An Assessment of an early 19th century AD Ceramic Assemblage from Mozambique Island

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PLAGIARISM DECLARATION

I, **Celso Zefanias Simbine**, certify that the results and conclusions presented in this dissertation are my own and where the work of others has been used, is appropriately cited and referenced. In this dissertation each contribution or quotation from the works of other authors has been cited or referenced.

I submitted this dissertation for examination in the Faculty of Science, University of Cape Town – Department of Archaeology for the degree of Master of Science; and has not been submitted at submitted before for examination or degree at any other University

Signature …….. Date: 07. 08. 2021

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ABBREVIATIONS

A.D – Anno Domini

AHU – Arquivo Histórico de Ultramar

BP – Before Present

CAIRIM – Centro de Arqueologia, Investigação e Recursos da Ilha de Moçambique

CIPRIANA – Campanha de Implementação do Projecto de Investigação Arqueológica na Província de Nampula

DAA – Department of Archeology and Anthropology

EIA – Early Iron Age

FAO – Food and Agriculture Organization

IDM – Ilha de Moçambique

ITCZ - Intertropical Convergence Zones

LIA – Later Iron Age

LSA – Later Stone Age

MYA – Million Years Ago

TIW – Triangle Incised Ware

UCT – University of Cape Town

UEM – Universidade Eduardo Mondlane

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ABSTRACT

In this dissertation, I present the results of my recent investigation of ceramics from Mozambique Island. This contributes to, and builds upon previous archaeological work that has made a start on describing and dating the ceramic sequence and linking it to the history of the south East African coast over the last 2000 years. The ceramics described and interpreted here come from two excavations. One sample is from within the precincts of a Muslim house, the Abdurrazaque Juma compound located within Macuti-town, south of the urban 'stone town' to the north, where the second sample was excavated from the tribunal courtyard of the Convent of São Domingos. I used a multidimensional analysis to classify the ceramics. The ceramics from the muslim house are dominated by coarse earthenware vessels, and in particular by carinated open bowls. The bulk of this assemblage dates to the early 19th century AD and can be linked to a kitchen. The dominance of carinated bowls functionally indicates rice preparation and consumption and discussion of these ceramics focuses on the domestic context of the household and the work of servants, and possibly slaves. Ceramics from the second excavation provide comparative material that elaborates the ceramic sequence for the Island. This is particularly so for the carinated open bowls that through comparison with other sites along the east African coast, are frequently found in historical contexts dating between the ends of 16th to 20th centuries AD. As a proxy for rice agriculture, the ceramics reported on here contribute to this agricultural sequence and an association with enslaved African populations and elite foodways along East African Coast.

Keywords: *Sequence, Chronology, Mozambique Island, Carinated bowls and East African Coast.*

CHAPTER 1. INTRODUCTION

This study addresses the chronology and sequence of occupation of Mozambique Island, presently proclaimed as a World Heritage Site. The archaeological data comes from two recent excavations and in order to help assess the sequence, comparison is made with earlier excavations on the island and also along the Mozambique coast. In particular the focus is on social, economic and functional issues around the context of domestic, locally made coarse earthenware ceramics. The study of locally produced earthenware is important for understanding local dynamics and negotiations of identity and ethnicity on the island and its negotiations in the context of external influences.

Archaeological investigations undertaken by Horton (1996), Chami (1994), Juma (2004) and Fleischer and Wynne-Jones (2011), have resulted in a good understanding of the archaeological chronological sequence of the Swahili culture on the Mozambique coast to the north of Mozambique Island. However, the investigations are still few on the southernmost extension of the Swahili coast. In particular, Mozambique Island has not been well investigated archaeologically and we have much less information of this locality than other sites of East African Coast (Helm 2000).

Thus, this work focuses on building the chronological sequence on Mozambique Island based on local and imported ceramics, and glass beads. A multidimensional analysis is used to analyse the ceramics and local ceramic production is discussed in relation to economic and resource patterns and the negotiations of social identities creation between the 16th – 20th centuries AD. The investigation of the chronological sequence and material culture aims to provide a better understanding of the formation of Swahili culture on Mozambique Island over time.

Although the excavation was carried out only on the island, the region will also be discussed here including Lumbo, Sancul, Mossuril, Cabaceira Pequena and Grande. This comparison is important because of the economic relationships between the mainland and the island.

Objectives of the Study

The study aims to trace the chronological sequence along with the development of cultural traditions on Mozambique Island that can help elucidate identity formation and changing

economic and social contexts in relation to the production and utilization of locally produced ceramics.

Specifically, the main objectives are:

- Identify and document areas of archaeological interest on Mozambique Island and to assess their potential. Nine potential areas of archaeological interest have been located on the island. Of these, two sites were excavated and will be assessed here (Figure 6. 5 and Figure 7. 4).
- To analyse and assess material culture recovered in order to understand the chronological sequence of Mozambique Island comparing the ceramics of dated sites. Because of the absence of a chronological sequence specific to Mozambique Island a comparison is made with other sites on the East African Coast.
- Establish a chronological sequence for locally produced ceramics on Mozambique Island.
- To reconstruct shifting social, economic and cultural patterns and social identities over time on Mozambique Island.

The maritime landscape and negotiation of culture and identity

The interaction between coastal inhabitants and their maritime environment have influenced Mozambique island communities but in many different forms (c.f Pollard 2008b; Pawlowicz 2011). Here I explore the maritime landscape as constituted by the mix of terrestrial and marine resources (see Breen and Lane 2003) and as shaped by the monsoon it has driven to frequent changes in the pattern of marine resources exploitation (Pollard 2012; Fleisher *et al.*, 2015).

The dissertation is inspired by research on maritime landscapes, eg. How terrestrial and coastal resources and cultures are combined through cultural identity negotiations which shape maritime communities (cf McNiven 2003). The Swahili were orientated towards the coast, but also had strong links/connections with the interior (Sheriff 1987). Material culture resulting from activities related to the oceans are studied in comparison to mainland material with the aim of beginning to explore the cultural context of economic, political, social and religious identity through the artifacts (see similar discussion in Pollard 2008a). The coast of northern Mozambique provided the opportunity to build towns with political power and a religious affiliation which has shaped cultural identity. One obvious example is the

conversion of island and mainland residents to Islam but which was also about the negotiation of culture traits between individuals or groups of people. Here the trade links and connections are seen as a social network that binds Mozambique Island to the wider world and over vast distances (see similar discussion in McNiven 2003; Hastrup 2009). In addition, identities and affinities have been negotiated through material culture, both imported and locally produced wares and consequently, the focus here will be the negotiation between what Meskell (1998) calls micro-scale and macro-scale identities. The micro-scale identity concerns the individuals in households expressed through excavated material culture, especially one, which produced preliminary insight into a single context household. The macro scale of identity represents the whole of the East African Coast in order to start understanding shifting land use, settlement patterns, subsistence and agricultural production and local production of ceramics technologies that are apparent in the development of Swahili identities (see discussion in Croucher 2006).

The maritime environment of Mozambique Island is fundamentally important because of the economic opportunities it provides for the exploitation of natural resources to feed the inhabitants and attract the neighbors in the region (Pugh 2018). Thus, the idea that the negotiation of culture and identities has taken place through the adoption of a maritime cultural landscape lifestyle gives interpretive direction for understanding the contextual formation and functioning of the island and its inhabitants (see Walshe and Stancioff 2018). This approach allows for insights about the coastal environment and its relationship to culture and economy (cf. Pollard 2008a; Shackerof *et al.*, 2009).

Drawing inspiration from Historical Ecology the aim is also to try and start developing perspectives that integrate social, political and economic aspects of the land use system mutually within the specific historical context (see Crumley 2007). Blench (2009), Boivin *et al.*, (2014) and Crowther *et al.*, (2014), who underline the importance of understanding both archaeology and interlinked physical changes in the landscape. In particular, the environmental and ethnobotanical investigations of Ekblom (2004), Ekblom *et al.*, (2015), Walshaw (2005, 2006, 2010), Pollard (2008), Pawlowicz (2011, 2019) and Pawlowicz, Stoetzel and Macko (2014), have been important for understanding maritime resource exploitation, and changes over time, as well as linkages with ceramic and other production as well as trade. This approach is beyond the scope of this dissertation but the coastal areas of coral reefs and offshore islands provided communities with an abundance of marine life, for

instance, crustaceans, salines[1], shallow-water fish and crabs, which promoted the settlement and the development of Swahili culture over time (Horton and Mudida 1993; Chami 1994).

The chronological sequence of the island is proposed based on a comparison with other sites of the East African Coast in terms of use of marine resources for subsistence and the use of islands for quarrying coral stones to build stone houses. Additionally, coastal groups who exploited local resources also gradually have built social identity in and around the maritime landscapes (Shackerof *et al.,* 2012).

Summary of the Chapters contents

In Chapter 2 I briefly describe the fieldwork and analytical methodologies employed during the data collection process. I highlight that one of the issues with this archaeological work, is locating intact deposits that have not been disturbed. In Chapter 3 I discuss the human interaction with the maritime environment and the role of maritime landscape for the structure of human occupation. Chapter 4 provides a description of written sources about the local history of the island and how helpful this material is in orientating the survey for finding suitable sites. In Chapter 5 I report on the previous research in Nampula and on Mozambique Island. It presents and contextualizes the archaeological comparison for the results obtained from the survey and excavations that are described in Chapters 6 and 7. Chapter 8 discusses the material culture, social identities of the Swahili community of the island between the 18th – 19th centuries AD. In Chapter 9 I discuss the socio-economic context of the locally produced coarse earthenware ceramics and in the concluding Chapter 10, I summarise the results and discussion of the chronological sequence and material culture of Swahili communities who settled on Mozambique Island between the 18th – 19th centuries and include some ideas for ongoing and future research.

[1] Small fields made near the coastal plains to retain salt water to produce salt when it evaporates.

CHAPTER 2. METHODS

The methodologies employed to contribute to the chronological sequence of Mozambique Island was a review of previous research and written sources and my own site surveys, excavations and laboratory analyses. This has allowed for the creation of the first coarse earthenware typology for the island. The earthenware typology will be combined with additional data and a review of literature to establish the sequence of the island that has only partially been documented archaeologically. The project included three basic phases: (1) desktop studies and literature reviews that provided background and direction for mapping and site survey for excavations on Mozambique Island, (2) archaeological excavations in the South and North of the island at significant sites found during the survey conducted over two fieldwork phases, and (3) laboratory analysis, curation and classification, the creation of a database and the drawing of ceramics.

Literature Review and Cartographic analyses

A desktop study was done by reading through literature pertaining to the archaeology and history of Mozambique Island (see review in Chapter 4). Written sources used here include voyage reports by Vasco da Gama report´s voyages (1498 – 1502), Barbosa (1517 – 18), Dos Santos (1592 – 1609/1999), compilations by Freeman-Grenville (1975) and secondary sources, such as Boxer (1961), Newitt (1995, 2004), Duarte and Meneses (1994, 1996), Madiquida (2004), Duarte (2012) and Roque (2013), which together with the compilation of historic maps, allowed for a reconstruction of the town. Historical and present-day maps (1: 250.000 and 1: 50.000 scales) have also been used to understand the distribution of natural resources in the wider area of Mozambique Island. Cartography analysis was carried out with the aim to develop better knowledge related to the urban growth of the island (as illustrated in the maps of Chapter 4). Additionally, the cartography analysis was carried out with the purpose to identify potential sites of archaeological interest which would provide data on a long chronological sequence.

Oral Sources

During the fieldwork on Mozambique Island, I collected oral traditions on the island using semi-structured interviews from 10 individuals. Interviewees were selected randomly and were also asked to direct us to people who had memories or knowledge of local history (the so-called snowball approach) (c.f Naderifar *et al.*, 2017). Interviews were semi-structured and based on a few pre-prepared interview questions that allowed the interviewee to associate freely (Bernard 2006: 213).

Inquiries were made to find out if the local communities were informed about the older occupation areas on the island and if they were aware of scatters of ancient ceramics, beads and porcelain. Furthermore, we wanted to obtain insights into local land-use and resource exploitation to have ideas of the source of products consumed on the island and changes over time. Questions related to the early history of traders who visited the island, and possible previous occupations of different groups over time were also addressed.

The archaeological survey and mapping

The archaeological survey of sites was initiated after a careful examination of historical maps, recent satellite images and unpublished and published reports of previous studies, that allowed me to determine areas with potential sites to excavate. The main objective of this work was to identify *in situ* deposits, excavate and investigate sites that could reveal the chronological sequence of the island since the pre-colonial period. Guided by written sources (Chapter 4 and 5), a survey was carried on the north side of the island where the oldest settlement was probably located as indicated in the early cartography (Lobato 1945; Arkitektskolen I Aarhus 1985; Chapter 4). The location was close to where excavations were conducted by Ricardo Teixeira Duarte in 2019 (also near his own house). Duarte recovered an *in situ* sequence of material culture suggesting a long period of occupation, including 9th - 10th Century AD glazed ware, Chinese Ming and Qing Dynasties porcelain (15th - 20th century AD), local Lumbo tradition earthenware (13th-15th century AD) and Sancul tradition earthenware (16th-18th century AD) material (see Chapter 5). However, in the early work undertaken in 1994 by Duarte and Meneses and by Madiquida and Miguel in 2004 during the rescue archaeology programme struggled to find intact depositional sequences (Duarte and Meneses 1996; Madiquida and Miguel 2004, Figure 2. 1 and Figure 2. 2).

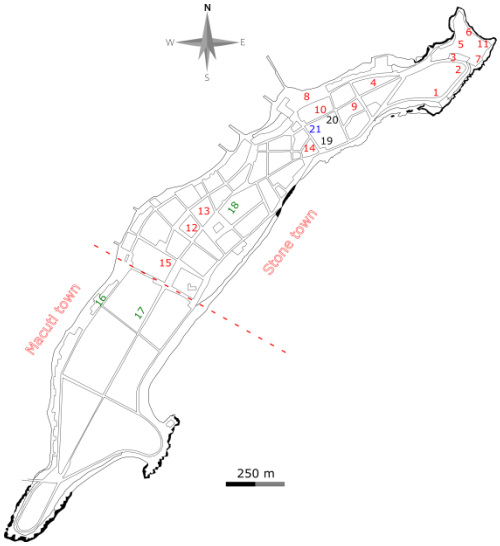


Figure 2. 1: Map showing test pits excavated between years 1994 – 2019.

1-15. Excavations carried out by R. Duarte and Meneses in 1994; **16–18**. Excavations carried out by SWP team between 2016 and 2019; **19-20**. Excavations carried out by Celso Simbine and Simon Hall in 2019 and **21**. Excavation carried out by R. Duarte at his house in 2018.

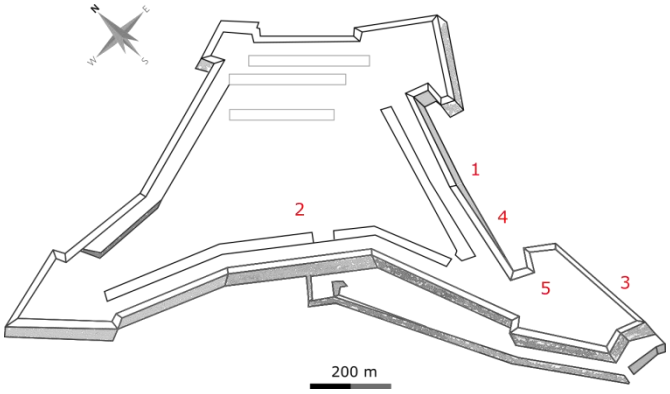


Figure 2. 2: Distribution of trenches excavated by Hilário Madiquida and Joaquim Miguel in 2004 at Fortress São Sebastião.

Finding *in situ* archaeological deposit on Mozambique Island was, and still is a challenge given the daily construction of water cisterns and houses, activities that have disturbed deposits. The excavation undertaken in in the courtyard of the student dormitory in the São Francisco Xavier is good example of this.

The Survey

The initial survey was carried out by myself and my supervisor Simon Hall, guided by the overall map drawn by Lobato (1966) and Arkitektskolen I Aarhus (1985) and our knowledge of previous excavations. First, we walked transects through the northern Stone-town and Southern Macuti-town. Aware that between 1604 and 1608 the island suffered destruction during Dutch attacks, the main aim of the survey was to identify the remnants of coral stone houses of traditional Swahili and Portuguese style buildings and identify areas outside of these where *in situ* archaeological evidence may be preserved. During the survey, we followed the cultural topography of the island, such as streets and paths. Most of the areas of surface finds were recorded using a GPS device and all positions recorded were later plotted on the island site map (Figure 2. 3).

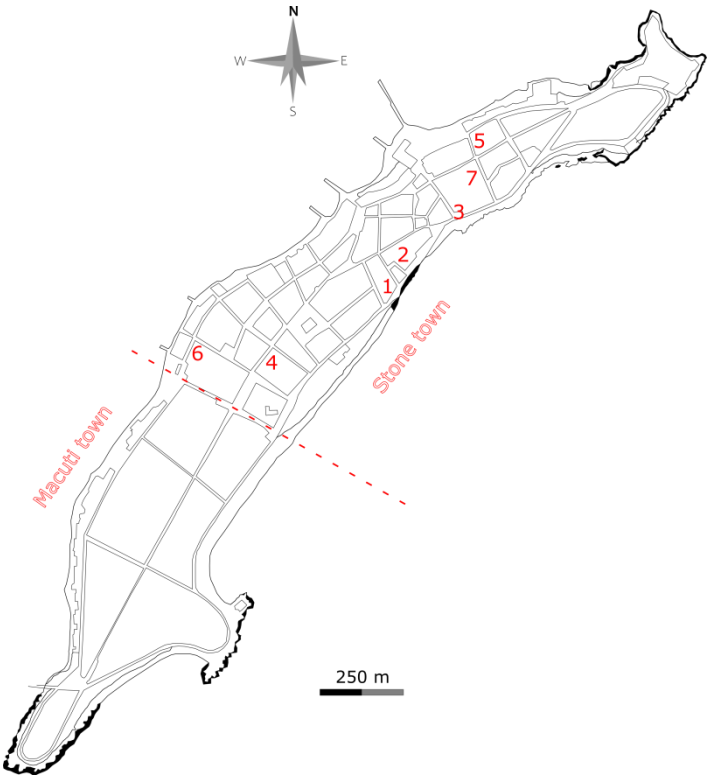


Figure 2. 3: Map showing identified places for future archaeological investigation.

Table 2. 1: Geographic coordinates of sites identified for future excavations on island.

Site nr	Coordinates	Comments
1	15° 2'3.58"S 40°44'11.61"E	Ruins of coral stone house overgrown with grass and roots, with a scatter of plain potsherds.
2	15° 2'1.78"S 40°44'13.46"E	Open yard with a small amount of glass beads on the surface.
3	15° 1'58.90"S 40°44'16.27"E	Small garden in which the staff from CAIRIM reported collecting significant quantities of reddish glass beads during rescue archaeology activities.
4	15° 2'16.22"S 40°43'56.78"E	Open precinct around baobab trees suggested to have been an early communal space.
5	15° 1'53.23"S 40°44'19.15"E	Abandoned ruin in front of the first mosque or old mosque of Mozambique Island, dated to the 14th century.
6	15° 2'15.25"S 40°43'52.58"E	Yard with scattered potsherds of Sancul tradition pottery.
7	15° 1'55.02"S 40°44'18.14"E	Yard of the Hospital of Mozambique Island with some sherds of imported wares on the surface.

A quantity of archaeological materials were identified in various parts of the island. The survey identified several dense surface concentrations of local pottery of Sancul tradition, imported ceramics on the surface and remnants of coral stone houses of Swahili tradition style. As this is an urban context, pits are continuously being opened for construction of underground cisterns, and the laying of pipelines and cabling. Despite this being a World Heritage Site there is no system for rescue/preventive archaeology during this construction as they are considered household based and small in scale. In addition, the locally based cultural heritage agency CAIRIM (Centro de Arqueologia, Investigação e Recursos da Ilha de Moçambique) doesn't have enough staff to monitor all the construction going on at the island at the same time. However, larger constructions of new buildings are not allowed in the north end of the island.

The Archaeological excavations

As a result of this survey work excavations were conducted between 2016 and 2019 at the sites of Abdurrazaque Juma in Macuti Town in the south of the island, and in the Tribunal Courtyard in the north of the island by the present author under the guidance of Hilário Madiquida and Simon Hall (Figure 2. 1). Excavations at Abdurrazaque Juma house established an *in situ* building sequence and associated material, and the excavations at the Tribunal courtyard located an undisturbed sequence. While there was relevant archaeological material in the dormitory courtyard of São Francisco Xavier, it had been badly disturbed by cistern construction and therefore we decided to abandon it.

While the overall aims of these excavations were to contribute to an understanding the cultural and chronological sequence of Mozambique Island, the excavations at Abdurrazaque Juma house also provided some domestic organizational data on the context of the ceramics recovered there.

The excavations at Abdurrazaque Juma house were initially motivated in 2016, when the Slave Wrecks Project carried out an archaeological excavation in the courtyard of Madrassa Islamic Council of Mozambique (see below). Hilário Madiquida and myself placed a trench unit of 3 m x 1 m in front the ancient entrance to the courtyard. The excavation revealed mixed stratums and undiagnostic ceramics mixed with coral stone, and plastered stone which seems to be pieces of demolished wall. Another unit of 2 m x 1 m was opened at Abdurrazaque Juma house. The reason for these excavations were motivated by an oral

tradition shared by Sheik Abdul Mahamdhu[2], that a tunnel for slaves passage was built during Portuguese times which extended from the Abdurrazaque Juma house, where slaves were kept, through the courtyard of Madrassa to the shore. This tunnel is locally known as the tunnel of slaves. The excavations in both locations did not confirm the existence of a tunnel, but excavation at Abdurrazaque Juma house did expose spatial detail that is important for the interpretation of the ceramics recovered there.

In 2017 the excavations at the Madrassa courtyard were extended and eleven units of 1 m x 1 m each were excavated further. The extension of the excavation was motivated by the identification of a coral wall at the north side of the square 3 underneath a cement floor during the excavations of 2016. Although the excavation was extended significantly and more material culture was recovered, still no evidence of a tunnel was found. Instead, a mix of undiagnostic local ceramics and a coral wall was exposed, that suggests the existence of an early coral building underneath the actual Madrassa. This is an important observation because phases of a building sequence are also evident from the excavations at Abdurrazaque Juma house nearby.

The function of the coral structure found in the excavation is not known but, based on observation of its features and oral tradition, provided by Jamu[3] and Ali Mussane[4], surrounding Abdurrazaque Juma house, it seems to be a ramp which might have served to load and offload goods from small traditional vessels, probably dating from the early 19th century AD or even earlier. In later times the building of the structure over the ramp made it redundant, and landfill, mixed with archaeological material, was used to backfill the ramp to provide the level courtyard of the Madrassa. Thus, as backfill, the excavated material is not in the original context, however, the material culture recovered is still from the island and diagnostic, thus the pattern and range of decorated ceramics remains significant.

In 2019, the excavations continued at Abdurrazaque Juma house, excavating a unit of 5 m x 1 m next to the room excavated in 2016. Initially, the excavation was again undertaken to find evidence of the tunnel of slaves. However, as excavations produced no evidence of a tunnel, the team decided to devote more attention on the material culture recovered.

[2]. Interview on Mozambique Island, 22nd of August of 2016
[3] . Interview on Mozambique Island 14th of July of 2019
[4] . Interview on Mozambique Island 14th of July 2019

Excavations were also carried out in the north of island (Stone-town), more precisely at Convent São Domingos mostly known as the Tribunal Courtyard. This area is in the northern part of the town. This was a 2 m x 1 m trench. Two test pits of 1 m x 1 m each were also excavated in the Lar Francisco Xavier. This excavation, also in the north side of the town, was carried out because of its spatial proximity to, and to provide a comparison with the archaeological evidence recovered at the Ricardo Teixeira Duarte house nearby. I wanted to test if there was a full sequence here. As noted, the deposit was disturbed and mixed due to cistern construction.

For this dissertation, the discussions focuses on the material culture of Mozambique Island recovered at Abdurrazaque Juma house in 2016 and 2019 and the Convent of São Domingos in 2019. This is because these two sites have what is judged to be undisturbed and relatively complete archaeological stratigraphies, as attested by the laboratory work discussed in Chapter 7. Although the material culture from the other excavations was from disturbed deposits, it is still of value because the ceramic decoration allows the identification of ceramic phases that can be put in order through comparison with in situ sequences elsewhere, both on the island as well as on the mainland.

The placement of the excavation units was based on the presence of surface finds, particularly at Convent São Domingos. During the process of excavation, the squares were assigned letters or numbers according to the grid system on the units (Burke *et al.*, 2009). Excavations proceeded in 10 cm layers to control vertical change and this allowed me to clearly define the context of material culture during the analysis phase. Artificial spits were preferred to excavating by layer as formation and visibility of layers is very low in these sandy and loose soils (see for example Burke *et al.*, 2009). All cultural material was collected, logged and labelled in plastic bags. Excavated soil was sieved through a sieve stack of 1 mm (this was mainly used to ensure recovery of minute glass beads) and a 2.5 mm sieve. Recovered material was recorded in field notebooks and bagged separately by each 10 cm spit, together with contextual information. At the end of each excavation, a section drawing of each trench was made and finally the trench was back-filled.

Data analysis in the laboratory

The finds recovered from the excavations were washed, labeled, separated according to units and layers, analyzed, typologically classified, photographed with a scale and drawn, and entered into a database, and finally placed in new plastic bags with respective fieldwork

details recorded. Drawing of ceramics was done with the aim of showing particular details of profile design, decoration placement and to reconstruct the vessels. The data produced and collected during the measurement of the coral structure with the tape-measure were used to draw a site plan and place the units excavated on the map of the site. After this process all material culture was returned to Mozambique Island and stored in CAIRIM.

The objective of the ceramic analysis was to identify key types and attributes of the pottery, so that they could be typologically classified and compared with other material. This would facilitate the identification of types of pottery in relation to other published and unpublished pottery types from East Africa (see for example Pawlowicz 2011), and would contribute to the establishment of both the local and wider chronological sequence. Importantly, the ceramics were also studied in order to explore the relationships between certain ceramic types and the cultural and social structure of foodways and the historical significance of certain foods (cf. Croucher 2006). Another purpose of this work was to contribute towards understanding trade networks and interactions between the past communities of the Mozambique Island and the neighbouring communities along the East African Coast (cf. Beaujard 2007).

I conducted the laboratory analysis of ceramics following the terminology and typology of Huffman (1976, 1980); Hall (1981); Collett and Robertshaw (1983); Horton (1996); Chami (1993); Wynne-Jones and Fleisher (2011); Antonites *et al.*, (2014) methodology of a multidimensional analysis of Iron Age ceramics of Southern and Eastern Africa. This method allows for establishing types, while classifying assemblages of ceramics for wider comparison. Each analyst uses slightly different methodologies and terminologies and I combined them here. In this analysis, vessel profile, decoration placement and decoration motif are combined to create vessel types (Huffman 1976, 1980). This method does require large sherd size in order to reconstruct whole pots. For the small sherds with diagnostic attributes but where profile was uncertain, I used decoration motif, and these were recorded based on the pattern of decoration design (see for example Collett and Robertshaw 1983). This data is still relevant to study the variation of decorative motif of assemblage recovered (Wynne-Jones and Fleisher 2015).

In the next chapter I will describe the general environmental and physical settings of the Island and the coastal hinterlands. This background information aims to emphasise certain aspects that are relevant to the practice of food production and changes to the food production setting through time. It is important data that can contribute to developing some preliminary

ideas about the chronological sequence of Mozambique Island and the activities associated with each period.

CHAPTER 3. THE ENVIRONMENTAL SETTINGS OF MOZAMBIQUE ISLAND

The study of the physical landscape allows us to better understand the dynamics of interaction between humans and environment (Whitehouse 2001). In this chapter I outline aspects of the physical landscape that are relevant to the broad phases of the chronological sequence on Mozambique Island, accepting that human behaviour is influenced by different natural systems but that the human cultural manifestations are also responsible for landscape changing over time. Scholars such as Sinclair (1987), Ekblom (2004), Manyanga (2006) and Mercader *et al.,* (2008) have undertaken environmental investigations in Southern Africa archaeological sites and have shown the importance of multi-variate sources in understanding how natural-human dynamics changed across space and time. Thus, in this chapter, I will focus specifically on two aspects: 1) First, I draw attention to the material culture and information collected through informal interviews and contemporary observations of how the natural resources are exploited and 2) second, I provide a literature review and analysis of published works of the regional archaeological investigations and other relevant written sources. The environment of Mozambique Island is discussed, including the mainland, to indicate broad relationships between sequence changes and the early exploitation of resources.

Present day climate patterns

The present-day setting of the climate patterns is an important issue to be compared and discussed with the past climate settings of the island in order to understand the chronological sequence and resource exploitation in different periods.

The annual changing of the climate settings of the northern Mozambican coast is strongly influenced by the seasonal movements of the Intertropical Convergence Zones (ITCZ) and the resulting monsoon winds and ocean currents of the southern Indian Ocean (Duarte 1993; Madiquida 2007; Pawlowicz 2011). Rainfall is mostly dependent on the ITCZ and associated with a low pressure belt which brings the monsoonal rains (Norström *et al.,* 2018).

In terms of the present-day weather Mozambique Island has a sub-equatorial climate (Perfil de Ambiental 2012). The annual average temperature varies between 27°C and 31°C in the hottest months and between 21°C and 23°C in the coldest months, with an average of 26°C, and a mean annual temperature of 30°C. The hottest period along the southern part of East African Coast is between October and April, with maximum of 31°C which falls to 29°C

between May and September, while in July the lowest temperatures reach an average of 28.6°C (Duarte 1993: 55 quoted in Madiquida 2007: 39) (Figure 3. 1). In the 16th century (Barbosa 1516) described the climate of Mozambique island qualitatively stating that the temperatures were hot. Similarly, Dos Santos (1609: 5) also made reference to hot and humid weather along the East African Coast which was suitable for mosquito development resulting in a lot of foreigner deaths by malaria.

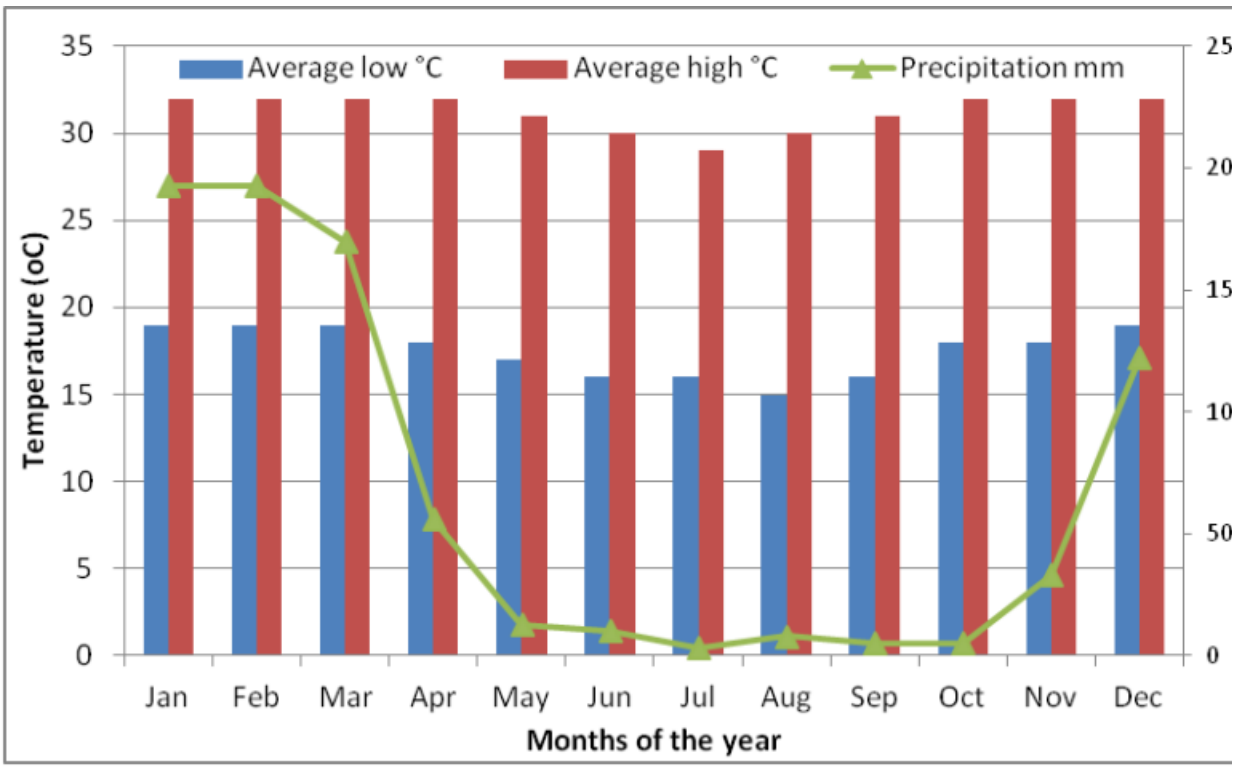


Figure 3 1: Average monthly temperatures and precipitation of Mozambique Island (Coppens 2019).

The rainy season begins properly in December and continues until April during the southeast monsoon winds (Hatton *et al.*, 1994), that blow from October to March bringing higher average rains, especially between January and March with monthly precipitation between 1000 mm and 1400 mm (Sinclair 1985, Duarte 1993, Hatton *et al.*, 1994, Figure 3. 1). This is a period of flooding and is appropriate for rice paddy fields, especially when these are located on poorly drained coastal soils (Walshaw 2010). Rice is frequently harvested between August and September (Duarte *pers comm.*, 2020).

From April to September the monsoonal winds shift direction towards southwest and there is a high risk of drought (Sinclair 1985; Duarte 1993; Hatton *et al.*, 1994; Fonseca 1996). This dry period from April to September, however, still supports the cultivation of cassava, pearl

millet, millet, sweet potatoes, beans and several horticultural products on the mainland. These activities are concentrated at Lumbo, Sancul, Mossuril, Cabaceira Pequena and Grande. In contrast, and apart from its small size, the physical conditions on Mozambique Island are not suitable for agriculture (Sinclair 1985; Duarte and Meneses 1996), because of the lack of good soils, space and fresh water. This is a simple but important point, because it means that people on the island would have been supplied with their staple carbohydrate needs from the mainland, no matter whether it was under Swahili or Portuguese control.

Based on an FAO (1982) report regarding the Agro-Climatic resources, it is clear that agriculture on the mainland adjacent to Mozambique Island is small scale because it is geared towards family subsistence and local distribution. Normally the size of farms varies between 1.5 and 3 hectares and size depend on the economic capacity and productive resources of each family. The main products cultivated are maize, cassava, rice, sweet potatoes, sorghum, beans and a diversity of vegetables. However, according to a recent Annual Report on agriculture (2011), despite the lack of space and good soil for agriculture on the island, only 20% of local habitants have links to agriculture on the mainland. The other 80% of the island population is constituted of government workers, fishers, traders and unemployed people. Although these numbers apply to contemporary food production and supply, the 20% of people with links to mainland agricultural practice may indicate a continuity of practice from the past where the percentage may have been higher. Whatever the case, it also suggests that a significant number of people on the island would have been supplied through markets because they were not farmers or had no kin relationship to farmers on the mainland.

Climate change

The combination of historical documents, ships logbooks and tree-ring analysis have allowed some reconstruction of rain-variability in the recent past, particularly climate variation between 1506 and the 1880s during which period there was high variability (c.f. Hannaford and Nash 2016). Understanding this variability is important because of the potential impacts on agricultural production. Specifically, droughts were particularly severe from 1400 AD, and in particular in 1700 AD, and famines were also recorded in the 1820s (c.f. Ekblom 2004; Holmgren *et al.,* 2012; Sitoe 2017). The amount of rainfall is determined by the strength and movement of the ITZC and sea surface temperatures (Norström *et al.*, 2018).

The East African Coast of Mozambique is strongly affected by western Indian Ocean cyclones, and variability might have also influenced the seasonal movement and migrations

of coastal communities (Azevedo 1955). While the monsoon winds regime influenced the agricultural systems of the East African Coast (Pollard 2012), and a shift in the timing of the rainy seasons (Fleisher 2010), these changed around 2000 years ago (Tripati and Raut 2006), and might have also affected the schedules of sea-faring maritime trade journeys that were dependent upon the monsoon winds for many centuries (Fleisher 2010). Coastal communities adapted to the monsoon cycle would have planned agriculture practices and trading journeys accordingly (see discussion for Zanzibar in Middleton 1992). Additionally, in the particular context of Mozambique Island, rainfall would have been of high importance because this small island has a lack of fresh water sources. In response to securing fresh water supply, especially from the 16th century AD, the Portuguese and Swahilis initiated the construction of cisterns and wells within their stone-houses in order to harvest water from the rain. For instance, the cistern system in the Fort San Sebastian is a large and old evidence of this practice.

