AN ARCHAEOLOGICAL INVESTIGATION OF SELECTED EWE-DANISH CONTACT SITES AT KETA, VOLTA REGION, GHANA.

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THIS THESIS IS SUBMITTED TO THE DEPARTMENT OF ARCHAEOLOGY AND HERITAGE STUDIES, UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTER OF PHILOSOPHY IN ARCHAEOLOGY.

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DECLARATION

I declare that, except for references to other people's work, which have been acknowledged, this research is the result of my own work carried out in the Department of Archaeology and Heritage Studies under the supervision of Prof. James Boachie-Ansah and Prof. Dr Ing Henry Nii- Adrizi Wellington. This work has not been presented in full or in part to any other institution for examination. I remain responsible for any shortcomings in this thesis.

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ABSTRACT

This research presents the results of an archaeological investigation conducted at Keta. It teases out the migration and settlement history of the Anlo people. Information gathered from oral tradition, reconnaissance survey, ethnography and material remains from archaeological excavations have been used to reconstruct socio-economic and cultural lifeways of the people, to provide information on early subsistence economy and socio cultural interactions and relationships between the various sections of the settlement. It also identifies current socio-economic lifeways that can be attributed to Euro-Ewe contact. Material cultural studies have been the backbone of the research.

Datable European material remains date the excavated sites from the 17th to the 20th century.

The faunal remains excavated at Fort Prinzenstein (where the Europeans resided) and the Ghana Stores Bar (where Africans resided) as well as the locally manufactured pottery are similar, an indication that the residents of the fort as well as the native population depended on similar sources of protein and pottery. The European residents of the fort therefore adapted to local conditions. The Europeans also affected the lifestyle of the local people as the smoking pipes and glass beads found at the Ghana Stores Bar testify.

Fishing and fish processing, salt production, trading, animal husbandry, crop farming, *kente* weaving and mat weaving and iron smithing were the main occupation of the people. Faunal remains from fish, shell fish and domestic animals recovered from excavations testify to their exploitation for food and their role in the subsistence economy.

Similar finds including locally manufactured pottery, European smoking pipes, bones, mollusc shells and glass beads were excavated from three different sections of the site, making it difficult to identify the use of space and gender relationships on the basis of the archaeological finds.

A large number of churches and schools have sprung up in the area due to the role played by missionaries. Intermarriages among traders and locals have resulted in a “mulatto” population in the Keta area.

Evidence of trade and interaction between Europeans and Africans can be seen in the form of European imported items as smoking pipes, glass beads, drinking glasses, alcoholic beverage and poison bottles and other metal objects such as nails. The locally manufactured potteries found at Fort Prinzenstein also testify to interaction between Europeans and Africans.

This research will kindle further research at the site. The materials excavated will serve as museum exhibit and will facilitate a comparative study of Danish interactions.

DEDICATION

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CHAPTER ONE
OUTLINE OF THESIS

1.0.Introduction

This research presents results of archaeological investigations undertaken at Keta, one of the early Euro-African commercial centres on the Gold Coast. Located in the Volta Region of Ghana, Keta has a natural harbour and is the capital of the Keta Municipal Assembly (Map 1). The indigenes are Ewe, one of seven ethno-linguistic groups settled along Ghana's expansive coastline. They speak the Anlo dialect of the Ewe language and the Hogbetsotso festival is the single most important commemorative event of the people. It is celebrated once annually to remember their migration from Notsie to their present location (Kumassah 2009: 9).

Map 1: Administrative Map of Keta Municipal area (Source: Oliver Asamoah, 2016)

In the early 1950's, when Lawrence (1963: 364) visited Keta, he described it as a town which "stands between the sea and a huge lagoon, on a reef of soft rock joined northward by a sandbar to the present frontier of Togoland". Sea erosion has currently eroded about a third of the original Keta Township, especially the areas bordering the coast and several sites of historic value are in ruins and underlie seawater.

The study examined the outcome of the Euro-Ewe encounter at Keta and how it impacted the indigenous population and the body polity of the Keta state. The primary goal of the research was to retrieve archaeological data (artefacts, ecofacts and features), analyse, interpret and use it to reconstruct past socio-economic and cultural lifeways of the people as well as deepen and enhance our knowledge and understanding of the local economy of Keta during the period covered by the study. The bulk of the data used in the study was recovered from surface surveys and archaeological excavations conducted around the environs of Fort Prinzenstein (see Figure 1) (currently classified as a world heritage site by United Nations Educational, Scientific and Cultural Organization), the United Africa Company (U.A.C) (Figure 3) and Ghana Stores Bar (Figure 4) (see Map 2) where much of early Euro-Ewe trade and social interactions occurred. The study focused on sites that have remains spanning the seventeenth to early twentieth centuries.

During the British colonial era, branches of some very large European commercial firms such as G. B. Olivant, John Holt Bartholomew, United Africa Company (UAC), and Compagnie Française de l'Afrique Occidentale (CFAO) (Figure 3&4) which imported and distributed a wide variety of general consumer and capital goods were located at Keta (Kpodo 1969: 17). It is worth noting that Keta was not only a commercial epicentre of Euro-Ewe trade but was also a place where indigenous traders from outlying areas of Benin and Togo came to trade. Some of the

major goods imported to Keta included asbestos and slate roofing sheets, cement, outboard motors, vegetable oils, and vehicles. The major exports from Keta comprised copra, palm kernel oil, palm oil, cotton, fish and staples. The deep waters of the Keta Lagoon also served as a natural harbour where small ships and canoes could embark and disembark cargo. During the colonial era, Keta market located in the heart of Keta was the main trading hub where a wide range of foodstuffs such as palm oil was traded (Kpodo 1969: 17, 23).

Map 2: Map showing excavated units in Keta. (Source: Google Map 1/05/2016)

One unique attribute of Keta is that it has several historic buildings, the most important being Fort Prinzestein built in 1784 (Figure 1). Others include remains of trading houses (Figure 3&4) and warehouses dating to over 150 years. They bear similar architectural and structural designs to buildings in Europe and were built by European companies and traders which operated there during the Atlantic contact period. A few were also built by wealthy indigenous traders. Most of

the warehouses built by wealthy indigenous traders are walled. This tradition of building walls around houses is believed to have been practised by the Ewe at Notsie during their sojourn there.

Figure 1: Southern view of Fort Prinzenstein at present (Source: Benedicta Gokah, 2015)

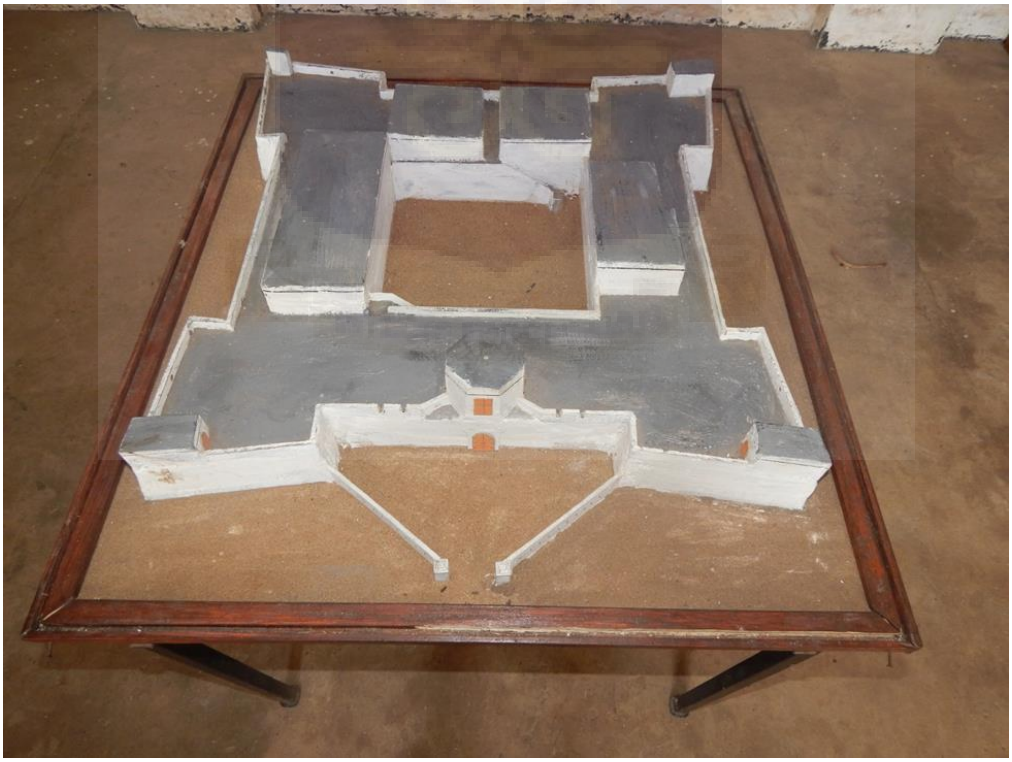


Figure 2: An Artist impression of the Fort when it was built (source: Benedicta Gokah, 2015)

Figure 3: Picture showing remains of the C.F.OA structure on the left and the Chapman and the UAC structures on the right (Benedicta Gokah, 2015).

Figure 4: Picture showing the Ghana Stores Bar area on the left and part of the C.F.A.O structures on the right (Benedicta Gokah, 2015)

The site was selected for archaeological investigation because of three reasons. First, forts and historic sites located in the south of the Volta Region have for several years been largely neglected by researchers. Second, research findings from the few which have been investigated have not been published. There is thus, a dearth of information from an archaeological perspective of the Euro-Ewe encounter at Keta. Third, Fort Prinzenstein which has experienced extensive structural decay because of marine erosion and environmental degradation is also currently under threat of destruction. It was thus important to conduct archaeological excavations to retrieve and salvage material remains buried around the fort's environs and other early trading

centres in the town to throw light on past economic and commercial activities of the people before their total destruction in the near future.

The author undertook the excavation with the assistance of a team comprising three colleagues Christopher Wetcher, Patricia Ayipey, Ernest Fiador and a Technician Mr. Gideon Agyare from the Department of Archaeology and Heritage Studies, University of Ghana, Legon. Two locals from the community, Messrs Mawuli Fianu and Richard Afarlatey also assisted the excavation team.

1.1. The research problem

There is currently a dearth of information from an archaeological perspective of the Euro-Ewe encounter at Keta much of which occurred around the vicinity of Fort Prinzestein and other early European trade stations some of which have been named above. Limited archaeological investigations involving surface surveys and excavation of a 3 x 3 m. unit was conducted by Kofi Dunyo in 2000 and Yaw Bredwa-Mensah in 2007. The two investigators, however, are yet to publish their findings. The other trade stations however have remained unexplored to date and no in-depth archaeological investigation has been undertaken there.

The Keta Sea Defence Wall (Figure 5) which was constructed to curb the destructive effects of sea erosion which was destroying a large expanse of the coastline and was negatively impacting archaeological data buried there has to a large extent achieved this objective. The data however lies buried under the sandy beaches and the salty humid environment is destroying it. There was thus an urgent need to conduct archaeological excavation to retrieve data to halt further destruction of buried data which can shed light on early Euro-Ewe commercial interactions and their impact on the local economy of Keta. The study, it is hoped, would also broaden our

knowledge and understanding of the past power relations among the European nations and the Anlos.

Figure 5: A section of the sea defence wall to check sea erosion in front of the fort (Benedicta Gokah, 2015)

1.2. Research objectives

The research has three objectives. These were to:

- Document the settlement and migration history of the Anlo people of Keta.
- Conduct archaeological investigations at selected locations at Keta to discover and retrieve material remains buried in the archaeological record.
- Reconstruct socio-economic and cultural lifeways of the indigenes of Keta using the material remains.

1.3. Research Questions

Some research questions which helped to answer the research objectives are:

1. What reasons necessitated the migration of the Anlo people from Notsie to their current location at Keta?
2. What are some of the tangible and intangible legacies associated with the Euro-Ewe contact at Keta?

3. What were the early subsistence strategies of the people of Keta?

4. What aspects of current socio-economic lifeways can be attributed to the Euro-Ewe contact?

1.4. Research approach and methodology

A multi-disciplinary approach was employed by the researcher to derive data for the study. These can be categorized broadly into two namely, library and field research. The former which was the first aspect of the study to be undertaken involved the study of archival data and early historical sources documented by Ewe and European scholars relating to the Euro-Ewe encounter at Keta during the period covered by the study. Some renowned scholars, whose books were consulted for the research included Dominic Amenumey (1986), A.W. Lawrence (1963) and Albert Van Dantzig (1980). Much of this aspect of the research was undertaken at the Department of Archaeology and Heritage Studies (DAHS) library, Institute of African Studies Library, Balme Library and Nii Adziri Wellington's family library all located in Accra. The archival study was undertaken at the Public Records and Archives Administration (P.R.A.A.D) also located in Accra.

Archival data provided valuable information about the goods traded, services offered, and the companies involved in the sale, distribution and marketing of European trade goods at Keta. The various warehouses, their space dimensions and how these structures were used were also made known via these records. Archival data also provided valuable information on the building materials that were used for the construction of the Fort and various European styled houses at Keta as well as the type of labour used during their construction. Some archival data consulted included translations by Selena Winsnes "*Letters on West Africa and the Slave Trade",* Paul Erdmann Isert's "*Journey to Guinea and the Caribbean Islands in Columbia 1788: A Danish Jew in West Africa",* Wulff Joseph Wulff's*" Biography and Letters 1836 – 1842",* and Ole Justesen's" *Danish Sources for the History of Ghana, 1657 – 1754(Vol. 1 and 2).* The above

named books comprised mainly correspondences, letters and dairy translations of some prominent Danish traders and Governors who operated in the research area as well as business transactions of the Guinea Company, the national charter company of Denmark. All of the above documents were originally written in Danish but have been translated into English.

The advantage of documentary sources is three-fold. First, they provide the reader with a vivid description of cultural life ways of indigenous populations settled along the coastal belt of the Gold Coast. Second, they documented diverse aspects of the coastal trade, and third, they aptly described the floral and faunal resources of the Gold Coast.

In spite of these advantages, the historical data has several limitations. First, the writers did not understand the languages of the local people and thus, relied on the local people for interpretation. Majority of the locals were also not fluent in European languages. Their writings were thus flawed in many aspects and appeared like allegories (Biveridge 2014: 20). Second, several of the early European writers were untrained historians. The majority were traders and explorers (Biveridge 2014: 20). Third, the bulk of their writings were limited in scope. For example, the majority focused on their business transactions with indigenous populations and aspects relating to social organization, ideology, settlement patterns and belief systems of the people they interacted with were largely ignored (Biveridge, 2014: 20). Fourth, several of their writings were characterized by aspersions and disgust (Biveridge 2014: 20). Fifth, the few hand-drawn maps, illustrations and pictorials accompanying their write-ups were not drawn to scale. Several also had no reference points. Lastly, majority of the reports from the hinterlands were hearsay, often from second and third parties. Aspects of their reportage were thus biased (Biveridge 2014: 20).

The first phase of the field work involved the collection of oral traditional data and oral history from selected resource persons in the research area. People from which the former was derived included two chiefs namely, Awadada and Dufia James Ocloo. Mama Awomeshi, a prominent Queen mother of Keta was also interviewed.

Jan Vansina (1985: 27-28) has defined oral tradition as verbal messages (statements) which are reported from the past beyond the present generation. They can be spoken, sung or called out on a musical instrument. James Anquandah (pers. com. 31/03/2015) has also defined oral tradition as the accounts of a people, passed on from one generation to another generation with the eye witness not always around. According to Henige (1982: 2, 1998: 58), oral traditions are commonly or universally known in a given generation and can be narrated in the form of songs, folklores, words, drama, dance pattern and drumming.

Oral history on the other hand is defined as accounts of events and situations which were witnessed by the informants in their lifetime. This account is normally contemporary, and differs from oral traditions which only deal with accounts of events and situations that have passed from mouth to mouth beyond the life time of the informants (Vansina 1985: 12-13). In other words, oral history is eyewitness accounts or information of past events that have not been written down but are kept in the minds of people. When these accounts are handed down to the next generation, they become oral tradition. The main purpose for the collection of oral traditional data was to validate and consolidate, or invalidate what had been written about the people of the research area.

Oral traditional data has four main advantages. First, it is an essential source for reconstructing the human past in Africa because several ethnic groups did not document their past. Second, oral traditions give an insider point of view of events and occurrences, which might otherwise be

neglected by researchers. Third, oral traditions help to counter biases and ethnocentric views of outsiders who document the past of alien peoples (Vansina 1985: 195-199).

In spite of the advantages enumerated above, oral traditional data has limitations. First, resource persons with repository knowledge of oral traditions may not pass it down to the next generation due to forgetfulness, sudden ill-health or death. Second, memory loss can impact its veracity. Third, sometimes information obtained from written sources is recited as oral traditions (Vansina 1985: 186-187). Last, selectivity of content materials of oral traditions can sometimes affect interpretation. On such occasions, only good and favourable traditions which attest to courageous deeds and events relating to the ethnic group are stated while those which show them in bad light are suppressed.

The second phase of fieldwork involved conducting surface surveys at specific locations in the research area. Surface survey is defined as all the techniques that are used to investigate and collect archaeological data on the surface of the ground at specific sites through direct observation (Sharer & Ashmore 1993: 201). Geographical areas where the surface surveys were conducted at Keta included the environs of Fort Prinzenstein, Ghana Stores Bar, and the former UAC building. Pictures of remains of some colonial buildings were taken with a digital camera (Figure 6-8). Some archaeological materials on the ground surface were also collected during this phase of the study.

Figure 6: Private houses with shops on the ground floor built during the colonial period with the arrow pointing to figure 4 (Source: Benedicta Gokah, 2015)

Figure 7: Picture of a metal plate with the inscription "H.D.C's Baby's Friend Sugar" on the gate of the shop above (figure 3; Benedicta Gokah, 2015)

Figure 8 (right): Picture of some market stores built during the colonial period (Benedicta Gokah, 2015)

The main advantage of surface survey is that it is inexpensive, can be undertaken quickly and is not destructive like excavation which permanently destroys the primary context of artefacts buried underground. It also does not require specialized knowledge and techniques and can provide valuable information on the choice of area to excavate at the site (Sharer and Ashmore 1993: 38, 127, 191-192, 235-236). Its main disadvantage is that, it can sometimes be slow when the site being surveyed is bushy or heavily forested. It is also impossible to detect and recover archaeological data buried below ground surface (Sharer and Ashmore 1993: 235).

The third phase of the field research involved archaeological excavation work at selected locations at Keta. Excavation is defined as the systematic removal of sub surface soil to discover

and retrieve cultural material remains buried below ground surface. The main advantages of excavation are four-fold: First, European trade goods such as European manufactured tobacco smoking pipes and alcoholic beverage bottles can provide absolute chronological sequences and production dates, and this can be used to date other cultural materials by associations which are found at the same level of recovery (Dillon 1982: 45; Sharer & Ashmore 1996: 112). Second, indigenous and foreign lifeways can be gauged from the archaeological data (Bunn et al 1980: 29; Joukowsky 1980: 116). Third, the study of artefact use-patterns can offer indication of their uses (Joukowsky 1980: 46) and fourth, the impact of exchange/trade on society can be inferred and determined with the artefacts (Chang 1972: 78; Binford 1978: 102; Sharer and Ashmore 1996: 126).

In spite of the above advantages, excavation has serious limitations. First, it is destructive because the excavated materials lose their primary context forever. This prevents other researchers from conducting independent research at the same site. Second, some of the artefacts can get broken / destroyed during the retrieval process (Sharer and Ashmore 1993: 38, 114, 127). Third, ecofacts like molluscs' shells, bones and wood composed of organic materials decay easily and therefore become fragile and disintegrate after being buried for some time. This can make their recovery difficult and their value as materials for reconstructing the human past sometimes become futile (Anquandah 1982: 48; McIntosh 2003: 58-60). Fourth, dating by association can be erroneous because of the probability of intrusion made possible by rodents and tectonic movements (Sharer and Ashmore 1993: 242-243).

The final stage of the field work involved ethnographic research. Ethnography deals with the study of aspects of the cultural life ways of contemporary societies. Ethnographic methods used to derive data at Keta involved conducting informal interviews, semi-structured interviews with

selected resource persons and participant observation. All the interviews were recorded using a digital camera, cell phones, pens and notebooks. Areas covered during this phase of the study included current subsistence occupations (fishing, farming and fish processing) and the natural environment (water bodies and erosion). The researcher also participated in the Hogbetsotso festival and final funeral rites of a chief and other people in the town.

Anquandah (1982: 14) has noted that one advantage of ethnographic data is that it throws light on what would have been the hidden treasures of the past. The main limitation of ethnographic data is that cultural materials sometimes undergo transformation. It therefore does not always reflect a true picture of the past. Some ancient traditions relating to rituals and tool use also change because of modernism and globalization. Ethnographic studies therefore cannot always be used to derive data on the past uses of artefacts.

1.5. Conceptual framework of the research

This research uses the *Theories of materiality* to establish the factors that brought Europeans to Keta, encouraged them to set up residence, and interact with the indigenous population using archaeological data recovered from excavation. The material record will also help to identify the use of space, gender relationships, household economy and other socio-cultural interactions and relationships within and between the various sections of the settlement.

Material culture studies stand on the premise that any material will speak for itself. Apoh and Gavua (2010: 212) are of the view that material culture reveals the function, signs, and meanings embodied in artefacts (ideological, ritual, and religious function). It has been conceived as "commodities that were created for use and exchange" (Deetz 1977; Miller 1987) and as documents that communicate and convey the meaning in past human activities. Simply, material

culture entails ideological and other symbolic functions which make them speak for what they are or were used for.

Material culture studies also entail the analysis of exchange and commerce, the introduction and consumption of foreign goods and technologies, and the process of commoditization of native or indigenous material products, service and labour. These processes, are manifested in the interchange of goods, foodstuffs, architectural knowledge, technology, religious ideas and paraphernalia, etc., and can be documented in written and iconographic sources, as well as in the artefacts themselves (Scaramelli & Scaramelli, 2005). The analysis of these interplays are particularly informative and provides the background for the examination of long-term historical process and native cultural response in the face of different colonial and postcolonial circumstances.

Scaramelli and Scaramelli (2005) suggest that such analysis may focus on the exchange relations and the forms of incorporation of Western objects and practices into native cultures in the region. It also traces the impact of certain foreign material items in transforming local indigenous societies, and offers examples of the differential consequences of the incorporation of foreign manufactures and practices into local structures of consumption and systems of values.

These studies stressed the expansion of global mercantilism and capitalism, and the civilizing projects that accompanied colonial involvement worldwide (Frankenstein & Rowlands, 1978; Wolf, 1982; Roseberry, 1989; Schortman & Urban, 1992).

To be able to apply material culture studies to understand cross-cultural encounters, there is the need to adopt a dynamic and multi-dimensional approach to contact sites (Cohn 1996; Comaroff and Comaroff 1991, 1992, 1997; Dietler 1995, 1998; Roseberry 1988, 1989; Sahlins

1992, 1993; Stein 2002; Wolf 1982). Scaramelli and Scaramelli, (2005) suggest that the role of culture as a historical product and agent, lay emphasis on the individual and on interest groups as actors in the process, and concerns about agency and structure as mutually constituting historical forces, are now placed at the forefront of the analysis (Dietler 1995, 1998: 299; Sahlins 1985, 1993). By so doing, it promotes a better understanding of the articulation between local and global structures of power, including the specific mechanisms that contribute to the formation of structures of colonial dependency and domination, on the one hand, and local processes of formation of colonial systems, cultural resilience and defiance, on the other.

Therefore, material culture provides a crucial link between these different sources that can be employed in the study of historical situations of contact, where it is recognized that context is essential to interpretation. Meaning and value of material culture have shown to vary in different circumstances.

1.6. Problems of research

The biggest challenge I encountered during the research was the unwillingness of the caretaker of Chapman House to allow me to excavate the house's environs even though she had agreed earlier to allow me work when I conducted the surface survey. She later declined and I had to excavate a nearby area in front of the UAC building which shares a wall with the Chapman House. This was primarily because of the current contentious issue of ownership of the building.

A second challenge was that some respondents I had scheduled meetings with to collect oral traditional data / oral histories failed to meet with me citing all manner of excuses. The few I interviewed were generally ignorant of the pre-colonial history of Keta "forcing" me to look for new respondents which delayed the field work. Most of their narrations also comprised

exaggerations while others talked about issues that were not relevant for the research. I had to be patient and cross-check their assertions with other people.

Some of the people were also suspicious and hostile because they thought I had come to recover valuable minerals. I was allowed to excavate only after I had thoroughly explained my mission to the Assemblyman of the area who promised to inform other members of the community. In spite of this, most people were not convinced and several people trekked to the site daily to observe the excavation work. The discovery of human skeletal remains further slowed down the excavation work as I had to take time to educate the on-lookers about the significance of archaeological finds.

1.7. Significance of research

Data derived from the research will complement existing knowledge of the history of the Anlo of Keta, as well as deepen and enhance our understanding from an historical archaeological perspective of the Euro–Ewe encounter at Keta and the southern Volta Region as a whole. It will also facilitate comparative studies of Danish interactions elsewhere on the Gold Coast where the Danes were active such as Osu. Finally, it will stimulate further scholarly research in Keta, especially in the area of historical archaeology investigations, by providing base data for scholars who will be working there in the future. For example, the archaeological data recovered can be used as museum exhibits at the small museum inside Fort Prinzestein to inform and educate tourists who visit the place.

1.8. Organization of Chapters.

The thesis is divided into five chapters. Chapter One is already examined above. Chapter Two is divided into two sections. The first discusses the geographical background of the research area. The climate, relief, geology and soils and vegetation are some topics covered. The second section discusses the origin, migration and settlement history of the Ewe people of Keta. Some

unique cultural traits of the people such as the Hogbetsotso festival and their relevance to the people are also discussed. It also discusses the early Euro-Ewe trade and cross cultural encounters in the research area. Much of the data used in this section was derived from secondary sources, mostly early European records and from contemporary Ghanaian historians who have researched and documented the subject and their findings. Archaeological researches conducted on some contact sites in Ghana ends the chapter. Chapter Three discusses the archaeological investigations conducted in the research area. The stratigraphy and the finds recovered are comprehensively described and analysed. Chapter Four discusses results of the analysis. Chapter Five ends the research with a summary and conclusion as well as some suggestions to facilitate future research in the area.

CHAPTER TWO
GEOGRAPHICAL SETTING AND HISTORICAL BACKGROUND OF THE RESEARCH AREA

2.0. Introduction

This chapter is divided into two parts. The first part outlines the geographical setting of the research area. Topics discussed include the geology, climate, vegetation, drainage and major economic activities undertaken by the people. The second part discusses the historical background of the Ewe ethnic group who occupy Keta and the outlying area. Some important topics covered during this aspect of the study include the language, religion, migration and settlement history of the Ewe of Keta. The chapter also discusses the Trans-Atlantic trade and the European interactions with the inhabitants of the Keta area from the 17th to the 20th century.

2.1. Location, geology and soils.

Keta lies on the south-eastern coastal plain of Ghana and its political jurisdiction is under the Keta Municipal Assembly. Kedzi, Kedzikope, Abutiakope, Dzelukope, Tegbi, and Seva are some important towns which are also under the political jurisdiction of the Keta Municipal Assembly. Keta is located on Latitude 5° 55' 4.55" North and Longitude 0° 59' 16.40" East and its average elevation is approximately 43 m. above sea level. Abor, which lies north of the Keta Municipality, is the highest point, lying 53 m. above sea level. Keta, Kedzi, Adzido and Kedzikope however, lie below sea level and have periodically experienced sea erosion and extensive flooding for many years. This has caused the loss of about half of the Municipality's land area, as well as some places with important cultural heritage resources. This situation has also negatively impacted the economic livelihoods of the people settled in the above named towns.

The main geological system underlying the eastern coastal belt is the *Dahomeyan* system. Sandstone, shale, mudstone and pebble bird constitute some major rock types associated with

this system (Kesse, 1985: 9). According to the *Keta Municipal Profile* (2015: 3), three main geographical formations make up the geological system overlying the *Dahomeyan* system in the research area. The first is the Narrow Coastal Strip, associated with sandbars occasionally interspersed with rocky cliffs. The second is the Lagoon Basin Area which is characterized by several lagoons including the Keta, Angaw and Agbatsivi Lagoons. Due to the underlying sandy-clay geological formation of the basin, it is marshy and the plains to the north have gently undulating hills with a relatively higher elevation of about 50 m. above sea level (Municipal Profile 2015: 3). The third comprise a cluster of islands; notable among them are the Atiavi, Alakple, Seva, Anyako and Dudu Islands.

Three basic soil types can be found in the research area. These are: the Oyibi-Muni Association, the Ada-Oyibi Association and the Toje-Alajo Association (Municipal Profile 2015: 4). The Oyibi-Muni Association is made up of sandy soils without any top layer of humus. They are generally found along the coastal strip. This type of soil ideally supports coconut cultivation. However, other crops like shallot, okra and pepper can be successfully cultivated if it is manured (Municipal Profile 2015: 4).

The Ada-Oyibi Association is the main soil in the lagoon basin. It is very shallow and overlies a hard and compacted clay formation. It makes up over 75% of dry land currently under the jurisdiction of the Keta Municipal Assembly. This soil type is generally alkaline and supports mangrove vegetation, sugar-cane and grass for pasture. According to the *Keta Municipal Profile* (2015: 4), it is not suitable for growing other food crops because of the clay underlying it.

The Toje-Alajo Association is found in the northern plain around Abor and accounts for about 14% of total soils in the Keta Municipality. This soil is ideal for growing crops like cassava, maize and legumes (Municipal Profile 2015: 4).

2.2. Climate

The research area falls within the Dry Coastal Equatorial Climate Zone. It has an average annual rainfall of less than 1,000 mm per annum. The area immediately north of the coastal belt records less rainfall of about 800 mm. There are two rainy seasons. The first of which is the major season occuring between mid-April and early July while the minor season occurs from September to November (Dickson and Benneh 1988: 27; Municipal Profile 2015: 5). The total amount of rainfall is relatively low in the research area and crop farming depends largely on irrigation.

There is a high evapotranspiration in the research area caused by an average high temperature of 30^{o} Celsius. This high level of evaporation and transpiration worsens the general water deficient conditions but facilitates salt production which is a major economic activity of the people (Municipal Profile 2015: 5). Relative humidity is also high, averaging 65% all year round (Dickson and Benneh 1988: 27).

2.3. Vegetation

The vegetation of the Keta Municipal area falls within the Coastal Savanna Zone and is characterized by tall grasses (*Panicum maximum, Andropogon gayanu*s and *Andropogon canticulatus*) interspersed with medium sized trees like "pamira" palm (*Borassus flabellifer*), neem (*Azadirachta indica*), coconut (*Cocos nucifera*) and baobab (*Adansonia digitate*; Keta Municipal Profile 2015: 5). The south-western region of the Municipality (where many lagoons are located) has several species of mangrove plants. The Volta Estuary also has very tall grasses some of which are used to weave mats and for fuel. The south-eastern region of the municipality has short grasses and many trees along the coastline which have been adversely affected by the Cape St. Paul Wilt disease (Keta Municipal Profile 2015: 5).

2.4. Major subsistence of the people

The major economic activities of the people in the research area are off-shore and on-shore fishing (Figure 9), crop farming, trading (Figures 10-11), salt production (Figure 11) and mat

weaving (Figure 11). Fishing is primarily undertaken by men. A few women sometimes get involved in fishing activities. For example, they occasionally help to haul in canoes and nets. Most of the women in the research area are actively engaged in fish processing (drying, frying and smoking) as well as in trading processed fish on market days at Keta market and other markets in Ghana. Wooden canoes and paddles, *yevudor* (seine nets), *watsa* (purse-seine or cast nets), set nets, *ali* nets, *polo* nets, Drift gills, hook and line traps constitute some of the main fishing accoutrements used by fishermen at Keta to catch fish.

Marine fishing is an all-year round activity. The main (peak) fishing season is from July to November. The fishermen harvest herrings in August. Cast nets and hook and line are used for fishing in areas with a lower depth in the sea. Set nets are nets anchored to one place. The drift net technique allows the nets to drift along with the sea currents. On the other hand, the seine nets (which Ewes are notably experts in using) are left in the sea overnight, with the ropes attached to the two ends of the net tied around coconut trees or large boulders. The net is dragged to the beach the following morning. Some of the nets are shaped like huge bags opened at one end only and others are flat nets that can be stretched out (Dickson and Benneh 1988: 61- 62). Riverine fishing uses cast nets, hook and line and basket traps. Gill nets, cast nets, traps and hook and line are used for fishing in the lakes (Dickson and Benneh 1988: 61).

Another important economic activity is trading. Keta as an ancient market centre is still noted for its vibrancy, although the intensity in trade has reduced significantly over time. This can partly be attributed to sea erosion and the setting up of a new market at nearby Anloga which has the same four-day in a week market system as Keta. Some major goods traded at the Keta market include clothing and textiles, alcoholic and non-alcoholic beverages, fresh and processed fish, staples, cement, books and shoes.

