SALVAGE ARCHAEOLOGY AT THE FORT KONGENSTEN SITE OF ADA FOAH

BY

VICTORIA A. ARYEE

(10253172)

THIS THESIS IS SUBMITTED TO THE DEPARTMENT OF ARCHAEOLOGY AND HERITAGE STUDIES, UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MPHIL ARCHAEOLOGY DEGREE

MARCH 2015
DECLARATION

I hereby declare that this work is the result of my own research work carried out in the Department of Archaeology and Heritage Studies, University of Ghana, under the supervision of Dr Wazi Apoh. All references used in the work have been fully acknowledged. Any shortfalls therein are my sole responsibility. This work has not been presented in full or in part to any other institution for examination.

...........................................           ...........................................

VICTORIA A. ARYEE             DATE

(10253172)

...........................................           ...........................................

DR. WAZI APOH                DATE
(SUPERVISOR)

...........................................           ...........................................

PROF. KODZO GAVUA          DATE
(ADVISOR)
ABSTRACT

This research looks at the use of salvage archaeology as a research method for the documentation and conservation of heritage sites that are being threatened by the rise in sea levels. Such devastating effects of the ocean on coastal environments are often as a result of climate change and global warming. Over the years, sea levels have been steadily rising, leading to the erosion of coastlines in Ghana to about 110 meters inland, and the submergence of historic coastal settlements. Specifically, a historic Danish Fort (Fort Kongensten) constructed in 1783 along the coast of Ada Foah, a town located in the Greater Accra Region of Ghana, has been totally eroded away by the rising sea water. This thesis explores the strategic use of salvage archaeology, archival and ethnographic field methods in the documentation of the remains of this fort and associated historic sites. The excavations conducted at Ada Foah, a historic site, yielded a feature; a midden that comprised of fragments of pottery, European ceramics, stems and bowls of smoking pipes, cowrie shells, glass bottles, metal pieces, large quantities of *Arca Senilis* and *Ostrea Denticulata* to mention but a few. These materials give an insight into the materiality and period of contact between the Danes and the people of Ada Foah. Overall, this work assesses the extent to which archaeology and anthropology can be used as tools in climate change mitigation projects and conservation of heritage remains.
DEDICATION

This work is dedicated to my entire family for the encouragement and support they gave me throughout this course. More especially to my Father Mr. James Ebo Whyte; for you have taught me that true family transcends blood ties.
ACKNOWLEDGEMENT

I thank the Almighty God for his favor and mercies upon my life throughout my studies.

I would graciously acknowledge the efforts of the Lecturers of the Department of Archaeology and Heritage Studies (DAHS), for the tutelage they have offered me. Special thanks to my supervisors Dr. Wazi Apoh and Prof. Kodzo Gavua for their unending support and guidance throughout my studies, and the head of Department Professor Benjamin Kankpeyeng for his support.

I extend my appreciation to Professor Anquandah for his mentorship and nuggets of wisdom that have guided my decision-taking in the field of Archaeology, and to Mr. L.B Crossland for his support through my research analysis. I would also like to thank all those who, at one point or another, encouraged me and made me smile, especially Mr. Edward Nyarko a very intelligent and capable field mate.

I register my deepest gratitude and appreciation to my father, Mr. James Ebo Whyte, for his mentorship and for believing in me, to my mother Catherine Coleman and my siblings Pamela Wedge, Christine Armah and Victoria Amengor, for their unrelenting support throughout my studies.

I extend my warmest sense of gratitude to Mr. Richard Twum Gyamrah for his belief in my research capabilities and his financial support for my field work, and to David Twum Gyamrah for being such a strong pillar of support and a believer in my capabilities.

My special thanks and a deep sense of gratitude goes to Mrs. Aba Eyifa Dzidzienyi for her encouragement through my M.Phil studies. Last but not the least, I extend my gratitude to my friends and colleagues in DAHS, and to all persons who at one point or another supported and accommodated me.
# TABLE OF CONTENTS

DECLARATION ...................................................................................................................... I

ABSTRACT .......................................................................................................................... II

DEDICATION ...................................................................................................................... III

ACKNOWLEDGEMENT ...................................................................................................... IV

LIST OF FIGURES ........................................................................................................ IX

LIST OF TABLES ............................................................................................................... X

LIST OF PLATES ............................................................................................................. X

CHAPTER 1. RESEARCH AREA AND BACKGROUND INFORMATION .............. 1

1.0 Introduction ................................................................................................................ 1

1.1 Problem Statement .................................................................................................... 5

1.2 Objectives of the Study ............................................................................................ 7

1.3 Research Questions .................................................................................................. 7

1.4 Research Methods .................................................................................................... 8

1.4.1 Archival Research ............................................................................................... 9

1.4.2 Ethnographic research ....................................................................................... 9

1.4.3 Salvage Archaeological Research ...................................................................... 10

1.4.4 Post field analysis ............................................................................................. 10

1.4.5 Visual Documentation ....................................................................................... 10

1.5 Structure of Thesis .................................................................................................. 11

CHAPTER 2. LITERATURE REVIEW ........................................................................... 12

2.0 Introduction .............................................................................................................. 12

2.1 Climate Change’ as a Major Contributor to Heritage Loss .................................... 12

2.2 Salvage Archaeology as a Concept and Practice .................................................. 15

   2.1.0 Salvage Archaeology and Legislations ............................................................ 16
2.1.2 International Involvement and Noncompliance Issues…………………………..18

2.3 Applying Material culture studies and Agency as a Unit of Analysis………………21

2.4 Applying World Systems Theory, whilst giving voice to Agency………………….24

2.5 A Historical Archaeology Perspective..........................................................28

2.6 Conclusion..........................................................33

CHAPTER 3. ETHNOGRAPHIC AND ARCHAEOLOGICAL SURVEYS………..35

3.0 Introduction: Ada Settlement History......................................................35

3.1 Subsistence.......................................................................................41

3.2 Surface Survey and Site location ..........................................................43

3.3 Excavations ......................................................................................46

3.4 Conclusion and Challenges..............................................................53

CHAPTER 4. CLASSIFICATION AND ANALYSIS OF MATERIAL CULTURE.55

4.0 Introduction ......................................................................................55

4.1 Pottery..............................................................................................55
  4.1.0 Vessel Parts: Rims ........................................................................56
  4.1.1 Everted rim shallow bowls..............................................................56
  4.1.2 Everted rim jar ..............................................................................57
  4.1.3 Straight rim jar ............................................................................57
  4.1.4 Surface Treatment. Burnishing/ Non Burnishing..........................58
  4.1.5 Smudged .....................................................................................58
  4.1.6 Surface Decorations: Grooves ......................................................59
  4.1.7 Incision ......................................................................................59

4.2 European Ceramics.............................................................................61
  4.2.0 Porcelain ....................................................................................62
  4.2.1 Stoneware ...................................................................................63
  4.2.2 Earthenware: Creamware............................................................65
    4.2.2.1 Pearlware ..............................................................................67
    4.2.2.2 Whiteware/ Ironstone .............................................................69

4.3 Glass ...............................................................................................76

vi
4.4 Pipes.............................................................................................................80

4.5 Other Finds..................................................................................................82

CHAPTER 5. DISCUSSION, RECOMMENDATIONS & CONCLUSION........85

5.0 Discussion ..................................................................................................85

5.1 Assessing Material Culture from the Fort Kongensten site....................86
5.2 Recommendations: Salvage Archaeology ..............................................88
  5.2.0 Public Archaeology as a tool for education and awareness.................89

5.3 Conclusion..................................................................................................92

BIBLIOGRAPHY .................................................................................................94
## LIST OF FIGURES

Figure 1.1 Topographical Map of Ada Foah. (Source: CERGIS, Dept. of Geography Univ. Of Ghana) ................................................................. 2

Figure 1.2 Photo of Fort Kongensten prison, April 2013. ................................. 2

Figure 1.3 Photo of Cistern From Fort Kongensten. ........................................ 4

Figure 1.4 Photo of sea defense wall. The arrow points to the sea defense wall. .... 5

Figure 1.5 A 20th century map of The Ada Foah coastline. (Source: Dredging, Environmental and Marine Engineering) ........................................ 6

Figure 3.1 Researcher at the paramount chiefs’ residence with Mr. Jonathan Dokutso (Secretary to Paramount Chief) & Mr. Wisdom Nkromipa (an elder in the town). .......... 37

Figure 3.2 Site Plan of the fort (Source: The Royal Library, Copenhagen) ............ 39

Figure 3.3. Photo of Fort Kongensten in 1784. (Source: The Royal Library, Copenhagen) .......................................................... 40

Figure 3.4 Land being prepared for cultivation, note water hoses laid in between the beds ........................................................................... 41

Figure 3.5 Onion beds being watered by locally manufactured sprinklers. ............ 42

Figure 3.6 Map of the work area .................................................................. 44

Figure 3.7 Photo of surface scatter embedded in the foundation. ...................... 45

Figure 3.8 Photo of south wall profile for unit one ........................................ 42

Figure 3.9 Photo of unit two extension completed ......................................... 48

Figure 3.10 Juxtaposition of wall profiles from the south west quadrant of unit one and southeastern quadrant of unit two ................................. 49

Figure 3.11 Midden extension in Progress. Note: Colonial Buildings in the Background of Working Area ......................................................... 50

Figure 3.12 Photo of Collapsed Wall. Note cistern washed out to the shore from the ocean in right hand corner of photo ........................................... 54

Figure 4.1 Profile of vertically everted rim of a Shallow Bowl .......................... 57

Figure 4.2 Profile of vertically everted rim of a Jar. ......................................... 57

Figure 4.3 Straight rim form ........................................................................ 58

Figure 4.4 Chinese export porcelain (A) could have been used as a saucer and the other (b) was likely a tea ware base fragment ............................................. 62

Figure 4.5 Photo of ginger beer bottle ............................................................ 63

Figure 4.6 Photo of stone ware pieces ........................................................... 64

Figure 4.7 Photo of Stoneware Ink Bottle ...................................................... 64
Figure 4.8 Photo of green glazed ware .................................................................65
Figure 4.9 Photo of Lustre Ware .................................................................66
Figure 4.10 Photo of pearlware with underglazed hand painted polychrome ..............67
Figure 4.11 Photo of pearlware, transfer printed decoration ......................................68
Figure 4.12 Photo of pearlware, hand painted monochrome blue ................................68
Figure 4.13 Photo of whiteware with spatter and sponged decorations ......................70
Figure 4.14 Photo of whiteware with cut sponged decorations and spatters .............70
Figure 4.15 Photo of white ware with cut sponged decorations with gadrooned edges ....71
Figure 4.16 Photo of whiteware, non-impressed edged ware ..................................71
Figure 4.17 Photo of whiteware with narrow, annular rings in blue, red, green and other colors .................................................................72
Figure 4.18 Photo of white ware with sponged stenciled decorations .......................72
Figure 4.19 Photo of flow blue transfer prints ..................................................73
Figure 4.20 Photo of Blankenhyem and Nolet seal ..........................................77
Figure 4.21 Photo of smoking pipes ..............................................................81
Figure 4.22 Photo of beads ...........................................................................83
Figure 4.23 Photo of cowries ........................................................................83
Figure 4.24 Photo of metal objects discovered ..................................................84
Figure 4.25 Photo of molluscs ......................................................................84
LIST OF TABLES

Table 3.1: Summary of Artifacts Recovered From the Midden..............................51
Table 3.2: Summary of Artefacts from Unit One.....................................................51
Table 3.3: Summary of Total Artefacts Recovered From the Ada Foah Excavation........51
Table 3.4 Graphical Representations of Artefacts from Midden................................52
Table 4.1: Numerical Summary of Surface Decorations on Local Pottery...............60
Table 4.2: Numerical Summary of Surface Treatment of Local Pottery...............60
Table 4.3: Porcelain.................................................................................................74
Table 4.4: Stoneware...............................................................................................74
Table 4.5: Earthenware............................................................................................74
Table 4.6: Glassware, Functional Categorization Layout........................................79

LIST OF PLATES

Plate 4.1 Photos of Glassware from Fort Kongensten Excavation..........................78
CHAPTER ONE:

RESEARCH AREA AND BACKGROUND INFORMATION

1.0 Introduction

Ada Foah is a coastal town in the Greater Accra Region of Ghana (See Figure 1.1). It is the capital of the Dangme East district and can easily be referred to as one of the hubs of relaxation and tourism in the greater Accra region. This is because the coast of Ada Foah is littered with various plush beach resorts such as ‘Aqua Safari’, ‘Tsarley Kope’ and ‘Manet Paradise’, as well as colonial buildings. Unique to Ada Foah is their marine turtle protection project designed to protect the endangered turtle species such as the leatherback and green turtles when they come to shore to lay their eggs. In addition to the relaxing resorts and colonial buildings, the turtle protected sites also serve as a tourist attraction for nature lovers. It is however unfortunate that the destructive effect of tidal waves from the sea has been taking a toll on these unique natural and cultural heritage remains on the coastline.

During a familiarization tour of the Ada Foah area on Thursday 25th of April 2013, it came to my notice that the construction of a sea defense wall was on-going at Ada Foah to address the adverse impact of the tidal waves (see Figure 1.4). This construction required the demolition of the remains of a prison constructed on the coast line in the 18th century (see Figure 1.1 & 1.2). Action, in this case, salvage archaeology had to be taken immediately. Thus, I reported back to my department, the Department of Archaeology and Heritage Studies (DAHS), and followed up with another visit the next day (Friday 26th April) with Mr. Raymond Agbo, representative from the Ghana Museums and Monuments
Board (GMMB).

Figure 1.1 Topographical Map of Ada Foah. (Source: CERGIS, Dept. of Geography Univ. Of Ghana)

Figure 1.2 Photo of Fort Kongensten prison, April 2013. (Photograph by the author)
We visited the construction office of the Dredging, Environmental and Marine Engineering (DEME) and were duly informed that the building was scheduled for demolition that very day and that all administrative work and traditional protocol had been performed. Obviously, heritage professionals from DAHS and the Ghana Museums and Monuments Board (GMMB) were not consulted. In light of this, we suggested that I should be granted permission to go ahead and conduct salvage archaeological research on the site before demolition. This request was outrightly refused because; according to the DEME representative they had encountered and deliberated over several issues with the traditional council of Ada Foah throughout the year 2013. They claimed that there had been about four months delay on their construction activities due to the resistance of the traditional and religious rulers against the demolition of the forts’ prison which was an intrinsic part of their heritage.