Sea level Change

In the coastal areas, climate and environmental conditions are influenced through tidal and sea-level change (Sitoe *et al.,* 2015). Thus sea-level change is of acute relevance for an understanding of the maritime landscape and environment (c.f. Tyson 1999) as indicated by Pollard (2008a) flooded Swahili tradition buildings and historical settlements on the coast. Though there is still some disagreement on sea-level change, records suggest high sea levels 500 - 800 AD and thereafter stable sea levels until the last 300 years when sea levels have been rising to the present-day level (c.f. Strachan *et al*., 2014).

There was a significant rise of sea-level in the postglacial phase at the end of the Pleistocene and early Holocene. Between 7000 - 4000 years BP the fluctuation of sea-level there was a 3 m difference between the glacial and postglacial periods around 3000 – 400 years BP (c.f. Strachan *et al*., 2014; Hannaford and Nash 2016). In this work I only outline sea-level change for the last 2000 years since the occupation and settlement development of the farming communities.

Based on archaeological evidence, geomorphological features, salt-marsh sediments and AMS dating of shells it has been possible to reconstruct Southern and East African Coast sea-level change. This evidence suggests that there was a late Holocene 0.5 m amplitude sea transgression from 1500 years BP, especially between 1100 to 300 years BP to the present. However, it was almost the same as present-days sea-levels. Throughout the oscillations

recorded there is a low sea-level of – 1 m to – 0.2 m between 800 and 600 years BP and a rise to the present-day sea-level around 300 years BP. Consequently, these sea-levels oscillations that have taken place over time, have clearly influenced the coastal environmental and probably its inhabitants (see also discussion in Strachan *et al*., 2014), because with the rise of sea-level coastal inhabitants were forced to move inland abandoning their stonehouses, early ports and causeways which actually are submerged ruins (c.f Pollard 2008a; Fleischer *et al.,* 2015), and between 10th and 11th centuries AD, possibly the fish activities took place in deeper waters and influenced the boat building size to accommodate deep water fishing and larger fish (cf Fleischer *et al.,* 2015). These environmental occurrences, suggest that the some past landscapes and material culture possibly are submerged and buried.

Geology and Soils

The study of geology and soil characteristics of the mainland especially is important here because the nature, types and distribution of soils are relevant to any understanding of agricultural practices and food production.

Geologically, the northern coast of Mozambique is composed of Precambrian sedimentary deposits dated to 4,600 – 590 Mya (Tinley 1971; Hoguane 2007) and sedimentary deposits that date between 66 Mya in the Cretaceous and 5.8 Mya in the mio-pliocene (Sætre and Silva 1979). The distribution of coral-stone banks, quaternary dunes, lakes, and coastal bays along the northern coast is not continuous but random (Hoguane 2007). The northern coast of Mozambique from Rovuma River in Cabo Delgado to Pebane District in Zambezia province is composed of islands and fringing reefs and coral-stone (Afonso *et al*. 1998, Figure 3. 2). Coral-stone, and silt and clay are found at the major river mouths (Tinley 1971). Alluvial valleys with fertile clay soils are presently covered by mangrove swamps (Hoguane 2007). Mozambique Island itself is constituted of quaternary coral-stone dated to the 2 Mya and more or less covered by sand (see Tinley 1971). In the 1980s it was almost 8 m above sea level (Arkitektskolen I Aarhus 1985), however, it generally varies between 4 m and 5 m. Past coastal communities on the mainland west of the island made use of the ample deposits of coral-stones and fertile clay soils to build houses and produce coarse earthware ceramics which supplied the island (c.f Dulvy *et al.,* 1995; see similar discussion in Gosselain 1998). Ethnographic research has documented activities such as shellfishing for consumption of mollusks and the use of shells to produce lime for cement in coral-stone building, and clay collection from the mangroves for pottery production.

Figure 3. 2: General map of the coast of Mozambique illustrating the area discussed in the text.

The morphology of the northern coast is characterized by low lying land rising less than 100 meters above sea level (Mozambique 1983; Morais 1988). The geography of the coastline creates diverse micro-environments influenced by different climatic conditions and geological features conducive to a rich marine life (Tinley 1971). Soils include the weakly developed littoral dunes, poorly drained vertisols, and alluvial soils. Of particular importance are arenosols which Swahili and Macua farmers adapted for rice agriculture in paddy fields because they retain water extremely well (Eutric Regosols: Re 69-la FAO 1973). Rice is an Asiatic crop, which on present evidence, was introduced into the South East African coast in 700 AD and around 1500 AD onward it was spread along almost the whole East African Coast (Walshaw 2010; Boivin *et al.*, 2014).

None of these littoral soils vertisols and alluvial, are good for cereal agriculture such as sorghum and millet, because they retain too much moisture. Meanwhile in the interior the soils of Nampula districts are characterized by the ancient weathered granitic batholiths and ferruginous acrisols (see discussion in Adamowicz 1987) and are so called Cambic arenosols and ferric luvisols (FAO 1982) that are very suitable for sorghum and millet agriculture. The existence of these suitable soils for sorghum and millet agriculture correlates with Monapo Iron Age sites (Figure 5. 5) and suggests that this area was occupied by early first-millennium

farming communities of the Kwale-Matola tradition (AD 200–500) (Huffman 2007). Monapo tradition pottery (AD 300 - 500) was made by farmers from Kenya migrating down the south east African coast (Adamowicz 1987). It is possible this spread of farmers was in part driven by farming communities searching for good soils for agriculture and new landscapes in which to exploit the natural resources.

Towards the coast, the Precambrian complex of gneiss and migmatite, Cretaceous and Quaternary sediments (Tinley 1971) and the vertisols (P2NMga) erode into the Cambic arenosols which means that the interior soils are appropriate for agriculture in contrast to the Eutric regosols of the litoral and Eutric alluvisols (P2NMmd) soils of the mainland (FAO/UNESCO 1974). On the mainland small scale of agriculture is carried out, mainly in the form of rice production during the rainy season as the soil is poorly drained (Coppens 2019). The absence of fertile soils for agriculture on Mozambique Island itself explains why fishing is the main economic activity on the island and also why it is necessary to be strongly linked to agricultural production on the mainland (Figure 3. 4).

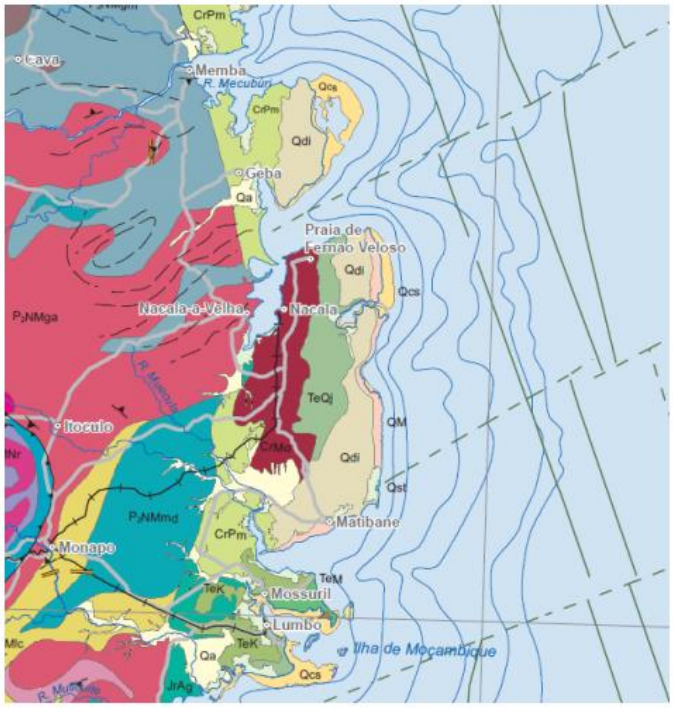


Figure 3. 3: Geological map of Nacala e Mozambique Island (Coppens 2019).

P2NMga - vertisols subside to the Cambic arenosols are interior soils; **P2NMmd** – continuation of interior arenosols soils towards the coast also suitable for agriculture and **Qcs** - poorly drained vertisols, alluvial soils and arenosols (FAO/UNESCO 1974; Coppens 2019).

The bay and Topography

The coral reefs of Mozambique Island are rich in natural biodiversity (Fonseca 1996). The bathymetry around Mozambique Island bay varies from -1 m to -11 m from Sancul to Sena Island. The present day shallow bathymetry between Sancul and Sena Island suggest that this area was not navigable since early times. However, it stretches 10 km between Sancul and Sena Island which is a big area. While from Sancul to Cabeceira Pequena it is almost 13.4 km distance and almost 15 km distance between Mozambique Island and Apaga-Fogo (Arkitektskolen I Aarhus 1985). Its width and biodiversity provides fishing resources for local fishermen. These fishermen practice small scale fishing in the channel outside Fortress San Sebastian immediately north of the fort, which is about -45 m in depth. This channel also served as a strategic anchorage area for larger commercial and slave ships (Ibid; see Chapter 5), as well as Dhows. Big ships were not able to get close to the port of the island and these large vessels dropped anchor in the Eleven bank, where the maximum depth at high tide is –15 m and -3.5 m at low tide. Small Dhows sailed out to these ships to offload or load trade goods (Ibid) (Figure. 3.4).

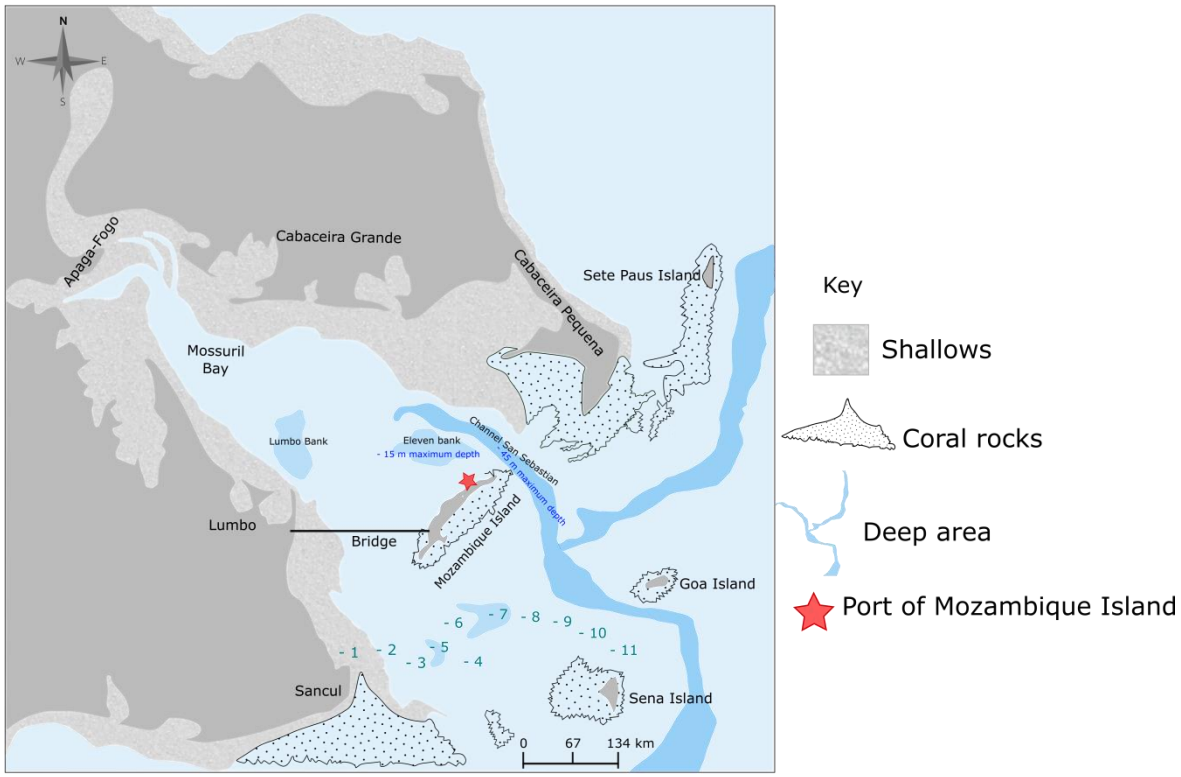


Figure 3. 4: Physical characteristics of the Mozambique Island or Mossuril Bay (adapted from Arkitektskolen I Aarhus 1985: 40).

Mozambique Island is relatively flat, although a few undulations in the land gave rise to the level differences of the streets (Motta *et al.*, 2002). The highest point of the island is located in Stone-town and the football-field at the northern part of the island with a height of 9.07 m. The lowest point is located in the Macuti-town interior (-1.11 m) and is artificially created by the old quarry, dating from the 19th century AD (Arkitektskolen I Aarhus 1985), although it is probably older because some stone to build the Fortress San Sebastian during 16th century AD was probably also quarried there. In this quarry huge amounts of coral-stones were mined to build the stone houses in Macuti-town and Stone-town and the quarry presently is about 0.5 m below the average high water level (Ibid). The topography of the island is clear evidence of the cultural impact on the maritime landscape because of material to build the stone-houses at the north of the island came from quarrying in the south area, and the topography of the island clearly reflects this. The mainland coastline and inland areas of Lumbo, Sancul, Mossuril, Cabaceira Pequena and Grande vary between 5 m to 100 m in altitude (Coppens 2019, Figure 3. 5).

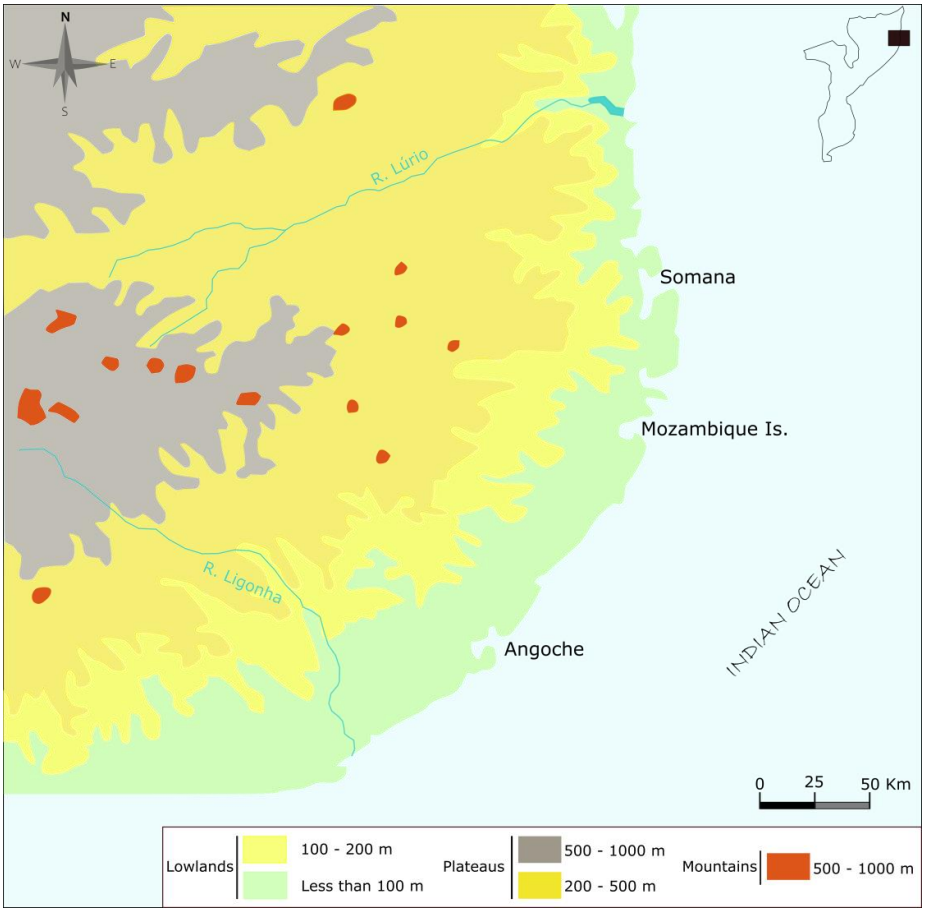


Figure 3. 5: Topographic characteristics of the Nampula province from the coast to interior (Coppens 2019).

Vegetation and Local Fauna

The lowland coastal area around Mossuril, Cabeceira Grande and Pequena, as well as Lumbo and Sancul are temporarily waterlogged and badly drained, and these areas are characterized by a wooded savanna interspersed with palms (Hatton *et al.*, 1994, Figure 3. 6). In the 1900s Mozambique Island had plenty of palm trees and their leaves were used to produce rope. On the mainland and further into the interior a sublittoral forest can be found with *Adansonia, Bombax, and Chlorophora* growing on better-drained areas (Wild and Fernandes 1968). The drier interior vegetation comprises a mosaic of dry forest-savannah and ephemeral miombo woodland, such as *Brachystegia spiciformis, B. boehmii, and Adansonia, Sterculia* and *Bombax* (Sinclair 1985). White and Moll (1978) have suggested that the sublittoral forests were more extensive in the past and have now been destroyed by cyclones and human activities, such as firewood cutting, uncontrolled burning to clear the land for agriculture and wood harvesting for boat building. However, currently there are no archaeobotanical or vegetation studies that can confirm this suggestion. Elsewhere on the coast it has been shown that the savanna was present on the coast also in the 1st millennium AD, but decreased during the dry conditions associated with the little ice age (Ekblom 2018) in the middle of 2nd millennium AD, between AD 1400 – 1800 (Ekblom 2004). Much research is needed to reconstruct the vegetation patterns on and around Mozambique Island.

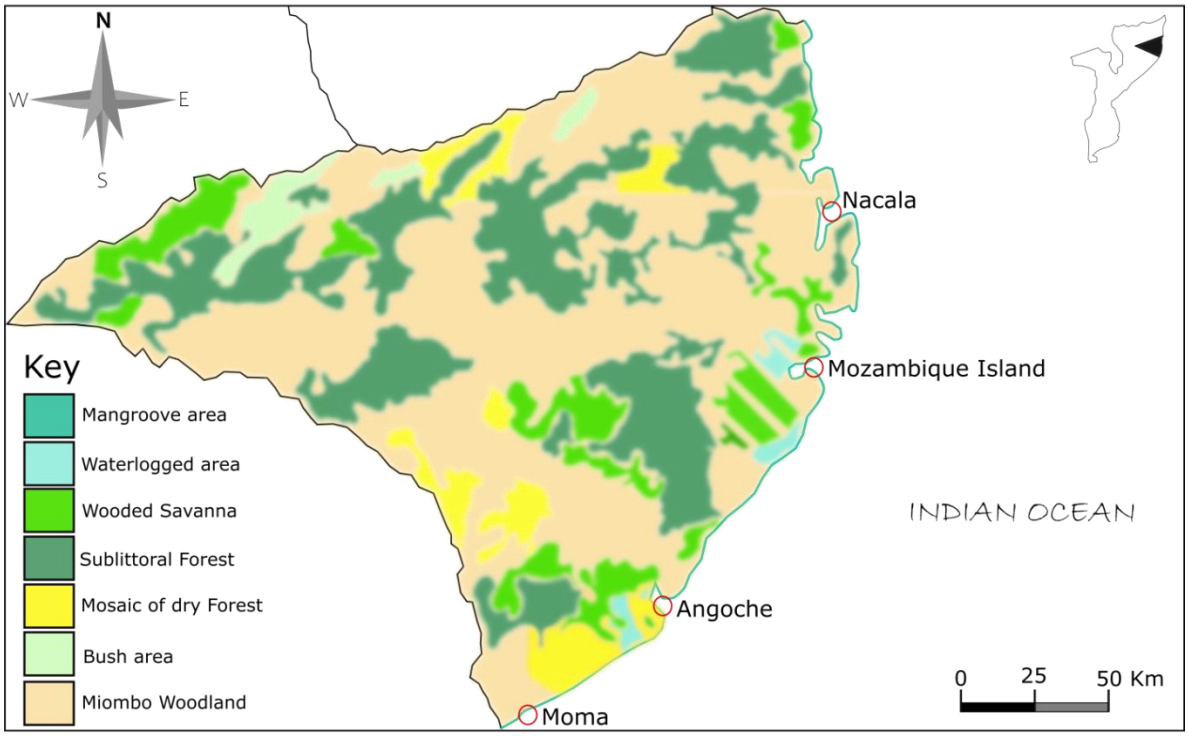


Figure 3. 6: Map of vegetation distribution in the Nampula province (Adapted from FAO 1982).

Currently there are few species associated with the littoral forests in the area around Mozambique Island. Along the beaches of both the mainland and island there are concentrations of mangroves. These help stop the erosion of the island and mainland, and also, provide a habitat for a lot of bird species, including the great flamingos, yellow-billed storks, the gray heron, hammer-bird, king-fishers and wading birds (tarambolas and sea-gulls) (Omar 2013). On the mainland there is notable presence of goats, chickens and ducks, which make an important daily contribution to the local protein diet.

Data from geophysical research, remote sensing, landcover mapping, biomass estimation and historical maps suggest that the coastal vegetation of Nampula, in particular mangroves for ca. 500 years, have suffered from human exploitation which has caused strong modifications to the original vegetation (c.f Fatoyinbo *et al.,* 2008). Based on direct observation, where the practice of exploiting the natural resource takes place on the mainland without regulation, a number of practices are suggested that may have contributed to this. The coastal communities currently cut down the mangroves for small boat construction. They also produce lime, roasting quarried coral stone and using mangrove wood as the main fuel in the kiln, although sometimes it is mixed with coconut woods (c.f Dulvy *et al.,* 1995). In addition, the mangroves hold a high concentration of clay (Cannicci *et al.,* 2008), that is seasonally collected by pot makers, as well as different type of shells that are collected and fish that are caught by fish traps and from small boats at high tide for subsistence (Penha-Lopes *et al.,* 2010).

Moreover, the current vegetation has been influenced by the importation of several exotic plants from Asia, America, Europe and Australia (Arkitektskolen I Aarhus 1985). This diversity of plants from different areas of the world shows the global interconnections and the cultural impact these had on landscape changes over time. On the mainland, as well as on the island, there are planted ornamental trees, such as oak-trees planted along the beaches, the jacarandá (*Jacaranda mimosifolia*), yellow acacia (*Cassia simaea*), red acacia (*Cassia sp*), and amargosa (*Azadirachta indica*), which beside ornamentation, also provided shade. The figueira-brava (*Ficus sp*), through its root system, however, contributes to the destruction of many houses (Hatton *et al*., 1994).

On the East African Coast, the consumption of fish and shellfish is documented ethnographically from present-day residents activities, in historic written sources and in the

archaeological record at excavated sites such as Mgao, Sudi, Namgogoti, Tumbe and Songo Mnara (Ichumbaki 2014; Fleischer *et al.,* 2015). For instance, Al-Idrīsī in the mid-12th century AD reports exploitation of fish and shellfish in Badhuna for consumption and commercial exchange (Freeman-Greenville 1975, Figure 4. 2). In a similar way, fishing and shellfish collection is still the prevalent livelihood of residents of Mozambique Island. During the low-tide woman and their daughters devote their mornings and afternoons to shellfish collecting for commercial exchange. For instance, cowrie shells are collected for basket ornamentation and bivalves for subsistence (Figure 3. 7). Additionally, fishing and cutting of firewood in the mangroves by present day residents of the East African Coast are also significant resources that are being exploited in the mainland and these cultural activities show continuity in the way of land use (c.f Pollard 2008b; Martin 2010; Ichumbaki 2014).

Figure 3. 7: Women shellfishing along the beach of Mozambique Island (Photo by the Author 2020).

Conclusion

Earlier researchers studying coastal settlements along the east African coastline have emphasised the impact of the ocean on shaping human life in this maritime cultural landscape. In this chapter I have discussed how the monsoon systems, soils, geology and flora and fauna influence and shape the economy of current day inhabitants of Mozambique Island, and provided an overview of sea-level changes and how these factors likely influenced and shaped past occupations on the island. In the next chapter I will discuss in detail the written resources and their contribution to understanding the more recent sequence of Mozambique Island.

CHAPTER 4. WRITTEN SOURCES ON MOZAMBIQUE ISLAND

In this chapter, I review pre-industrial and European colonial written records that provide complementary sources that contribute to our understanding of the sequence of settlement and development on Mozambique Island. As noted in chapter 2, some of these sources are relevant to identifying strategic locations that could potentially reveal archaeological evidence associated with different occupation phases. Additionally, a significant part of the sequence addressed below, dates to period of written records.

In reviewing and analysing the literature on the East African Coast it is necessary to take into consideration the origin and nature of the sources. Many of the earliest written documents were accounts by merchants and travelers, informally recorded and then passed on by geographers and historians (see discussion in Freeman-Grenville 1975; Trimingham 1975; Casson 1989; Juma 2004). There should also be caution in simply associating written record with archaeological evidence (see discussion in Macamo 2006; Madiquida 2007: 28). As Mozambique researchers such as Duarte (1993), Macamo (2006), and Madiquida (2007, 2015) have asserted, written sources do not take precedence and it is possible and worthy to compare and confront the written sources with material evidence, and thereby expose the bias in their construction.

Graeco-Roman sources

The earliest known written document on the Indian Ocean, East African Coast, Middle East and Asia is the *Periplus of the Erythraean Sea.* Its origin is uncertain (Freeman-Grenville 1975), but it may have been written by an anonymous merchant in Alexandria (Schoff 1912) based on information provided by merchants and sailors (Huntingford 1976). There are different suggestions of its age, but all generally refer to the same period, for example, Casson (1989) and Chami (1994) suggest that it is dated to 40 - 70 AD, Schoff (1912) dates it to 50 AD, while Mathew (1975) suggests a date between 76 - 100 AD, Freeman-Grenville (1975) between 120 - 130 AD, and Nurse and Spear (1985) between 130 - 140 AD. This document provides records related to the trade network between the Graeco-Roman world and Arabia, India, and Eastern Africa. The *Periplus* mentions places on the coast of the Red Sea and the Horn of Africa, to Rhapta and to what is called the Sofala region, the southernmost point on the East African Coast (Duarte 1993; Madiquida 2007: 28; see below). Rhapta was probably situated on one of the river mouths of the Tanzanian coast and Hafun near the Horn of Africa in Somalia (Chami 1994; Sinclair and Håkansson 2000). The main trade goods exchanged were tortoise-shells, ivory, rhinoceros horns, spices, aromatics,

gemstones, wheat, rice, sugar, oil, butter, clothes, weapons, ceramics, copper, iron and silver (see also Schoff 1912). There is evidence that the consumption of Asian rice on the East African coast dates back to 700 AD, as attested by archaeobotanical investigations on Pemba Island (see Walshaw 2005, 2010; Boivin *et al.*, 2014). A market-place is thought to have existed in the area between Pangani and Rufiji rivers frequently navigated by sewn timber sailing boats (Chami 1994). These products were exported in exchange for spears, hoes, swords and different types of pottery brought from the Arabian Peninsula and Muza, situated on the coast of the Red Sea (Duarte 1993). These were exchanged for metal objects (Chami 1994) and from India wheat, rice, cloth, *ghy*[5] and sesame oil were exported (Schoff 1912), together with glass beads (Wood 2011). The transport between trade-ports for exchange in the time of *Periplus of the Erythraean Sea* was undertaken through the navigation of timber sewn boats (Casson 1989 quoted in Chami 1994: 44). In 15th century AD, the presence of sewn timber boats was also mentioned in the report of Vasco da Gama´s voyages written by Alvaro Velho when they arrived on Mozambique Island for the first time (Fomseca 1998; Carvalho 2014). Consequently, it appears that this boat technology had been established for a considerable time.

The *Geography of Ptolemy* offers similar information to the *Periplus* about trade routes and locations of ports (Chami 1994: 25). Chami (1994) attributes the document to 140 AD and Macamo (2006) to 150 AD. The Geography was re-edited in the 5th century AD, and in particular, this document contains information and observations on port-towns, geography, trade, and people (see detailed discussion in Juma 2004).

Arabic sources

The assemblage of Arabic documents discussed here shows a close relationship with the origin and expansion of Islam around 800 AD, from north towards south of the East African coast and which gave rise to the mixed Muslim religious identity of Swahili culture.

The Arabic sources of Al Masudi (later 9th century AD), Ibn Hawqual (10th century AD), Al-Idrīsī (1100-66 AD), and Ibn Battuta (1331 AD) provide more details on the East African coast than the Graeco-Roman documents. However, it is still not easy to identify the actual location of trade-ports, or understand the organization of the coastal inhabitants (see discussions in Freeman-Grenville 1975; Trimingham 1975; Chami 1994). Additionally,

[5]. Oil from melted butter that could safely survive ocean voyages for up to two years when preserved in earthen pots or leather skins.

information for this period includes the Persian accounts and reports of the trade in slaves taken from Qanbalu and Sofala to Chinese harbours between 617 - 860 AD (Freeman-Greenville 1975; Trimingham 1975).

The source of Al-Masuid (in Freeman-Grenville 1975), dated to late 9th century AD, offers more details on the East African coast inhabitants asserting that this coast was settled by black skinned people, ruled from two main areas known as Sofala and Qanbalu Island, occupied by a small Muslim community. In addition, Al-Masuid indicates a developed long-distance trade network between Siraf, Oman and Sofala, the latter being mentioned first as a region and later as a specific place (see discussion in Ekblom 2004).

According to Juma (2004), the sources Buzurg Ibn Shahriyar of Rahormoz and Ibn Hawqual both date to the 10th century AD. They record the main trade-goods exported from Sofala and Zanzibar at this time as gold, along with ivory, tortoise-shells, amber, bananas, and coconuts. Additionally, these documents make reference to a race of white Zanj people bringing food and clothing products from other places beyond Sofala to *Zangbar* (Zanzibar) (Freeman-Grenville 1966: 18 quoted by Juma 2004: 25). The white Zanj referred to in this source are probably Malagasy traders from Madagascar (Vérin 1986; Bovin *et al.*, 2013), or the so called Waq-waq possibly coming from Sumatra and the Maldives Islands (Blench 2010), The Waq-Waq conducted raids on the East African coast in 945 – 946 AD, attacking the villages and towns of Sofala looking for slaves and for commerce (see Wood 2011). These Waq-Waq probably later assimilated into the local coastal communities (Juma 2004; Blench 2010; Wood 2011).

The later written sources provide a better understanding of the activities undertaken on the coast (Chami 1994). For example, Abu Al-Fida (1273-1331), a prince of the Ayyubid dynasty, offers information on the relationship between Greece, Rome, the Middle East, and East African coast describing how during the 14th century AD East African coastal towns were very wealthy. Abu Al-Mahasin (1441) describes Lamu as a small coastal town occupied by Zanj people who exchanged gray amber, large bananas, fruits, and honey for imported goods (Jama 1996).

Some harbours and coastal towns are mentioned in written sources and are also known archaeologically. These include Mogadishu, Merca, Munghia, Barawa and Kismanyo in Somalia; Unguja, Kilwa, and the Zanzibar Island in Tanzania; Malindi, Mombasa and the

Lamu archipelago in Kenya and Cape Delgado, Quirimbas and Mozambique Island, Sofala, Angoche and Chibuene in Mozambique (Sinclair 1991; Chami 1994; Juma 1996; Juma 2004; Madiquida 2007; see more in Chapter 5, Figure 4. 1).

Figure 4. 1: Map illustrating some sites mentioned in the text.

Furthermore, these sources mention the exploitation of seafood and pearl-fishing and hunting wild animals for meat, skins, ivory, and horns for the purpose of trade (Freeman-Grenville 1975, Duarte 1993). Although none of the accounts make direct mention of Mozambique Island it is possible that Mozambique Island was included in this sphere and that traders *on route* to Sofala and Chibuene also stopped to trade on Mozambique Island throughout the end of first millennium AD, and the beginning of the second millennium AD. The statements by Battuta and Majid can be supported by the assemblage of archaeological evidence from Chibuene on the southern coast of Mozambique, dating to 700 AD, which contains evidence of long-distance trade with the Sassanid Empire from Arabia and glass beads from the Persian Gulf dated to 650 AD (Sinclair 1982, Sinclair and Håkansson 2000, Ekblom 2004, Wood 2011). The archaeological materials of Sassanian Islamic glazed wares and glass beads bear witness to the coast of Mozambique indeed being integrated into the Indian Ocean trade network with Islamic empires since the 7th century AD (Sinclair 1982; Duarte 1993; Madiquida 2015).

Moreover, there is a map by Al-Idrīsī dated to the 12th century AD, which illustrates the trade-ports (Figure 4. 2) of the East African coast. The existence of these harbours has not yet been confirmed through archaeological investigation (Madiquida 2015), but it is important that attention is given to the area named Dandama because it seems to fit with the geographic position of Mozambique Island.

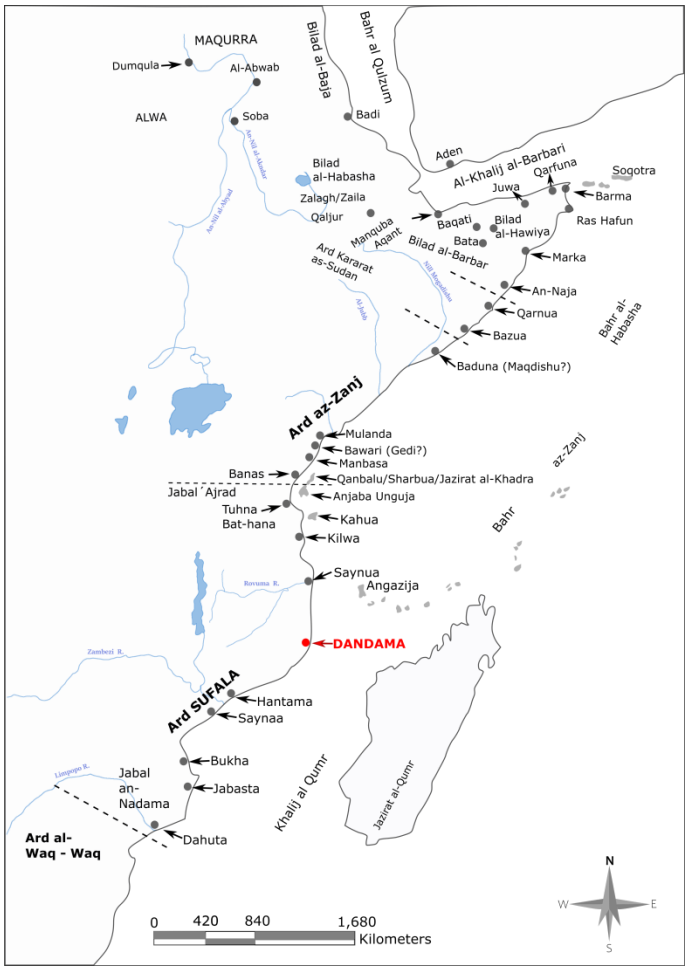


Figure 4. 2: Al-Idrīsī map from 12th century AD illustrating the early trade ports of the east African coast (based on Chittick and Rotberg 1975: 138).

Further, it is important to consider the Arabic source *as-Sufaliyya* dated to ca. 1475, written by Ahmad ibn Majid, a sailor from Yemen who navigated along the East African coast and reported the existence of Swahili culture on the coast down the southernmost places of Sofala and Bazaruto Island (Liesegang 1999). Ibn Battuta´s document of the 14th century AD, importantly observes that the major settlements along the East African coast were in general Islamized (Freeman-Grenville 1975). It is an indication that at this time, if not earlier, Mozambique Island was also Islamized.

Chinese sources

The earliest Chinese written source on the long-distance trade in the Indian Ocean is *Hou-Han-Shu*[6] dated to 166 AD (Freeman-Grenville 1975; Madiquida 2007). The source confirms commercial links between the Roman Empire, Southeast Asia, the Persian Gulf and the East African coast and reports silk, ivory, rhinoceros horns, and tortoiseshell as the main trade-goods (Duyvendak 1949; Juma 1996). Later on, in the 9th century AD, the *Yu-yang-tsa-tsu* document was written by Tuan Ch'ing-Shih, describing the land of *Po-pa-Ii* located in the southwest of the Ocean possibly in Tanzania and Kenya inhabited by people who did not eat cereals, but consumed meat and frequently stuck a needle into the veins of cattle to draw blood, and mixed it with milk to be drunk (Duyvendak 1949: 13-14; Freeman-Grenville 1975; Juma 2004; Madiquida 2007), this statement must refer to observations of the east African cattle pastoralists. Additionally, this written source makes reference to Arabic and Persian traders with their markets of cloth (Juma 2004). The *Yu-yang-tsa-tsu* document points out that the East African coast was not subordinate to any foreign power and that the Persian traders who tried to enter, settle and conquer the coast owing to its famous trade and wealth, were repeatedly attacked by people who used elephant tusks, ribs, and wild cattle´s horns as spears, and had bows and arrows (Freeman-Grenville 1975).