Crop farming is not undertaken on a large scale and crops are cultivated mostly for family subsistence leaving little to sell for profit. The major crops cultivated are sugarcane, shallots, coconut, tomatoes, pepper, sweet potatoes, cassava, plantain, pawpaw, cocoyam and mallow leaves (*Corchorus capsularis*, locally known as *ademe)*. The use of mechanized equipment in agriculture and food production is rare and tools utilized comprise mostly simple hoes and cutlasses.

Like crop farming, animal husbandry is common with most families rearing livestock in household pens. Goats, sheep, ducks and chickens are the most commonly reared in the community. In recent times, a few indigenes have gone into commercial fish farming raising tilapia and mudfish. Some families also keep cats and dogs which are slaughtered for their meat and are sold dressed or alive at the market. The former delicacy is popularly called "Joseph" by the indigenes.

Salt production is an ancient subsistence practice of the people and is still undertaken by a sizable number of the indigenous population. It is seasonal because production is dependent on natural weather conditions (temperatures). It is mined by preparing embankments or dykes with "ablakpoʃuyi" (cutlass, hoe, spade and shovel) trenches close to the sea to create lagoons which collect water (Ocloo 2014: 22). The collected water in the trenches is left to evaporate resulting in salt crystals. Keta and Elmina are noted as the greatest centres for mining and trading of salt in Ghana. Salt miners traded with neighbours who served as middle men. The trade became very important between the coast and hinterland (Buah 1998: 63).

The last but not least subsistence activity of the people is grass weaving to make mats and baskets. It involves a very small number of the indigenes and the reeds are brought to Keta from the outlying villages. *Kente* weaving also takes place in Keta but the vocation is not widespread.

Figure 9: Picture of both off shore (left) and on shore fishing (right; Source: author's collection, 2015)

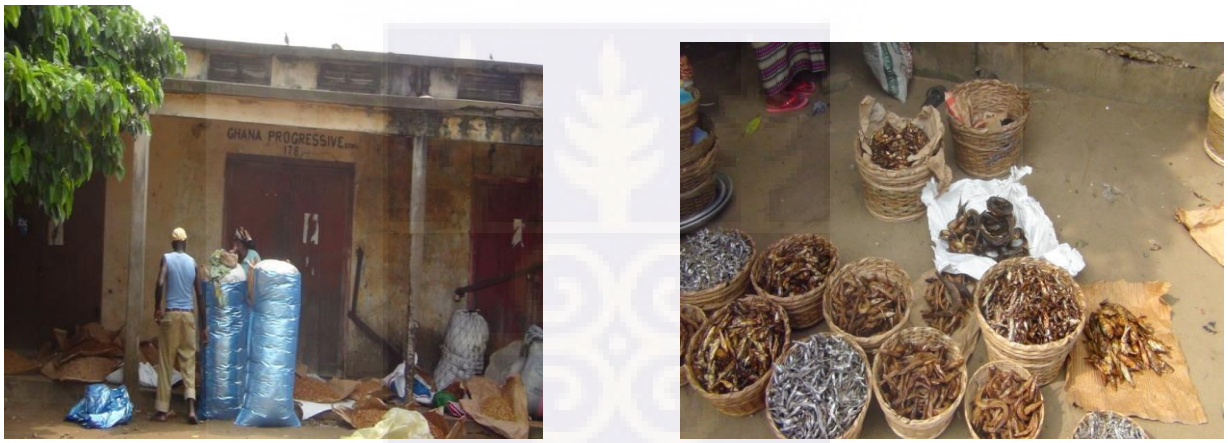


Figure 10: Picture showing bagged smoked fish bought by a trader to be sent to Accra (left). The picture on the right shows some processed fish smoked and dried for sale at Keta on a market day (Benedicta Gokah, 2015).

Figure 11: Salt mined in Keta (left) and woven mat (right) for sale at Keta on a market day (Benedicta Gokah, 2015).

2.5. Historical Background of the Ewe of Keta

Ewe, which is the language of the people of Keta is a branch of the Niger-Congo group of the Congo-Kordofanian language family of Africa and a member of Kwa languages. The Ewe ethnic group occupy the south-eastern coastal belt of Ghana and northern Ghana. There are other Ewe populations in Togo and Benin. This research is basically about the Ewes of the south eastern Ghana who belong to the Anlo dialect group. According to Godwin Kwaku Nukunya (1997: 8) the Anlo is a term that has different meanings. First, it can be used to describe the Ewe under the rulership of the *Awoamefia*, the paramount chief of the Anlo state. The second usage connotes the areas that were under the jurisdiction of the Keta District during the colonial era. All the Ewe groups trace their ancestry from Ketu (also known as Amedrofe or Mawufe) in Dahomey, now Benin. The people of Yoruba, Ga, Aja, Fon and Ada were also once living in Ketu (Amenumey, 1986: 2; Anyidoho 2003: 3; Agbotadua 2014: 6).

The Ewe and other ethnic groups had to move westwards due to the expansion of the Yoruba state. They divided into two groups after leaving Ketu. One group went southwards, and then broke up into two. The first settled at Tado, near River Mono while the second settled at Notsie, between the Haho and Mono Rivers. The Anlo, Be and Agu (Dogboawo) who were initially settled in the Adele region migrated to join their family members who had earlier settled in Notsie. Agbotadua Kumassah (2009: 1) however has a different view. He traces the ancestry of the Ewe to the Tower of Babel era in the Bible. There is currently no evidence to support this assertion.

This assertion that the Ewes were part of the Tower of Babel group who migrated to their current abode has been challenged by Divine Edem Kobla Amenumey (1986: 2). He asserts that these traditions were formulated by some early Ewe scholars to enhance their image and associate the ethnic group with the legendary Israelites. Scholars like Anquandah (pers. Com. 30th April,

2015) share this view and postulate that these scholars changed their migration history to associate their ethnic groups with renowned civilisations like the Egyptian and Mesopotamian Civilisations.

The Hogbetsotso za is the main festival of the Ewe people and is based on their migration story from Ketu and Notsie. It is worth noting that the emphasis in the festival is not on the biblical history of Babel but instead expounds and marks their departure from Notsie to Anlo. *Hogbe* in Ewe means homeland, *tsotso* means exodus, while *za* means festival. The festival is an important festivity of the people because it brings natives from all over the world together to learn from their past. It is an occasion for families to settle disputes and discuss issues relating to the welfare of the entire community. It also seeks to bring development into the Keta area. It showcases the tradition and the rich cultural heritage of the Anlo.

According to the oral tradition of the Ewe, they fled from Notsie because King Agokoli was wicked and mistreated them. Their mistreatment was ignited by a quarrel between the princes of the Drobo and that of Notsie. The quarrel culminated in a fight in which the prince of the Drobo was badly hurt by a close relation of King Agokoli. King Agokoli requested that the injured prince be brought to him for treatment. However, the people of Drobo refused. Tradition has it that just around the same time, an elder of Drobo died. The death of the elder was intentionally and deceitfully misreported to King Agokili as that of the prince. The Drobo people vowed to keep this treachery a secret. Meanwhile, the laws of the Notsie state during the period forbade wanton murder and culprits were summarily killed as punishment for such crimes.

The prince of the Notsie was therefore killed (Amenumey 1986: 3) for a crime he did not commit. During the funeral of the Notsie prince, a drunken elder of the Drobo made a boastful proverbial statement, '*miawoe nye amemakumakuwo ƒe hlɔbialawo'* which literarily means "for

us we revenge on someone who is not dead". This proverbial statement was heard and reported by an elder of Notsie who was at the scene to King Agokoli. King Agokoli became bitter with the Drobo hence his mistreatment of the Drobo (Anyidoho 2003: 3). One of the mistreatments reported in traditions was the killing of all the elderly of the Drobo people except one Togbui Wenya who was hidden by the people. Another mistreatment was for the Drobo people to knead clay with hidden cacti and thorns into ropes (Amenumey 1986: 3; Anyidoho 2003: 3). According to traditions, the Drobo did not know how to go about kneading clay into ropes and therefore sought counsel from Togbui Wenya who advised that: *hɔhɔanu yobia yeyeiɔ,* meaning "they should be given a sample to look at for making a new one".

The Drobo decided to migrate to avoid further mistreatment from King Agokili and people of Notsie. However, Notsie city was walled which made escape difficult. Estimated dimensions of the wall in 1927 were 5.5 m. thick and 1.8 m. high (Amenumey 1986: 4, Apoh, 2008: 27). According to Amenumey (1986: 4) and Apoh (2008: 27), it originally measured about 5.2 m. high and 8.5 m. wide. However, Gayibor and Acquigah (2005) who conducted archaeological investigations on the walled city of Notsie asserted that the Notsie walls were about 6-8 m. wide, 25 m. high and covered a perimeter of about 15 square km. The women were asked to pour all used household water at a particular part of the wall to make the clay wall weak and malleable, and to eventually weaken it. Ewe oral traditions intimate that the people escaped through a break created in the wall at night, walking backwards amidst drumming and dancing to distract the people of Notsie (Anyidoho 2003: 3). In the morning, the people of Notsie realised that the Drobo had escaped during the night but they could not trace them because their footsteps, which could attest to their escape direction, rather showed their coming into the walled community. As part of the Hogbetsotso festival celebrations is the re-enactment of the events such as walking

backwards, amidst drumming and dancing as was done by the ancestors when they fled from Notsie (Figure 12, 13). The re-enactment entails a special dance by women known as *misego*, a symbolic forward-backward-forward movement performed during the festival. The movement is performed with songs and drumming (Nukunya 1997: 106-107; Anyidoho, 2003: 4). The agbadza dance is also performed with its accompanying music.

Figure 12: Picture showing school children partaking in the Hogbetsotso festival by dancing agbadza in a durbar at Keta. (Source: Benedicta Gokah, 4/11/2015)

Figure 13: Picture showing the grand durbar at Anloga where individuals dress and dance for the occasion. Note the use of a smoking pipe for adornment on the left arm of the woman leading (Source: Benedicta Gokah, 4/11/2015).

There have been suggestions that the migration of the Ewes into Ghana occurred around the late 16th or early 17th century (Amenumey 1997: 16). The migration, according to Amenumey (1997:

15 - 16) and Gayibor and Aguigah (2005: 6 - 7) was not a one-time event but was undertaken at different times and was necessitated by several reasons such as natural factors like over population, limited farmlands and food shortages. Amenumey (1997: 15 - 16) has also postulated that the love for adventure could have been another factor. The migration of the Ewe according to Boahen (1975: 5-6) has been challenged by Ward (1958) who is of the view that the movement took place between 1000 and 1200 A.D at least 300 years before 16th century.

On leaving Notsie, the Ewe split into three main groups. The northern group settled at places like Hohoe, Matse, Peki, Awudome, Alavanyo, Kpando, Agu, Ve, Kpedze and Wodze. Others settled in the middle belt at places like Ho, Akovia, Takla, Kpenoe, Hodzo, Klevi, Sokode, Abutia and Adaklu. The third group (the southern group) moved in two divisions. One was led by Akaga and Awanyado the sons of Amega Wenya and the other by Amega Wenya himself. On arrival at Atiteti, Amega Wenya's group went towards the coast through a narrow creek to a place which Amega Wenya named "Kedzi" meaning "we are on sand" (Kpodo 1969: 5).

From Kedzi, some members of Amega Wenya's group proceeded further south to settle at Keta. The place was named Keta because they said they were now "on the head of the sand" (since Kedzi was below sea level). From Keta, some of the group moved and settled at Tegbui, Woe, Avoeme and Anloga. At Anloga, Amega Wenya became tired and his strength failed him. He proclaimed "*meŋlɔ"* which literally means "I shall fold myself here" (Kpodo 1969: 5) or "I have coiled" (Kumassah, 2009: 19). "Anloga", derived from the words *"meŋlɔ"* and "*ga*" (which literally means "big") became the capital of the Anlo traditional area. With time, other members of the migrating group who had settled elsewhere came to Anloga from time to time to pay homage. One of the sons of Wenya also founded other settlements but finally joined the Anlo State.

During the early formative period, the various leaders of the groups were made chiefs over the villages they founded and succession was patrilineal with sons and brothers from father's side inheriting fathers' or stool property (Boahen 1975: 1, 13). Among the Anlo, the position of the paramount chief rotates between two clans: the Adzovia and the Bate clans. Within the clan, the Awoamefia is elected by elders of the clan. Chiefs in the Anlo state are still chosen from the two clans named above. The institution of chieftaincy is foreign to the Ewe who used to live in small communities under clan or lineage heads and traditional priests (Boahen 1975: 2). The adoption of chieftaincy came about as a result of cultural contact with other indigenous groups like the Akwamu.

Gayibor (1989), Sandra Greene and Birgit Meyer (Greene 2002) have challenged the Ewe migration tradition. They contend that the migration story was concocted by the German missionaries who had been active in the area since 1847 to unite the various Ewe groups and to promote linguistic standardization of the Anlo dialect of the Ewe language. According to them, the idea of Notsie being the homeland of the Anlos became popularized by a narrative which was published in the missionary school readers. According to Daniela Merolla (n.d. http://www.hum2.leidenuniv.nl/verba-africana/hogbetsotso/b-hogbetsotso.htm), one of the earliest records of the migration tradition is that of Henry Kwakume, a Ghanaian priest who translated a French version of the tradition. The popularization of the migration story was the *raison d'être* for the 1956 Agbogbo Convention held at Notsie to observe the 1st Agbogbo (literally meaning "wall", and referring to the Notsie wall) festival. Greene (2002: 1035 - 36) is of the view that the occasion was used to harmonize this historical narrative.

2.6. A Brief historical Account of Euro-African interactions and trade on the Gold Coast

The Gold Coast in the 17th century is defined by Daaku (1970: 1) as "the stretch of coastline from Assini in the west to the River Volta in the east… [and] extended northwards to an

indeterminate boundary in the region of Gonja and Bono Mansu". It was inhabited mainly by various Akan groups who occupied the area between the Black Volta and the Guinea Coast; and the Ga –Adangbe who also occupied the eastern coastline. Pockets of Guans also occupied the Winneba coast, Akwapim hills and along the Volta gorge to Kete Krakye and Salaga. Some distinct features common to the above named ethnic groups are their dialects, religion, calendar, and marriage customs.

The Portuguese were the first to land on the Gold Coast and called the place *Mina de Ouro* (the gold mine) because there was gold to buy in there. This made them think the gold mine was close to the coast (Van Dantzig, 1980: 3). They built their first castle in Elmina in 1482 to secure a foothold at Elmina and to protect the gold trade from interlopers and hostile Africans. The title 'Lord of Guinea' was added to the Portuguese royal titles to give a legal stamp to the crown's monopoly. Elmina was also given a city status. They subsequently built other forts at Axim (1515) and Shama (1523; van Dantzig 1980).

Other European nations such as the Danes (1642), Dutch (1642), Swedes (1647), the Brandenburgers (1682) and other interlopers also followed the Portuguese to trade in gold and ivory (Buah 1998: 69; Daaku 1970: 8, 23). Though Europeans perceived the West African coast as the "Whiteman's Grave", the acknowledgement of the same geographical location as "Africa's shopping street" (van Danzig 1980: iii) is suggestive of lucrative commerce despite the risks of death and ill-health.

In 1542, the French challenged the Portuguese over their claim of monopoly in the gold trade by sending a ship to Cape Three Points to trade in gold. Their challenge to the Portuguese claim could not be sustained because of internal political troubles in France in the 16th century. Another reason the French left the Gold Coast was due to a strong trade rivalry between the

Dutch and the English, and their inability to have a good relationship with the indigenous populations. The English came to Elmina in 1554 to trade in gold and first landed at Shama. Until 1618, their activities on the Gold Coast were not well organized. They hoped for luck rather than setting goals for achieving success in their work (Daaku 1970: 9).

The European trade popularly known as the Trans-Atlantic Slave Trade on the Gold Coast impacted social and political organisations of the coastal states. The introduction of guns and gun powder in the 17th century for example caused political turmoil. The Atlantic trade was interwoven with an already established African Trade Network that linked the coast with the hinterland. This trade focused on the supply of African goods like salt, foodstuffs, cloths and Cori beads in African market centres including Anexo, Jakin and Keta. The trade became the life line for the trans-Atlantic trade using the market centres of the African trade network (Akyeampong, 2001: 44). The trade was championed by Akan traders from the coast to the interior. In exchange for salt and gold, they bought cotton cloths and kola nuts (Daaku 1970: 5). The *Quaqua* cloth from the Ivory Coast cloth was a very popular cloth in the trade (Daaku 1970: 7).

The Portuguese tried to prevent Africans from being middle men trading in these clothes. The Portuguese traded with other West Africa nations in goods such as beads from Benin known as '*Cori's*' made up of blue, green and black stones from the River Forcades. Other beads were from Cameroon and Whydah in later years. Meanwhile a bead industry which sprang up during this period reproduced some of the imported beads. The industry sought to reproduce the beads by pounding the glass beads and remoulding them. This was done to give an indigenous touch to suit the taste of the Gold Coasters. The influx of trade goods destroyed local industries engaged in the production of such goods. For example, the import of beads destroyed the local bead

industry. The slave trade particularly in the 17th century posed a great threat to the pre-existing inter-state commerce (Daaku 1970: 7).

The Portuguese realizing that the Gold Coast traders preferred locally manufactured goods imported these goods from other West African countries to the Gold Coast. They also bought goods from other West African States. In Gwato, where the port of Benin was located, a factory was established by the Portuguese in 1487 that collected cotton, cloths, leopard skins, beads and slaves in exchange for gold (Daaku 1970: 24). Europeans also attempted to displace African middle men but were unsuccessful. This was the reason for the trade quarrels.

Europeans such as the Dutch, English and Brandenburgers set up national charter companies to promote trade with the local people. The Dutch for example established the Dutch West India Company (WIC) in 1621. The English set up the Company of Adventurers Trading to Africa in 1660 (Daaku 1970: 23) which was replaced by the Royal African Company (RAC) established in 1672 (Daaku 1970: 10). To facilitate the trade on the Gold Coast, the Royal African company minted 548,327 coins with the company's emblem of an elephant on it and were called '*Guineas*' from 1674-1714 (Daaku 1970: 23). This was also liquidated and a new one; the Committee of Merchants Trading to Africa was established in 1750 (van Dantzig 1980: 58). The Dutch came in 1642, well organized and intent on ejecting the Portuguese from the Gold Coast. The volume of trade was important to the United Provinces headquartered in Holland (Daaku 1970: 13). The Brandenburgers also formed the Brandenburgers Company in 1642 (van Dantzig 1980: 37) whereas the Danes established the Danish West India Company and the Guinea Company in 1672 (Hansen 2002[1967]: 35).

There was an average of twenty ships involved in the trade yearly. The ships exported about 200,000 yards of linen, 40,000 pounds of copper basins, kettles and other hardware, and 100,000

pounds of beads, blankets and others. They transported to Europe ivory, wax, pepper, grains and about 2,000 pounds of gold in addition. All gold for the coinage was imported from Guinea until about 1630. The Gold Coast which had been a gold mine both literally and figuratively for the Dutch now became, in the 17th century a 'slave mine' for virtually the whole of Western Europe. The Swedes (1647), the Danes (1642), and the Brandenburgers (1682) (Buah 1998: 69) came for their share and the French occasionally reappeared on the scene. These other European companies survived on the trade by the help of Dutch capital and Dutch servants although it was a tense competition (Daaku 1970: 15).

The Danes first established themselves at Cape Coast in Fetu where their headquarters, Fort Carolosburg was built in 1664 but were forced out by the Dutch and English to relocate to the area between Accra and Keta in 1684 (Daaku 1970: 15).

Unlike the western coastline of the Gold Coast, European nations until the 18th century found the east coastline of Accra of little value. Therefore they did not consider establishing trade posts there. The only part where captains of ships traded was a place affectionately called "Lay" or "*Allampo*", in modern day Lekpongonu, named after the Adampare group who settled there before the arrival of the Europeans (van Dantzig 1980: 54). Interest in the east of the lower coast where Keta is located was stimulated because only the Akwamu Kingdom (the only interior state with access to the sea) had command over the whole eastwards of the coastline to Whydah. It was in this period that the Anlo engaged in major international trade as slave traders. Ports in Anlo constituted the western fringe of the Slave Coast (Akyeampong 2001: 8). Trade in Keta, according to Akyeampong (2001: 8) "flowed in two directions: an east-west orientation along the coast, and a south-north one between the littoral towns and farming communities on the northern shore of the Keta Lagoon".

The Dutch who had good relations with the *Akwamuhene*, (the King of Akwamu) who had undergone a successful operation by the surgeon of Fort Crevecoeur, permitted them to build lodges at Kpone (1731) and Keta (1744) (Nørregård & Mammen, n.d.; Norregard 1966[1954]: 16ff). By the 1730's the Akwamu Empire collapsed from a defeat by the Akyem. This gave their enemies, the Danes, the opportunity to focus their trade on the Eastern Coastal Belt by building lodges at Teshie (18th century), Ningo (18th century), Tubreku (18th century) and Keta (1744) (van Dantzig 1980: 55). However there was power struggle between the Danes and the Dutch with the Dutch being more influential because they settled in Keta first. The Dutch around 1734-1735 expanded their lodge at Keta into a Fort and named it Singelenburgh.

Van Dantzig (1980: 54-55) explains how the Danes were eventually able to build a fort at Keta. Fort Singelenburg was destroyed when the King of Dahomey Agaja suspected that his renegade general Ashangmo was harbouring there. Ashangmo was the leader of the Ga, and also a friend to the Dutch. The wall of the fort was destroyed in 1737 when Agaja's army camped under it and dug the sand around the walls in the night. This resulted in the cracking of the walls. Agaja requested From (the commander of the fort) to come to Dahomey for a talk. From's army asked him not to heed to the request of Agaja. From went to Agaja for the talk but did not return (van Dantzig 1980: 54- 55). The Dutch army he left behind surrendered to become prisoners of Agaja. The army however left word with the African servants to set fire in the powder room if the Dahomeans made any attempt to loot the fort. The instructions were carried out barely after the Dutch army had gone out of sight from Keta. They heard the sound which prompted them that their wish had been carried out. Upon the return of the Dutch army from Dahomey, Ashangmo, who had now come to Keta from his hiding place, was informed of the imprisonment of From and his army. Agaja released the army but From was murdered before the release of the army.

Fort Prinzenstein was built and settled by the Danes in 1784 (Van Danzig 1980; Lawrence & Castles, 1963: 361) before the release of the Dutch who prevented them from expanding the lodge into a fort. The Dutch abandoned Keta to the Danes, not having any permanent place to lodge (van Dantzig 1999: 55). Akyeampong (2001: 8) however, is of the view that:

> the area fell under Danish influence largely by default as the more powerful European nations – Dutch, English, and French were not strongly interested in the Anlo Coast. Danish influence rested lightly and the communities along the Anlo Coast essentially traded freely with passing European ships.

The slave trade boomed on the coast of Anlo land in the early years of the 19th century especially because the trade had been abolished with regular patrol by the British Navy on the seas of Gold Coast but the Anlo Coast was less patrolled. Slaves were smuggled through the lagoons and creeks onto Portuguese and Brazilian ships (Akyeampong 2001: 8, 49).

2.7. Lodges, trade forts and castles in Ghana

The coat of arms of the Republic of Ghana shows a little fort. This attests to the importance of the forts and castles and their role in Ghana's history (Lawrence 1963, van Dantzig 1980). These structures were built to protect trade on the Guinea Coast but only after treaties have been signed. The European traders traded initially on board of passing vessels (Amenumey 1997: 19). The use of ships for trading continued at stations where forts and castles were not constructed (Daaku 1970: 14). In three centuries more than sixty castles, forts and lodges had been built along a stretch of the Coast, less than 300miles (500km) long (refer maps 3 and 4). The coastal region was concentrated with these forts and castles because gold deposits were very close to the coast. The areas with forts were chosen because of the rocks which gave a strong natural foundation and were also used as building material. Access to the coast from the interior was intercepted with mangrove swamps and lagoons. In addition to the above, the rocky coast had a number of natural harbours in the form of coves, capes and bays. The differences in

terminologies of Lodges, Forts and Castles depended basically on the size, content, or functional capacity of these trade fortifications (van Dantzig 1980).

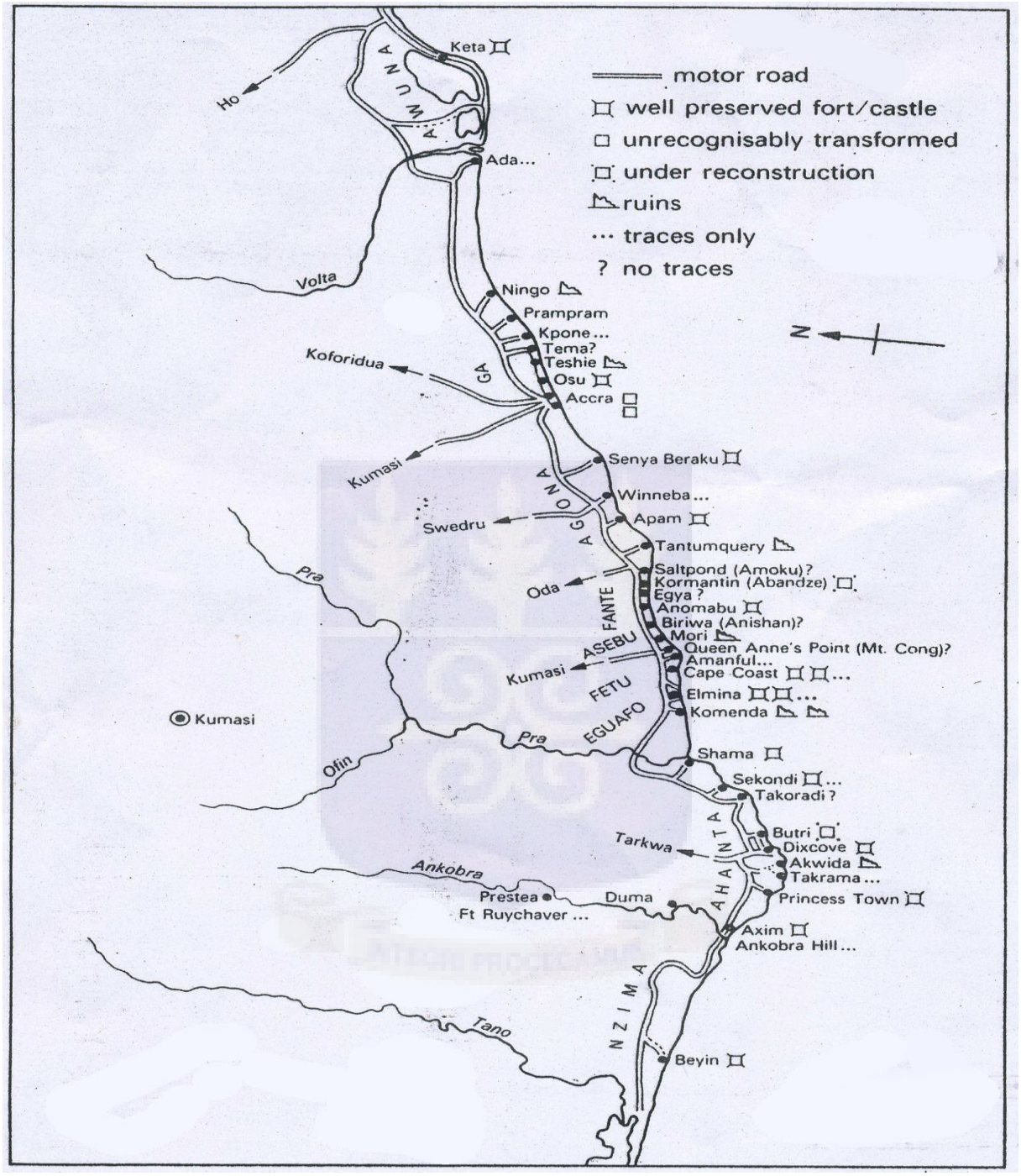
The word "Castle" is applied only to the three biggest of these buildings. Castles covered a wider area than fort, were larger in size and had a more complex network of buildings. They could accommodate about 1,000 slaves at a time, 100 guns and extensive logistics were kept there. Examples include Elmina, Cape Coast and Christianborg castles (van Dantzig 1980: 3, Anquandah, 1999: 10).

The word "Fort" is applied to a larger building fortified with hollow bastions used for storage of ammunition, cannons for defence etc. The forts were permanent durable structures built with brick and/or stone. It contained several rooms for use by commandants, officers, garrison and servants and had up to 50 guns installed at a time (van Dantzig 1980: 3, Anquandah, 1999: 10).

Although the raison d'tre for the presence of the European forts were for trade, that cannot be said of Fort Prinzenstein. The fort was erected to protect Danish trade against African attack (Dantzig 1980: 58). With four bastions, the fort was built with stones of regular shape from Accra to protect and secure Danish trade against the Awuna. Other forts were Fort Kongesten at Ada, a trading post built by the Danes in 1783; Fort Coenraadsburgh, built in 1665 for the defence of the Elmina castle by the Dutch; Fort Kormantin, an English fort which began as a small fortified lodge in 1631 and was expanded between 1645 to 1647 into a trading fort (Lawrence 1963: 245-247; van Danzig 1980; Anquandah 1999: 10); Fort Fredriksborg in Amanful, built by the Danes in 1661 and was sold to the British in 1679; Fort Fredensborg at Old Ningo, built in 1734; Fort Kongensten in Ada and Fort Augustaborg in Teshie, built by the Danes in 1783 and 1787 respectively. Beyin Fort by the English and the Keta Fort by the Danes were the only forts that were built on low sandy beaches. The low sandy beaches made it

difficult to check off interlopers because trade contacts could be established anywhere along them.

Lodges on the other hand were miniature forts and "indefensible trading posts" (Anquandah 1999: 10) built of earthen materials and wood. Occasionally a few were built with foundation of local stone. These were temporary structures for small scale trade and military purposes pending the construction of more permanent structures. Lodges were built at Tubreku, Labadi (18th century) and Teshie by the Danes all in the 18th century. In Legu, lodges were built by both the English and Danes whereas in Keta they were built by the Dutch and Danes in the 17th century and 18th century respectively. Unfortunately, no traces of these lodges can be found today (van Dantzig 1980).



Map 3: Map of the coast of Ghana, showing the forts and castles in their present condition. Adapted from Lawrence 19

Map 4: coastal trading sites with forts and castles. (Source: Samuel Osei: 2014)

Some of the Europeans moved to live with the communities outside these forts and castles. A new group of people sprang up in the coastal region. These are "Mulattoes" (mixed breeds) who were the offspring of the interaction of African women from the community with European men. The Mulattoes and the Europeans built houses in the towns surrounding the forts and castles (Anquandah 1999: 12, Apoh 2013: 371, Wellington 2011: 50- 51, 69, 101- 102). Because the social life in the fort can be boring, rampant drinking of alcohol and smoking characterized the residents of these forts and castles. The castles and forts laid the foundation for western education and Christian missionary enterprise in Ghana because the mulattoes had to be enculturated and trained as Europeans (Anquandah 1999: 18, Wellington 2011: 57- 58).

2.8. The Danish Era in Keta

Although the Danes traded with people in the Keta area from the early 18th century, it was not until 1784 when they built Fort Prinzenstein to really have a stronghold in the Keta area. The Danish era in the Keta area began from 1784 (when Fort Prinzenstein was built) to 1850 (when the Danes sold their belongings on the Gold Coast to the English and left the country).

European settlements east of Accra were few and far between. This was partly because it was difficult to get access to Keta. To get to Keta, one had to cross the Volta River or make the trip by sea past the mouth of the river where the currents were so strong that only large boats could pass through. However, the Danes began to trade in the Keta area in the early 18th century. On 5th October, 1709 Governor Erik Losen Lygaard reported to the directors of the West India and Guinea Company, Copenhagen that he had sent some men with trade items to Keta and that they had acquired 35 slaves from the area (Justesen & Manley, 2005: 225). In 1710, Lygaard stationed an assistant at Keta to trade in strong liquor (Norregard 1966[1954]: 93-95; Justesen 2005: 229). Slaves and elephant tusks were also shipped from Keta to the West Indies in the same year (Justesen 2005: 227). In March, 1711, Bfanz Boye, commandant of Christianborg sent Danish goods to Keta and had a constable stationed at Keta in 1716 (Norregard 1966[1954]: 69, 93, 95). In 1718, at a time when the Dutch were planning to build a lodge at Keta, the Danes sent a couple of men along with some slaves to maintain their right to the place. They even sent traders as far as Whydah, some 300 km east of Christianborg Castle. The Danes tried to get rid of the Dutch from Keta coast by presenting gifts to chiefs but they did not succeed.

In 1720, poor trade made the Danes withdraw their men in Keta. Keta was particularly noted for slaves and elephant tusks (Justesen 2005: 225, 227, 250-252, 256-258, 264).

There used to be constant wars between the Anlo and the Dutch over trade. The Anlo wars started as early as the late 1680's to the early 19th century. The Anlo wanted to control the trade so they served as middle men but the Dutch also wanted to have a direct contact with the interior traders. This was the main cause of the conflicts. According to Amenumey (1997: 18) Akwamu and Anlo relationship was one of a political and economic alliance. Akwamu gave military assistance to the Anlo because of the numerous wars against their neighbours and also the Europeans. The Akwamu assistance came to the Anlo because the Anlo were the suppliers of salt and dried fish to the Akwamu. These items were important trade goods that yielded much revenue to the Akwamu and the Anlo as well. The coast of the Anlo was also accessible by the Akwamu for the trade in slaves.