This brings to the fore a number of issues bedeviling the conservation of heritage sites in Ghana. A review of the Antiquity laws (NLCD 387) and the Environmental Protection Agency regulations of Ghana, reveal that presently there is no law that compels contractors to consult with archaeologists before they embark on their construction and heritage destruction activities. In this case, the destruction of this historic site came to the notice of the DAHS very late. As a result of this, there was no time to effectively document the monument or consider saving it. Deliberation with the DEME officials ended with the agreement that, I could conduct an excavation after the demolition of the buildings.

Analytically, the sea defense wall is a necessary preventive mechanism for curbing sea erosion in Ada Foah (see Figure 1.4). However, its construction came with a costly price that entailed the demolition of the priceless heritage remains of the people of Ada Foah. Evidently, the Fort Kongensten heritage monument that was once in existence at the
site, had steadily been eroded by the ocean, leaving behind only the remnant of a concrete cistern (see Figure 1.3). Unfortunately, no archaeological work was done to record the details of the historic fort for the benefit of posterity before its total erosion. An abandoned prison next to the fort has also been eroded leaving behind a few walls that were subsequently destroyed for the construction of the sea defense wall (see Figure 1.2). As a way of intervening to pick up the pieces, I had to devise a salvage archaeological project at the site. The outcome of this project culminated in this thesis write up.

Figure 1.3 Photo of cistern from Fort Kongensten. (Photograph by author)
1.1 Problem Statement

The constant rise in sea levels over a set period of time has facilitated the erosion of areas along the eastern coastline of Ghana (GFDRR, 2011). Important sites in Keta (a town in the Volta Region of Ghana) have been eroded. More importantly, a large number of important structures, roads as well as the Danish Fort Kongensten in Ada Foah have been gradually eroded by the ocean. Available records indicate that the ocean along the coast of Ada Foah has advanced approximately about 110 metres inland since the 1940’s (DEME records) (See Figure 1.5).
Figure 1.5 A 20th century map of the Ada Foah coastline. Note the red pointer which marks the fort's previous location. The remaining area leading from the south to that marker has been eroded by the ocean (source: Dredging, Environmental and Marine Engineering).

According to Neumann et al. (2000:3) “Climate change is likely to accelerate the historical rise in sea level through the warming of oceans and melting of ice, which in turn will affect coastal development, wetland resources, and recreation…” this ongoing phenomenon can be seen taking place along the eastern coast of Ghana.

This thesis documents various aspects of a salvage archaeological project conducted at the former Fort Kongensten site. The site is continually being destroyed and the area is used as a diversion for heavy duty trucks carrying rock boulders. Any probable material culture in that area was under the threat and risk of disintegration due to the pressure of the truck loads. This was the urgency that propelled my research at the site.
1.2 Objectives of the Study

The objectives of this study are tailored into three major points. The primary objective was to salvage possible archaeological heritage remains associated with the Fort Kongensten and the old prison on the site. This project is based on the premise that the primary role of archaeologists as custodians of the past is to reconstruct past life ways for the benefit of current and future generations.

The secondary objective was to understand the dynamics of the relationship between the environment and heritage. Specifically, to seek insight into the influence of sea level rise on coastal heritage and the probable mitigation methods that can aid in environmental protection.

The third objective of the research was to provide data for developing public centered projects with a focus on salvage and public archaeology as credible ways of educating the public on heritage sites being threatened by environmental factors.

1.3 Research Questions

A number of key research questions guided my research; they include:

1. What is the settlement history of the people of Ada Foah, and what comprises their cultural heritage?

2. What was the role of the Fort Kongensten in the cultural history of the people of Ada Foah?

3. What are the effects of sea level rise on their cultural heritage?
4. To what extent can methods in archaeology and anthropology aid in mitigating environmental changes in the Ada Foah area as well as other heritage sites in Ghana (e.g. Fort Patience in Apam).

1.4 Research Methods

A number of research methods were deployed in phases to accomplish this research. They include the use of archival and documentary research data, in addition to ethnographic data, and archaeological data.

1.4.1 Archival/Documentary Research

During this stage, archival research on Danish administrative documents and journals; specifically the journal of Governor Carstensen was conducted at a number of institutions in Ghana to explore documented histories and literature on the site. The institutions include the DAHS library, the University of Ghana Balme Library and the Department of History Library. Furthermore, I also explored comparative Open Source data published on the internet in relation to different aspects of my research; such as classification and analysis of data. Scholarly written material on historical archaeology, salvage archaeology, public archaeology, climate change and environmental degradation, material culture studies, agency and world systems theory were widely explored to attain a keen perspective on the various topics and to situate my findings in better contexts. Scholarly works done by Anquandah (1982), Appeaning Addo(2008;2011), Apoh (2001;2012), Boachie-Ansah(1993;2010) ,DeCorse(2001),Deetz (1977), Gavua (2014), Hume(1976) and McNulty(1971) served as guides in my literature review. The purpose of this was to have a steady foundation and historical back drop for the research. It also facilitated a better understanding of the area I worked on.
1.4.2 Ethnographic Data Collection.

In order to have an emic perspective of the culture of the people of Ada Foah, I undertook an ethnographic research. Interviews and focus group discussions were held in order to gather oral traditional accounts and cultural information. In total, I interviewed 15 young men and 3 young ladies who were randomly selected between the ages of 18 and 30, and 6 elderly men and 3 elderly women above the age 40, these informants include the chief and key elders in the community, the District Chief Executive, onion farmers (indigenes and non indigenes) and the youth. During the excavation, opportunity was seized to interact with passersby and onlookers who were mostly women. Conversations with the informants were held in the Ga and Twi languages both of which I am fluent in.

In locating informants, I first spoke to some of the youth in the community to know whether they had any idea about the fort or whether they had learnt about it in school. Their responses showed that they had no vivid knowledge of the fort while it was in existence. In actual fact, they had been prohibited by the elders from swimming in the area where the fort was once located. The reason they gave was that, periodically the sea waves brought to the shore dangerous building parts such as stones, bricks and the cistern seen in Figure 1.2. Based on the responses from the youth, I decided to target the elderly in the community as my key informants this proved fruitful.

1.4.3 Salvage Archaeological Approach

The next necessary procedure was the salvage archaeological component of my research. This included surface surveys to locate and map the site. I located the site for excavation by conducting a thorough walk over the coastal area earmarked for the destruction and construction activities. I selected this area based on advice and information
given by the DCE on the previous location of the fort. The search proved fruitful, as I located a surface scatter of historical material culture. I documented these materials with a still camera and a GPS gadget before they were removed from their contexts. I worked with my field assistant, Mr. Edward Nyarko, and two young men from Ada Foah, Gabriel and Peter, who had just completed secondary school.

This reconnaissance survey was followed by salvage excavation. Since the site was being destroyed, salvage archaeology was the best approach to employ in order to retrieve material remains in the shortest possible time.

1.4.4 Post-field Analysis of Finds

Onsite classification was initially employed. Materials were classified, bagged and provenance information recorded. I continued with washing and cleaning of the artefacts at the DAHS laboratory. The classification and analysis of finds were done with the intent of reconstructing the local and foreign interactions at the site, the settlement history of the fort and its significance based on material culture studies.

1.4.5 Visual Documentation

This research was documented through the aid of still photos. A camera was used to record all the proceedings that took place on the field and during analysis of excavated remains. Not only was this done for posterity, but for academic purposes as well.

1.5 Structure of Thesis

Chapter Two comprises literature review of the practice of salvage archaeology as it stands in Ghana currently; it also explores data on climate change, in relation to coastal heritage loss. The chapter continues to discuss material culture studies and agency as
means of artefact analysis, and then debates on the ‘World Systems Theory’ as a plausible explanation for European presence on the coast of Ada Foah. In addition, historical archaeology is discussed as the concept under which this research broadly falls under and contributes to.

Chapter Three focuses on the ethnography and salvage excavations. It encapsulates the outline of my field work on the Fort Kongensten site. Both archaeological and ethnographic processes utilized are recorded in this chapter.

Chapter Four entails classification, analysis and cataloguing of data. Material culture retrieved from the salvage excavation were analyzed in detail in this chapter. It also provides a statistical perspective of the distribution and analysis of the artifacts recovered.

Chapter Five offers a discussion of the research work. This chapter gives detailed remarks on the research work done. It also discusses the significance of the study and suggests recommendations for the way forward.
CHAPTER TWO:
LITERATURE REVIEW

2.0 Introduction

This research was grounded on the literature review of a number of thematic concepts, practices and issues on salvage archaeology, historical archaeology, climate change, world systems theory, agency and material culture studies. The practice of salvage archaeology is discussed as a methodological tool that is indispensable in retrieving material culture at sites threatened by either human interventions or environmental degradation. Historical Archaeology is discussed as the concept which this research inevitably contributes to. Climate change studies are examined as a major environmental contributor for heritage loss and as a factor in assessing the rate of environmental degradation along the coast of Ada Foah. World systems theory is used, critically, to explain the political and economic interactions on the coast of Ada Foah giving voice to agency and material culture studies.

2.1 ‘Climate Change’ as a Major Contributor to Heritage Loss

Climate change is a global issue that has come to the fore in recent times as a result of the creation and use of fossil fuels, as well as the rise in the emission of greenhouse gasses [carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O)] into the atmosphere (http://www.epa.gov/ghgemisions/gasses). These gases have taken their toll on the climate. Thus, the natural process of change that the climate undergoes has been hastened. However, the issue is not the change, but how the change affects society. Such climatic changes, be it subtle or drastic, are being experienced in coastal zones around the
globe, as well as by farming communities, such as Ada Foah, which are now adjusting their farming habits to adapt to the changing weather patterns.

It has been noted that the bulk of greenhouse gasses emitted into the atmosphere comes from a handful of industrialized nations. According to the United States Environmental Protection Agency, Global Green House Emissions Data of 2008, the top carbon dioxide (CO$_2$) emitters are China, the United States, the European Union, India, the Russian Federation, Japan, and Canada (www.epa.gov/climatechange/basics). However, the effects of the toxic carbons emitted are felt worldwide.

In Africa for example, it has been noted that by the year 2020, “between 75 and 250 million people are projected to be exposed to increased water stress. Yields from rain-fed agriculture could be reduced by up to 50 percent in some regions. Agricultural production, including access to food, may be severely compromised (www.ipcc.ch/publication). Notably, an ongoing research on climate change and theatre for development by Rev Dr Asiama in Axim (a town in the Western Region of Ghana) reveals that, farm lands are under threat of inundation due to heavy rains occurring in what was previously their dry seasons (Rev Dr Asiama, Personal communication 2012). The cultural and natural heritage endowments in communities around the globe are not excluded from the effects of climate change. Water bodies run the risk of drying up, and most areas of lush greenery run the risk of becoming unattractive in the long run.

To enable the provision of a continuous monitoring of shorelines globally, remote sensing technology and the use of mapping techniques have been effectively used to identify, monitor and assess coastal changes in various places (Addo et al 2011). The mapping methods adopt techniques that extract the shoreline positions from data sources such as historical maps, aerial photographs and repeated field measurements. This data is
compared with current sources obtained from remote sensing technologies using airborne, space borne and land based techniques (ibid 2011).

These mapping techniques enable information on the historic rate of change and estimated sea level rise for future shoreline positions to be estimated. As a result of using remote sensing, the global average rate of sea level rise for the past century has been estimated to be about 10 to 15 cm. However, this measurement could rise to 1 m over the next century (ibid 2011).

In light of the fact that Climatic changes are impacting all aspects of human systems, including cultural Heritage, there is a need to protect and ensure sustainable management of threatened sites. This has therefore elicited an inter-governmental priority of the highest order (UNEP report: 2006). Recent studies by Addo & Addy (2013:155) indicate that sea levels will rise at “an average of 3.3 mm/year, while the shoreline will erode by as much as 0.86 m/year.” This research also predicts that Ghana’s sea level will rise by 10 cm, 23.4 cm and 39.4 cm for the years 2020, 2060 and 2100 respectively (ibid, 155). By their assertion, there are a total of thirteen tourism facilities at risk on the shoreline of Ghana. Presumably these include the forts and castles located across the coastline. It is also estimated that 31% of these tourism facilities will not physically survive the effects of sea level rise (ibid, 155). A clear example is the erosion of the shoreline along the eastern coastline of Greater Accra, which has resulted in the loss of Fort Kongensten, a potential tourist facility.

According to Addo et al (2008:11), it is estimated that 82% of the Accra coast is in the process of erosion, while the remaining 18% is either accreting or unstable. The eastern coastline of Ada Foah coast is predicted to erode more rapidly (-1.9 m/yr) than the other shorelines. The western shoreline will also experience an increased erosion rate of -1.7 m/yr (ibid, 12). In light of these alarming predicted rates of erosion and their effects on
heritage tourism facilities, it is necessary for Ghana to embark on a more environmentally friendly mitigation practices (Addo & Addy 2013:163), coupled with archaeological methodology that will aid in the conservation of the environment as well as preserving tourism facilities under threat. According to Addo et al (2011), another possible method for dealing with the current rise in sea level is for the nation to strictly follow land-use policies and scientific engineering methods. However, these methods were designed for climatic conditions that are different from that of Ghana; this brings to mind the question of their effectiveness if applied to Ghana.

One unique method of mitigating the effects of climatic change (e.g. sea level rise) on coastal heritage resources is to conduct detailed archaeological researches on the sites. This must involve a comprehensive description, visual documentation and mapping of the heritage resources. In areas where there is a need for the construction of a sea defense wall, salvage archaeology must be one of the best approaches to be adopted in saving some of the remains from these endangered sites.

2.2 Applying Salvage Archaeology in Heritage Conservation

The practice of salvage archaeology is not new to archaeology as a discipline. What is known as salvage, preventive or commercial archaeology attests nowadays to the most widely practiced form of archaeology within Europe and the United States (Arazi 2011:28). The practice seeks to salvage as much material culture as possible from archaeological sites under threat of either human engineered situations or environmental disruptions.

The methodology of salvage archaeology has been applied in several countries under different circumstances, in most cases during construction works. Projects such as the New York African Burial rediscovered in 1989 (Blakey 2010:525), Arizona Highway
project of 1964 (Hammack 1973), the Volta Basin Research Project in (1971) and the Bui Hydroelectric Dam construction in Ghana (Gavua and Apoh 2011) are key examples of salvage archaeological practices.