Additionally, the later Chinese written source on the East African Coast from the 13th century for the most part, provides information regarding Zanzibar Island. One document was written by Chao Ju-Kua from Fukien´s province and names Zanzibar as *Ts'ong-pa*, describing the island as settled by people from Indonesia and the Arabic religion, dressed in blue cloth and red leather shoes (Freeman-Grenville 1975; Madiquida 2015). According to Freeman-Grenville (1975), ships from Arabia were sent to Zanzibar and other trade harbors of the East African coast yearly, with cargo of white and red cotton clothing, and porcelain and copper for trade. In 1295, Marco Polo also made reference to the commercial relationships between Europe, the Persian Gulf, Southeast Asia and the East African coast and described European wealth as a result of Chinese, African and Arabic trade (Oliveira 2007).

Portuguese sources

The history of the northern coast of Mozambique and especially Mozambique Island began to be more intensively recorded with the arrival of the Portuguese, which commenced with the

[6]. The Annals of the later Han Dynasty.

voyage of Vasco da Gama to India in 1498 (Macamo 2006; Madiquida 2007), at this moment the island was under rule of sheik Zacoeja (Lobato 1945). From this period onward trade is mainly considered as the dealings of mercantile capital between the Portuguese and the East African coast communities (Posnansky and Decorse 1986). The prime focus of the Portuguese presence was to establish trade contacts, so that they could purchase spices and ceramics in Asia that were in demand in Portugal and Europe in general (Chami 2004, Macamo 2006). In this period major ports competing for this trade had developed, such as Mogadishu, Mombasa, Kilwa, Ibo Island, Mozambique Island, Angoche and Sofala (Costa 1982; Pollard *et al.*, 2017). Prior to the Portuguese arrival, Kilwa had control of the southern coast as far as Sofala and the routes leading to the gold mines in the Zimbabwe Plateau (Costa 1982). Between the 14th and 16th centuries AD, the African state of Great Zimbabwe was the best known state in the interior and controlled an abundance of gold mines (Sinclair 1987, Macamo 2006, Pikirayi 2013). At that time, the Zambezi River and coastal Mozambique settlements, such as Chibuene, Sofala, Angoche and Mozambique Island played a very important role as ports for trade because they were strategically located on the coast for the export of gold from the inland Zimbabwe plateau, and also from Barué, Mukaranga, Manica, and Butua to Kilwa, Mombasa, and Melindi (Duarte 1993; Sutton 1998; Isendahl 2006; Madiquida 2015).

When the Portuguese arrived on Mozambique Island for the first time on the 2nd of March 1498 (Lobato 1945), they encountered a developed and strong commercial network established between local communities and Swahili merchants, in which glass beads, cloth, spices, and imported ceramics from the Persian Gulf were mainly exchanged for gold, ivory, precious woods, pearls, seed pearls, tortoiseshell, animal skins, amber and elephant oil, medicinal plants, slaves and even raw cotton (Barbosa 1518; Machado 2009; Roque 2017). Between 1506 and 1513 the Portuguese established a fortress at Sofala and factories at Tete, Sena, and Quelimane, with the aim of controlling the gold and ivory trading networks (Newitt 1972). However, the fortress of Sofala was not economically successful (Roque 2007; Newitt 2004). Therefore, the Portuguese were forced to move their harbor north of Sofala and established a harbor and political presence on Mozambique Island. From here they controlled the long-distance trade network of the *Carreira da India* in the Indian Ocean from 1518 (Cordeiro 2016), and from this time onward, Mozambique Island frequently began to receive European trade ships (Miller *et al.,* 1986). Therefore, from 1530 onwards, the island was connected to the commercial oceanic ports along the Swahili Coast, Red Sea, and Índia,

as well as with the markets from the interior of Mozambique (Bastião 2010). From 1540, besides Goa, it was the most important harbour which supported the *Carreira da Índia*[7] and became the central administrative head-office of the East African coast from where the Portuguese controlled the commercial and customs activities, military establishment, sailing and religion (Newitt 2004).

Initially when the Portuguese first made an effort to establish a *Feitoria*[8] on the island, the local traders refused to submit their trade system to Portuguese control (Donato 2006). Consequently, the Portuguese attacked the local communities and traders with guns, forcing them to leave the island (Bastião 2010). The traders who had exchanged products with locals throughout many years prior to the Portuguese became annoyed with the presence of Europeans. However, after some years of conflict, the Portuguese subdued Mozambique Island (Lobato 1945), and the ruling Swahili families built new settlements on the mainland, such as Sancul and Quitangonha (Newitt 2004). An important source for this period is Frei João dos Santos (1609/1999) and his book *Etiópia Oriental* which provides information related to the history, geography, missions, and voyages along the East African coast and in Indian Ocean. The third chapter offers more details about Mozambique Island and brief descriptions about Quirimbas Island and Cape Delgado. Additionally, Dos Santos (1609/1999) described Mozambique Island before the Dutch attacks in 1607-8, and how, soon after the attacks, the Portuguese fortress of São Sebastião was finished with its own water cistern and storehouses for trade goods. In the main square there was a Dominican church and further away the Portuguese town to the south of the fort was inhabited by approximately 2,000 residents. Furthermore, early in the 17th century AD, a small village on the island was inhabited by a small number of Moors[9], most of whom were sailors to India. Dos Santos describes them as poor and wretched, and as a rule, usually in the service of the Portuguese commander or traders. However, in other towns and in the feiras[10] in the interior the Muslim merchants held considerable power (Freeman-Grenville 1975; Newitt 2004). Descriptions from Sofala mention that the Portuguese possibly broke the power of these local merchants when they established themselves on the island (Newitt 2004).

[7] . The maritime trade route that linked Lisbon and Goa with obligatory passage at Mozambique Island port.
[8] . Commercial Portuguese entrepôts built along the coast and interior areas with aim to control the trade network.
[9] . The designation Moors in the particular context of Mozambique Island is used to refer to Indian Muslims from Gujarat or born from Indian men and African women (Bonate 2007).
[10] . Portuguese word which refers to markets where people meet to exchange their trade goods.

Duarte Barbosa (1518) gives brief descriptions about the cargo ships that used to stop in the Mozambique Island port and mentions wood and supplies brought from mainland. As the island is only 3 km long and 500 m wide it had no chance to produce enough resources to support trade and local consumption. Barbosa also describes that ship repairs that were made on the island as needed, and from there they sent supplies to the Portuguese based at Sofala. In addition, the work *Décadas da Ásia* by João de Barros (1552) provides a description of the voyages to Asia, however, its focus is on exotic trade goods bought and worn by the local Swahili ruling elite (Barros 1552). Barros explains how gold, silver, and ivory from the interior states of Mutapa and Torwa/Butua were traded for exotic goods such as cloth, glass beads necklaces, earrings and rings (Barros 1552; Pikirayi 2013), due to the lack of silver evidence from the interior possibly Barros (1552) possibly mistakenly identified the tin that was traded in the interior and also to the coast as silver (Simon Hall *pers. comm.* 2021). These exotic goods had passed through the Zambezi River via the Luenha and Mazoe Rivers (Newitt 1972: 399 quoted in Pollard *et al.*, 2018) and Mozambique Island was one destination from which these trade goods were then transported further (Arkitektskolen I Aarhus 1985; Newitt 1995).

Maps from the European period of Mozambique Island

The analysis of historic maps is important because it provides significant insights on the urban development of the Mozambique Island from the 16th century AD. By interpreting the Portuguese maps, it was possible to clearly understand the development of the built environment on the island, and underpin the significant landscape modification made in the construction of the fort and the opening of the quarry on the island.

Early Portuguese sources of 15th century, written by Alvaro Velho, reported the existence of settlements before the establishment of the Portuguese on the northern part of the island (Da Fomseca 1998). In 1507, after conquering the island, the Portuguese built a *Feitoria* which in short time developed into a small Fortress, originally called fort São Gabriel (Arkitektskolen I Aarhus 1985; Donato 2009), and later *Torre Velha* (Newitt 2004) on the northern tip of the island. This was near the harbour on the western side of the island where commerce activities were mainly undertaken (Lobato 1945). The fortress was under the rule of an *alcaide-mor* (ancient governor of a province) (Goes 1878). In a short time and by 1508, a small settlement of huts developed around this small fortress, and the place where the early small fortress was built is now occupied by the customs house near the harbor (Arkitektskolen I Aarhus 1985).

Later in 1509, the success of the trade with Índia had already produced good profits for Lisbon. In order for better management of the profits and to increase the trade, the Portuguese established themselves at Goa (Cochim), where the Portuguese aristocracy was governed by the viceroy of Índia to whom the General-Captain of Mozambique was subordinated (Newitt 2004). Consequently, over a period of 53 years, between 1513 and 1566, little investment was given to Mozambique Island while the commercial attentions were devoted to Índia, and for that reason the urban development of the island occurred slowly (Donato 2009). In 1522, the fort was built on the northern point of the island with the objective of defending the northern entrance of the channel into the bay and the ships with cargo against pirates. That religion was central to the Portuguese occupation is indicated by the construction of Chapel of Nossa Senhora de Baluarte on the North West bastion of the fort in 1522 (Lobato 1945; Bastião 2010, Figure 4. 3).

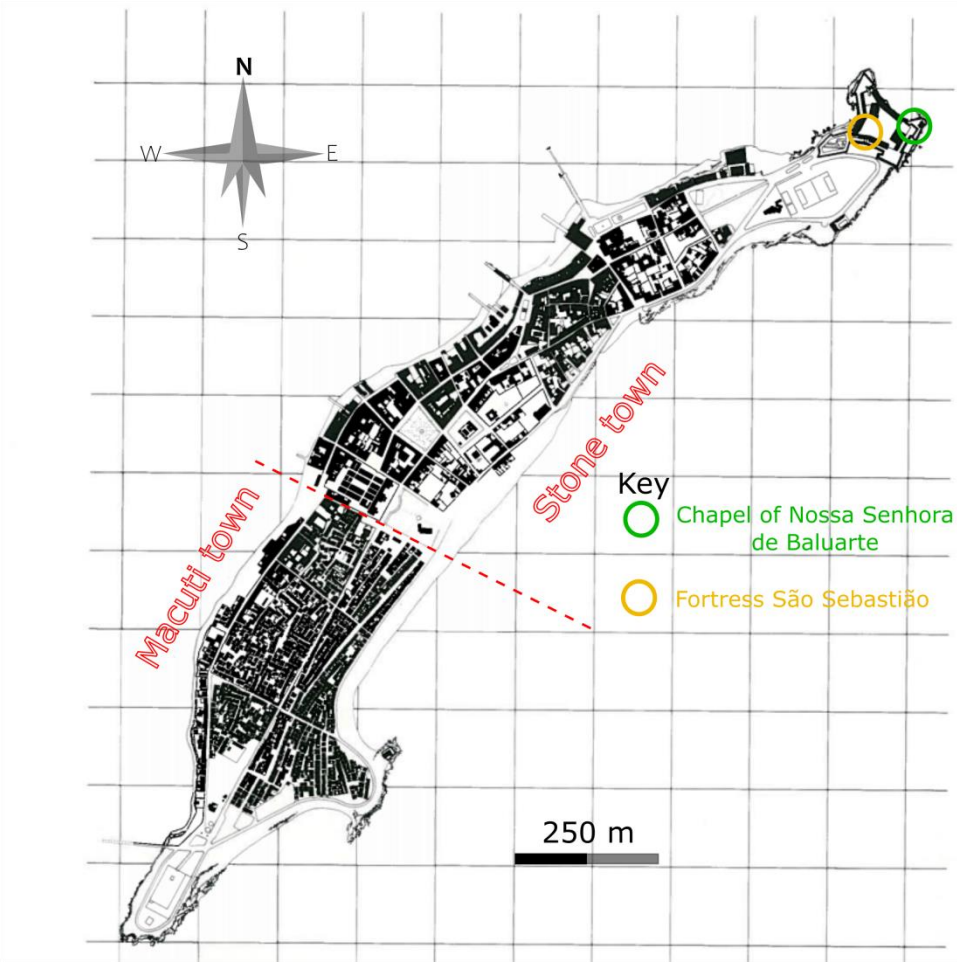


Figure 4. 3: Map illustrating location of Macuti and Stone towns, and the Fortress São Sebastião and Chapel of Nossa Senhora de Baluarte (adapted from Arkitektskolen I Aarhus 1985).

Progressively, from 1547 the construction of the São Sebastião Fortress was well underway (Lavies 2012). From 1558, as the fort was being constructed, it was decided that the fortress would be turned into the administrative centre dedicated to control the long-distance trade on the East African coast and, as noted, to protect the island and Portuguese interests and investment against attacks (Arkitektskolen I Aarhus 1985; Lavies 2012). From this time, the Captain-General of Mozambique lived for six months on the island and six months in Sofala, located further to the south on the Mozambique coast between Inhambane and Zambezi provinces (Arkitektskolen I Aarhus 1985, Figure 3. 2).

From 1562 the government of Mozambique became independent of Goa (Donato 2009), and from 1570, at the height of the interior gold trade, Francisco Barreto, who was then the Captain-General of Mozambique, lived on the island permanently with the aim to control the intensive commercial activity and manage the urban growth and capital of the *Ultramarino*[11] Province of Mozambique (Lobato 1945; Arkitektskolen I Aarhus 1985; Donato 2009). Therefore, in 1593 the first customs house was built where all trade goods exchanged on the coast of Mozambique had to pass through (Donato 2009). Furthermore, at the end of the 16th century AD, the island now had a hospital, churches and convent houses and many residences, a testament to the islands continuing growth and commercial importance (Lobato 1945).

An early map that contributes to the analysis of the urban development of the island was published in 1596 by Jan Hugen Van Linschotten in his *Itinerarium* (Lobato 1945) and the same map was edited by Petrus Kaerius and published by Langenes Barent in 1598 (Donato 2009, Figure 4. 4). There are no maps dating from the very first years of the formation of the town. Rather, the map of 1598 shows details of the island in its growth phase displaying the distribution of building structures which correspond to the urban development core beyond the São Gabriel Fortress (Liesegang 1999; Donato 2009).

[11] . The name of all areas or provinces ruled by the Portuguese crown overseas.

Figure 4. 4: Map of Mozambique Island in the year 1598.

The map maker chose to orientate this map with the south at the top and north at the bottom. The convention of north at the top was not used or had not yet been standardized at this period. The importance of pointing this out is that the mainland is on the side of the map along with the harbor. A reader might expect that the area on the side of the map is the important part of the mainland. In this map, the map maker probably wanted to indicate the building over much of the island and not just concentrated in the north. It suggests also that the author of this map was not interested in the scale and correct orientation of the map, but just wanted to depict to authorities back in Portugal the extent of the settlement development, whereas, the reality was much less.

In Figure 4. 4, the Fortress of Saint Sebastião is shown along with its Chapel of Nossa Senhora de Baluarte. The crosses and rectangular shapes symbolize the cemetery of *Adre Kerckhoff* close to the Chapel of São Gabriel, Fortaleza Velha and right in front is the Church of the Misericórdia (symbolized by A and cross), the Convent of Santo Dominicus, Church of Santo António, and some ships that indicate where the harbor was located. The colours on the map help to distinguish two kinds of houses: 1. the houses with the red rooves are stone built houses that belonged to the Portuguese and 2: The houses with the white and light red rooves are huts built of wood, skin and straw that are thought to have built and occupied by the local people, since the early 16th century AD, along with the Portuguese.

The map shown in Figure 4. 5, indicates that at this time the settlement development was mainly concentrated in the central area of the island and in a small area of the northern tip. However, the following maps illustrate urban development from the beginning of the 17th century AD. The so called *MONSAMBIQVE* map of António Bocarro (Figure 4. 5), was published in 1635, but the concrete date when António Bocarro actually drew it is not known. As with the Langenes Barent map, the manner in which the number of houses, quarters and streets are depicted, suggest that this map was a sketch, and makes no claim to be an accurate, real life representation. Later maps dated to the 18th century AD, onward are more realistic and pay attention to measurement and scale. In these later maps, the island is wholly occupied and the buildings are exhibited with more details, allowing a better observation of urban organization. It is noteworthy that the quarters have irregular sizes and shapes defined by walls of various sizes.

Figure 4. 5: The *MONSAMBIQVE* map of António Bocarro showing the building development of Mozambique Island.

In this map the orientation has east at the top of the map, and west at the bottom. It strongly suggests that even in the period of the early 17th century AD, there was no standardization in map making. A lot of houses are built fronting onto the streets with yards at the back. The streets are irregular in size and orientation because they were determined by the size of the yards of each house and the orientation of the walls. It is also possible to see once again two kinds of buildings: houses built by stones and the huts built of skin, straw and wood. Inside of

the San Sebastian Fortress, there are different buildings, and between them the Chapel of Nossa Senhora do Baluarte. In addition, this map shows the São Lourenço Fort, located to the south of Mozambique Island and shows the coral rocks along the beach of the northern side and the sandy beach to the south. Furthermore, some Portuguese and local houses are visible on the mainland, probably Cabeceira Pequena.

In 1754, Mello de Castro drew a topographic map which was later republished in 1835 and is known as a defensive plan of Mozambique Island that shows building fortifications (Figure 4. 6). This map is an attempt to be realistic in scale, measurement and distance. Also, the depiction of the settlement distribution is restricted in the north. This map, in contrast to the two earlier maps above does not depict settlement over much the island. This might go to the issue that the older maps are a fanciful representation whereas this map is more realistic.

Figure 4. 6: The 1754 map and profile of Mozambique Island by Mello de Castro.

The 1754 map still shows that only a small area in the north was occupied, with some building shown further towards the central area. In fact, the urban structure of the island shows little change to the area near the harbor between 1600 and 1750. From the map many houses can be seen to have had been built near to the place where trade was mostly undertaken. Furthermore, and of interest, is that de Castro includes a profile of the island below the island plan, as would have been seen from the mainland to the west (Figure 4. 5), that provides some information on the geomorphological characteristics of the island. It is

also interesting to note the low height of the south end of the island, because the quarrying activities flatten the south end. It is interesting also to note that Castro used two different line textures to symbolize the coastline which delimits the island: the simple line symbolizes the sandy beaches, where it was possible to build the harbor and perhaps also houses associated directly with commercial activities, and the thick line that symbolizes the location of coral stone shoreline which were dangerous to ships because they could easily damage the hulls.

When comparing this map to the earlier maps (Figure 4. 4 and Figure 4. 5) it is possible to follow the later development of an urban layout on Mozambique Island in the 1800s. It is clear that that in the early 19th century AD, the island was mostly occupied in the centre and north. The few huts built in the south of the island were not durable because they are indicated to have been made from straw, skin and softwood (Donato 2009). Possibly the south area of the island was occupied in the early 19th century AD, but since those who settled or occupied this area were local (Swahilis and Macuas), the map maker chose to ignore them because it was the stone built houses that were important. These showed the presence of the Portuguese and possibly deliberately did not depict the presence of local people. Later the increasing number of wattle and daub houses in the south of the island gave rise to Macuti town (Lobato 1945; Omar 2013).

The presence of a more complex social landscape on Mozambique Island, indicates an urban configuration due to the existence of two historic towns, which is the Portuguese Stone town and Macuti town for local people (Omar 2013). This division already existed in the first half of the 18th century AD, and it is documented in the map drew by Carlos José de Reis in 1788 (Liesegang 1999).

Figure 4. 7: Map showing the Mozambique early 1800s (AHU-Carta da IDM065D.555).

This map (Figure 4. 7), shows the distinction between Macuti and Stone town. It certainly seems to show the quarry from which coral stone was taken for building, and in which Macuti town developed. This map is orientated with north at the top - which means that the map maker was aware of the conventional way to orient it. And also it is annotated with key

letters that indicate the presence of buildings and features. For instance, Q letter represents the quarry in the south of the Island at present-day Macuti town.

Because of the conservation threat and status of the architecture and the historical and cultural value it represents, the island was classified by UNESCO as a World Heritage site in 1991 (Roders 2013; Ministério da Cultura 2014). The Stone town is located in the north and resembles a Portuguese town owing to the Manueline style of architecture of a lot of the houses built of coral stones and lime plaster (Ministério da Cultura 2004, Figure 4. 8). Some academics, for instance Omar (2013) and Macamo (2006), also note that the raw material used for the construction of the European town may have been extracted from the southern part of the island where Macuti town is located, which is a typically African town dated to the 18th century AD. The rectangular houses were huts constructed of a wooden pole frame that was plastered with clay, and thatched with palm-tree leaves and grass (Arkitektskolen I Aarhus 1985, Figure 4. 8). Much of Macuti town is located within the extensive quarries from which the coral stone was mined and therefore, one steps down over a meter into the town. It is where, since early 1800s a lot of local islanders settled, and the same situation continues today (Omar 2013).

Figure 4. 8: Rectangular Macuti house in the south of the island (Photo: Rakotomamonjy 2012).

Figure 4. 9: Manueline style architecture Stone house in the north of the island (Photo: Rakotomamonjy 2012).

The fusion of cultures in the town resulted in a mix of building styles and architectural elements. For instance, the Portuguese houses were built using local Swahili architecture building techniques using coral stones and lime, with roofs supported by mangrove beams. The recent Portuguese houses have new architectural features, such as iron beams, square wooden beams and wooden floors, allowing for more spacious rooms, better lighting through windows, and better ventilated and wide open verandas. Nevertheless, the buildings utilize Swahili features, including flat roofs and carved doors (Arkitektskolen I Aarhus 1985).

In this chapter, I have discussed the importance of analysing written sources about the East African coast. This focuses on two perspectives: firstly attention was devoted to the early, documents written by travelers, navigators or geographers who drew maps without scientific rigour and used as orientations to their voyages and as reports to their kings, as in the case of the later or colonial Portuguese written sources of 15th and 16th centuries AD. Secondly, the written sources provided significant contributions in understanding different phases of the urban origin and development of Mozambique Island, as well as the diversity of activities or events that took place over time. However, none of these maps discussed here indicate the location of the two excavation areas, especially Abdurrazaque Juma house.

In the next chapter, I look into previous archaeological investigations undertaken on the northern coast of Mozambique at Cabo Delgado and Nampula, and Mozambique Island and the surrounding areas with the objective of summarizing what is known about the chronological sequence.

CHAPTER 5. PREVIOUS ARCHAEOLOGICAL RESEARCH ON THE HINTERLAND AND MOZAMBIQUE ISLAND

In this chapter, I summarise information of existing archaeological research on Mozambique Island, the mainland regions of Nampula and Cape Delgado and the wider East African Coast. This review specifically focuses on the agropastoral sequence developed so far in order to provide the framework for assessing my data and its contribution to developing this sequence further. The sites on Mozambique Island and the chronology established there by previous investigations are especially important. Santos Júnior (1947) carried out the first archaeological survey in Nampula in the 1940s, resulting in a description of the Riane rock paintings. The earliest sites located in the hinterland of Nampula revealed an occupation sequences associated with hunter-gatherers, represented by rock painting and LSA microlithic finds of the Cavala industry (Adamowicz 1987), However, this deeper hunter-gatherer history of the area is not considered here, and my focus is on the Early and Later farming communities who occupied different sites from the interior to the coast that are more directly relevant to understanding the sequence on Mozambique Island.

Iron Age agriculturist archeological investigations

Nampula Province

In the I970s, archaeologists from the Department of Archaeology and Anthropology of the Eduardo Mondlane University initiated research programs in northern Mozambique on the farming communities and Swahili culture along the coast of Nampula and Cape Delgado province (Morais 1988). In particular, archaeological research undertaken in the hinterland and on the coast of Nampula has provided significant insights into the farming communities and Swahili culture (Adamowicz 1987; Sinclair *et al.*, 1993).

Sinclair (1985), Adamowicz (1987) and Duarte (1993) have investigated several sites from the hinterland which revealed Early Iron Age (EIA, 0 – 900 AD) and Late Iron Age (LIA, 900 – 1800 AD) ceramics of Nampula tradition pottery that originate in the EIA and continue until the start of the LIA (Figure 5.1). Their studies of coastal sites in the region revealed EIA pottery referred to as the Monapo tradition and LIA Lumbo and Sancul tradition pottery, as well as coral stone ruins associated with the Swahili culture. These studies contributed significantly to the understanding of the settlement sequence from the interior to the coast.

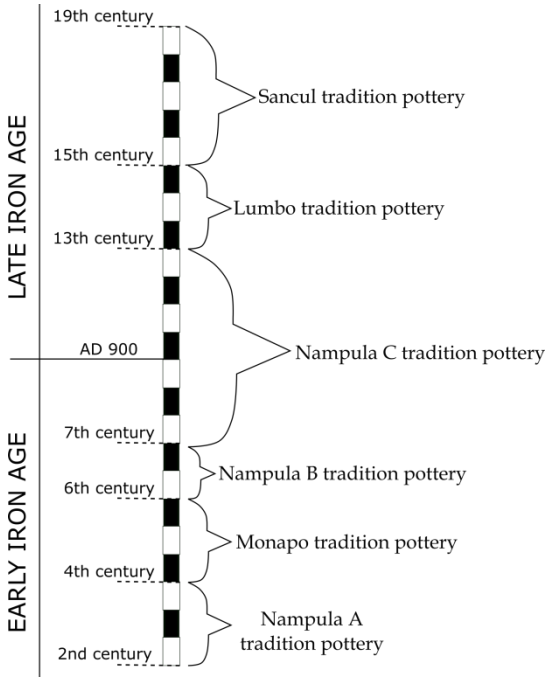


Figure 5. 1: The sequence timeline of Iron Age pottery discussed in the text.

In the 1980s, Adamowicz (1987) made a considerable contribution to the understanding of the archaeological sequence of Nampula through the CIPRIANA project (Campanha de Implementação do Projecto de Investigação Arqueológica na Província de Nampula), finding more than one hundred archeological sites in the interior and near the coast related to both Early and Late farming communities. The pottery found at early coastal sites of Nampula in Monapo share some similarities with Kwale tradition pottery from Manda Island, Shanga and Mijikenda kaya in Kenya (Juma 2004), and Mkukutu-Kibiti, Kivinje and Mafia Island in Tanzania (Chami 1994). Monapo pottery also has similarities with Nkope wares found in Namoso, Kambiri and Domwe in southern Malawi (Davison 1991; Sinclair 1991).

In addition to the Monapo tradition, found along the coast, a second, named the Nampula tradition, occurs in the interior. Leonardo Adamowicz (1987) classified this pottery and divided the Nampula tradition into three phases - A, B, and C (Adamowicz 1987; Sinclair 1991). Using charcoal samples, the phase A Nampula pottery, excavated from Muhekani, Nampula I, Makohere, Namicopo I, Muatuania and Murrapania IV was dated to the 2nd century AD, and to the 3th and 4th centuries AD at Xacota (Adamowicz 1987; Sinclair 1991).

The Nampula A pottery is characterized by wide-necked Jars with everted rims, constricted necks and in-turned rims. The decoration on the neck is filled with oblique or vertical incised

lines with some cross-hatch motifs (Sinclair 1991; Sinclair *et al.*, 1993: 425). There are also ceramics decorated with shell-stamped motifs from Murrapania IV (Figure 5. 2), Xacota, and Muhekani that indicate contacts between the interior and the coastal farming communities who made Monapo tradition pottery (Sinclair *et al.*, 1993: 427).

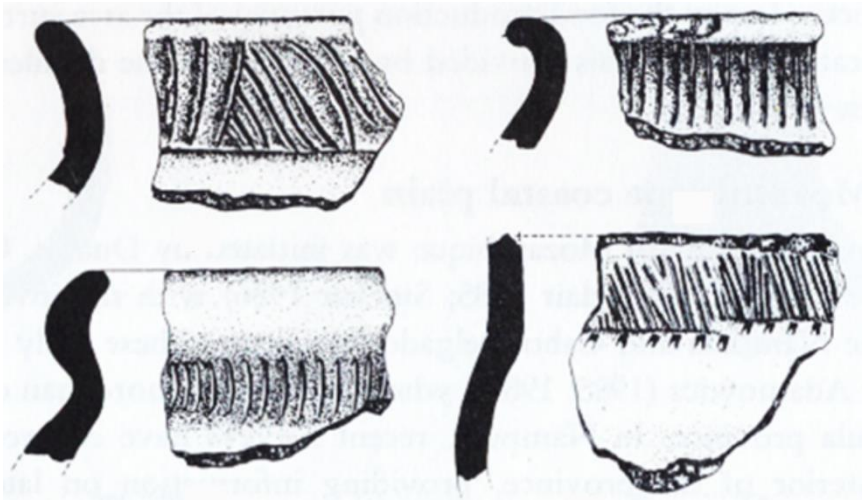


Figure 5. 2: Nampula A tradition pottery ceramics (after Sinclair *et al.*, 1993: 422).

The Nampula B Pottery, excavated from Riane, Nakwaho I and Namicopo, has been dated between the 6th and 7th centuries AD. The pottery is characterized by dentate and oblique shell-stamped motifs (Sinclair 1991: 188; Sinclair *et al.*, 1993: 421-2; Senna-Martinez *et al.*, 2012: 8). The Nampula B pottery is nearly contemporary to the adjacent hinterland and coastal Monapo tradition pottery. This is characterized by dentate oblique lines and bands of comb stamped motifs Jars in the neck and bowls below the shoulder (Figure 5. 3). Due to its distribution near and along the coast, and because it shares similarities with Lumbo tradition pottery, dated to the 13th and 15th centuries AD and Sancul tradition pottery dated to the 15th and 19th centuries AD, Monapo tradition and its succeeding traditions are directly associated with Swahili culture in Mozambique (Duarte 1993). This is evident because some of the stylistic attributes of Monapo pottery were adopted by Swahili potters (Adamowicz 1987: 80-1; Sinclair *et al.*, 1993: 422; Senna-Martinez *et al.*, 2012: 8).

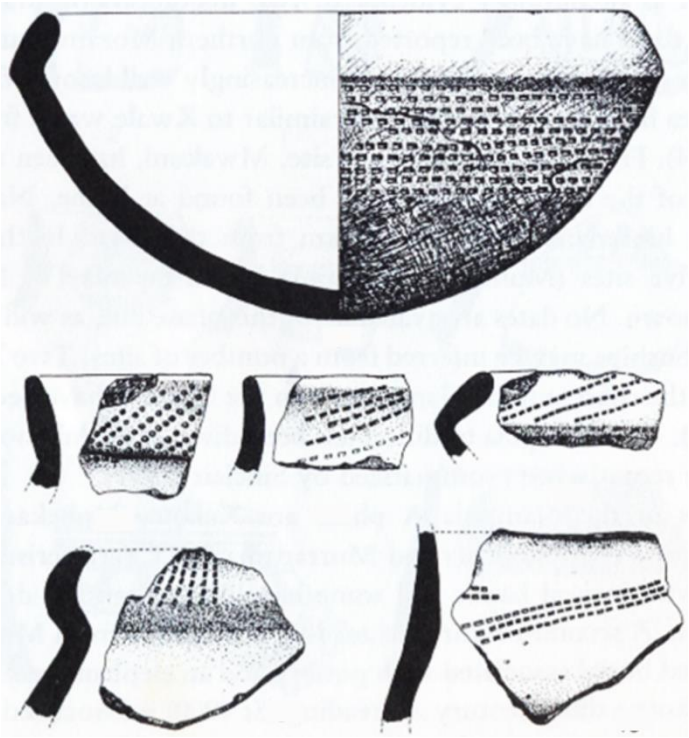


Figure 5. 3: Nampula B tradition pottery ceramics (after Sinclair *et al.*, 1993: 422).

Additionally, Monapo tradition pottery found at Namolepiwa, Mwakoni, and Namialo 1 has been dated to the 4th and 6th centuries AD and shares strong similarities with Nampula C pottery recovered from Muatuania, Muhekani, Murrapania IV, Xacota and Tototo II, dating between the 7th to 13th centuries AD. Nampula C pottery, and Monapo pottery tradition is characterized by jars decorated with single band of dentate and shell stamping just below the lip and neck, punctuates and plant impression and thin lines of vertical impression on the rim and shoulder and sometimes below the shoulder (Figure 5.4). These decorative motifs suggest that farming communities who produced the Monapo pottery established contacts between the interior and coast probably from the 8th century AD (Sinclair *et al.*, 1993: 426).

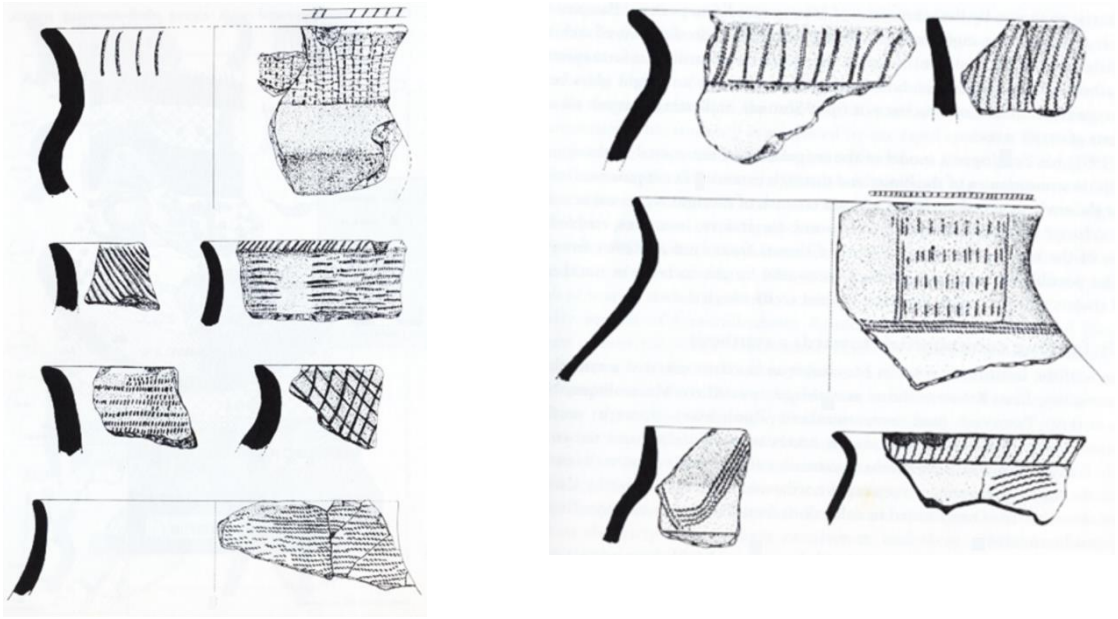


Figure 5. 4: On the left Nampula C and on the right Monapo tradition pottery ceramics (after Sinclair *et al.*, 1993: 424-5).

Archaeological evidence from coastal late farming communities was identified at Lumbo, Foz do Lúrio and Sancul (Adamowicz 1987; Duarte 1987, 1993; Madiquida 2007). The Sancul tradition pottery was made with a wheel and is characterized by decoration motifs such as appliqué and open bowls decorated with red ochre and graphite. It is found in northern sites of Mozambique and in Mombasa harbor at Santo António de Tana site (Sinclair *et al.,* 1993). Sancul tradition pottery was found in the upper layers of sites containing Lumbo tradition pottery (Sinclair 1991) suggesting that these pottery traditions could be contemporary and overlap. Duarte (1987, 1993) undertook an extensive survey with the aim of identifying and documenting Swahili ruins along the northern coast of Mozambique, particularly at Somaná, Pangane, and Gomene. Somaná was excavated and dated through the presence of Lumbo ceramics decorated with fine incised lines, shell and comb-stamping, triangle bands and other geometric motifs dated between 12th and 15th centuries AD.

Somaná is associated with Swahili architectural features, such as walls made of coral stone and lime. The Sancul and Lumbo pottery traditions were developed within the Swahili culture and both are strongly present on Mozambique Island, however, the Lumbo pottery is often found on the mainland.

Further to the south, the Angoche islands are not well explored archaeologically (see discussion in Isendahl 2006). In 1975, Dickinson (1976) surveyed two Islands of Angoche

namely Catamoio and Quilua Islands. On Catamoio Island the site of Muchelele revealed imported ceramics dating from the late 15th to early 16th centuries AD. In the 1980s a team from the DAA-UEM[12] carried out systematic excavation, however, no excavation report has been published (Adamowicz, *pers. comm.*, quoted in Isendahl 2006). In 1994, Christian Isendahl (2006) carried out a survey on the mainland at Angoche, and he identified two sites: Estação de Meterologia with Later Lumbo tradition pottery dated to the 14th century AD, and early Lumbo pottery at Malapane I site was dated 12th century AD.

Additionally, in 2015, the British Institute of East Africa and Eduardo Mondlane University carried out an archaeological survey of Angoche with the aim of studying Swahili trade in the southernmost region of what was interpreted as being within the influence zone of Kilwa. The aim was to clarify the chronological sequence of development and record the exploitation of resources throughout the medieval and post-medieval periods (Pollard *et al.*, 2018). The survey resulted in the identification of Catamoio, Nhanluqui, Quilua and Buzu, and excavations were conducted at Joca and Mitubani. In general, the archaeological material is similar to the assemblage found by Chittick (1974: 303-470) at Kilwa in the III/IV period, dating between 10th to 19th centuries AD. The ceramic assemblage is also similar to collections found by Pollard *et al.*, (2016: 8) at Shanga, dating to the 15th century AD. Early TIW[13] ceramics were discovered along the Tana River, from settlements dating between the 4th - 10th centuries AD (Horton 1987: 315; Chami 1994: 99; Fleisher and Wynne-Jones 2011), which is similar to the Nampula tradition B pottery dated to the 350 – 700 AD (Adamowicz 1987). Importantly, their research shows that the connection between Nampula eastern coast and Kilwa dates back to the 9th century AD (Pollard *et al.*, 2018).