The Anlo fought the Ada, Ga, and Agave to the west over salt and fishing rights as well as slave raiding. The Anlo also fought with the people of Ge (Little Popo). The Anlo battled with the Gen because the Gen wanted to take total control of the trade in the Anlo area as well as the slave market in Keta stretching all the way from behind the lagoons to the Dahomey coast. However, the Anlo were only interested in controlling only the lower Volta and the Keta Lagoon District. According to Amenumey there were major wars in 1750, 1769, 1770, 1776 and 1780 between the Ada, Ga and Agave people on one hand and the Anlo on the other hand (Amenumey 1997: 19).

The Nonobe war was fought in 1750 between the Anlo and Ada. In this war, the Anlo were defeated by the Ada. The Ada sought for help from the Danes, Akwapim, Akim Abuakwa, Krobo and Agave to gain the victory (Amenumey 1986: 45). The Danes intervened after a month to save the people of Ada from starving or surrendering to their enemies (Rømer 2000: 206).

In 1769, there was another war between the Anlo, Woe and Keta on one hand and Ada on the other hand. This was because an Ada broker "Ouiffay" killed an Anlo "Caboceer elect". Anlo, Woe and Keta dealt with Ada on February 14, by burning houses and capturing women, children and slaves in the Danish Lodge as war prisoners. This was because the Danes were on the side of the Ada. The war interrupted trade in northern Ewe land (Amenumey 1986: 46).

The Anlo defeated Ada in a night attack in 1776, killing about half of the people and snatching some as captives of war. This made the Anlo to have power over the lower Volta area. The Danes were bitter about the victory but had to recognise Anlo suzerainty over Ada and other towns of the Lower Volta. Therefore they had to pay tribute in recognition of the suzerainty (Amenumey 1986:46). Later the Anlo fought against Avenor and other Ewe neighbours who helped Ada in that war. The Avenor were defeated so they had to "eat fetish" with the Anlo.

The Anlo defeated the Ada in 1780 and promised to kill the Danish Governor J. A. Kiøge (Norregaard 1966[1954]: 145-146). The defeat of the Ada posed a threat to a plan hatched by the Danes to control the area east of Accra. Although the Ada had signed a treaty with the Danes to be loyal and to trade with them, protect and defend the Danish flag, the Anlo refused to sign such a treaty and were free to choose any country they wanted to trade with. This led to the Sagbadre war (Rømer 2000: 206) at Srogboe in 1784 in which the Anlo were defeated by the Danes. The Anlo towns of Atoko, Whuti, Anloga, Woe and Tegbi were burnt. The Anlo people ran to take refuge at Wheta. A treaty signed on 18th June, 1784, ended the war between the Anlo and the Danes and permitted the latter to build a fort in Keta. The treaty also gave the Danes a right to travel through Anlo territory (Amenumey 1997: 19). Fort Prinzenstein was built in the

same year that the treaty was signed (Hansen 1967[2002]: 104-105). Fort Prinzenstein was built to the west of the Volta River and east of Fort Kongesteen in Ada (Rømer 2000: 208). The desire of Jens Adolf Kiøge was for the two forts on the opposite sides of the Volta River to be twin forts (Hansen 1967[2002]: 105). The fort at Ada was named Fort Kongesteen meaning "Kingstone" and the fort at Keta was named Prinzenstein meaning "Princestone" (Lawrence 1963: 361).

Biorn, commander of Fort Prinzenstein, murdered Degeni, an elder of Keta in November 1786. The murder was revenged by the Anlo people of Keta by the killing of the assistant of Biorn, Thessen (Amenumey 1986: 41, 1997: 20). The murder of Thessen led to the Some War of 1792 in which the Ge, Agudaz and Pottebra fought on the side of the Danes. Biorn who had become the Governor of Christianborg Castle wished to avenge the death of Thessen but was afraid that would cost him because his military was weak. His fear was that the competitors of the Danes, the British and Dutch, could give assistance to Keta. Biorn therefore decided to rely on the Akyem Abuakwa, enemies to Anlo and Akwamu. The Anlo of other towns sent a mission to Christiansborg to convince the Danish administration to prevent the Akyem from intervening in the affairs of the Anlo. The Anlo of other towns promised to fish out and to hand over the murderers of Thessen to the Danes and to attack the people of Keta if the culprit was not found.

However, the Anlo of other towns and of Keta were one people. It was a plot not to heed to the promise they (the Anlo of other towns) made at Christianborg to attack Keta. They just wanted to find a way to profit from the Danes who had promised them financial and logistic support in the war against Keta. Therefore a sham fight in which just a few houses in Keta would be burnt and

thereafter, rebuild those houses was planned. Unfortunately, the plan did not go well as the Danes could read between the lines and demanded for prisoners of war to prove they really were warring. That caused for more houses to be burnt but because the people of Keta were hiding nearby, they saw the town burning and also decided to attack the other Anlo groups. The other groups of Anlo defeated the Anlo of Keta. Keta was also burnt down. Anlo lost the people of Keta to the Some state which the people of Keta founded. They were not ready to rebuild Keta so the people of Kliko offered them land where they made Agbosume their capital. Others went to found Keta Koda and Anyrokope Togo.

The Danes in spite of all these were not able to exercise control over Anlo. This is seen in their inability to stop the Anlo from slave trading after its abolition in 1805. Just a soldier remained in the fort to hoist the Danish flag on national holidays, Sundays and when ships passed by (Amenumey 1986: 95). The wall of the fort facing the sea fell in 1840 adding to the ruins. In 1842, the people of Keta assisted Jose Mora, a Portuguese slave dealer, to recover his slaves seized by the Danes in Fort Prinzenstein. This was easy because the fort was in ruins. The action taken by Keta people made the Danes to burn the Keta Chief's house and also caused the death of the chief. In anger, the Keta people attacked the fort. Later the new chief of Keta was threatened with a warship from Denmark. The chief was made to swear his allegiance to the Danes and to help repair the fort (Amenumey1986: 97).

In the year 1847, another war broke out when the people of Anyako blockaded the fort which was going to be reconstructed. Danish soldiers from Osu wounded natives of Anyako (including Dzokoto) who were carrying sea shells (that would be burnt into lime) for reconstructing the fort.

Keta helped Anyako to fight the Danes so they were fined to pay 1100 piastres or 200 dollars as punishment for indulging in the war (Amenumey1986: 97). The payment was made there and then in dollars but some of the notes were rejected. The people went back to the town to change the rejected dollars for replacement. There was a delay in replacing the rejected dollars for which reason two elders of Keta, Nugbleze and Akpaku were captured by the Governor.

Akpaku died upon reaching the fort. The people of Keta thought that he was killed intentionally. They again prepared for war and sent their women and children out of town while they solicited for help from Anyako. They blockaded the fort but the aliens in the Alata Quarter of Keta (now totally eroded by the sea) (see Map 5) who were aiding the garrison by trading in food were not lucky as this was noticed by Keta. That caused the people of Keta to burn the houses in the Alata Quarter. The Governor got hurt from a gunshot from the warriors of Keta in an attempt to get help from a French warship. All the same, those besieged in the fort got help from the ship which supplied them with food and transported them to Christiansborg. Keta was destroyed by guns fired from the ship and the fort.

In October 23, 1847, a peace meeting was held to end the war. This time, the Anlo had to submit to Danish authority. They were fined as well. The people promised to be submissive and to pay for their people who had been captured as prisoners to be released. Even after their submission to the Danes, the people of Anlo were not ready to pay fines imposed on them in 1849. However, they were not eager to rebuild the town until after 1850 (Amenumey 1986: 98-99).

In the year 1805, the Danes abolished the slave trade. The slave trade became a secretive one when the Danish abolished it. This action taken by the Danes to abolish the trade was viewed by

the Anlo as interference in Anlo internal affairs. The trade was booming and the Anlo were making a lot of profit since they had control over the Lower Volta. The trade also involved numerous foreigners such as the Bahian trader Gonzalves Baeta (who moved away from the Danish fort because of his involvement in the illegal slave trade; see Akyeampong 2001: 53). The competitors of Gonzalves Baeta like Don Jose Mora alias Adohose, a Spainard who shuttled between Woe, Blekusu and Attoko, Francis Olympio at Blekusu and Convacellos de Lima at Vodza remained in their station (Akyeampong 2001: 52-53). The enforcement of the abolition of the slave trade by the British navy, on the Gold Coast, particularly on the Accra coast, encouraged the slave traders east of the Volta (Akyeampong 2001: 54).

The Danes sold all their possessions in 1850 to the British for £10,000. This happened because the slave trade had been abolished in Denmark and they had fewer slaves to work on the plantations that had been set up on the Gold Coast. They also had a lot of wars to fight to maintain the abolition of the slave trade on the Gold Coast. It was also difficult for the Danes to repair their trade posts as revenue from trade had reduced drastically. Keta was noted as "a notorious den of slaves" therefore, the British did not want the French or the Belgians who were still trading in slaves to smuggle slaves from the coast of Keta and its environs. Although they faced similar challenges as the Danes, the British bought the Danish forts to discontinue the notorious slave trade.

In 1859 the British withdrew their power and authority over all of its territories on the east of Accra including Keta. After the British defeat of Asante in 1873-4, the British returned to exercise their power over the Keta area.

In January 1874, there was another war between the Anlo and the British. During the war known as the "Gbedzidzavu War", several Anlo towns were burnt. A treaty was signed on 22nd March, 1874 to end the war and this forced the Anlo to come under the British Administration.

The Danes established cotton plantations at Akwapim, Ada, Keta and near Christianborg. P. E. Isert in 1788 began cotton, cocoa and coffee plantations in Akropong but died in 1789. He pressed for these because that was the only way to end slave trading but to also make sure that there were raw materials to feed industries in their country. This mandate was halted in 1789 after the death of Isert but continued three years after by Lieut – Col Roer (whose sister taught girls how to spin cotton in Akwapim), J N Flindt, J. P. D. Wriesberg and Peter Thonning. The cotton at Keta and Ningo were said to be of very high quality because they were cultivated by the king's slaves (Dickson 1971: 128). Unfortunately there was no good record keeping of the total exports of the cotton and palm oil which passed through custom posts set up at Ada and Keta in 1877. However, incomplete records were kept by the Dutch (Dickson 1971: 355).

2.9. British Era in Keta

The period from 1850 to 1957 may be described as the British Era in Keta. Trade goods traded to the English by the Anlo after the abolition of slave trade included palm kernel, palm oil and copra. These commodities (except copra which was produced in Keta) were procured from the hinterland through Anyako. The Anlo trade flourished again even after the trade in slaves had been abolished. Liquor and gunpowder which were sometimes smuggled in through German Togoland were important items of trade (Akyeampong 2001: 49). Other imported goods included gum, cloth and tobacco. The trade brought infrastructure development to Keta including the construction of a road from Keta to the Accra-Denu highway, Lomé and Lagos in 1896. There

were more ships which landed in Keta with corresponding warehouses built attracting more traders from the hinterland.

During the period 1850-1906, German traders established factories/shops and warehouses to store imported goods sent by ships to Keta. The major ones included Boedecker and Mayer, Geodelt and J.K. Vietor. Kpodo (1969: 9) in an attempt to vividly describe the township wrote:

> The zoning pattern of the town at this period resembled that of a typical seaport with harbour frontages reserved for merchant's offices, large departmental shops and warehouses while shops and residential houses were located in the rear around the local market. Parallel with this commercial development was the centralization of administration and other public facilities; a post office, a police station, a court and a hospital were built.

Salt production and mining was important in the Keta area. Salt is mined when the sea overflows its bounds unto beach leaving a pool of water on the smooth, loamy, sandy ground. Evaporation of the water takes place leaving the salt crystals in the hot sunshine. The salt crystals are gathered into piles which are left into a hole dug in clean dry sand. Sea water is poured onto it dissolving the crystals (the process is to take out the impurities in the soil). This is left for another evaporation to take place. The white salt crystals are removed and stored for use and sale (Isert 1788: 56). A 25 mile road was constructed from Anyako to Bayive joining the Avu and Keta Lagoons to transport salt to inland markets at Akuse, Kpong, and Kpandu under the direction of British Governor W.G. Griffith in 1890 (Kpodo 1969: 9).

The coconut tree became an important economic resource in Keta District from about 1875 as some parts of the country capitalised on cocoa and palm trees. The coconuts and palm were

processed for export (Dickson and Benneh 1988: 43, Dickson 1971: 159- 160). After 1904, market for copra increased from the discovery that coconut oil could be used in place of animal fat for manufacturing margarine (Dickson 1971: 159- 160). However, the copra business collapsed due to 'Wilt' or Cape St. Paul disease which destroyed about 5,000 acres of coconut plantations in the Keta District in 1932. This was when shallot farming became a dominant cash crop in the area (Kpodo 1969: 17).

The use of manure from household refuse, animal wastes and grass compost from the lagoon was for the shallot cultivation. The manure gave the soil additional organic fertilizer. Thus a district whose soil is not suitable for farming became the largest producer of shallots (Dickson 1971: 309).

Fishing cannot be exempted when discussing early trade at Keta. Fishing took place in Keta and some other nearby towns and villages. The fish was processed by drying, frying or smoking (Kpodo 1969: 18). The fishing industry caused over-population in the Keta District. The introduction of beach seine nets into Anlo helped to check the slave trade and encouraged commercialised fishing (Akyeampong 2001: 8, 49).

Some of the other imports included cement, hardware, tinned foods, clothing and textile, gin, tobacco and Kente which were traded in the market. The Ewe Kente was exported to countries like Niger and Upper Volta. In 1951/52 Keta had electricity which led to the springing up of restaurants and drinking bars where beer, wine and spirit were sold. The Bank of British West Africa (S.B.W.A) was re-established in 1952. This boosted the trade. The colonial commercial establishments were all closed down by 1964 (Kpodo 1969: 19).

The sea erosion (see Map 5) which had washed down the commercial buildings caused these trading houses to move to the residential areas (around the market). The Fort was used as an administrative office and prison. A Post Office and police station were built later. These were able to withstand the erosion. The European quarters moved to the east of the fort. British Commissioner John Miller dredged the Keta lagoon in 1929-1930 to keep the Lagoon at high water level throughout the dry season for transportation purposes (Kpodo 1969: 13).

Map 5: High Water Mark (HWM) at Keta from 1907 to 1987. Source: Akyeampong 2002

Two thirds of about 1,003 ships that came to Keta port from 1923 to 1933 (annual average of 100) were those of the British. Their trading ware houses included United African Company Ltd, G.B. Ollivant Ltd and John Holt Company Ltd. The others were the French and Germans who

established Compagnie Française de l'Afrique Occidentale (CFAO) and Bremen Factories respectfully. The Germans left at the end of the First World War (Kpodo 1969: 16).

2.10. Missionary Activities in Keta

Keta was not left out in the missionary activities and establishment of churches. The North German Missionary society widely known as Bremen Mission landed on the Gold Coast in the year 1847 and established a station at Peki. The station was manned by Rev. Lorenz Wolf who died in 1851. New missionaries established another station in Keta in 1853 (Kpodo 1969: 9, Boahen 1975: 81, Buah 1998: 136). In 1853, Keta consisted of only small number of houses as a result of its bombardment in 1847 by the Danes (Kpodo 1969: 9). Keta became the headquarters of the Bremen Mission for all the Ewe communities. The Catholic missionaries landed in Keta in 1890. With its footings in the USA, Bishop J. Bryan Small established the African Methodist Episcopal A.M.E. Zion Mission in 1896 (Buah 1998: 138). The missions encouraged Christianity, Western education, agriculture, trade, linguistic studies, architecture and improved standard of living (Boahen 1975: 82).

These missionaries started educational centres for the people of Keta (Kpodo 1969: 9). Western education and Christian missionary enterprise according to Anquandah (1999: 18) had their foundations laid by the Castles and Forts. Although this cannot be said about Fort Prinzenstein, the Bremen missionary for example built a catechist school in 1864. The African Methodist Episcopal Zion Mission and the First Century Gospel Schools were established by the American Negro Protestant Missionaries in 1910 (Kpodo 1969: 19).

Bremen Missionaries promoted and also traded in palm oil, groundnut oil and cotton enterprise (Buah 1998: 136; Boahen 1975: 82). Cotton became well known in the Volta Region in 1860's. With the flourishing in the trade of these goods, some of the missions established trading companies. From 1857, the Bremen mission collaborated with the Bremen firm F & M Vietor and Sons to trade. The Basel Mission for Example established the Basel Mission Trading Company in 1859, a forerunner of the UTC. The mission companies did not engage in the trade of ammunitions, and spirits. Like the Bremen Mission, the Basel Mission also traded in palm oil and palm kernel. The trade activities of the missions contributed towards the growth of Keta as a trading centre. They also played a vital role in abolishing the slave trade and encouraging cash crop economy in Keta and Gold Coast as a whole (Boahen 1975: 84).

Missionaries also worked linguistically by recording some of the indigenous languages such as Ewe, Ga and Twi. The Ewe Language was worked on by J. B. Schlegels by 1871. These languages became the languages used in churches and schools (Boahen 1975: 85).

The architectural style of building by the missions and other traders were adopted by Ghanaians. The building style was mostly two- storey buildings with broad verandas at the front and back supported by tall wooden or stone pillars (Dickson and Benneh 1988: 43). Some were also designed using stones and sea shells. This improved the housing system of Ghanaians. Artisans were trained in masonry and carpentry with improved tools enriching the living standards (Dickson & Benneh, 1988: 43).

2.11. Importance of the Trade

Large numbers of people were attracted to the coastal areas where forts and castles were located. This developed the coastal towns and villages such as Keta and Ada into cosmopolitan centres.

The trade attracted a lot of people to reside in Keta to engage in business. This resulted in a new class of people known as Mulattoes offspring of European traders and African women. Some Mulattoes rose to high positions in the European companies and some others also exercised wide influence in the communities around the fort. The early clerks and store keepers became the trading families in Keta. These trading families included the Acolatse (UAC), the Adedevohs (UAC), the Akligos (John Holt) and the Zaneys (G. B. Olivant). There were also offspring of Lebanese and Ghanaian mothers such as the Abdallahs, Kriams and Nassers who also settled in Keta (Akeampong 2001: 102- 103). The trade also brought about Christianity on the Gold Coast. In Keta, the first church to be established was by the Bremen Mission.

The interaction also brought about formal education in Keta. This is evident in the various missionary schools that were established.

Local men were also trained in masonry, carpentry and bricklaying. Also canoe riders and canoe builders were also trained. This improved their skills.

Keta became one of the towns which offered off-shore port services (Buah 1998: 130). In the 1820's the port which used to be a watering station for ships and also a slave port became a port for palm oil exportation (Dickson 1971: 140). With its large natural resources, Keta was among the three towns including Half Assini and Salt Pond where prospecting of petroleum began in Ghana in the early years of the 20th century (Buah 1998: 122). Three on-shore and one off-shore

(Keta-1) wells were drilled in the Keta Basin. Two of these as recorded by Kesse (1985: 51) had hydrocarbon.

An inland postal service covering the colony and protectorate was established in 1888. Telegraphs and telephones were later connected through Keta. In 1894, a direct coastal line was completed. This linked Axim, Accra, Ada, Keta and Lome and a permanent line was completed in 1907 (Dickson 1971: 100).

2.12. Negative Impact of the Trade

The trade although brought so much revenue and development to the Gold Coast and for that matter Keta, there was negative repercussions as well. Some of these negative impacts were the introduction of prostitution to the area and over population that made people build at places that were not to be used for building. The bombardment of the town which killed a number of people and the northern trade cannot be left unmentioned. The exportation of the natural and human resources has industrialized Europe. The slave and gold trade and trade in other resources have also at the same time deprived Africa of industrialisation and development.

2.13. Archaeological Researches conducted on contact sites in Ghana

Until recently, research conducted on forts and castles was mainly in the Greater Accra and Central Regions with little or no work in the Volta and Western Regions. With this concern, Biveridge (2014: 5) worked at Fort Metal Cross to add to what Freeman (2008), Gyam (2008), Kumah (2013) and Nyarko (2013) have done in the Western Region. This research work in Keta has enhanced the drive for more archaeological research to be conducted in the southern sector of the Volta Region.

Diog Simmonds carried out archaeological investigations in the Cape Coast Castle in 1972 (Simmonds 1973). He excavated a dungeon used in the early centuries for storage of goods and later used as slave dungeons. Finds collected from the excavations included beads, smoking pipes, bones of cattle, sheep, goats, geese or turkey, cowries, sealing wax and floor debris. He concluded that the dungeon was used for keeping slaves for 30 years and for storing trade items for 150 years.

The Scottish Kirkdale Expedition (Kirkdale and Johnson 1992) also carried out an archaeological survey in 1991 at Cape Coast Castle involving a reconnaissance and test-trenching in 15 locations including the male dungeons, female dungeons, area outside the south battery and the courtyard. Finds retrieved from the excavation included 18th and 19th century locally produced pottery, European imported glass beads, European cream ware ceramics, Dutch smoking pipes and gin bottles. The Kirkdale expedition concluded that there was earlier building that had been demolished.

Excavations conducted by Anquandah (1993) in 1992 at Fort St Jago site in Elmina revealed 16th century Portuguese-type red bricks, 17th century Dutch-type red bricks, 17th-19th century Dutch ceramics, glassware and smoking pipes and Venetian beads, 17th-18th century German and Chinese ceramics, 18th -19th century English Ceramics and pipes, and a Dutch mural inscription with a calendric date of 1671 (Anquandah, 1993: 20). Anquandah has concluded that these finds place Fort St. Jago in a chronological range of c.1503-1900.

Anquandah (1997) in 1996 worked at the Cape Coast Castle, the English headquarters. He excavated the 1653 Swedish Brick Fort, underlying the 18th century English stone castle, the

female dungeon for slaves, the 18th century English fort and burials in the cemetery of the castle courtyard. Archaeological materials such as imported ceramics, beads and glassware proved that these imports were from different European nations. Other excavated materials were locally manufactured pottery, imported smoking pipes, bricks and tiles, a large quern, iron implements, iron slag, food remains, locally-manufactured pipes, armaments and a water conduit. Mollusca shells such as *Arca senilis*, *Cardium ringens* and *Donax rugosus* were used for food. Anquandah concluded from the analysis of faunal remains in the female dungeon that probably some slaves were well fed. The material record such as local pottery, molluscs, metal work, milling equipment and remains of livestock also confirmed the large numbers of African domestic servants who lived in the castle.

Anquandah (1997) in 1996 conducted a second phase of excavations at the Dutch Military Fort in Elmina to continue and add to what he did in 1992. Archaeological materials excavated included local pottery, faunal remains, molluscs, metal works, imported ceramic, imported smoking pipes, glassware, roofing tiles, writing slates, Portuguese- and Dutch-type bricks and glass beads. The imported ceramics give the date range from the late 17th century to the 19th century.

Anquandah (2002) conducted another excavation in 1999/2000 at Fort Crevecoeur, Accra. The imported material remains excavated included German stone ware, Chinese porcelain, Delft ware, English cream/ Pearl ware, and white ware, bricks and tiles, glassware made up of medicine, soft drink and alcoholic bottles, gun parts, cannon balls, cowry shells, slate, brass ware and smoking pipes. The local material remains consisted of pottery, smoking pipes, brass

bangles, iron tools, shell and stone beads and human burials. Faunal remains consisted of horse, turkey, cattle, fowl, fish and cat bones. His excavations confirmed that the Dutch had both officials and local servants together in the fort. They subsisted on farms created near the castle.

Research conducted by Wazi Apoh (2013) in 2005 at Kpando-Todzi, Volta Region, where German and British colonial officers, as well as post-independent Ghanaian administrators of the Kpando District resided has produced interesting findings on the lifeways of the administrators. He excavated four loci. Locus A was located at the courtyard of the main colonial building; Locus B was located at the space in front of the main building; Locus C was located at a rubbish mound side associated with the local support staff quarters; and Locus D was located at the rubbish mound site associated with the main building.

The finds recovered were local pottery, metal objects, glassware, faunal remains, imported ceramics, European and local pipe fragments, coins, cowries, buttons, beads, bullet shell casings, mortar and bricks. He also recovered a complete bone China earthen ware plate with a gold band and gilt on the rim as well as embossed Ghana Coat of Arms close to the edge of the plate. The research explored how German and British colonial officials established their regimes and "practised their daily living arrangements in district centres far from their colonial capitals" (Apoh 2013: 352). It also examined fragments of domestic technology and food ways of the colonial officials to ascertain whether they "maintained social boundaries by strictly consuming imports" or they "eroded … material boundaries by employing … the services of indigenous cooks and their local domestic technology" and by "reprovisioning and appropriating indigenous food and other products" (Apoh 2013: 364). He concluded that the even distribution of imported

ceramics in all areas of the site, as well as the consumption by both European colonial officials and the local people give the impression of the creation of "boundary and status distinctions" (Apoh 2013: 368) among residents of the site was not through the use of imported ceramics or eating habits. He further observed that the stone and brick architecture of British and Germans were admired by the African elite who built similar houses as that of the Europeans.

In 2006, Boachie-Ansah (2008) excavated Fort Amsterdam at Abandaze in the Central Region. The excavated finds recovered included iron objects, palm seeds, mollusc shells, polythene artefacts, European and Chinese pottery, locally manufactured pottery, glass beads, glass bottles, European smoking pipes, fragments of locally manufactured smoking pipes, red and yellow bricks, roofing tiles, cuprous and iron artefacts and finally faunal remains.

Many of the finds from the excavation date to the 18th century and are Dutch in origin. He concluded from the excavation that the Europeans in the fort may have adapted to local lifeways as the locally manufactured pottery and the mollusc shells clearly indicate.

In 2008, a 2 x 3 m trench was dug by Boachie-Ansah (2015) at Kormantin No. 1, the home of the local population at the time when Fort Amsterdam was occupied by the Dutch or the English from 1631 - 1811. The excavation produced European, Japanese and locally manufactured pottery, gun flint, glass bottles and beads, European smoking pipes, bricks and roofing tiles, metal objects, animal bones and mollusc shells. The site has been dated from the mid-18th – 20th century. Trade with Europeans is attested by the imported finds. According to the excavator, the subsistence economic lifestyle of the site's inhabitants has inferred from animal bones and

mollusc shells was similar to that of the Europeans and residents of Fort Amsterdam who also depended on local resources for food (Boachie-Ansah 2015: 35).

In 2007, Freeman (2008: 41-92) excavated 8 units within the precincts of Fort William at Anomabu. Finds from his excavations included locally manufactured pottery, imported ceramics, slate pencils, metal objects, mollusc shells, European smoking pipes, glass beads, alcoholic beverage bottles, gun flints and bricks. He concluded that many of Anomabu natives were assimilated to European culture. His conclusion was based on the fact that many of the natives have European names; several houses have characteristic features of European architecture; the majority of the population is Christian and European cultural materials abound in two excavated incinerators used by the indigenes.

Samuel Gyam (2008) excavated three units at Fort St. Anthony in Axim in 2006. The first pit, measuring 1 x 1 m, was located outside the fort, about 136 cm from the western bastion. The second unit measuring 2.5 x 2 m was opened outside the fort, between the southern bastion and the entrance. The third pit measuring 1 x 1 m, was excavated in the local community. Finds from the first pit included European smoking pipes, broken bottles, shells of marine mollusc, locally manufactured pottery, European ceramics, yellow Dutch bricks, brown Portuguese bricks and human bones. The second pit also produced glass bottles, nails, plastics, European smoking pipes, sea shells, broken bottles, locally manufactured pottery, European ceramic, yellowish burnt brick tiles and animal bones. Finds from the third pit consisted of European and locally manufactured smoking pipes, glass beads, marine shells, metal objects and European ceramics.

Nearly all the pipes were of Dutch origin and dated from17th – 19th century origin. The European ceramics consisted of 16th - 17th century coarse earthen ware probably from Portugal and the Netherlands; delft ware with dates ranging from 1685 - 1800, late 18th century British or Dutch refined cream wares, a single Chinese porcelain sherd and German stoneware. Many of the glass bottles were wine and spirit bottles. Among these were free-blown, onion-shaped wine bottles characteristic of the 17th and early 18th centuries. The beads consisted of a 17th century Dutch twisted square bead, 18th century Venetian drawn bead, and early 19th / 20th century Venetian Millefiori cane bead.

Gyam concluded that the recovery of local pottery as well as European ceramics points to the use of these artefacts concurrently in the fort.

Daniel Kumah's (2013: 11) research was conducted at Awudua Dada on the west bank of the Ankobra River where the Dutch established a trade post in the mid-17th century. The area was an inland port on the bank of Ankobra. Four units consisting of two 2 x 2 m pits, one 2 x 1 m trench and one 1 x 1.5 m trench were excavated on selected mounds. The objective of the research was to ascertain how the presence of the Dutch and other Europeans affected the people of Awudua and their culture and vice versa. Finds from the excavations consisted of locally manufactured pottery, European glass bottles some of which were produced by J.H. Henkes and JJ Melchers; drinking glasses, European ink ceramics including stone ware, cream ware, Pearl ware and white ware, European smoking pipes, a 19th century Venetian glass bead, faunal remains, pieces of iron slag, fragments of daub and palm nuts. The numerous fragments of glass bottle according to the

excavator testify to the consumerist nature of the local economy and trade with the Dutch and local merchants particularly during the 18th and 19th centuries.

In 2012 Edward Adum Nyarko (2013) excavated at the Prince's town (locally known as Kpokeso) where the Brandenburgers built Fort Gross Fredericksburg. His research sought to understand the nature of interactions that existed between Africans and Europeans. To this end he gathered data that informed on how the presence of the Brandenburgers and other Europeans affected the people of Kpokeso and their culture. He excavated around an old palace of Kpokeso, John Conny's mansion (the house of a broker of the Brandenburgers and a merchant who later became a ruler at Kpokeso, Governor at Fort Gross Fredericskburg and an overlord of Ahanta region), and at the foothill of the hill on which Fort Gross Fredericksburg is located. Finds from his excavations included locally manufactured pottery; European wine and gin bottles, some produced by J.H. Henkes and J.J. Melchers; European ceramics including whiteware, creamware and pearlware; Chinese Porcelain with painted floral designs; European smoking pipes including Gouda pipes; mollusc shells; iron objects associated with skeletal remains and suspected to be remnants of chains and shackles of slaves; Carnelian and Venetian Millefiori cane glass beads and granite and quartz pebble stones suspected to be grave markers. The author concluded that the presence of European materials in African context at Kpokeso attests to interactions of Europeans and the local people. He did not see a clear stratigraphic distinction between the Brandenburg period, the Dutch period and the English period in his excavated units.

Biveridge (2014) excavated ten units in three seasons at Dixcove in 2009 - 2011. He dug two units in season one in 2009 around Fort Metal Cross, three units in season two in 2010 at the native settlement of Upper Dixcove, and five units in season three in 2011, two of which were located at Turam and three at Bakano, all native settlements of Lower Dixcove. The first pit, Unit 1, measuring 1.5 x 4 m, was located approximately 2.5 east of the fort, close to a concrete pavement. The second pit Unit 2, measuring 2 x 2 m was located 11.3 m northeast of the fort, and just 7.23 m from the beachfront. Unit 3 measuring 2 x 1.5 m was located 3.1 m south of the fort from the beachfront. Unit 4 measuring 1 x 1 m, was excavated 2.6 southwest of the fort and just 4.2 m from the east end of the cove. Unit 5 measuring 3 x 1.5 was dug 13.9 m northeast of the fort and 19.4 m from the beachfront. This unit was 1.2 m west from Unit 2. Unit 6 measuring 1.5 x 2 m was located east of the Nfuma Lagoon on a low ridge about 20cm above sea level. Unit 7 measuring 1.5 x 3 m was located at Turum on a small mound about 7.3 m northeast of the Nfuma Lagoon and 15m north of Unit 6. Unit 8 measuring 1 x 2 m was located at Bakano and lay about 27 m southeast of the cove. Unit 9 measuring 2.5 x 2 m was dug about 22 m above sea level, and 43 m east of the cove on a narrow pathway between the back of two houses. Unit 10 measuring 2.5 x 2 m was excavated about 12.8 m southeast of the Nfuma Lagoon and 39.7 m from the beachfront.

Finds from the excavations included European smoking pipes, broken bottles, red bricks, bones, mollusc shells, European ceramics, tiles, glass beads, metal objects, palm kernel shells, local pottery, writing slate boards, slate pencils, iron slag, buttons, grinding stones, tar, tuyeres, canon, coins, stone grinders, querns and fragments of daub.

