AN ARCHAEOLOGICAL INVESTIGATION OF GONJA DIMBIA, BRONG-AHAFO REGION, GHANA.

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Declaration

I hereby declare that this thesis 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 Professor James Boachie-Ansah. This work is not presented in full or in part to any other institution for examination. I remain solely responsible for any shortcomings in this study.

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Abstract

This research describes and interprets the material culture of Gonja Dimbia, an abandoned settlement of the Gonja located at Sabule in the Kintampo South District of Ghana. Data from archaeological survey and oral traditions facilitated the understanding of the chronology of the settlement and the lifeways of its occupants over the different periods. The data also confirms aspects of human agency in the formation of the dark soils. The study has also examined elements of identity and socio-political complexity at Gonja Dimbia through the ceramic, faunal and flora assemblages in the presence and absence of certain species.

The methods adopted for the study include reconnaissance survey, collection of oral traditions, the use of archival and documentary sources and excavation. Archaeological excavation has revealed two Iron Age occupations separated by a short period represented by a thin layer of soil devoid of archaeological finds. Radiocarbon dates indicate that the site's inception dates to the 14th century, at a time predating the arrival of the Gonja in the area. This indicates that before the arrival of the Gonja, there was a settlement at Gonja Dimbia.

Excavated finds include pottery characterized by various and numerous vessel types which were probably used as cooking and storage vessels and possibly as lamps; pieces of iron slag suggesting the presence of iron workers at the site; an iron arrowhead, suggesting hunting and/or warfare; a carved ivory probably part of a bracelet and an iron bracelet, all indicative of body ornamentation.

The similarity of the pottery in the two occupation periods or levels and the thin layer of soil separating the two occupations suggest that the site was abandoned and was re-occupied by people of similar ceramic tradition as the earliest settlers. The pottery has also affinities with pottery from Begho, Bonoso, Twemma, Kaam, Bono Manso, Amuowi I, Amuowi II, Ohene Ameyaw Anim, Daboya, New Buipe and Yendi Dabari. The 14th century date for the inception of the site confirms the view expressed by other archaeologists that Silima (Design-Painted) Ware predates the arrival of the Gonja. The gap between the two occupations may indicate the period of Gonja invasion of the area.

The faunal remains indicate that the site's inhabitants subsisted on both wild and domestic animals and the grindstones suggest a diet of pulverized grains and vegetables. The remains of *Achatina achatina,* creatures tabooed by the Gonja suggest that Gonja Dimbia, like many other Gonja settlements, had non-Gonja residents who were probably ruled by the Gonja. The *Achatina achatina* shells are also indicative of contact between the Gonja Dimbia area and the forest regions of Ghana. The presence of horses, prestigious animals kept by chiefs and the rich and used in warfare and various ceremonies, is indicative of social stratification at Gonja Dimbia.

The presence of cultural materials in the dark humus soil in the excavated units would seem to support the view that the dark humus soils in the Sabule area have a relationship with human activities and that they are anthropogenic in nature. Oral traditions are silent about when the Gonja abandoned Gonja Dimbia. The carbon dates obtained for the site were processed from samples collected far below the surface of the site. Dates from samples closer to the surface are therefore needed to throw light on the date of the site's abandonment.

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Chapter One

Background of the Study Area

1.0 Introduction

The interest for this archaeological study can be traced to a research by Professor Kojo Amannor of the Institute of African Studies, University of Ghana, which began in July, 2011. The study focused on anthropogenic dark earth formation in some old and abandoned settlement sites in Ghana. Six sites, Ekyeniso, Bomfo Dada, Sabule, Asantekwaa, Babligdor and Sogliboi were listed for the soil research. The first two sites namely Ekyeniso, Bomfo Dada are located in the Ashanti Region of Ghana whiles the remaining four sites are located in the Brong-Ahafo Region. Sabule, Asantekwa and Sogliboi were visited by the team. Taking into consideration the surface evidence of material culture, Sabule was potentially more feasible and interesting for an archaeological research. The settlement site at Sabule known as Gonja Dimbia (meaning "abandoned Gonja settlement") had numerous potsherds and faunal remains on the surface. There were also a number of mounds on the site.