In light of Africa’s infrastructure boom (Arazi 2011:28), there is a need for cultural heritage to be taken into consideration and preserved. For such comprehensive preservation to happen, salvage archaeology has to be part of legislations in African countries as it is in Europe and the United States. Currently, “South Africa (1999), Namibia (2004), Botswana (2001) and Kenya (2006), have overhauled their heritage legislations” (ibid, 28) to include international Cultural Resource Management (CRM) legislations in the legal protection of cultural resources, these CRM legislations recognize salvage archaeology.

Although, looking at the years that these legislations were implemented in the various countries---the earliest being 1999 and the latest 2006---it raises the question about the number of years and the wealth of information that is likely to have been lost due to the lack of enforced CRM legislations.

### 2.2.0 Salvage Archaeology and Legislations

The Ghana National Museums Act of 1969, (NLCD 387) is the only legal binding legislation that encapsulates heritage resources in Ghana.

Section (9) and (10) of the act states that:

> “9. Permission to remove antiquity
> (1) A person shall not remove an antiquity from its original site without the consent of the board.
> (2) A person shall, when applying to the board for consent under subsection(1), state the exact locality in which the antiquity is situated and the place to which, and the purpose for which, the antiquity is to be removed, and the Board may require that person to submit an adequate photograph of the antiquity.

> 10. Duty to notify discovery.
(1) A person who discovers an antiquity, and the owner or occupier of a land on which an antiquity is discovered on becoming aware of the discovery, shall without delay notify the board in writing of the discovery.

(2) A person mentioned in subsection (1) shall not, without the written consent of the board alienate the antiquity discovered.

(3) When the board becomes aware of the discovery of an antiquity but has not been notified, it may notify the discovery to a person who is or appears to be the owner or in control of the antiquity without the written consent of the board.”

The above quoted sections of the act are the only legal terms that govern heritage discoveries in Ghana. The Act, however, makes no mention of consultations with archaeologists, or the application of archaeological methodology in protecting endangered sites.

The act extensively defines antiquity and objects of ‘archaeological’ interest, using the term ‘archaeology’ as the foundation for their definitions (see N.L.C.D 387 section 29). However, the act makes no mention of the use of an archaeologist to aid in the retrieval of ‘antiquity’ that has been discovered by a ‘lay person’.

The law clearly answers the question of what should be done in the case of a discovery. It outlines all the administrative processes that should take place in the case of a discovery, and it further outlines the duty of the board of the museum concerning the antiquity discovered. However, it falls short in protecting heritage (the antiquity) as a whole, because it does not include expert knowledge from archaeologists or heritage experts in its activities; neither are there regulations that enforce the protection of these pieces or monuments of antiquity.

The lack of legislative influence leaves a huge gap for misconduct to take place, in my opinion. It goes without saying that, this decree needs revising because as it stands now, it is a very porous decree. Arazi (2011:28) notes that “for until effective in-country legislation and monitoring systems have been established, the confrontation on issues of noncompliance between the various stakeholders will remain a great challenge”.

17
Arazi (2011) in her article on ‘safeguarding archaeological cultural resources in Africa,’ addressed the need for the establishment of Environmental Impact Assessment (EIA) procedures in African countries. These assessments should ideally take into consideration the protection of cultural resources and archaeological sites. Recent studies have shown that “18 African countries have EIA systems that they employ before the initiation of projects. Of these 18 countries, Ghana and Tunisia have functional and robust EIA systems” (ibid, 30).

Although this is a good start for Ghanaian cultural resources, it should be noted that these EIA systems put in place by the Environmental Protection Agency (EPA) are more environmentally biased. In the sense that, it appears the main concern of the EPA is on the study of the projects’ impact on water bodies, wild life, forests, noise pollution among others. Thus, experts from such disciplines are more readily contacted and placed on EIA teams whereas cultural heritage experts are usually excluded (Dr Apoh, Personal communication 2014). Arazi (2011) touches on this in her paper. She concludes that as a result of such issues of priority there is a knowledge and communication gap between environmental and cultural heritage authorities (ibid, 31) in several African countries.

2.2.1 International Involvement and Noncompliance Issues.

The World Bank, unlike the European commission has put in place operational policies that safeguard cultural resources. These policies are mandatory and are to be complied with by necessary agencies overseeing projects funded by the World Bank. Their most recent policy is the ‘Operational Policy 4.11’ which explicitly states that cultural resources must be a component of environmental assessment (Arazi 2011:31).

The World Bank defines Physical cultural resources as “movable or immovable objects, site structures, groups of structures, and natural features and landscapes that have
archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance” (http://web.worldbank.org). This definition encompasses not only human made resources, but also natural resources. The definition continues by stating that “physical cultural resources may be located in urban/rural settings, and may be above or below ground, or under water” (ibid). Overall, this definition should ideally make it almost impossible for any cultural heritage in whichever form to be sidelined in an EIA assessment and report for any World Bank sponsored project.

Notably, irrespective of the presence of these clear cut international definitions and rigorous safeguard policies, there are still pertinent issues concerning non-compliance in Africa. Ideally, these issues have solutions yet on a more realistic note, the required CRM that should be done is not happening.

After studying recent EIAs of World bank financed projects, Arazi explores a few examples that have occurred on the African continent. Notably, the second transport sector project in Mali is one of such projects. The project involves a substantial road rehabilitation project between Kita–Toukoto–Bafoulabé (210 km) in the Baoulé Region, and between Bandiagara–Douentza - Bretelle, Togo Tongo (140 km) in the Mopti Region (Arazi 2011:34). Surprisingly the entire EIA concerning this project by ‘Ingénieurs Conseils’ does not mention one single archaeological or heritage site, regardless of the archaeological remains in the ‘Mopti and Baoulé’ regions.

Another key example is the rehabilitation of the Kintampo–Paga Road (396 km) in Ghana. The only mention of physical cultural resources states that “…there will not be any direct impact on sensitive environmental areas (e.g., habitat, wildlife or cultural heritage)” (Sai Consulting Engineers Pvt. Ltd.2008).

The projects mentioned are just a few projects sponsored by the World Bank in Africa, pertaining to Ghana, the project report sidelined physical cultural resources. The
question is why were the ideal operational rules not enforced? It cannot be a situation of lack of experts because there are credible cultural experts as well as practicing archaeologist in the country. This brings to mind the question of education, priority and relevance. In my opinion, there is very little acknowledgement of the relevance of archaeology by Ghanaians. To a large extent, researches conducted on heritage often remain exclusive to the academic society. In view of this, the economic relevance of research sites have not been clearly defined for the locals. This, I believe, is the duty of the researcher, and it should constitute a part of his/her social responsibilities to the community.

On the contrary, there have been a number of successful salvage archaeological researches conducted in Ghana. In most of these cases, the researchers/archaeologist had to take the initiative by petitioning and convincing the companies involved so as to implement CRM and cultural heritage impact assessment projects on their construction sites. One of the most significant researches is the Volta Basin Research Project which has been ongoing from 1963 until present (2015).

This research is one of the major projects that were initiated after Ghana gained independence in 1957. This was a salvage archaeological project conducted over a 250×250 kms of land that was to be inundated due to the construction of the Akosombo hydroelectric Dam. Altogether more than 600 sites in the flooded area were surveyed and recorded prior to their inundation. The Archaeological composition of the Volta Basin Research came to an end in September 1970, this project opened up various avenues of research in the Department of Archaeology (now DAHS) (Davies 1971:3). More significantly Acheulian and Late Acheulian-Sangoan tools recovered from sites such as Mpeasem, Angeta, Yapei and Keta Krachi, have contributed greatly to the data on Early Stone Age. In addition to that, several significant artefacts were recovered that contribute
to the Middle Stone Age, Neolithic and Iron Age industries in West Africa (ibid 1971:12-20).

A number of recent research salvage archaeological projects have also been conducted in Ghana. Notably, the salvage archaeological project at the Bui Hydroelectric Dam project site completed in June 2011 (Apoh et al 2012; Apoh and Gavua In Prep; Gavua and Apoh 2011). The “Kings City” salvage archeological project in Asakai Takoradi in the Western Region, and the ‘City of light’ salvage archeological project in Appolonia, the Greater Accra Region, were both completed in 2012 (Apoh 2012a, b). Out of the four projects mentioned above, the Bui Dam project is the only one that has a video documentary that is periodically aired on national television (Documentary on the Bui Dam Salvage Archaeology Project 2013). This video aids in creating awareness about archaeological field work and its relevance to the Ghanaian society. It also exemplifies the relevance of archaeology in documenting heritage resources before they are destroyed for developmental projects.

2.3 Applying Material Culture Studies and Agency as Units of Analysis.

Material culture studies could be broadly defined as the investigation of the relationship between people and things irrespective of time and space (Miller & Tilley 1996:5). These relationships and people are represented in their cultural products known as artifacts. These artifacts are a means by which we give form to, and come to an understanding of ourselves (Miller 1994:397).

A much simpler understanding of material culture is achieved when approached from the point of view that, our world is a result of our thoughts. The ‘tangible’ aspect of our ‘intangible culture’ is reflected in material culture. Thus, it is that sector of our physical environment that we modify through culturally determined behavior (Deetz 1977:...
These culturally determined behaviors which are largely as a result of ‘socialization,’ religion, and contact are adequately expressed in the material culture of a society.

According to Paynter (1988:407-421), material culture in the archaeological record can be explained by the application of different approaches. The first of these approaches is the idealist approach; which is based on the assumption of material culture being the reflection of the ideals and norms of a particular society (Paynter (1988:407-421). Thus change in material culture in the archaeological record is a representation of change in the culture of the people. The second approach is based on ‘models of market’. This approach asserts that demand determines the supply of goods, thus the increased number of artefact assemblage in the archaeological record is as a result of market growth. It should however be noted that the likely increases of goods in the archaeological record could also be a signifier of availability of the goods on the market. Market dominance by the producer and the probable lack of competition for the product can also be considered as key factors (Whelan & Msefer 1996).

The third approach in material culture studies according to Paynter (1988) is centered on capitalism. In this regard, material culture is analyzed through class relations, suggesting that material culture could be looked at with the knowledge of capitalist movements that occurred in a particular period (Paynter 1988).

In my opinion, all three approaches mentioned above do come to the fore during the analysis of my material culture finds. Notably, the idealist approach is closely related to the capitalist approach. This is because both approaches examine the material culture through the lens of class relations and societal changes of a particular period. The model of market approach is closely related to these two other models, this is because class ideals of a society are likely to reflect in the quality of goods purchased. In applying the approaches discussed in Paynter (1988), one could end up viewing material culture as just
a reflection of the meaning of culture during a particular period, rather than a means to ‘create’ culture.

To fully grasp the thoughts and process of a particular society, and see the reflection of individuals in their cultural produce, there has to be an identification of the ‘agency’ involved. Agency deals with the role of the individual in the process of development, creation, transformation and destruction of culture. The individual is defined as the person through which and by which the material culture in the archaeological record came about (Knapp & Dommelan 2008).

One major aim of agency is to delve into the daily activities of a society. This is done by looking at the social reproduction of culture known as Practice (Bourdieu 1990). Without practice it is presumed that agency will neither exist nor be clearly defined; thus material culture will also not exist. In other words, “we should be able to understand how individual human actors are conditioned or constrained by social structure, and in turn how specific ‘practices’ reshape social structure as much as they reproduce it” (Dommelan & Knapp 2008:23). In my understanding, there are two types of agents; direct agents and indirect agents. As the names suggest, one deals with the people who are in immediate contact with the material and the other in turn deals with the secondary contact person respectively. I say this because of the reuse of certain material culture in West African markets. Decorse (2001:161) documents evidence of artifact reuse along the coast of Elmina in Ghana. Apoh (2008) also reveals the possible reuse of material remains by local children from the middens associated with the German colonial site at Kpando Todzi.

Knapp and Dommelan (2008:21) discuss Foucault’s notion of power and Bourdieu’s concept on Habitus in clarifying their perception of the idea of an ‘unchanging humanity of the past’. In their view, people have the power to decide for themselves and
thus are more likely than not to deviate from a proposed societal norm. These norms are reflective in agency.

Consequently if power relations are always viewed from a top-bottom perspective, the analysis of agency could be very erroneous. This is because it would be difficult, even almost untrue to presume that people both past and present did not have their own specific desires and motives, “even if these were dictated to varying degrees by hegemonic structures and regularly might have led to unexpected consequences” (ibid, 21).

In order to be less biased towards people of the past, one must begin to appreciate people as ‘individuals’; people who had an awareness of themselves and their cognitive capabilities. In appreciating ‘individuals’ through the lens of Foucault’s notion of power, Knapp and Dommelan (2008) settle that people in the past were very capable of acting as social agents of change in a society, yet they were equally and crucially aware of themselves as persons, whether or not we choose to call them ‘individuals’ (ibid, 22).

The term individual from a western culture point of view is very different from that of an African point of view. The environments in both settings vary and thus the ‘individual’ will equally be tailored differently. Thus the application of a western ‘individual’ to understanding agency in Africa will be wide off the mark. It is necessary that “we recognize that agency is socially and culturally constructed and consequently variable” (Ortner 2006:136-7). This perspective was assessed in relation to the analysis of finds from salvage excavation at Ada Foah.

2.4 Applying World Systems Theory whilst giving voice to Agency

Immanuel Wallerstein (1974), in aim of defining the motivation and reason behind the contact between Europe and the other continents, coined the theory ‘World Systems Theory.’ Wallerstein’s work developed at a time when the dominant approach to
explaining and understanding the ‘development’ and ‘modernization’ theories was under criticism and attack from various angles. Apparently, his aim was to produce another alternative explanation, thus he joined the chorus.

According to Wallerstein, the modern states are all part of a “World System” that he seeks to understand. Embedded in this World System are three social systems namely, “mini systems”, “world empire” and “world economies” (Wallerstein 1974, 1980, 1989, 1998). The “mini systems” is a system that has a small homogenous society; this society depends on basic tools and horticultural activities. It is a society which produces all its goods and services inland and by themselves, a self sustained economy. The “world empire” on the other hand has an economy based on extraction of surplus goods from a district outside their system boundary. This system assumes a military dominance over this district. The goods and services extracted are sold to generate income to support the administrative workers as well as the military. Similar to the “world empire” is the “world economy,” this system also depends on extraction from districts outside their borders. But unlike the world economy, there is no military dominance over this district. They are technical middle men whose duty it is to extract and make available for the rulers. (Wallerstein 1974, 1980, 1998)

According to Wallerstein, (1974, 1980, 1989, and 1998) all these three individual systems mentioned above have eventually collapsed into one major system known as the “Capitalist World System”; this theory is based on capitalism, which spurs capitalist expansion. It was created to preserve the interests of capitalists’ states by the creation of unequal division of labor between Europe and the remainder of the world (Stein 1998).