He dated the pre-Atlantic contact period at Dixcove to the early 16th century. Trade with Europeans led to a diminishing interest in hitherto important local vocations such as salt production and iron smelting. The trade attracted local entrepreneurs to move away from local vocations to the more profitable coastal trade sector. He also concluded that the positive impact of the trade with Europeans can be seen in the large quantum of fish remains found at the Atlantic contact levels compared to the pre-Atlantic contact levels. Trade with the Europeans according to Biveridge (2014) led to novel introductions such as cotton sails, ropes and seine nets which boasted growth the fishing industries. The economic opportunities and incentives provided by trade with the Europeans also led to movement of people to the Dixcove area which led to changes in the socio economic and political structure of the body polity of Dixcove. The adoption of European dress code, architecture, gustatory practices, European education and tobacco smoking attest to European influence on the culture of the people of the Dixcove area.

Victoria Aryee (2015) in 2014 conducted rescue excavations at the Fort Kongensten site in Ada Foah. She excavated a 2 x 3 m unit and a 1 x 1 m test pit.

The artefacts recovered were bones, European ceramics, mollusc shells, metal objects, bottles, cowries, beads, local pottery, fragments of smoking pipes, charcoal sample, bullet shell, a button, and a buckle. She concluded from the ceramic analysis that the excavated ceramics were flawed manufactured goods or factory rejects from Europe known as 'seconds'. The ceramics from her excavations did not have any form of manufacturers' embossment on them. The ports on the eastern coastline of the Gold Coast were not major trading centres, and the majority of factory rejects, according to L.B. Crossland (who assisted in the ceramic analysis), was sold there. Factory rejects were not embossed by the manufacturers for fear of losing their market.

According to Victoria Aryee (2015: 86), bulk of the finds from the excavations date to the 18th and 19th centuries which is the period when the Danes, and later the British, occupied the fort. The preponderance of European goods, according to Aryee (2015: 88) suggests "dominance and high influence of European culture", and the associated indigenous pottery and faunal remains "reflect a form of cohabitation" in the fort. On the other hand, the indigenous pottery in the fort portrays African influence on European lifeways.

CHAPTER THREE
ARCHAEOLOGICAL RESEARCH AT KETA

3.0. Introduction

This chapter discusses the archaeological survey and excavations that were conducted at the three selected sites in Keta (Map 6). It describes and analyses the archaeological finds recovered from the surface survey and excavations. The stratigraphy of the soil of all the four units and their implications for understanding the cultural past at the research area are discussed.

3.1. Reconnaissance Survey

Sharer and Ashmore (1993: 187) defined archaeological reconnaissance as the systematic attempt to identify or discover the location of archaeological sites. The archaeological reconnaissance at Keta was undertaken from 7th – 10th July, 2015. The objectives of the reconnaissance were to:

1. identify and locate important features where Africans and Europeans interacted such as the Fort, the market area, where Ghana Stores Bar and other shops were located, the UAC, G.B. Olivant, CFAO and John Bartholomew warehouses.
2. study spatial configuration of artefacts and ecofacts on the site.
3. identify and earmark specific places for excavations.

These objectives were achieved by the assistance of the Assemblyman, Mr. James Ocloo Akoli and with the aid of maps from the Municipal Assembly as well as research findings of Kpodo (1969). As noted by Sharer and Ashmore (1993: 197), reconnaissance survey becomes successful when local people are recruited to help by serving as guides to locate and identify sites. During the reconnaissance, it was realised that erosion had damaged the walls of the Fort. On the south east side of the site, where the Fort is located, fragments of yellow and red bricks, lime and

mollusc shells, broken bottles, iron nails, a metal fish hook and a wire mesh were found. Majority of the surface finds were from within the vicinity of the Fort. At the Ghana Stores Bar (which served as drinking bar in the market area), cowry shells, fragments of European smoking pipes, broken bottles, mollusc shells and local pottery were recovered. In the northern side of the site where the UAC ware house was located, there were metals objects, mollusc shells, European ceramics and broken bottles.

Artefacts found during reconnaissance survey were recorded. The reconnaissance did not only concentrate on archaeological sites but also historic buildings built during the era of Euro-Ewe contact at Keta. Information on the various European styled buildings was gathered through oral traditions, from historical records and observations. The observation was done by traversing the whole of Keta Township by foot. Past trading centres, the present-day market of Keta and the boundaries of the Keta Township were some of the areas visited. We walked in between rows of houses to identify surface configurations.

The reconnaissance was a time consuming activity because it was slow. We had to stop at some places to take second and third look at the characteristics of the place. We also had to engage some people who had knowledge about the various places in a conversational interview to get relevant information that would be beneficial for the research as well as to decide on the place to excavate. Photographs were taken of some topographic and archaeological features as a means of recording important data.

I used my visit to Keta to secure accommodation for members of my research team and to recruit local labourers. I also secured permission from chiefs, family heads, landlords, and the

Municipal Assembly. The knowledge and experience of the weather of Keta was important to plan for protective clothing.

3.2. Surface collection

Surface finds were collected in the areas where excavations took place. However, finds in areas where excavations were not conducted were not picked because the researcher did not want to disturb the provenience of the finds (see Schiffer, 1982: 629).

The items collected during the survey included metal objects such as nails, mollusc shells, smoking pipes, European ceramics, local ceramics, bones, a coin and broken bottles. Table 1 provides the list of surface finds from various sections of the site:

Table 1: Summary of Surface Finds from various sites of Keta

Artefacts/ Ecofacts	Fort Prinzenstein	Ghana Stores Bar	UAC	**Total**	**% of Total**
Local Pottery	**8**			**8**	**18.18**
European Ceramics	**2**		8	**10**	**22.73**
Bottles	**-**		2	**2**	**4.55**
European Pipes	**-**				**-**
Local Pipes	**1**			**1**	**2.27**
Bones	**-**				
Metals	**10**		1	**11**	**25**
Daub	**-**				
Bricks	**2**			**2**	**4.55**
Querns	**-**				
Iron Slag	**-**				
Mollusc Shells	**6**			**6**	**13.63**
Cowry Shells	**1**	2		**3**	**6.82**
Oil Palm	**-**				
Bead	**1**			**1**	**2.27**
Total	**31**	**2**	**11**	**44**	**100**

Table 1: Summary of Surface Finds from various sites of Keta.

3.3. Field Mapping

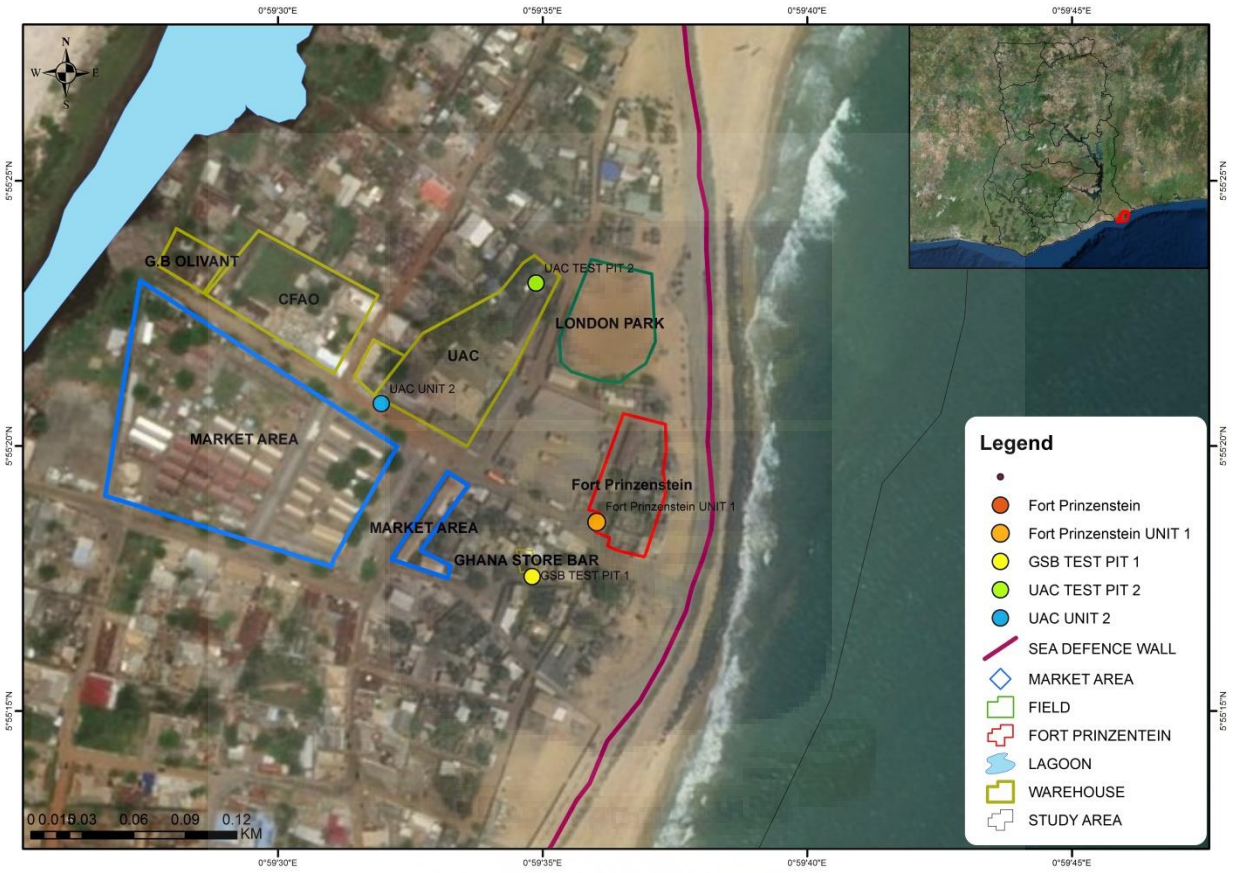
Field mapping is an important aspect of archaeological research because it helps to locate and plot areas with archaeological features, artefacts and ecofacts as well as important landmarks to establish the horizontal relationship between these features and landmarks. Mapping is defined as a scaled symbolic representation of a segment of the earth's surface, a two dimensional reality (Sharer and Ashmore 1993: 201). A hand held Global Positioning System (GPS) was used to establish and record the coordinates of the excavated units. The exact location of excavated unit is very essential for reference for further research in a future date.

3.4. Excavation at Unit 1 located at Fort Prinzenstein (05º 55.309'N and 000º 59.601'E)

Four units were excavated at three selected sites (see Map 6). The first, designated Unit 1 was located 1 m west of Fort Prinzenstein. The Unit was located at 05º 55.309'N and 000º 59.601'E. The area was selected because several surface finds in the form of locally manufactured pottery, metal objects, European ceramics, mollusc shells, and locally manufactured smoking pipes were found there. The place was also an area where, according to informants, cultural materials were found in the past. Finally, because it was located at the back of the fort, it was thought that unwanted materials were thrown there.

A test pit measuring 1 x 1 m was opened 1 m west of the west wall of the fort. The 1 x 1 m test pit was extended to a 2 x 2 m unit.

The site was characterised by loose sand with no trunks, vegetative cover and roots on the surface but below the surface, there was evidence of some roots which had caused some form of disturbances on the site.



Map 6: map showing the excavated units (Source: Oliver Asamoah: 2016)

Five (5) arbitrary levels of 20cm spits were dug here. Most of the finds recovered consisted of local pottery and mollusc shells. The first arbitrary level consisted of loose, brown sand (10YR 4/3) with rootlets, pieces of quartz and smooth pebbles. The materials that were recovered from Level 1 (0 cm-20 cm) were European smoking pipe stems, broken local pipe bowl, local ceramics, European potsherds, metal objects, bones, mollusc shells, quartz pebbles and glass

bottles. Level 2 (20cm-40cm) also consisted of the same loose, brown sand (10YR 4/3) with rootlets, pieces of quartz and smooth pebbles that characterised Level 1. The level produced materials such as local pottery, bottles, metal objects, European ceramics, smoking pipes, mollusc shells and a cowry shell. The stratigraphy of Level 3 (40cm-60cm) consisted of the same loose, brown sand (10YR 4/3) which characterised Levels 1 and 2. It was also characterised by a loose, yellowish brown sand (10YR 5/4) which underlain the loose, brown sand. Finds from the level were the same as those which characterised Level 2. However, there were more potsherds in Level 3 than in Level 2. The stratigraphy of Level 4 (60cm-80cm) consisted of the loose, yellowish brown sand (10YR 5/4) which characterised the lower part of Level 3. At this level, the cultural materials reduced in number and smaller sizes of potsherds were recovered. Also found in the level were mollusc shells, bones of fish and mammals, cowries, a coin, European smoking pipes, metal objects, mollusc shells, broken bottles, local smoking pipes, beads and European ceramics. Level 5 which ended at an average depth of 90 cm was also characterised by the loose, yellowish brown sand (10YR 5/4) which characterised Level 4. The finds in the level consisted of locally manufactured pottery, a single European sherd, broken bottles, fragments of European pipes and mollusc shells.

At this level, a human skull (see Figure 14) which indicated that there could be a burial in the ground (Figure 15) was found. The unit was therefore extended at the west wall by 1 m and the south wall was also extended by 1 m to create a 2 x 2 m pit. A grave dug into a sterile loose, pale yellow sand (10YR 3/2) which underlain the loose, yellowish brown sand (10YR 5/4) was uncovered (Figure 16). No grave goods were found in the burial. The extended pit produced similar finds as those already described.

It is important to note that Unit 1 produced the majority of the materials recovered (see Table 2). There was a maximum recovery of artefacts with the help of a sieve made up of a one eighth inch mesh. Sieving was very fast in Level 1 and part of Level 2. This was because the sand was dry and easy to sieve. However, in the deeper part of Level 2, and in Levels 3 and 4 sieving became a little cumbersome. This was because the soil was quite moist.

The soil at the various levels were collected and sent to the Soil Science Department of the School of Agriculture and Consumer Science for identification and classification.

Figure 14: Picture of Unit 1(1x1 test pit). Note the skull at the base (Source: author's collection, 2015).

Figure 15: Picture of the full skeletal remains after the extension of the unit to a 2x2cm (Source: author's collection, 2015).

An invitation was extended to the local authorities to perform rites at Unit 1 when the discovery of the skeletal remains was made. Libation was poured at the site. This was very important because according to traditions we had disturbed the sleep of an ancestor and this was meant to pacify the ancestor. Togbui James Ocloo, the Dufia of Keta was of the view that the skeleton is that of a male. He based his assertion on the fact that males have bigger bones and this person had big bones and was also very tall. The head of the skeleton faced the east. The bone was very fragile but the soil beneath it was quiet compact. Ideally the skeleton should have been consolidated and conserved to avoid further breakage. This was not done because organic polymers used for morphological structural preservation of deteriorating fragile bones on the field (Johnson, 1994) were not available.

Table 2: Summary of Finds from Fort Prinzenstein, 2015

Artefacts/ Ecofacts	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Total**	**%**
Local Pottery	4583	832	1680	40	16	**7151**	**56.66**
European Ceramics	4	1	3	-	1	**9**	**0.07**
Bottles	110	50	-	-	3	**163**	**1.29**
European Pipes	103	91	15	-	4	**213**	**1.69**
Local Pipes	3	1	-	-	-	**4**	**0.03**
Bones	938	352	6	1	-	**1297**	**10.28**
Metals	13	6	3	-	-	**22**	**0.17**
Daub	1	-	-	-	-	**1**	**0.01**
Bricks	15	7	-	-	-	**22**	**0.17**
Querns	4	2	-	-	-	**6**	**0.05**
Iron Slag	1	-	4	2	-	**7**	**0.06**
Shells	1402	950	580	621	157	**3710**	**29.40**
Cowry Shells	3	2	-	1	-	**6**	**0.05**
Oil Palm	-	-	1	-	-	**1**	**0.01**
Bead	5	1	3	-	-	**9**	**0.07**
Total	**7185**	**2295**	**2295**	**665**	**181**	**12621**	**100**

KE 2015

FORT PRINZENSTEIN

SOIL PROFILE OF EAST WALL

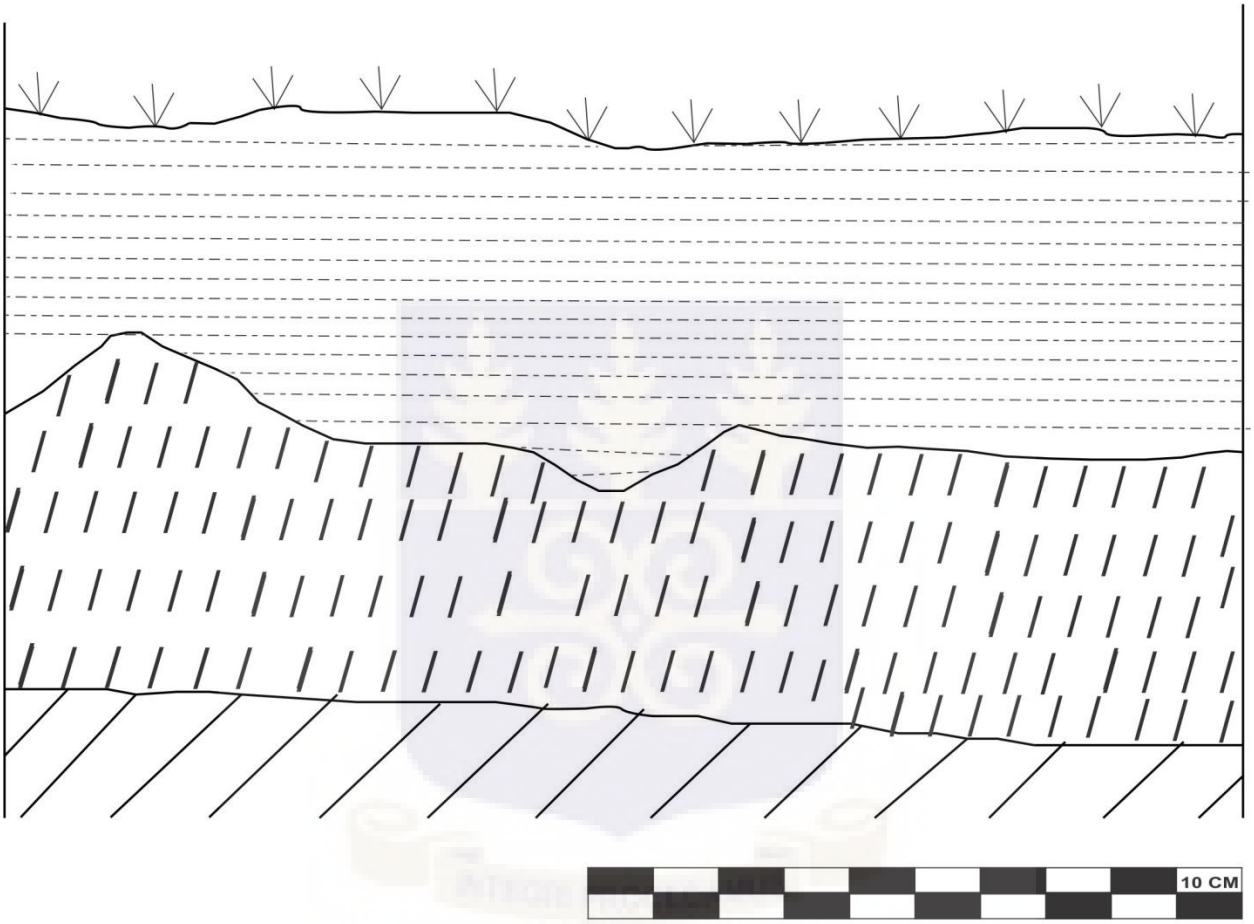


Figure 16: Soil Profile of the East Wall of Unit 1 (Fort Prinzenstein; Source: author's collection, 2015).

3.5. Excavation of Test Pit 1 at Ghana Stores Bar (05º55.292ˈN and 000º59.580ˈE)

Test Pit 1was located along the frontage of the Ghana Stores Bar. The site was selected based on the surface materials such as stems of pipes, broken bottles and ceramics that the indigenes claimed were exposed in the area whenever there was a heavy outpour of rain. The indigenes added that the site was also a place where Europeans and Africans interacted without discrimination.

A 1 x 1 test pit was dug at exactly 05º55.292ˈN and 000º59.580ˈE, about 100 cm to the east of the Ghana Stores Ware house. The test pit attained a depth of 60 cm and three arbitrary levels were recorded. The stratigraphy of Level 1(0 – 20 cm) consisted of a loose dark grey sandy soil which at its deepest point attained a depth of 20 cm. In some areas, Level 1, in addition to the dug sandy soil, was also characterised by loose, yellowish brown sandy soil which underlain the loose dark sandy soil. Finds from Level 1 consisted of locally manufactured pottery, fragments European smoking pipes, glass beads and mollusc shells (see Table 3).

Arbitrary Level 2 (20 – 40 cm) was characterised by fine, loose, yellowish brown sandy soil. Finds from the level consisted of locally manufactured pottery, animal bones, mollusc shells, a cowry shell and glass beads.

Level 3 (40 – 60 cm) was characterised by loose, light grey sandy soil (Figure 18). Finds from the level consisted of locally manufactured pottery, animal bones, mollusc shells and glass beads. A human skeleton was uncovered between a depth of 40 to 60 cm. The length from the knee bone to the pelvic bone was 45 cm. The pelvic bone of the skeleton was exposed close to the western wall. The legs were embedded in the west wall and beyond the wall. Part of the leg

bones were towards the south wall. Several of the glass beads were found around the pelvic area of the skeleton (Figure 17).

However, this burial, unlike the previous one, was at a higher level between 40 cm to 60 cm (Level 3). Some of the bones appeared to have extended beneath the concrete foundation of Ghana Stores Ware House. The excavation could not be expanded and could not continue beyond this level. This was because the ware house was not abandoned and had occupants there. The excavation was therefore discontinued.

The soil in this pit was wet due to down pour of rains the previous night. This made it difficult and slowed down sieving (see Figure 19). The hand trowel was used to search for artefacts in the soil in the sieve as the soil had covered some of the small finds which could not be seen easily.

Figure 17: Picture of Test Pit 1(Ghana Stores Bar). Note the pelvic bone at the base (Source: author's collection, 2015).

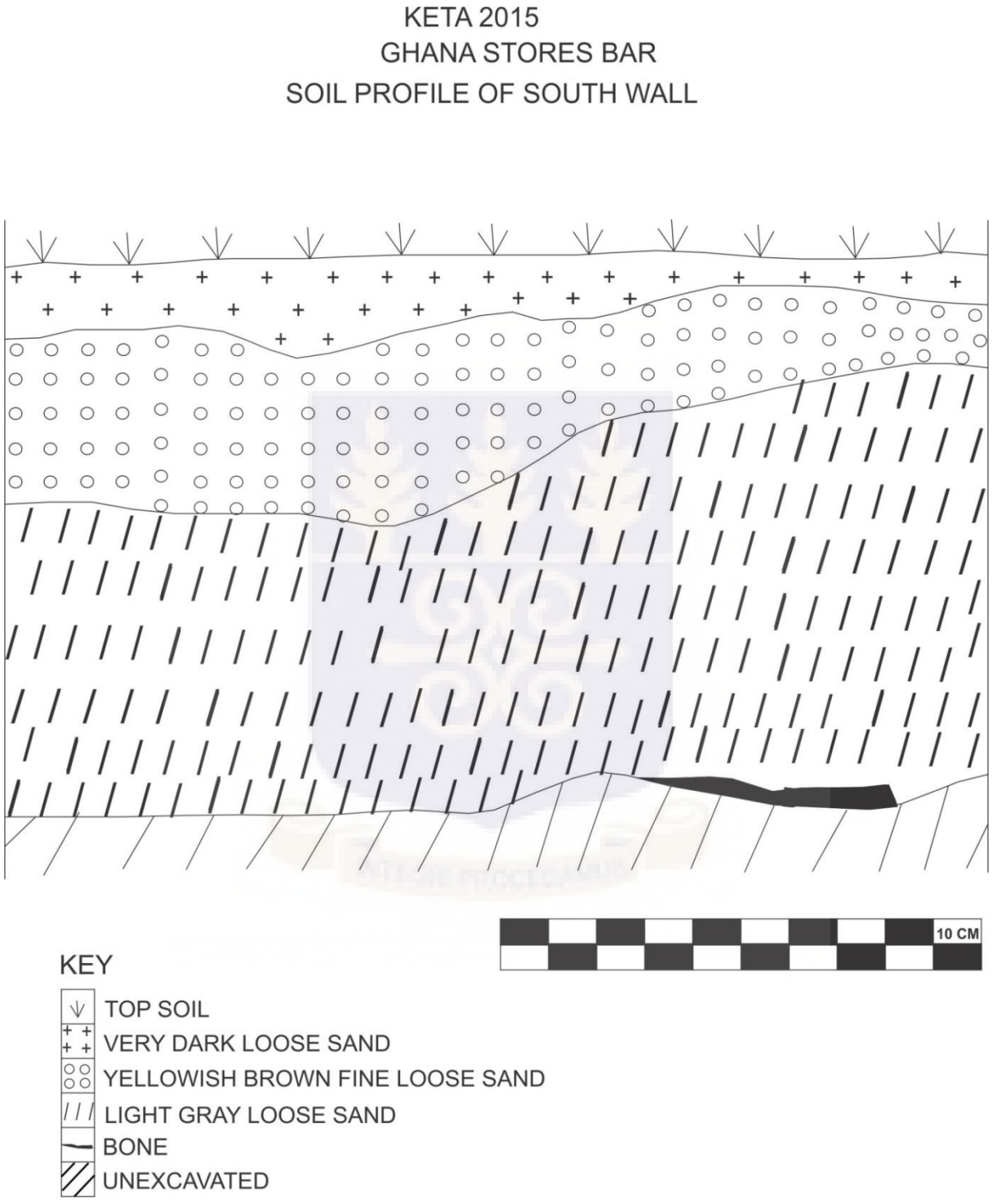


Figure 18: Soil Profile of the South Wall of Test Pit 1(Ghana Stores Bar; Source: author's collection, 2015).

Figure 19: Picture showing members of the research team sieving wet soil at the Ghana Stores Bar (Source: author's collection, 2015).

Table 3: Summary of Finds from Ghana Stores Bar, 2015

Artefacts/ Ecofacts	Level 1	Level 2	Level 3	Total	%
Local Pottery	80	2	6	**88**	**18.03**
European Ceramics	-	-	-	-	-
Bottles	-	-	-	-	-
European Pipes	14	-	-	**14**	**2.87**
Local Pipes	-	-	-	-	-
Bones	-	12	93	**105**	**21.52**
Metals	-	-	-	-	-
Querns	-	-	-	-	-
Iron Slag	-	-	-	-	-
Mollusc Shells	87	61	11	**159**	**32.58**
Cowry Shell	2	1	2	**5**	**1.02**
Oil Palm	-	-	-	-	
Beads	8	2	107	**117**	**23.98**

Total	**19**	**78**	**219**	**488**	**100**

3.6. Excavation: Test Pit 2 at the UAC (05º55.383ˈN and 000º59.582ˈE)

Test Pit 2 05º55.383ˈN and 000º59.582ˈE measuring 1 x1 m (Figure 20) was located inside the yard of the UAC warehouse. This site was selected because of the significant role the UAC played in trading among Europeans and Africans during the colonial period.

The Test Pit was located about 2 m north-east of the UAC warehouse, close to a memorial cemetery. The test pit was dug here because it was thought that unwanted items from the warehouse may have been thrown there.

At 90cm below ground surface, the excavation was abandoned because water began seeping from the ground. Also, there was no archaeological finds from the pit. The stratigraphy was collapsing so we decided not to extend this unit as planned.

Figure 20: Test Pit 2 excavated in the yard of the UAC building (Source: author's collection, 2015).

3.7. Excavation: Unit 2 at UAC, 05º55.347'N and 000º59.532'E)

The UAC Unit 2 was the fourth unit to be excavated. It was a 2 x 1 m trench. It was located at 05º55.347'N and 000º59.532'E, about 50cm from the south wall of the UAC warehouse and very close to the entrance of the warehouse. The unit was excavated because Test Pit 2 did not produce any finds.

The site was covered with grass. The grass was cleared before excavation. Amongst all the excavated units, this site was the only one covered with grass. The grass at this site could be an indication that some form of human activities had occurred there which had possibly made the soil fertile enough to have nourished the grass. Another reason for selecting this site was because it was directly beneath a window where I believed that damaged materials could have been thrown away. This site also shares a common wall with a collapsed Chapman building

compound. The refusal of the caretaker to grant us permission to excavate the ruins of the Chapman building compelled us to dig near the UAC warehouse.

Finally, because no cultural materials were recovered within the yard, the team was compelled to excavate another unit to be sure some cultural remains would be recovered from that area.

The trench attained a depth of 60cm. The first arbitrary Level 1(0 – 20 cm) was characterised by loose, brown coarse sand (10YR 4/3) with quartz gravels and rootlets. Beneath this layer, at an average depth of about 7 cm was a red tiled floor (7 cm thick). This was also underlain by loose yellowish brown sand (10 YR 5/4). Finds from the level consisted of locally manufactured potsherds, European ceramics, fragments of broken bottles, European smoking pipes, animal bones, a roofing slate, mollusc shells and pieces of metal objects. At about a depth of 15cm, a brick wall measuring about 22cm wide was uncovered in the middle of the trench. The wall was across the pit and was located about 1.40 m from the north wall (Figure 21). A concrete floor, found at a depth of about 20cm covered a length of 60cm from the brick wall.

The second arbitrary level (20 – 40 cm) was characterised by loose yellowish brown sand (10YR 5/4) beneath which appeared grey clay sulfaquept (10 YR 5/1). Finds from the second level consist of locally manufactured potsherds, European ceramics, a broken bottle, metal objects, a brick, pieces of roofing slate, a bead and mollusc shells.

Arbitrary Level 3 (40 – 60 cm) was characterised by the grey clay sulfaquept (10 YR 5/1) which characterised the bottom level of arbitrary Level 2. At a depth of 60 cm, water began to flow from the bottom of the pit in the area of the north wall (Figure 21, 22). Finds from arbitrary

Level 3 consisted of European ceramics, metal objects, broken bottles, animal bones, bricks, a bead and mollusc shells (Table 4).

Community members including the caretaker of the Chapman house and her children came to observe the process. They asked a lot of questions. The community members were excited about the relevance of archaeology upon answering their numerous questions. The community members were interested in how soon the cultural materials of their past would be analysed and returned to the museum in Keta.

Meanwhile the caretaker of the Chapman house was sorry about preventing us from working in the ruins and wished we could conduct an excavation in her house but that was the last day of the excavation. Her children collected some clay from the excavation conducted to work with at school. They would have had to go to the lagoon side to do the collection of the clay. The profile was drawn and pictures of the profile wall were taken. The pit was back filled.

Figure 21: Unit 2, excavation in front of UAC showing the water that was flowed profusingly and the excavated brick wall (Source: author's collection, 2015).

Table 4: Summary of Finds from UAC, 2015

Artefacts/ Ecofacts	Level 1	Level 2	Level 3	Total	%
Local Pottery	74	27	-	**101**	**21.49**
European Ceramics	3	10	10	**23**	**4.89**
Bottles	19	1	33	**53**	**11.28**
European Pipes	5	-	-	**5**	**1.06**
Local Pipes	-	-	-	-	-
Bones	64	-	18	**82**	**17.45**
Metals	16	17	6	**39**	**8.30**
Bricks	10	1	3	**14**	**2.98**
Roofing Slate	1	2	6	**9**	**1.91**
Querns	-	-	-	-	-
Iron Slag	-	-	-	-	-
Shells	89	42	12	**143**	**30.43**
Oil Palm	-	-	-	-	-
Bead	-	1	-	**1**	**0.21**
Total	**281**	**101**	**88**	**470**	**100**

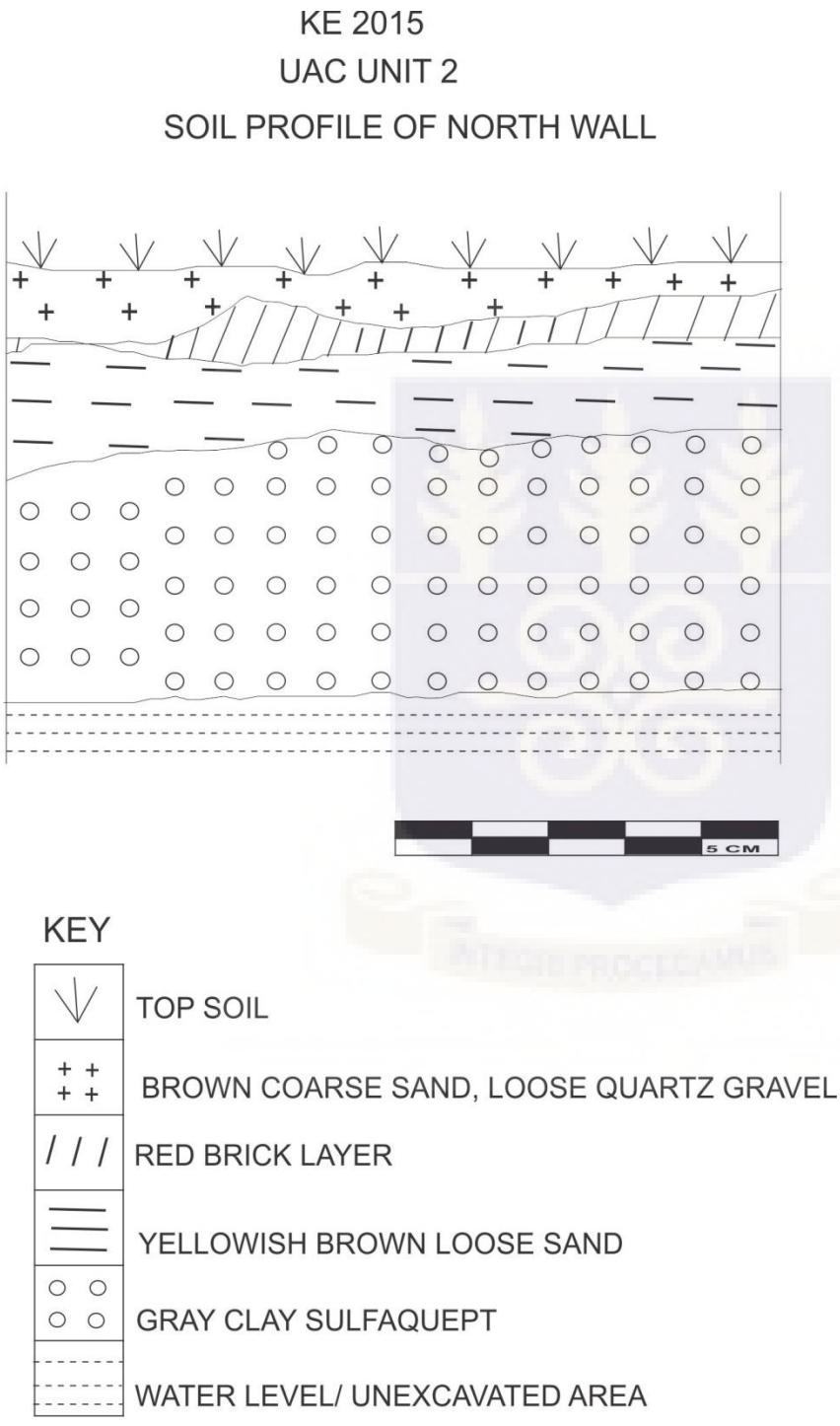


Figure 22: Soil Profile of the North Wall of Unit 2 (UAC).