[12] Department of Archaeology and Anthropology of the Eduardo Mondlane University.
[13] Triangle Incised Wares.

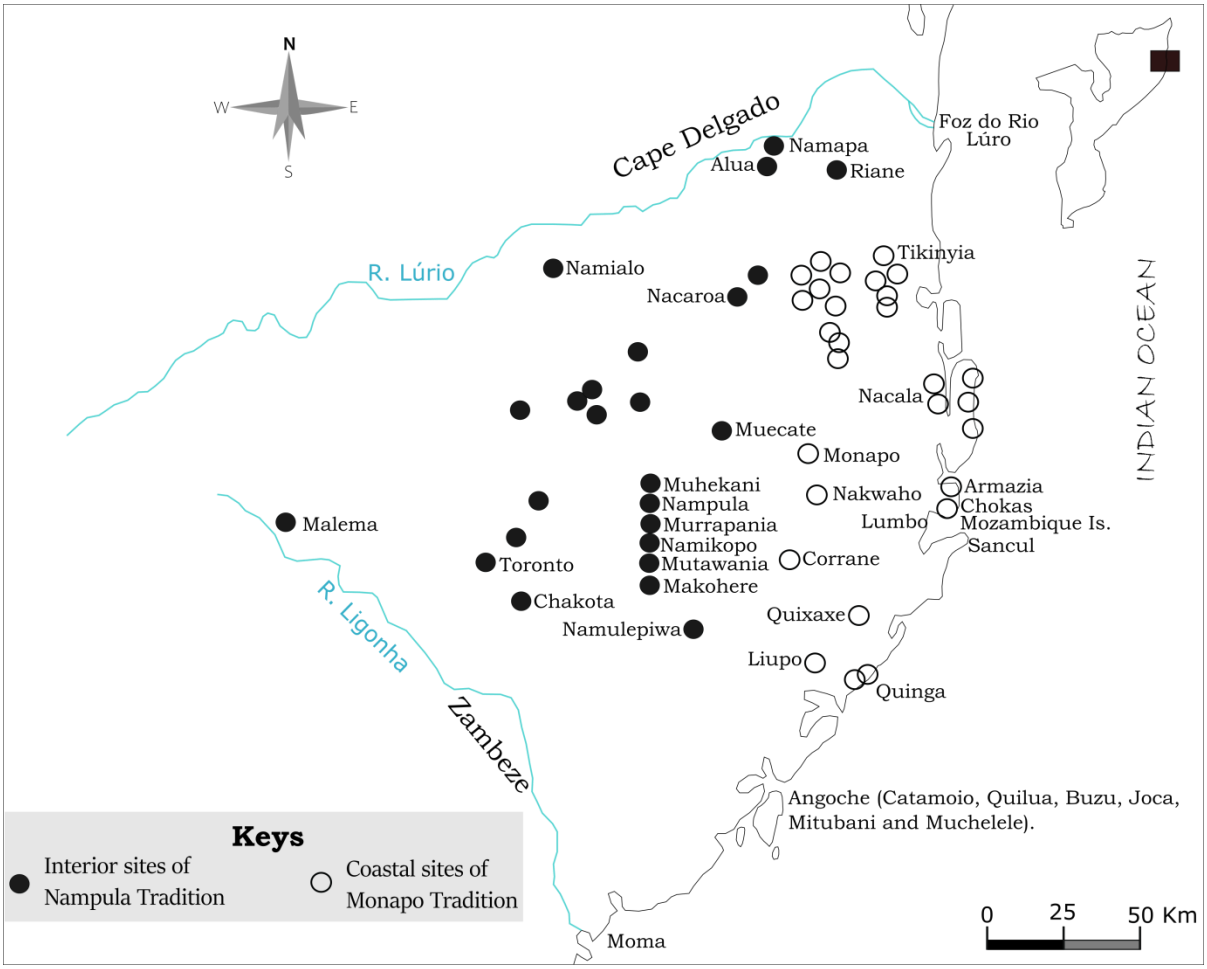


Figure 5. 5: Map illustrating distribution of archaeological sites in the interior and coast of the Nampula province (adapted from Sinclair *et al.,* 1993: 416).

Cape Delgado province

The archaeological sites of Cape Delgado relate to different periods of human settlement (Adamowicz 1987) but are insufficiently investigated and require more academic research in order to understand their archaeological context (Madiquida 2007). In the 1960s, excavations undertaken at Tungi, Quisiva, Mbuizi and Quisiva, Amaro Monteiro recovered Chinese porcelain, glass beads, and Lumbo and Sancul tradition pottery. Monteiro´s investigation provided brief and superficial descriptions of the material culture excavated, although he made significant insights on the presence of remnants of Swahili tradition building related to the long-distance trade which contributed towards understanding Later Iron Age settlement in Cape Delgado (Monteiro 1966).

Additionally, a survey conducted by François Balsan on the Rovuma River identified new archaeological sites. Unfortunately, the report of this investigation is not available (Balsan

quoted by Duarte 1993). In the 1970s, Matemwe Island and Quisiva were surveyed by Pierre Vérin with the objective of establishing correlations between Kilwa and Antananarivo in Madagascar. Based on the survey, Vérin suggested that these sites reveal the earliest archaeological evidence associated with permanent villages dated to the mid-first millennium AD (Vérin 1970).

Systematic archaeological investigations at Cape Delgado province was initiated on Ibo Island in 1978 by a team of archaeologist from DAA-UEM led by Paul Sinclair and Teresa Cruz e Silva during an archaeological reconnaissance of Northern Mozambique (Sinclair 1991). The team surveyed and excavated three different sites that revealed material culture associated with the development of Swahili culture on Ibo and identical material culture found at Kilwa in the occupation phase II and IIIb/IV (Sinclair 1987). In the same year, Pangane, a late remnant of the Swahili tradition was documented and excavated. The research yielded an assemblage of Sancul tradition pottery which was used to date the Swahili architectural features to 17th and 19th centuries AD (Duarte 1987). In addition, the investigations undertaken at Gomene showed an absence of imported goods, a fact that suggests that it was not a market-place (Duarte 1993). However, Madiquida revisited (2007) Gomene after Duarte (1987, 1993), and his investigation showed different results. Madiquida´s work makes reference to the presence of imported goods, such as green, red, white glass beads, also bone and shell beads. Although his work does quantify this material the bead numbers are low. The insignificant quantities of glass beads at Gomene and the absence of imported goods in Pangane suggest that not all stone houses of the northern coast of Mozambique were associated with trade and receiving of imported goods (Sinclair *et al.*, 1993). An identical archaeological context was noticed in the early occupation phases of Mikindani in South of Tanzania dated to 11th and 16th centuries AD (Pawlowicz 2012).

In 1988, the historian Gerard Liesegang carried out a survey and excavation in the Palma district and discovered the ruin of Tungi. It seems like an old Swahili palace along with two mosques and a small assemblage of houses and two tombs, apparently dating to the 18th century AD. Liesegang's excavation recovered Chinese porcelain and French faience (Opaque de Serrigemines) dated to the late 18th and early 19th centuries AD, and also Lumbo and Sancul tradition pottery (Duarte 1993).

Hilário Madiquida (2007) carried out the most extensive investigation in Cape Delgado, surveying the area between Lúrio and Rovuma rivers where he identified and described

Quirimbas, Matemwe Island, Bambara Cave and Matela. His excavations at Foz do Lúrio and Quissanga Beach focused on examining the processes of social and cultural change on the basis of material culture, written sources and ethnoarchaeological data for a better understanding of the economic and social organization of the Later Iron Age communities. The excavation at Foz do Lúrio recovered Lumbo tradition pottery characterized by comb-stamping, shell impressed and fine line motifs and Sancul tradition pottery characterized by diagonal cross-hatching and incised lines (Sinclair 1986; Duarte 1993; Macamo 2006; Madiquida 2007). Iron slag and wild animal bones of gazelles, warthog and birds, mollusk shell and fishbone were also found (Madiquida 2007). Additionally, the site revealed evidence of imported goods, such as a diversity of greyish green and blue-on-white Chinese porcelain decorated with natural motifs along with 19th century AD Portuguese porcelain, and a range of glass beads (white with blue lines, red, grey with blue lines and white) (Madiquida 2007: 70).

Excavations at Quissanga beach recovered a diversity of imported goods such as Glazed pottery, Chinese porcelain and European ware decorated with animals, leaves, river, and lake motifs, and blue, green, red, white and yellow glass trade beads. This material is associated with Lumbo pottery but also local ceramic painted with graphite and ochre, which is typically related to Swahili culture and also local beads made of bone, clay and *Cyprae tigris* and *Cyprae moneta* cowrie shells (Madiquida 2007). The assemblage of material culture found in Quissanga beach and Foz do Lúrio suggest that the farming communities who occupied these sites were strongly involved in commercial activities, and established cultural contacts with different groups throughout the second millennium AD (Madiquida 2007).

In the Palma district, rescue archaeology was undertaken in the face of planned developments. Leonardo Adamowicz (2011) carried out an archaeological assessment which resulted in the re-identification of the Tungi ruins first identified and studied by Liesegang (1988). Tungi was first described in the Arabic document entitled *Mãgãraya fi zamãn qabliati Sirãziyi* written by Abdallah ibn Salim Mungoji during the mid-14th century (Adamowicz 2011). This written source provides insights on the presence of Arabs of Shirazi origin who occupied and ruled the area of Palma. Adamowicz´s assessment also contributed to the identification of Tungi ruin 2, described in the Swahili document entitled: *Hati ya nas aba ya Matungi*. This written source provides insights about the genealogy of the Matungi people who might have formed, settled and ruled Tungi 2 at the end of 14th century AD, and more precisely, in the year 1389.

Furthermore, through this archaeological assessment, Early Iron Age sites were identified characterized by ceramics of the Nampula A and B traditions dated to the 3rd and 6th centuries AD. Later Iron Age sites are also present, characterized by Lumbo tradition pottery, dating to the 13th and 15th centuries AD, and recent Makonde pottery dated from ca. 15th to 19th centuries AD. Also reported are imported goods, such as Chinese porcelain and European teacups and Islamic glass that show commercial and cultural contacts between Tungi with Near East, China and Europe (Adamowicz 2011).

In 2015, a team of Spanish archaeologist carried out research on the Quirimba archipelago, on Ibo and Matemo Islands with the purpose of studying the settlement process from the first millennium AD to second millennium AD, and the origin and development of Swahili culture there, and to understand the structure of regional and long-distance international trade networks (Rodríguez *et al.*, 2016: 57-9). Their investigation revealed Lumbo and Sancul tradition pottery in association with imports, such as Ming dynasty Chinese porcelain dating between the 15th to 17th centuries AD, and European refined earthenware ceramics, such as sponge-ware, blue transfer-printed ware and shell-edged wares dating from the early 19th century AD. The presence of glass beads in this assemblage contributes to the material culture association with Swahili culture (Rodríguez *et al.*, 2016).

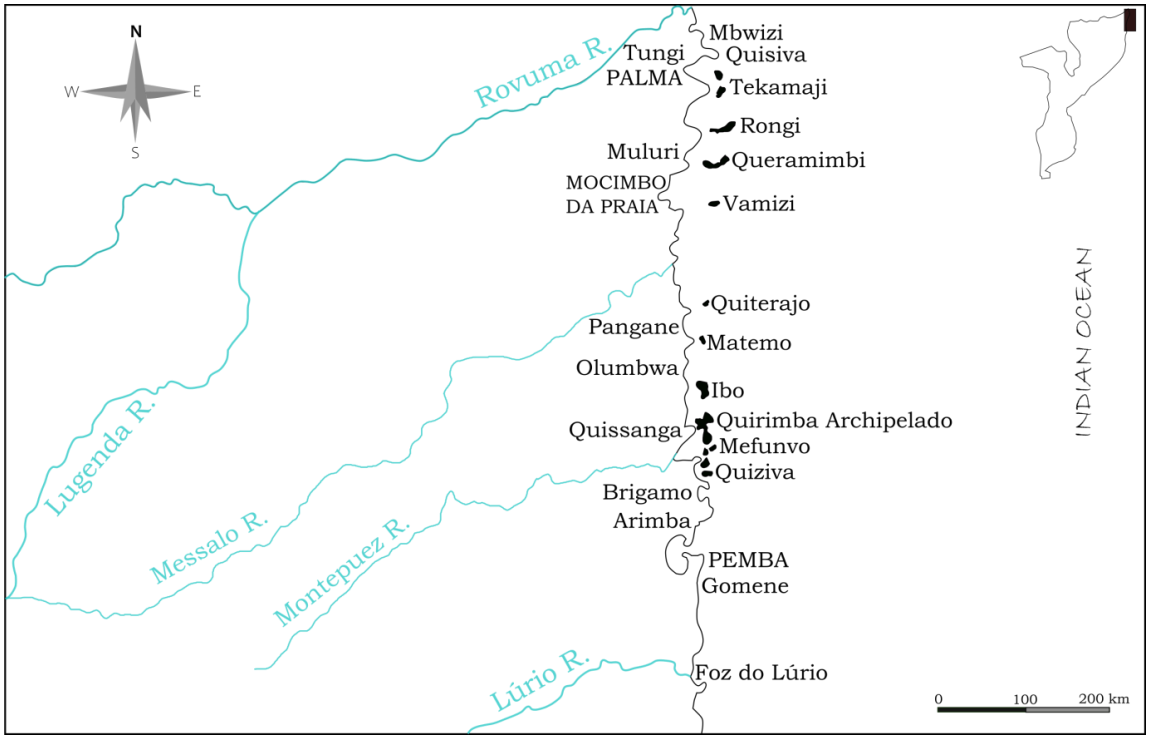


Figure 5. 6: Map illustrating the distribution of archaeological coastal sites of Cape Delgado province (adapted from Duarte 1993: 54).

To sum up, the combination of archaeological evidence from systematic surveys, excavations, dating and material culture studies (Boivin *et al.*, 2013) outlines the occupation phases of the coastal plain of the northern Mozambique. It is suggested that from the 7th – 3rd centuries BC, the coastal plain of Nampula was occupied by LSA societies, who then had to share this landscape with EIA farmers from the 1st millennium AD, as identified by ceramics and the emergence of long-distance trade through the Indian Ocean. The second millennium LIA sequence is characterized by imported goods that show intensification of trade activities and a high level of local ceramic production.

5. 1: Northern Mozambique table of ^{14}C chronology sites discussed in the text simplified by Jan Risberberg after Morais (1988: 74-5) and Macamo (2006: 85-6).

Early Farming communities or Early Iron Age (EFC/EIA)			
Name of the Site	**Age ^{14}C years BP**	**Lab. Number**	**Calibrated ^{14}C years BP ±2σ**
Armazia	290±95	St-9772	AD 1400-2000
Monapo	-	-	-
Muaconi	1030±100	St-9771	AD 770-1220
Murrapania IV	1150±140	St-11004	AD 600-1200
	1785±85	St-11006	AD 50-430
Muhekani	940±215	St-9194	AD 650-1450
	<250	St-9195	-
	1230±100	St-9196	AD 640-1000
Mutawania	1370±140	St-11005	AD 400-1000
Namikopo I	1280±100	St-9704	AD 600-980
Nampula I	1320±170	St-9705	AD 300-1050
	1375±100	St-9770	AD 430-890
Nakwaho I	1260±105	St-8194	AD 600-990
	2479±115	St-8195	900-350 BC
	3335±115	St-8196	1950-1300 BC
	4285±125	St-8197	3350-2500 BC
	5145±170	St-8200	4350-3600 BC
	3670±160	St-8194	2250-1600 BC
Riane	1485±170	St-9021	AD 100-950
	4600±200	St-9022	3800-2700 BC
	5590±130	St-9023	4800-4050 BC
	6555±130	St-9024	5730-5290 BC
	5020±120	St-9025	4050-3500 BC
Namialo II	-	-	-
Namolepiwa	280±70	St-9448	AD 1400-1950
	1635±80	St-9449	AD 240-610
	1195±140	St-9450	AD 550-1200

	1245±90	St-9451	AD 650-980
	1435±100	St-9775	AD 400-810
	1180±165	St-9773	AD 550-1250
	1225±165	St-9774	AD 400-1200
Tototo II	660±100	St-9020	AD 1160-1450
Xacota	325±145	St-8692	AD 1400-2000
	1935±100	St-8694	200 BC-350 AD
	5115±170	St-8695	4350-3500 BC
	1460±100	St-9198	AD 380-780
	890±205	St-9199	AD 650-1450
	1665±110	St-9200	AD 120-620
	2730±230	St-9201	1500-200 BC
Xokas	<250	-	-
Later farming communities or Later Iron Age (LFC/LIA)			
Foz do Lúrio	835±140	St-11007	AD 850-1450
Gomene	-	-	-
Ibo	-	-	-
Macaloe	-	-	-
Lumbo Ponte	600±75	St-8498	AD 1280-1440
Lumbo Praia	-	-	-
Pangane	-	-	-
Quisiva	-	-	-
Sancul	-	-	-
Somaná	-	-	-

Identities and the Iron Age Sequence

The discussion of the chronological sequence of farming communities is based on the works reviewed above and a comparison of existing radiocarbon ^{14}C chronologies (Table 5. 1), and the ceramic style of the early and later farming communities of the interior and coastal areas. Into this archaeological data concerning the agropastoral sequence, I summarise linguistic and historic data on the identity of the people in some the phases in this sequence.

The present-day Bantu language speakers of Nampula province are Makua people that speak Emakhuwa (cf. Nurse and Spear 1985), and they are an extensively spread group of people that occupied the north of Mozambique (Rita-Ferreira 1975). This group of Emakhuwa language speakers might have begun to absorb the Early Iron Age agriculturist communities of Bantu languages speakers and groups of hunter-gatherers around 11th century AD in Nampula and Cape Delgado (Adamowicz 1987; Madiquida 2007).

The linguistic-historical evidence suggests that a pre-Makua speaking group first occupied the interior and coastal areas of Nampula. These may have been derived from Kusi communities coming from the Nyasa lake area in Malawi and characterised by Nkope tradition pottery dated between 3rd and 8th centuries AD (Ehret 1998; Philipson 2005; Killick 2009). The ceramic styles similar to Nkope tradition pottery spread through the interior of southern Africa (Philipson 1976; Pawlowicz 2013) and share similarities with the ceramics of Nampula tradition pottery mostly found in the interior sites of Nampula province (Adamowicz 1987; Sinclair *et al.,* 1993; Senna-Martinez *et al.,* 2012).

The occupation of coastal areas of Nampula have been suggested to be more associated with Bantu language speakers of the Rovuma branch of the Rufiji-Ruvuma pre-Makua and pre-Makonde coming from the interior and coastal sites of Kenya and Tanzania (Ehret 1998). These groups produced ceramics of the Kwale tradition around the 7th century AD and which has been identified at several East African coastal sites. On the coast of Nampula, however, this wider style is the local Monapo tradition pottery, which so far has only been found in the Nampula coastal areas (Adamowicz 1987; Sinclair 1991).

The chronologies and ceramics produced through archaeological investigations help to understand that the origin of present-day Macua people may be linked to pre-Macua immigrants, who, during the first half of the first millennium AD, moved from the east areas of southern Lake Nyasa towards Nampula (Ehret 1998). Additionally, the linguistic data show that the Macua languages today are spoken across much of northern Mozambique, with relatively slight differences among them (Nurse and Spear 1985). The northern dialects of Macua, such as Macua-litoral, Macua-cuana, Macua-meto, Macua-lómuè and Macua-niassa, are very closely related (Ehret 1998), and their spread into the hinterland of the northern coast of Mozambique might have taken place around the 6th century AD, when people from Lake Nyasa and Rufiji - Ruvuma occupied same areas (Nurse and Spear 1985; Ehret 1998).

The people from the Rufiji-Ruvuma area speak a subgroup of Kaskazi Bantu of East Africa, who might have been responsible for the initial agricultural settlement in northern Mozambique during the early first millennium AD (Ehret 1998), ca. 3th and 4th centuries AD (Ehret 1996). The Macuas, who were residing eastward and southeastward of Lake Nyasa, seem to have been economically and socially influenced by them as they expanded southwards (Davison 1991).

The origins and development processes of the Macua people of Nampula, however, remain little known and understood and much more archaeological research in northern Mozambique, which is precisely the area of Mozambique Island, will contribute more to the question. The expansion of Macua along the coast, possibly is associated with the Monapo tradition pottery around 4th centuries AD (Adamowicz 1987), and as noted, with a possible origin in the Rufiji-Ruvuma areas around the 2nd and early 3th centuries AD. In the interior it is related to Nampula tradition pottery, dated to early 2nd century AD, suggesting that it came southwestwards with immigrants from present-day Malawi (Ehret 1996, 1998) and is strongly associated with the Chifumbazi Complex (Philipson 2005). More specifically, the assemblage of Early Iron Age ceramics from Nampula showed that the first phase is characterised by ceramics very similar to Kwale and Nkope tradition pottery (Sinclair *et al.*, 1993). Therefore, as noted above, the occupation of farming communities in the interior of Nampula might have taken place first during the 2nd century AD at Murrapania IV and the 3rd to 5th centuries AD at Xakota (Adamowicz 1987; Sinclair 1991).

The Swahili period

Mention has already been made above of Swahili architecture and ceramic stylistic influences with the expansion of Islam down the south east African coast and the development of a Swahili identity. In this section, I discuss in more detail the emergence and development of the Swahili culture along the northern Mozambique coast on the basis of archaeological evidence recovered by several researchers. This background, and the ceramic summary already given, is important for the archaeology of Abdurrazaque Juma's house. The early farming communities of eastern Africa represented the origin of what is sometimes referred to as Proto-Swahili communities (Philipson 2005). From the 7th century AD, maritime commercial contacts spread and intensified and ultimately lead to the emergence of the trade-ports of the East African coast (Chami 1994; Hawkes and Wynne-Jones 2015; Pollard, Duarte and Duarte 2018). These communities were Bantu language speakers who settled the East African coast and exploited maritime landscape resources (Sinclair and Håkansson 2000). The spread of Islam is also an important dynamic that took place here. The emergence of Swahili is associated with a particular style of ceramic called the Triangular Incised Ware (TIW) ceramic (Chami 1994; Sinclair and Håkansson 2000).

Swahili settlements first emerged as small local farming and fishing villages that developed at different places along the coast (Fleisher *et al.*, 2015). Houses were mostly earth-and-

thatch domestic structures (Fleisher and LaViolette 1999). One example is Kilwa which developed from the smaller farmer and fishermen villages found there between the 3th to 7th centuries AD (Kusimba 1999). Kilwa later developed to become a well-known trade town in the Arabian world between 8th and 10th centuries AD (Pollard 2008a; Wood 2011). At Shanga archaeological investigations were conducted by Horton (1996). Few remains of structures were located, although, potsherds of locally produced ceramics were found dating between 8th – 10th centuries AD. The earliest remnants of Swahili tradition architecture and building using quarried coral stone, is a mosque on Shanga, dated to the mid-8th century AD (Horton 1996). The evidence of a mosque on Shanga shows the adaptation of Islam from the 8th century AD, and by the 12th century AD, Islam was practiced widely along the entire Swahili coast (Fleisher *et al.,* 2015). With the growth of overseas trade these ports experienced major expansion, culminating in the large Muslim towns of the 11th to 14th centuries AD (Horton 2004). Commercial activities became greater than before in the course of the following centuries and the number of towns and villages increased along the coast from northern Somalia to southern Mozambique (Jama 1996; Sinclair and Håkansson 2000).

On the northern Mozambique coast systematic investigations undertaken by Sinclair (1985, 1986), Duarte (1987, 1993) and Madiquida (2007) have revealed several Swahili towns and settlements associated with later coarse earthenware Iron Age tradition pottery, such as Lumbo, dated to the 13th to 15th centuries AD, and Sancul dated to the 16th to 19th centuries AD, from Quirimba archipelago, from the type site of Sancul and further south at Angoche (Isendal 2006; Pollard *et al.,* 2018). Sinclair *et al.,* (1993) has compared Lumbo pottery with pottery from Kilwa Period III of the 14th century AD, and Pawlowicz (2012; 2013), from his research at Mikindani, in Tanzania, located ceramics with incised lines and comb stamping decorative motifs dated to the 12th century AD, characteristic of Lumbo tradition pottery.

Of direct importance for Mozambique Island, are the excavations, mapping and architectural and ceramic analyses carried out by R. Duarte (1993) of a stone-house site of Somaná, in Nacala port 100 km from Mozambique Island which resulted in the recording of 2.50 m of intact wall built with coral-stones cemented by mortar made from a mix of sea shell lime and sand. There are two doors that give access to the central compartment, one of which is carved coral with floral decoration motifs, and these architectural characteristics identify it as a Swahili building (Duarte 1987; 1993 quoted by Macamo 2006). The Lumbo tradition pottery excavated at Somaná suggests that this site was occupied *ca.* 12th to 15th centuries AD (Duarte 1993).

The ceramic analysis undertaken by Duarte (1993) suggested that there may have been internal changes in the proto-Swahili TIW tradition pottery which then gave rise to the Lumbo tradition pottery. This probability needs to be well investigated to confirm this hypothesis (Duarte, *pers. comm.* 2019). At Lumbo Praia archaeological pottery styles suggest a transition from Lumbo tradition pottery around the 14th century AD, to the Sancul tradition pottery which might have its origin in the early 16th century AD (Sinclair *et al.,* 1993). The presence of only eight glass beads and absence of imported ceramic at Somaná suggests that it was not a port for imported goods (Sinclair *et al.,* 1993), this interpretation might possibly change after the substantial archaeology on the mainland near Somaná receive extensive archaeological research.

The Sancul tradition pottery was discovered and studied by Sinclair (1985) at the shell midden type-site of Sancul. The features of Sancul pottery are frequently found at other Swahili archaeological sites dating from the 16th to 19th centuries AD, distributed along the northern coast of Mozambique (Duarte 1993; Macamo 2006). The Lumbo and Sancul tradition pottery clearly developed within the Swahili context but with stylistic roots within Bantu-speaking farming communities (Adamowicz 1987; Duarte 1993).

19th century sites on the East African Coast

Archaeological investigations undertaken along the East African Coast have generated better insights into pre-colonial and colonial sites, though more studies are needed (Juma 2004; Croucher 2006). As has been mentioned in the preceding chapters, from the 17th to early 19th centuries AD, Portuguese, Arab and Omani settlers occupied the coast and the economy and social context was further significantly transformed, especially in the 19th century AD (Croucher 2006; Pawlowicz 2015).

The presence of Arab, Omani and European stone building vestiges of the 18th and 19th centuries AD, is given significant attention in the written sources produced by European observers of the 19th and 20th centuries AD, who visited several places on the East African coast (Freeman-Grenville 1975; Croucher 2006). For example, the historian Freeman-Grenville (1975), based on the written sources on the East African coast, provided lineages of rulers who were descended from Shiraz groups from the Persian Gulf. These urban chronicles were based on oral traditions that did not go very far back in time. However, archaeologists such as Kirkman (1954), and Chittick (1974) used these chronicles along with imported material culture evidence to suggest that coastal trading cities were created and developed by

people from the Middle East (Croucher 2006). Islamic traits were of considerable interest and research supports the significant Islamic contribution in the formation and development of authentically African Swahili towns (see also discussion in Wynne-Jones and Fleisher 2015).

In Table 5. 2, below, I summarise the archaeological sites on the east African coast that are relevant comparisons to Mozambique Island and the material discussed below. It presents the sites, location, chronologies and features of the material found in the sites. As shown many of these towns emerged from earlier smaller coastal villages from continuous occupation. Of specific interest is the description of local ceramics as they are an important comparison to the material presented here. I have drawn attention in this table to carinated bowls and their presence in the archaeological summaries of East African Coast sites. It is to this material that I now turn in the following chapters.

5. 2: Summary of some archaeological sites of 19th – 20th century AD.

Name of the Site	Location	Archaeological findings	Chronology	Description of local ceramics	References
Barawa	Somalia in Lower Shebelle	Shell middens, Cow and Goat Bones, Local Ceramics and Glazed pottery	The earliest occupation of begin ca. 8th century AD and the last phase of occupation date to the 20th century AD.	The locally produced ceramic recovered is hard, reddish-brown, sandy clay with granular inclusions. The rims are mostly out-turned and rarely in-turned. Most of ceramics found had short-neck rather than long-neck. The cross-hatched, punctuates and incised lines on the shoulder are the most common decoration.	Jama (1996), Fleischer and Wynne-Jones (2011), Sinclair and Håkansson (2000)
Mgoli	Tanzania in the Zanzibar Archipelago	Imported and local ceramics	Mid-19th – 20th centuries AD	Carinated Open Bowls decorated on the Shoulder (carination) with arcs and notching on the rim.	Croucher (2006)
Fort Jesus	Kenya in Mombasa	Imported and local ceramics	Early 17th – 19th century AD.	Plain Carinated open bowls and sometimes decorated on rim with notching	Kirkman (1974), Croucher (2006); Fleisher and Wynne-Jones (2011)
Kilwa	Tanzania	Imported and local ceramics	Early occupation dates from 3-10th century. Latest occupation from 16th – 19th century AD	Jars, Globular and shallow open vessels with a graphite finish and a motif of triangular, oblique and double zig-zag incisions	Croucher (2006), Croucher and Wynne-Jones (2006), Chami (2000)
Mikindani	Tanzania	Imported and local ceramics,	From 8th – 19th century AD	Globular, Jars and bowls are decorated motifs include alternating horizontal and vertical panels of impressions, internal. Decoration, and rocked zigzag hatching.	Pawlowicz (2011, 2012, 2013)

CHAPTER 6. EXCAVATIONS AT ABDURRAZAQUE JUMA HOUSE

In this chapter, I present the results of the excavation at Abdurrazaque Juma house. The history of this excavation has been outlined in Chapter 2. The original purpose of the excavation was to explore the back precinct of Abdurrazaque Juma house for evidence of a feature (the slave tunnel) suggested by oral history. The excavation was negative in this regard, but it did expose interesting detail on architectural features and associated archaeological material. The analysis of the features and the material focuses on the nature of the deposit, what chronology is suggested by the material and if the material is directly associated with the features, what does the association between the two indicate about household activity at this particular place. In addition, the purpose of excavations was to evaluate the assemblage of material culture in relation to material from other sites on the island also to compare with material from other sites of the East African coast, as outlined in Chapter 5 above.

Location of the site at Macuti-Town

The site of Abdurrazaque Juma house is located on the south side of the island and specifically on the southern edge of Macuti-town (Figure 6. 1). In what is recognized as the first settlement in Macuti-town dated to the early 19th century AD (Sollien 2011). Macuti-town is recognised as a native town composed of six quarters (Marangonha, Estéu, Litine, Areal, Macaripe and Quirahi), believed to have been first occupied by free slaves, fisherman, traders and local people (Arkitektskolen I Aarhus 1985; Sollien 2011: 312). The designation and origins of the names of these quarters are still unknown.

Figure 6. 1: Map illustrating the site of excavation at Abdurrazaque Juma´s house in the Estéu quarter.

The Abdurrazaque Juma house is located at southwest side of the island in the Estéu quarter, the second quarter settled after the Marangonha quarter (Arkitektskolen I Aarhus 1985). The standing houses in the Estéu quarter are frequently rectangular and some houses are completely built of coral stone and lime, while others are built with coral stone and lime but the roof is made of coconut leaves, some with grass thatch, and others with corrugated iron sheet held by two main posts of about 2,5 m height (Arkitektskolen I Aarhus 1985; Sollien 2011, Figure 6. 2).

Figure 6. 2: Landscape of the 19th century quarry in the present-day full of Macuti houses (Photo by Simon Hall 2019).

The Estéu, Litine and Macaripe quarters were mainly established in the earlier coral stone quarries where the land was divided among different owners and leaseholders. The development of the urban configuration took place slowly, with no central urban plan and without a directed organization of urban planning (Arkitektskolen I Aarhus 1985). The architecture of Macuti-town has changed considerably since the 1950s and 1970s because houses have increasingly been built with cement blocks and fibrocement or corrugated iron sheet roofs (Sollien 2011). Interviews were carried out with the owners and builders of the Macuti houses as part of the present study, and confirm a shifting preference amongst residents from using the local material, such as coconut leaves, lime, coral stones and wood, to the use of modern material, for instance cement, iron sheet, bricks, metal rod and wire. This shift, according to informants, is because of the exhaustion of, and lack of access to, natural resources to build Macuti houses in the traditional way.

Characteristics of the Ruin of Abdurrazaque Juma house

In contrast to the recent trend in Macuti-town architecture, a ruined back[14] part of Abdurrazaque Juma house, which has been excavated for this dissertation, is a stone house construction that shows characteristics of Swahili architecture. The house is on the edge of the old coral stone quarry and overlooks the Macuti-town houses that have been built 1 to 1.5 m down on the base of the quarry. From its architecture, it would appear that the building was constructed during the later 18th and early 19th century AD (see Christie 2019). The walls of the Abdurrazaque Juma house ruin are built of coral stones and it is characteristic and similar to the 19th century AD coral houses from Zanzibar and Kua in the Mafia Archipelago (Sollien 2011; Christie 2019). The house has a rectangular structured delineation of space with wide rooms, and roofs with large wood beams. There is a courtyard behind the front part of the house where a circular cistern is located (see Donley-Reid 1987). The ruined parts of the house are on the northern and western sides of this courtyard.

The coral stones used to build Abdurrazaque Juma house might have been quarried from the open quarries in front of the house itself (Arkitektskolen I Aarhus 1985). The colours of the stone vary from light brown to dark red-brown and occasionally yellow. Measurements were made of the length and width of coral stones during the excavation. The coral stones mined to build the stone houses are greatly irregular and the wall thickness varies between 50 to 70 cm. The stones that constitute the upper visible part of the foundations do not follow a regular course orientation and do not overlap with each other in a regular way. They are bonded with lime.

In contrast to the house foundation, the upper stone walls form horizontal courses of large stones, which are rough-dressed, and plastered to protect them against the erosion process. It suggests that the building of Swahili stone houses was initiated in the foundation with a low leveling course of flat stones that is laid on the high rising course, laid on top and this process is repeated until almost 1 m height of the wall and after this the wall construction was regular (Arkitektskolen I Aarhus 1985). Additionally, the walls are built filled with smaller stones and rubble, a characteristic that apparently is common in later Swahili stonehouses (Christie 2019).

[14] . The ruined section is at the back around the back courtyard and the front of the house is fully intact and is a thriving household.

This type of building style is observed in a lot of Swahili ruins spread along East Africa Coast in the 18th and 19th centuries AD (Wilson 1982; Philipson 1994). Another distinguishing characteristic is the lack of formalised bonding at the corners of walls, made of small stones simply coursed through the adjoining walls and held by mortar (Arkitektskolen I Aarhus 1985; Pollard *et al.,* 2012).

The quarried coral stones are easy to work, especially in a freshly cut condition, and thus can be used to make profiles and to mould columns and window frames (Dulvy *et al.,* 1995). Load bearing above windows and doors is achieved either with the use of timber lintels or dressed coral stone frames (Figure 6. 3) (Arkitektskolen I Aarhus 1985; Philipson 1994). The house shows plaster treatment to the walls, which on average is 5 cm thick, and is built up of several layers with a rough plaster first layer applied to the walls and then smooth-finished at the surface. The mortar plasters is firm and bone-hard (Arkitektskolen I Aarhus 1985).

a) b)

Figure 6. 3: In the left (**a**) illustration of the walls of the remnants Swahili culture building at Abdurrazaque Juma´s house (Photo by Hilário Madiquida 2019) and in the right (**b**) illustration of the frame of coral stone organization in the coral stone builds of Macuti-town (Arkitektskolen I Aarhus 1985).

Description of excavations at Abdurrazaque Juma house

The excavation yielded local and imported ceramics and glass beads and faunal remains (which are not analysed for this dissertation). Most archaeological material found is dominated by pottery. While the stratigraphic sections show a clear stratigraphic sequence and there was no indication of secondary erosion and disturbance processes in the stratigraphy.

Trench 1 (15°02'20.4" S and 40°43'47.0" E)

The first trench excavated in 2016, was 2 m x 1m (divided into two units, Q1 and Q2) and was placed inside a ruined room of Abdurrazaque Juma house located at the south west corner of the back courtyard (Figure 6. 4). This trench was excavated down to coral stone bedrock, reached at about 80 cm. A record of soil colour was made for each spit along the lines described by Burke *et al.* (2009). The reason for using arbitrary spits was due to the fact that the visibility of natural and cultural layers was low. Arbitrary spits still allowed us to identify any visible stratigraphy of the site and to monitor change in deposit and identify any change in the archaeological material (see Glamble 2008). The section for this trench is illustrated in Figure 6. 5.