This Capitalist world economy was established by long distance trade, these trade routes and goods consequently led to a link in production processes around the globe. The mercantile and capitalist trade by the Danes on the Gold Coast in the 18th and 19th
centuries is a notable example. Stein (1998) in his discussions of Wallerstein (1974) reveals the three divisions of the ‘Capitalist World Systems Theory’. These are: the core, the semi periphery and the periphery.

The core countries such as the United Kingdom, Netherlands and Germany, are countries that are politically and economically developed. The periphery refers to the least developed or the under developed countries such as the then Gold Coast. The periphery often serves as the raw material hub for the core. The raw materials collected from the periphery are used to fuel the expansion of the core and to create material culture for trade in the peripheries.

The semi periphery was the mid-way between the core and the periphery. Countries classified as the semi periphery include America. The semi periphery serves as the steadying bridge between the core and the periphery (Stein, 1998: 224). Goods taken from the periphery were transported firstly to the semi periphery for production before being transported to the core. Although these countries are exploited by the core, they also play a role in the exploitation of the peripheral nations.

This theory of ‘Capitalist World System’ can be used to explain the cultural contact between the Europeans and the Africans on the coast of ‘Ghana,’ which started in the fifteenth century and continued into the nineteenth century. Although the World Systems Theory appears as a perfect fit for the explanation of the culture contact between complex societies and less developed societies, the theory has been criticized on different levels and in some research cases it is argued as overused and inappropriately applied (Stein: 1998).

One major bone of contention between scholars for and against the theory is based on the assertion that the World Systems Theory has in many ways sidelined the contribution of the less developed societies; known as the periphery. In doing so the
agency of the actors in these areas have not been explored, also the theory is not deeply concerned with meaning (Schneider 1977). The peoples of the Periphery are treated as the passive victims of the cores dynamic expansions (Nash 1981:398; Sahlins 1994:412; Schortman and Urban 1994:402; Wolf 1982:23), thus their cultures and ideologies are in most cases defined by the core dominance.

This is probably as a result of the theorys’ failure to adequately explore the role of production in the establishment of the theory. It has been noted that the production aspect that ensued in the periphery has not received as much attention as the trade and economic exchange. World Systems Approach must be extended by research into the connectivity of the cycles within both the economic and hegemonic and their mutual relations (Frank & Gills 1993). Hopefully, such research will achieve a holistic view of all contributing factors to the World Systems Theory, which will then appreciate the agency of the actors in the ‘periphery’ as well as explore the ideological components of the ‘periphery’.

In analyzing the opinion of LaLone (1999), I am beginning to appreciate his perspective that a better strategy in overcoming the theories inattention to culture and agency, is to use archaeology and anthropology/ethnography to aid in grounding World Systems Theory and vice versa (ibid. 299). Although flawed, the World Systems Theory serves one effective purpose, which is to summarize the motive for the expansion of European states into Africa. All other assertions in my view are debatable, and highly contentious. Thus for the purpose of explaining motivation for the presence of the Danes on the coast of Ada Foah during the 18\textsuperscript{th} century, the critical application of the World Systems Theory is effective.

Ironically, the Danish economy was peripheral to the capitalist core countries such as France, England and the Netherlands (Wallerstein 1980: 222-4), yet they sought out the Gold Coast and exploited and subjected it as a peripheral state. The Danes' primary
interest in West Africa and the Ada Foah coast was trade. Their period of stay did not extend to the period of colonialism and imperialism. Although, they exhibited hegemonic control over their subjects, specifically, the locals of Ada Foah, this period was short lived. This has been highly attributed to their weak economy. The monarchy saw the trade with the West African coast as a way to rebuild the national treasury in the face of rising cost associated with the court and military expenses (Lauring 1960: 76-80). Although they encouraged an industrial expansion, Denmark’s economic base and industrial capabilities remained weak.

As mentioned earlier, the influence of the Danes on the coast of the Gold Coast was short lived. Britain took over where they left off. Their rule saw the inception of social, political and economic unrests. Eventually the anticipated collapse of the “Capitalist World System” took place. This was evidently a rebellion against a system, which allowed British dominance to come to the fore in the Ada Foah and the Gold Coast areas in the 19th and 20th centuries. Thus the excavation of the specificities of these political economic exchanges at various coastal and hinterland contact sites in Ghana and West Africa, will add value to the ongoing debate and provide comparative case studies as well.

2.5 A Historical Archaeology Perspective

This study into Fort Kongensten forms part of the broad sub discipline of archaeology known as Historical Archaeology. Although it emerged as a distinct sub-discipline in North America in the mid twentieth century (Deetz 1977) and has consequently spread throughout Africa, Asia and Europe, a clear definition for this discipline is yet to be agreed on by scholars. Historical archaeology appears to mean different things to different people (Hall and Silliman 2006:1).
Orser (1996: 23-28) asserts that the discipline of historical archaeology can be placed into three categories. These include; the study of a time period (Schyuler 1977, 1978); a research method (Hume 1983:12-13, Cotter 1978:18); and as the study of the modern world. These three categories are also marked out by DeCorse (2014) in his article “Historical archaeology: Methods, Meanings, and ambiguities”; in this article, questions concerning the practice of Historical archaeology in relation to its application in different regions of the world and the effect of its presence in sub-Saharan Africa are raised.

As a time period, historical archaeology is defined solely as the study of the ‘historic’ period (DeCorse 2014:140), hence there must be a boundary set up between history and pre-history (Andren 1998:1-2; Funari 1999:39; Lightfoot 1995). The term ‘historic period’ is not easy to determine, this is because it appears to encompass the total period for documentary sources (DeCorse 2014:140).

With the characterization of ‘Historic’ being the total period of documentary sources, it brings to the fore a host of other specific aspects or phases of archaeological research which utilize historical documentary sources. These categories of research phases include: Time period: medieval (La Rocca:1993:40-41) and post medieval, Religion: Islamic and biblical, and Geography: Egyptology, Greco Roman, Chinese, Roman (Manacorda 1984:10) and Greek studies.

Archaeological studies of these specific periods in history have been ongoing for years, even though they have not been labeled as historical archaeology (DeCorse 2014:139). According to Funari (1999:2-6), prehistoric sites are easily distinguished from historical sites in the United States; however it’s in Europe that more specific terms such as medieval, post medieval and so on are used to classify archaeological researches (Majewski & Gaimster 2009: xvii).
Possibly if archaeology desists from thinking about time and change as a ‘period’ and rather as a ‘process’ (Hall and Silliman 2006:3), the other specializations which utilize documentary resources will be keener to the ‘tag’ of historical archaeology. Hall and Silliman (2006:3-14) assert that in appreciating time and change as a process historical archaeology will consequently be viewed as a process rather than as an era or a condition.

Contrary to Europe in regard to specific terminologies; in the area of sub-Saharan Africa specifically Ghana there are few specifications if any at all. Thus archaeological research works related to European outposts and forts have been easily labeled historical archaeology. These researches include: Fort Crevecoeur (Anquandah 2000), Fort Amsterdam (Boachie-Ansah 2006), Fort St Anthony (Gyam 2008), Fort William, Anomabu (Freeman 2009), Fort Ruychaver (Posnansky 1976), Fort Ankobra /Elize Carthago (Anquandah 1999; also see Anquandah et al 2014:10-11) and Kpando German colonial sites (Apoh 2008).

Such works were conducted purposefully for two main reasons; one is to assess the impact and transformation in the African communities, the other is for preservation and restoration purposes (Anquandah et al 2014:5-11; DeCorse 2014:146). Threats to these outposts and forts in Ghana are very real. As discussed earlier in this chapter, the threats are both from nature and from human activities (i.e. commercial developers, road construction). Consequently, international agencies in countries such as Denmark and Germany that have significant heritage buildings along the coast of Ghana, have over the years funded archaeological research works on these settlements, these research works have provided substantial information on the European impact on the coast (Posnansky 2007:53)

To be able to effectively apply historical archaeology as a process or methodology, a researcher must know the methods and practices of archaeological research, and must
also have the historical knowledge (Cotter 1978:18, Hume 1983:12-13). Narrowing the scope to sub Saharan Africa and Ghana specifically; with the majority of historical records being in oral resources (Biginagwa 2012:43), integrating both written and oral resources is inevitable  (DeCorse 2014:149). Thus in addition to archaeology and history the researcher must be also be duly equipped with ethnographic skill.

For the historical archaeologist, the past is revealed through the study of material culture in addition to documentary resources. These documents, for example trade manifests, land deeds, diaries (Carstensen 1842-50) and tax records, aid in better chronological analysis of material culture retrieved from the archaeological excavations. This is an added advantage of historical archaeological research which prehistorians are not privy to (DeCorse 2014:141-142).

I do not presume to solve the issue of varied definitions and questions. However, to add to the continuous debate in hope of grounding the research on fort Kongensten, my intent is based on the ideology that knowledge creation is best achieved through dissent. Although stated as salvage archaeology, this research clearly forms a part of historical archaeology. It integrates both archaeological and documentary resources which are the foundational requirement of historical archaeological methodology.

The presence of European ceramics on a site signifies European occupation or indirect use of European products. Such finds aid in the chronological determination of the site, they also aid in understanding the livelihood of the inhabitants of the site (Wesler 1998:7-11). In archaeological analysis of European ceramics and pipes, the presence of ‘makers marks’ or manufactures’ embossment on them is an added advantage.

These marks when compared to historical records provide better functional and chronological identification. In the research at Fort Kongensten, chronology was established with the aid of historical documents i.e. building plans and travel journals.
Wesler (1998:7-13) addresses the lack of expertise in the analysis of European artefacts. He admits there is a great potential to create a sequence for analyzing what he terms as ‘exotic artifacts’, however, the potential appears not to be enough motivation. He laments about the disinterest that seems to be evident amongst African scholars pertaining to European artefacts. According to Wesler, European imports are not effectively employed when used only as determinants of chronology of a site and livelihood of the inhabitants of the site. He asserts that in addition to establishing chronology, European imports can also be used to study cultural processes and synthesis (ibid:12).

The continuous dissent of historical archaeology amongst scholars appears to be ongoing; coming a long way since its inception in the mid twentieth century. Historical archaeology is a rapidly increasing discipline within African archaeological research (Swanepoel 2009:565). It also appears to be the most fast changing and dynamic field of study in archaeology (Majewski & Gaimster 2009:xvii), sometimes its definition is approached as a time frame, other times as a methodology and even as research questions, however, all these branches can also be all inclusive.

Pikirayi (1999:70) adopted an all inclusive definition which states historical archaeology as “the study of sites which can be interpreted with the aid of historical evidence such as written sources, oral traditions and historically datable imported artifacts.”, in this definition, he includes both the ‘time frame’ and the ‘methodological’ approach of historical archaeology whilst sidelining the ‘research question’ approach. Orser (1996) asserts that, the previous definitions of historical archaeology, which were without a focus on research questions, are not entirely wholesome, because the inclusions of research questions enable the provision of a clear research focus.

In conclusion, it appears that Ghanaian historical archaeology is dominated by researches conducted on European outposts, both inland and on the coast. This trend is
likely to lead to a misconception that Ghana did not have a vibrant Pre-Atlantic history. Archaeology is meant to reconstruct and explain the whole course of human history (Connah 2007:39), thus the idea or delineation of a historical and pre-historical distinction might be doing the archaeology of Ghana more harm than good. Connah (2007) sums it up when he writes that “historical archaeology is a somewhat amorphous concept borrowed from the United States that we are trying to apply in African contexts.” As the famed Nigerian writer, Chimamanda Adichie (2009) asserts, we run the risk of telling a ‘single story’, beginning with the arrival of the Europeans (DeCorse 2014:154), rather than the narration of the varied and unique characteristics of the African culture before the arrival of the Europeans.

2.5 Conclusion

To sum up this section of the thesis, it is worth noting that archaeology is a growing discipline in Ghana. It is therefore necessary that legislations are strengthened in order to allow for a better legal backing for contract archaeology or salvage archaeology to take place effectively in the country. Accelerating rise in sea levels will cause a high loss of coastal heritage (Addo et al 2007:15), therefore it is necessary that high caliber data collection is done for effective coastal heritage management. In this regard, archaeologists have a special role to play in society as custodians of our cultural heritage (Preucel and Hodder 1996:529).

The contribution of archaeological research in deciphering human development and promoting national development cannot be disregarded. In light of this, it is about time that advocacy for the proper channel of authorization in relation to heritage is enforced. Archaeologists should be at the forefront of decision making concerning the
protection, conservation and preservation of heritage. In view of the impending threat that some heritage materials and monuments face from different factors; e.g. construction, unenforced legislations and climatic change, to mention but a few, the need for appropriate salvage archaeological measures must to be undertaken (Arazi 2011).

People of the past; just like people of today, were conscious of themselves. Thus, there is a need for attention to be shifted from the ‘people’ to the parameters surrounding their existence and appreciating the external forces that influence their livelihoods and cultures. Hence, Bourdieu’s ‘Habitus’ is made relevant because it focuses on the wider circumstances (structures) in which people live their lives and decide their actions (Knapp and Dommelan 2008:23).

As a result of the European expansion into West Africa, a number of forts, castles, trading posts, townhouses and plantation houses were established across the Gold Coast. Archaeological and ethnographic research projects have been undertaken on several of these historical sites.

In my opinion, Wallerstein’s world systems theory explains, to an extent, the presence of Europeans in some parts of West Africa as well as the hegemonic control exercised by the core on these West African peripheries. It is important to note that the hegemonic and imperial control that these core states exerted over the periphery was done over a period of time and, of course, there were a number of strategies of resistance put up by the people in these so-called peripheries. This requires studies of the agency of such resistance in order to put the theory in better contextual perspective.
CHAPTER THREE:

ETHNOGRAPHIC AND ARCHAEOLOGICAL SURVEYS

Introduction: Ada Settlement History.

The settlement history account of the people of Ada Foah was collected from historical narratives from the linguist, and two council members of the paramount chief of Ada (see Figure 3.1) including natives of the town of Ada. I also collected data from historical documents provided by the office of the paramount chief as well as related research conducted on the Dangme speaking people by E.O Apronti, Kropp Dakubu, and James Anquandah.