The selection of Sabule for an archaeological and historical study was to add up to already existing archaeological and historical work done in the Brong-Ahafo area. Not much archaeological work has been done in the Brong Ahafo Region. However, more work has been done in the Gonja area due to activities of the Volta Basin Research Project (1963-70). The western part of Brong-Ahafo has undergone archaeological investigations by Oliver Davies (1964), James Boachie-Ansah (1985, 1986a, 1986b, 2000a), Effah-Gyamfi (1974, 1985), Kodzo Gavua (1985), as well as some anthropological research by Jack Goody (1964) and historical research by Ivor Wilks (1966). The writer chose to conduct her research at Gonja Dimbia to understand the history and culture of the people who dwelt on the site. 1.1 Research Aim

The focus of this archaeological research is to understand the history and culture of the settlers of Gonja Dimbia.

1.2 Research Objectives

This archaeological study seeks to achieve its aim through the following objectives:

- Detailed analyses, description and interpretation of the material culture recovered from the excavations.
- An examination of the relationship between the cultural materials recovered from the excavations and the formation of anthropogenic dark earth in the study area.
- Determination of the chronology of the site.
- An examination of the past lifeways of the inhabitants of the site.

1.3 Research Questions

A set of questions were considered regarding the settlement site under study. They included:

- What is the material culture of the inhabitants of Gonja Dimbia?
- What constitutes the archaeological past of the site?
- What relationship exists between excavated cultural materials and Anthropogenic Dark Earths?
- How many phases of the settlement can be identified?
- When was the site occupied?
- What were the subsistence practices of the site's inhabitants?
- What are the cultural affinities of the finds from the site?

1.4 Method of study

Research methods adopted for the study entailed reconnaissance, collection of oral traditions, and excavation of the site under investigation after the necessary permission had been sought and granted by the Ghana Museums and Monuments Board and the local authorities of Sabule Village.

Ethnography is one of the methods for research. However, this method was not employed for the study because the ancestors of the Sabule people whose descendants now live in Sabule never settled on the site selected for excavation, Gonja Dinbia.

1.4.1 Archival and Documentary Sources

Written documents that have been accessed include published and unpublished materials, maps, periodicals particularly articles, among others. Information concerning the research has also been sought from libraries like the Balme Library, Department of Archaeology and Heritage Studies Library and the African Studies Library. It must also be mentioned that the internet has also been useful for retrieving some information relevant to the research. Literatures that have been consulted about the study area are relevant to the research in terms of material culture, settlement history, and theoretical framework adopted in this work.

1.4.2 Reconnaissance Survey

Reconnaissance survey was conducted on the site from 17th to 25th June, 2012. The reconnaissance survey was to enable us have a fair idea about the nature and extent of the site and to identify settlement mounds and the cultural materials present on the site. Two pits dug by Professor Kojo Amannor and his soil research team were located. The archaeological materials in the pits gave us an impression about possible cultural materials we were likely to encounter in the excavations (see Figure 1). This made it quite easier for us to locate a spot for excavation.

1.4.3 Collection of Oral Traditions

Oral traditions concerning the settlement were collected by a team made up of the researcher and two research assistants from 22nd to 25th September and from 6th to 14th October, 2012. Informants comprised the elderly, youths, farmers, the only surviving potter, the Chief and clan leaders. Questions were asked regarding their origin and history, festivals, occupation and local industries.

The method adopted for the interviews was informal aided by a set of structured questions but also allowing informants to give further details to the questions asked.

Informants were engaged on a one-on-one basis and no focus group interviews were held (see Figure 2). Communication was done in twi, an Akan dialect. Interviews were recorded with a phone throughout the exercise and photographs were taken of the researcher and participants of the study as part of the record keeping**.** Samples of the products of the only potter at Sabule were shown to us but the production process was not demonstrated since the clay was not extracted from Sabule. Rather it was dug at a village called Dzre after offering some sacrifices to the earth god. The potter only makes pots on request.

1.4.4 Excavation

Excavations were done on one of the settlement mounds of the Gonja old settlement site. The excavation which took place from 6th to 14th October, 2012 involved digging a 2 x 4 metre Trench and a 1 x 1 metre Test Pit. The Test Pit and the Trench were positioned 24 metres and 27 metres respectively north of one of the pits dug by Professor Amannor's research team.