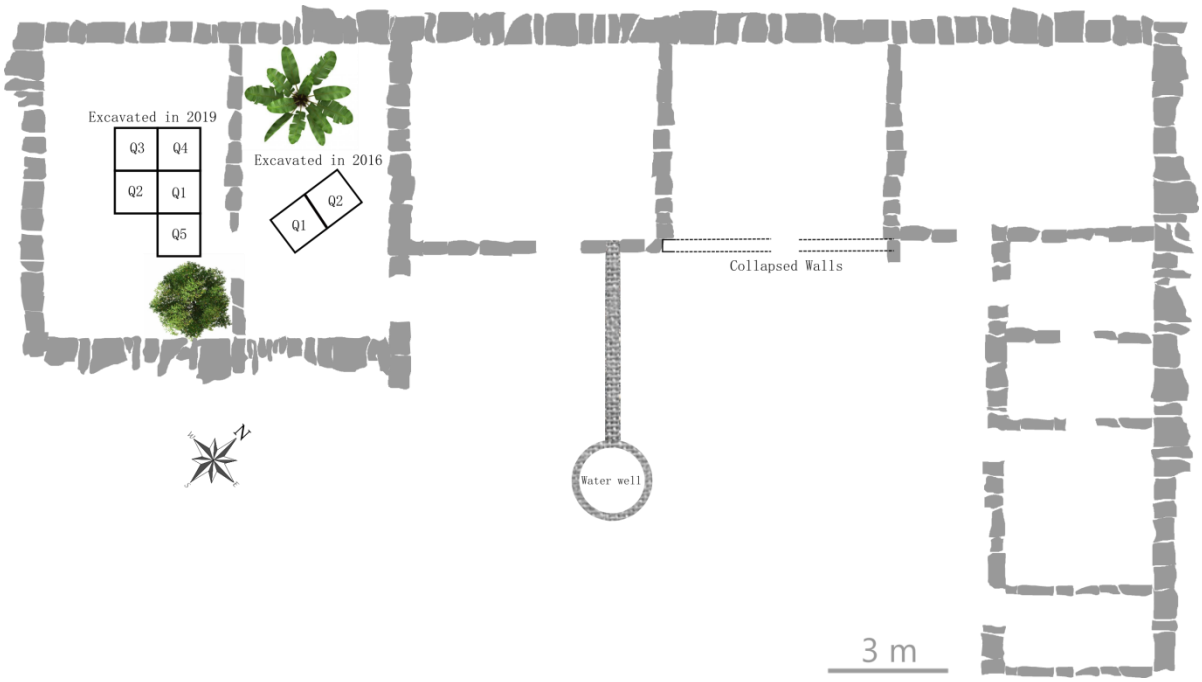


Figure 6. 4: Site plan of the excavation carried out at Abdurrazaque Juma house between 2016 and 2019.

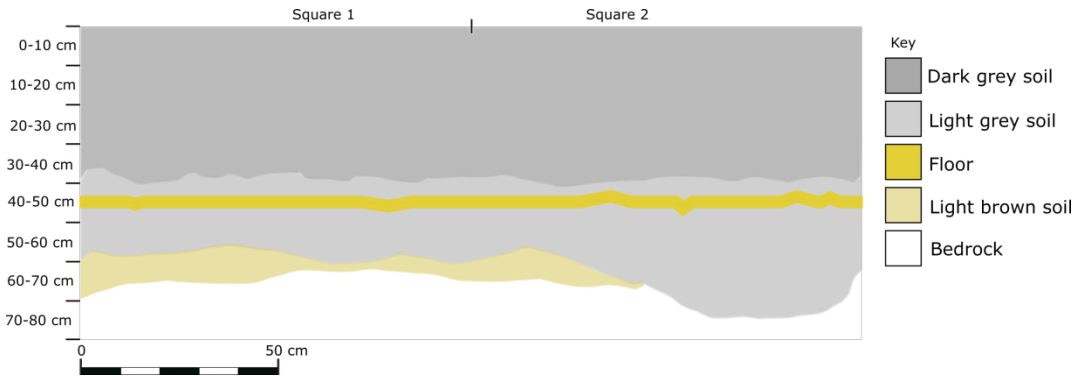


Figure 6. 5: West profile section of the trench excavated in 2016.

The deepest 2 spit levels (60 and 80 cm depth) consist of compacted light brown sediments that are culturally sterile and are immediately above the coral stone bedrock. The deposits in the level between 60 and 70 cm are nearly culturally sterile and only four European spheroid glass beads and a gastropod shell were found.

The middle 2 spits (40 - 60 cm depth) consist of light gray sandy silt. Within these spits, excavation exposed a plastered floor measuring 5 cm in thickness and constructed of a yellow lime. Even though this floor was not traced through to a wall, it is reasonable to assume that it was the formal floor of the surrounding ruined walls. No glass beads or glass was found in this layer and the faunal remains found were generally adiagnostic, except for cowry shells, mainly *Cypraea annulus* and *Cypraea moneta*.

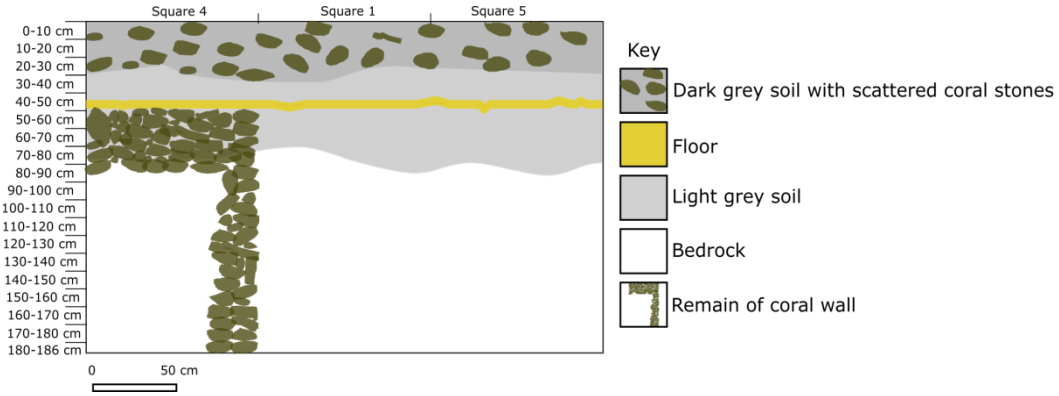
The top 4 spits (0-40 cm depth) consist of coarser dark grey silt with a little cultural material consisting of different types of imported European wares and glass beads dating between 18th and 19th centuries, and unidentified glass sherds of different colours. The faunal remains consisted of a complete skeleton of a buried cat which suggests a household domestic pet and the mandible and bones of goat are an evidence of consumption of goat meat. In addition, fishbone remains and cowrie shells show exploitation of maritime resources. Imported goods and faunal remains were found in association with local ceramics and analyses showed that the vessels found varies between globular, platter, open bowls and carinated open bowls mixed with recent rubbish.

The depositional history of Trench 1 indicates deposit below the prepared floor that presumably predates the construction of a room in this area. The material in the deposit immediately above the floor may relate to the functioning room. In contrast, it is suggested that the top 40 cm of the deposit documents the abandonment of the room and its use as an area to dump domestic rubbish. The formal burial of a cat supports this interpretation. The broad chronology of this deposit is 18th and 19th century AD. This chronology is reinforced with the analyses of the material.

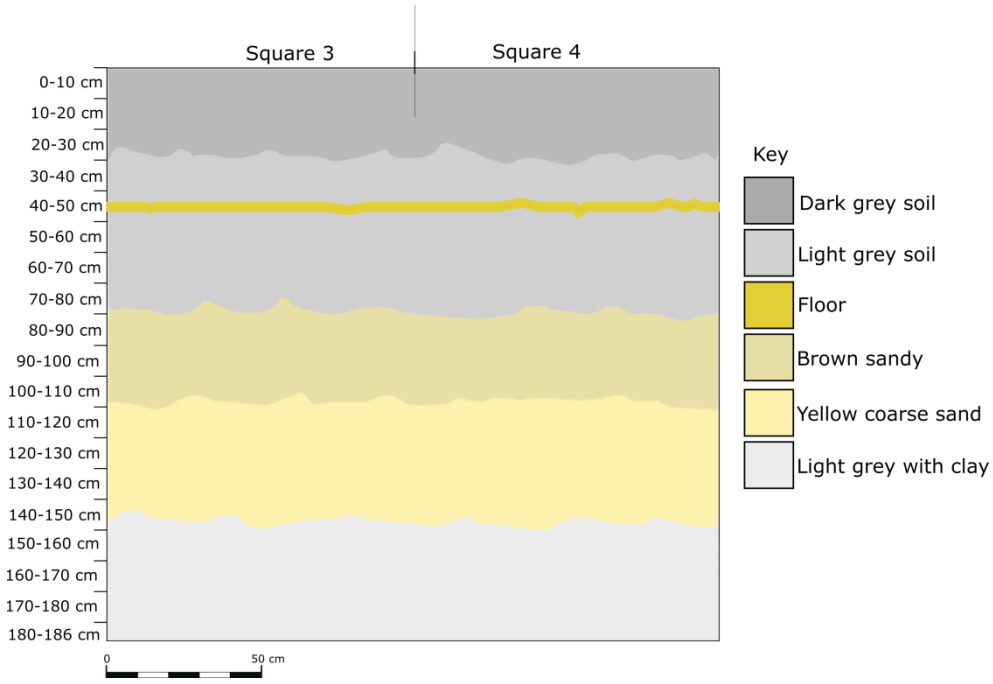
Trench 2 (15°02'44.4" S and 40°43'45.0" E)

The second trench was 5 m x 1 m (divided into 5 units Q1, Q2, Q3, Q4 and Q5) was excavated in 2019. The trench was placed in a room located on the southern side of the room excavated in 2016. The stratigraphic sequence for this trench is illustrated in Figure 6. 6. As outlined below, this trench reached coral bedrock at near to 190 cm below the current walking surface. However, over the whole excavation, evidence of an earlier building history

was exposed. This is particularly evident in the exposure of a short, 30 cm wide section of load bearing wall or foundation, running east/west (Figure 6. 7). The position of this buried wall, on the small section exposed, does not conform to the dimensions of the standing walls of the room within which Trench 2 was located. Additionally, the excavation of squares Q3 and Q4, which went to bedrock, exposed a coral stone "wall" about 15 cm thick, that runs at right angles to the load bearing wall, and the two appear to be part of the same structure.



a)



b)

Figure 6. 6: a) Excavation profile of the North section and b) Profile of the West section.

Further excavation of this feature revealed that it is not so much a wall, it is too thin to be load bearing, but a coral stone cladding or lining of the east wall of a basement feature, constructed and excavated into the coral stone to a depth of about 1.20 m below the fragment of load bearing wall. If correct the dimensions of this feature are obviously not known

because the southern, western and northern walls remain buried. The excavation was too small to be secure about this interpretation. Whatever the case, it seems that trench 2 exposed a complex of earlier building history in which a basement room or subterranean feature, that was cut into the coral and part of an earlier structure or house. In the archaeological survey in the northern part of the island, one homeowner showed me a basement room in a house near to the harbor. This room was not a cistern, but used for storage, and, he suggested, for keeping slaves.

Figure 6. 7: Evidence of earlier building of coral stone running east/west (Photo by Simon Hall 2019).

This glimpse into earlier structural detail has implications for the nature of the deposit and the material culture recovered from the assumed basement room fill, and from the deposits adjacent to and above the earlier load bearing wall. This is important because the excavation produced a wealth of material culture distributed over five different soil layers.

The deepest layer (150 – 186 cm depth) was a light-gray friable, compacted clay and clayey sediment which revealed high concentrations of carinated open bowls and platters. Few imported ceramics were found, but notable was an Asian porcelain chamber pot dating from the mid-18th century AD (Staniforth and Nash 1998). Except for a broken handle, this chamber pot was completely intact. Three glass beads were found: two ellipsoid shape beads and one doughnut shape bead dated to 18th – 19th centuries AD (see Killick 2009).

As noted above, the coral bedrock was reached at a depth of 186 cm in squares Q3 and Q4. Of significance is that a prepared well-polished clay floor, similar to the floor documented in Trench 1, had been laid immediately over the coral bedrock. Additionally, in the south west corner of the trench, a circular channel was exposed that had been "excavated" into the coral "bedrock". This channel was handmade and curved but only a small section of it was exposed before it entered the western and southern section walls (Figure 6. 8). The implication is that this channel curved to complete a full circle, and if so, a crude extrapolation suggests a diameter of about 2m. The modification of the coral bedrock through the construction of this channel and a prepared compacted floor adds to the discussion above, that the excavation in this area has partially exposed a subterranean basement room. Without exposing a larger area, the interpretation of this channel is speculative. One possibility is that the channel provided a means within which some form of upright feature could be anchored.

Figure 6. 8: Handmade and curved channel in a small section of square 3 in the southwest corner (Photo by Simon Hall 2019).

The following layer (110 – 150 cm depth) was coarse yellow sand. A wealth of locally made coarse earthenware pottery was recovered. A variety of soot and charcoal covered open bowls dominates this assemblage, along with coarse earthenware jars, plates, and what I have called platters. The coarse earthenware flatform plates and platters are finished with well-made foot rings. In the same layer potsherds of imported European wares were located,

especially an almost complete European plate decorated with a green transfer print floral pattern dated to the late 18th and early 19th centuries AD (Klose 1997). An open bowl has a foot ring very similar to the locally made coarse earthenware platters mentioned above. In addition, this layer also revealed a diversity of glass beads which apparently all belong to European bead-series dated between 18th – 19th centuries AD (Koleini *et al.,* 2019).

The preservation of the coarse earthenware ceramics is extremely good and this is possibly relevant to their stratigraphic association near to the prepared floor of the basement room. Many of the coarse earthenware ceramics are near complete vessels and it is probable that if the excavation was extended, this would be confirmed. Their completeness suggests that either they were *in situ* and in their use context when the use of this possible basement room ended, or were dumped from a domestic area, possibly a cooking area not very far away. The near completeness of the European transfer printed plate adds to this pattern, and it will be remembered that the Chinese porcelain chamber pot was also intact and complete. This characteristic of all the ceramics from these basal deposits suggests more so that the whole assemblage was *in situ* when this space ceased to function and possibly was rapidly back filled to prepare for a new building phase.

The next layer (80 – 110 cm depth) was a brown sandy fill. As noted above, the remains of walls built with coral stones were exposed in squares Q3 and Q4. A diverse assemblage of local ceramics were recovered, and clearly related to Swahili culture, such as plain-ware, red-painted sherds, carinated open bowls, shallow bowls, necked jars and globular vessels and very few diagnostic potsherds. These were in association with imported wares, including a sherd from another Chinese porcelain chamber pot of early 19th century date (Copeland 1982). Additionally, there is an English blue transfer printed willow pattern plate and a bowl dated between mid-18th and later 19th centuries AD. Eleven white spheroid glass bead which seem to belong to Khami-IP or European bead-series that is dated between 18th and 19th centuries AD (Tournié 2009).

The following layer (30 – 80 cm depth) consisted of coarse light grey sand with high amounts of coral stone rubble. At 80 cm in the Q1, Q2 and Q5 squares coral bedrock was reached. This is significant because this level contrasts with the much lower level in the immediately adjacent squares of Q3 and Q4 and the interpretation that this was an excavated basement space. At 45 cm a prepared floor was encountered measuring 5 cm of thickness and built with lime. This roughly corresponds with the prepared floor found in Trench 1 and, along with the

coral stone rubble, suggests that this marks a building phase that established the current above ground rooms. This second layer yielded an assemblage of imported ceramic wares, such as Japanese and Chinese porcelain commonly found in the sites dated late 17th to early 18th centuries AD, and European wares of the late 18th to late 19th centuries (Copeland 1982; Klose 1997). The Barrel shaped blue and red glass beads are, suggestive to be Indo-pacific beads of the Khami bead-series of the late 15th to late 17th centuries AD (Wood 2011: 34. In addition, diagnostic local ceramics were found but, in contrast to the near complete vessels found in the basal layers these were fragmented sherds and were not informative in terms of profile or vessel type. However, they still displayed a diversity of decoration motifs, such as red-painted, incised lines, notching, crosshatching and burnished with well finished surface. Many of the diagnostic ceramics suggest that they are from plain carinated open bowls.

The upper layer (0-30 cm) consisted of dark-grey silt with a high amount of coral stones that might have collapsed from the walls subsequent to this room being disused and left to fall into ruin. The material culture unearthed consists of imported wares of European and Asiatic origin dating from the end of 17th to the later 19th centuries AD, and doughnut blue glass beads which belong European bead-series of later 18th and mid-19th century age. Additionally, this layer revealed diagnostic potsherds of carinated open bowls and jars but little diagnostic and decorated local ceramics.

In summary, Trenches 1 and 2 have exposed deposits and architectural features that indicate a recent part of the Mozambique Island sequence dating to the 18th and 19th centuries AD. Of importance in this sequence is that the built environment relates to a minimum of two building phases. Given that a second building phase is on top of what seems to be a basement room of the earlier building phase, the relationship between the built sequence and the depositional sequence needs to be treated with caution. It has been suggested that the basal material culture is *in situ* and that while some fill may have occurred, this fill and debris came from the immediate domestic context. Additionally, the preliminary observations of the chronology of the material recovered, indicates a consistent origin in the 18th and 19th centuries AD. No ^{14}C dating was undertaken but the imported ceramics, other imported goods and the complex of decorative motifs on the local pottery, suggests that communities who produced these ceramics drew from Later Farming Communities ceramics of the second half of second millennium AD (Madiquida 2007). I now focus on the analysis of the ceramics from the Abdurrazaque Juma excavations.

Table 6. 1: Occurrence of material culture recovered from the trenches excavated at Abdurrazaque Juma site.

Level (cm)	Local ceramics	Asiatic Porcelains	European Porcelains	Glass beads	Bones
Surf.					
0 - 10 cm	7	5	7		
10 – 20 cm	18	7	9	12	5
20 - 30 cm	29	2	8		2
30 - 40 cm	28	4	8	5	
40 - 50 cm	44	1	10		
50 – 60 cm					
60 – 70 cm	69	4	2	10	
70 – 80 cm					
80 – 90 cm	24	2	1	1	
90 – 100 cm	17				
100 – 110 cm	5				
110 – 120 cm	18	1	1	3	
120 – 130 cm	34		2	6	
130 – 140 cm	25		1	1	
140 – 150 cm	40		1		
150 – 160 cm	22			1	
160 – 170 cm	38		2	1	
170 – 180 cm	11			1	
180 – 186 cm	4				

The analysis of locally made Ceramics

The objective of the ceramic analysis was to classify the pottery in order to facilitate wider comparison with other assemblages and their chronological sequence (Juma 2004). As the analysis progressed and profiles were defined, the issue of vessel function also became increasingly of interest. No fabric and temper analysis was carried out but observations of the temper or inclusions suggest that the ceramic matrix was fine grain sand mixed with clay and the pottery is well fired, and burnished (see Fleisher and Wynne-Jones 2011).

I have attempted to allocate diagnostic potsherds to a type based on combination of three main attributes: profile, decoration motif, and decoration placement (Huffman 1980). This method used to define types works best when reasonably complete vessels are available. This is certainly the case for the coarse earthenware assemblage from the base of the Trench 2 excavation. Analysis of these near complete vessels gave me confidence that that I could identify the profile of small diagnostic sherds, and if decorated, also suggest a type.

Form and profile

The analysis of the pottery excavated identified seven forms (Figure 6. 9). These were long and short necked jars, neckless globular vessels, carinated open bowls, smooth shallow bowls, plate, and platters.

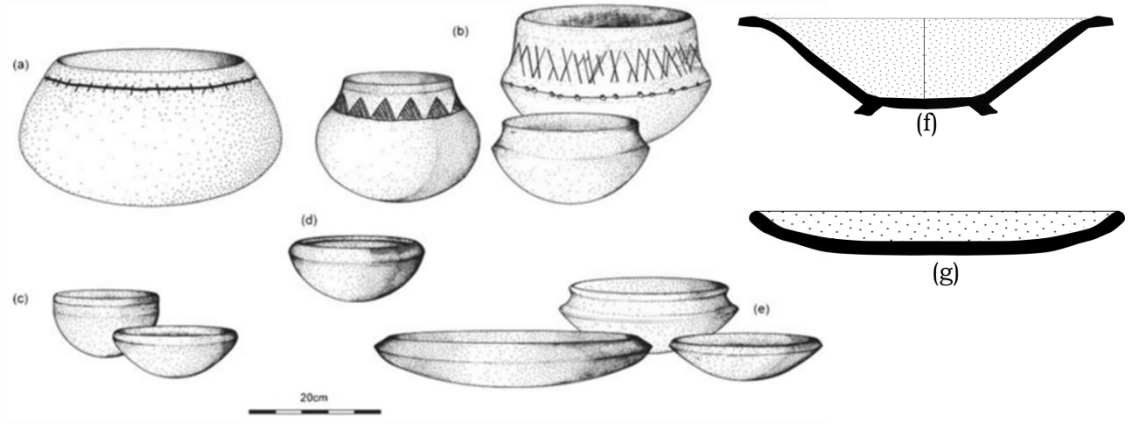


Figure 6. 9: The assemblage of forms identified in the excavation, including **a)** Globular jars, **b)** Necked jars, **c)** Smooth shallow bowls, **d)** Closed bowls, **e)** Carinated bowls, **f)** Platters and **g)** Plates**,** illustration adapted from Fleisher and Wynne-Jones (2011: 265).

I decided to keep profiles relatively simple and broad. Profile is also related to function as recognized in the analyses undertaken by Chittick (1974, 1984), who categorized the pottery from Kilwa, Manda and Dawaka according to function, such as kitchen ware and table ware. Chittick reported mostly the presence of "table ware" which was decorated and undecorated necked and globular jars, and bowls, and therefore a simple profile range. The ceramics excavated at Mpiji, Changwehela, Kaole, Masunguru and Misasa was classified by Chami (1994) using form and decoration and documented four main forms consisting of two forms of necked jars, differentiated by sharpness of the shoulder inflection which he called dependent restricted vessels and independent restricted vessels. These may correspond to my short and long necked jars.

Fleisher and Wynne-Jones (2011) identified two distinctive types of open bowls, of which Chami (1994) designated simply as "bowls and shallow table ware". A reexamination by Fleisher and Wynne-Jones (2011) showed that the ceramics Chami designated as shallow bowls were classified by them as carinated open bowls and closed bowls.

Horton (1996) used a type-variation system for the classification of ceramics excavated at Shanga. Horton´s classification gives more significance to fabric rather than profile, though he identified three profiles, and these were simple, namely globular, necked jars, and shallow

bowls. The classification of pottery excavated at Unguja Ukuu site by Juma (2004) was similar to Fleisher and Wynne-Jones (2011), with two necked jar profiles category, and three bowl profiles. Necked jars are very common in the Triangular Incised Ware tradition dated to the second half of the first millennium and they also have several diagnostic decorative motifs (LaViolette and Fleisher 1995; Parker-Pearson *et al.*, 2010; Fleisher and Wynne-jones 2011).

Decoration and decoration position

The decoration motifs identified consists of different forms of incised lines and relief lines and sometimes the use of finger nails, notching, red ochre painting, crosshatched lines, unfilled pendant triangles, lines of punctates, ladder motif, and triangles in a band inside parallel horizontal incised lines. The motifs also include applique band of fingernails and impressed motifs and oblique dashed incised lines. The range of decorative motifs is shown in Figure 6. 10. All of these motifs are common in the sites of the East African Coast (see Chami 1994; Horton 1996; Croucher 2006, Fleisher and Wynne-Jones 2011).

The position of decoration on vessels was simple and particularly evident on jars and bowls. Jars could be decorated on the rim, the neck, and the shoulder while carinated bowls were especially decorated on the rim and on the carination.

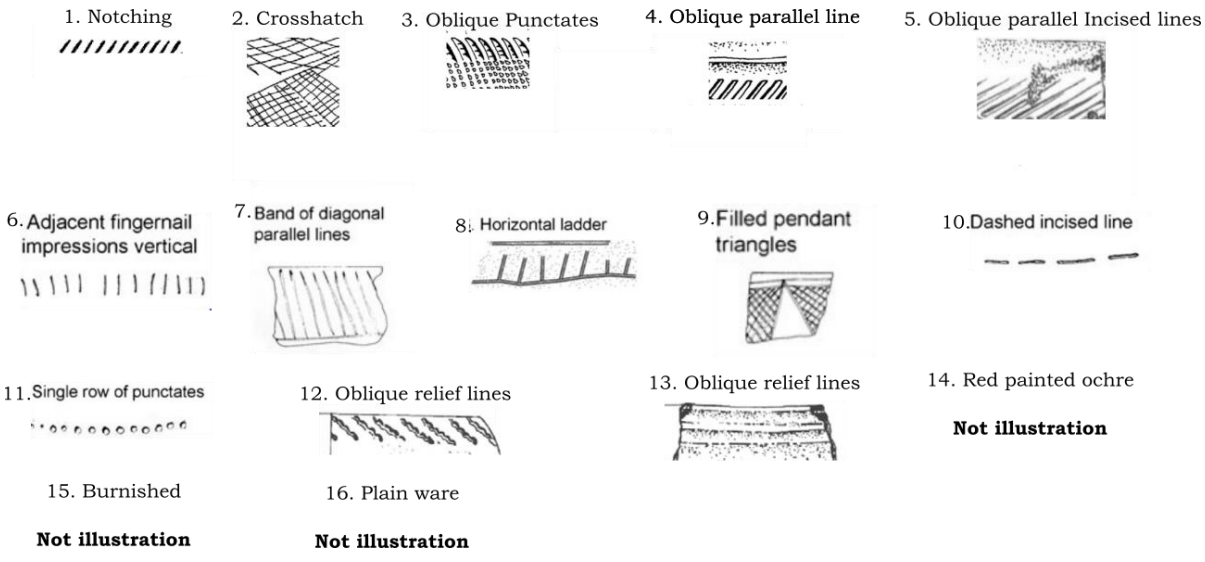


Figure 6. 10: Decoration motifs of the ceramics from the Abdurrazaque Juma house, (numbers 1 – 5 adapted from Madiquida 2015: 118 and from number 6 – 13 adapted from Fleischer and Wynne-Jones 2011: 61).

Ceramic typology

The combination of attributes identified 16 coarse earthenware types. See Tables 6. 1 for the distribution and frequency of these types through the Trench 1 and Trench 2 sequence and for the overall data see Appendix A. Figure 6. 11 provide examples of specific types.

In the laboratory analysis carried out on the Abdurrazaque Juma house ceramics three types of carinated open bowls forms were identified type 1 correspond 40.60%, type 2 is 6.01% and type 3 is 3 %. The categories jars included several vessel forms, including type 4 is 1.5% of short necked jars, type 5 is 6.76% of long necked jars, type 6 is 3% of undecorated short necked jars, type 7 is 2.25% of short necked jars, type 8 is 0.75% of short necked jars, type 9 is 1.5% of globular ceramics, type 10 is 0.75% of undecorated globular ceramics, type 11 is 0.75% of decorated globular ceramics, type 12 is 2.25% of undecorated shallow bowls, type 13 is also 2.25% of decorated shallow bowls, type 14 is 3% of decorated shallow bowls almost plate, type 15 is 3.75% of undecorated plates and the type 16 is 21.80% of undecorated platters.

Type 1, these are plain carinated open bowls comprising fifty-four potsherds (Table 6. 2, Figure 6. 11). The surface is not burnished but simply smoothed and thickness varies between 7 – 9 mm. The mouth diameter varies between 150 – 330 mm. The rims are generally everted, sometimes rounded, and flattened, and thickened. A significant feature of this, and the other carinated bowls is a feature I have called a rim channel. This is an engraved line on flattened rims that may create a notch to seat a lid.

Type 2 are carinated open bowls with notching decoration on the rim and carination (Table 6. 2, Figure 6. 11). There are eight individual vessels. The rim and surface treatment is the same as for Type 1. Wall thickness is generally slightly thinner varying between 7 – 8 mm and the diameter mouth varies between 180 – 320 mm.

Type 3 are carinated open bowls decorated with a line of punctates on the rim, a band of triangles inside two parallel incised lined on the neck, and lines of punctuates on the carination. Four individual vessels. The rim and surface treatment the same as above. The average wall thickness is slightly thicker than the two previous carinated types (9 mm). The type is also larger with a mouth diameter of 190 mm. I note here that almost complete examples of all the three carinated bowls are found in the basal levels of Trench 2. All vessels are remarkably similar in finish and decoration type. The impression given is that all of these vessels were made by the same potter.

Type 4 consists of just two potsherds. Though they are not complete they are suggested to be a plain long necked jar that belong to the same vessel because they fit together and have the same diameter of 170 mm and the wall is 9 mm thick. The rim is everted and both shreds have the form of high-neck jars, and it seems that the entire vessel had S-shaped profile. The temper is also coarser in texture and the surface is neither burnished nor well-finished.

Type 5 consists of nine potsherds of long necked jars including the query potsherds. They are usually decorated with band oblique three incised lines motifs on the shoulder and red-painted ochre inside of the vessel on the base part. Similar to type 4, it has everted rim and the form of long-necked jars, and it seems that the entire vessel had S-shaped profile. The wall thickness varies between 7 - 14 mm and the diameter is coincidently 170 mm for all potsherds. The temper is also coarser in texture and the surface is burnished, smoothed and well-finished.

Type 6 consists of four potsherds of undecorated short necked jars, with a diameter ranging between 170 – 210 mm and a wall thickness between 9 - 14 mm. The temper is also coarser in texture and the surface is burnished, smoothed and well-finished. The rim is everted and both shreds have the form of short-neck jars like type 5.

Type 7 consists of three potsherds of short necked jars decorated on the rim with a line of punctuates and red-painted ochre by inside from the rim to the neck. The wall thick of all shreds is 9 mm and the diameter is 250 mm. The temper also seems to be coarser in texture than necked jars excavated at Gede site (see Pawlowicz 2009) and the surface is not burnished but it is well-finished and deep brown. The rim is everted and both shreds have the form of short-neck jars.

Type 8 consists of one potsherds of a short necked jar decorated from the shoulder to the body with a band of oblique incised lines. The wall thick is 8 mm and the temper is coarser in texture and the surface is not burnished. Also it is not well finished and it is brown in colour.

Type 9 consists of four potsherds of the globular profile with rounded rim similar to restricted bowls vessels, decorated with oblique relief lines with finger nail impressions from the end of the rim until the shoulder. The thick wall is 13 mm for all four sherds. No diameter measurement was possible in these sherds as the full form was not recovered. Type 10 consists of one undecorated globular ceramics with everted rim and 10 mm of wall thick.

Type 11 consists of one globular ceramics with everted rim decorated from the shoulder to the body by two bands of two oblique inside lines turned right. The wall is thick, 7 mm, and the rim is everted. The surface is burnished, smoothed and well-finished.

Type 12 consists of three undecorated shallow bowls. It has 13 mm of wall thickness and an upturned flatted rim with a wide open mouth.

Type 13 consists of three shallow bowls decorated on the rim, both outside and inside with red-painted ochre. It has 13 mm of wall thickness and up-turned flatted rim and the mouth is very wide open, similar to type 12.

Type 14 consists of four shallow bowls, almost plates, decorated on the shoulder with line of punctuates. It has a 9 mm thick wall and the most open wide mouth and has up-turned flattened rim similar to both types 12 and 13.

Type 15 consists of five undecorated plates with a similar form as imported European plates and the thick wall which varies between 5 – 10 mm with rounded edge rim. The surface is well-finished and burnished.

Finally, Type 16 consists of 29 undecorated platters with everted rims, the surface is well-finished and all are burnished. The thickness of the walls vary between 9 – 19 mm and most have foot-rings.

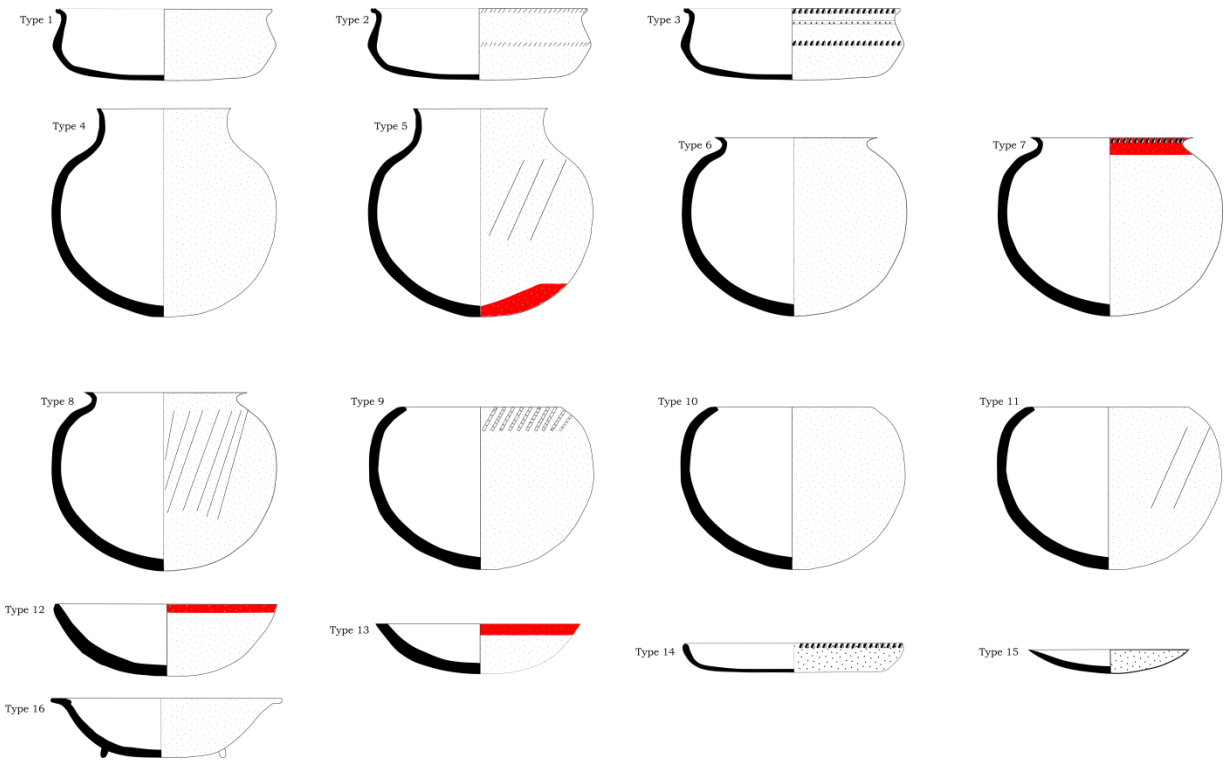


Figure 6. 11: Types of ceramics excavated on Mozambique Island at Abdurrazaque Juma´s house.

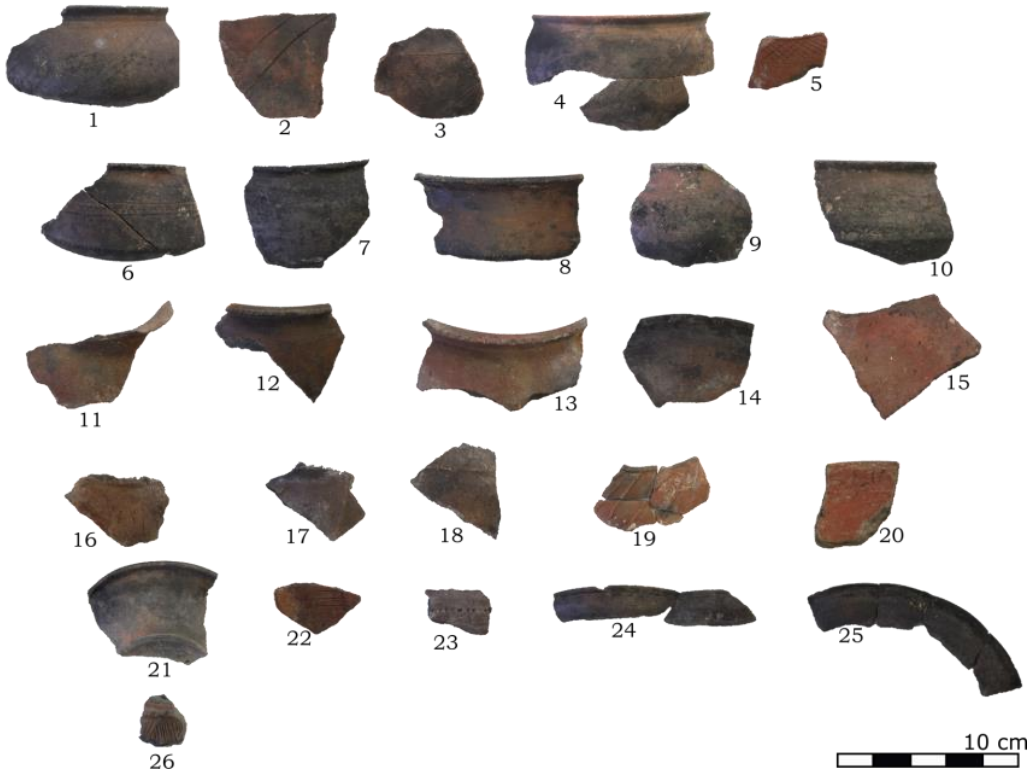


Figure 6. 12: Illustration of decoration motifs of local ceramics,
numbers 1 – 4: Oblique incised lines; *5*) Crosshatch, *6*) Punctates and line of triangles inside horizontal parallel incised lines; *7, 8* and *25*) Line of punctates; *9, 10, 14, 21 and 24*) Plain Ware; 11) Oblique incised lines and red-painting; *12 and 13*) Line of Punctates and red-painting; *15 and 16*) Dashed-lines; *17 – 19*) Relief lines; *20*) Red-painting; *22*) Ladder and *23*) line of stabbed points.