The ethno historical data gathered revealed that the people of Ada like most Ghanaian ethnic groups trace their ancestry to Western Sudan. They also link their migratory history to that of the popular narrative of King Agorkoli of Notsie and his cruelty. It is generally believed that his inappropriate ruling led his subjects to create an ingenious escape plan; watering the mud walls of Notsie until they gave way, this enabled them escape (Gayibor and Aguigah 2005). According to popular narrative, with the aim of throwing their followers off, they walked backwards.

This ever popular escape narration has been seen as a means for the people of Ewe origin to strengthen the bond that exists between clans, Greene (2002) asserts that this narration is a mission to ensure a collective origins story for the Ewes.

According to the narrative by the elders in the palace of the paramount chief, the people of Ada were proclaimed by King Agorkoli as “Adawolawo" which in the Ewe
language means a wild, furious, brave and warlike people, hence the name ‘Ada’ has stuck with them until today.

According to the narrative The four Ada clans that migrated from Notsie led by a ‘chief Priest King’ called Adi were Adibiawe, Lomobiawe, Tekperbiawe and Dangmebiawe. They were accompanied by the Krobo, Osudoku and the Shai. These clans crossed the Volta River mystically and settled at Togologo. However, whilst there, conflicts arose among the Ada clans and the other groups of people. Adi refused to bury the differences between them and proclaimed in Ewe “Lolorvor” which means “the cords binding us together is broken or severed”. This resulted in the Krobos moving on to settle at areas within the present day Shai hills. The Ada’s continued their stay at Togologo which is the present day Accra plains.

Their stay in Togologo was interspersed with raids by Akan warriors which threatened their peaceful existence. In light of this threat, a survey group comprising of a hunter from each of the four clans, was sent out to scout for a new settlement. It was during this scout that one of the hunters, ‘Korley’, shot and wounded a wild beast. The beast scurried away, however Korley followed it only to realize that the beast was a mystical female being.

This woman according to the narrative was the spiritual custodian of the Songoor Lagoon. She gave custody of the Songoor Lagoon and its surrounding area to the people of Ada, on the terms that: the Songoor Lagoon is prohibited, secondly he (Korley) was to remain faithful to her, and thirdly he was also to promise not to adorn himself or his family members with gold. Gold and salt are the two minerals obtained from the Songoor lagoon. After these terms were agreed upon by Korley he and the people of Ada were given custody of the Songoor lagoon and its environs. Interestingly when the Ada forces became victorious after the 1826 Katamanso war, they exchanged their gold spoils, gained
from the Asantes, for food before marching back to base (Apoh 2001). This was probably because of their covenant with the mystical lady of the Songoor lagoon.

By undergoing the main Dangme ritual of circumcision, other clans were assimilated into the Dangme group in the Okor forest (Okor forest is where the Dangme people first settled). These clans are: Kabiawe (Akan group), Kudzragbe, Korgor, Ohuewem and Koreabor. The Ada’s are ruled by priest kings thus the Kabiawe clan holds the paramount seat, because of their Akan origin and chieftaincy system of ruling.

Figure 3.1 Researcher at the paramount chiefs’ residence with Mr. Jonathan Dokutso (secretary to paramount chief) & Mr. Wisdom Nkromipa (elder in the town). (Photograph: coll. of the author)

By the mid seventeenth century the Danes had successfully set up outposts in the Gold coast, these outposts were however not successful. In the latter part of the
seventeenth century the Danes established more substantial outposts, one of which was located on the coastline of Ada (see Figure 3.2 & 3.3) (DeCorse 1993:155).

Specifically in 1783 the Danes established a trading post in Ada, Fort Kongensten. The Fort was used as a trading post and it coupled as a defense post (see Figure 3.2 & 3.3). It was mainly built to protect Danish trade against African attack (Van Dantzig 1980:58). Fort Kongensten was later used as a slave trading post. According to oral history the word ‘Fort’ was corrupted into ‘Foah’, hence the name ‘Ada Foah’. Fort Kongensten did not survive till the twentieth century; by 1850 it was in a deplorable state. Governor Edward Carstensen whilst travelling the Coast of Guinea in 1842-1850 recorded in his journal:

“I spent the night in the ruins of the previous Fort Kongensten...Fort Kongensten consisted of four bastions, connected by walls in a regular square. The western courtine supports the residences of the fort. They still have a roof, but windows and doors have disappeared. The north wall (towards the town) has fallen, and with it the adjoining fronts of the corresponding bastions. The parapet is missing in most places. According to the present state, the forts of Kongensten...must be considered subject to ceaseless and final destruction because of time and weather” (Carstensen 2010:148).

In the nineteenth century the fort exchanged hands into that of the British. The Danes pulled out of the slave trade because it was not profitable. They moved into the business of plantations.
Figure 3.2 Site plan of the fort (Source: The Royal Library, Copenhagen)
Figure 3.3. Photo of Fort Kongensten in 1784. Danish text translation “Otho elected to the commander at the fort royal stone 1784”. Photo credit: ‘DE DANSKE Etablissmenter Paa Guineakysten’ pg: 552’ An illustration by Paul Erdmann Isert depicting the Danish Governor Major Kiege and other Danes attending a ceremony appointing an African military leader in 1784. The partially completed Fort Kongensten, Ada is in tile foreground. Courtesy of the Royal Library, Copenhagen
3.1 Subsistence

The Major means of subsistence of the people in Ada Foah is farming and fishing. This has been an age old practice amongst the people. They still practice to a large extent “subsistence agriculture” cultivating vegetables such as tomatoes, pepper and okro, as well as cassava and maize. Most of these crops are used for feeding their households and the remainder sold out. However, over the past few years there has been a growth of the onion farming industry in the town (see Figure 3.4). The unique feature about this is their ability to cultivate the crop on beach sand.

Figure 3.4 Land being prepared for cultivation. Note water hoses laid in between the beds. (Photograph by author)
The farmers clear the land and create planting beds (see Figure 3.4). They move on to mix the soil with manure to enrich the soil for the plants. Water hoses are then laid across the fields to irrigate the farm land (See Figure.3.4 & 3.5). These water hoses are punctured with tiny holes at roughly measured intervals. Water is then pumped through the punctured hose to water the crops; the water sprouts out with a sprinkler effect (see Figure.3.4 & 3.5). Interviews conducted with the farmers revealed that they practice a three way sharing of the crops harvested.

Figure 3.5 Onion beds being watered by locally manufactured sprinklers. (Photograph by author)

The farmers practice the ‘Abusa’ mode of sharing. This is based on the ratio of 1:2 between the landowner and tenant respectively (Fiadzigbey, 2006:11). A portion of the tenants share is traded at market centres in Kasseh, and Tema. Other farmers travel
further with their produce. This however depends on the availability of transport and the quantity of produce harvested.

This information gathered is important because it enables a better understanding of the unconscious adaptation methods being practiced by the indigenes of the town. Due to the erosion and the rubble of collapsed buildings that lay at the bottom of the ocean, fishing on that stretch of the coast is not favorable. However, fisher folk paddle further into the ocean to fish.

3.2 Surface survey and Site location

Armed with my excavation permit from GMMB and the consent of the DEME contractors, I proceeded to the site to begin work, the only safety conditions I had to follow were as follows:

1. DEME would have to be aware of the exact demarcation of my work area.
2. The work area was to be marked out with marking tape.
3. All members of the excavation team were to be in reflector jackets (which DEME provided).

In order to demarcate a working area I had to conduct a surface survey. Towards the east of the demolished area is an abandoned primary school. This school has been abandoned since the 1970’s. The school has also undergone a partial demolition, with parts of the foundation stripped off and pulled off to make way for the construction of the sea defense wall. Fortunately the demolition of the foundation revealed a collection of material culture embedded in the foundation of the school (see Figure 3.7). Unfortunately the piece of land, off which the foundation had been stripped was approximately five meters towards the west, it continues to taper upwards towards the north east and measures approximately 1.2 meters at the north east (see Figure 3.6).
This land area was a very small portion to work with and leaves very little room for maneuvering; it was however, the most promising area and its proximity to the demolished prison could not be overlooked. Another reason I insisted on working with that portion was because oral accounts from my ethnographic research pointed out that the school building was constructed on the portion of land behind the fort, approximately 20 metres behind the inundated fort.

Figure 3.6 Map of the work area.

Legend for extended map i.e. site plan:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2M$^2$</td>
</tr>
<tr>
<td>B</td>
<td>1M$^3$ EXTENSION INTO TRENCH</td>
</tr>
<tr>
<td>C</td>
<td>1M$^3$ TEST PIT (UNIT ONE)</td>
</tr>
<tr>
<td>D</td>
<td>MIDDEN</td>
</tr>
</tbody>
</table>
The relationship between the fort, the fort’s prison and the school is not yet certain. Unfortunately their periods of existence vary extensively. The fort and its prison were in existence at an earlier period in the eighteenth and early nineteenth century. The school however is a much later edifice built in the twentieth century (1970). Surface cultural materials recovered from the site are indicators of household materials. For example the fragments of bowls, plates, glass bottles, which do not relate to formal education.
3.3 Excavations

By my assertion, a series of 1m\(^2\) units would have decreased my options in salvaging as many artifacts as possible. Based on the dimensions of the area I had to work with, I strategically excavated a 2m\(^2\) unit in the largest portion of the land to make the maximum use of the space available. I dug using 20cm intervals; sterile level was hit at an 80cm depth below datum. An analysis of the excavated area revealed a distinct outline of a feature in the south wall, characterized by a distinct rusted metal underlining. All artefacts recovered were from the feature (south eastern quadrant). A detailed documentation of the northern, eastern and southern wall profiles was graphically plotted and notes were taken of significant changes in wall profile (see Figure 3.8).

The artifacts recovered are as follows: ceramics, shell, metal pieces, bottles, cowries, beads, local pottery, and stem and bowls of smoking pipes (see tables 3.1, 3.2&3.4). The majority of artifacts (approximately 85%) were recovered from the south eastern quadrant of the unit. The soil color in the south eastern quadrant was sandy loam, as compared to the remainder of the unit which was of approximately 97% sandy with a yellowish brown color. From the soil color differences I deduced that there had been some form of organic contribution to the sandy loam quadrant (see Figure 3.8&3.9) this is significant of human interference, the soil also had traces of charcoal in it resulting in the soil color and texture differences.
Based on the concentration of artifacts in the south eastern quadrant coupled with the rusted metal outline and soil color differences, I expanded the 2m² unit through the eastern wall by a meter (see Figure 3.9). The extension of the unit into a trench (unit two) was successful and as anticipated the rusted metal outline continued distinctively in the quadrant (now south western quadrant of unit two). Excavation continued with an arbitral level of 20 cm. Artifacts recovered include: ceramics, local pottery, shell, pipes, cowries and glass (see Table 3.4).

The third and fourth levels revealed an increased amount in sea shells as well as a saturated mix of charcoal pieces. The presence of the charred pieces darkened the soil as well (see Figure 3.9). The northern and eastern sectors of the unit yielded no artifacts. Sterile level was hit at level four, which was 80cm depth below datum.
The south western section however, yielded artefacts until sterile was hit at 80cm. A profile of the north and south wall was documented with the aim of revealing the outline of the midden (See Figure 3.10). The profile juxtaposition revealed the distinct metal rust outline; this signifies the outline of the midden (see Figure 3.10). The presence of the midden is evidence a discard practice amongst the people. What is unclear is the agency involved in this practice of discard. The midden is positioned in the centre of three structures; the forts prison, the fort itself and colonial buildings. Thus it could have been accessed by occupants of all three.
In hope of revealing the entire midden I excavated the remaining portion of unit one towards the south (see Figure 3.11). Excavation was done arbitrarily with a 20cm interval, to the sterile level of 74cm below datum. Artifacts recovered include: ceramics, local pottery, shell, bones, glass, bullet shell, metal fragments and a buckle (see Table 3.1 & 3.4). Charcoal samples were collected from levels two three and four.

With the aim of exploring and gathering as much data as possible, I set up a 1m$^2$ test unit. Very little material culture was recovered. They include: ceramics, local pottery, metal, glass and shell. Excavation was done arbitrarily at 20cm interval sterile was hit at an 80cm depth (level four) (see Table 3.2 & 3.4).
Figure 3.11 Midden extension in progress. Note: Colonial buildings in the background of working area. (Photograph by Mr. Edward Nyarko)
Table 3.1 Summary of Artifacts recovered from the midden.

<table>
<thead>
<tr>
<th>MIDDEN DISTRIBUTION</th>
<th>GLASS</th>
<th>POTTERY</th>
<th>CERAMICS</th>
<th>SHELL</th>
<th>BONE</th>
<th>METAL OBJECTS</th>
<th>BEADS</th>
<th>COWRIES</th>
<th>PIPES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL 1</td>
<td>112</td>
<td>37</td>
<td>113</td>
<td>111</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>11</td>
<td>27</td>
</tr>
<tr>
<td>LEVEL 2</td>
<td>90</td>
<td>48</td>
<td>64</td>
<td>78</td>
<td>14</td>
<td>2</td>
<td>2</td>
<td>31</td>
<td>18</td>
</tr>
<tr>
<td>LEVEL 3</td>
<td>15</td>
<td>16</td>
<td>53</td>
<td>47</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>LEVEL 4</td>
<td>33</td>
<td>22</td>
<td>39</td>
<td>83</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>250</td>
<td>123</td>
<td>269</td>
<td>319</td>
<td>21</td>
<td>12</td>
<td>6</td>
<td>45</td>
<td>53</td>
</tr>
</tbody>
</table>

Table 3.2 Summary of Artefacts from Unit One

<table>
<thead>
<tr>
<th>UNIT ONE ARTFACTS DISTRIBUTION</th>
<th>POTTERY</th>
<th>CERAMICS</th>
<th>TIN/METAL</th>
<th>GLASS</th>
<th>BUTTON</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL 1</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>LEVEL 2</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LEVEL 3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LEVEL 4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3.3 Summary of Total Artefacts Recovered From the Ada Foah Excavation.