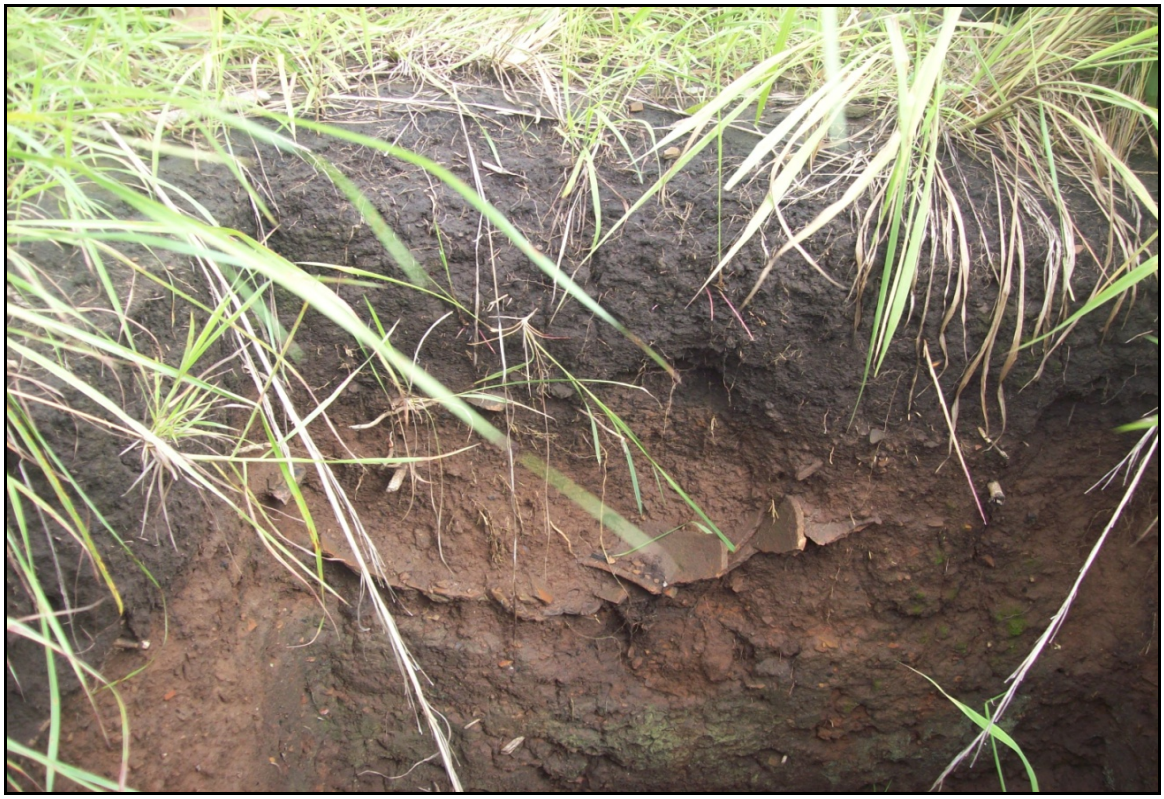


Figure 1: Gonja Dimbia: Pit 1 by Professor Amannor.

Figure 2: Interview with the 'Mmrantehene'.