Table 6. 2: Types of Ceramics of the trench 1 and 2 and Abdurrazaque Juma house

Level	*T1 (?)*	*T 2 (?)*	*T 3 (?)*	**Total Carinated Bowls**	*T 4 (?)*	*T 5 (?)*	*T 6 (?)*	*T 7 (?)*	*T8 (?)*	**Total Jars**	*T 9 (?)*	*T 10 (?)*	*T 11 (?)*	**Total Globulars**	*T 12 (?)*	*T 13 (?)*	*T 14 (?)*	**Total Shallow Bowls**	*T 15 (?)*	**Plates Total**	*T 16 (?)*	**Total Platters**
0-10 cm				0						0				0							0 (1)	1
10-20 cm	0 (2)			2						0				0		0 (1)		1				
20-30 cm	0 (2)			2			0 (1)			1				0								
30-40 cm	0 (1)			1			0 (1)			1				0								
40-50 cm	1 (2)			3			0 (1)			1				0								
50-60 cm										0				0								
60-70 cm	3 (4)		0 (1)	8		0 (1)		0 (1)		2	2		1	3		0 (1)		1			0 (2)	2
70-80 cm																						
80-90 cm	0 (5)			5						0				0		0 (1)		1				
90-100 cm				0						0				0								
100-110 cm	0 (1)			1						0				0								
110-120 cm	0 (2)	0 (1)	1	4						0				0			1	1			0 (2)	2
120-130 cm	5		1 (1)	7	0 (1)	2 (3)			1	7				0								
130-140 cm	4 (0)	0 (2)		6		0 (2)	0 (1)			3		1		1							1 (7)	8
140-150 cm	2 (2)	0 (1)		5						0				0	1 (1)			2	1	1		
150-160 cm	0 (2)			2		0 (1)		1*		2				0			1	1	1	1	1 (5)	6
160-170 cm	6 (3)	1 (1)		11						0				0	1		2	3	2	2	0 (2)	2
170-180 cm	0 (6)	1 (1)		8	0 (1)			1*		2				0					1	1	0 (6)	6
180-186 cm	1 (0)			1						0				0							0 (2)	2
	54	*8*	*4*	**66**	2	9	4	3	1	**19**	2	1	1	**4**	3	3	4	**10**	5	**5**	29	**29**
	40.60 %	*6.01 %*	*3%*	**49.61%**	*1.50 %*	*6.76 %*	*3%*	*2.25 %*	*0.75 %*	**14.26%**	*1.50 %*	*0.75%*	*0.75 %*	**3%**	*2.25 %*	*2.25 %*	*3%*	**7.50%**	*3.75 %*	***3.75%***	*21.80 %*	**21.80%**
* Short necked jars with Rim Channel (?) for query potsherds																						

Vessel Size

The measurements of vessel size were taken only in the carinated open bowls jars, including rim diameter, neck height (only of carinated open bowls), and diameter of carinated bowls and jars. The diameter is measured from the outer edge of the vessel rim (Juma 2004). The rim diameter of the jars varies between 130 – 200 mm and the diameter of the carinated vessels varies between 180 – 330 mm, the neck height of both types varies between 5 – 90 mm and the potsherds in overall have a medium size wall of 7–8 mm.

Rim diameter measurements were taken with the aim to estimate sizes of jars and carinated bowls. The measurements of rim diameters of the carinated bowls found on island showed great similarities with the rim diameter sizes of the carinated bowl found by Horton (1996) at Shanga, the majority of them having diameters between 180 and 300 mm. The similarities in the rim diameter of carinated bowls is also identified in the assemblage of carinated ceramics from Dakawa site with the rim diameters between 160 and 300 mm. Additionally, the similarities are extended to Manda, Ungwana, and Unguja Ukuu sites where the rim diameters of the carinated open bowls are wider (Fleisher and Wynne-Jones 2011, Figure 6. 10 for ceramics rim profiles).

The comparison of rim diameters of the carinated open bowls with other previously investigated sites displays that particularly carinated bowls were highly similar along the coast. The similarities in the form of the carinated open bowls suggest that these vessels were made and used locally over time and there is strong cultural continuity. However, in each site different decorative motifs are recognized, showing variation of the design variation in motif, elements and position of elements.

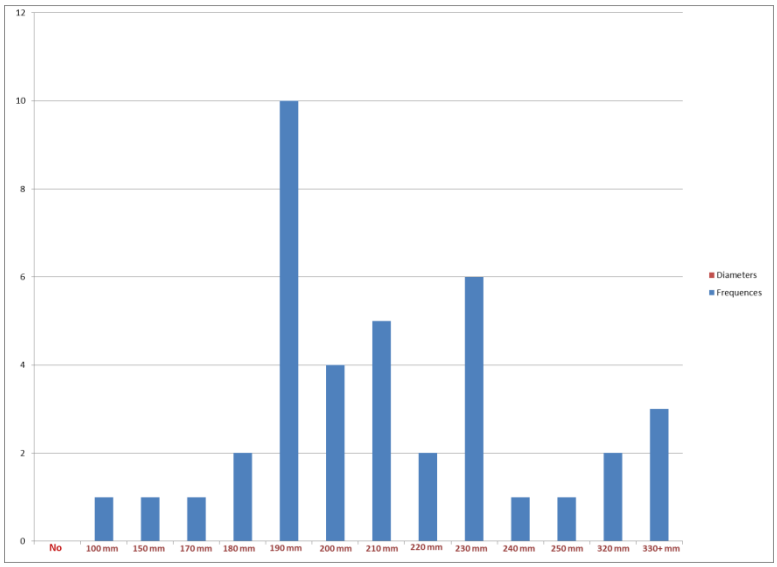


Figure 6. 13: Frequency of the vessel diameters, in particular Carinated and Jars ceramics.

Imported wares

The excavation on Mozambique Island unearthed evidence of imported goods which display the importance of long-distance trade (Madiquida 2015). In the five test pits of 1 m x1 m excavations revealed Chinese and European porcelain and glass beads at Abdurrazaque Juma house site. Both material cultures were analyzed. Wright (1993) stated that the appearance of imported goods evidenced in the archaeological deposits of East African Coast sites is a result of contacts of exchanges and long-distance trade, a social phenomenon based on social interactions and material cultures trade as symbolic structure.

Thus, the emergence of the social inequalities and development of the Mozambique Island seems to have been influenced very much by the economic and social differentiation of the marketed products (Pikirayi 2009). The island was the centre of trade of the diverse goods and interactions with Europe and Asia was evident in the archaeological context of the site excavated.

Porcelain

The Chinese porcelain is an important trade item, the spread of which was facilitated through European traders (Madiquida 2015). Prior to the European participation in the long-distance trade network of the Ocean Indian, the porcelain was perhaps exclusive for dominant class or for few Asian established along the East African coast or in the inland (Copeland 1982). However, the evidence of porcelains found in our excavations on Mozambique Island

suggests that many types of porcelain appeared in later periods. Imported wares might have entered into the system of the long-distance trade network between the Indian Ocean coast and inland the island being the main trade port where these goods were received.

A small amount diversity of porcelain was found, and the few potsherds collected in the excavations were of the European and Chinese origins, usually with greyish green and bluish-white colouring, mainly with decoration of nature motifs similar to those excavated by Madiquida (2007) at Quissanga Beach and Foz do Lúrio. The porcelain was dominated by Chinese ware, blue and white with naturalistic decoration, which represented the nature, landscape, palaces alongside undecorated fragments. The dominant types can be placed in the Early Qing period of 17th to 18th centuries AD, and the late Qing period 18th to 19th centuries AD. We also found a variety of European wares such as blue on white and blue and green on gray with a variety of motifs.

The appearance of Chinese porcelain on Mozambique Island helps to understand the chronology of trade activities and networks, indicating that these date from the 17th – 20th centuries AD, a time-span of 300 years specifically for the site dug not for the entire island. In the early phase of this trade, porcelain was dominated by Chinese wares which may be associated with the trade network of the time. Obviously, Mozambique Island was in direct contact with the coastal long-distance trade. In the later period, imported European wares become more common, linked with a shift in trade patterns.

Figure 6 14: Assemblage of Imported ware recovered in the excavations, *numbers, 1, 2, 5 and 14*) Plates, green and blue transfer printed, early to mid-1800s; *3*) Chinese porcelain chamber pot

from mid– 18th century; *4, 6, 7, 8, 9 and 13*) Blue transfer printed whiteware between 1700s and 1800s; *10, 12, 15 and 16*) Chinese porcelain of Qing Dynasty between 18th and 19th century.

Glass beads

The beads found in the excavations were all of glass with diverse colours - white with blue lines, red, grey with blue lines and all white are slightly similar to small drawn glass beads and brownish red, blue-green and blue with a diameter between 2 and 4 mm studied and classified to Zhizo beads-series dated 600 – 950 AD (see Wood 2002). The beads recovered from the excavations on the island are much more similar to the assemblage of beads found on the surface and excavations undertaken by Duarte and Meneses (1994, 1996) and Madiquida and Miguel on Mozambique Island, Duarte (1993) at Somaná, Macamo (2006) at Manyikeni and Degue-Mufa and Madiquida (2007 and 2015) at Quissanga beach and Foz do Lúrio sites in Cape Delgado and Sena site in Sofala which are of classified as Zimbabwe Khami and European periods.

The glass beads found might have been made from about the 17th century AD up to the mid-19th century AD, as well as small white oblates and cylinders which were appear in significant numbers in southern African assemblage in this period (Madiquida 2007, 2015). Many of them were opaque brownish-red, cylinders and oblates. The solid blue, yellow, green, orange and blue-green beads were Indo-pacific beads made in India from about the 2nd century BC to the 17th century AD (Wood 2012: 13 in paper VI). These beads were also made in Sri Lanka between the 1st and 10th centuries AD and Southeast Asia from the 2nd century AD up to about 13th century AD (Wood 2012: 13). The European made glass beads made in Holland might have replaced Indian red beads, especially in the African trade (Madiquida 2015).

The glass beads types found at Abdurrazaque Juma house generally seems to be earlier than the time-span suggested by the porcelain chronology. However, the Indo-pacific beads were also produced in the 17th century AD. Possibly beads introduced at Mozambique Island and from here where distributed to different places of Mozambique and East African coast. The Indian red on green was also produced until 1830. The presence of Indian red beads does suggest another earlier trade as Indian red beads were largely replaced by blue, white and

cream European glass beads in course of the 17th – 18th centuries AD, as trade networks became gradually controlled by Europeans rather than by the coastal Swahili traders.

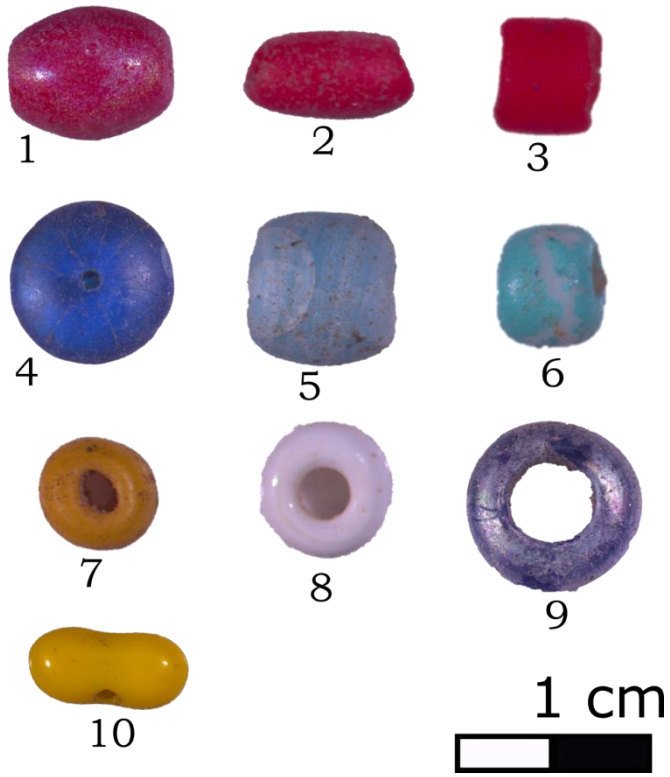


Figure 6. 15: Types of glass beads found in the excavation,

numbers, 1 – 2) ellipsoid beads, *3, 5, 6, 7 and 8*) barrel beads, *9*) doughnuts and *10*) unidentified bead.

Description of the archeological material in relation to other sites

The excavations presented above yielded diverse material culture and their analysis provided rich insights, which helped understand and interpret the Abdurrazaque Juma house site. A quantity of ceramics and beads facilitates identifying the economy of the people who lived here in the past. Below, I will discuss the finds in relation to other sites on the East African Coast focusing on the local ceramics.

Features of the jars and carinated bowls from TIW tradition studied by Fleischer and Wynne-Jones (2011) share some similarities with the types found on Mozambique Island in the archaeological context of the 18th and 19th centuries AD. This similarity suggests a cultural continuum from TIW tradition pottery to Swahili culture ceramics. The carinated open bowls found at Abdurrazaque Juma ´s are often thick at the carination (Figure 6. 11).

Although, slight difference was identified in the shape of the bend at the carination their general form is very similar in the sites of the East African Coast. Type 1 consists of plain carinated open bowls and type 2 and 3 show different decoration motifs and its placement, sometimes the surface has fine treatment. The carinated open bowls tended to be of a size associated with the preparation of food as it was proved through ethnographic research undertaken by Sarah Croucher (2006) on Pemba in the Zanzibar Archipelago and also the observations made during the fieldwork showed that carinated vessels are the best for rice cooking and the jars might have been used for liquid storage.

The globular form displayed a variation represented by three types, respectively type 9 of 1.5% of the ceramic assemblage, type 10 of 0.75 % and type 11 of 0.75 %, in which the vessels were similar in shape but different in rim shape and decoration motifs and others were thick-walled. Additionally, rim shape differentiated the globular vessels on the basis it had and everted or up-turned rim.

The three types of shallow bowls (type 12, 13 and 14) were identified and distinguished by their decoration placement and motifs, also size of diameter. Based on the very wide size of diameter of the swallow bowls with flattened base and platters with foot ring base suggest that these vessels were linked to the serving food to put on the table that would be served to the plates for eating. The remains of plates were also found in our excavations and they correspond to type 15 and platters are type 16.

Overall, the laboratory analysis recognized that the more useful vessels were carinated open bowls and short necked jars, and the long necked jars. The ceramic analysis from Abdurrazaque Juma´s house location revealed the absence of shell stamping decoration motifs which is common in the Early Iron Age phase along the coastal plain sites. All the dating evidence indicates an eighteenth and nineteenth century date for the excavated phases of the house and the coarse earthenware locally made ceramics have profiles and stylistic attributes that are continuities of Late Iron Age potting practice.

CHAPTER 7. EXCAVATIONS AT THE CONVENT OF SÃO DOMINGOS - TRIBUNAL COURTYARD

In Chapter 2, I outlined the survey that identified the Tribunal Courtyard as an area for excavation. Indications were that this area might provide an *in situ* sequence, which, because of historic and recent disturbance is an issue on the island. The position of this excavation in the convent grounds obviously implies that the material culture would be specific to the domestic activities of the convent, but nevertheless, would still contribute to a specific part of that sequence. Additionally, there is the possibility that there might also be earlier periods of the island sequence. The excavations provide some comment on this possibility. Before describing the material recovered, I review the history of the convent.

The first Convent of São Domingos was built in 1578 with the purpose to accommodating the missionaries who arrived on the island in 1577, but it was affected by the Dutch attack in 1607 and was in part destroyed (Lobato 1945; See Chapter 5). Ten years later, in 1617, it was rebuilt by the mandate of the King of Portugal Phillip II (Macieira 2007). The second convent which is actually still standing was completed in 1662 and it served as the Dominican convent on the Island. It was also the place of departure for different religious people going to different areas of the country and into neighboring countries of Mozambique (Lobato 1945). Additionally, this convent served to accommodate religious people coming from India and Lisbon (Lobato 1967; See Chapter 5).

In 1799, it became the first official primary school of Mozambique and from 1821 it served as the residence to the heads of the prelacy in Mozambique. Later on, in 1826, half of the building was converted into barracks, and in 1840 Mozambique´s first cotton spinning mill was installed (Lobato 1945). In 1875, the department for public works was housed in the building, being later replaced by the district law court. In 1935 the building became used as a tribunal and continues to be used as a tribunal in the present-day (Lobato 1966). The building´s history is important in considering the character of the depositional sequence of the excavation and the chronology of the sequence. I return to this once the sequence and material has been described.

Location and characteristics of the building

The Convent of São Domingos is located in the urban zone in the north side of the island called Stone-town completely characterised by stonehouses (Arkitektskolen I Aarhus 1985). The written sources on the island provide architectural history about the emergence and development of the stone-town over 522 years, since the arrival of Vasco Da Gama in 1498 (Omar 2013). As noted, the excavation in this north section of the island had the aim of identifying evidence of pre-Portuguese settlement.

The architectural homogeneity of the north section of the island suggests that over the centuries builders used the same materials and building methods which have made the town characteristic of a building style which has remain unchanged until recently (Arkitektskolen i Aarhus 1985; Sollien 2011). This homogeneity is a combination of the Arabic, Chinese, European and Indian building influences that makes the town´s architectural heritage of exceptional value (UNESCO 2008).

This value includes the convent architecture. During the 17th century AD, Portugal was under the reign of King Phillip II, and Portugal and Spain were united and their link in the past is witnessed through the presence of buildings with predominance of plain architecture (Martins 2017). A similar European architectural style is also identified in houses, convents and churches all over Portugal (Barros 2012). The plain architecture is characterized by being a clear and robust structure, with flat surfaces and little decoration or even no decoration at all, as is the case for the Convent of São Domingos (Lobato 1945). It is in contrast with the very decorative manueline style architecture of 15th and 16th centuries AD. The simplicity of plain architecture strongly suggests the economic limitations of Portugal in the 17th century AD (Lavies 2012; Agarez 2013).

The Convent of São Domingos is a small church with plain walls and without any painting. It is attached to the Tribunal which has some characteristics of Manueline architecture due to its decorated walls with incised and relief lines and rectangular motifs. The Convent of São Domingos has two lateral small towers and a small cross in the middle, the interior and external face are undecorated, and it has two small rectangular windows and an arched door but both very simple.

Although a simple building its main function was to mark territory and symbolize the force of and Christian right of Portuguese colonization (Fonseca 2012). Therefore, they are found

build in the areas of Brazil, Portugal, Angola, Mozambique and India and underpin the expanding Portuguese Empire (Costa 1982).

The site of the Convent of São Domingos is located next to the street of São Paulo, which is in front of the District Governor´s Guest House (Figure 7. 1). The excavation was carried out in the courtyard of the Convent of São Domingos. The specific purposes of the excavation were the same as for Abdurrazaque Juma´s house: to determine how deep the cultural deposits were and their age. The second purpose was to assess the material culture in relation to human activities in the area, and in particular, the convent. As noted, it was hoped that the excavation at Convent of São Domingos would provide earlier occupation phases of the island and possible social connections and interactions between Mozambique Island and other trade ports on the East African coast.

Figure 7. 1: Location of the site Convent São Domingos or Tribunal courtyard.

Excavation of Trench D4 and E4

Trench 1 (15°55'36.0" S and 40°44'16.29" E)

The aim was to record the stratigraphic sequence of the site and the material culture recovered. No samples for radiocarbon dating have been collected from this excavation and the suggested chronology for the deposits is based on the associations of imported wares and comparison with chronologically diagnostic material recovered from other archaeological sites in the region.

Trench 1 was 2 m x 1 m, excavated down to sterile soil at about 130 cm using arbitrary spit levels of 10 cm. The excavated profiles are given in the Figures 7. 3. The placement of the trench was chosen due to the archaeological material found on the surface. The stratigraphic description begins with the deepest layer (90 - 120 cm) where the soil was light-reddish silt with small pieces of lime. Finds included a low quantity of local ceramics and imported Asiatic Market ware porcelain wares. The excavations also revealed a burial and copper nails from the coffin and some shells. The burial was covered with lime. The burial was recorded and some loose teeth were collected, but otherwise the burial was left *in situ* (Figure 7. 2). These materials are still being analysed in the isotope laboratory of the University of Cape Town (see Lethuba 2021). At 130 cm no material culture was found, and the soil was compact and hard.

Figure 7. 2: 3D Model of the burial recovered at Convent São Domingos.

The presence of a burial raises the issue of disturbance and this is addressed after the description of the stratigraphic sequence is completed. The following layer (50 - 90 cm depth) was brown-reddish silt and exposed more human bones and fragments of a mandible with

some teeth along with a few plain locally made potsherds. The next layer (20 – 50 cm depth) consisted of light grey highly compacted silt. Finds included local ceramics. All material culture was found in association with human remains mainly human teeth. Compared to the topmost layer above there is a decrease in the amount of material culture in 20-50 cm layer.

The topmost layer (0-20 cm depth) consisted of a dark grey silt rich in cultural material. Finds included local ceramics, imported Chinese porcelain, European refined earthenware, glass beads and clay smoking pipes.

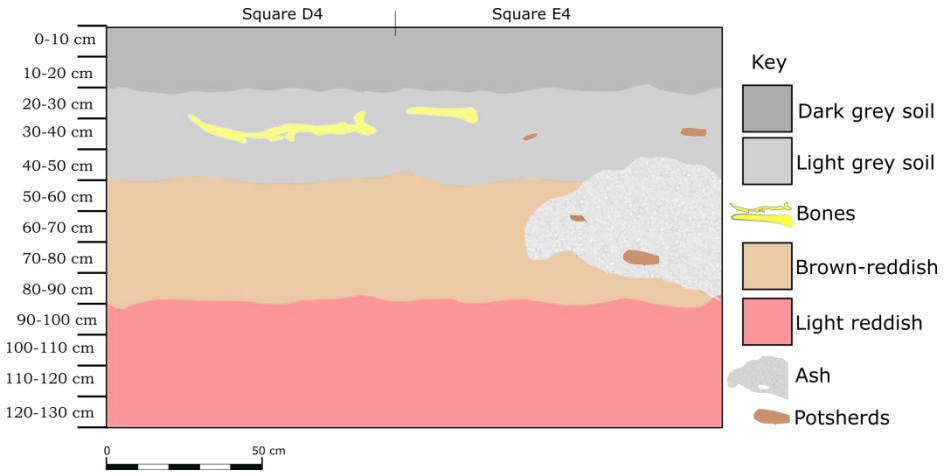


Figure 7 3: North profile section of the excavation Convent São Domingos.

As noted above, the presence of a burial and other possibly disarticulated human remains, raises the question of the deposits being disturbed by burial shafts. Some alveolar bone gave a radiocarbon date of 319 ± 18 BP on the *in situ* burial at the base of the excavation (Lethuba: 41-42, OxA-40371). When calibrated the 2σ range is between 1508 and 1653 AD. As noted above in the history of the Convent, the construction was from 1578, and if the burial is associated with the Convent, and this is a reasonable assumption, then the burial would have been interred between 1578 and the upper calibrated range (1653 AD). The evidence indicates that the individual was buried in a wooden coffin, and that the orientation was roughly east to west. Additionally, the burial is within red silty sediment and it has been noted that the density of material culture is very low, but increases significantly with a shift to the light grey (ashy?) silt in the upper 50 to 60 cm of the section (Figure 7. 3). There is no obvious indication of a burial pit in any of the sections, but it is possible that the burial was interred from the top of the lower red silty deposit. The low density of material would support this possibility and that it was an area for burial and not for the disposal of domestic debris.

The grey silty deposit from about 50 to 60 cm, suggests a shift in the use of this space to one where domestic rubbish could be discarded. I return to this issue after describing the material excavated and its chronological implications.

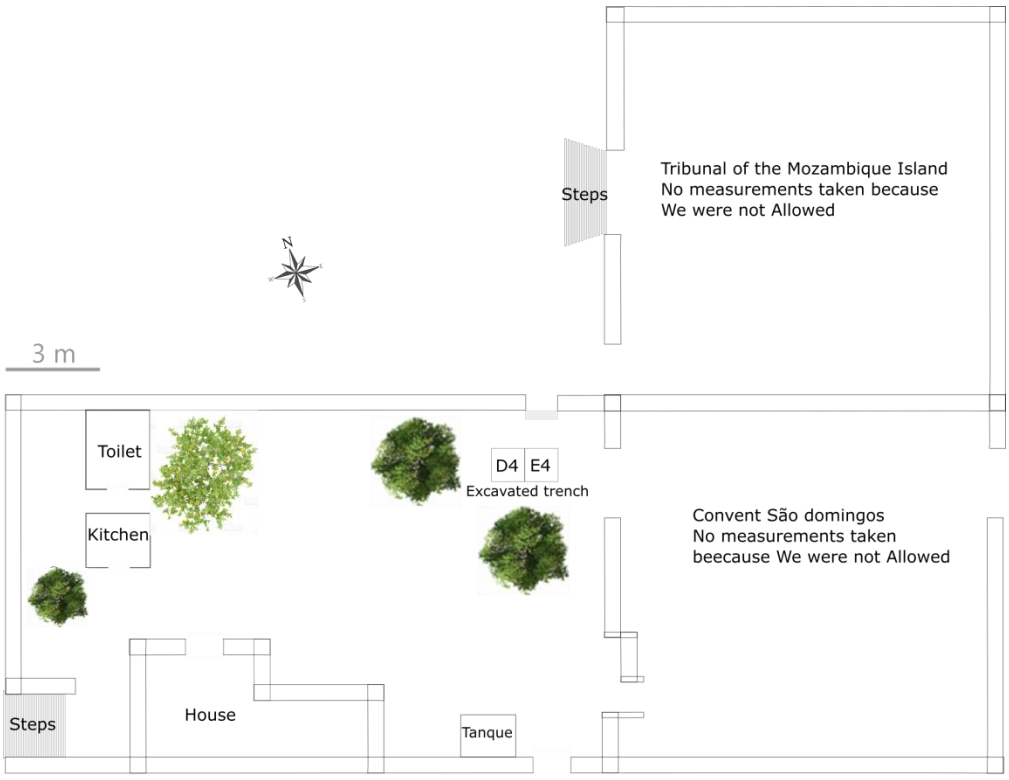


Figure 7. 4: Site plan of the site Convent São Domingos or Tribunal courtyard.

Description of the archaeological material

A surface collection and material from the excavations sought to contribute to the chronological understanding of the Tribunal site. This excavation did not recover a significant amount of material and the ceramics were fragmented and the sherds small, in sharp contrast to the near complete vessels found at the base of the Abdurrazaque Juma´s house excavation. For this reason the analysis of the local ceramics focuses simply on a qualitative description of the motifs present.

Local ceramics

Most of the locally made ceramics from the Tribunal site were found in the upper 40 cm of the deposit. From 40 cm downwards archaeological material were present, but in small quantities in both squares, D4 and E4. The ceramics excavated from the Tribunal total 108 potsherds, most of which are plain and not diagnostic.

The potsherds are well fired and of two colours: very dark and reddish brown with different finishing on the surface such as plain and decorated. Although no thin section analyses have been undertaken, some of the potsherds appear to be tempered with ground up grog from old potsherds. In addition to sand and shell temper, demonstrating high dominance of the clay utilization as raw material and it suggest logically that the ceramics were made elsewhere from clay deposits on the mainland.

The decorated sherds have red ochre paint, and motifs that are crosshatched, shell stamped, applique motifs, motifs of incised lines, zig-zag lines and curved incised lines and are well-polished and burnished. Some sherds are decorated with incised motifs both on the outside and inside of the vessel (cf. Sinclair 1987; Madiquida 2007, 2015) (Table 7.1 and Figure 7. 3). This decoration is either in bands or as isolated motifs. All of the diagnostic ceramics from the Tribunal site suggest an association with the second millennium AD. More specifically, this range of decoration indicates that they belong within the Sancul tradition (Adamowicz 1987; Sinclair et al., 1993; Duarte 1993; Macamo 2006; Madiquida 2007). Sancul archaeological sites are distributed along the East African coast in which the economy focuses on the exploitation of the shellfish resources, fishing and agriculture (Fleisher 2010). The assemblage may represent mainly a cooking function and I return to this issue below. The local coarse earthenware ceramics found in the Tribunal excavations appear similar to Sancul and Wealed ware ceramics (Sinclair *et al.,* 1993).

Table 7. 1 Motifs decoration distribution in the stratigraphy.

Level (cm)	Notching	Red-Painting	Plain ware	Relief line	Crisscrossing incised lines	Incised lines	Burnished	Dashed lines	Shell stamped	Zig-Zag incised lines
Surf.	1	1	1							
0-10 cm	1	6	2	2	2	2	1			
10-20 cm		1	1			1				
20-30 cm		2		1		1	1			
30-40 cm		2			1	1		1		
40-50 cm		3	2			2				
50-60 cm		3		1	1	3			1	
60-70 cm		1					2			
70-80 cm		1	1			1				
80-90 cm		2	1			1	1			
90-100 cm		3	2	1		1			2	2
100-110 cm		2				1			1	
110-120 cm										

120-130 cm										

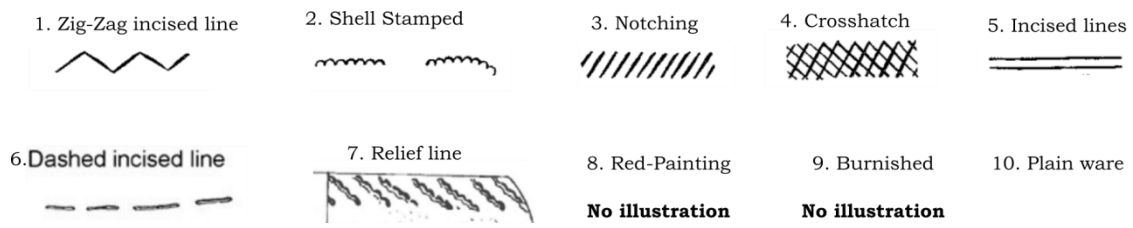


Figure 7. 5: Decoration motifs of the ceramics from the Convent São Domingos, (numbers 1 – 5 adapted from Chami 1994:74, number 6 from Madiquida 2015: 118 and number 7 adapted from Fleischer and Wynne-Jones 2011: 61).

Imported wares

The analysis of Asian porcelain was made with the assistance of Antonia Malan and Abigail Moffett from Department of Archaeology of University of Cape Town. Analysed imported wares came from surface collection and excavation. The Asian porcelain consists of a few pieces of Qing Dynasty material and the European refined earthenware material is transfer printed blue and white plates and bowls remains (cf. Madiquida 2015). There are also white, green and red variants of English refined earthenware and blue and green transfer-printed pieces of English or Dutch origin which are mainly plates (Klose 1997).

7. 2 Frequency of different types of ceramics recovered through the sequence of excavation at Convent São Domingos.

Level (cm)	Local ceramics	Asiatic Porcelains	European Porcelains	Unidentified imported ware/porcelain	Glass beads
Surf.	3		4		
0-10 cm	16	1	10	1	
10-20 cm	5	2	30		5
20-30 cm	5		37		2
30-40 cm			19		9
40-50 cm	12	3	43		4
50-60 cm	9	1	2		6
60-70 cm	4	3	12		5
70-80 cm	3	2	2		6
80-90 cm	4	1	3		1
90-100 cm	11	2	1		21
100-110 cm	3				48
110-120 cm					44
120-130 cm					1

The identification of Chinese porcelain and the European refined earthenware is helpful in providing a broad chronology of the site (see similar discussion in Croucher 2006). The blue and white Chinese porcelain is of Qing Dynasty age and is known from the later 17th century AD. The European refined earthenware would date mid – 18th century AD, and especially from the early 19th century (Klose 1997) these characteristics are similar to Porcelain of Ming dynasty of later 14th – early 17th centuries AD (Klose 2007), decorated with landscape scenes, displaying various shades of blue colours and drawings of natural elements and houses (Madiquida 2015). The blue on white Chinese porcelain first became a famous trade good in the long-distance trade network and European factories attempted to copy and imitate this material (Sassoon 1981).

According to Pikirayi (1993), Portugal was the first country in Europe which copied East Asian porcelain in the 16th century AD. Later a tin glazed Delft ware was produced in Holland during the late 17th century AD (Macamo 2006) and England also copied the blue and white, though none could match the highly vitrified firing technology of fine Chinese porcelain of the Ming Dynasty from the 18th centuries AD (Kinahan 2000). In the Tribunal assemblage Asian porcelain and European refined earthenware, floral, house and landscape motifs are the most common found in the East Africa in the late 16th century AD porcelains after the European occupation (Sassoon 1981).

As noted above, motifs on Asian porcelain consists of landscape scenes in the centre and borders of plates, dishes and cups (Macamo 2006). According to Klose (1997), the inclusion of landscape and house and boat motifs on Asian porcelain occurred in the early to mid-18th century AD, in the course of the transition from the Ming to the Qing period. Similar collections of the Asian porcelain found at the Tribunal have been identified at the sites of Cachomba and Zumbo (Ramos and Rodrigues 1978), Degue-Mufa (Macamo 2006), Tungi (Adamowicz 2011), Quissanga Beach and Foz do Lúrio and Sena (Madiquida 2007, 2015), Muchelele, Namakuli Landing place and Joca (Pollard *et al.*, 2018).

The assemblage of porcelain found at Tribunal represents decoration motifs of the historical period of the Chinese Qing dynasty. The presence of Chinese Qing and diverse European refined earthenware at the Tribunal clearly show the issue of European copying. The European refined earthenwares were produced in great quantities and were cheap compared to Chinese porcelains and thus, with expansion of the British Empire through the 18th century

AD, and the occupation of the Cape in the early 19th century AD, gained popularity and dominated the export market (Klose 1997). The transfer-printed refined earthenwares are predominantly English and date to the 19th century AD. Additionally, other European refined earthenware is often painted (Stephens 2003).

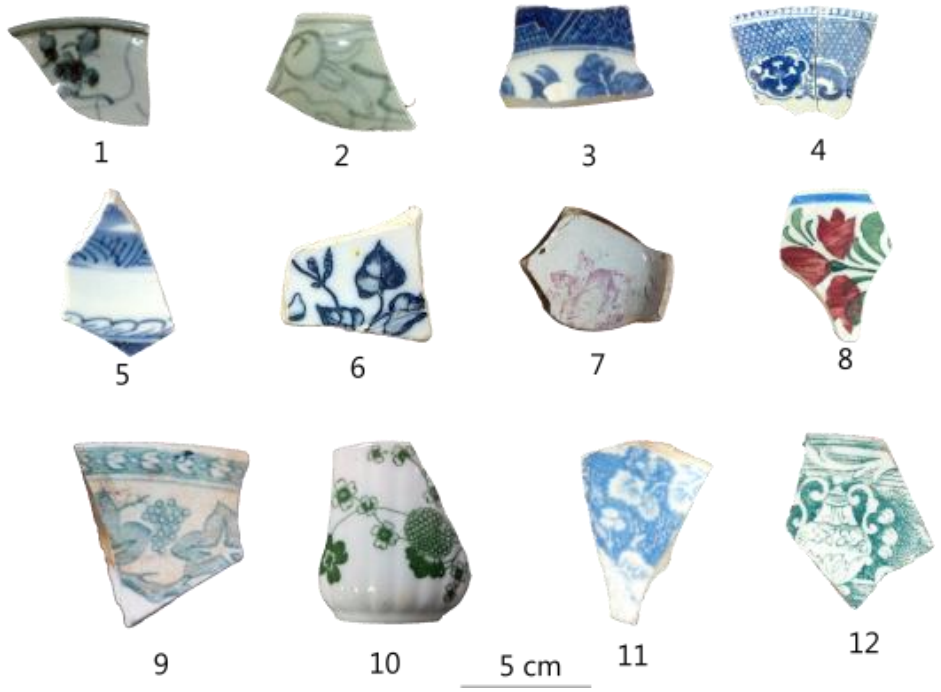


Figure 7. 6: Imported wares recovered from the excavation at Convent São Domingos – Tribunal - courtyard, *1 - 2*) Chinese ceramic of the 1700s and 1800s, *3, 4, 9 and 12*) Blue and Green printed transfer of the 19th century; *5-6*) Chinese porcelain of Qing Dynasty of mid-18th and 20th century; *7, 8 and 11*) Red, Green and Blue printed whiteware of the later 18th and early 19th century.