CHAPTER FOUR
ANALYSIS OF ARCHAEOLOGICAL FINDS FROM KETA

4.0. Introduction

This chapter describes and deals with the analysis of the archaeological finds that were excavated in the selected three sites at Keta. To facilitate the analysis, the finds were first classified into artefacts and ecofacts. The former were further sub classified according to their origins, namely foreign and locally made artefacts. Some of the foreign made artefacts included ceramics, smoking pipes and glass bottles whiles the locally made artefacts comprised pottery and smoking pipes. These finds have been described in detail below. For the purpose of clarity, the names of the excavated pits are named as follows Unit 1 (Fort Prinzenstein or FP), Unit 2 (Ghana Stores Bar or GSB) and Unit 4 (UAC). Note that there were no finds from Test Pit 2 at the UAC area (which would have been Unit 3).

4.1. Excavated Materials

The total number of finds excavated at the Keta site amounted to 13,579. Of this number, locally produced pottery registered a total of 7,340 which constituted 54.05% of total finds. This was followed by mollusc shells numbering 4,012 and constituting 29.55% of the total finds. A total of 1,484 animal bones constituting 10.93% of the total finds were also analysed. Other finds from the excavations were cowry shells, smoking pipe stems and bowls, broken bottles and metals (see Table 5).

Table 5: Table showing types and quantum of finds found at the various sites

Artefacts/ Ecofacts	Fort Prinzenstein (Unit 1)	GSB (Unit 2)	UAC (Unit 4)	Total	%
Local Pottery	7151	88	101	**7340**	**54.05**
European Ceramics	9	-	23	**32**	**0.24**
Bottles	163	-	53	**216**	**1.59**

European Pipes	213	14	5	**232**	**1.71**
Local Pipes	4	-	-	**4**	**0.03**
Bones	1297	105	82	**1484**	**10.93**
Metals	22	-	39	**61**	**0.45**
Daub	1	-	-	**1**	**0.01**
Bricks	22	-	14	**36**	**0.27**
Querns	6	-	-	**6**	**0.04**
Iron Slag	7	-	-	**7**	**0.05**
Shells	3710	159	143	**4012**	**29.55**
Cowry Shells	6	5	-	**11**	**0.08**
Oil Palm	1	-	-	**1**	**0.01**
Bead	9	117	1	**127**	**0.94**
Roofing Slate	-	-	9	**9**	**0.07**
Total	**12621**	**488**	**470**	**13579**	**100**

4.2. Local Pottery

A total of 7,340 potsherds of locally-manufactured vessels were recovered from the excavations. This is not surprising as locally produced pottery is the predominant finds of many archaeological sites (Joukowsky, 1980: 332).

The potsherds were examined under a microscope to observe and visually identify some of the constituents of the clay used in producing them. Some of the sherds were also submitted for geological analysis. This was to enable me to determine their paste and fabric characteristics. The sherds were also measured at their longest axis and grouped according to their size which was from 0-3 cm and above 3 cm. This was to give an idea about the condition of the sherds. The surface finish characteristics such as red slipping, smudging and burnishing were also examined. The potsherds were grouped into vessel part categories namely rim, neck, body, handle, lid, base, pedestal and colander. In order to determine the function of pottery vessels, the sherds were classified into shapes or vessel forms.

4.3. Paste and Fabric Characteristics

The sherds are well fired, and are in good condition. Both fine and coarse grain sherds are represented. Colour of inner and outer fabric includes reddish brown, brown, black or grey. Visual examination of the sherds revealed mica and quartz fragments in the inner fabric. This was supported by geological examination conducted in the Department of Earth Science, University of Ghana, Legon.

Selected thin sections were examined by Mr. Daniel Kwayisi to help identify the geological content of the potsherds. Twenty five samples were taken at random from the local potsherds. However, care was taken in order to be sure that the samples were not from the same pot. The surface colour and the temper were some of the characteristics that were considered before choosing the samples. The geologist, Mr. Daniel Kwayisi selected three out of the twenty five samples sent using his knowledge and background in geology. The three samples were all from Unit 1. One was from Level 1 and two were from Level 3 labelled KEFP/15/L1, KEFP/15/L3A, KEFP/15/L3B respectively.

The sample KEFP/15/L1 was reddish brown, fine to coarse grain and massive. It was composed of quartz, plagioclase, rock fragments, and biotite that are set in fine grained clay (see appendix 1). The quartz and rock fragments were angular to sub-round and were embedded in fine grained clay. This sample did not react with dilute HCl indicating the absence of carbonate minerals. Generally, the grains were angular to sub-round which may suggest short distance travel. Considering the mineral content of the samples and their sub-angular to sub-rounded nature, it can be concluded that their source could be from the local geology and surrounding areas. (Nutor

Nutor (2010: 67) has also noted that sherds from Dzake-Peki, to the north-west of Keta also contain quartz fragments.

4.4. Condition and surface finish characteristics

The sherds were in good condition. A total of 6,680 sherds constituting 91.01% of the total sherds were longer than 3 cm when measured on their longest axis. Only 660 sherds constituting 8.99% of the total sherds were less than 3 cm when measured on their longest axis (see Table 6). Red slipping was popular and characterised 4,440 (60.49%) of the total sherds (Table 7). Slipping is achieved by dipping the vessels in a solution of fine clay or laterite gravel, generally of pea-soup consistency (Joukowsky 1980: 35). In Ghana, slipping is usually done by painting the surface of vessels with the solution of the slip (known in Twi as *ntwima* and in Ewe as *anigye*) with the aid of a smooth cloth, or by pouring the solution on vessels. This is probably an old tradition in the potting industry (Crossland, 1989: 59).

Burnishing was also popular and characterised 5,298 (72.07%) of the total sherds (Table 8). "Burnishing is smoothing or polishing of the leather-hard surface of the vessel with a hard, smooth instrument before the vessel is fired" (Joukowsky 1980: 380; Nkumbaan 2003: 88; Gyam 2008: 103). This process gives the pottery smooth and shiny finish, sealing the pores on the vessels.

Smudging was not very popular and characterised 3,025 (41.21%) of the total sherds (Table 9). Smudging is also a surface treatment that is done during ceramic production. This process is done by darkening the pots with dark smoke produced from fresh leaves or grasses which are

added to the fire during firing. The dark smoke which is usually thick stains the pots and leaves a shiny surface.

Table 6: Table showing the size of sherds from the excavations

Size			
Unit	<3CM	>3CM	Total
One	647	6504	7151
Two	6	82	88
Four	7	94	101
Total	660	6680	7340
Percentage	8.99%	91.01%	100%

Table 7: Table showing distribution of slipped and unslipped sherds

Slipping			
Unit	Slipped	Unslipped	Total
One	4329	2822	7151
Two	67	21	88
Four	44	57	101
Total	4440	2900	7340
Percentage	60.49	39.51	100%

Table 8: Table showing distribution of burnished and unburnished sherds

Burnishing			
Unit	Burnished	Unburnished	Total
One	5116	2035	7151
Two	78	10	88
Four	96	5	101
Total	5290	2050	7340
Percentage %	72.07	27.93	100

Table 9: Table showing distribution of smudged and unsmudged sherds

Smudged			
Unit	Smudged	Unsmudged	Total
One	2956	4195	7151
Two	12	76	88
Four	57	44	101

Total	3025	4315	7340
Percentage %	41.21	58.79	100%

4.5. Classification into vessel parts

The most predominant of the vessel parts were body sherds which constituted 91.62% of the total sherds (see Table 10). This was followed by neck sherds which constituted 4.35% of the sherds. The rim sherds were the third predominant which constituted 3.95% of the total sherds. Pedestal and colander constituted only 0.02% each of the total sherds. Base and lid constituted only 0.01% of the total sherd. It was observed that the ratio between the number of body sherds and that of the rim sherds was too wide.

Table 10: Table showing sherd types found in each unit

Unit	Rim	Neck	Body	Base	Pedestal	Colander	Lid	**Total**
One	259	295	6591	1	2	2	1	**7151**
Two	10	4	74					**88**
Four	21	20	60					**101**
Total	290	319	6725	1	2	2	1	**7340**
%	**3.95%**	**4.35%**	**91.62%**	**0.01%**	**0.03%**	**0.03%**	**0.01%**	**100%**

4.6. Decorative techniques and motifs

Out of the total of 7340 sherds, 7,111 (96.88%) were undecorated and the remaining 229 (3.12%) were decorated. Decorations on the sherds consist of incisions, grooves, roulettes, comb stamps, punctates, design painting and applique or plastic decoration (see Table 11).

Incision is created on clay vessel by dragging the sharp end of a tool on a leather-hard pottery to produce single or multiple lines on rim lips, necks, shoulders and on bodies before they are fired. Incisions are linear impressions with v-shaped cross-sections (Boachie-Ansah, 1986: 98). The incisions are horizontal, oblique or vertical. A total of 101 sherds (representing 44.10% of the

total decorated sherds) were decorated with multiple incisions while 27 sherds (representing 11.79 of the total decorated sherds) had single incisions.

Groove is achieved by dragging a blunt end of a tool on a surface of a leather-hard pottery to produce single or multiple depressed lines with u-shaped or squared sections on rim lips, necks, shoulders and on bodies before they are fired (Boachie-Ansah 1986: 96; Effah-Gyamfi 1978: 204; Kumah 2013: 113; Nutor 2010: 71). Grooves are broader than incisions which consist of linear impressions. Seven sherds (representing 3.06% of the total decorations) were decorated with single grooves and 3 sherds (representing 1.31% of the total decorations) were decorated with multiple grooves.

Roulettes are achieved by rolling a tool with sub-rectangular or sub-circular projections on vessels to produce sub-rectangular or sub-circular furrows or impressions. A total of 11 sherds (representing 4.80% of the total decorated sherds) were decorated with rouletted motifs.

Comb stamps are motifs created by impressing a multi-toothed object like a comb to produce rounded, triangular or squared impressions on the body of vessels (Boachie-Ansah 1986: 99). Eight sherds (representing 3.49% of the total decorations) were decorated with comb stamps. The comb stamps are aligned horizontally or vertically.

Punctates are achieved by stamping a tool with a circular end repeatedly on vessels to form horizontal or vertical rows of circular impressions. Punctate impressions were found on 13 sherds which represent 5.68% of the total decorated sherds.

Applique or Applied Plastic decoration is a decorative technique that involves putting a separate motif made of clay onto the surface of the pottery.

Some of the sherds were decorated with a combination of two different decorations. For example, 33 sherds (representing 14.41% of the total decorations) were decorated with a combination of multiple incisions and punctates. The combined decoration of punctates and incisions were found on rim lips and neck sherds. A combination of incisions and grooves were found on 7 sherds (representing 3.06% of the total decorations). The grooves and incisions are found on rim lips. A total of 6 sherds (representing 2.62% of the total decorations) were decorated with a combination of incisions and comb stamps. The comb stamps are found on the shoulder of vessels and the incisions are found on rim lips. A combination of grooved and rouletted motifs was found on 4 sherds which represent 1.75% of the total decorations. Also 2 sherds (representing 0.87% of the total decorations) were decorated with a combination of multiple incisions and applied plastic decoration. Below is a distribution table for the various decorations on the sherd (Table 11).

The single grooves were all restricted to arbitrary Level 1 of Unit 1 (which is within natural Level 1); arbitrary Level 1 of Unit 2 (which falls within natural Levels 1 and 2), and arbitrary Level 1 of Unit 4 (which falls within natural Levels 1, 2, and 3) while the multiple grooves were restricted to arbitrary Levels 1 and 2 (natural Level 1) of Unit 1. The single incisions were restricted to arbitrary Levels 1 and 2 of Unit 1 (which fall within natural Levels 1 and 2); and arbitrary Level 2 of Unit 2 (which falls within natural Levels 1 and 2). Multiple incisions appeared in arbitrary Levels 1, 2 and 3 of Unit 1 (all of which fall within natural Level 1); Level

3 of Unit 2 (which falls within natural Levels 2 and 3) and Level 2 of Unit 4 (which falls within natural Level 3) of the Unit. Rouletted motifs were restricted to arbitrary Levels 1 and 2 (natural Level 1) of Unit 1. The comb stamps were also restricted to Unit 1 and appeared in arbitrary Levels 1, 2 and 3 (natural Levels 1 and 2) of Unit 1. The punctate impressions appeared in arbitrary Levels 1 and 2 (natural Level 1) of Unit 1; and arbitrary Levels 2 and 3 (natural Levels 2 and 3) of Unit 2.

The combined decoration of multiple incisions and applied plastic (applique) decoration was restricted to arbitrary Level 1 (natural Level 1) of Unit 1. The combined decoration of grooves and roulette was restricted to arbitrary Levels 1 and 2 (natural Level 1) of Unit 1. The combined decoration of incisions and comb stamps was also restricted to arbitrary Levels 1 and 2 (natural Levels 1) of Unit 1. The combined decoration of incisions and punctates was also restricted to arbitrary Levels 1, 2 and 3 (natural Levels 1 and 2) of Unit 1 and arbitrary Level 2 (natural Level 3) of Unit 4. The combined decoration of incisions and grooves appeared in the first three arbitrary Levels (natural Levels 1 and 2) of Unit 1 and arbitrary Level 1 (natural Levels 1, 2 and 3) of Unit 4.

Table 11: Decorations on sherds from Keta

Description	Unit 1	Unit 2	Unit 4	Total	**Percentage%**
Single Groove	6		1	**7**	**3.06**
Multiple Groove	10			**10**	**4.37**
Single Incision	23	4		**27**	**11.79**
Multiple Incision	68	2	31	**101**	**44.10**
Roulette	11			**11**	**4.80**
Comb Stamps	8			**8**	**3.49**
Punctate	11	2		**13**	**5.68**
Multiple Incision and Applique	2			**2**	**0.87**
Groove and Roulette	4			**4**	**1.75**

Incision and Comb Stamps	6			**6**	**2.62**
Incision and Punctates	32		1	**33**	**14.41**
Incision and Groove	6		1	**7**	**3.06**
Total	**187**	**8**	**34**	**229**	**100.00**

4.7. Classification into Vessel Forms

Out of a total of 277 rims, 160 (57.76%) were diagnostic. The rim forms were also classified according to the types of rims namely, direct (i.e., rims which are straight), everted and inverted (see Table 12 below). Everted rims numbered 140 (50.54%) out of the total of 277 rims. Inverted rims numbered 94 (33.94%) and direct rims 43 (15.52%).

Table 12: Table showing the various rim forms in the units

Rim forms				
Unit	Direct	Everted	Inverted	Total
One	40	128	85	253
Two	3	6	1	10
Four		6	8	14
Percentage	15.52%	50.54%	33.94%	277

4.8. Jar and Bowl Forms

The potsherds were grouped into jar forms and bowl forms. A jar is defined here as a spherical vessel with constricted neck and whose height is greater than the diameter. Bowls on the other hand are hemispherical vessels whose height is equal to or lesser than the diameter. The jars and the bowls were further broken into classes according to their rim form and shape. The jar forms were represented by 66 rims representing 41.25% of the total diagnostic rim sherds. The bowls were represented by 94 rims representing 58.75% of the diagnostic rim sherds. All the diagnostic rim sherds were recovered from Unit 1 at Fort Prinzenstein. A total of three (3) jar forms were identified. Table 13 shows the number of jar and bowl forms (labelled 1 - 8) and their percentage totals.

Table 13: Number of jar and bowl forms and their percentage totals

Jar Forms	Quantity	% of Total Jar Forms	% of Total Vessel Forms
1	32	48.48	20
2	33	50	20.63
3	1	1.52	0.63
Sub-Total	66	100	41.25
Bowl Forms	Quantity	% of Total Bowl Forms	% of Total Vessel Forms
1	14	14.89	8.75
2	18	19.15	11.25
3	4	6.06	2.5
4	13	13.83	8.13
5	14	14.89	8.75
6	29	30.85	18.13
7	1	1.06	0.06
8	1	1.06	0.06
Sub-Total	94	100	58.75
Total	160		100

4.9. Jar Form 1(Figure 23-25)

Jar Form 1 (see Figure 23-25) is a jar form with an everted rim which curves almost sharply at the exterior interior to join the shoulder. The rim lip is squared (Figure 23-24) or rounded (Figure 25) and the rim diameter ranges from 22cm to 33cm. It has a short, squat rim which measures about 1.4cm high on the average. The body diameter is wider than rim diameter. Decoration on the sherds consist of triangular stamps on the rim lip; multiple horizontal grooves on the inner and outer parts of the rim or on the rim lip (Figure 23) and single horizontal grooves on the rim lip. Two (2) sherds are decorated with obliquely aligned incisions enclosed within a pair of horizontal grooves. Another sherd is decorated with triangular stamps which are enclosed within a pair of horizontal grooves. One sherd is decorated with multiple horizontal grooves in the inner part of the rim, a single incision at the exterior part of the neck, and crescentic stamps on the shoulder. Eight sherds are decorated on the lips with comb stamps enclosed within a pair of

horizontal grooves. Out of a total of 32 sherds belonging to the jar form, 20 are red-slipped. Thirteen (13) of the sherds are blackened with soot from open air fires, an indication that they were used for cooking. All the sherds except five (5) are burnished. Thirteen (13) of the sherds are from arbitrary Level 1 (which falls within natural Level 1), 18 are from arbitrary Level 2 (natural Level 1) and 1 is from arbitrary Level 3 (natural Level 1).

Figure 23: Jar form 1A (Source: author's collection, 2015)

Figure 24: Jar form 1B (Source: author's collection, 2015)

Figure 25: Jar form 1C (Source: author's collection, 2015)

4.10. Jar Form 2 (Figure 26-27)

Jar Form 2 (Figure 26-27) is a vessel form with an everted rim longer than that of Jar Form 1. The rim curves gently at the exterior and sharply in the interior to join the neck. The lip of the rim is rounded or squared. Body diameter is wider than rim diameter which ranges from 17cm to 33cm. Thirty three (33) sherds belong to the vessel form. Decorations consist of multiple circumferential grooves in the inner part of the rim; single circumferential grooves on the rim lip; a combination of rouletted motifs (characterised by circular nodules) and single horizontal groove on the neck and shoulder, and a combination of dot stamps and single horizontal groove on the rim lip. One sherd is decorated with rouletted motifs characterised by nodules in the shape of squares. Twenty four (24) out of the total of 33 sherds are red-slipped. The majority of the sherds are burnished. Several of the sherds are blackened with soot, an indication that they were used for cooking. Seventeen (17), thirteen (13) and three (3) of the sherds were recovered from arbitrary Levels 1 (which falls within natural Level 1), 2 (natural Level 1), and 3 (natural Level 1), of the unit respectively.

The jar form is similar to Jar Form 4 from Locus B of Mountain Agbenu, Abutia (Ayipey, 2016: 113, Figure 5.13(a-c)), and jars with constricted necks from Dzake-Peki (Nutor 2010: 165-166, Plates 33-34, 170, Plates 42-43), two of the few excavated sites in the Volta Region.

Figure 26: Jar form 2A (Source: author's collection, 2015)

Figure 27: Jar Form 2B (Source: author's collection, 2015)

4.11. Jar Form 3 (Figure 28)

Jar Form 3 (Figure 28) is the last jar form identified among the locally produced ceramics excavated from Keta. This has a slightly everted rim with a constricted neck and curves smoothly and gently to join the body at the exterior. The inner part of the rim is characterised by a protrusion which extends into the interior of the vessel and measures almost 2 cm in width. The

protrusion provides a platform on which the lid of the vessel could rest. The protrusion is decorated with 3 circumferential grooves. Ethnographic examples of such vessels are known in the Keta area. The rim diameter is 21 cm. The vessel form is represented by a single sherd which is burnished and blackened with soot from open air fire. The sherd was recovered from arbitrary Level 2 (which falls within natural Level 1).

Figure 28: Jar form 3 (Source: author's collection, 2015)

4.12. Bowl Form 1 (Figure 29-31)

Bowl Form 1A (Figure 29) is an open hemispherical bowl with an everted rim. The rim slopes gently at the exterior and sharply in the interior (Figure 29). Alternatively, the rim joins the body at the exterior in a slanting but single straight angle, and in the interior, at a sharp angle (Figure 31). The rim diameter, which ranges from 15 to 22 cm, is wider than the body diameter. The bowl form is represented by 14 sherds, 5 of which are red-slipped. Eight (8) of the sherds are blackened with soot. All the sherds except one (1) are burnished. Decoration consists of multiple or single circumferential grooves on the rim and comb stamps enclosed within a pair of circumferential grooves. One (1) sherd is decorated with multiple circumferential incisions on the rim lip and the interior of the body. A vessel of this type could have been used for grinding

vegetables. There are ethnographic examples of such vessels in many parts of Ghana. The incisions are meant to create friction to facilitate easy grinding. One (1) of the sherds was picked from the surface, and ten (10), two (2) and one (1) were recovered from arbitrary Levels 1, 2 and 3 respectively. The three arbitrary Levels all fall within natural Level 1.

Figure 29: Bowl Form 1A (Source: author's collection, 2015)

Figure 30: Bowl Form 1B (Source: author's collection, 2015)

Figure 31: Bowl Form 1C (Source: author's collection, 2015)

4.13. Bowl Form 2 (Figure 32-33)

Bowl Form 2 (Figure 32-33) is also a hemispherical open bowl with a slightly everted rim and flat rim lip. Like Bowl Form 1, the rim diameter is wider than the body diameter. Rim diameter ranges from 16 to 24 cm. It differs from Bowl Form 1 by having a flat rim lip. The degree of eversion is also greater than that of Bowl Form 1 and it is devoid of curvature in the interior part of the rim. It is represented by 18 rim sherds, seven (7) of which are red-slipped. All the sherds are burnished. Ten of the sherds are blackened with soot and were probably used for cooking. Decoration on sherds consists of single or multiple grooves on rim lips, a combination of single groove and short incisions on the rim lip and comb stamps enclosed in a pair of circumferential grooves. Ten (10) and seven (4) of the sherds were recovered from arbitrary Levels 1 and 2 respectively. One (1) sherd was recovered from arbitrary Level 3. This means that all the sherds were recovered from natural Level 1.

Figure 32: Bowl Form 2A (Source: author's collection, 2015)

Figure 33: Bowl Form 2B (Source: author's collection, 2015)

4.14. Bowl Form 3 (Figure 34)

Bowl 3 (Figure 34) is also an open hemispherical bowl with a rounded rim lip. The external wall bulges out about 1- 1.5 cm below the rim lip making the body diameter wider than the rim diameter. The vessel form is represented by four (4) sherds, two (2) from arbitrary Level 1 and two (2) from arbitrary Level 2 (i.e., all from natural Level 1) of Unit 1. The rim diameter ranges from 24 to 26 cm. All the sherds are blackened with soot and three (3) are red-slipped. All the sherds are burnished. Decoration on the sherds consists of multiple circumferential grooves on the exterior wall, a few centimetres below the rim lip.

The bowl form is similar to bowls from Dzake-Peki (Nutor 2010: 171, Plate 44).

Figure 34: Bowl Form 3 (Source: author's collection, 2015)

4.15. Bowl Form 4 (Figure 35)

Bowl form 4 (Figure 35) is a saucer-like open hemispherical bowl with rim diameter wider than body diameter. Rim diameter ranges from 10 to 23 cm. Rim lips are rounded or squared. The vessel form is represented by thirteen (13) rim sherds, nine (9) of which are red-slipped. One (1) sherd is smudged and all the sherds except one (1) are blackened with soot. Three (3) of the sherds are burnished. Decoration consists of multiple circumferential grooves on the interior wall, immediately below the rim lip, and on the exterior wall 1 cm below the rim lip. One sherd is decorated with a broad groove on the rim lip. Ten (10) and three (3) sherds were recovered from arbitrary Levels 1 and 2 respectively Unit 1 (i.e. all sherds were from natural Level 1). The rim diameter is 23cm.

Figure 35: Bowl Form 4 (Source: author's collection, 2015)

4.16. Bowl Form 5 (Figure 36-40)

Bowl form 5 (Figure 36-40) is a deep hemispherical bowl characterised by an almost straight rim with flat or almost flat lips. Rim diameter ranges from 19 to 26 cm. The vessel form is represented by 14 rim sherds 12 of which are grooved on the rim lip. Some of the rim lips extend beyond the body wall both at the interior and exterior (Figure 36). Five (5) of the sherds are red-slipped and eight (8) are blackened with soot. Eleven of the sherds are burnished. Decoration consists of single or multiple circumferential grooves on rim lips, a combination of single groove and shorts multiple incisions on the rim lip, and comb stamps enclosed within a pair of circumferential grooves. It was found in Level 1 of Unit 1. Six (6), five (5), and three (3) sherds were recovered from arbitrary Levels 1, 2 and 3 of Unit 1 respectively. The sherds were all recovered from natural Level 1.

Figure 36: Bowl Form 5A (Source: author's collection, 2015)

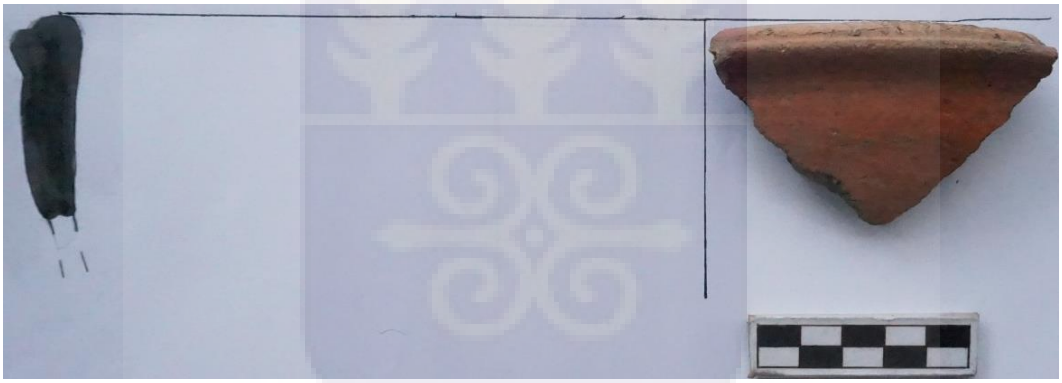


Figure 37: Bowl Form 5B (Source: author's collection, 2015)

Figure 38: Bowl Form 5C (Source: author's collection, 2015)

Figure 39: Bowl Form 5D (Source: author's collection, 2015)

Figure 40: Bowl Form 5E (Source: author's collection, 2015).

4.17. Bowl Form 6 (Figure 41-45)

Bowl Form 6 (Figure 41-45) is a hemispherical bowl with a slightly inverted or an almost straight rim with rounded rim lips. It is also characterised by ledges about 1.5 to 2 cm below the rim lip. The widest diameter of the vessel is at the place where the ledges are located. Represented by 29 rim sherds, the vessel form has a rim diameter ranging from 12 to 30 cm. Eighteen (18) of the sherds are red-slipped and twenty (20) are blackened with soot. Almost all the sherds are burnished. Decoration consists of single groove on the rim lips, circumferential

single or multiple grooves on the external wall just above the ledges and single groove on the interior wall just below the rim lips. Twenty (20) and eight (8) sherds were recovered from arbitrary Levels 1 and 2 of Unit 1 respectively, and only one (1) sherd was recovered from arbitrary Level 3 of Unit 1. All the sherds came from natural Level 1 of Unit 1.

Figure 41: Bowl Form 6A (Source: author's collection, 2015).

Figure 42: Bowl Form 6B (Source: author's collection, 2015).

Figure 43: Bowl Form 6C (Source: author's collection, 2015).

Figure 44: Bowl Form 6D (Source: author's collection, 2015)

Figure 45: Bowl Form 6E (Source: author's collection, 2015).

4.18. Bowl form 7 (Figure 46)

Bowl Form 7 (Figure 46) is almost a spherical neckless vessel with an incurved rim and a flat rim lip. It appears to be a copy of a gourd container used by farmers in many parts of Ghana for carrying water to farms. Represented by only a single sherd from arbitrary Level 1 (part of natural Level 1) of Unit 1, it has a rim diameter of 30 cm. The sherd is unburnished and decorated with 3 bands of vertical grooves which are separated by a coat of red-slip, resulting in a beautiful design.

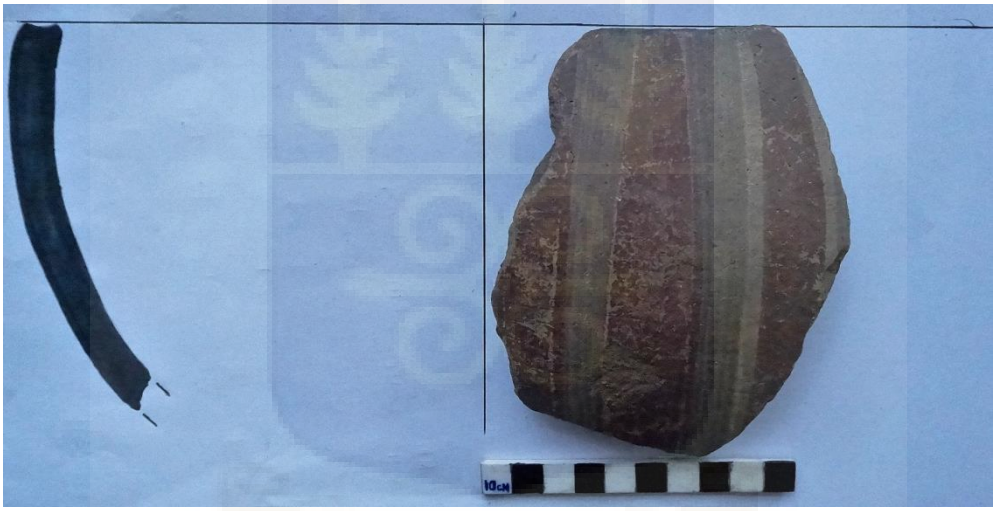


Figure 46: Bowl form 7 (Source: author's collection, 2015).

4.19. Bowl form 8 (Figure 47)

Bowl form 8 (Figure 47) is a hemispherical bowl with a slightly everted rim and a ledge about 3.3 cm below the rounded rim lip. Represented by a single sherd from arbitrary Level 1 (part of natural Level 1) of Unit 1, it is decorated with multiple circumferential grooves below the rim lip, on the neck and on the ledge. The sherd is red-slipped, burnished and blackened with soot. Its rim diameter is 13cm.

Figure 47: Bowl Form 8 (Source: author's collection, 2015).

4.20. European Ceramics

A total of forty two (42) fragments of European ceramics constituting 0.31% of the total archaeological finds were recovered from the excavations. Out of this, 34 were from Unit 2 dug at the UAC area and just 6 were from the only Unit dug at Fort Prinzenstein. Ms. Victoria Aryee of the Department of Archaeology and Heritage Studies helped in analysing these ceramics. The European ceramics were classified into pearl ware, stoneware, whiteware and semi porcelain. The provenience and manufacturing dates of the ceramics are contained in Table 14 below. The majority of the dates fall within the period when Fort Prinzenstein was built in 1784, and the period from when the British occupied the fort in 1850 to Ghana's independence in 1957. The presence of the stoneware ink bottle suggests the introduction of formal education in Keta or the use of ink by Europeans for writing reports and notes in their diaries.

