Rhapta fishing in large areas using traditional basket traps (Datoo, 1970; Casson, 1989; Chami, 2006; Mclaughlin, 2018). It is the first-time basket fishing that was mentioned by the Romans, is revealed in Mafia and reported.

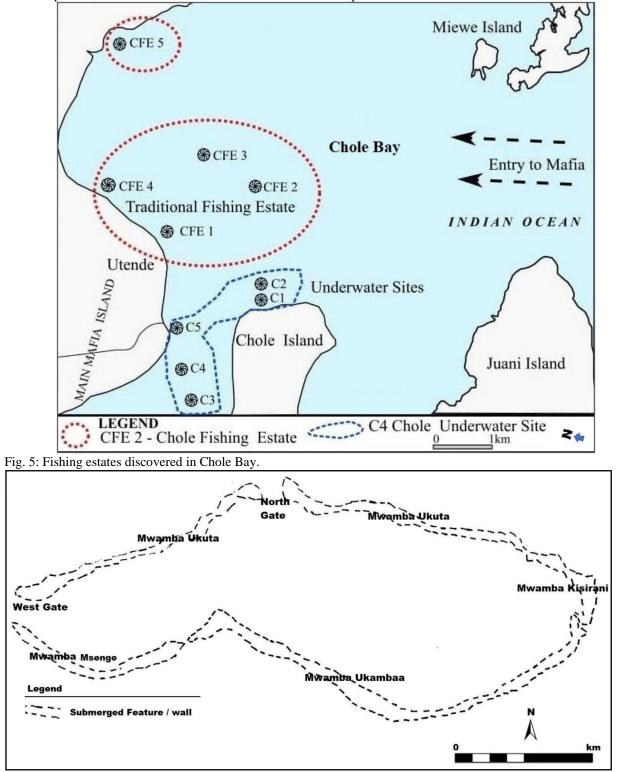


Fig. 6: Mwamba Ukuta

Mwamba Ukuta

More work of this research was directed to the underwater site of Mwamba Ukuta north of Mafia Island in which the submerged wall perimeter wall feature was mapped and more underwater archaeological materials recovered. Mapping the extent of the submerged wall feature established that it is composed of four sections; recognized by the local people as: Mwamba Ukuta, Mwamba Kisiriani, Mwamba Ukambaa and Mwamba Msegge (see figure 6).



Plate 6: The flat pavement-like area of Mwamba Ukuta



Plate 7-8 The seabed at central and southern areas showing heavy and less vegetation cover respectively.

Ukuta is the local people's Swahili word for a wall. Mwamba Ukuta meaning a hard rocky wall. Of the four sections, Mwamba Ukuta (with two parts) is the longest measuring 3.31 km and Mwamba Kisirani the shortest at 0.44 km. The inner circumference round the wall feature is 8.17 km and has an inside area of 2.42 km². Further the feature has two openings to the north and west, commonly referred by locals as gates. Mwamba Ukuta is made in a way as to form a wide flat pavement-like area. This pavement in most cases would have been a walkable area on the outside of the wall, either for monitoring of invaders. It is this flat walkable area that appears above water at low tides (see plate 6). Its width was taken at different points and found to range between 20 and 22 m wide.

Physical setting of Mwamba Ukuta Seabed

It was noted in this research that the inside of the wall feature is composed of sand, clay, rocks, hard surfaces and marine plants. The area near the northern wall sections of Mwamba Ukuta and Kisirani exhibits high level of erosion and exposure while the central area tends to be heavily grown with marine vegetation. The area near the southern wall sections of Mwamba Ukambaa and Msenge has high deposition of sands; silty clays and sparse vegetation (see plates 7 and 8). The heavy erosion near the northern sections is attributable to wave action, since it borders the high seas. In addition, the opening at the north gate is the only entrance for the sea at high tides, hence greater push of sediments for final deposition to the south (Fig. 7).

At the submerged site of Mwamba Ukuta, this survey work observed pottery of EIW and Triangular Incised Ware (TIW) traditions dating to the Roman period in about the 100 to 500 A.D. (Chami, 1994-5). TIW is the pottery tradition that succeeded the EIW tradition along the eastern Africa coast and its early phase dates to between 200 B.C. and 200 A.D. (Chami, 1998). Triangular Incised Ware decorative elements seem to have been derived from the EIW tradition hence showing some cultural continuity (Chami, 1994). Typical decoration in TIW pottery includes incised triangles, double lines of punctates/stamps in small amounts, zigzagging double incisions, appliqués and oblique incisions. The TIW pottery recovered at Mwamba Ukuta has triangular shaped incisions and punctates (Plate 9 and figure 8).