<table>
<thead>
<tr>
<th>ARTEFACTS/ECOFACTS</th>
<th>MIDDLEN</th>
<th>UNIT ONE</th>
<th>TOTAL</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTTERY</td>
<td>123</td>
<td>4</td>
<td>127</td>
<td>11%</td>
</tr>
<tr>
<td>EUROPEAN CERAMICS</td>
<td>269</td>
<td>3</td>
<td>272</td>
<td>24%</td>
</tr>
<tr>
<td>BOTTLES</td>
<td>250</td>
<td>10</td>
<td>260</td>
<td>23%</td>
</tr>
<tr>
<td>SMOKING PIPES</td>
<td>53</td>
<td>0</td>
<td>53</td>
<td>5%</td>
</tr>
<tr>
<td>BONES</td>
<td>21</td>
<td>0</td>
<td>21</td>
<td>2%</td>
</tr>
<tr>
<td>BUTTON</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>BEADS</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>1%</td>
</tr>
<tr>
<td>COWRIES</td>
<td>45</td>
<td>0</td>
<td>45</td>
<td>4%</td>
</tr>
<tr>
<td>MOLLUSCS</td>
<td>319</td>
<td>0</td>
<td>319</td>
<td>28%</td>
</tr>
<tr>
<td>METAL REMAINS</td>
<td>12</td>
<td>5</td>
<td>17</td>
<td>11%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,098</td>
<td>23</td>
<td>1,121</td>
<td>100%</td>
</tr>
</tbody>
</table>
TABLE 3.4 GRAPHICAL REPRESENTATIONS OF ARTEFACTS FROM MIDDEN

**CERAMICS FROM MIDDEN**

**LOCAL POTTERY FROM MIDDEN**

**METAL FROM MIDDEN**

**BEADS FROM MIDDEN**

**PIPPES FROM MIDDEN**

**COWRIES FROM MIDDEN**
3.4 Conclusion and Challenges

Unfortunately the field research was not without challenges. Ethnographic field work was a bit stalled and limited; this was as a result of the scanty nature of information given by respondents, and the inadequacy of time to gather as much extensive data as intended to by the researcher. In addition to that information retrieved from available documentary sources were limited.

The next major challenge was the soil at the site of excavation. It disintegrated easily because it was beach sand. This was a challenge that was anticipated by the researcher thus excavation was done with a bulk of 15cm in the unit to prevent the wall caving in and consequently distorting the unit. However, the rate of disintegration of the soil was alarming.

The only binding factor holding the soil compact for us to excavate was dew. This soaked the soil the night before work commenced. However, immediately the sun came up, it dried out the dew causing the walls of the unit to cave in (see Figure 3.12). To overcome this, work had to begin early in the day and end by ten am; before the sun scorched out the moisture from the soil. Wall profiling had to be completed with careful skill so as not to damage the walls. Excavation was continually done with a bulk of 15cm to support the unit walls.

Another challenge was the portion of land that I had to work with; this was extremely small. I would have preferred to have had enough room to maneuver as well as enough potential site areas to be able to gather extensive material culture for analysis.
Figure 3.12 Photo of collapsed wall. Note cistern washed out to the shore from the ocean in right hand corner of photo. (Photograph by author)
CHAPTER FOUR:

CLASSIFICATION AND ANALYSIS OF MATERIAL CULTURE.

4.0 Introduction

The presence of the Fort Kongensten constructed by the Danes along the coastline of Ada Foah is evidence that there was a period of contact between the Danes (and the British) and the people of Ada Foah. However in order to be able to get an insightful opinion of the contact between these two groups of people mentioned above an analysis of the material culture recovered from the site excavations has to be done. In addition to the material culture one must include oral traditional accounts, documentary and archival information to effectively analyze change, culture influence and continuity (Stahl 2001).

Thus with the aim of documenting the contribution of the material culture to the chronology of the site, as well as to throw more light on the activities of the inhabitants of the fort, the Fort’s prison and the colonial school, I undertook a detailed study of the material culture from the Fort Kongensten midden excavation integrating oral traditional accounts, as well as documentary and archival sources.

4.1 POTTERY.

A total of 127 fragments of pottery were recovered from the site. Out of that 52 pieces were rims, 5 were neck pieces, and 62 were body sherds. The remainders were undiagnostic. There were two main rim types recovered, straight and everted. The everted rims were unique to globular shallow bowls, which according to Professor Boachie – Ansah after he examined them based on the stylistic nature of the sherds; are typical nineteenth century pottery (Personal communication 2014). Methodical studies of these
local pottery fragments revealed their decorative treatments and functions (see Table 4.1 & 4.2).

4.1.0 Vessel parts: Rims

The likely function of a vessel can sometimes be determined by its shape, taking into consideration the rim circumference as well as its height. The rims recovered from the excavation were of two main types, these are: everted and straight rim forms (see Figure 4.1/4.2/4.3). The least measured radius was 11cm. Thus, working with the premise that cooking vessels tend to have large openings while those for storing liquids have constricted openings (Apoh 2008:201), it is likely that the bowls served as cooking vessels, this however could be one of the many uses since there are multiple uses of vessels with large openings such as storing of grains and serving food.

In hope of acquiring a much detailed reconstruction I studied the rim morphology and measurement to attain the design of the pot mould. Based on the analysis of the rim with the criteria of whether they were vertically in-turned or out-turned rim shapes (i.e. at right angles to the body of the vessel), in addition to measuring the diameter of the vessel openings, I classified the vessels into two main forms: shallow bowls and globular large opened pots/jars (see Figure 4.1/4.2/4.3).

4.1.1 Everted rim shallow bowls

The shallow pots from the excavation were large with unrestricted openings. These were characterized with everted rim openings that flare outward from the orifice (see Figure 4.21). The maximum heights of bowls are less or sometimes equal to the maximum rim diameter (Apoh 2008:205).
4.1.2 Everted rim jar

The everted rims of jars from the excavation were characterized by constricted openings. These rims flare outward from the orifice (Apoh 2008), the jars were likely to be globular in shape and were likely used for cooking or storing water (see Figure 4.2).

4.1.3 Straight rim jar

A jar is a vessel with a small orifice diameter in relation to the maximum diameter, the height of some jars is either greater or equal to the maximum body diameter (Joukowsky 1980) (See Figure 4.3).
4.1.4 Surface Treatment. Burnishing/ Non Burnishing

The smoothing of the surface of a vessel with a smooth instrument before it is fired or baked is known as burnishing (Joukowsky 1980:380). After the pottery is fired it comes out with a smooth and shiny body finish, with sealed pores. This is as a result of the burnishing. A total of 78 sherds out of 127 sherds from the assemblage were burnished, these were a mixture of bowls and jars (See Table 4.2). Although, this process of burnishing produces a good finish for pottery some pots are fired without being burnished. (See Table 4.2). Excavations at Fort Kongensten revealed 24 burnished potsherds from the total of 127 potsherds recovered.

4.1.5 Smudged pottery

The process of smudging pottery is the addition of fresh leaves or grass to the firing of pots, to enable the pots to have a darkened outlook. The addition of the grass generates thick dark smoke which in turn darkens the outer body of the pots being fired. There are other means by which pots become smudged, these include the use of pots on hearths as well the exposure to bush fires. A total of 8 out of 127 pot sherds were smudged (See
Table 4.2), the process through which these pots attained their smudged outlook is not certain.

4.1.6 Surface Decorations. Grooves

Grooves are a decorative pattern on pots, which is achieved by dragging blunt objects across the body of the pot to make incisions on the pot. Although it is generally characterized to serve an aesthetic purpose, it could be for other purposes such as manufacturing identification mark or as a means of roughening the exterior to make handling of pots easier. A total of 34 potsherds out of the total of 127 were decorated with ‘U’ shaped shallow grooves (See Table 4.1) around the neck region of the pots.

4.1.7 Incision

Incisions are markings that are made over the exterior of a pot; unlike grooving the tool used is sharp. To achieve best results incisions are made on wet clay before it becomes leather hard. Incisions are normally “V” shaped and they are made either vertically or horizontally. A total of 13 pieces of pots out of 127 were discovered with incisions on them (See Table 4.1).
Table 4.1: Numerical summary of surface decorations on local pottery.

<table>
<thead>
<tr>
<th>Surface decorations</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Total</th>
<th>% total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooves</td>
<td>7</td>
<td>7</td>
<td>16</td>
<td>4</td>
<td>34</td>
<td>28%</td>
</tr>
<tr>
<td>Plain</td>
<td>30</td>
<td>22</td>
<td>11</td>
<td>8</td>
<td>71</td>
<td>59%</td>
</tr>
<tr>
<td>Punctate</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Incision</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>11%</td>
</tr>
<tr>
<td>Comb stamping</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>% total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4.2: Numerical summary of surface treatment of local pottery.

<table>
<thead>
<tr>
<th>Surface treatment</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Total</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burnished</td>
<td>42</td>
<td>16</td>
<td>11</td>
<td>9</td>
<td>78</td>
<td>71%</td>
</tr>
<tr>
<td>Non-burnished</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>24</td>
<td>22%</td>
</tr>
<tr>
<td>Smudged</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>110</td>
<td>100%</td>
</tr>
</tbody>
</table>
4.2 European Ceramics

The European ceramics were a mix of fragments of flat plates, deep bowls and soup plates, the majority of which being soup plates. The assemblage is dominated by whiteware decorated with cut sponge, “a technique that became common after about AD 1845” (DeCorse 2001:157).

The date range of the ceramics fall between AD 17th – 20th centuries, however, the bulk of European ceramics range between the mid AD 18th century – 20th century. These dates were arrived by cross referencing the materials with ceramic dating charts created by South Stanley (1977), DeCorse (2001) and Lange and Carlson (1985). The date range goes to support the view that the materials in the midden were likely utilised in the eighteenth century through to the twentieth century. An Ink bottle discovered supports the presence of literacy amongst the creators of the midden.

All the ceramic pieces discovered did not have any form of manufacturers’ embossment on them. Mr. L.B Crossland (a ceramic expert), came to the conclusion that the people of Ada Foah were receiving ‘seconds’. Seconds are flawed manufactured goods or factory rejects from Europe. He arrived at this conclusion because according to his research the eastern frontier of which Ada falls under was not a major trade point in European goods. Thus, the majority of materials sent to them were factory rejects, and the manufacturers did not emboss such materials in order not to lose their market. Another likely reason for the lack of embossed goods could be a reflection of the economic status of the Danes that settled along the eastern coastline. Flawed goods by my assertion will be relatively cheaper to invest in for trade as compared to goods of high quality, this is however highly speculative and based on the European material culture retrieved from the midden.
The analysis of the ceramics recovered from the excavation at the Fort Kongensten site is necessary for understanding how imported ceramics were represented in the European trade. A total of 272 pieces of ceramics were recovered, this number forms 24% of the total assemblage of artefacts recovered. This suggests that there was probably not a large scale trade of European ceramics along the Ada Foah coastline.

4.2.0 Porcelain

The porcelain recovered from the excavation is a high fired vitrified (non porous) white ceramic, composed of kaolin and petuntse clay (http://www.deltaarchaeology.us/historic_ceramics). It is undecorated with a shiny transparent glaze and a slight blue tint (See Figure 4.4) (See Table 4.3).

Figure 4.4 Chinese export porcelain (A) Could have been used as a saucer, and the other (B) was likely a tea ware base fragment. (Photograph: coll. of the author)
4.2.1 Stoneware

The stoneware recovered from the excavations included a white glaze, cork sealed, blob-top, ginger beer bottle, possibly made by ‘Doulton’ in England. It has a trademark: a Black ink transfer “Wheeler”, Possibly Wheeler & Co. (See Figure 4.5).

In addition to the above mentioned, was an almost whole piece grey colored stoneware. This piece is possibly a Rhine land jug. The stoneware assemblage also included a fragment of a white/light tan handle, a body sherd (See Figure 4.6) and a brown glazed, ink bottle (See Figure 4.7). The ink bottle is a signifier of literacy, most likely amongst the users of the midden. (See Table 4.4)

Figure 4.5 photo of ginger beer bottle. (Photograph: coll. of the author)
Figure 4.6 photo of stone ware pieces. (Photograph: coll. of the author)

Figure 4.7 photo of stoneware ink bottle. (Photograph: coll. of the author)
4.2.2 Earthenware: Creamware

Two distinct fragments of creamware were recovered from the excavation. They are a Green-glazed, cream-bodied ware and Lustre ware. The green-glazed cream-bodied ware is a piece decorated by a glaze that pulls into vessel crevices (footings, molded decorations and handles). This piece was likely an ornamental ware (See Figure 4.8). The other piece was Lustre decorated ware (see Figure 4.9). Lustre is a 19th century form of decoration which can be applied to any form of ceramic body, be it earthenware or porcelain. In other works it is associated with creamware and Pearlware. (Gibson 2000:1-191). (See Table 4.5)

Figure 4.8 photo of green glazed ware. (Photograph: coll. of the author)
Figure 4.9 photo of Lustre ware. (Photograph: coll. of the author)
4.2.2.1 Pearlware

A variety of Pearlware finds were uncovered (See Table 4.5). Pearlware is distinguished from cream ware and whiteware by distinct almost not clearly visible spots of cobalt blue content in the ware. This can however, be identified under a microscope or by holding the ceramic up, facing the sunlight to clearly see a reflection of the blue tint content.

The different types identified in the assemblage include underglazed hand painted polychrome floral (See Figure 4.10), a transfer printed decorated Pearlware, in maroon, grey and light brown (see Figure 4.11) blue transfer prints are unique to England; they are usually decorated with Chinese motifs. In addition to the above mentioned varieties was a piece of hand painted pearlware, in ultramarine blue (See Figure 4.12).

Figure4.10 photo of Pearlware with underglazed hand painted polychrome. (Photograph: coll. of the author)
Figure 4.11 photo of pearlware, transfer printed decoration. (Photograph: coll. of the author)

Figure 4.12 photo of Pearlware. Hand painted monochrome blue. (Photograph: coll. of the author)
4.2.2.2 Whiteware/ Ironstone

The largest variety of European ceramics recovered was whiteware or ironstone (see Table 4.5). These ceramics were introduced into the European market in the nineteenth century. In the hope of achieving a ceramic piece that was either porcelain or close to porcelain, European manufacturers kept decreasing the content of cobalt blue to whiten the ceramic. It was through such a process that they produced whiteware or ironstone (http://www.deltaarchaeology.us/historic_ceramics.htm).

The varieties of whiteware included a whiteware with spatter and sponged decorations, typically in geometric patterns (see Figure 4.13). It also included whiteware with Cut sponged decorations, stamped with motifs and hand painted with fine lines at the edges, some of these had gadrooned edges (see Figure 4.14 & 4.15). Gadrooning is a decorative pattern on edges of ceramics; it is achieved by moulding a series of convex curves to form a pattern.

Non-impressed edged ware with green and pink rim edging created by brush strokes were also discovered in the whiteware assemblage (See Figure 4.16). During the nineteenth century, impressed shell edgeware was becoming rare, impressed moulding disappeared, thus manufacturers adopted the technique of brush strokes in creating edged ware (Maryland Archaeological Conservation Laboratory (2003) Updated 1/14/2011).