Beads

The analysis of the 152 beads recovered at Tribunal site was based on the work of Robertshaw *et al.,* (2010) and Wood (2011) and their analytical system which consists of analysis of structure, shape, size and the colour of the beads found in other sites in the East African.

The collection of beads (Table 7. 3, Figure 7. 5) is composed of shapes such as cylinder and barrel, spherical, hexagonal, tubular, and oblate and doughnut shapes of diverse colours. Forty-eight red beads (Table 7. 2) recovered at Tribunal site belongs to Khami-IP bead series and the white, blue and yellow colours beads seems to be of European origin while the minute green, light blue, light green and red beads are likely of Indian origin (Wood 2002).

Table 7. 3: Collection of beads recovered at Convent São Domingos.

Depth	Square	Group colour	Colour name	Bead Shape	Bead-Serie	Chronology	Origin	Quantity	Comments
110 - 120 cm	D4	Red and Pink	Strong red	Oblate, Cylinder, Ovate and Barrel	Khami-IP and European	15th - 19th centuries	India and Europe	44	20 oblates, 11 Cylinder, 2 Ovate, 10 Barrel and 1 Pink Barrel which seems European
120 - 130 cm	D4	Black	Strong	Hexagonal spheroid	European	18th - 19th centuries	Europe	1	
10 -20 cm	E4	Cream, White, Green, Blue Cobalt and Blue	Strong blue, light greenish, moderate blue, white and cream	Cylinder disc, Sphere and Doughnut	Khami-IP and European	15th - 19th centuries	India and Europe	5	1 white Cylinder disc, 1 Sphere cream, light blue greenish and light blue and 1 piece of doughnut blue cobalt.
20 - 30 cm	E4	White and Green	white and Light greenish	Barrel and Sphere	Khami-IP and European	15th - 19th centuries	India and Europe	2	1 Barrel light greenish and 1 Sphere white
40 - 50 cm	E4	Black and Blue	Strong Black and Moderate blue	Square cylinder and Sphere	Khami-IP and European	15th - 19th centuries	India and Europe	4	1 Black Square cylinder and 3 Blue Sphere
30 - 40 cm	E4	Blue, Green, unidentified, cream	Moderate Blue, Light Green and Cream	Tube and Sphere	Khami-IP and European	15th - 19th centuries	Africa, India and Europe	9	4 Sphere moderate Blue, 3 Sphere Light Green, 1 tube coral is cream and which suggest to be local and 1 Tube unidentified colour.
50 - 60 cm	E4	Blue, Green and Black	Moderate and Light Green and Black	Sphere and Hexagonal	Khami-IP and European	15th - 19th centuries	India and Europe	6	2 Sphere moderate Blue, 1 sphere light blue, 2 light green and 1 Black Hexagonal
60 - 80 cm	E4	Blue cobalt, Blue, Green and White	Strong Blue, moderate Blue, Light Green and White	Sphere and Tube	Khami-IP and European	15th - 19th centuries	India and Europe	5	2 Sphere Blue cobalt, 1 sphere light greenish, 1 sphere moderated blue and 1 Tube white bead

80 - 90 cm	E4	Blue cobalt	Strong Blue	Sphere	Khami-IP	17th - 18th centuries	India or Europe	1	
90 - 100 cm	E4	Red and Green	Red and light greenish	Barrel and Sphere	Khami-IP and European	15th - 19th centuries	India and Europe	3	1 Barrel red, 1 Sphere light greenish and 1 Sphere red and black inside.
100 - 110 cm	E4	Red	Red	Ovate, Barrel, Oblate, Sphere and tubular	Khami-IP and European	15th - 19th centuries	India and Europe	48	7 tubular, 2 ovate, 12 barrel, 14 sphere and 13 oblates (white and black inside and outside red)
10 - 70 cm	E4	Red and Black	Reddish and Strong Black	Barrel and Sphere	Khami-IP and European	15th - 19th centuries	India and Europe	5	1 Red Barrel, 3 Red Sphere and 1 Black Sphere
70 - 100 cm	E4	White, Blue and Red	White, light blue and Red	Barrel, Cylinder Disck and Annular	Khami-IP and European	15th - 19th centuries	India and Europe	7	5 cylinder disk red beads, 1 white barrel white beads and 1 Annular light blue bead.
70-100 cm	E4	Red and White	Red and White	Cylindrical, Sphere, Barrel and Oblate	Khami-IP and European	15th - 19th centuries	India and Europe	11	1 white sphere, 1 red barrel, 4 red cylindrical and 5 oblate

The analysis of the beads collection from the Tribunal site allowed comparison of colour chart, structure, and shapes with beads from various other Southern Africa sites (cf Mukwende 2016). The Tribunal red-Indian beads seem to be of the Khami-IP period dated to the mid – 15th and early 18th centuries AD (Koleini *et al.,* 2019), and suggest a continuity of beads popular in the interior of southern Africa during the Great Zimbabwe period (Wood 2000). The collections of beads from the island are similar to the glass beads of the last phase of Great Zimbabwe, Khami and European periods (Wood 2005).

Figure 7. 7: 1) Barrel red and black bead, 2 – 3) Sphere red bead; 4) Barrel red bead; 5, 9, 10 and 15) unidentified beads however seems to be European; 6 – 8) Tubular Khami-IP red beads, 11 – 14) Sphere East coast – IP serie beads.

Discussion

The excavation in the grounds of Tribunal have produced material culture that, on the basis of the style of the coarse earthenware, the style of the imported ceramics and the glass trade beads, suggest predominantly an 18th and 19th century AD date. This conclusion is added to the discussion above concerning the nature of the lower red silt and sand deposits, which seem to contain very little cultural material, but which, importantly, seems to correlate with burials presumably linked to the convent when it functioned as a religious institution. The radiocarbon date on this individual indicates that death was in the late 16th to early 17th century AD and this would support a relationship between the burial and the convent, and that the burial was interred from the top of the red silty deposit.

In contrast the upper grey coloured sandy deposits have considerably more material and a general hypothesis, is that these deposits mark a shift in the nature of this space from an area appropriate for burial, to an area where it became appropriate to discard domestic refuse. The institutional function of the convent buildings outlined above is relevant to this discussion. As outlined, the first Convent dates from 1578 and the second from 1662. However, in 1799 it became the premises for the official primary school, and in 1821, the residence for the Prelacy of Mozambique. In 1826 it was converted for use as barracks and in 1840 used as a cotton

mill. These later domestic, educational, military and industrial functions contrast with the 17th and 18th century AD Convent function, and wherever the domestic discard of convent rubbish took place, it does not seem to have been in this area. The general stratigraphic character of the Tribunal test excavation and the density and types of material culture found, especially in the upper layers, when combined with the history and use of the building, suggest that most of the debris dates from the later 18th, and through the 19th century AD.

Much of the locally produced coarse earthenware can be stylistically placed within the Sancul tradition. Although this pottery is found along the East African coast at sites where the economy focuses on the exploitation of shellfish resources, fishing and agriculture (cf Fleisher 2010), it cannot be assumed that the presence of this material in the northern stone town area of Mozambique Island, functioned in a foodways system that was exactly the same. Additionally, the presence of Asian porcelain and European refined earthenware underpin other functions, some of which may also have been linked to food preparation and consumption. However, given the idea suggested here that the upper deposits of the Tribunal excavation relate more to the disposal of 18th and 19th century AD, domestic rubbish disposal, and the range of different contexts that may have generated this refuse could have been diverse and therefore, these contexts are archaeologically mixed.

In the next chapter I go onto to discuss and compare this material with that from the Abdurrazaque Juma house excavation, and the wider South East African coastal areas. The many beads of the Mozambique Island stress its role as a trading center along the East African coast and in the hinterland, a role it maintained throughout the Portuguese establishment since the early 15th century (Macamo 2006; Duarte 2012; Madiquida 2015).

CHAPTER 8. POTS, PEOPLE AND THE 18 – 19 TH CENTURY MARITIME LANDSCAPE

This chapter discusses the interpretation of the material recovered from Mozambique Island, mainly the locally produced ceramics. Specifically, I focus on locally produced ceramics in relation to regional traditions and changes over time. These changes will be discussed in the context of cultural and commercial contacts along the East African Coast.

Before this discussion I highlight some theoretical points about cultural identities and materiality and its connection to social interpretation. The idea of materiality, as an active agent (c.f. Witmore 2014), is used to define and express human social and economic status (see discussion in Oestigaard 2004), and allows an understanding of the relationship between the artefacts and the cultural context in which it is produced (c.f. Haaland 1977). Materiality is a way to study how, through material culture and material symbols, social relationships are negotiated and managed (Hodder 1991, Hodder 1982, Witmore 2014).

Interpreting material culture

In this work, the difference in ceramics in terms of decorative style, size, mass, and function will be the focus. These attributes together provide a means to think about local ceramics, as central "players" in the negotiation between local contexts and external influences and the formation of new local identities were material culture is seen as a source of signification. As Appadurai (1986) reminds us, producers and consumers of material culture use their material culture to create their world of identities (see also Miller 1998). The interpretation of locally produced ceramics that focuses on the meaning and identity associated with artefacts naturally requires some understanding of the archaeological context (cf. Croucher 2006). In this regard, it has been suggested (Chapter 6) that the Abdurrazaque Juma house material can be tied directly to a household, and along with other ceramics, also to the regional scale. The locally produced ceramics and imported wares and glass beads together allow for the shaping of identities linked to class, gender, age and ideas and meanings (Gosden 2004).

The choices made by ceramic producers in the past were constantly negotiated in local and external social settings (See further discussion in Dietler and Herbich 1998; Croucher 2006; Pawlowicz 2015). The production of specific ceramic styles reflect both tradition and the constantly shifting norms of society as the production of ceramics represents different skills and knowledge, where ceramics represent part of the social scenery of the past (cf. Gosselain

2000; Håland and Msuya 2000; Helm 2000). Recurring stylistic principles of locally produced ceramics can be understood as one feature of community identities and their formation (Dietler and Herbich 1998; Croucher 2006). Ceramic producers may also maintain past patterns and styles that may merge with introduced new stylistic innovations (Dietler and Herbich 1998).The definition of ceramic types and classification of ceramic assemblages allows wide spatial and chronological comparisons to be made and interpreted (Huffman 1989; Helm 2000). The comparative analysis of the ceramics recovered on Mozambique Island with those from East African coastal sites, suggest similarities with the coastal Swahili ceramics showing homogeneity in the profile regionally at northern, central and southern sites of the east African coast (Helm 2000). However, local heterogeneity is clearly seen in the decorative motifs and sometimes in the motif placement (cf. Huffman 1980).

Interpreting Function and Style

There are two main ways of interpreting ceramics and meaning: 1) through the organized system of functional relationships with the shape profile, and 2) through the organized contents of cognitive ideas represented by symbols recognised to be present in material culture (see discussion in Hodder 1991).

The functional difference of ceramics received much consideration throughout the 1960s and 1970s (Helm 2000). Functional difference in ceramic is understood through different ceramic shapes but may also relate to the structures of the social systems of individual ethnic groups (Hodder 1991). Differences in the functional characteristics of ceramics, such as size, profile shape and form, are related to modes of cooking, liquid or seeds storage and eating functions (Shennan 1989). On the other hand, style was studied through individual decorative motifs and their structured pattern, which was seen as important traditional expressive trait of a cultural group of people, and consequently, style represents an ethnic identity (Huffman 1980). However, decorative style can also be studied as a dynamic system of social communication (c.f. Hodder 1993), and differences and similarities in ceramic styles are actively created, maintained and communicate the exchange of ideas, and mediate social interactions (Jones 1997; see discussion above). Here I will use a combination of these approaches. Additionally, the technology of production is shared among social players within their own cultural orientation over time, therefore, as has already been noted for the coastal regions, some ceramics styles have been reproduced over ca. 500 years, and used and traded widely (Fleischer *et al.,* 2015). Discussion about technological considerations are based on the concept of *chaîne opératoire*, thus the significance of shared technology within society is

relevant because: 1) technologies make sense in a group of people who are socially engaged with specific material culture that represents their world and serves to express cultural values and social practice; 2) technological practice is seen as personal practice of the cultural knowledge that builds identity through repeated patterns of ceramic production and finally, 3) technologies are created by mindful communities who practice social relations of production. This understanding is linked to Conkey's (2006) statement that archaeological interpretation should not be limited to material culture style, but should try to explain the preferences made within the production process and investigate what kind of communication and negotiation is involved, because it reinforces an understanding of the identities of material culture producers.

Ceramic comparison

A total of 501 potsherds of local ceramics were recovered and collected from the stratified contexts of the trenches from the Abdurrazaque Juma house and Tribunal Courtyard excavated sites.

The assemblage of diagnostic ceramics share strong similarities with 19th centuries AD sites as will be discussed below, and in terms of the different profiles, the carinated open bowls, platters, jars and globular ceramics share these same motifs, though placement varies.

The analysis of complete vessels is more informative than the analysis of potsherds, as the complete vessel provides the possibility of accurate evaluation of complete motif combinations (Huffman 1980; Helm 2000). In addition, the difference in decoration motifs and placement can be evaluated through identification of structural categories which can then be compared between sites (Sinclair 1983; Helm 2000).

A total of 433 potsherds of locally produced ceramic were recovered in the excavations of the Abdurrazaque Juma´s house in which 189 are decorated and 244 are plain ceramic sherds and a total of 68 potsherds were recovered in the excavations in the Tribunal site excavations in which 58 are decorated and 10 are plain. In the Abdurrazaque Juma's house excavations 84% of the ceramic assemblage was locally produced while in the Tribunal excavations locally produced ceramic constituted only 16% of the total assemblage. Although it is noted that Early Iron Age sites have a greater percentage of decorated ceramics than later sites (Wynne-Jones and Fleisher 2011), this observation is not relevant to the comparison. Later Iron Age sites have a tendency to yield greater percentages of undecorated sherds, for instance at Abdurrazaque Juma house site recovered 56, 4% of Plain Wares. Chami (1998: 212) noted

the high percentage of Plain Ware ceramics and dated it to the 16th century AD. The decoration elements of the locally decorated ceramics from Mozambique Island excavated sites were single, double, triple and multiple horizontal, vertical or oblique incised lines. Punctate, notched, red-painted ochre, and incised line motifs are frequent with some variance in combinations and decorative techniques, more rarely dashed-lines and ladders decorations.

The placement and format of the grouped decorative motifs, in combination with their placement and vessel profile classified the Abdurrazaque Juma´s house assemblage into 16 ceramic types (c.f Huffman 1980; see above). The assemblage from the Tribunal excavation was too fragmented to undertake this multivariate analysis.

The range of decoration motifs from the later Iron Age sites during all phases are usually simple motifs, such as single horizontal, vertical and oblique incised lines and punctate, which are present in all periods of the LIA sequence (Helm 2000). There are not many decorative features as clear markers of the chronological sequence and thus it is difficult to see clear chronological boundaries. The seeming stylistic homogeneity of LIA ceramic assemblages, suggest a continuity in potting tradition, and as noted no clear distinctions between ceramic assemblages of different periods (Chami 1998; Helm 2000).

Stratigraphy phases

The ceramics from the two excavated contexts and analysed by stratigraphic phases both trenches excavated at Abdurrazaque Juma´s house had six layers while Tribunal excavation had four layers. The ceramic types were compared to layering but were found to have little statistical relation to types. However, when I compared the ceramics from the Abdurrazaque Juma site excavation with the ceramics from the Tribunal excavation, the locally produced ceramics from each location showed particular characteristics, and it is suggested that different cultural scenarios at each site explain this. The clear difference in the Abdurrazaque Juma site excavations was the high frequency and range of bowls (smooth bowls, and carinated open bowls) and platters. Additionally, as outlined in Chapter 6, a large number of these bowls and other locally produced ceramics, were relatively complete and this is interpreted as having been either *in situ*, in a use context, or dumped all together from a use context nearby in the household. While the differences between these assemblages may in part be evidence for chronological sequence (c.f Huffman 1982), it is likely that the Abdurrazaque Juma assemblage links directly to the activities of a single household, and that many of these locally produced ceramics indicate a direct link to food preparation and

consumption. This is important in relation to the points made above concerning issues of identity and material markers of identity. In contrast, and on the basis of the history of the Tribunal building, this assemblage potentially comes from many different contexts, especially through time from the later 18th century AD.

Imported wares

Of the 264 sherds of imported ware recovered in both sites, eighty two were recovered at Abdurrazaque Juma's house making up 31.1% of the total imported ware against 84% of locally produced ceramics recovered. One hundred and eighty two imported sherds were recovered from the Tribunal excavation which corresponds 68.9% of the total collection of imported against 27% of local made ceramics. A list of imported wares found from each layer is given in Table 6. 1 and 7. 2. For analyses of characteristics and the origin of these wares the following references have been consulted Kirkman (1954, 1974), Chittick (1974, 1984), Horton (1996), Wilson and Omar (1997), and Klose (2007).The estimated dating of contexts found in the Mozambique Island excavation, mainly at Abdurrazaque Juma site match well with the date ranges obtained from radiocarbon analysis at sites previously studied by Kirkman (1975) at Fort Jesus in Mombasa, Chittick (1974, 1984) in Kilwa Kisiwani and on Kilwa Island and Croucher (2006) in the clove plantations of Zanzibar. This comparison thus indicates that the chronological sequence of both the Abdurrazaque Juma´s house and the Tribunal falls between the later 18th, and possibly into the early 20th century AD.

Towards a ceramic typology for the Mozambique Island

In total, 16 coarse earthenware types were identified from the locally produced ceramics excavated at Abdurrazaque Juma's house. The description of these types is illustrated in figure 6. 11, with certain notes elaborated below and prominent types described. The frequency of the types through the Abdurrazaque Juma´s house sequence is displayed in figure 6. 11 and table 6. 1.

The first 3 types (1, 2 and 3) were carinated open bowls. They were the most numerous types found throughout the Abdurrazaque Juma sequence. Additionally, many characteristics of these carinated bowls, such as thickness, burnishing, a rarity of decoration, but where present, shared decorative motifs and its placement on the carinated open bowls are similar. All bowls of the stratigraphic sequence have inverted and mostly flattened rims. Some of the carinated open bowls which have flat rims are larger than the carinated open bowls with rounded rims.

Those with the flatted platform rims were more likely to be decorated, with notching motifs done on the lip rim. If, as seems likely, the profile of these bowls indicates a specific function linked to rice preparation and serving, the decorated bowls may underpin their public use for serving.

The following 5 types (4, 5, 6, 7 and 8) were jars and they were lower in number compared to carinated open bowls, and represented mostly by a few clearly diagnostic sherds. Others with less certainty were classified as a possible type. They are clearly different from the distinctive open bowls, being short and long necked and with smaller mouth diameters. Throughout the Abdurrazaque Juma sequence these types were notably more decorated than open bowls, although the types 4 and 6 are plain jars. The decoration motifs of type 5, 7 and 8 consisted of triple oblique incised lines on the shoulder and red-painted ochre inside and lines of punctates on the rim and red-ochre paint inside. This is similar to the ceramic characteristics found at Gede in Kenya dating early 19th and mid – 20th centuries AD (c.f Pawlowicz 2019). The short- necked jars have rounded or tapered rims, while the long necked jars have flat rims and both are more or less from the same period. The Type 8 ceramics have a particular feature of burnishing and more rounded rims rather than the others types, with flattened rims.

The next three types (9, 10 and 11) were globular pots with both inverted and everted rims. These three types were less common than the carinated open bowls and jars. These vessels are thicker walled than others, and rarely decorated and almost not burnished and its profile. These attributes suggest a cooking function. When decorated they had discontinuous motifs of incised lines from the shoulder down onto the body and the rims were rounded.

The next three types (12, 13 and 14) are shallow bowls and a lot of them were found in the bottom stratigraphic levels of the excavation, with the exception of shallow bowls with decorated notched and flattened rims, which was found throughout the whole sequence. Some shallow bowls were burnished and red-painted.

The final two types (15 and 16) were undecorated plates and platters. Both of these types of vessels were also found at Gede, Fort Jesus, Kilwa and Zanzibar by Kirkman (1954), Chittick (1974) and Croucher (2006) dating between late 18th and early 19th centuries AD, and they are very similar footrings, outturned rim and surface treatment which is well polished. All potsherds of both types are undecorated and the platters, with a sharply downturned rim or ledge, suggest that they were carried and functioned to serve food at a table (Helm 2000; Croucher 2006). This function is supported by the presence on all platters of foot-ring,

centrally placed on the base of the platters. These vessels were large and thick walled, and usually not decorated, with rims similar to those found at Gede (Pawlowicz 2019). The Plate type has rounded rims and was low in frequency and was only found in the lowest layers, as were most of the platters.

Comparison with the East African Coast

The literature review of ceramics of the East African Coast and the analysis presented here do not suggest any similarities to ceramics from Early Iron Age contexts (cf. Huffman 1980; Fleisher and Wynne-Jones 2011). It is clear that on the basis of comparative analyses elsewhere and using relative dating methods, the ceramics excavated from the Abdurrazaque Juma´s house and the Tribunal, fall generally within Later Iron Age styles and that their specific context, as noted, is between the mid-18th and into the 20th century AD (see also Croucher 2006 for similar results).

The coarse earthenware ceramic types identified from Mozambique Island are similar to the main typological ceramic assemblage earlier identified through archaeological research along the East African coast (Helm 2000). This similarity generally indicates wide-spread chronological sequence in the region. Horton's (1996) analysis of ceramics excavated at Shanga, Wilson and Omar's (1997) periodization of ceramics excavated at Pate site, and Chami's (1998) and Wynne-Jones and Fleisher's (2011) seriation and analysis of the East African coastal ceramics, provide the material to establish similarities and differences. These authors provide an outline of the key diagnostic characteristics used for the classification of ceramics that is an important reference here.

Although the combination of features observed from relatively complete locally produced vessels is of greater analytical value than a single feature (cf. Huffman 1980, 1982), there are some identifiable ceramic characteristics from the excavated sites mentioned above, ceramics typologies from the Mozambique Island represent strong similarities Later Iron Age sites of the East African coast discussed above (cf Helm 2000). As illustrated in table 6.1 and 7.2, the range of dates acquired from imported ceramics suggests that the stratigraphic sequence from the Abdurrazaque Juma house and the Tribunal excavations on Mozambique Island are chronological restricted predominantly within the 18th – 19th centuries AD.

Specifically, studies on the 19th century AD ceramics from the sites of Fort Jesus in Mombasa excavated by Kirkman (1974), Kilwa excavated by Chittick (1974), and Zanzibar Island by Croucher (2006), indicate that they are similar to those found on Mozambique

Island. The assemblages of ceramics excavated from these different sites, in their quality and decorative motifs are similar to those recovered on Mozambique Island representing specific chronological sequence between late 18th - 19th centuries AD, including the presence of carinated bowls and flat form plates and platters. Additionally, these studies have allowed for a comparison of ceramics from known elite and non-elite areas. Consequently, the character of the assemblage of material culture recovered from the Abdurrazaque Juma house suggests a high status household, despite its location in Macuti-Town, and that it is possible that they owned slaves (Machado 2003; Croucher 2006). Everyday ceramics include mostly jars for liquid storage, carinated open bowls for cooking food, mainly rice, and the features are similar to the Abdurrazaque Juma house types. The bases of the vessels are mostly curved, but compared to the Abdurrazaque Juma house ceramics, there seem to be few flat plates and platters with the feature of foot ring bases. (Croucher 2006; Croucher and Wynne-Jones 2006). In particular, carinated bowls are an important constituent part of the Mozambique Island assemblage which compares to other sites on the East African coast. For instance, the analysis of diagnostic ceramic sherds excavated at Mgoli in the Zanzibar archipelago, revealed that 98% of open bowls had rounded bases and a carinated shoulder. An assemblage of 58 sherds consists of lip, ledges, or handle fragments, representative of lids of rounded open bowls and five sherds have flat disc bases. The assemblage of locally produced ceramics from Mgoli is dated to the 19th century AD, and has a diverse array of coarse earthenware ceramic shapes and Croucher (2006) associates them with the clove plantation households associated to the slave households.

The investigations conducted at Mikindani have recovered a total of 20,310 of ceramic sherds. In this assemblage 1,506 were diagnostic decorated sherds which provided significant qualitative and quantitative data that identified the changing features of open bowls, jars and globular ceramics over time and into the 19th century AD (Pawlowicz 2012). At Kwa Fungo 80.7% of the locally produced ceramics excavated was undiagnostic and the remaining 19.3% were associated with carinated bowls. Apparently, this is a most frequent and prominent ceramic type at Mozambique Island and across the East African coast throughout the 19th century AD (Croucher 2006).

The carinated bowls excavated at Fort Jesus are characterised by incised patterns of chevrons, curves and lines placed above the carination. The frequent decorative motifs are incised arcs above the carination and on the neck. In addition, these vessels were burnished and decorated in the interior of the rim with red ochre (Croucher and Wynne-Jones 2006).

Excavations undertaken at Zanzibar and Kilwa have also recovered carinated bowls commonly burnished, and painted with red ochre, also on the inside of the rim, which are similar to those found on Mozambique Island at Abdurrazaque Juma house. Incised line decoration is also identical to the decoration recorded at Fort Jesus in Kenya with arcs above the carination. This specific motif is completely absent in the assemblage of the Mozambique Island, where there rare punctates forming a line on the carination and on the neck. While the particular motifs are different on the carinated bowls from these sites, the position of placement of decoration on these bowls is the same.

Additionally, the assemblage from Kilwa revealed ceramics decorated with applied strips of clay on the body of the vessel, and is common with a few ceramics found on the island at Abdurrazaque Juma house and Tribunal. This decoration style was firstly identified and reported by Chittick (1974) and Kirkman (1954) among the Fort Jesus assemblage dating to the 17th to 19th centuries AD.

In summary, the carinated cooking open bowls are frequent in the assemblage from the Abdurrazaque Juma´s house on Mozambique Island, as well as in the Mgoli and Kwa Fungo assemblages, but in contrast, while shallow bowls, plates and platters are part of the coarse earthenware assemblage from the Abdurrazaque Juma´s house, they are rarely found at these other sites. The decorative designs and placement have a tendency to be particular at each site, although both ceramics have graphite burnishing, with a surface finishing typical of 19th century AD coastal sites.

It has been noted that coarse earthenware carinated bowls, shallow bowls, plates and serving platters are a prominent feature from the ceramics recovered from the Abdurrazaque Juma´s house excavations. Additionally, these types are also found at other sites along the East African coast. There is a functional link between these types and rice cooking, and the serving of meals in which rice is a central element. Of great interest, is the link between a shift to a rice diet, the growth of urban centres and the process of Islamization (Walshaw 2010), in which rice based foodways is also a signifier of elite status. This is of interest because the Abdurrazaque Juma household is intimately linked to Islam and Muslim occupants. In the context of Macuti Town, it is a large household and the small excavations conducted so far indicate that it has gone through at least two phases of building and remodeling. Additionally, being a large Muslim household raises the question as to who was actually using the coarse earthenware vessels, especially those from the basal layers of the

excavation, that seem to be a relatively intact assemblage linked specifically to cooking and food preparation. If it is correct that this is a large and important household, then it is possible that the coarse earthenware ceramics are linked to the work of servants and slaves.

In contrast, in the coarse earthenware ceramics from the Tribunal excavation, there seems to be no evidence of the types that specifically would signify rice preparation and cooking. This might simply be a function of a small excavation and a relatively small sample, but the different use of this space from the late 18th century AD, from educational, to barracks to mill may, suggest that the two contexts are very different. While the Abdurrazaque Juma´s house assemblage possibly provides a glimpse into an aspect of ceramic use and foodways at the scale of a single household, the Tribunal assemblage may come from a different range of institutional contexts.

CHAPTER 9. THE SOCIO-ECONOMIC CONTEXT OF CERAMIC PRODUCTION BETWEEN 18TH AND 19TH CENTURIES AD

In chapter 8, I made some broad suggestions about the nature of the coarse earthenware ceramics, especially from the Abdurrazaque Juma´s house excavations. In this chapter I discuss some of these issues further, including the issue of identity and the negotiation of identities of Mozambique Island with respect to the production of local ceramics.

According to Croucher and Wynne-Jones (2006), Swahili archaeologists have been analyzing locally produced ceramics in terms of decoration and style and have ignored the social relations of ceramics production. Even imported wares were interpreted with little discussion of how they may have fitted into wider ceramic use, and were limited to colonization identity, ignoring the fact that the imported wares, being commodities, were produced in different ways to locally produced ceramics and their acquisition through purchase relates to economic and social practice and would have changed local identities. While in the past there has been a focus on formal ceramic characteristics to define the regional identity of the producers (Hodder 1982; Conkey 2006), here the focus is on the process and social context of ceramic production (Dietler and Herbich 1998) as a means of building and confirming identity. The discussion is linked also with the social and economic identities of people, and in the second part of the chapter I will discuss the maritime landscape of Mozambique Island.

The Identity of Producers and Consumers of the local ceramics

Material culture recovered locally on the island has characteristic symbols recognised broadly as of Swahili identity along the East African coast. The forms of ceramics found on Mozambique Island and other sites show a development of earlier forms to later forms. These similarities along the coastal sites from earlier periods are understood as a cultural continuity (Helm 2000). In addition, decoration was similar between the different assemblages of ceramics of different chronological phases (Fleisher and Wynne-Jones 2011).

Locally produced ceramics and imported goods are fundamental elements for the interpretation of the spaces where they were recovered (cf. Croucher 2006, Croucher and Wynne-Jones 2006). Meanwhile, in contrast to imported wares, locally produced ceramics have complete biographies that in all aspects relate to the course of local social life (cf. Hodder 1991). The spread of similarities in locally produced ceramics along the East Africa Coast between late 17th and 20th centuries AD, suggest the result of communication established during commercial interactions which allowed trade of commercial goods, and

also copying of the fashion of traded items (cf. Croucher 2006; Fleisher and Wynne-Jones 2011).

The also applies to 18th – 19th century AD, locally produced ceramics which have taken a dynamic role of the cultural system through the history of socio-economic contacts and networks (Croucher 2006; Croucher and Wynne-Jones 2006; Conkey 2006). The locally produced ceramics recovered on Mozambique Island could be said to reflect the formation of a Macua identity as a repetitive code of cultural symbols, especially in the carinated open bowl form which can be used to recognise a Macua identity in the 19th century AD, archaeological evidence (cf. Rita-Ferreira 1975; Ehret 1998). However, the carinated open bowl has also been related to the economy of slaves (See discussion in Croucher 2006, 2007; Croucher and Wynne-Jones 2006; Croucher and Weiss 2011), and shift of foodways from pearl millet to rice along the East African coast (See details in Walshaw 2006). This association comes from written sources from the 18th and 19th centuries AD from the Z anzibar archipelago and also archaeobotanical evidence (Croucher and Wynne-Jones 2006; Walshaw 2010; Crowther 2016).

Although, the similarities between the ceramics excavated on the East African coast are strong it does not mean that the ceramic characteristics produced on the East African coast were homogenous in the 18th and 19th centuries. Obviously, there are some differences, such as the applied strips of clay at Kilwa, which are completely absent in the Zanzibar assemblages although were found at Fort Jesus (Croucher 2006; Croucher and Wynne-Jones 2006), and in the Abdurrazaque Juma´s house assemblage. Variations in ceramic styles seem to have been produced locally, but in different areas and it is demonstrated also through distinctions in the fabric and placement of decoration between the different sites on the East African coast (Fleisher and Wynne-Jones 2011).

The similarities of 18th and 19th centuries ceramics on the East African coast are not simply a consequence of trade of these goods. Rather, it also suggests that Swahili communities created specific ceramic shape, but with different features, such as decoration motifs and fabric (Pawlowicz 2013). These differences were the result of the specific networks of each coastal area with interior communities, and the local development of the particular features in locally produced ceramics (Pawlowicz 2015). In addition, styles of ceramics found on Mozambique Island shared characteristics between coastal town and countries with different traditions potteries and different populations (Pawlowicz 2011).

All assemblages of locally produced ceramics of the 18th and 19th centuries have been found in association with imported ceramic wares. Most of the imported wares are European refined earthenwares, typically spongewares and transfer prints and more rarely, Asiatic ware dated to the later 17th to 19th century. The locally produced ceramic of this period recovered on Mozambique Island share characteristics with some of these imported wares, such as large rice bowls and serving platters and plates. It suggests that at some point the coastal inhabitants were inspired by imported wares and started copying its forms to produce local ceramics. The use of these imports and selectively reproducing their form and style are important factors in understanding identities (Helm 2000; Croucher 2000; Croucher and Wynne-Jones 2006). The appearance of imported ware in low quantity at Abdurrazaque Juma´s house´s in the Macuti town suggests, as introduced in chapter 8, that the people who occupied this household had the economic status to buy imported goods.

The social context

Ceramic production is also shaped by methodological knowledge of the production process and the knowledge of its 'value for other local consumers (see Appadurai 1986). The knowledge of local ceramic production has been an important element of the system in which ceramic makers were tied into social interactions with each other (Farnell 2000; Croucher 2006). A thorough analysis of the locally produced ceramics permits a better understanding of their function and use in the identity formation of Mozambique Island inhabitants. Between the 18th and 19th centuries AD, it seems that the production of carinated open bowls was significantly emphasized among local potters, and as noted above, was probably associated with rice cooking in the elite household. The cooking of rice was a specialised craft and always associated particularly with foodways preference (c.f. Stahl 2001, Walshaw 2010). Taste is also seen as a system of everyday know how which comes to life and made manifest in the social and economic and molded by choices made among Swahili coastal communities (Stahl 2001; Croucher 2006; Pawlowicz 2015).

The locally produced ceramics from Mozambique Island over the historical period of the 18th - 19th centuries are an example of local learning process and innovation and social interaction that took place over the wider Swahili world (Croucher 2006). Consequently, the study may also allow for the association between the production of ceramics as slaves' tasks, either for their own use, or for patrons to be used in the specific household kitchen contexts (see Croucher and Weiss 2011). This is what I suggest for the Abdurrazaque Juma´s house assemblage. In Zanzibar, historical documents assert that incomes from selling locally made

pots gave opportunities for some slaves to pay in cash for their freedom and also buy plots to become owners of their own clove plantations (Croucher 2006). This possibility may have been fundamental to make the ceramic production competitive in the commercial market which developed and preserved the carinated shape. Though rice was probably an elite food and crop in this period, the carinated bowl, specialized for cooking of rice, was widely produced and used with slight differences in decoration style and its placement, thickness, colours, paste, etc., (see also Pawlowicz 2015).

The maritime landscape of Mozambique Island

It was the abundance of marine life, for instance, crustaceans, salines, shallow-water fish and crabs which promoted the settlement and development of Swahili culture over time (Horton and Mudida 1993; Chami 1994). Even though the bone assemblage from my excavations has not been analysed in this study, from a cursory analysis of the bones, marine resources were clearly important, as is also suggested by written documents.

Pollard (2012) has shown how human activities have changed the original characteristics of the maritime landscape. Msemwa (1990, 1992) has suggested that since 9th century AD, past coastal communities of Shanga have transformed their maritime landscape, cutting mangrove wood and mining coral-stones for local house construction and commercial purposes. Additionally, Horton (1996) has argued that in and along river banks and mangrove silt deposits, clay was collected for ceramic production and earth-and-thatch houses construction. Shells were also collected for subsistence and as a source of calcium carbonate for coral stone house plaster. Meanwhile, Pollard (2012) identified different phases of natural resources exploitation in the archaeological records of coastal sites because the sequence of systems of maritime landscape exploitation has changed over time. Additionally, Pawlowicz (2011) asserts that maritime resource use was also affected also by migrations into new land in order to access unexploited resources. However, Ekblom (2004), Pollard (2008) and Pawlowicz (2011) remind us that past coastal communities were also dependent on the mainland interior, as well as the marine resources.

The recent changes of monsoon regimes observed between 2003 and 2007 and the strength and direction of monsoonal winds (Van Rampelbergh *et al.,* 2013), will have detrimental effects to livelihoods based on traditional strategies. Direct observations and informal interviews have been undertaken as part of this project to investigate the traditions around long-distance boating and trade. The interviews showed that the local communities of the

Mozambique Island are no longer engaged in long-distance trade using traditional vessels, thus monsoon winds are no longer a requirement for long trading journeys since the 19th century (Hannaford *et al.*, 2015). However, monsoon winds are still significant for the farmers on the mainland immediately west side of the island at Lumbo and Sancul, and also Cabaceira Pequena and Grande in the north side because the rainy seasons for agriculture, and for fisherman, because winds and currents seasonally influence the scheduling of economic activities. Due to the poverty of present day residents of Mozambique Island, a lot of people still base their economic activities on the exploitation of natural resources, such as agriculture, fish, crabs, and trade at both a local small scale as well as at a regional scale. The direct observations suggested that the strong human interaction with their maritime landscape means that the marine environment is still very influential for the local community. These observations on the present-day structure of coastal exploitation are important, because they provide a basis for recognizing change in the structure and emphasis in coastal exploitation in the deeper.