EIW ware is the pottery tradition that has been associated with farming communities who practiced iron working / smelting (Chami, 1994; 1998; Juma, 2004; Waltz and Kwekason, 2022). On the coast of East Africa, the EIW culture spanned the dates between the 2^{nd} century B.C. and the 5th century AD. The pottery is characterized by thick rims with flutes and bevels in combination with comb-stamping or incisions of different bands. This research found EIW bowls that were heavily encrusted and petrified at Mwamba Ukuta. Both (see Plate 10 and 11) had bevelled and thickened upturned rims typical of the 250 AD Kwale Ware (Chami, 1999c; Soper, 1967, Waltz and Kwekason, 2022).

Other materials found include imported sherds of Mediterranean origin (plates 12, 13; fig. 9 and 10) some

with would-be Roman inscriptions (plate 14 and fig. 11). Others are stone tools and bones of marine creatures probably turtles.

Importantly this study of Mwamba Ukuta discovered remains of concrete linear boulders collapsed in a line on the south of the pavement-like area suggesting there could have been an inner wall of the submerged feature. The blocks have a flat surface, are compact and their dimensions range between 300cm long, 250cm wide and 30cm in thickness (see plate 15). Samples of the blocks were collected for petrological analysis by optical and scanning electron microscopy and thin sectioning at the African Mineral Geosciences Center in Dar es Salaam. Microstructural analysis of analyzed sample showed that the blocks are made of secondary materials not found in the sea area at Mwamba Ukuta, but brought from outside. Revealed results confirmed that they are concrete, made of cement and lime which was a Roman technology (Delate, 2001). Their composition includes lime and different grog fragments to temper the block and as cementing material (see plate 16). The analysis also confirmed that most stones used in the concrete making are not locally found in Mafia Island.

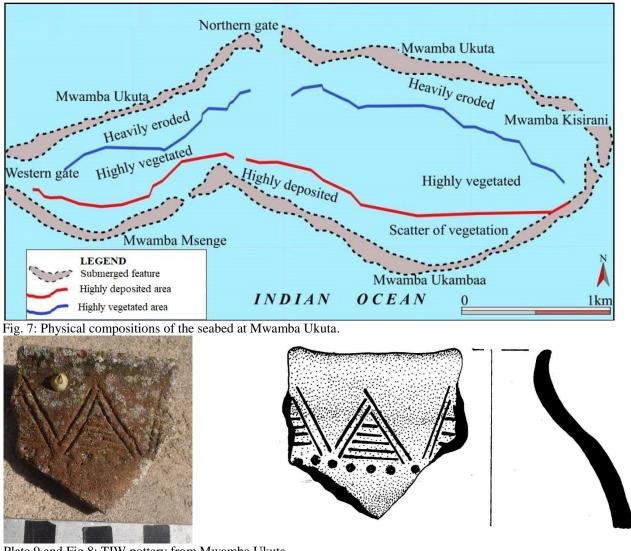
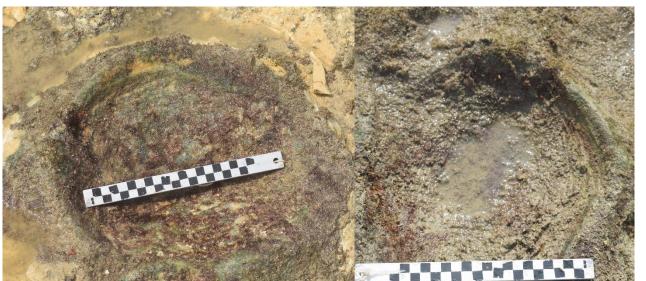


Plate 9 and Fig 8: TIW pottery from Mwamba Ukuta



2 4 6 8cm

Plate 10 and 11: EIW upturned and open bowl pottery at Mwamba Ukuta



Plate 12 and 13 and Fig. 9 and 10: Mediterranean pottery



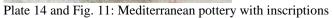




Plate 15: The linear/geometric broken boulders appearing in a line along Mwamba Ukuta