Table 14: A tabulation of European ceramic with their provenience and probable date of manufacture

Pearl Ware		
Type variety/ Description	Date and reference	Provenience
Plain	1780-1830 (DeCorse, 2001: 153) 1780-1830 (South, 1977: 212) 1780-1830 (Hume 1970: 128) 1780-1830 (Lange & Carlson 1985: 104)	UAC, Surface : 4 UAC, Unit 4 Level 2 : 5 UAC, Unit 4 Level 3 : 2
Annular ware with polychrome band and line decoration (Figure 56)	1790-1820 (South 1977: 212) 1790-1830 (DeCorse 2001: 153) 1790-1839 (Lange & Carlson 1985: 104)	UAC, Unit 4 Level 1 : 1 UAC, Unit 4 Level 3 : 1
Hand-painted polychrome with floral patterns (Figure 50)	1830's onwards (Klose & Malan 2014: 28) 1820-1840 (DeCorse 2001: 153)	UAC, Unit 4 Level 2: 2 UAC, Unit 4 Level 3: 4
Transfer-painted polychrome (brown/dark green/ blue) (Figure 51)	1795-1840 (South 1977: 212)	FP, Unit 1 Level 2: 1 FP, Unit 1 Level 3: 1 FP, Unit 1 Level 5: 1
White ware/ Ironstone		
Lined ware (blue and green)	Late 19th-20th century (Klose 2007: 157)	FP, Surface : 2 FP, Unit 1 Level 1: 1
Hand-painted thick line style (in pink) (Figure 52)	1820-70 (DeCorse 2001: 153)	UAC, Unit 4 Level 3 : 1
Cut-sponged stamped floral and geometric patterns in green, blue and maroon (Figure 53)	1845-73 (DeCorse 2001: 153)	UAC, Unit 4 Level 3 : 1
Printed ware (light blue, decorated in seaweed or coral pattern)	Post mid-19th century (Klose 2007: 148)	UAC, Unit 4 Level 2: 2 UAC, Unit 4 Level 3: 1
Flow Blue (Figure 54)	Late 19th century (Klose 2007: 149)	UAC, Surface : 1 UAC, Unit 4 Level 1: 1 UAC, Unit 4 Level 2 : 1 FP, Unit 1 Level 3 :1
Semi porcelain		
Semi porcelain	Early 19th century	UAC, Surface : 1
Stone ware		
Brown stone ware Ink bottle	c.1820 – 1900+ (South, 1977: 210)	UAC, Surface : 2

	1820 -73 (DeCorse 2001: 153)	
Brown salt-Glazed stoneware (Figure 48)	1820-1873	FP, Level 1 : 2
Grey salt glazed stoneware		FP, Level 1 : 1
Reddish- Brown stoneware	1800-1900 (DeCorse 2001: 153)	FP, Level 3 : 1
Bellarmine (Figure 49)	1550-1700 (DeCorse 2001: 153)	UAC, Level 1 : 1

Figure 48: Picture of brown salt-glazed stoneware (1820-1873; Source: author's collection, 2015).

Figure 49: Bellarmine stoneware (1550-1700; Source: author's collection, 2015).

Figure 50: Pearl ware hand-painted polychrome with floral patterns (1820-1840; Source: author's collection, 2015).

Figure 51: Pearl ware transfer-printed polychrome (brown/dark green/ blue; 1795-1840; Source: author's collection, 2015).

Figure 52: White ware hand-painted in thick line style (in pink; 1820-1870; (Source: author's collection, 2015)

Figure 53: White ware cut-sponged stamped floral and geometric patterns in green, blue and maroon (1845-1873; Source: author's collection, 2015)

Figure 54: Flow blue white ware (late 19th century; Source: author's collection, 2015)

Figure 55: Printed white ware (light blue, decorated in seaweed or coral pattern; post mid-19th century; Source: author's collection, 2015)

Figure 56: Annular pearl ware with polychrome band and line decoration (1790-1839; Source: author's collection, 2015)

4.21. European tobacco smoking pipes

The English started producing tobacco pipes in the 1570's. This increased the popularity of smoking among Europeans who learned the practice from Native Americans (Hakluyt, 1589: 47). Hall (1996: 117) asserts that tobacco pipes are commonly found artefacts among archaeological finds. This is because they are cheap, easily broken and discarded anyhow. European tobacco pipe sites can help to date archaeological sites. Noël Hume (1969: 296) and Ayto (1979: 4) have indicated that surface treatment, size and shape of smoking pipes give an indication of their dates of manufacture. The first pipes, known as "little ladells" or "fairy pipes", had short stems as small as 1 ¾ inches, but averaged 3 ½ inches. The bowl was often flattened at the base known as the heel with an interior diameter of about a quarter of an inch".

The mid-17th century onwards saw a change in the "little ladells". The spur had replaced the heel with an increment with the size of the stem and bowl, 11 and 12 inches long with an interior bowl diameter of half an inch respectively. Again, the stem increased to about 13½ inches in the first part of the 18th century and by late 18th century, the length of the stem increased to about two foot long known as the "churchwarden". Other producers of the pipes reduced the length of

the pipe to about nine inches from the mouth to the bowl just around the period of the "churchwarden" (Noël Hume 1969: 296; Ayto 1979: 4).

Compared to English pipes, Dutch pipes are shorter, smaller and thinner. According to Harrington (1954: 64), Hume (1969: 307), Oswald (1975: 115) and Bradley (2000: 116), Dutch pipes are shorter, smaller and thinner than English pipes. English pipes were never decorated and if they were had a slight one but Dutch pipes are heavily decorated. Excavated Dutch pipes are very soft and can be easily scratched with a pen knife but the English pipes are usually hard and very difficult to scratch (Hume 1969: 307; Oswald 1975: 115; Bradley 2000: 116). In dating pipes, Schrire et al (1990) also have demonstrated that the internal bores of Dutch-made pipes can be used for relative dating in that the stems diminished in diameter with time using pipes from Oudepost 1 a Dutch, East India company outpost on the southwest cape coast (Hall 1996: 117).

Some of the excavated pipes from Keta had images, numbers, initials and others were plain (Tables 15-21, Figures 57-61). All these helped in dating the pipes. They are of different sizes. A total of 23 pipe bowls and 209 pipe stems were excavated. The mouths of some of the bowls are charred. Dr. Fritz Biveridge and Mr. Daniel Kumah from the Department of Archaeology and Heritage Studies assisted in analysing the pipes.

McMillian Lauren (2010) has expounded on the various methods of dating used by Harrington for dating pipes. She recognises pipes as one of the artefacts that help to date sites looking at the various phases or modification it had been through throughout the colonial period.

Harrington once again gives other ways of dating the pipes. The length of the stem could have been used for dating as over the centuries, the length changed over time. However, it quite

difficult to do this type of dating with the Keta pipes as all of the stems were broken before they were excavated. Another way to also date pipes is by determining their thickness.

It has come to light that tobacco pipes were sometimes reused after they had been used for smoking. They were altered for use as whistle, paving material, ballast, weapons and for adornment (Hume 1974; Huey 1974:107; Oswald 1975:133; Walker 1976:124; Jones 1976; Cressford 2001; McMillian 2010:11). The use of pipes for adornment was witnessed during the Hogbetsotso Festival at Anloga in 2015 (see Figure 13). McMillian (2010) is of the view that the dating methods must be applied to reused pipes with caution.

From the above it is clear that tobacco pipes were important trade goods but the pipes found in the excavations were not produced by the Danes as the majority of them are of Dutch origin. The Danes were in the Keta area from the early 18th century (see Norregard 1966 [1954]: 93-95) to 1850 when they sold their possessions to the English. One would have expected that Danish trade goods would be found in considerable quantities in the site. However, it must be noted that European countries often traded in items which originated from European countries other than their own (Walker 1975: 184; Boachie-Ansah 2008: 57). Besides, the Danes were a major exporter of Dutch pipes into West Africa (Walker 1975: 167; Boachie-Ansah 2008: 57). It is therefore likely that many of the Dutch pipes were brought in by the Danes. The English were also producers of smoking pipes. The English became more prominent in Keta after 1850. All the datable pipes were made before 1850. It is therefore likely that the majority of the pipes were brought in by the Danes. In 1759, English trading companies were allowed to go to the Netherlands to buy pipes there for the African trade because they were cheaper than English pipes, although it was forbidden to import Dutch pipes into England (Donnan 1931: 241-242;

Boachie-Ansah 2008: 57). It is therefore possible that some of the Dutch pipes were brought into the Keta area by English interlopers. It is also possible that some of the undecorated pipes were of English origin.

The bowls are all fragmentary. However, two of them are forward drooping bowls and have the plane of their rims at a markedly obtuse angle to the line of the stem. These are features characteristic of 18th and 19th century Dutch pipe bowls (Walker 1975: 185). Five of the bowl fragments have unbroken spurs. Two of the broken bowls from Level 2, Unit 1 at Fort Prinzenstein are characterised by fluting or ribbing (see Table 21). In one case, the fluting extends to the stem and is marked as follows:

.X.- .X.

OB A

MS RO

G TN

Pipes with fluted bowls came into being circa 1770 (Oswald 1975: 111) or from the later 18th century (Walker 1975: 183). Also found from the same level and unit is a broken stem characterised by fluting and a broken bowl with four diamond-shaped impressions on the side of the spur and a bird-like figure on the base of the spur (Figure 61). From the same unit and level was found a broken bowl with a clover leaf known to date from 1660 to 1840 (Duco 2003: 127).

From Level 1 of Unit 1 at Fort Prinzenstein was recovered a broken bowl with the crowned **10** on the spur and a broken bowl with a crowned **L** on the spur (Table 21). Also found from the same unit and level was a pipe whose horizontal plane of the rim appears parallel to the stem.

Such pipes conform to the shape of English pipes of the last decade of the 17th century and after (Harley 1963: 24; Boachie Ansah 1978: 305)

A broken pipe stem from Level 1 of Unit 4 in the UAC area is marked **G.GEODEL** and **HAMBURG** (Figure 59). The manufacturer was probably a German.

Table 15: Distribution of European Smoking pipes from Fort Prinzenstein Level 1

Type	Decorated	Undecorated	Stem hole diameter (millimetres)	Stem dimeter (Inches)	Thickness in millimetre				Charred	Decorations and marks	Description	Count-	Possible Date range
					>3	>4	T6	>7					
Stem	1	44	2.15	5/64	23	2	17	3	3	Grooved at the mouth		45	1720-1750 (Oswal 1975)
‘’	1	24	2.28	3/32	6	18		1	2	Roulleted and incision		25	
		14	2.41	7/64	5	7	2		4, with 1 just the mouth	-		14	1650-1680
	1	-	2.00	2/64		1			-			1	
	1		2.32	3/32		1				IN. GOUDA		1	
	1		2.27	3/32			1				Decoration is like a crown	1	
	1		1.84	5/64		1					Lip tapered for a better	1	1720-1750

											grip		
	1		2.68	7/64		1				IN GOUDA	Roulett ed crescen tic motifs	1	1650-1680
	1		2.16	5/64		1					Comb stampi ng	1	1720-1750
	1		2.68	7/64				1	The mouth		Lip tapered for a better grip	1	1650-1680
Bowl		6					4	2	3 totally charred, 2 has the mouth charred internally			6	
Bowl	1						1		Mouth charred int			1	
Bowl	1					1					Comb stamped dots (…) on mouth and oblique incisions (///////) on bowl	1	

Bowl	1					1					Wide groove	1	
Bowl	1					1					Comb stamping	1	
Spur	1					1					Figure **10** on the foot	1	1692, 1730 - 1759
Spur	1						1				Crowned **L** on the foot and a badge (shield) on the side	1	1740's (Atkinson & Oswald 1972) 1726-1925 (Duco 2003: 152)

Table 16: Distribution of European smoking pipes and their dates from Fort Prinzestein Level 2

Type	Decorated	Undecorated	Stem hole diameter	Inches	Thickness in inches				Charred	Image/initials	Description	Count-	Possible Date range
					>3	>4	T6	>7					
Stem	1	27	2.35	6/64	13	9	5	1	2		Multiple incision	28	1680-1720
	-	18	2.65	7/64	9	5	4		1			18	1650-1680
"	1	31	2.05	5/64	16	7	8	1	3		Roulette d **mmm** motif	32	1720-1750
"	1		2.13	5/64		1				Mouth tapered in	Marked **.X.** with a bar (–) at the top	1	1720-1750

											and base		
Stem with bowl	1		2.19	5/64		1				Ribbed-like flowers at the spur (in between stem and bowl) groove around	Marked **.X.- .X. OB A MS RO G TN**	1	c. 1770 onwards (Oswald 1975: 111) or the later 18th c. (Walker 1975: 183)
Bowl	1									Clover leaf on bowl near base	Rollete on the mouth	1	1660-1840 (Duco 2003: 127)
Bowl	1								Charred at the internal of the mouth		,,	1	
"	2								1 "		Comb stamping	2	
"	6								2 total, 1 mouth int.			6	
Bowl	1										Flower and groove	1	1660's 1740's-80's

Table 17: Distribution of European smoking pipes and their dates from Fort Prinzestein Level 3

Type	Decorated	Undecorated	Stem hole diameter	Inches	Thickness				Charred	Image/initials	Description	Count-	Possible Date range
					>3	>4	T6	>7					
Stem	-	9	2.35	6/64	3	6						9	1680-1720
‘’	-	1	2.55	7/64		1			-			1	1650-1680
‘’	-	5	2.15	5/64	2	3						5	1720-1750

Table 18: Distribution of European smoking pipes and their dates from Fort Prinzestein Level 5

Type	Decorated	Undec Orated	Stem hole diameter	Inches	Thickness				Charred	Image/initials	Description	Count-	Possible Date range
					>3	>4	T6	>7					
Stem	-	1	2.35	6/64		1						1	1680-1720
	1	2	2.05	5/64	3				1			3	1720-1750

Table 19: Distribution of European Smoking pipes from Ghana Stores Bar Level 1

Type	Decorated	Undec Orated	Stem hole diameter	Inches	Thickness				Charred	Image/initials	Description	Count-	Possible Date range
					>3	>4	T6	>7					
Stem	-	4	2.35	6/64	3	1						4	1680-1720
	-	4	2.65	7/64	2	2			2			4	1650-1680
	2	4	1.86	5/64	6						Comb stamping/ incision	6	1720-1750

Table 20: Distribution of European Smoking pipes from UAC Level 1

Type	Decorated	Undecorated	Stem hole diameter	Inches	Thickness				Charred	Image/initials	Description	Count-	Possible Date range
					>3	>4	T6	<7					

Stem	-	1	2.45	7/64		1						1	1650 - 1680
		1	2.05	5/64	1							1	1720 - 1750
	1		2.00	2/64			1			W&T 1433	6 sided shape with dotted on the shape	1	
	1		2.00	2/64	1					Hamburg	G.GOE DEL	1	
	1		2.00	2/64	1						Punctation with 00000(comb stamping)	1	

Figure 57: A picture of some of the excavated smoking pipe stems without decoration.

Figure 58: A picture of some decorated smoking pipes

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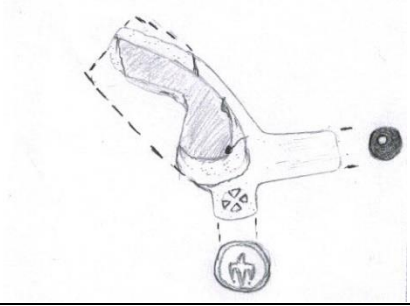
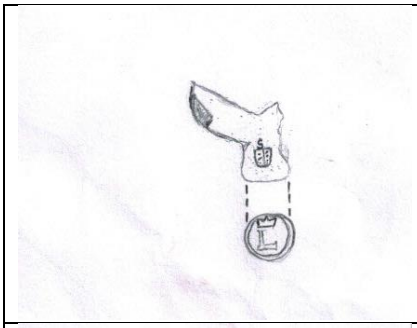
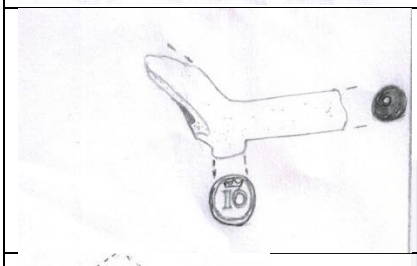
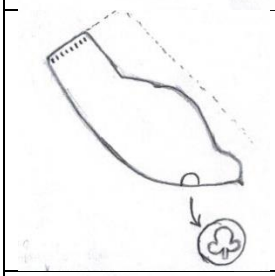
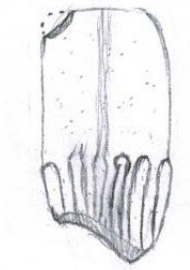
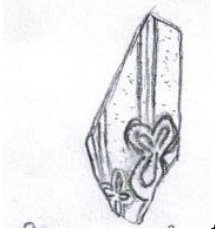
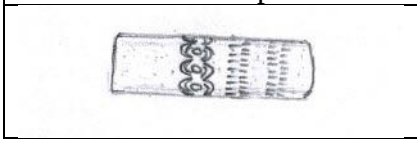
Figure 59: A picture of a decorated smoking pipe stem with the markers mark G. GOEDEL.

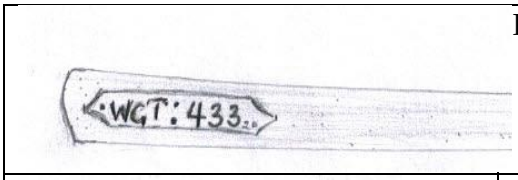
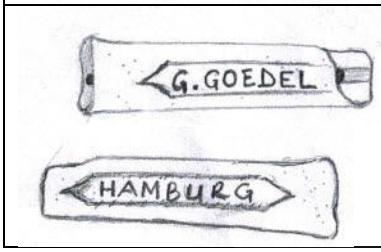
Figure 60: A picture showing some excavated smoking pipe bowls with decorations and fluting.

Figure 61: A picture of a broken bowl showing a markers mark on the spur.

Table 21: Drawings of Markers Marks on European Smoking Pipes

Markers Marks	Source	Description/ Comment	Date
	Possibly Dutch	Four Diamonds on the side of the spur. The heel mark has an image which looks like a bird.	?

	Dutch (Gouda)	Side of the spur has a shield with 'S' on top. Heel Mark: 'L' with a crown on top	1740's (Atkinson &Oswald 1972) 1726-1930 (goudapipes.nl)
	Dutch (Gouda) (goudapipes .nl)	Heel Mark: '10' with crown on top.	First produced in 1692 Later peaked from 1730-1759
	Dutch	Dutch Name : Klaverblad English translation : Trefoil (Pea family) Gouda Pipes	First made in 1660's Peaked in the 1740's – 1780's (www.goudapip es.nl)
	Dutch		Probably after 1700
 A piece of a bowl	?	?	
	Dutch		1600 onwards

	Dutch (Possibly)		
	German?		?

Pipes drawn by Daniel Kumah, 2016

4.22. Local Smoking Pipes

The archaeological assemblage included ten (10) locally made smoking pipe fragments. These included two (2) undiagnostic bowl fragments and the base of Ozanne's Type 3 with four (4) projections on the four corners, all from arbitrary Level 1 (part of natural Level 1) of Unit 1 at Fort Prinzenstein (Figure 62). A broken bowl of Ozanne's Type 3 pipe with a single projection on the unbroken portion from arbitrary Level 2 (part of natural Level 1) ; two (2) undiagnostic bowl fragments from arbitrary Level 3 (part of natural Level 1) and one (1) undiagnostic stem fragment from arbitrary Level 4, all from Unit 1 at Fort Prinzenstein were also found. One of the pipe fragments belonging to Ozanne's Type 2 was picked from the surface. It is a flat-based pipe in which the cross-section of the base is flat and joins the stem in a single angle (Figure 63). One (1) undiagnostic stem fragment and one (1) undiagnostic bowl fragment were also recovered from arbitrary Level 1 (natural Levels 1 and 2) of Unit 2 at Ghana Stores Bar. Ozanne's (n.d.) Type 3 pipes are defined as flat-based pipes whose bases and/or terminals of the stem have rounded projections at the corners. One of these from Keta has a rounded projection on the broken stem and another has four projections at the corners of the base fragment. Ozanne (n.d.) basing his conclusions on the association of datable European objects with smoking pipes, rate of

mound accumulation, documentary evidence for the destruction of Accra's coastal settlements and oral traditions (see also Boachie-Ansah 1986a: 54-55) has assigned dates of 1655/1660 – 1690 to his Type 2. Type 3 is assigned a date of 1690 – 1724 although they may be found in 19th century contexts. According to Ozanne (n.d.: 32), the Type 3 pipes are widespread in the Jenne-Timbuctu area and diffused from this area to the coast as a result of trade.

European smoking pipes with crowned **10** dating to 1692 (goudapipes.nl) or to 1730 – 1759 (goudapipes.nl) and crowned **L** dating to 1740 (Atkinson & Oswald 1972) or to 1726- 1925 (goudapipes.nl) have been found in arbitrary Level 1 from where a Type 3 base was recovered. Also from the same Level was found a brown salt glazed ink bottle dating to 1820 – 1873 and a white ware sherd (with blue and green lines) dating from the late 19th to 20th century (Klose 2007: 157). From these dates, it appears that the dates assigned to Type 3 by Ozanne are reasonable. Arbitrary Level 2 from where one of the Type 3 fragments was found has also produced a pearl ware sherd (see Table 14) dating from 1795 to 1840 and a European pipe with fluting or ribbing known to date to the later 18th century (Oswald 1975: 111; Walker 1975: 183). This suggests that Type 3 probably persisted into the 19th century.

Figure 62: A picture showing more of broken locally produced smoking pipes (Source: author's collection, 2015)

Figure 63: A picture of a locally produced tobacco pipe (Source: author's collection, 2015).

4.23. Iron Slag

There was a total of seven pieces of iron slag, 1 from Level 1, 4 from Level 3 and 2 from Level 4 of Unit 1 at fort Prinzenstein (Figure 64). This probably suggests that the local people smelted iron and probably forged metal tools in Keta. Some people still smith iron in Keta and its environs although iron smelting is not practised today. It is not possible to date the evidence of iron smelting in Keta. This is because the excavated Unit from which the pieces of iron slag were retrieved was disturbed. However, the dates obtained for the European pipes from Level 1 and Level 3 of Unit 1 (at Fort Prinzenstein) from where the slag pieces were recovered range from 1650-1925 and from 1550-1750 respectively. It is likely that iron was smelted during this period of time.

According to Leonard Pole (1974: 5), Volta Region stopped smelting iron after the encounter with the Germans in 1880's. Decorse (2001: 124) dates the beginnings of iron smelting to the first millennium BC and early first millennium AD from furnaces and slags mound produced from sites in the northern forest and savannah regions. The possibility of iron smelting in Keta would have been high if tuyeres and furnaces had been found in the excavations. However, it is still likely that there was smelting of iron in the area based on evidence of the number of iron slag found in the 2x2 unit.

Figure 64: A picture of some of the excavated iron slags (Source: author's collection, 2015).

4.24. Metal objects

Six nails, one fish hook, two fragments of a metal mesh, and unidentified metal object were collected from the surface of the Fort Prinzenstein area. An unidentified part of a machine was also found on the surface of the UAC area.

The metal objects found in the excavations were heavily corroded, making it difficult to identify some of the tools they represent. The corrosion is due to the sea breeze and the salt content in the soil due to the flooding that occurred during the sea erosion. There were seventy two (72) metal objects in all (Table 22). These were found in the Unit at Fort Prinzenstein and the UAC area. These metal objects were treated to prevent them from further deterioration. There were different types of metal objects including nails (Figure 65), knife blade (Figure 66), fish hooks (Figure 67), and some unidentified parts of metal objects (Figure 68) (Table 22). Others were wire mesh, bottle corks (Figure 69), Kerosene or corned beef can handle (Figure 70), screws and chisel (Figure 71) and a brace (Figure 72). Some of the metals could have been part of the building. The presence of the wire mesh perhaps attests to this.

Table 22: A distribution table of the metals found in Keta

Metal object	Unit 1 Fort Prinzenstein			Unit 4 UAC			Total	% of Total
	Level 1	Level 2	Level 3	L1	L 2	L 3		
Knife blade	1	2					3	5
Nails	5	2	1	4	2	1	15	25
Brass pipe				1			1	1.67
Wire mesh				1			1	1.67
Unidentified part	6	2	2	6	7	3	26	43.33
Brace for hooking	1						1	1.67
Corks				2			2	3.33
Screw				1			1	1.67
Iron rod				1			1	1.67
Chisel					1		1	1.67
Can lids					5		5	8.33
Part of iron rod					1		1	1.67
Kerosene or corned beef can handle					1		1	1.67
Metal plate						1	1	1.67
Total	13	6	3	16	17	5	60	100

Figure 65(left): A picture of some of the nails excavated from Keta. Figure 66 (right): A picture of some knife blades excavated from Keta.

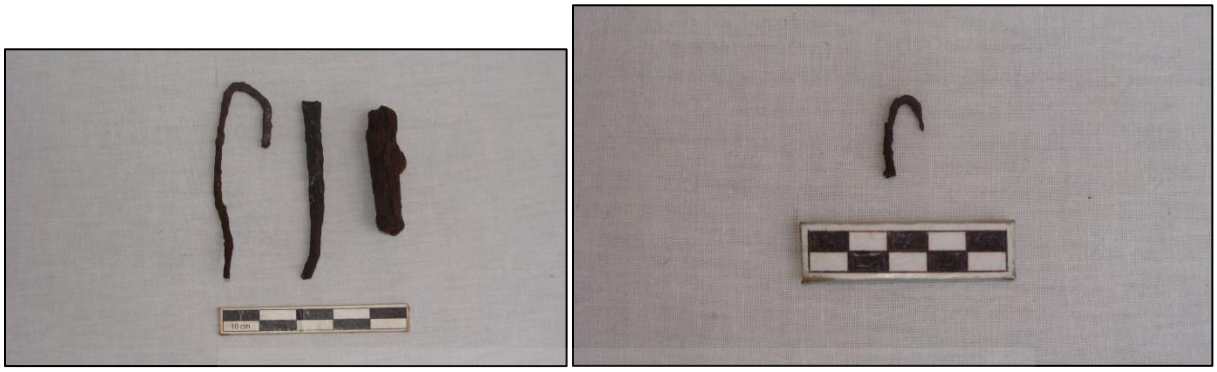


Figure 67: fish hooks (Source: author's collection, 2015)

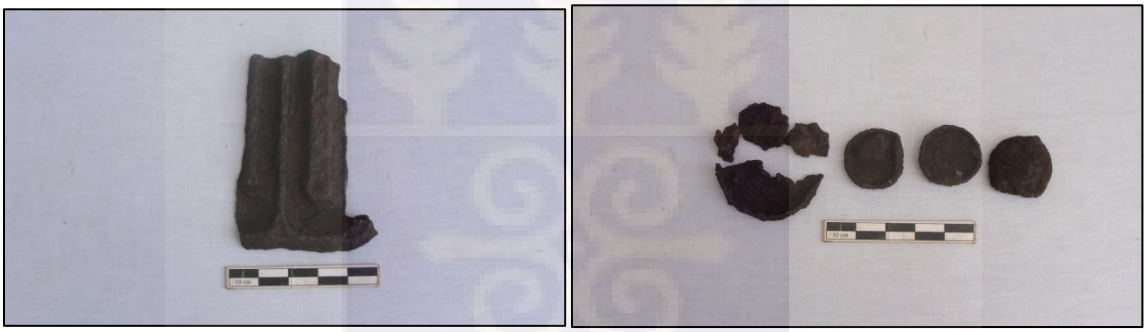


Figure 68: (left) An unidentified part of a machine (Source: author's collection, 2015)

Figure 69: (right) corks (Source: author's collection, 2015)

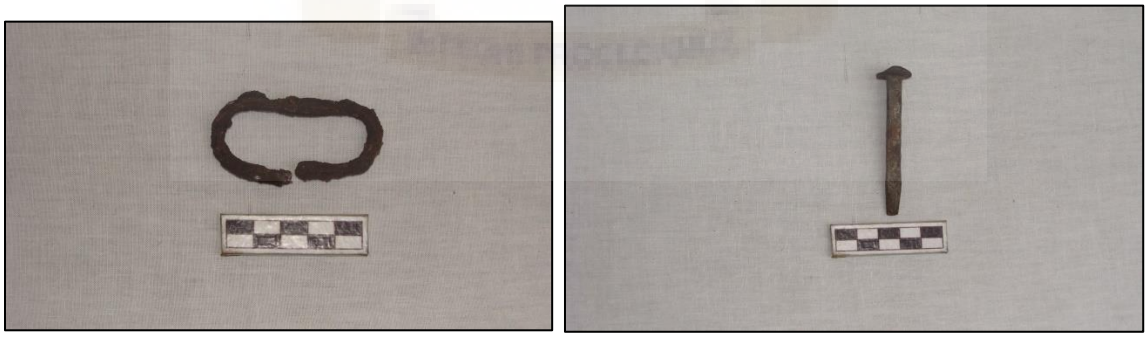


Figure 70: (left) Kerosene or corned beef can handle (Source: author's collection, 2015)

Figure 71: Chisel (Source: author's collection, 2015)

Figure 72: Brace (Source: author's collection, 2015)

4.25. Mollusc Shells

The shells that were excavated were mainly marine *gastropoda* species such as *Turritella ungulina*, *Turritella meta* (Figure 73), *Thais haemastoma* (Figure 74), *Columbella rustica* (Figure 74), *Cypraea stercoraria*, *Cypraea zonata*, *Cypaea moneta*, *Pachymelania aurita* (Figure 75) and *Olivancillaria hiatula* (Figure 76). Lagoon molluscs or bivalvia species like *Arca senilis* (Figure 77), *Dreissens Africana* (Figure 78), *Fissurella coarctata*, *Fissurella nubecula*, *Osterea denticulata* (Table 23) were also found. The land snail *Achatina achatina* was also found. The mollusc shells identified here were found in all the three excavated units at Keta. The shells were exploited for food. The lagoon shells were more than the sea shells although the excavation at the fort was closer to the sea. The shells constituted the largest number of ecofacts from the archaeological record constituting 29.49% of the total finds. Some of these shells such as arca senelis were also used as lime for the construction of the buildings and the fort (Lawrence 1963: 90). Most of the shells had their physical attributes such as shapes, colour and lineament. Some of the shells even though very soft, also maintained their physical attributes making it possible to distinguish between the various species.

Ethnographically, shells are used for making lime for building and decoration of houses and for making walk ways, beads and pendulums for adornment. All these uses were after the meat had

been consumed as food. Some of these shells such as *cypraea moneta* (Figure 79) were also imported from the Indian Ocean by the Europeans and used on the Gold Coast as currency. It is therefore not surprising that the Ghanaian currency has an image of a cowry shell on it. The Twi name for cowry shell is *sedeɛ*. Cowry shells (*Cypraea moneta*) were important trade goods on the Gold Coast (Ghana).

The cowry was used for buying goods and paying for services. The name *sedeɛ* has been anglicised to *cedis* and has become the name of the Ghanaian currency. Table 23 classifies the shells found in Keta after Edmunds (1978).

Table 23: Classification table for Mollusc shells found in Keta

Biological Name	Class	Habitat	Use
Turritella ungulina	*Gastropoda*	Offshore washed up	Necklaces
Turritella meta	*Gastropoda*	Shallow and deep water	
Cypraea stercoraria	*Gastropoda*	Low on rocky shores, pools	Adornment
Dreissens Africana	*Bivalve*	Estuary and lagoons	
Thais haemastoma	*Gastropoda*	Lower to upper rocky shores	Food and neclaces
Columbella rustica	*Gastropoda*	Low on rocky shores, pools	
Cypraea zonata	*Gastropoda*	Rocky shores, pools	Adornment

Cypaea annulus	*Gastropoda*	Low on rocky shores	Currency and adornment
Pachymelania aurita	*Gastropoda*	Lagoons, estuaries and mangroves	
Olivancillaria hiatula	*Gastropoda*	Low tide, estuary, offshore	Food
Achatina achatina	*Gastropoda*	Terrestrial	Food
Arca senilis	Bivalvia	Lagoons and estuaries	Food
Fissurella coarctata	Gastropoda		
Fissurella nubecula	Gastropoda		
Osterea denticulata	Bivalvia	Mid to upper shore	Food
Pecten sp.	Bivalvia	Offshore washed up	Edible

Figure 73: *Turritella meta* (author's collection, 2015)

Figure 74 (right): *Thais haemastoma/Columbella rustica* (author's collection, 2015)

Figure 75 (left): *Pachymelania aurita* (author's collection, 2015)

Figure 76 (right): *Olivancillaria hiatula* (author's collection, 2015)

Figure 77: *Arca senilis* (author's collection, 2015) collection, 2015)

Figure 78 (right): *Dreissens Africana* (author's

Figure 79: A picture of some recovered Cypraea annulus (author's collection, 2015).