The white ware assemblage also included designs of narrow, annular rings (in blue, red, green and other colors). These lines were especially on vessel rims and at the edge of bowl depressions (See Figure 4.17). Sponged –stencil decoration in green, and red, with fine annular rings on rims, as well as flow blue transfer print decorations were discovered (See Figure 4.18&4.19). Flow blue is a smudged paint appearance on ceramics.
this occurs when excess color remains on the ceramic mould and consequently fuses with the glaze during the firing process.

Figure 4.13 photo of whiteware with spatter and sponged decorations. (Photograph: coll. of the author)

Figure 4.14 photo of whiteware with cut sponged decorations and spatter. (Photograph: coll. of the author)
Figure 4.15 photo of white ware with cut sponged decorations with gadrooned edges. (Photograph: coll. of the author)

Figure 4.16 photo of whiteware, non impressed edged ware. (Photograph: coll. of the author)
Figure 4.17  photo of whiteware with narrow, annular rings in blue, red, green and other colors. (Photograph: coll. of the author)

Figure 4.18 Photo of white ware with sponged stenciled decorations. (Photograph: coll. of the author)
Figure 4.19 Photo of flow blue transfer prints. (Photograph: coll. of the author)
### TABLE 4.3 PORCELAIN

<table>
<thead>
<tr>
<th>Types/ Varieties</th>
<th>Date and reference</th>
<th>Provenience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overglazed enameled Chinese export porcelain; teaware.</td>
<td>1660-1800</td>
<td>South, Stanley 1977:210, Level 2</td>
</tr>
</tbody>
</table>

### TABLE 4.4 STONEWARE

<table>
<thead>
<tr>
<th>Types/ Varieties</th>
<th>Date and reference</th>
<th>Provenience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey jugs with handle</td>
<td>1600-1900</td>
<td>Gaimster, David 1977:321, Levels: 2 and 4</td>
</tr>
<tr>
<td>Grey/white glazed cork sealed, blob top ginger beer bottle.</td>
<td>Mid 19th century-early 20th century</td>
<td>Jones, David 2009:239, Level 2</td>
</tr>
<tr>
<td>Brown salt glazed Ink bottle</td>
<td>1820-1873</td>
<td>DeCorse 2001:153, Level 3</td>
</tr>
</tbody>
</table>

### TABLE 4.5 EARTHENWARE

#### CREAMWARE

<table>
<thead>
<tr>
<th>Type Variety</th>
<th>Date and reference</th>
<th>Provenience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green glazed , cream bodied ware</td>
<td>1759-1775</td>
<td>South, Stanley 1977:211, Levels: 1 and 2</td>
</tr>
<tr>
<td>Lusterware</td>
<td>1790-1784</td>
<td>South, Stanley 1977:211, 19th Century Gibson, Michael 2000:1-191, Level 1</td>
</tr>
</tbody>
</table>

#### PEARLWARE

<table>
<thead>
<tr>
<th>Type Varieties</th>
<th>Date and reference</th>
<th>Provenience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plain</td>
<td>1780-1830</td>
<td>Lange and Carlson 1985:104, Levels: 1,2,3,4</td>
</tr>
<tr>
<td>Underglazed hand painted polychrome floral</td>
<td>1795-1815</td>
<td>South, Stanley 1977:212, Levels: 1,2,3</td>
</tr>
<tr>
<td>Transfer printed- grey, maroon and light brown</td>
<td>1795-1840</td>
<td>South, Stanley 1977:212, Levels: 1,2,3,4</td>
</tr>
<tr>
<td>Fine line hand painted polychrome</td>
<td>1780-1835</td>
<td>Lange and Carlson 1985:104, Levels: 1,3,4</td>
</tr>
<tr>
<td>Hand painted monochrome blue, thick line style</td>
<td>1780-1830</td>
<td>Lange and Carlson 1985:104, Level 1</td>
</tr>
<tr>
<td>IRONSTONE/WHITEWARE</td>
<td>Date ranges and references.</td>
<td>Provenience</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Type varieties</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plain</td>
<td>1820-1900 DeCorse 2001:153</td>
<td>Levels :1,2,3</td>
</tr>
<tr>
<td></td>
<td>1820-1900 Lange and Carlson 1985:105</td>
<td></td>
</tr>
<tr>
<td>Spatterware/sponge</td>
<td>1830-1865 Lange and Carlson 1985:105</td>
<td>Levels:1,2,3,4</td>
</tr>
<tr>
<td>Cut –sponge stamped hand with painted lines</td>
<td>1845-1873 DeCorse 2001:153 19th century Majewski and Schiffer 2011:201</td>
<td>Levels :1,2,3</td>
</tr>
<tr>
<td>Edged ware</td>
<td>–</td>
<td>Levels :1,2</td>
</tr>
<tr>
<td>Sponged –stencil decoration in green, and red, with fine annular rings on rims</td>
<td>1830-1873 DeCorse 2001:153</td>
<td>Levels :1,2,3</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td></td>
<td>Levels 1,2,3,4.</td>
</tr>
</tbody>
</table>

University of Ghana  
http://ugspace.ug.edu.gh
4.3 Glass

A total of 260 pieces of glass fragments were recovered from the Fort Kongensten excavation. The diagnostic pieces were categorized into eight groups based on their functional properties (See Table 4.6). This categorization was based on the primary functions of the bottles. However, it is likely that these bottles were reused and undoubtedly served secondary functions as containers (DeCorse2001:161).

The presence of seals and embossments make it easier for bottle identification. Unfortunately just a single seal was discovered during my excavations (see Figure 4.20); this was a Blankenhyem and Nolet seal, an early eighteenth century distillery in Schiedam (Netherlands) (www.treasurenet.com/forums/bottles).

The various kinds of glassware were divided into eight functional groups, these were: alcoholic beverage glass bottles, non-alcoholic beverage glass bottles, mineral water, wine glass, general household, perfumery, medicinal and glass stoppers and closures (see Table 4.6).

There were significant whole pieces of Schnapps bottles, Known as “Dutch case gin” bottles. These bottles had a four pointer base; according to McNulty (1971) the case gin bottles had become unstable by 1780/1790. Thus the mold was refined, this saw the production of a four pointed base instead of a flat bottom, allowing for circulation of air between the bottles (See plate 4.1: a).

Among the alcoholic beverage category were Beer bottles with Mould lines running right up and then into the lip finish (see Plate 4.1: b). This is an indication of the use of an Automatic Bottling Machine (ABM) (Blakeman 2009:11). This manufacturing style points to a post 1910 and more likely 1920 construct of glass bottles which presupposes that these glass artefacts were used by occupants of the area after the nineteenth century very likely occupants of the colonial buildings associated with the Fort.
The glassware also included a piece of a swing stopper. The swing stopper was introduced in 1877 and patented in 1892, it is generally found on post 1900 bottles (Blakeman 2009:126).

These finds were associated with a light baluster clear wine glass with an early 19th century stem form with angular faceting (Hume 1976:191) (see plate 4.1:d). In the category of general household goods were Aqua- preserve jars with unusually heavy lip bands, and sauce bottles (see plate 4.1:e).

The perfumery category included scented oils bottles, locally referred to as mlogo, by the natives. According to oral history gathered from my ethnographic research; the oils were mixed with shea butter and used as body cream by natives (see plate 4.1: f).

Figure 4.20 Photo of Blankenhyem and Nolet seal. (Photograph: coll. of the author)
Plate 4.1 photos of Glassware from Fort Kongensten Excavation. (Photograph: coll. of the author)
Table 4.6 GLASSWARE, FUNCTIONAL CATEGORIZATION LAYOUT

<table>
<thead>
<tr>
<th>Class</th>
<th>Subclass</th>
<th>Items</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLASS A:</td>
<td>Alcoholic beverages</td>
<td>i. Schnapps</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Whisky</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Wine/Champagne</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Beer/soda</td>
<td></td>
</tr>
<tr>
<td>CLASS B:</td>
<td>Non–alcoholic beverages</td>
<td>i. Syrup bottles</td>
<td>1</td>
</tr>
<tr>
<td>CLASS C:</td>
<td>Mineral water</td>
<td>i. Spa mineral water</td>
<td>3</td>
</tr>
<tr>
<td>CLASS D:</td>
<td>Wine glass</td>
<td>i. Single baluster wine glass</td>
<td>1</td>
</tr>
<tr>
<td>CLASS E:</td>
<td>General household</td>
<td>i. Preserve jar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Sauce bottle</td>
<td></td>
</tr>
<tr>
<td>CLASS F:</td>
<td>Perfumery</td>
<td>i. Scented oils (mlogo)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Body creams (Ponds, England)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Florida water(Murray &amp;Lanman ,New York)</td>
<td></td>
</tr>
<tr>
<td>CLASS G:</td>
<td>Medicinal</td>
<td>i. Potassium permanganate</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Unidentifiable</td>
<td></td>
</tr>
<tr>
<td>CLASS H:</td>
<td>Glass stoppers and closures</td>
<td>i. Glass stoppers for perfumes</td>
<td>2</td>
</tr>
</tbody>
</table>
4.4 Pipes

There appears to be a general consensus that smoking pipes were introduced into Ghana and West Africa by the Portuguese, this data however is not based on solid evidence. It could very likely be the British or the French (DeCorse 2001:240). A total of 53 fragments of European pipes were discovered, 17 bowls and 36 stems. Unfortunately there were no significant decorations on them to make identification easy (see Figure 4.21). There was however, some form of incisions made on the bowls (see Figure 4.21: arrow A). According to Oswald (1975:96) decorations on bowls or stems is a considerable rarity in the seventeenth century. Decorations were initiated in the first half of the eighteenth century and became commonplace in the nineteenth century.

Based on documentary sources, ethnographic data and the period of manufacture of majority of the European ceramics I dare speculate that the chronology of the site has been placed between mid eighteenth century to early nineteenth century; this is corroborated by the bulk of European ceramics that date between the mid 18th- 20th centuries. However, the evidence of these unmarked pipes if analyzed based on Oswald’s prediction on decorations, would place the site in the early 17th century. This is clearly earlier than the approximated mid 18th century. However, in my opinion it is erroneous, because sample size is important in establishing chronology. Noel Hume establishes that an average of 900 fragments is needed to obtain a statistically representative sample (DeCorse 2001:240) and in this case there were only 53 fragments.
Figure 4.21 Photo of smoking pipes. (Photograph: coll. of the author)
4.5 Other Finds

A number of artefacts including cowries, beads, metal pieces and molluscs were recovered from the excavation. The people of Ada Foah have various uses for beads, such as for adornment, religious purposes and marking stages of life. The most significant function of beads is when it is used to mark stages of life. According to data gathered from the ethnographic research a baby of eight days is adorned with beads, and at puberty a female child is required to wear beads for her rite of passage. The quality of beads represents wealth of the family (Peter Francis: 1993). The beads discovered in the Fort Kongensten excavation consisted of three plastic beads. These were monochrome (blue and yellow) spherical shaped beads with a hollow centre (See Figure 4.22).

A total of forty five pieces of cowry shells were discovered representing 4% of the total finds discovered. Only six could be clearly identified as of the family; Cypraea Moneta (see Figure 4.23: b). The remainder were Cypraea Annulus (see Figure 4.23: a), which is characterized by a yellow ring around the dorsal area. These shells were probably used as currency, or for aesthetic purposes.

Metallic finds included both long and short nails (see Figure 4.24), these appeared to be construction metal pieces.

A large number of aquatic remains were recovered from the Fort Kongensten site. These fauna remains were of two varieties, these are *Arca Senilis* (locally known as “Adod3”) and *Ostrea Denticulata* (oysters) (see Fig 4.25). These two varieties are under the Bivalvia family and they are consumable. These fauna remains give an insight into the likely dietary pattern of the people, which was probably high in protein foods which are easier to come by due to the proximity of the ocean.
Figure 4.22 photo of beads. (Photograph: coll. of the author)

Figure 4.23 photo of cowries. (Photograph: coll. of the author)
Figure 4.24 photo of metal objects discovered. (Photograph: coll. of the author)

Figure 4.25 photo of Molluscs. (Photograph: coll. of the author)
CHAPTER FIVE:

DISCUSSION, RECOMMENDATIONS & CONCLUSION.

5.0 Discussion

Through my ethnographic study, I noted that the memory of the fort amongst the people of Ada Foah was almost nonexistent. The youth (18yrs-30yrs) that I interviewed were not aware of the significance of the fort. The respondents above 50 years however had a fair knowledge about the fort; not an in-depth understanding but just the awareness of its existence and the presence of the Europeans on their side of the coast. The traditional council however, recognizes the fort as a part of their heritage and refused to accept its demolition. Unfortunately it appears the knowledge of heritage and its relevance to the people of Ada Foah is privy to the traditional council for the most part and not the totality of its inhabitants.

Ethnographic data collected suggests to me that the inhabitants of the town were not pleased with the delay in construction of the sea defense wall, and they did not agree with the hold up in work for traditional protocol to be observed. This is because they had witnessed the erosion of homes and roads; some people had also lost their source of livelihoods. They feared the traditional council will keep resisting and they would be forced to move inland as the sea continued to get closer.

Such instances of conflict concerning heritage and the environment must be prevented from happening in other areas along the coast. In a country where there are no laws that will compel constructors to conduct archaeological surveys, archaeologists must take the initiative. More importantly, there are many heritage sites along the coast with tourism potential and high socio-economic values that need to be protected against destruction (Addy & Addo 2012:163).
The government has taken no significant interest in promoting or implementing what I like to call ‘social mitigation’ projects in the Ada Foah community. The inhabitants, however, have taken a keen interest in onion farming. Although the soil is sandy, they mix it with portions of manure to enable them plant the onion crop. Due to the current environmental issues that face the town, the inhabitants have restructured their subsistence, moving from small scale to an almost large scale farming practice. They have also been pressured to relocate from their homes to other non-permanent structures. Climate change is accompanied everywhere by other kinds of change in society (Barnes & Dove et al 2013:541), in the case of Ada Foah it is reflected in their subsistence and migration patterns.

5.1 Assessing the Material Culture from the Fort Kongensten Site

The feature excavated was approximately situated in the center point of three colonial structures which have all been demolished. They are Fort Kongensten, the Fort Kongensten prison and a colonial school. The rust metal outline revealed in the wall profile of the excavated feature suggests that there was a metal container embedded in the ground for refuse collection. After close examination of the nature of the wall profile of the units excavated, I concluded that the feature excavated is a midden. The salvage archaeological excavations revealed that the midden resulted out of a deliberate action taken by the erstwhile people of the area for appropriate refuse disposal in such a sandy environment.