1.5 Geographical Setting

1.5.1 Location and Size

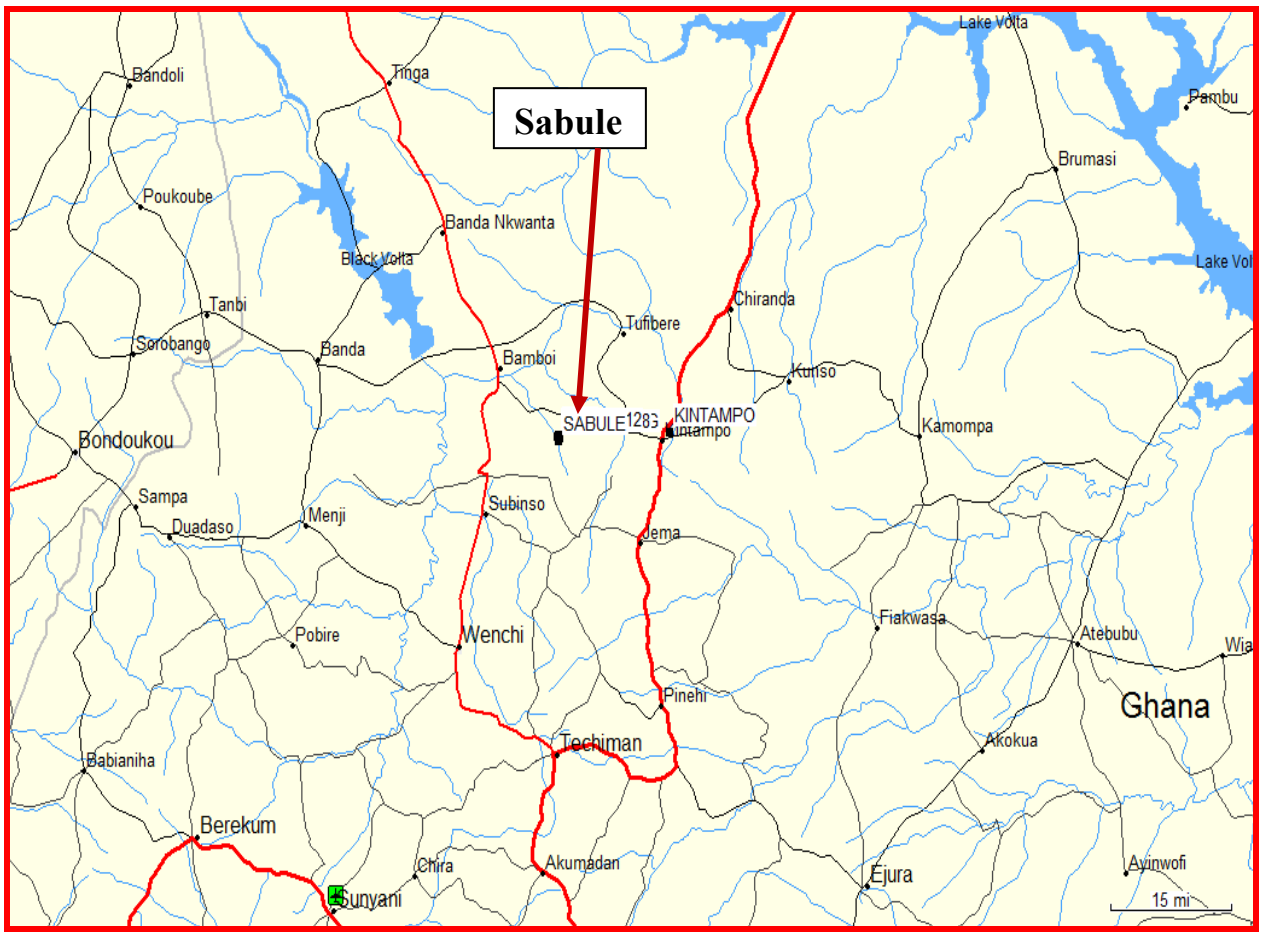
Gonja Dimbia is located in Sabule, a Mo village located within the geographical coordinates of longitudes 1˚92'.87" West and latitudes 8˚49'.56" North (see Figure 3). It is in the Kintampo South District of the Brong-Ahafo Region of Ghana. The area of study is situated approximately 28 km west of Kintampo (Kintampo South District Report, 2004).

Sabule can be located in the Middle Belt Geographic Region of Ghana. The region is largely a low densely populated area. According to Dickson and Benneh (1970), the region is 'the least developed part of the country and it is characterized by inefficient motorable roads over extensive areas'. It is further suggested by the same authors, that the low population density in the area has been caused by wars and slave raiding.

1.5.2 Geology of Study Area

Sabule belongs to the Neoproterozoic and early Cambrian platform sediments and is underlain by a series of voltaian rocks. The Voltaian formation consists mainly of sandstone, shales, mudstones, limestone, arkoses and tillite (Anyaboni formation) (Geological Survey Department, 2009).

The area of study is situated in a region where the rocks are mainly flat or horizontally laid (Dickson and Benneh,1970) and is extremely plain with rolling and undulating land surface with an elevation ranging between 60-150 metres above sea level (Kintampo South District Report, 2004).



Map 1: Map of Study Area (Data Source: Bosman Murey)

1.5.3 Relief and Drainage

The factors of rock formation are very significant for the type and arrangement of relief features in any place. The best physiographic region that appropriately describes this region is the Volta sandstone basin (Dickson and Benneh, 1970). It occupies an area of about 103,600 square kilometers and forms the third geotectonic unit of the geological divisions of Ghana. The relief feature in this area is nearly flat and it varies in height from 100 to 200 metres above sea level. The sediments that make up the Voltaian region have a total thickness of between 3000 to 4000 metres (Kesse, 1985).

The catchment area or drainage basin that characterizes the study area is that of the Volta Sandstone Basin (Dickson and Benneh, 1970).

1.5.4 Climate

Sabule experiences a modified Tropical Continental climate or Wet Semi-equatorial climate because of its transitional zone positioning. The rainy season starts in early March and reaches its peak in June, and reduces gradually from July. The minor season starts in late August and reaches its peak in September or November. The mean annual figures range from 115 cm to 125 cm. (Kintampo South District Report, 2004).