4.26. Coin

A corroded coin was among the finds recovered from the UAC site. It was found in Level 3 of Unit 3. The coin was cleaned with a dry brush and then treated to prevent further corrosion. It is a 12 sided (dodecagonal) coin. The coin originally weighed 6.8g (treasurerealm.com/coinpapers/england/coins/S4113.html). The obverse side of the coin has the portrait of George VI (1937-1952) and the inscription GEORGIVS VI IND IMP (Figure 80). This was seen with the naked eye but for the purpose of accuracy, the magnifying glass was used. The tail of the coin has a design of a thistle plant (*Armeria maritima*) with flowers – a design which was adopted from the coins minted during the reign of King Edward VII of England (treasurerealm.com/coinpapers/england/coins/S4113.html). The coin was a new three pence brass which was introduced in 1937 during the era of George VI, the King of England. This coin was made up of an alloy of copper (79%), zinc (2%), and nickel (1%). This brass coin came to replace the silver coin of the same denomination. (treasurerealm.com/coinpapers/england/denominations/florin.html). The coin might have probably been used as a medium of exchange for goods and services during the colonial period.

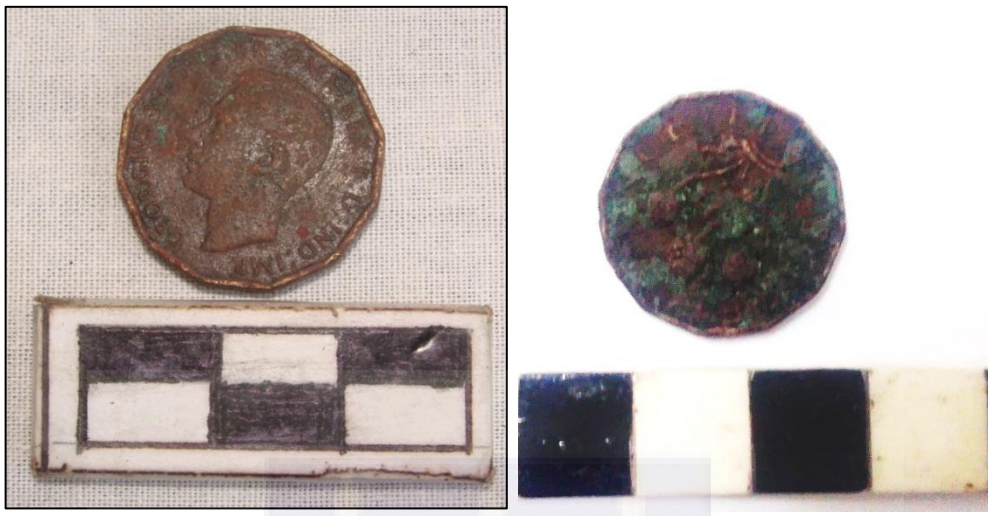


Figure 80: A picture of the obverse side of the three pence coin on the left and the tail on the right (author's collection, 2015).

4.27. Button

There was a dress button among the excavated finds at the fort. The button was a five holed plastic one with no back marker. It was recovered from Level 3 of Unit 1 at Fort Prinzenstein. It is round in shape. The edges are smooth (see Figure 81).

Figure 81: Picture of the dress button (author's collection, 2015)

4.28. Beads

The beads that were recovered from Keta were one hundred and twenty eight (128). Out of this figure, one hundred and seventeen (117) were from GSB (Unit 2), and ten (10) were from the Fort Prinzenstein (Unit 1) and one (1) was from UAC (Unit 4) (Table 24). Most of the beads were not well preserved. Some had become fragile to the extent that the outer layers were easily mashed. This made it very difficult to identify their colours. The beads were classified according to shape and surface colour. The beads were tubular (Figure 83 E), spherical (Figure 84 I), circular, disc-shaped (Figure 83 D), or barrel-shaped (Figure 84 I). Some of the beads were monochrome (Figure 82 A, C) and others were polychrome (Figures 82 B, 83 F) (see Table 24).

The types of beads that were excavated include Venetian (Figure 82 B) and Bohemian (Figure 82 C) beads as well as locally-manufactured beads (Figure 84 H). The Venetian and Bohemian beads were so named because they come from Venice and Bohemia (Francis 1995: 64). The Venetian beads are beads that were made by drawing and winding production techniques. The bulk of the beads (Figure 84 G) were in association with the skeletal remains at the Ghana Stores Bar area.

The beads can be dated from about the late 18th century to the early 20th century.

Table 24: A distribution table of beads found in Keta

UNIT	LEVEL	DESCRIPTION	NUMBER
GSB	1	Venetian bead Tubular bead Barrel shaped clay Blue and green Bohemian glass bead Turquoise green spherically shaped	1 2 1 3

			1
GSB	2	Spherically shaped glass	2
GSB	3	Spherically shaped glass beads. The décor is off due to long time in the salty sand.	106
GSB	3	Tubular glass bead Polychrome	1
UAC	2	Tubular monochrome	1
FP	1	Spherically shaped Colour faded due to Salt content in the soil. Disc shaped Circular shaped	3 1 1
FP	2	Polychrome	1
FP	Surface	Polychrome	1
FP	3	Yellow and colour faded tubular glass beads	3

Figure82: Picture of Glass Beads (author's collection, 2015)

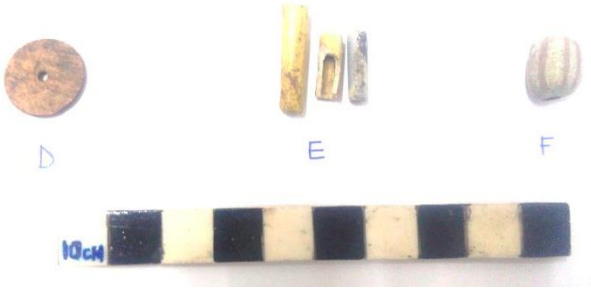


Figure 83: Pictures of Glass Beads (author's collection, 2015)

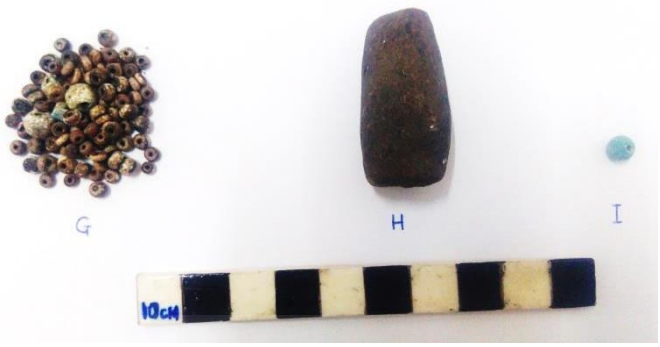


Figure 84: Picture of Beads (author's collection, 2015)

4.29. Bones

A total of 1,489 bones were recovered from the three excavated sites at Keta. The bulk of the bones which numbered 1,302 (87%) were recovered from Unit 1 at Fort Prinzenstein. This was followed by Unit 2 at Ghana Stores Bar which produced 105 (7%) of the bones and Unit 3 at the UAC area which produced 82 (6%) the bones (Table 25). Out of the total bones recovered, 502 representing 34% were classified as undiagnostic. These were so termed because they were fragmented and could not be properly identified. The rest of the bones (987 constituting 66%) were diagnostic and could be identified and classified. The classified bones included the long tubular bones consisting of femur, tibia, humerus and fibular and short tubular bones which consist of metacarpals, metatarsals and phalanges. The bones were classified broadly into five Phyla namely: *Mammalia, Reptilia, Aves, Arthropoda* and *Pisces*.

The most exploited species in Keta were *Pisces*. The *Pisces* bones consist of marine and fresh water species including the cat fish (*Eutropius niloticus*) (Table 25). This is not surprising because Keta has both marine and fresh water bodies as noted in previous chapters. *Pisces* bones were 600 in number.

The mammalian phylum had Genus and species such as *Bos Taurus* (cattle), *Bovids* (antelopes, goats or sheep), *caviidae* (pig), *Canis familiaris* (dog).

Romer (2000[1760]: 235-240) gives descriptions of some of the animals seen in the area and some used for food such as monkeys (Green Monkey), dogs, cats and rats (the Cane Rat or Cutting grass), sea elephants (hippopotamus).

The birds mentioned include White Pelican (*Pelecanus onocrotalus*), Pink-backed (*Pelecanus rufescens*), Great Blue Turaco (*Corythaeola cristata*).

The bones were brushed and dusted in the Departmental Lab and sent to Bosman Murrey, a retired Chief Technician of the Department of Archaeology and Heritage Studies, University of Ghana, for identification and classification. Table 25 below shows the distribution of the bones recovered from the excavations.

Table 25: Distribution of the bones recovered from the excavations

UNIT/PIT	Level in CM	Element/Description	Count	Gnaw Marks	MNI	Burnt	Charred	Butchery Marks	Whole	Fragments	Total	Genus/Species
Unit 1	1	Teeth	4						2	2	4	*Bovid*
" "	"	Bone shaft	13			3	3	2		13	13	"
" "	"	Scapula	1				1			1	1	"
" "	"	Ischium	5							5	5	"
" "	"	Phalanges	1						1		1	"
" "	"	Skull	4		1	1				4	4	"
" "	"	Ribs	46			3	8			46	46	"
" "	"	Vertebral spine	1						1		1	"

" "	"	Non diagnostic	282			50	2			282	282	Unknown
" "	"	Tarsometatarsus (proximal)	4		3					4	4	*Aves*
" "	"	Tibiotarsus (distal)	2			1				2	2	"
" "	"	Skull	4			1				4	4	"
		Sternal rib	5							5	5	"
		Clavicle	2		2					2	2	"
" "	"	Bone shaft	20			1		1		20	20	"
		Radius	3							3	3	"
		Ulna	4							4	4	"
		Humerus	2							2	2	"
" "	"	Scapula	1							1	1	"
" "	"	Phalanges	5						5		5	"
" "	"	Procoracoid	3			1			2	1	3	"
		Pygostyle	1							1	1	"
" "	"	Ischium	1							1	1	"
" "	"	Skull	279							279	279	*Pisces*
" "	"	Humerus	3		1					3	3	"
" "	"	Vertebrae	152			1				152	152	"
" "	"	Fin spine	8							8	8	*Eutropius niloticus*
" "	"	Cheliped	3							3	3	*Gecarcinidae* (crab)
" "	"	Tooth	1							1	1	*Canis familiaris* (dog)
		Skull	3							3	3	"
" "	"	Tooth (deciduous)	9						2	7	9	*Caviidae* (pig)
		Skull	1							1	1	"
		Phalange	2							2	2	"
		Horn core	1						1		1	Antelope
		Phalange	2						1	1	2	"
		Humerus (distal)	1							1	1	"
		Tibia (distal)	1							1	1	"

		Bone shaft	24			5	1			24	24	"
		Vertebrae	21				1			21	21	"
		Plastron	2							2	2	*Reptilia* (tortoise)
		Phalange	1			1			1		1	*Bos Taurus*
		Ischium	1							1	1	" "
		Patela	1							1	1	" "
		Vertebra	2						2		2	*Rodentia* (rat)
		Ischium	2							2	2	"
		Skull	2							2	2	"
		Femur (proximal)	1							1	1	"
		Ivory ornament	1							1	1	
Unit 1	2	Non diagnostic	134			13				134	134	Unknown
" "	"	Vertebra	8							8	8	*Pisces*
" "	"	Skull	44							44	44	"
" "	"	Tarsometatarsus (distal)	3						1	2	3	*Aves*
" "	"	Tibiotarsus (proximal)	2						1	1	2	"
		Femur	1							1	1	"
		Skull	1							1	1	"
" "	"	Bone shaft	5			2				5	5	"
" "	"	Ischium	5		1					5	5	"
" "	"	Scapula	1							1	1	"
" "	"	Phalanges	6		1				3	3	6	"
" "	"	Vertebrae	5						4	1	5	"
" "	"	Procoracoid	3		2				1	2	3	"
" "	"	Clavicle	2						1	1	2	"
		Humerus	4							4	4	"
" "	"	Sternal rib	3							3	3	"
" "	"	Tooth (premolar)	2						1	1	2	*Bos Taurus*
		Bone shaft	3							3	3	" "
		Calcaneum	1						1		1	*Bovid*
		Bone shaft	15							15	15	"
		Ribs	11			3				11	11	"

		Vertebra	5			1			2	3	5	"
		Ulna (proximal)	1							1	1	"
		Radius	2		2		1			2	2	"
		Scapula	1							1	1	"
		Ischium	1							1	1	"
		Skull	3		1					3	3	"
		Lower jaw	4		2					4	4	"
		Teeth	3						1	2	3	"
		Humerus (distal)	2							2	2	"
		Tibia (distal)	1							1	1	"
		Skull	1							1	1	*Caviidae* (pig)
		Lower jaw	1							1	1	"
		Plastron	3							3	3	*Reptilia* (tortoise)
		Fin spine	6							6	6	*Eutropius niloticus*
		Vertebra	59			2				59	59	"
Unit 1	3	Teeth	3		2				2	1	3	*Bovid*
" "	"	Vertebra	1							1	1	*Pisces*
" "	"	Bone shaft	1							1	1	*Aves*
		Non Diagnostic	1							1	1	Unknown
Unit 1	4	Tibiotarsus	1							1	1	*Aves*
Unit 2	2	Boneshaft	4			3				4	4	*Bovid*
" "	"	Humerus (distal)	1							1	1	"
" "	"	Ischium	1							1	1	"
" "	"	Radius	1						1		1	"
" "	"	Nondiagnostic	5							5	5	"
Unit 2	3	Nondiagnostic	24			3	1			24	24	Unknown
" "	"	Nondiagnostic	10			5				10	10	*Bovid*
" "	"	Fibula (proximal)	1					1		1	1	"
" "	"	Skull	2		1					2	2	*Bos taurus*
" "	"	Tooth (premolar)	1							1	1	" "
" "	"	Teeth	7						3	4	7	*Bovid*
" "	"	Phalanges	1						1		1	"
" "	"	Boneshaft	4			1				4	4	"

" "	"	Vertebra	1							1	1	"
" "	"	Cheliped	1				1			1	1	*Gecarcinidae* (crab)
" "	"	Lower jaw	1							1	1	*Canis familiaris* (dog)
" "	"	Vertebra	22							22	22	*Pisces*
" "	"	Skull	10							10	10	"
" "	"	Boneshaft	1							1	1	*Aves*
" "	"	Radius	3							3	3	"
" "	"	Ulna	1							1	1	"
" "	"	Humerus	2							2	2	"
" "	"	Rib	1				1			1	1	"
Unit 4	1	Skull	4							4	4	*Pisces*
" "	"	Vertebra	4							4	4	"
" "	"	Nondiagnostic	27							27	27	"
" "	"	Boneshaft	1							1	1	*Aves*
" "	"	Femur (distal)	1			1				1	1	"
" "	"	Ribs	3			1		1		3	3	*Bovid*
" "	"	Phalanges	1			1				1	1	*Bos taurus*
" "	"	Tooth	7		1					7	7	" "
" "	"	Tooth (premolar)	1						1		1	*Canis familiaris*
" "	"	Navicular	1							1	1	" "
" "	"	Non diagnostic	10			7				10	10	*Bovid*
" "	"	Humerus	1						1		1	*Aves*
" "	"	Procoracoid	1						1		1	"
"	"	Humerus	1							1	1	*Rodentia* (rat)

"												
" "	"	Ischium	1							1	1	" "
Unit 4	3	Non diagnostic	9				4			9	9	Unknown
" "	"	Ribs	2		2			1		2	2	*Bovid*
" "	"	Bone shaft	1					1		1	1	"
" "	"	Tooth	1							1	1	"
" "	"	Lower jaw	2							2	2	Canis *familiaris*
" "	"	Teeth	3						3		3	" "
Unit 4	1	Skull	4							4	4	*Pisces*
" "	"	Vertebra	4							4	4	"
" "	"	Nondiagnostic	27							27	27	"
" "	"	Boneshaft	1							1	1	*Aves*
" "	"	Femur (distal)	1			1				1	1	"
" "	"	Ribs	3			1		1		3	3	*Bovid*
" "	"	Phalanges	1			1				1	1	*Bos taurus*
" "	"	Tooth	7		1					7	7	" "
" "	"	Tooth (premolar)	1						1		1	*Canis familiaris*
" "	"	Navicular	1							1	1	" "
" "	"	Non diagnostic	10			7				10	10	*Bovid*
" "	"	Humerus	1						1		1	*Aves*
" "	"	Procoracoid	1						1		1	"
" "	"	Humerus	1							1	1	*Rodentia* (rat)

" "	"	Ischium	1							1	1	" "
Unit 4	3	Non diagnostic	9				4			9	9	Unknown
" "	"	Ribs	2		2			1		2	2	*Bovid*
" "	"	Bone shaft	1					1		1	1	"
" "	"	Tooth	1							1	1	"
" "	"	Lower jaw	2							2	2	*Canis familiaris*
" "	"	Teeth	3						3		3	" "
Unit 4	1	Skull	4							4	4	*Pisces*
" "	"	Vertebra	4							4	4	"
" "	"	Nondiagnostic	27							27	27	"
" "	"	Boneshaft	1							1	1	*Aves*
" "	"	Femur (distal)	1			1				1	1	"
" "	"	Ribs	3			1		1		3	3	*Bovid*
" "	"	Phalanges	1			1				1	1	*Bos taurus*
" "	"	Tooth	7		1					7	7	" "
" "	"	Tooth (premolar)	1						1		1	*Canis familiaris*
" "	"	Navicular	1							1	1	" "
" "	"	Non diagnostic	10			7				10	10	*Bovid*
" "	"	Humerus	1						1		1	*Aves*
" "	"	Procoracoid	1						1		1	"
" "	"	Humerus	1							1	1	*Rodentia* (rat)
"	"	Ischium	1							1	1	" "

"												
Unit 4	3	Non diagnostic	9				4			9	9	Unknown
" "	"	Ribs	2		2			1		2	2	*Bovid*
" "	"	Bone shaft	1					1		1	1	"
" "	"	Tooth	1							1	1	"
" "	"	Lower jaw	2							2	2	*Canis familiaris*
" "	"	Teeth	3						3		3	" "

4.30. Glass bottles

There were a total of 218 broken glass bottles collected during the survey and excavation. During the ethnographic study, the author had an additional bottle which was whole. The whole bottle (Figure 85) had been previously excavated from a building construction by Mr. Quist. Some of the broken bottles were made up of schnapps bottles. Schnapps is now of much importance and is being used after the trade system for marriage ceremony, in shrines, in traditional setting such as greeting of a chief, or paying fines in traditional court.

Alcoholic beverages such as wine, rum, beer and gin were imported in green and dark green, yellowish brown and white bottles respectively. Broken bottles with patina on them suggest they are relatively old. Table 26 below gives the distribution of the bottles recovered from the excavations and received from ethnography:

Table 26: A distribution table of the bottles recovered from the excavations and received from ethnography

Description (Colour and body part)	Function	Unit	Level	Number	Year
White and Brown base (Figures 86 and 87)	Gin Rum	UAC	Surface	2	
White body	Mirror or window pane	UAC	1	19	
Green rim		UAC	2	1	1800 19thC
Grey	Poison	UAC	3	1	
Light green	Champaign or wine or Beer	UAC	3	22	Late 19thC Early 20thC
White Base One with design on the base (Figure 88), the other is bogged in		UAC	3	1 2	
Very light green Dark green	Wine, beer and alcoholic beverages	UAC	3	2 3	
Green rim		UAC	3	1	1800 19th C
Light green	Case gin	UAC	3	1	
White	Tumblers	FP	1	3	
Light green	Case gin and beer	FP	1	5	17th C
Dark green	Alcoholic beverage and beer	"	"	39	
Grey like green		"	"	22	
Light purple		"	"	1	
Light green		"	"	5	
White	Gin	"	"	22	
Dark green body		"	"	9	
Dark green base	Alcoholic beverage	"	"	3	
Dark green rim	Alcoholic beverage	"	"	1	
Dark green bottles, white, light green with patina on them.	Alcoholic beverage	"	2	49	Early 19th c
Light green	Case gin	"	2	1	

Dark green	Alcoholic beverage	"	5	3	
Dark Green Has a push up at the base (Figure 85)	More of a wine than beer bottle	Excavated from a building site		1	Early 19th c

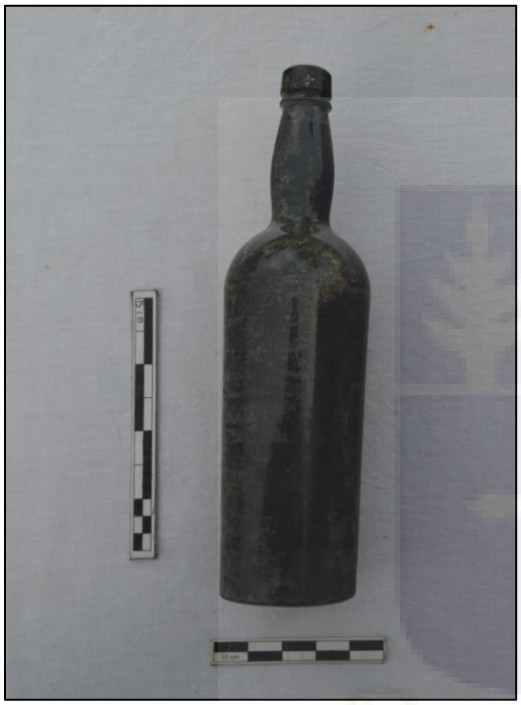


Figure 85 (left): A picture of a whole bottle excavated from a building site (author's collection, 2015). Figure 86 (right): A picture of a base of a clear bottle with some inscriptions written on it (author's collection, 2015) .

Figure 87: A picture of a brown bottle with a dimple base (author's collection, 2015).

Figure 88 (left): A picture of the base of an eight-sided light green bottle with a design on it. The design shows two soldiers holding a shield. The picture on the right shows the side of the bottle (author's collection, 2015).

4.31. Bricks

Yellow Dutch bricks (Figure 89) (Decorse, 2001: 25) were found at Unit 1 and red bricks (probably English) (Figure 91) were among the finds from Unit 3. Lime bricks (Figure 90) were also found in Unit 1.

Figure 89: Picture of Dutch yellow Bricks from Keta (author's collection, 2015)

Figure 90: Lime bricks from Keta (author's collection, 2015).

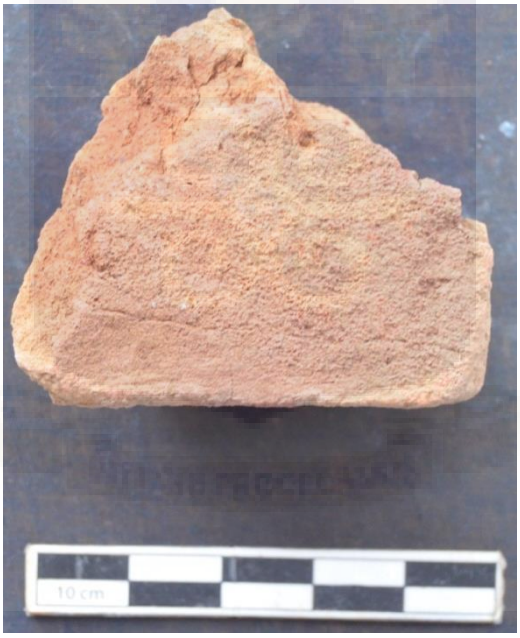


Figure 91: Red bricks (probably English) from Keta (author's collection, 2015)

4.32. Oil Palm nut

I excavated just one nut of the oil palm (E*laeis guineensis*) from level three at Unit 1, Fort Prinzenstein. This shell is a product of an indigenous tree crop that is associated with the earliest food production period of Ghana. It is also from such palm fruits that palm oil is extracted and used as base for soap and other industrial uses.

CHAPTER FIVE
SUMMARY AND CONCLUSION

5.0. Introduction

This chapter gives a summary of the thesis and suggests recommendations pertinent to the study. It also concludes the study in relation to the set objectives.

5.1. Summary and conclusion

The objectives of this research were to document the settlement and migration history of the Anlo people of Keta; conduct excavations to discover and retrieve material remains in the archaeological record; reconstruct socio-economic and cultural lifeways of the people using the material remains; provide information on early subsistence strategies of the people; identify current socio-economic lifeways that can be attributed to Euro-Ewe contact and finally to use the material record to identify the use of space, gender relationship and household economy and socio cultural interactions and relationship within and between the various sections of the settlement.

The Anlo people of Keta were among the group that migrated from Notsie and settled in Keta and its environs in the Volta Region. The Hogbetsotso za is the festival of the Anlo who recount how their ancestors migrated from Notsie to their present settlement. During the festival, the people dance and walk backwards amidst drumming to illustrate how their ancestors fled from Notsie.

The migration which may not have been a one-time event could have been necessitated by want of better environmental conditions, trade, peace and freedom from bad governance and wars. Oral tradition claims their presence in the Gold Coast just before the Trans-Atlantic Slave Trade

which suggests late 16th to early 17th century for their arrival in the Keta area. These dates may have been based on writings of some early scholars who also date the migration of the Ewe to the 17th century (Amenumey 1989; Dickson 1969). Gayibor and Aguigah (2005) obtained 14th and 16th century thermoluminescence dates from samples from their excavations of the Notsie wall. A single date obtained from a charcoal sample from a recent archaeological work by Ayipey (2016: 126) at the Agbenu Mountain, Abutia, is in the 15th century. This suggests people were living on the mountain as early as the 15th century making the migration earlier than what the oral traditions and some written documents suggest. This may prove that the migration was not a one-time affair or that there were people residing there before the Ewe migration.

From the general observation and interviews conducted it is clear that fishing and fish processing (smoking, drying and salting), salt production, trading, animal husbandry, crop farming, kente weaving and mat weaving and iron smithing were the main occupations in the community during the period covered by the study. The faunal remains of *pisces* and the fish hooks in the archaeological record are an indication of fish exploitation from both marine and freshwater resources. The quantum of domestic animal bones recovered from the excavations attests to the keeping of livestock. Salt and processed fish were traded into the hinterland. People from the hinterland also brought food crops for sale in Keta.

Besides the *pisces*, molluscs were also exploited for food and other purposes. The shells of *Arca senilis, Arca afra* and *Terebra species* according to Barbot (1732: 76) and Bosman (1705: 115) were burnt for lime with the inedible part used as bait in marine fishing.

It can be concluded from the quantity of shells of shell fish from the excavations that it was an important item in the diet of the people. It can also be concluded that the processing of shell fish formed part of the subsistence economy of the people in the past.

The excavations conducted at Fort Prinzenstein, Ghana Stores Bar (where Europeans and Africans took drinks during the colonial period) and the UAC warehouse area produced locally manufactured pottery; European ceramics, bottles, smoking pipes, roofing slate, glass beads, metal objects and coins; locally manufactured smoking pipes; mollusc shells; iron slag; human and animal bones; querns; locally manufactured beads; fragments of daub and a palm nut kernel.

Finds found in all, and common to all the excavated areas consist of locally manufactured pottery (54.05% of total finds), European smoking pipes (1.71%), mollusc shells (29.55%), animal bones (10.93%) and glass beads (0.94%). These finds constitute 97.18% of the total finds, an indication that the finds common to all the three areas are in the majority. As already indicated, it was intended to use the material record to identify the use of space, gender relationships, household economy and socio-cultural interactions between the various sections of the settlement. Unfortunately, the commonality of the finds in all the three areas makes it impossible to identify the use of space for different activities on the basis of the finds recovered from the excavations. The artefacts recovered are also not restricted to a particular gender. Glass beads for example were worn by males and females. The use of beads in the ethnographic record shows that there are beads for various occasions, for children, adult, unisex, rich and poor. Some beads are also adorned on specific part of the body such as the wrist, waist, neck, upper part of the hand, ears (used as earrings), ankle and knees. At the Hogbetsotso festival, chiefs, queen mothers, children

and ordinary people adorn themselves with beads. Ceramics, smoking pipes and the other artefacts are also not gender restrictive.

It is likely that the glass beads recovered from the excavations were used for body adornment. It is also known from ethnography that the Anlo of Keta use beads to bury the dead. This is clearly indicated in the burial uncovered in the excavation at the Ghana Stores Bar where the deceased was buried with beads. The belief in life after death backs the use of grave goods since the things used to bury the deceased would be used by him/her when he/she reappears in another world (Monrad 2009: 38).

Another burial was found in the earliest level at Fort Prinzenstein. It is claimed that Captain Bernt Jensen Mørch who died out of oyster poisoning perhaps lies buried in the yellow sand of Keta (Svalesen 2000: 225). It is not known whether this is really the remains of Captain Bernt Jensen Mørch.

The occurrence of shell fish shells testifies to the widespread use of molluscs in the diet of the people. Shell fish must have been processed by almost all households for cooking. This kind of molluscs was eaten in all the three excavated areas. This can also be concluded of fish, as several fish bones were recovered from the excavations. Bones of bovids (including both domestic and wild species such as antelope), birds (possibly including chicken), cattle, pigs, rat and tortoise also indicate that meat of animals was a source of protein to the inhabitants of the site.

The grindstones found in excavated context also suggest a diet of pulverised vegetables. The presence of mollusc shells at Fort Prinzenstein indicates some form of interaction between the European residents of the fort and the local inhabitants. As in many of the coastal settlements,

the local inhabitants traded local food items to Europeans in the forts (see Anquandah 2006: 13; Boachie-Ansah 2008: 58). The local inhabitants are also likely to have supplied the locally manufactured pottery found in the fort. European inhabitants on the coast, far away from home, adapted to local conditions. They ate African foods, depended on African cooks, and used African pottery. Although many of the bones could not be identified to specific species, the faunal remains indicate that bovids, sea fish, molluscs, birds, crabs and cattle were eaten in all the three excavated areas and similar foods were consumed by the inhabitants of Fort Prinzenstein (where the Europeans lived), the Ghana Stores Bar (where Africans lived) and the UAC areas. The large number of local potsherds (n=7,151) at Fort Prinzenstein as compared with European potsherds (n=9) testifies to the use of, and reliance on locally manufactured pottery by the residents of the fort. As Europeans influenced the lifestyle of Africans, so did the Africans also influence the lifestyle of Europeans.

It is likely that the local people smelted iron. Pieces of iron slag were found in association with European smoking pipes and it is likely that smelting was practised during the period of European occupation on the coast.

The alcoholic beverage and chemical bottles, window panes and tumblers testify not only to trade with Europeans but also to the consumption of alcohol by the natives and the adoption of aspects of European lifestyle. The smoking pipes also suggest trade in tobacco and the adoption of European lifestyle. The J.H. Henkes schnapps bottles also suggest the pouring of libation by the local people who are known for using schnapps for that purpose and for ritual purposes. The use of European ceramics by local inhabitants along the coast is well known and the European

pottery found in the excavations may have been used by the local inhabitants. The cowry shells from the excavations could have been used as currency, for body adornment or for rituals. The George VI coin was likely used as currency during the British colonial period.

The earliest datable European artefact from the excavation is a Dutch smoking pipe stem decorated with rouletted motifs and of a type dating from 1600 onwards. This pipe was recovered from arbitrary Level 1 of Unit 4 at the UAC site (see Table 20). The latest artefact is a coin with the portrait of George VI (1937-1952) recovered from arbitrary Level 3 at the UAC site. All the excavated sites are therefore dated to the period when Europeans were already on the coast. No archaeological data was obtained on the pre-Atlantic contact period. The period spans the time when the Europeans traded from their ships and with no foothold on the Keta coast (i.e., before the building of Fort Prinzenstein by the Danes in 1784) to the British colonial period. That the excavated areas do not predate the Atlantic contact period is supported by the fact that European imported goods were found in all the earliest levels of the excavated pits. For example the pit at Fort Prinzenstein produced European pottery in the bottommost Level 5. The excavated unit at the Ghana Stores Bar also produced glass beads associated with a burial in the earliest level of the unit. Lastly, in Unit 3 at the UAC area, European ceramics, metal objects, broken glass bottles, European bricks and a bead were recovered from the earliest level. There is no evidence of cultural discontinuity in any of the excavated pits. Similar pottery and finds were found in majority of the levels.

Most of the European smoking pipes are Dutch and their dates, as indicated by their stem hole diameter and makers' marks, range from mid-17th century to the early 20th century. The earliest

date is provided by the stem of a pipe with a hole diameter of 2.55 mm and a thickness greater than 4 mm. The pipe was dated to 1650 -1680. The latest is the spur of a Gouda pipe with a crowned '**L'** on the foot and a shield on the side. This is dated to 1726 - 1925. As many as 139 of the excavated pipes were traded to Keta before 1784 when Fort Prinzenstein were built by the Danes. European countries traded in items from other European countries other than their own. For this reason, Walker (1975: 184) has cautioned that it must not be assumed that Dutch pipes found in West Africa indicate Dutch trading contacts. Dutch pipes were used by the French and were major exports from other European countries such as Denmark, Sweden and Brandenburg (Walker 1975: 167). It is therefore possible that the Dutch pipes were traded to the Keta coast by other European countries. It is also possible that they were traded to the Keta coast by the Dutch whose first voyage to the Gold Coast was in 1595 (Ward 1958: 75) and who were the major enemies of the Danes in the Keta area. One pipe stem with the inscription 'HAMBURG' was found in Level 1 of Unit 3 at the UAC site, a possible indication that other European countries traded with the Keta coast.