The majority of material culture recovered was from the midden. These artefacts were classified and analyzed to fall between the period of AD 18th and 19th centuries. These dates corroborate with historical data on the construction and inhabitation of the site; the Danes in the late 18th century (1783-1850), and the British (1850- n.d).
In order to understand the agency associated with the site, it was necessary for the material culture to be examined in context. This contextual analysis was based on the quantity and the primary use of the material culture recovered from the midden. There was a total of 260 diagnostic glass sherds recovered, this makes up 23% of the total artefacts recovered. They included drinking glasses and perfume containers, with a majority of ‘Dutch case gin’ bottle sherds. The midden also contained 272 pieces of diagnostic European ceramics, this forms 24% of the total assemblage. In addition, there was local pottery which was a clear resemblance to nineteenth century bowls from the site; they formed 11% of the artefacts recovered. There was also the presence of large quantities of fauna remains such as *Arca Senilis* (locally known as “Adod3”) and *Ostrea Denticulata* (oysters) give an insight into the likely dietary pattern that is rich in protein.

In total, the blend of “household” artefacts was 58% percent of artefacts recovered. On this basis, I am inclined to suggest that the materials retrieved from the ‘household’ midden reflects the lifestyle of the Danes and the British on the coast (Boachie-Ansah 2008).

After conducting this contextual study, I am of the view that there was no extensive interaction between the colonial school located on the site and the midden. This is reflective in the quantities of goods that were of household use and consumption purposes. However, it is plausible that the inhabitants of the colonial buildings located not too far from the midden (approx 7metres) could also have formed and utilized the midden or probably continued utilizing the midden after it was created by the inhabitants of the fort.

In applying the three approaches of the study of material culture (i.e., the idealist, models of market, and capitalist approach postulated by Paynter (1988:407-421), I concluded that the increased amount of European goods in the material culture recovered
from the feature, shows there was the need for such goods along the eastern coastline of the Gold Coast. They were either brought or used by the Danes and British on the site to support their lifestyle, or by the locals to mimic such western lifestyles of affluence. It is apparent that the lack of embossment on the goods was not a bother to the traders or the purchasers of the goods. The quality and quantity of the artefacts reflects the choices and taste of a section of the society that existed during that period on the site. With a high probability of the goods being ‘seconds’ the society was probably not a high earning one. The ratio of European goods to local goods discovered in the excavations, also suggest a dominance and high influence of European culture in that context. However, the associated indigenous pottery and fauna remains also reflect a form of cohabitation and a reciprocal influence of local lifeways on the Europeans on the site.

5.2 Recommendations: Salvage Archaeology

The importance of salvage of archaeology has become more evident for me in diverse ways after conducting this research. It is alarming to perceive what the future of the coast of Ghana will be in the next twenty years. Thus there is a need for archaeologists--whilst there is still time --to partner with related specialists such as earth scientists, climatologists to mention but a few, to initiate well tailored mitigation methodologies. Such partnerships will be a true reflection of the eclectic nature of the discipline of archaeology.

It is anticipated that the recent rise in sea level due to global warming will continue for centuries (Addo et al. 2008:2). Thus, the future decline of the shoreline of Ghana will be greater than what has already taken place in the past. Research suggests that “the potential impact of seal level rise indicates that Accra would probably retreat approximately 90m and 109m by the year 2100” (Addy&Addo,2013:163). That is
approximately the length of a standard soccer pitch (British Broadcasting Corporation, n.d).

Fortunately, the coast of Ada Foah has a sea defense wall. However, if the government of Ghana does not embark on rampant mitigation projects, the case of the erosion of Fort Kongensten will reoccur on the coast of Osu and Nungua, suburbs in the Greater Accra Region. The sea defense wall is a major step towards the check of sea erosion and curbing the negative effects of climate change along coastlines of Ghana. The question however is about sustainability; how do they maintain an environment that will not contribute to climate change? It’s important that the government of Ghana plans a development scheme which is not in a top-bottom fashion; i.e., fashioned at the top (government) for the bottom (rural area).

I am of the opinion that salvage Archaeology when combined with Anthropological methods will enable researchers to be fully armed and prepared for the worst case scenario in any community. Anthropological methodology when applied in research affords the researcher an insight into the lives of the community being studied, and this information can lead to a better understanding of climatic change impacts and thereby inform adaptation policy (Barnes & Dove et al. 2013:541). Salvage archaeology on the other hand can be effectively applied in areas where heritage is under dire threat.

5.2.0 Public Archaeology as a tool for education and awareness

According to Shanks, Public archaeology is all about consulting and negotiating with a diverse set of people and their interests in a world that extends far from the academic discipline (Shanks 2005:223). Little (2007) writes that “public archaeology also includes archaeologists’ collaborations with and within communities, and our activities in support of civic engagement and civic renewal.” What I gather from these statements is that,
public archaeology takes a step into social aspects to fulfill the social responsibility of the discipline.

In both definitions examined above, both writers make it clear that public archaeology extends beyond the academic discipline. It involves collaboration and negotiations with people and communities in aim of making archaeology relevant to the public. In order to do this, archaeology must be served without the science to the populace of Ghana, but with all information necessary to make them understand and appreciate research that has been undertaken.

According to Little (2007), “the creation and development of heritage areas raise any number of critical issues related to the ways that we understand, study and commemorate the past.” This statement addresses the different perspectives of persons in communities as well as the government on what should be done concerning heritage loss. The scenario that played out at Ada Foah before the fort was destroyed reveals so much. It show that different constituencies of people hold a different view of the meaning of heritage, the control of heritage, the participation of each group in heritage, the funding of the preservation of heritage and also the economic developmental contribution of heritage.

In this scenario there was tension between the locals specifically the traditional authority, the district assembly, and the DE ME construction firm, as to the demolition of the last standing shreds of the fort. Each group had a different perspective on heritage preservation and conservation and the interpretation and sentimental value of heritage.

This brings me to the question of how to educate the Ghanaian populace on heritage and make archaeological research more meaningful. In my opinion effective communication through public outreach is most likely the best approach of getting public archaeology done. Little (2007), notes in her examination of issues on education and outreach that, “every sector of the archaeological profession considers public education
and outreach to be important”. What needs to be considered is the methodology and theoretical approach to getting effective communication done, in my opinion effective communication includes education, media and a clear understanding of issues.

The world is fast becoming a global village, if not already one. “Information flows and networks have spread across borders in ways that could not be imagined before the onset of the internet, the global adoption of mobile telephony and social networks, and the rapid growth of broadband” (Global information Report 2013:3). It has become necessary that the avenues for data sharing created by technology are exploited by archaeology in aid of effective communication. These avenues are not likely to come without cons but in total the pros should outweigh the cons. Information technology is a growing market and accessibility of information for the Ghanaian populace is key for recognition of the discipline.

Preucel and Hodder (1996:528) discuss a four step strategy for quality data dissemination, which they consider to already be in practice by archaeologists. The first is commitment to the objectivity of the data. The second strategy is coherence. In other words the different types and levels of theory used must be compatible. The third strategy involves extending coherence into the social realm and the fourth involves experience and autobiography (ibid, 528). Their strategy brings to light the necessity for data to be crisp and concise to make it easily consumable for the public, for effective communication to be accomplished the quality of data that is to given to the public must be of sound quality. This will enable easy understanding and applicable, research information and theories must not just make sense internally (to academics) but externally (the general public). And the credibility of the writer and researcher must be undisputable.

According to Preucel and Hodder the positives of globalization is that the “new developments in computer technologies and networking have led to interactive displays,
geographical information systems, multimedia, the World Wide Web and virtual reality. These allow for multiple experiences, hands on museums, multiple interpretations, indigenous participation in exhibit planning and presentation” (ibid, 529). In the light of this, archaeological information can become more accessible to the public, if such methods of information technology and multimedia are utilized by researchers. As rightly said by Gavua & Nutor (2014:272), the advocacy of public archaeology should be tailored with the aim of allowing “the past to serve the present.” Such an approach will channel the discipline into the social and economic development agenda to prevent the slow death of the discipline of archaeology.

5.3 Conclusion

Unfortunately this research was limited in terms of site areas to work with. Thus limited material culture was recovered. However, the sites excavated were the only viable areas to work with.

The archaeology of the site must however not cease. With the data gathered, public archaeological methodology can be utilized to create awareness of the threat that coastal heritage faces. Presently, from data I recovered, it is clear that although they have a clear example of the phenomenon’s consequences on their coast, people are still unaware of climate change. Most of them ‘hope’ that the rocks placed in the ocean (referral to sea defense wall) will hold the sea away for a while; some also strongly doubt it. Anthropological and Archaeological methods must be used in other areas along the coast, which are at risk of destruction such as Fort Patience at Apam and Ussher Fort in Accra. It is however apparent that the discipline of archaeology has a long way to go to improve its public image in Ghana (Gavua 2006). It is my opinion that archaeologist need to invest
more effort into integrating public archaeology into their conventional archeological practices. This will in no known way minimize the scientific qualities and academic objectiveness of the discipline (Gavua & Nutor 2014:272), it will rather enhance its social benefits. In light of this the researcher currently manages a Blog site (Victoria on Ghana’s coast); which showcases the research conducted at the Fort Kongensten site. This blog serves as an interactive platform and creates awareness about archaeological research in Ghana. In this way to some extent, public archaeology is achieved, utilizing internet resources as discussed earlier in this chapter.
BIBLIOGRAPHY

Addo A. K., Walkden M. & Mills J. P.

Addo A.K, Larbi L, Amisigo B and Ofori-Danso P.K.

Andrén, Anders.

Arazi, Noemie.

Anquandah, J.
1982 Rediscovering Ghana’s Past. Longman Group Limited


Anquandah, B. Kankpeyeng and W. Apoh (eds)

Apoh, R.W.
2001 An Archaeology of Katamansu, a Battle Site in the Accra Plains of Ghana. M.Phil Thesis, Department of Archaeology, University of Ghana


2012(a) Final Report Appolonia. City of Light Heritage Impact Assessment (CHIA) & Salvage Archaeology Project Commissioned by Appolonia Development.

2012(b) Final Report King City Cultural Heritage Impact Assessment (CHIA) & Salvage Archaeology Project Commissioned by Kings City Development Company Ltd

Apoh W., Gavua, K. and Adjartey, D.
2012 “Visual Anthropological Insights into the Salvage Archaeology and Relocation of Heritage remains at the Bui Hydroelectric Dam Project Site”. Poster presented at the 11th
Biennial Conference of the Society of Africanists Archaeologists (SAFA), Victoria University, Canada.


Biginagwa, Thomas John 2012 Historical Archaeology Of The 19th – Century: Caravan Trade In North-Eastern Tanzania: A Zooarchaeological Perspective PhD Thesis University of York Department of Archaeology


Davies, Oliver 1971, The Archaeology of the Flooded Volta Basin. Issue 1 of occasional papers, University of Ghana Dept. of Archaeology


Deetz, James.

Fiadzigbey, Matilda Esi.
2006 “Customary Land Administrator in Ghana” – *Challenges and Prospects Shaping the Change*.

Francis, Peter Jnr.

Frank & Gills

Funari, P.P.A.

Gaimster, David.

Gaimster.D & Majewski .T, (eds.),

Gavua, K. and Apoh W.
2011 “Final Report Salvage Archaeology at the Bui Dam Project Site” Project Commissioned by the Bui Power Authority, Ghana.

Gavua, K. & Nutor, K.

Gayibor, N. L.
1977 *Recueil des Sources Orales du Pays Aja-Ewe*. Lome, Togo: Department d’Histoire, University du Benin

Gibson, Michael.
2000 *19th century Lusterware*. Antique Collectors club. Suffolk
Greene, S. E.
2002  *Sacred sites and the Colonial Encounter. A History of Meaning and Memory in Ghana*. Indiana University Press

Hammack, C. Laurens.

Hume, Noel

Jones, David.

Joukowsky, M.

Knapp A. B. and Dommelan van P.
2008  “Past practices: rethinking individuals and agents in archaeology”.


Lauring, P.
1960  *A History of the Kingdom of Denmark*. Copenhagen: Hostan

Lightfoot, Kent G.

Little, Barbara J.
2007  *Historical Archaeology: Why the past matters*. Left Coast Press United states of America

Majewski, T & Schiffer, M. B.

McNulty, Robert H.
Miller, D  

Miller, D. and C. Y. Tilley  

Nash, J  
1981 “Ethnographic Aspects of The World Capitalists System” In: Annual Review of Anthropology 8-41-54


Neumann J E, Yohe G, Nicholls R, Manion M  
2000 “Sea level rise and global climate change: a review of impacts to US Coasts prepared for the pew centre on global climate change”

Orser, Jr., Charles E.  

Oswald, Adrian  

Paynter, Robert  
1988 Steps To An Archaeology Of Capitalism, Material Change And Class Analysis. In M Leone and P Potter (eds.) The recovery of meaning. Smithsonian Institution Press, Washington DC

Pikirayi, I.  


Posnansky, Merrick  

Preucel, Robert W. & Hodder, I. (eds.)  
Sagoe-Addy K & Addo A. K.  
2013  Effect of predicted sea level rise on tourism facilities along Ghana’s Accra coast.  
In: Journal of Coastal Conservation. 17:155-166 DOI 10.1007/s 11852-012-0227-YS

Schneider, Jane  
1977 “Was There A Pre Capitalist World System?” Peasant Studies 6:20-29

South, Stanley.  

Stahl, A  

Stein, Gil J.  
1998 Worlds Systems Theory And Alternative Modes Of Interaction In The Archaeology Of Culture Contact. In: J Cusick (ed) Studies In Culture Contact: Interaction, Culture Change, And Archaeology


Van Dantzig, A.  
1980 Forts and castles. Sedco publishing limited, Accra.

Wallerstein, Immanuel.  


Wolf E.R  
1982 Europe and the People Without History .University Of California Press Berkeley

Global facility for disaster reduction and recovery, Annual Report 2011: Building Resilience to Disasters- Delivering Results.
http://www.worldbank.org @ 10/3/2014
http://www.epa.gov/ghemisions/gasses @ 10/3/2014
www.epa.gov/climatechange/basics @ 10/3/2014
www.ipcc.ch/publication @ 10/3/2014
www.treasuinet.com/forums/bottles @ 10/3/2014
http://www.deltaarchaeology.us/historic_ceramics.htm @ 30/7/2014