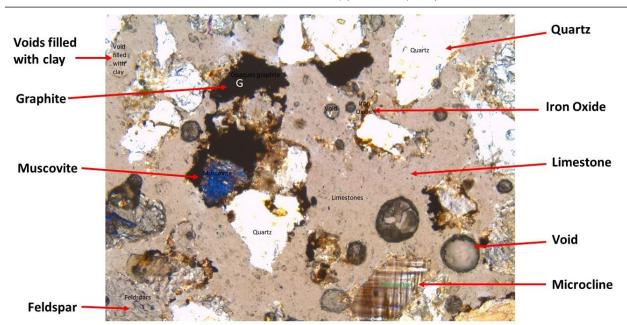


Plate 16: Composition of analysed concrete from Mwamba Ukuta

This study has noted very important research aspects. It is the first-time basket fishing, reported by the Romans, is discovered in Mafia and reported. The study has noted that the area has large amounts of underwater archaeological materials that support the Graeco Roman records of the region. We now have an apprehension that we have discovered the ancient metropolis of Rhapta: We have the perimeter wall of the site and Roman terra sigillata pottery which can be used to date the Roman period and their presence in the area (Greene, 1992; Hayes, 1997). Large, yet unexcavated underwater areas of the underwater site, some with built house walls and even features like aqueducts were also observed (Shikoni et al, 2019; Chami, 2021a; 2021b; Bita et al, 2021). Results of petrological analysis of samples from the wall remains confirmed that these are concrete, made of cement, lime and grog which was a Roman technology (Delate, 2001). Our archaeological findings have also been verified by several scholars including Dr. Sunil Gupta who is a specialist of ancient Indian Ocean trade networks (Gupta, 2016; 2021) and Giada Manzinali (Shikoni et al, 2019) who identified the Roman and the Middle East pottery found at Mwamba Ukuta. Our findings at Mwamba Ukuta would suggest that Rhapta as a capital had moved from Chole area to Mwamba Ukuta.

Discussion

Several issues need to be discussed here. First is the verification of the hypothesis of several scholars reported above that the metropolis of Rhapta was located on the Rufiji River / Mafia area. Since those working against that opinion have already been discussed elsewhere (Chami, 2009; Chami, 2021a; 2021b; Shikoni et al, 2019; Gupta, 2016,2021), there is no need to reiterate that discussion at this point. Let it be agreed that all the imported artifacts including pottery from India, the Middle East and the Mediterranean region associated with those of the EIW period found in Mwamba Ukuta and other sites of the Rufiji delta and Mafia archipelago

indicate the presence of a large trading settlement in the region.

Periplus of the Erythrean Sea reported the local people of Rhapta as being agricultural and fishermen. It should be noted at this juncture that archaeologists have ample evidence of agricultural activities of those people of the EIW period. In the EIW site of Mlongo in Mafia, coconut fronds were found to have roofed the local houses made of mud and wattle (Waltz and Kwekason, 2021). Coconut remains have also been found in the Rufiji site of Misasa dating to 400 A.D. (Chami, 2021b). Also, coconut remains, rice and cowpea were found in the Zanzibar cave of Kuumbi dating to the early first centuries A.D. (Chami, 2021b). Periplus document reported that the people of Rhapta exported coconut oil which is a good indication of cultivation of the crop in the area. The people of the region of Rhapta did not only domesticate plants but also animals of all sorts including cattle, caprids, chicken and among others. There is enormous evidence from Kuumbi cave in Zanzibar and from other sites all around the region (Chami 2009b; Chami, 2021b). More discussion on the agricultural EIW people has been done in (Chami 2021b).

In relation to fishing traps used by the people of Azania and reported in the Periplus document, our research in Mafia archipelago has found large areas in Chole Bay with many of these traps used by the modern people (Plate 5 and Fig 5). This large-scale fishing style is what the Romans may have found and reported (Datoo, 1970; Casson, 1989; Chami, 2006; Mclaughlin, 2018).

As noted above, it would seem that Rhapta was a small trading port at the first century A.D. which Periplus identified as an emporium. It was only in the 3rd century A.D. that it had grown to a large city now identified by Claudia Ptolemy as a metropolis (Casson, 1989; Huntingford, 1980; Mclaughlin, 2018). It has been shown above and in Chami (2021a) that it was walled and had cement or lime-built houses. Our study recorded

huge linear blocks with flat-like dressed surfaces indicating they were made using some frame into which the construction material was mixed and compacted. As it was noted above, this is one of the construction methods used by the Romans. According to Delate (2001), in making concrete, the Romans used lime and also grog, including quartz, clays, and feldspar and calcite grains. Analysed materials from this study have shown that the quartz used in the concrete in Mwamba Ukuta have been influenced by strings and voids. Meaning these quartzes were not of original rock since quartz from natural rock do not have voids or disturbances but are compact (see results of petrological analysis in Plate 16). This indicates that Roman technology was used in construction of Mwamba Ukuta (see Fig. 12 and Plate 17). This suggests therefore that by the time of Claudia Ptolemy, the Romans were now in full control of Azania and Rhapta was playing major security role of the region.