The activities of the Bremen Missionaries from 1853 onwards (see Kpodo 1969: 9; Boahen 1975: 81; Buah 1998: 136) have resulted in the large number of Christians in Keta. Christians outnumber those who believe in African traditional religion. As a result of Christian evangelisation there are no public shrines in Keta. There are only family and individual shrines which are kept in homes.

The missionaries also established schools and many indigenes imbibed western education. The result is that today there are several primary and senior high schools in Keta. Intermarriage

between Africans and Europeans has produced "mollatoes" with foreign names such as Karl, Quist, Abdala, Baeta, Sussexa, Risch, Van Lare, Desouza, and De-lima. Some of the traders were Brazilians who came to the Keta area during the colonial period.

The drinking of foreign alcohol and tobacco smoking are also the result of Euro-Ewe contact.

During the reconnaissance survey at Keta, several colonial buildings were found. Some of these buildings were used as homes, shops and warehouses. The educated elite, chiefs and merchants built western styled houses (see Figures 4 and 6). The building styles such as storey buildings with chambers and big halls, with open verandas and corridors can all be attributed to contact with the Europeans. Thus, evidence of cultural contact can be seen in the architecture of some of the buildings in Keta. The importation of building materials such as iron bars and other building materials has impacted the way buildings are constructed in Ghana today. Some Africans were also trained as carpenters and builders.

In conclusion, there are clear indications that influences on the lifestyle of Europeans and Africans were reciprocal.

5.2. Recommendations

It is recommended that a total excavation should be conducted at Fort Prinzenstein. This would help to recover and identify the earlier structures built before the one that is there today. This would also help to confirm or to reject the documented architectural history and to obtain valuable archaeological objects for a museum at Keta.

The Ghana Museums and Monument Board should make it a point to collaborate with the Danes who built the fort, the English who purchased the fort from the Danes, international bodies such

as UNESCO, private bodies or developers and the traditional authorities in the Volta Region who are interested in seeing to the development of the Fort to reconstruct it into a beautiful welcoming tourism centre. This would have the potential of bringing in and increasing the number of tourists to the Keta area. The people of Keta should also make it a point to come together to map and document properly the various important structures and significant places that can be restored for posterity.

REFERENCE

Akyeampong, E. K. (2001). *Between the sea and the lagoon: An eco-history of the Anlo of southeastern Ghana*. Oxford: Oxford University Press.

Amenumey, D. E. K. (1986). *The Ewe in pre-colonial times*. Accra: Sedco Publishing.

Amenumey, D. E. K. (1997). A brief history. In F. Agbodeka (Ed.), *A hand book of Anlo-Eweland: The ewes of southeastern Ghana. (p. 14-27).* Accra: Woeli Publishing Service.

Anquandah, J. (1982). *Rediscovering Ghana's past*. London: Longman.

Anquandah, J. (1993). *Fort St, Jago, Elmina, Ghana Archaeological Reconnaissance Survey Report.* Cape Coast: Central Region Development Commission CEDECOM.

Anquandah, J. (1997). *Cape Coast Castle and Fort St. Jago, Elmina, Ghana: Archaeological Reconnaissance Survey Phase Two Report.* Cape Coast: Central Region Development Commission CEDECOM.

Anquandah, J. (1999). *Castles and Forts of Ghana.* Paris: Atalante.

Anquandah, J. (2002). Fort Creavecour (Ussher Fort) historical archaeological survey of the site at Old Kinka, Accra, Ghana. Preliminary Report. Legon. Department of Archaeology. University of Ghana.

Anquandah (2006). The Accra Plains c. 1400-1800: An overview of trade, politics and culture from the perspective of historical archaeology. In M.E.K. Dakubu, (Ed.). *Accra before Colonial Times: Proceedings of a colloquium on early Accra. A special issue of Research Review*, Supplement 17. Legon: Institute of African Studies, pp. 1-20.

Anyidoho, K. (2003). The back without which there is no front. *Africa Today*, *50*(2), 3–18.

Apoh, W. (2008). T*he Akpinis and the echoes of German and British colonial overrules: An archaeology of Kpando, Ghana.* (Unpublished PhD dissertation). Binghamton University.

Apoh, W. (2013). The archaeology of German and British colonial entanglements in Kpando-Ghana. *International Journal of Historical Archaeology*, *17*(2), 351–375. https://doi.org/10.1007/s10761-013-0220-7

Apoh, W. & Gavua, K. (2010). Material culture and indigenous spiritism: The Katamansu archaeological "Otutu"(Shrine). *African Archaeological Review*, *27*(3), 211–235.

Aryee, V. (2015). *Salvage archaeology at the Fort Kongensten site of Ada Foah*. (Unpublished MPhil thesis). University of Ghana.

Ashmore, W., & Sharer, R. J. (1993). Archaeology: Discovering our past. Mountain View, CA: Mayfield Publishing Co.

Atkinson, D. & Oswald, A. (1972). A brief guide to the identifications of Dutch clay tobacco pipes found in England. *Post-Medieval Archaeology* 6:175-182.

Ayipey, P. (2016). *A preliminary archaeological investigation of Mountain Agbenu, Abutia, Ghana.* (Unpublished MPhil thesis). University of Ghana.

Ayto, E. G. (1979). *Clay tobacco pipes.* (Third). Pembrokeshire: Shire Publications.

Barbot, J. 1732: *A description of the coasts of north and south Guinea and Ethiopia inferior vulgarly Angola: Being a new and accurate account of the western merritime countries of Africa.* Paris: Didot.

Binford, L. R. (1978). *Nunamiut ethnoarchaeology*. New York: Academic Press.

Biveridge, F. (2014). *A historical archaeology perspective of cross-cultural encounters at Discove and its neighbourhoods, Ghana*. (Unpublished PhD thesis). University of Ghana, Legon.

Boachie Ansah, J. (1978). *An archaeological contribution to the history of Wenchi*. (Unpublished M.A. thesis). University of Ghana..

Boachie-Ansah, J. (1986a). *An archaeological contribution to the history of Wenchi. African Occasional Papers, No. 3*. Calgary: University of Calgary Press.

Boachie-Ansah, J. (1986b). Smoking pipes and the dating of post-16th century sites in Ghana: The evidence from Ahwene Koko. *West African Journal Archaeology*. 16:53-70.

Boachie-Ansah, J. (2008). Excavations at Fort Amsterdam, Abandze, Central Region, Ghana. In T. Insoll (Ed.), *Current Archaeological Research in Ghana* (pp. 37–62). Cambridge

Monographs in African Archaeology, 74. BAR Series 1874. (1847) International. Oxford: Archeopress.

Boachie-Ansah, J. (2015). Excavation at Kormantin No. 1 in the Central Region of Ghana. *Ghana Social Science Journal,12(2)*, 37-81.

Boahen, A. A. (1975). *Ghana: Evolution and change in the nineteenth and twentieth centuries*. London: Longman.

Bosman, W. (1705). *A new and accurate description of the coast of Guinea*. London: Frank Cass

Bradley, C. E. (2000). Smoking pipes for the archaeologist. *Studies in Material Culture Research*, Karlis Karkins, (Ed). Society for Historical Archaeology, pp. 105-133

Buah, F. K. (1998). *A History of Ghana*. Oxford: Macmillan Education Limited.

Bunn, H., Harris, J. W., Isaac, G., Kaufulu, Z., Kroll, E., Schick, E., … Behrensmeyer, A. K. (1980). FxJj50: An early pleistocene site in Northern Kenya. *World Archaeology*, *12*(2), 109–136.

CEDECOM, (1992): Cape Coast Castle, Ghana- Integrated Survey Report. Accra: J.F. Johnston Ltd.

Chang, K. C. (1972). Settlement patterns in archaeology. In *Modules in Anthropology*. London: Longman.

Cohn, B. (1996) *Colonialism and its forms of knowledge: The British in India*. Princeton: Princeton University Press.

Comaroff, J.L. & Comaroff, J. (1991). *Of revelation and revolution: Christianity, colonialism, and consciousness in South Africa*. Chicago and London: The University of Chicago Press.

Comaroff, J.L. & Comaroff, J. (1992). *Ethnography and the historical imagination.* Boulder: Westview Press.

Comaroff, J.L. Comaroff, J. (1997). *Of revelation and revolution: The dialectics of modernity on a South African frontier*. Chicago and London: The University of Chicago Press.

Cressford C. (2001). The archaeology of the clay pipe and study of smoking. *Assemblage: The Sheffield Graduate Journal*, 6. Archaeology Department, University of Sheffield, Sheffield, <http://www.assemblage.group.shef.ac.uk/issue6/Cessford_text_web.htm>.

Crossland, L. B. (1989). *Pottery from Begho B-2 Site, Ghana*. *African Occasional Papers, 4.* Calgary: The University of Calgary Press.

DeCorse, C. (2001). *An archaeology of Elmina, Africans and Europeans on the Gold Coast, 1400-1900.* Washington and London: Smithsonia Institution Press.

Deetz, J. (1977). *In small things forgotten: The archaeology of early American life*. New York: Anchor.

Dickson, K. B. (1971). *A historical geography of Ghana.* Cambridge: Cambridge University Press.

Dickson, K. B., & Benneh, G. (1988). *A new geography of Ghana*. London: Longman.

Dietler, M. (1995). The cup of Gyptis: Rethinking the colonial encounter in Early Iron Age Western Europe and the relevance of world-systems models, *Journal of European Archaeology* 3(2): 89–111.

Dietler, M. (1998). Consumption, agency, and cultural entanglement: Theoretical implications of a Mediterranean colonial encounter, in J.G. Cusick (Ed.) *Studies in Culture Contact: Interaction, Culture Change, and Archaeology, Occasional Papers No. 25*, pp. 288–308. Carbondale: Center for Archaeological Investigations.

Dillon, B. D. (1982). *Practical archaeology: Field and laboratory techniques and archaeological logistics*. LosAngeles: Institute of Archaeology, University of Calfornia.

Donnan, E. (1931). *Documents illustrative of the slave trade to America*. Cited in Walker I. C. 1975. The potential use of European clay tobacco pipes in West African Archaeological Research. *West African Journal of Archaeology* 5: 165-193.

Duco, D. H. (2003). *Merken en Merkenrecht van de Pijpenmakers in Gouda*. Amsterdam: Pijpenkabinet.

Edmunds, J., (1978). *Sea shells and other molluscs found in West African Coast and Estuaries*. Accra: Ghana Universities Press.

Effah-Gyamfi, E. (1978). *Bono Manso: An archaeological investigation into early Akan urbanism*. (Unpublished PhD thesis). University of Ghana, Legon.

Francis, P. J. (1995). *Beads of the world*. Atgen: Schiffer Publishing Ltd.

Frankenstein, S., & Rowlands, M. J. (1978). The internal structure and regional context of early iron-age society in south-western Germany. *Bulletin of the Institute of Archaeology, London*, (15), 73–112.

Freeman, M. (2008). *An archaeology of early European contact in Anomabu (Ghana)*. (Unpublished MPhil thesis). University of Ghana, Legon.

Gayibor, N.L. (1989). Le Remodelage des Traditions Historiques: La Lengend d'Agokoli, Roi de Notse In Sources orales de l'histoire de l'Afrique, ed. Paris: Claude-Helen Perrot, pp 209-214.

Gayibor, N.L. & Aguigah, (2005) A. Early settlements and archaeology of the Adja-Tado culture zone'. In B.N. Lawrence (Ed.). *The Ewe of Togo and Benin*. Accra: Woeli Publishing Services.

Greene, S. E. (2002). Notsie narratives: History, memory, and meaning in West Africa. *The South Atlantic Quarterly*, 101 (4), 1015-1041.

Gyam, S. (2008). *Historical archaeological investigations at Fort St. Anthony, Axim (Ghana)*. (Unpublished MPhil thesis). University of Ghana, Legon.

Hakluyt, R. (1589). *The principal voyages, traffiques and discoveries of the English nation, London*. New York: Viking Penguin.

Hall, M. (1996). *Archaeology Africa*. Oxford: Marston.

Hansen, T. (2002[1967]). *Coast of Slaves (1967)*. Kari Darko, (Trans. & Ed.). Accra: Sub-Saharan Publishers. Copenhagen: Gyldendal 1967, 104-105

Harley, L.S. (1963). The clay tobacco-pipe in Britain with special reference to Essex and East Anglia. *Essex Field Club Special Memoirs VIII*. Straford, Buncle.

Harrington (1954). Dating stem fragments of seventeenth and eighteenth century clay tobacco pipes. *Quarterly Bulletin of the Archeological Society of Virginia* 9(1):10-14. Reprinted

1978 in *Historical Archaeology: A Guide to Substantive and Theoretical Contributions*, R. Schuyler, (Ed.). 63-65. Farmingdale, New York: Baywood Publishing Co.

Henige, D. P. (1982). *Oral historiography*. New York: Longman.

Huey, P.R. (1974). Reworked pipe stems: A 17th century phenomenon from the site of Fort Orange, Albany, New York. *Historical Archaeology 8*: 105-11.

Hume, N. I. (1969). *A guide to artifacts of colonial America.* Philadelphia: University of Pennsylvania Press.

Hume, N. I. (1970). Early English Delftware from London and Virginia. *Colonial Williamburg Occasional Papers in Archaeology*, 3.

Hume, N. I. (1974). Archaeology and colonial gardener. *Colonial Williamsburg Archaeological Series No. 7*. Williamsburg, VA: The Colonial Williamsburg Foundation.

Isert, P. E. (2007[1788]). *Letters on West Africa and the Slave Trade: Journey to Guinea and the Caribbean Islands in Columbia 1788.* S. A. Winsnes (Trans. & Ed.). Accra: Sub-Saharan Publishers Oxford: Oxford University Press.

Johnson, J. S. (1994). Consolidation of archaeological bone: A conservation perspective. *Journal of Field Archaeology*, *21*(2), 221–233.

Jones, W. M (1976). The source of ballast at a Florida Site. *Historical Archaeology* 10: 42-45

Joukowsky, M. (1980). *A complete manual of field archaeology: Tools and techniques of field work for archaeologists*. New Jersey: Prentice-Hall, Inc.

Justesen, O. (Ed.) (2005). *Danish sources for the history of Ghana 1657-1754. Vol. 2, 1735-1754*. Manley, J. (Trans.). Copenhagen: Det Kongelige Danske Videnskabernes Selskab (The Royal Danish Academy of Sciences and Letters).

Kesse, G. O. (1985). *The mineral and rock resources of Ghana*. Rotterdam. Boston: A.A. Balkema

Kirkdale Archaeology, (1991): Cape Coast Castle: Archaeological reconnaissance survey

Kirkdale, A., & Johnston. (1992). *Report on Cape Coast Castle 1991: Integrated archaeological reconnaissance survey*.

Klose, J. (2007). *Identifying ceramics: an introduction to the analysis and interpretation of ceramics excavated from 17th to 20th century archaeological sites and shipwrecks in the south-western Cape*. Cape Town: University of Cape Town.

Klose & Malan (2014). *An introduction to the identification of ceramics excavated from 18th and 19th century archaeological sites.* UCT Ceramics Handbook, 2009 (Historical Archaeology Research Group, UCT).

Kpodo, P. K. (1969). *The growth and decline of Keta: A geographical dissertation*. (Unpublished BA long essay). University of Cape Coast.

Kumah, D. (2013). *Archaeological survey of early African-Dutch interactions at Awudua-Dada, Western Region, Ghana*. (Unpublished MPhil thesis). University of Ghana.

Kumassah, A. (2009). *The migration saga of the Anlo-Ewes of Ghana*. Keta: Photo-City Press.

Lawrence, A. W. (1963). *Trade Castles and Forts of West Africa*. London: Jonathan Cape.

Leonard Pole, (1974). Iron smelting in northern Ghana. *National Museum of Ghana Occasional Papers No. 6-8*. Accra: Ghana Museums and Monuments Board.

McIntosh, J. (2003). *The practical archaeologists*. London: Thames & Hudson.

McMillian L. (2010). *Put this in your pipe and smoke it: An evaluation of tobacco pipe stem dating methods.* (MA thesis, East Carolina University). Retrieved from http://thescholarship.ecu.edu/handle/10342/10342/2903

Municipal Profile. (2015). Profile of Keta Municipal. Keta.

Miller, D. (1987). Material culture and mass consumption. Oxford: Basil Blackwell.

Monrad, H.C. (2009). *Two views from Christianborg Castle,* Vol. 2. A description of the Guinea and its inhabitants. S. A. Winsnes (Trans.). Accra: Sub-Saharan Publishers.

Nørregård, G. (1966[1954]). *Danish settlements in West Africa, 1658-1850*. Boston: University Press Boston/ Hassing Publishers Ltd.

Nukunya G.K. (1997). The land and the people. In F. Agbodeka (Ed.*), A hand book of Anlo-Eweland: The ewes of southeastern Ghana.* (p. 8-13). Accra: Woeli Publishing Service.

Nutor, B. K. (2010). *An archaeology of indigenous religion at Dzake- Peki, Volta Region*. (Unpublished MPhil thesis). University of Ghana, Legon.

Nyarko, A. E. (2013). *Archaeology of Prince's Town, Ghana*. (Unpublished MPhil thesis) University of Ghana, Legon.

Ocloo, E. K. (2014). *An ethnographic study of salt mining at Tackscorner-Agbozume/Klikor in the Volta Region of Ghana*. (Unpublished B.A. long essay). University of Ghana.

Oswald, A. (1975). Clay pipes for archaeologists. *British Archaeological Reports* 14. Oxford.

Ozanne P.C. (n.d.). Tobacco pipes of Accra and Shai. Legon: Institute of African Studies (Mimeographed).

Rømer, L. F. (2000[1760]). *A reliable account of the coast of Guinea (1760)* (Vol. 3). S. A. Winsnes, (Ed.). Oxford: Oxford University Press,

Roseberry, W. (1989). *Anthropologies and histories: Essays in culture, history, and political economy*. New Brunswick: Rutgers University Press.

Sahlins, M.D. (1985). *Islands of history*. Chicago: University of Chicago Press.

Sahlins, M.D. (1992). The economics of develop-man in the Pacific, *Anthropology and Aesthetics RES* 21(spring): 12–25.

Sahlins, M.D. (1993). Goodbye to Tristes tropes: Ethnography in the context of modern world history. *Journal of Modern History 65*: 1–25.

Scaramelli, F., & de Scaramelli, K. T. (2005). The roles of material culture in the colonization of the Orinoco, Venezuela. *Journal of Social Archaeology, 5*(1), 135–168.

Schiffer, M. B. (1982). *Advances in Archaeological Methods and theory*. Vol. 1. London: Academic Press.

Schrire, C., Deetz, J., Lubinsky, D. & Poggenpoel C. (1990). The chronology of Oudepost I, Cape, as inferred from an analysis of clay pipes. *Journal of Archaeological Science,* 17: 269-300.

Schortman, E. M., & Urban, P. A. (1992). *Resources, power, and interregional interaction*. New York: Springer Science & Business Media.

Sharer, R. J., & Ashmore, W. (1996). *Discovering our past: A brief introduction to archaeology*. Mountain View: Mayfield Publishing.

Simmonds, D. (1973). A note on the excavations in Cape Coast Castle. *Transactions of the Historical Society of Ghana*, *14*(2), 267–269.

South, S. (1977). *Methods and theory in Historical Archaeology*. New York: Academic Press.

Stein, G. (2002). Colonies without colonialism: A trade diaspora model of fourth millennium B.C. Mesopotamian enclaves in Anatolia. In C. Lyons and J. Papadopoulos (Eds.), *The archaeology of colonialism.* Los Angeles: Getty Publications.

Svalesen, L. (2000). *The slave ship Fredensborg*. P. Shaw & S. Winsnes (Trans.). Accra: Sub-Saharan Publishers.

Van Dantzig, A. (1980). *Forts and castles of Ghana*. Accra: Sedco Publishing.

Vansina, J. M. (1985). *Oral tradition as history*. Wisconsin: University of Wisconsin Press.

Walker, I. (1975). The potential use of European clay tobacco pipes in West African Archaeological Research. Ibadan: *West African Journal of Archaeology*, 5: 165-193.

Walker, I. (1976). Alternative uses for clay tobacco pipes and tobacco pipe fragments: some notes. *Historical Archaeology 10*: 124-27.

Ward, W. E. F. (1958). A history of Ghana. London: Allen and Unwin.

Wellington, H. N. A. (2011). *Stones Tell Stories at Osu*. Accra: Sub-Saharan Publishers.

Wolf, E.R. (1982) *Europe and the People without History*. Berkeley: University of California Press.

Wullf, J. W. (2004). *A Danish Jew in West Africa: Biography And Letters 1836-1842*. S. A. Winsnes (Trans. & Ed.). Accra: Sub-Saharan Publishers.

Internet Sources

goudapipes.nl

n.d. http://www.hum2.leidenuniv.nl/verba-africana/hogbetsotso/b-hogbetsotso.htm

treasurerealm.com/coinpapers/england/coins/S4113.html

treasurerealm.com/coinpapers/england/denominations/florin.html

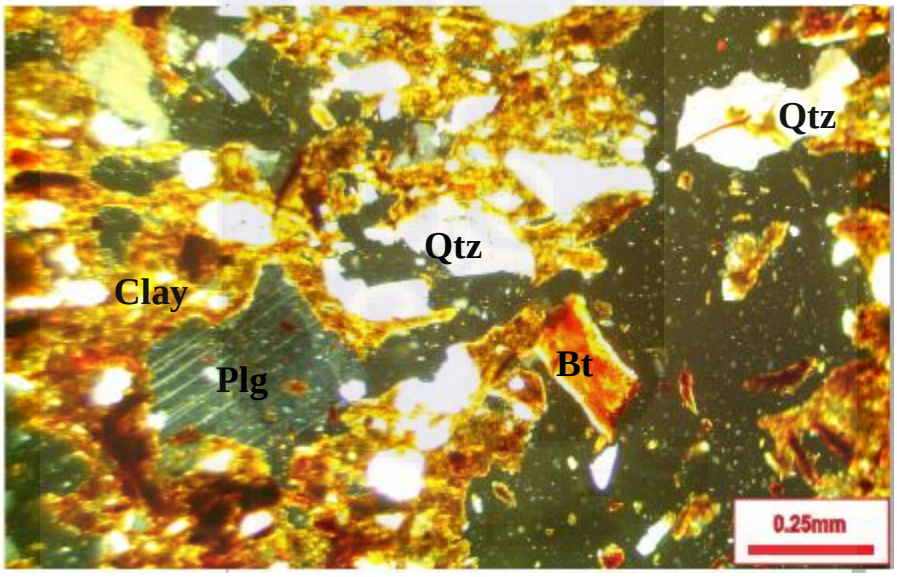
APPENDIX

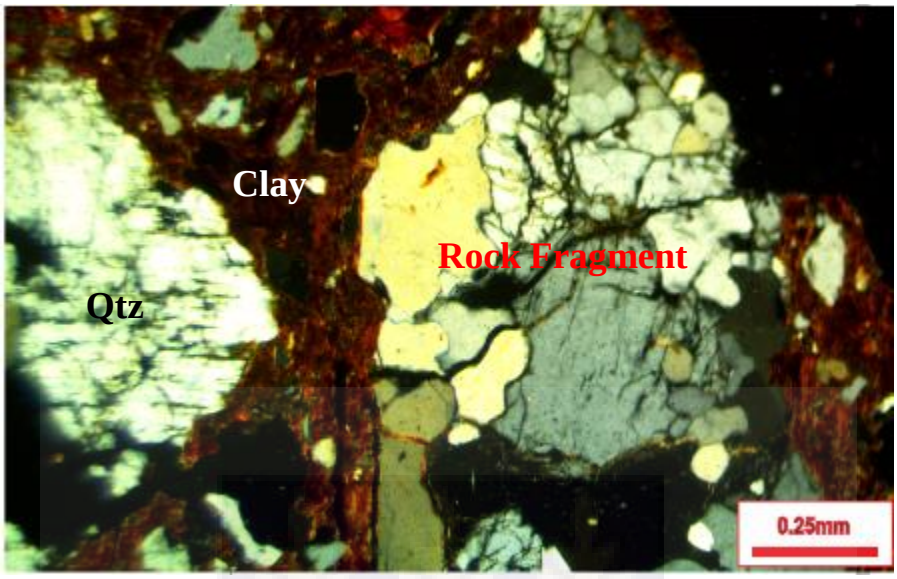
KEFP/15/L1

This sample is reddish brown, fine to coarse and massive. It is composed of quartz, rock fragments and clay. The quartz and rock fragments are angular to sub-rounded which are embedded in fine grained clay. This sample does not react with dilute HCl indicating the absence of carbonate minerals.

Thin section description

From the thin section, the sample is fine to coarse grained and massive. It is composed of coarse quartz, plagioclase, rock fragments and biotite that are set in fine grained clay. Generally, the grains are angular to sub-rounded which may suggest short distance travel.



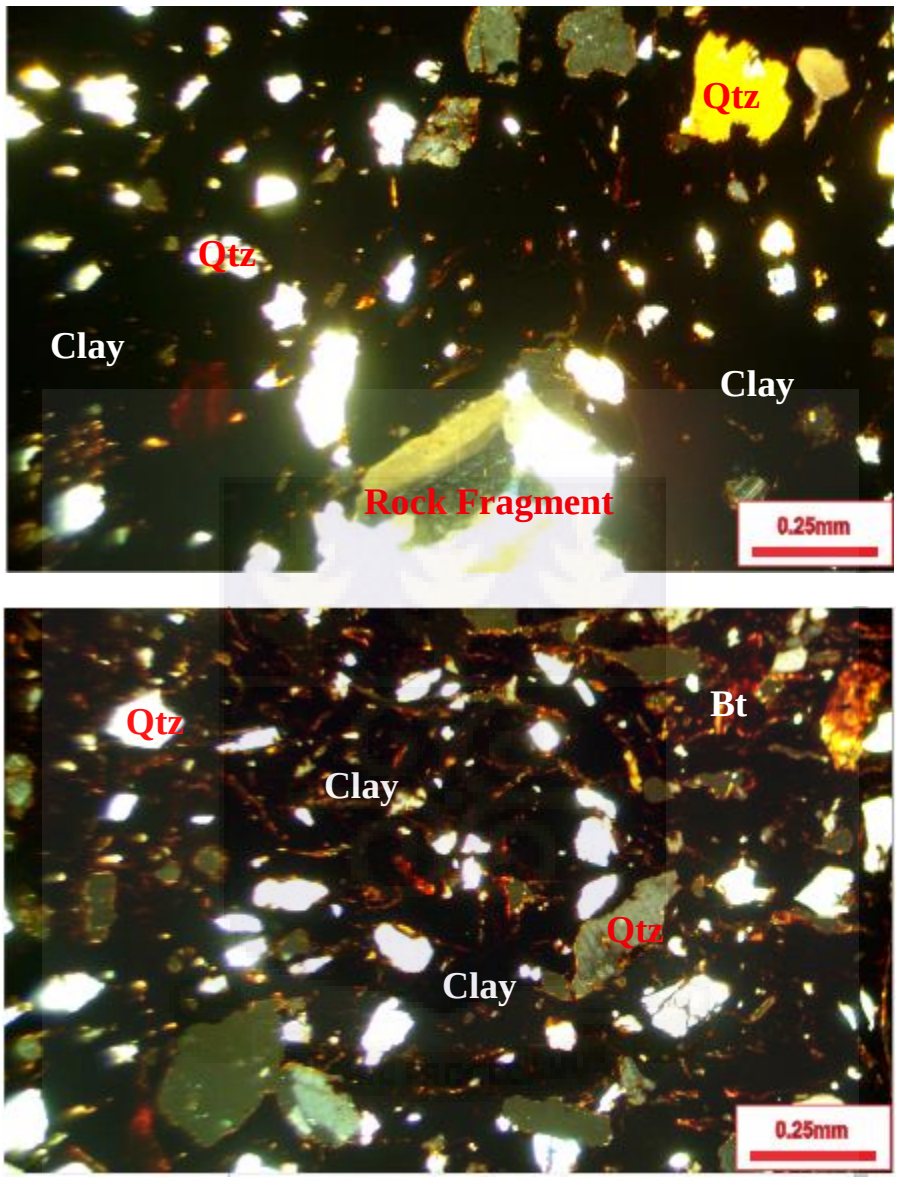


KEFP/15/L3A

The sample is dark grey with reddish brown tint. It is fine-coarse grained, massive and contains dominantly clay that occurs together with minor quartz and rock fragments. This assemblage appears sub-angular to sub-rounded.

Thin section description

In thin section, the sample show fine-coarse and massive texture. This sample contains mainly fine grained clay, with coarse quartz, rock fragment, plagioclase and biotite. The minerals are genrally sub-angular to sub-rounded.

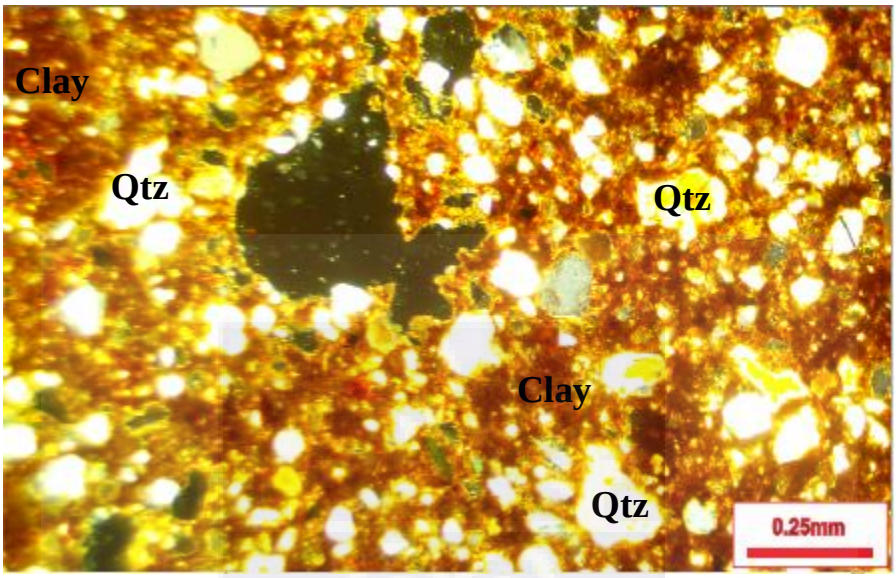


KEFP/15/L3B

This sample is brick red, fine-medium grained and massive. Dominantly the sample is composed of clay with minor quartz and rock fragments. These gains are sub-angular to sub-rounded. The sample does not react with dilute HCl, which may indicate the absence of carbonate minerals.

Thin section description

Microscopically, the sample is fine-medium grained and massive. It is composed of medium grained quartz, plagioclase and rock fragment embedded in fine grained clay. On the whole, the grains are sub-angular to sub-rounded.



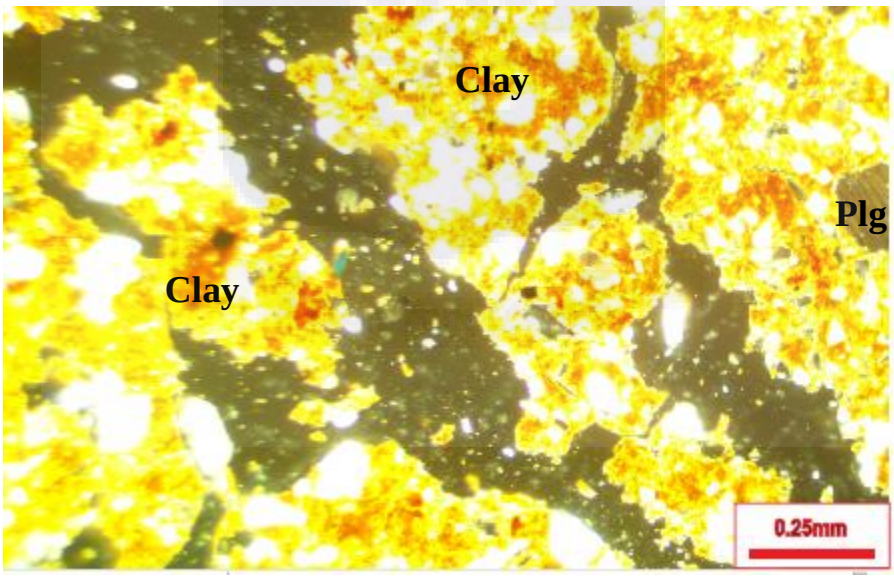


Table 1: modal composition

Grain	KEFP/15/L1	KEFP/15/L3A	KEFP/15/L3B
Clay	50	55	75
Quartz	25	20	18
Plagioclase	8	10	2
Rock fragment	15	13	5

Biotite	2	2	

Interpretation

The samples are generally fine-coarse grained and massive. They are composed coarse quartz, rock fragments, plagioclase and biotite set in fine grained clay. The grains are generally sub-angular to sub-rounded, which, may indicate short distance travel. Considering the mineral content of the samples and their sub-angular to sub-rounded nature, their source could be from the local geology and surrounding areas.

List of Abbreviations

Bt = Biotite

Qtz = quartz

Plg = Plagioclase