1.5.5 Soils and Vegetation

Soils are a critical factor in the determination of vegetation cover and land use patterns and provide some indication of settlement potential (Shinnie and Kense, 1989).

The soil type that occurs in this area is the Savannah Ochrosols. They are red and brown in colour, well drained, friable, porous and loamy and they are formed from a sandstone base but are not as rich in soil nutrients as the Forest Ochrosols (Dickson and Benneh, 1970). Crop rotation and addition of some organic manure is an effective way of retaining crop yields (Shinnie and Kense, 1989). The significance of vegetation to man cannot be overlooked or understated as it is the source of his shelter, daily meal and clothing and contributes immensely to his survival and sustenance (Dickson and Benneh,1970).

The vegetation of the area is Guinea Savanna woodland or Interior Wooded Savanna. The site where the excavations were conducted, Gonja Dimbia, was extensively farmed in the past and is over grown by grasses and bushes. Similar to the vegetation of northern Ghana, the grasses and bushes are burnt off every year before the commencement of the planting season. As a result,

vegetation undergoes severe changes between the dry and wet seasons. The vegetative area is usually characterized by large trees such as baobab *(Adansonia digitata), dawadawa (Parkia biglobosa),* silkcotton *(Cochlospermum vitifolium), shea*tree (*Vitellaria paradoxa*), and acacias (Dickson and Benneh,1970).The trees are usually dispersed.

1.6 Subsistence

The dominant mode of subsistence is farming. Other activities are fishing, hunting and rearing of animals. Crops cultivated are legumes, vegetables, root crops and grains. The root crops include yams (*Dioscorea sp.*) and cassava (*Manihot esculenta*). Grains cultivated are maize (*Zea mays*) and sorghum (*Sorghum bicolor*) and the legumes are groundnuts (*Arachis hypogaea*) and cashew (*Anacardium occidentale*). Vegetables cultivated are tomatoes (*Solanum sp.*), moringa (*Moringa oleifera*) and pepper (*Capsicum annuum*). Generally, the plant foods cultivated are largely consumed at home. Fishing becomes the next prevailing activity during the rainy season. Hunting of wild life is also practised for a living. The various domestic animals found here are dogs, sheep, goats, guinea fowls, ducks, and chickens. Some individuals and families own cattle but they are given to the Fulani men to be reared on their behalf. Sheep, goats, guinea fowls, ducks and chickens are reared to be used occasionally during special events like the Yam Festival either as food or as sacrifice to gods. Yam *fufu* (pounded yam) and moringa soup is the main diet of the Mo people in this area.

Very few people engage in commercial activities such as petty trading of imported and locally produced consumerables, locally brewed drinks (*pito*), cooked food, and fuel for motor vehicles. The locally brewed drink (*pito*) is usually produced by Dagarba women. Also the felling and burning of trees into charcoal for sale has become a very common occupation.

1.6.1 Markets

The major market in the area is at Kintampo where traders from various places in the

Kintampo area like Chaara, Asantekwa and Subinso come to trade in food crops, fish, meat and other items. The market occurs once every week on Wednesday. This day is also a day vehicles visit very remote places like Sabule to transport both people and goods. Both men and women from Sabule send their yams and other products to Kintampo for sale. Others go to purchase items to sell in the Sabule village.

The Kintampo market is mainly utilized by farmers and middle men from Kintampo, Techiman, Tamale, Wenchi and other places (Kintampo South District Report, 2004).

1.6.2 Transportation

The main means of transportation is by road. The roads to Sabule either from Kintampo to the west or from Wenchi to the south or from Chaara to the east are all untarred and sloppy. The common mode of transporting people and goods is by motor vehicles. Sometimes trucks and passenger buses do come to Sabule.

1.6.3 Language

Deg is the language of the Mo people. It belongs to the Gur languages of the Niger-Congo linguistic family and it is a member of the Grunshi sub-group (Dakubu, 1988). There exist two dialects in Deg. They are Longoro and Mangom. The key dialect is Longoro, spoken in most communities south of the Black Volta River, with the exception of some villages like Sabule and Chaara where Mangom is spoken. A large number of Dega speak Logoro Deg. Asante-twi has been adopted as the commercial or trade language and the main languages spoken in the study area are Deg, Asante-twi and Dagarti (Ntabaneejue, 2010).