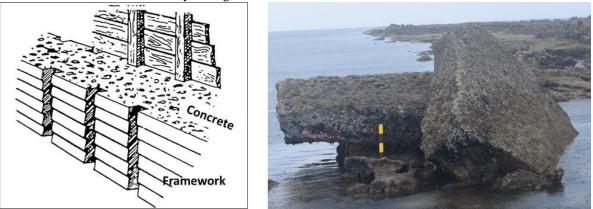


Fig. 12: Ancient Roman concrete wall construction (Delate, 2001). Plate 17: A linear blocks in Mwamba Ukuta

Whereas at the time of Periplus Rhapta was just near a navigable river probably not very far from the entrance of the region which we now recognize as Miewe / Chole area (Fig. 1, 2 and 5). During the time of Claudia Ptolemy, the city had moved to a more secure location we now identify as Mwamba Ukuta. According to Claudia Ptolemy, in entering the navigable river he recognized as Rhapton one had first to sail for one degree, a distance which equals to about 40 miles from the entrance. From that point Rhapta is put the same northward (Freeman-Greenville, distance 1962: Huntingford, 1980). Our interpretation of this description by Claudia Ptolemy is that as one sails from Miewe towards the main modern Rufiji delta, one reaches Kisimani Mafia on the south west corner of the main island from where one enters the Mafia/Rufiji Bay which the local people identify as *female* water meaning calm waters with no strong waves like that of the main ocean to the east of the island. It is at this point sailors would navigate northward to Rhapta (see figure 13 below). The local people agree that Miewe and the other parts of southern Mafia including Juani, Chole and Jibondo islands were part of the ancient delta and as until today that is how they see it. Again, they use the river and tide flows to sail to the west mainland and back to the islands. They ride on the incoming high tide and sail to

the mainland for trading and catch the receding low tide that follows the flow of the river (Bita et al, 2021) back to Bwejuu and onward up to Jibondo, Chole, Juani and Miewe (see Figure 2).

It was noted above that our findings suggest that the emporium of Rhapta discussed by Periplus was located in Chole Bay where we have found many ceramics of transoceanic origin from both underwater and land sites such as Ukunju cave (Chami, 2004; Gupta, 2006; Shikoni et al, 2021) and Chole (Bita et al, 2021). However, the Rhapta discussed by Ptolemy 200 years later as a metropolis was located at modern day submerged site of Mwamba Ukuta where our research has recovered walled settlements of concrete and Roman trade goods (Chami, 2021; Bita, et al, 2021). The movement of the capital from Chole to Mwamba Ukuta could have occurred due to several reasons. However, we assume the main one could be that of security. Mwamba ukuta which was on a promontory on the west of the main island was in female waters hidden from the main ocean. The increased economic and political power of the Romans on the Indian ocean required a place secure from both the main ocean and the mainland enemy attacks and also from harsh conditions of the sea such as storms and tsunamis.

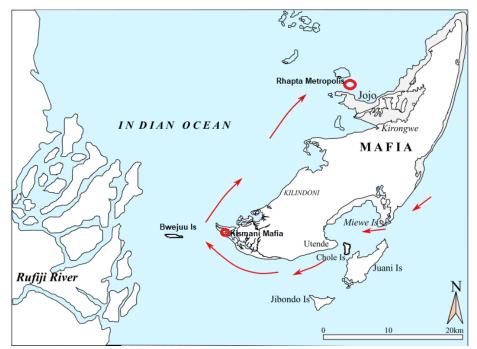


Fig. 13: Ancient entry to the metropolis of Rhapta

As it has been found archaeologically, all the EIW sites of the Roman period in Rufiji and Mafia archipelago were settled continuously to the time of the TIW period from the first century to about 500 A.D. Mwamba Ukuta or Rhapta is found to have similar settlement. The end of the EIW and Rhapta traditions on the coast of East Africa coincided with the demise of the Roman Empire (Chami, 1998; 1999c). It is at this time we see the beginning of the Sassanid Empire which fought the Romans in order to control the Indian Ocean (Chami, 1994). At Mwamba Ukuta we actually see the continuation of the EIW tradition to that of TIW. It is evidence of EIW offsprings settling on the ancestral land and carrying forward the ancestral socio-cultural traditions (Chami, 1994-95; 1999c).

Conclusion

Our research has led to the discovery of the lost metropolis of Rhapta, located in the submerged site of Mwamba Ukuta north west of Mafia archipelago and Chole Bay. However, there is a lot more work to be done on the site of Mwamba Ukuta, and by extension on the rest of the Mafia archipelago including the modern Rufiji delta. This is in order to have a better understanding of the socio-cultural and economic aspects of this southernmost city of the ancient Roman empire. There is need to examine the areas of the site under heavy sand, clay and marine vegetation. This is an enormous work because the site as shown in Fig 6 and 7 is of 2.42 km² in area. Underwater excavation has to be done to recover more artifacts and cultural structures. Sites on the mainland Rufiji delta found to have artifacts of transoceanic nature need to be re-excavated for more data. We hope this can be done in the long future.

Acknowledgement

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