CHAPTER 10. CONCLUSION

This dissertation provides an assessment of locally produced ceramics and imported goods from two archaeological excavations from sites on Mozambique Island dating to the 18th - 19th centuries. This material has also been compared with other sites along the East African Coast. The descriptions of written and oral traditions are also associated with insights of material culture from excavations.

Early occupation between 13th to 18th century AD

Archaeological evidence and colonial written sources together provide good insights of the physical characteristics of the Swahili towns of northern Mozambique (Freeman-Greenville 1975; Posnansky and Decorse 1986; see Chapter 4). However, as discussed in Chapter 4, little is known about their political, social, and economic organisation before the 15th century (Freeman-Greenville 1975). Most of what is known about social, economic and political organisation of Swahili towns of the northern coast of Mozambique was provided by Portuguese accounts from 15th century AD onward, e.g. Alvaro Velho (1498), Duarte Barbosa (1518) and Frei Joao dos Santos (1609). The archaeological excavations carried out on island so far have failed to find cultural material in the original stratigraphy or first deposit context which could give better understanding of the possible first millennium occupation phases, as well as the earlier second millennium phase. However, excavations revealed Wealed-ware ceramics similar to those found by Chittick (1974) at Kilwa (associated to his period IIIB/IV) and dated to the end of 13th and 16th centuries AD. Thus, bearing in mind the discovery of Wealed-ware ceramics (see details in the chapter 2) Mozambique Island makes sense, that the use and occupation of the island dates from the 13th century AD (if not before). Furthermore, it is important to consider the reference to sheik Zacoeja at Kilwa, in written sources dating to the late 15th century AD. This is because merchants had to obtain permission to trade along the coast from the sheik at Kilwa and in 1498 he provided Vasco da Gama with foodstuffs and a pilot to guide his crew to northernmost of the East African coast (Lobato 1945; Newitt 2004). Chronologically, the sultanate at Kilwa was contemporary with the Wealed-Ware found on Mozambique Island. As should be clear from the review of written sources presented here, the subject regarding the first occupation on the island is yet unclear, and has to be the focus of further archaeological research. The seeming absence of evidence for earlier occupation on Mozambique Island may suggest that the island was used as a base for short visits by traders who sold their goods into the interior of the mainland.

The study was unable to provide information from all phases of the occupation sequence of the island. Excavations presented only recovered glass bead series, imported ceramics and locally produced ceramics in contexts which date to the 18th – 19th centuries.

The later phase 18th-19th century AD

The assessment of earlier archaeological investigations undertaken on Mozambique Island, oral tradition and written sources allowed for a better understanding of 18th – 19th centuries AD and the cultural identities of groups on Mozambique Island who were directly involved with the utilization of locally produced ceramics and imported goods. The archaeological fieldwork presented in this dissertation has revealed imported goods that allowed the dating of the sites between 18th - 19th centuries AD. The excavated material from Abdurrazaque Juma house was most significant for a preliminary understanding of an 18th - 19th century household, with an archaeological context and material that may directly link to the presence of slaves and their activities in a domestic context. Further and extensive research at the Abdurrazaque Juma´s house offers the potential to develop material culture perspectives on this household, and the development of comparisons with other contexts of a similar social scale elsewhere.

The cultural sequence of Abdurrazaque Juma´s house and the Tribunal excavations comprises ceramics and glass beads found in the East African coast sites and Southern Africa. Both locations were probably occupied by elite people and owners of slaves as is shown by historical sources (Croucher and Wynne-Jones 2006), and people who worked and lived in important institutions. Additionally, the possibility of identifying a slave signature at the Abdurrazaque Juma house is important because in the 19th century AD, precisely from 1836, slave trade activities were abolished, but are known to have continued clandestinely between France, Portugal, Brazil and America from Mozambique Island (Capela 2006; Machado 2009).

Interpretations of the archaeological material from the Abdurrazaque Juma´s house and the Tribunal suggests negotiations between a macro-scale identity (eg. Swahili) and a microscale identity (drawing on local traditions). The Abdurrazaque Juma´s house material, especially the locally produced carinated open bowls and ceramics and imported goods on the East African coast, provides an opportunity to further explore this process within a single household (cf. Croucher 2006). The combination of local and imported evidence has allowed a start on the studying of 18th - 19th century identities on Mozambique Island that cannot be

understood through single and superficial analysis of one set of data. As noted above, more comparative observations are needed to explore the networks and social implications of locally produced ceramics and responses by potters in specific settings in order to advance an understanding of micro-scale social practices and the negotiation of identities through material culture.

Lastly, changes in the nature of the maritime ecosystem need to, where understood, correlated with the archaeological and historic records. The influence of daily tide schedules, present-day changes, and the weather, shows that changes on both land and sea are influenced intensely by the Indian Ocean monsoon system. Similarly the structure of the monsoons also affects the degree and strength of connections, travel and communication with other centers and the wider trade network. But climate patterns have changed significantly (see discussion in Tripati and Raut 2006), and consequently, there has been great shift in the maritime landscape and the behaviour of fish, for example, within the last millennium (Pollard 2008b). Hence, the evidence of strategic locations of harbours and some houses on Mozambique Island are likely to reflect evidence of sea level change. More archaeological work on Mozambique Island and also on other coastal sites along the Mozambique coast, along the lines addressed here, is of urgent importance because of the threat of continued sea level rise.

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Appendix

ABDURRAZAQUE JUMA´S HOUSE SITE

Appendix A. Table 1: List of the main diagnostic potsherd excavated at Abdurrazaque Juma site and used to create types discussed in the text.

No of the object	Depth	Square	Thickness	width	length	Vessel form	Rim type	Decoration motif	Decoration position	Observations and Vessel part
1	20-30 cm	Q3	8 mm	30 mm	63 mm	carinated ?	Out-turned	Plain ware ?	?	Rim Channel
2	10-20 cm	Q4	8 mm	27 mm	55 mm	carinated ?	Out-turned	Plain ware ?	?	
3	10-20 cm	Q4	7 mm	39 mm	45 mm	carinated ?	Out-turned	Plain ware ?	?	
4	20-30 cm	Q4	8 mm	30 mm	45 mm	carinated ?	Out-turned	Plain ware ?	?	
5	30-40 cm	Q4	7 mm	40 mm	78 mm	carinated ?	Out-turned	Plain ware ?	?	Rim Channel
6	40-60 cm	Q4	9 mm	46 mm	66 mm	carinated	Out-turned	Plain ware		Rim Channel
7	40 - 60 cm	Q4	8 mm	40 mm	57 mm	?	Out-turned	Plain ware?	?	Very small sherd
8	60 - 80 cm	Q4	7mm	15 mm	36 mm	?	Out-turned	?	?	Very small sherd
9	60-80 cm	Q4	9 mm	44 mm	45 mm	carinated	Out-turned	Red-painted	Inside	Rim Channel
10	60-80 cm	Q4	8 mm	39 mm	59 mm	?	Out-turned	Plain ware	?	Very small sherd
11	60-80 cm	Q4	8 mm	46 mm	64 mm	carinated	Out-turned	Plain ware		Rim Channel
12	60-80 cm	Q4	7 mm	62 mm	76 mm	?	Out-turned	Plain ware?	?	Rim Channel
13	40-60 cm	Q4	8 mm	16 mm	42 mm	?		?	?	Rim Channel
14	60-80 cm	Q4	8 mm	60 mm	62 mm	carinated	Slight out-turned	Plain ware		
15	60-80 cm	Q4	7 mm	45 mm	48 mm	carinated ?	Out-turned	Plain ware ?	?	Rim Channel
16	60-80 cm	Q4	8 mm	49 mm	74 mm	?	Out-turned	Plain ware	?	
17	80-90 cm	Q3	7 mm	74 mm	90 mm	?	Out-turned	Plain ware?	?	Rim Channel
18	80-90 cm	Q4	7 mm	30 mm	48 mm	?	Slight out-turned	?	?	Rim Channel
19	80-90 cm	Q4	8 mm	28 mm	43 mm	?	Slight out-turned	Plain ware?	?	Rim Channel
20	80-90 cm	Q4	9 mm	42 mm	59 mm	?	Out-turned	Plain ware		
21	10-20 cm	Q4	11 mm	57 mm	66 mm	Plate ?	Slight out-turned	Red-painted	Inside	
22	70-80 cm	Q3	9 mm	36 mm	45 mm	Shallow bowl ?	Up-turned	Red-painted	Inside	

23	80-90 cm	Q4	9 mm	26 mm	37 mm	Shallow bowl ?	Up-turned	Notching	Rim	
24	80-90 cm	Q4	9 mm	76 mm	81 mm	Carinated	up-turned ?	Plain ware		
25	20-30 cm	Q3	14 mm	46 mm	54 mm	Jar	Out-turned ?	?	?	Long Neck
26	30-40 cm	Q3	13 mm	36 mm	51 mm	Jar	out-turner	?	?	Rim and Long Neck
27	40-50 cm	Q3	13 mm	38 mm	65 mm	Jar	out-turned	?	?	Rim and Long Neck
28	70-80 cm	Q3	10 mm	26 mm	46 mm	Jar	out-turned	?	?	Slight broken rim and short neck
29	60-80 cm	Q4	10 mm	77 mm	96 mm	Jar	Up-turned	?	?	Long Neck
30	60-80 cm	Q4	7 mm	101 mm	150 mm	Jar	out-turned	Band of two oblique incised lines	From Shoulder to Body	Short neck
31	60-80 cm	Q4	13 mm	120 mm	143 mm	Globular	up-turned	Oblique relief with fingernail impression	From below the rim, sholder and body	Assemblage of 4 potsherds which belongs to the same vessel took the same record number
32	100-110 cm	Q3	9 mm	30 mm	40 mm	carinated ?	out-turned ?	plained ware?	?	Rim Channel
33	120-130 cm	Q3	9 mm	67 mm	90 mm	Carinated	out-turned	plained ware		R/Sh/C/Ba
34	120-130 cm	Q3	9 mm	56 mm	65 mm	Carinated	Slight out-turned	Plained ware		R/Bo/C
35	120-130 cm	Q3	9 mm	69 mm	102 mm	Carinated	out-turned	Plain ware		R/Sh/C/Ba
36	120-130 cm	Q3	9 mm	48 mm	150 mm	Carinated	out-turned	Triangle in band w/ parallel horizantal incised lines and Line of punctates		RC/N/Sh/C/Ba
37	120-130 cm	Q3	9 mm	52 mm	150 mm	Carinated	out-turned	Triangle in band w/ parallel horizantal incised lines and Line of punctates	R/N/C	RC/N/C/Ba (Three potsherds)
38	120-130 cm	Q3	7mm	80mm	93mm	Carinated	out-turned	Triangle in band w/ parallel horizantal incised lines and Line of punctates	R/N/C	RC (two potsherds which fit together have the same number)
39	120-130 cm	Q4	9mm	43mm	78mm	Carinated ?	out-turned	Triangle in band w/ parallel horizantal incised lines	R/N	RC
40	60-80	Q4	9 mm	44m	56mm	Carinated	out-	Triangle in	R/N	RC

	cm			m		?	turned	band w/ parallel horizantal incised lines		
41	120-130 cm	Q4	9 mm	56 mm	155mm	Jar	out-turned	Oblique incised lines and red-painted inside and outside	Sh to Bo and inside on the Neck	R/N/Sh - long necked
42	120-130 cm	Q4	9 mm	45 mm	86 mm	Jar	out-turned	Red-painted	Inside on the rim	R/N
43	120-130 cm	Q4	9 mm	41 mm	95 mm	Jar	Out-turned	Red-painted	inside on the neck	R/N
44	120-130 cm	Q4	9 mm	70 mm	125 mm	?	?	oblique incised lines	Sh	Sh
45	120-130 cm	Q4	9 mm	71 mm	144 mm	Jar?	?	incised line	N?/Sh	Sh
46	130-140 cm	Q3	9 mm	40 mm	56 mm	Jar?	?	Red-painted	Inside on Neck	R/N
47	170-180 cm	Q4	9 mm	68 mm	104 mm	Jar	Out-turned	Line of puntates and red-paint	R (red-paint inside)	R/N/Sh - short necked
48	150-160 cm	Q4	9 mm	63 mm	145 mm	Jar	out-turned	Line of puntates and red-paint (inside on the Rim)	R	R/N/Sh - short necked
49	130-140 cm	Q4	9 mm	94 mm	129 mm	Jar	Out-turned	Oblique incised lines and red-painted inside	N (Red-painted inside) and Sh	R/N/Sh - long necked
50	120-130 cm	Q4	9 mm	64 mm	115 mm	Jar	Out-turned	incised line and Red-painted	Sh/N (red-paint inside)	R/N/Sh - long necked
51	120-130 cm	Q4	8 mm	89 mm	149 mm	Jar?	?	Oblique incised lines	Sh/Bo	Sh/Bo
52	120-130 cm	Q4	9 mm	37 mm	56 mm	Jar?	out-turned	?	?	R/N - long necked
53	130-140 cm	Q4	9 mm	40 mm	50 mm	Jar?	out-turned	burnished?		R/N/Sh - long necked
54	150-160 cm	Q4	9 mm	50 mm	86 mm	Jar?	out-turned	Red-painted	Inside on the neck	R/N - long necked
55	130-140 cm	Q4	8 mm	126 mm	144 mm	Jar	Slight out-turned	Plain ware		R/N/Sh/Bo - long necked
56	170-180 cm	Q4	11 mm	40 mm	146 mm	Jar	out-turned	?	?	R/N/Sh?
57	110-120 cm	Q4	9 mm	49 mm	83 mm	Carinated ?	out-turned	line of punctates	R	R/N and RC
58	160-170 cm	Q3	7 mm	67 mm	134 mm	Carinated	out-turned	line of punctates	R/C	R/N/C
59	130-140 cm	Q4	7 mm	42 mm	62 mm	Carinated ?	?	line of punctates	C	N?/C

60	130-140 cm	Q4	7 mm	57 mm	60 mm	Carinated ?	?	line of puntctates	C	N?/C
61	140-150 cm	Q4	8 mm	78 mm	101 mm	Carinated ?	out-turned	line of punctates	R	R/N and RC
62	160-170 cm	Q3	7 mm	45 mm	51 mm	Carinated	?	line of punctates	C	N?/C
63	170-180 cm	Q4	7 mm	27 mm	34 mm	Carinated ?	out-turned	line of punctates	R	R/N and RC
64	170-180 cm	Q4	8 mm	83 mm	99 mm	Carinated	out-turned	line of punctates	R/C	R/N/Sh/C and RC
65	130-140 cm	Q3	7 mm	53 mm	59 mm	Carinated	out-turned	plain ware		R/N/Sh/C
66	130-140 cm	Q3	8 mm	42 mm	81 mm	Carinated	out-turned	plain ware		R/N/Sh/C and RC
67	130-140 cm	Q3	8 mm	67 mm	96 mm	Carinated	out-turned	plaIn ware		R/N/C
68	130-140 cm	Q3	10 mm	60 mm	127 mm	Carinated	out-turned	plain ware		R/N/C and RC
69	140-150 cm	Q3	9 mm	69 mm	74 mm	Carinated	out-turned	plain ware		R/N/C and RC
70	140-150 cm	Q3	8 mm	59 mm	81 mm	Carinated	Out-turned	Plain ware		R/N/Sh/C and RC
71	140-150 cm	Q3	8 mm	35 mm	38 mm	Carinated ?	Out-turned	Plain ware		R/N? and RC
72	140-150 cm	Q3	10 mm	61 mm	65 mm	Carinated ?	Out-turned	Plain ware?	?	Sh/Bo and C
73	150-160 cm	Q4	7 mm	25 mm	36 mm	Carinated ?	Out-turned	Plain ware?	?	R/N? and RC
74	150-160 cm	Q4	8 mm	38 mm	40 mm	Carinated ?	Out-turned	Plain ware?	?	R/N? and RC
75	150-160 cm	Q4	8 mm	39 mm	84 mm	Carinated	Out-turned	Plain ware?	?	R/N?
76	150-160 cm	Q4	7 mm	109 mm	155 mm	Carinated	Out-turned	Plain ware		R/N/Sh/C and RC
77	160-170 cm	Q3	7 mm	17 mm	32 mm	Carinated ?	Out-turned ?	?	?	R and RC
78	160-170 cm	Q4	8 mm	51 mm	71 mm	Carinated	Out-turned	Plain ware		R/N/Sh/C and RC
79	160-170 cm	Q4	10 mm	55 mm	55 mm	Carinated	out-turned	Plain ware		R/N/C?
80	160-170 cm	Q4	8 mm	60 mm	98 mm	Carinated	Out-turned	Plain ware		R/N/Sh/C
81	160-170 cm	Q4	9 mm	62 mm	130 mm	Carinated	Slight out-turned	Plain ware		R/Sh/C

82	160-170 cm	Q4	9 mm	56 mm	79 mm	Carinated	out-turned	Plain ware		R/N
83	160-170 cm	Q3	5 mm	10 mm	63 mm	?	out-turned	?		R
84	160-170 cm	Q4	8 mm	35 mm	60 mm	Carinated	out-turned	Plain ware	?	R/N and RC
85	160-170 cm	Q4	8 mm	75 mm	156 mm	Carinated	Out-turned	Plain ware		R/N and RC
86	160-170 cm	Q4	7 mm	56 mm	88 mm	Carinated ?	?	Plain ware	?	N/C
87	170-180 cm	Q4	9 mm	31 mm	44 mm	Carinated ?	Out-turned	?	?	R/N and RC
88	170-180 cm	Q3	8 mm	59 mm	60 mm	Carinated ?	Out-turned	Plain ware?	?	R/N and RC
89	170-180 cm	Q4	7 mm	63 mm	76 mm	Carinated ?	Out-turned	Plain ware	?	R/N and RC
90	170-180 cm	Q3	9 mm	61 mm	66 mm	Carinated	Out-turned	Plain ware	?	R/N and RC?
91	170-180 cm	Q3	8 mm	27 mm	45 mm	Carinated ?	Out-turned	plain ware?	?	R/N and RC
92	170-180 cm	Q3	8 mm	48 mm	55 mm	Carinated ?	out-turned ?	Plain ware?	?	R/N and RC
93	180-186 cm	Q4	11 mm	54 mm	96 mm	Carinated	Slight out-turned	Plain ware		R/N/Sh/C/Ba and RC
94	120-130 cm	Q3	9 mm	89 mm	245 mm	Jar	Slight out-turned	Oblique incised lines (three) and red-painted on Rim	From N to Sh and on R	R/N/Sh (two pieces of the same vessel)
95	110-120 cm	Q4	8 mm	44 mm	53 mm	Carinated ?	Out-turned	Plain ware?	?	R/N and RC
96	110-120 cm	Q4	8 mm	59 mm	69 mm	Carinated ?	Out-turned	Plain ware?	?	R/N
97	110-120 cm	Q4	9 mm	53 mm	91 mm	Shallow bowl A/ Plate	up-turned	line puntactes	Sh	R/N/Sh (four pieces which fit together a Shallow bowls almost plate
98	140-150 cm	Q4	11 mm	35 mm	144 mm	Shallow bowl	up-turned			R/Sh (two potsherds fit together).
99	120-130 cm	Q4	8 mm	32 mm	46 mm	Shallow bowl?	up-turned	Red-painted (inside and outside)	R/Bo	R/Bo
100	140-150 cm	Q4	10 mm	57 mm	60 mm	Carinated ?	Out-turned			R/N/C
101	130-140 cm	Q3	5 mm	65 mm	67 mm	Plate ?				Base rim
102	140-150 cm	Q4	8 mm	71 mm	102 mm	Plate ?	up-turned	plain ware		R/Ba

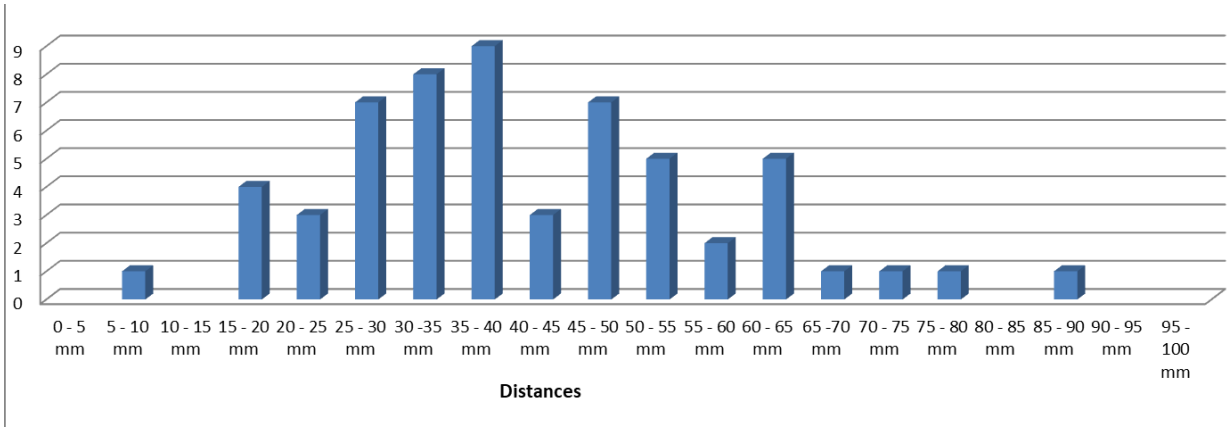
103	150-160 cm	Q4	9 mm	33 mm	71 mm	Plate ?	Up-turned	Plain ware		R/Ba
104	160-170 cm	Q4	9 mm	68 mm	69 mm	Plate ?	up-turned	Plain ware		R/Ba
105	160-170 cm	Q4	10 mm	110 mm	135 mm	Plate ?	up-turned	Plain ware		R/Ba
106	170-180 cm	Q4	9 mm	121 mm	112 mm	Plate ?	up-turned	Plain ware		R/Ba
107	60-80 cm	Q4	10 mm	70 mm	116 mm	Platter?	Out-turned	burnished		R/Bo
108	60-80 cm	Q4	9 mm	60 mm	99 mm	Platter?	out-turned	burnished		R/Bo
109	110-120 cm	Q4	11 mm	38 mm	41 mm	Platter?	?	burnished		Ba or Footring
110	110-120 cm	Q3	9 mm	44 mm	62 mm	Platter?	Out-turned	burnished		R/Bo?
111	0-10 cm	Q4	9 mm	29 mm	46 mm	Platter?		burnished		Ba or Footring
112	130-140 cm	Q4	10 mm	29 mm	41 mm	Platter?		burnished		Ba or Footring
113	130-140 cm	Q4	12 mm	27 mm	54 mm	Platter?		burnished		Ba or Footring
114	130-140 cm	Q4	9 mm	37 mm	43 mm	Platter?	out-turned	burnished		R/Bo
115	130-140 cm	Q4	10 mm	52 mm	59 mm	Platter?		burnished		Ba or Footring
116	130-140 cm	Q4	10 mm	56 mm	79 mm	Platter?	out-turned	burnished		R/Bo
117	130-140 cm	Q4	9 mm	66 mm	96 mm	Platter?	out-turned	burnished		R/Bo
118	130-140 cm	Q4	9 mm	77 mm	122 mm	Platter?	out-turned	burnished		R/Bo
119	130-140 cm	Q4	9 mm	121 mm	155 mm	Platter	out-turned	burnished		R/Bo/Footring
120	150-160 cm	Q4	9 mm	51 mm	53 mm	Platter	out-turned	burnished		R/Bo/Footring
121	150-160 cm	Q4	11 mm	65 mm	131 mm	Platter?	Out-turned ?	burnished		R/Bo
122	150-160 cm	Q4	9 mm	62 mm	94 mm	Platter?	Out-turned	Burnished		R/Bo
123	150-160 cm	Q4	13 mm	31 mm	38 mm	?		Burnished		Ba or Footring
124	150-160 cm	Q4	10 mm	32 mm	48 mm	Platter?	Out-turned	Burnished		R/Bo
125	150-160 cm	Q4	19 mm	84 mm	144 mm	Platter?		Burnished		Ba or Footring

126	160-170 cm	Q3	16 mm	67 mm	101 mm	Platter?		Burnished		Ba or Footring
127	160-170 cm	Q3	10 mm	42 mm	83 mm	Platter?	Out-turned	Burnished		R/Bo
128	170-180 cm	Q4	7 mm	71 mm	74 mm	Platter?	Out-turned	Burnished		R/Bo
129	170-180 cm	Q4	10 mm	69 mm	109 mm	Platter?	Out-turned	Burnished		R/Bo
130	170-180 cm	Q3	7 mm	35 mm	66 mm	Platter?	Out-turned	Burnished		R/Bo
131	170-180 cm	Q4	7 mm	95 mm	97 mm	Platter?		Burnished		Bo/Footring
132	170-180 cm	Q4	12 mm	27 mm	61 mm	Platter?	Out-turned	Burnished		R
133	170-180 cm	Q4	8 mm	24 mm	44 mm	Platter?		Burnished		Bo/Footring

Appendix B. Table 2: Distribution of Rim Channel on the ceramics from Abdurrazaque Juma´s house.

Depht	*Type 1 (?)*	*Type 2 (?)*	*Type 3 (?)*	*Type 7 (?)*
0-10 cm				
10-20 cm				
20-30 cm	0 (2)			
30-40 cm	0 (1)			
40-50 cm	1 (1)			
50-60 cm				
60-70 cm	2 (2)		0 (1)	
70-80 cm				
80-90 cm	0 (3)			
90-100 cm				
100-100 cm	0 (1)			
110-120 cm	0 (1)	0 (1)	1	
120-130 cm	2		3 (1)	
130-140 cm	1			
140-150 cm	2 (1)	0 (1)		

150-160 cm	1 (1)			1
160-170 cm	2 (1)	1		
170-180 cm	0 (5)	1 (1)		
180-186 cm				
Total	**30**	**5**	**6**	**1**



Appendix C. Figure 1: Bar chart illustrating the frequency of the distance between Rim and Carination of the Carinated Bowls from Abdurrazaque Juma´s house.

Appendix D, Table 3: Distribution of the diameters through the stratigraphy sequence of the Abdurrazaque Juma´s house.

Depth	*4 (?)*	*Diameter*	*5 (?)*	*Diameter*	*6 (?)*	*Diameter*	*7 (?)*	*Diameter*	*8 (?)*	*Diameter*	16 (?)	*Diameter*
0-10 cm											0 (1)	130 mm
20-30 cm					0 (1)	200 mm						
30-40 cm					0 (1)	200 mm						
40-50 cm					0 (1)	210 mm						
60-70 cm			0 (1)	170 mm							0 (2)	
70-80 cm							0 (1)	190 mm				
110-120 cm											0 (2)	

120-130 cm	0 (1)	170 mm	2 (3)	170 mm (170mm)					1	310 mm		
130-140 cm			0 (2)	170 mm	0 (1)	170 mm					1 (7)	200 mm (170 mm)
150-160 cm			0 (1)	170 mm			1*	250 mm			1 (5)	150 mm (160 mm)
160-170 cm											0 (2)	
170-180 cm	0 (1)	170 mm					1*	250 mm			0 (6)	
180-186 cm											0 (2)	

CONVENT SÃO DOMINGOS – TRIBUNAL COURTYARD

Appendix E. Table 1: List of local ceramic excavated at Convent São Domingos site.

Number of object	Depth	Square	Thickness	width	length	Vessel form	Rim type	Decoration motif	Decoration position	Vessel part
1	Surface	D4	12 mm	45 mm	64 mm			Notching and Red-Painting		Bo?
2	Surface	D4	6 mm	17 mm	29 mm			Red-painted	Bo?	Bo?
3	Surface	D4	11 mm	39 mm	50 mm			Plain ware		
15	0-10 cm	D4	11 mm	65 mm	95 mm			Plain ware		Bo
16	0-10 cm	D4	8 mm	35 mm	39 mm			Red-painted	Bo? (inside and outside?	Bo?
17	0-10 cm	D4	9 mm	36 mm	53 mm			Red-painted	Bo? (inside)	Bo?
18	0-10 cm	D4	8 mm	27 mm	55 mm			Red-painted	Bo? (outside)	Bo?
19	0-10 cm	D4	11 mm	35 mm	63 mm		Enverted Rim	Plain ware		R/ N?
20	0-10 cm	D4	8 mm	21 mm	28 mm		Up-turned with rounded lip	Red-painted	R (inside and outside)	R/ N?
21	0-10 cm	D4	8 mm	27 mm	32 mm		Up-turned with flattened platform	Plain ware?		
22	0-10 cm	D4	11 mm	46 mm	48 mm			Horizontal relief line	Bo?	Bo?
23	0-10 cm	D4	12 mm	45 mm	47 mm			Horizontal incised lines	Sh	Sh
24	0-10 cm	D4	12 mm	37 mm	54 mm			Notching	Sh	Sh
25	0-10 cm	D4	8 mm	28 mm	45 mm			reliefed line	?	?
26	0-10 cm	D4	7 mm	26 mm	33 mm			Crisscrossing incised lines		
27	0-10 cm	D4	13 mm	36 mm	52 mm			Burnished		Footring

28	10-20 cm	D4	7 mm	32 mm	34 mm			Undecorated		Bo
29	10-20 cm	D4	7 mm	18 mm	25 mm			Oblique, Hozizontal and crossed incised lines		
30	10-20 cm	D4	8 mm	30 mm	31 mm			Red-painted	Bo?	Bo?
33	20-30 cm	D4	8 mm	29 mm	40 mm			Burnished and Horizontal incised lines		
34	20-30 cm	D4	7 mm	14 mm	20 mm		Up-turned with narrow lips	Red-painted	R and Bo?	R and Bo
35	20-30 cm	D4	10 mm	20 mm	31 mm			Relief line		
36	40-50 cm	D4	8 mm	27 mm	31 mm			Red-painted	R and Bo?	R and Bo
37	40-50 cm	D4	8 mm	17 mm	22 mm		Up-turned			R
38	40-50 cm	D4	7 mm	20 mm	21 mm			Oblique incised lines		
39	40-50 cm	D4	8 mm	21 mm	32 mm			Oblique relief line	Sh	Sh
43	50-60 cm	D4	11 mm	29 mm	44 mm			Red-painted	Bo	Bo
44	50-60 cm	D4	8 mm	21 mm	26 mm			Horizontal Incised lines		
45	50-60 cm	D4	10 mm	23 mm	31 mm			Criss-cross		
46	50-60 cm	D4	5 mm	24 mm	28 mm			False relief vertical lines		
47	50-60 cm	D4	12 mm	28 mm	29 mm			Red-painted	Footring	Footring
48	60-70 cm	D4	9 mm	33 mm	47 mm			Red-painted	Bo?	Bo?
49	60-70 cm	D4	16 mm	40 mm	47 mm			Burnished	Footring	Footring
52	70-80 cm	D4	9 mm	14 mm	20 mm		Up-turned and Bevelled			R
53	70-80 cm	D4	6 mm	18 mm	26 mm			Oblique incised lines		
54	80-90 cm	D4	6 mm	19 mm	21 mm			incised lines		
55	80-90 cm	D4	6 mm	16 mm	18 mm		Bevelled	Red-painted (outside and Inside)	R	R
56	80-90 cm	D4	8 mm	22 mm	47 mm		out-turned			R/N/Footring
58	90-100 cm	D4	9 mm	30 mm	41 mm					
59	90-100 cm	D4	7 mm	21 mm	26 mm		Up-turned with flatterned platform			R
60	90-100 cm	D4	7 mm	20 mm	27 mm			False relief line		
61	90-100	D4	10 mm	25	29			Red-painted		

	cm			mm	mm					
62	100-110 cm	D4	7 mm	19 mm	29 mm			Red-painted (inside)		
63	100-110 cm	D4	6 mm	24 mm	35 mm			Bands of oblique incised lines		
64	100-110 cm	D4	6 mm	18 mm	23 mm			Shell stamping		
65	110-120 cm	E4	8 mm	25 mm	34 mm			Crosshatching and oblique incised line		
66	110-120 cm	E4	7 mm	19 mm	28 mm			Band of incised line		
67	110-120 cm	E4	8 mm	24 mm	29 mm			Red-painted		
68	110-120 cm	E4	6 mm	17 mm	21 mm			False Relief horizontal		

Appendix F. Table 1: List of selected imported wares excavated at Convent São Domingos site.

Number of object	Depth	Square	Thickness	width	length	Vessel form	Rim type	Decoration motif	Decoration position	Colour	Chronology
4	SM	D4	5 mm	19 mm	43 mm	Plate?	Edge Rim	Floral and Willow pattern	Inside	Blue	Late 18th to Early 19th century
5	SM	D4	5 mm	27 mm	40 mm	?		Chrysanthemum pattern	Inside	Blue	first half of 18th to 19th century
6	SM	D4	4 mm	12 mm	19 mm			Abstract	Inside	Blue	18th or 19th century
7	SM	D4	7 mm	44 mm	56 mm	?				Brown	19th century?
8	0-10 cm	D4	6 mm	38 mm	55 mm	Plate?	Edge Rim	Floral and Willow pattern	Inside	Light Blue	Late 18th to early 19th century
9	0-10 cm	D4	5 mm	20 mm	54 mm	Plate?	Edge Rim	Floral and Willow pattern	Inside	Blue	Late 18th to early 19th century
10	0-10 cm	D4	5 mm	15 mm	18 mm	?		Botanic pattern	Inside	Blue	Mid 19 th century
11	0-10 cm	D4	5 mm	41 mm	44 mm	Plate?		Floral and Willow pattern	Inside	Blue	Late 18th to early 19th century
12	0-10 cm	D4	5 mm	28 cmm	32 mm	Bowl?		Printed decorated by unidentified motif	Inside	Light Blue	Early 19th century
13	0-10 cm	D4	6 mm	32 mm	38 mm	Plate?	Edge Rim	Crossed lined whiteware	Inside	Light Blue	18th to 19th century
14	0-10 cm	D4	7 mm	50 mm	65 mm	Plate?		Undecorated			
31	10-20 cm	D4	3 mm	27 mm	42 mm			Botanic pattern and crossed lines	inside and outside	Blue	Late 18th to Early 19th century
32	20-30 cm	D4	2 mm	15 mm	15 mm			Botaanic pattern	Outside	Blue	18th century

40	40-50 cm	D4	4 mm	25 mm	42 mm	Bowl?		Unidentified	Outside	Blue	
41	50-60 cm	D4	5 mm	22 mm	28 mm			Unidentified	Outside	Pale Blue	19th century?
42	50-60 cm	D4	7 mm	22 mm	34 mm	Dish? or Bowl?			Outside and Inside	Yellow	19th century
50	60-70 cm	D4	6 mm	21 mm	34 mm	?		Abstractt	outside and inside	Blue	Late 18th to 19th century
51	70-80 cm	D4	8 mm	21 mm	32 mm			Botanic and Landscape	Outside and Inside	Blue	Late 18th to 19th century
57	80-90 cm	D4	10 mm	18 mm	35 mm	Bowl?		Botanic Pattern	Outside and inside	Blue	Late 18th to 19th century
69	0-10 cm	E4	4 mm	17 mm	27 mm			Painted flower	Outside	Green	19th century
70	0-10 cm	E4	5 mm	22 mm	33 mm			Botanic Pattern	Inside	Pale Blue	19th century?
71	0-10 cm	E4	4 mm	29 mm	49 mm	Bowl?	Edge rim	Floral pattern	Inside and outside	Blue	18th to 19th century
74	10-20 cm	E4	6 mm	27 mm	31 mm			Botanic and circle painted lines	Inside	Blue	Late 18th to 19th century
82	30-40 cm	E4	6 mm	29 mm	48 mm	Bowl?		Abstract	Inside and outside	Blue	18th to 19th century
83	40--50 cm	E4	7 mm	33 mm	28 mm			Abstract	Inside and outside	Blue	18th to 19th century
91	50-60 cm	E4	4 mm	23 mm	23 mm			Floral pattern and lines	Inside and outside	Blue	18th to 19th century
92	60-80 cm	E4	2 mm	12 mm	20 mm			Floral pattern	Inside and outside	Blue	Late 18th to 19th century
97	0-10 cm	E4	12 mm	43 mm	44 mm			Abstract	Inside	Blue	18th to 19th century
98	10-20 cm	E4	3 mm	12 mm	24 mm			Abstract	inside	Blue	18th to 19th century
99	70-80 cm	E4	6 mm	24 mm	30 mm			Lines and abstract design	Inside and outside	Blue	18th to 19th century
109	10 - 20 cm	E4	3 mm	16 mm	30 mm			Floral and lines pattern	Inside and outside	Blue	Late 18th to 19th century
110	70-100 cm	E4	4 mm	18 mm	37 mm			Lines and Abstract	inside and Outside	Blue	Late 18th to 19th century