1.6.4 Religion

There are three main religions in the area namely Christianity, Islam, and Traditional African Religion. The Christian community consists of Roman Catholics, the Seventh Day Adventists and the Presbyterians. Most of the Moslems are Dagarba. There is no mosque at Sabule.

1.6.5 Local Industries

In the past, weaving was an important occupation of men. Today, there are no weavers in Sabule. Pot making was also an important occupation of women in the past. Today, the only potter left in the Sabule village produces pots only on request, or occasionally. The reason indigenes give for the demise of these industries is that their children prefer formal education to traditional industrial training. Hence, they are unable to effectively pass on their knowledge to ensure the continuity of these industries.

'*Pito*', a local beer, is brewed by Dagarba women and mostly sold by them.

1.6.6 Architecture and Settlement Pattern

Sabuleland is referred to in the Mo language as *Dega Hare.* The Sabule area consists of the old and new settlement of the Mo, the old or abandoned Gonja settlement, the old Dagomba settlement and the old Kupre settlement. The Mo of Sabule have a nucleated settlement pattern and the Dagarba have a dispersed settlement on the Gonja Dimbia site. The area which was previously settled by the Dagomba and Kupre are currently farmlands. Mo houses are usually rectangular in shape and are made of wattle-and-duab or plastered swish. Houses are roofed with thatch. Very few houses have corrugated zinc roofs which become useful during the rainy season for collecting rain water. These houses are usually built in a compound and consist of bedrooms on one side, an adjacent open hearth kitchen on another, a bath house, and an open area in which fruit and shade trees are planted. Some rooms have in-built hearths and such rooms belong to women. The in-built hearths make it possible for women to continue cooking when it rains. Small vegetable and herbal gardens are found within the open area where small livestock are also kept (Amannor, 2012). The fig trees serve as shade for the people and the moringa and mangoes as food plants.

Disposal of rubbish is usually done behind every house in a pit. Individual refuse pits originate from pits from where the earth is scooped out for building wattle-and-daub walls or for

bricks. These pits are filled with the rubbish from the house and neighbors may be invited to dump their rubbish to fill up the pits. Some households also dig pits near the house specifically for waste disposal. Sometimes vegetables are cultivated on them when they are filled up (Amannor, 2012). Community latrines are usually not built close to the place inhabitants dwell.

Burial of dignitaries like the chief and clan heads are done in rooms but the ordinary member of society is buried at the community grave yard. Among the people who were killed to keep the chief company was his senior wife who considered it an honour to be sacrificed for the husband.

1.7 History and beliefs of the Mo People of Sabule.

Gonja Dimbia is one of the abandoned settlement sites in Sabule village of the Brong-Ahafo Region. The Sabule people are Mo, an ethnic group of people who are located both in the Northern and the Brong-Ahafo Regions of Ghana. Tradition maintains that the Mo people were very courageous in battle.

During the early 19th century, the people of Nkoranza and Abease, currently in the Brong-Ahafo Region but previously in the Ashanti Territory, sought assistance from the Deg or Mo people against the Asante over the payment of a attribute of 30 girls and young men to the Asantehene. Though the people of Nkoranza were defeated, they sent a message to appreciate the Mo people saying, 'Mo, Mo, Mo!' which means in Akan 'well done'. Over time they were referred to in Akan as 'Mofoo', that is, 'the people that did well'. Another etymology of Mo is derived from the Deg word for the Black Volta, Moh, where fishing was the primary occupation of neighboring Deg villages. The Deg women sold fish in Kintampo, Techiman and Wenchi markets and the Akan women referred to the Mo women as 'Mohfoo'. Finally, the word "Mo" is considered to have been derived from a Pantera prefix, *monoo.* The Pantera people, also known as the Nafaana, sold large pots made by the Deg. Through their interaction with traders from the south, the Nafaana women would

reply to a greeting saying, *'Mpange, Mo Maa'* meaning 'you are welcome, thank you Madam' which led to the southern traders referring to the pots as "Mo Kukuo" (meaning "Mo Pots"). Over time, it was realized that the makers of the pots were the Deg so the word, Mo, was used to relate to them and not the Nafaana or Pantera people (Ntabaneejue, 2010).

According to oral account, the Mo of Sabule is a group of people who migrated southwards from Tiwii, a Sissala village in the Upper West Region. A large group of people migrated from here. Some settled in Sabule, others in Sisowe, Mansie and Chaara, all small villages in the neighbourhood of Sabule. The leaders of these migrants to Sabule were a father and son, Judi and Ese. Their migration was prompted by a dispute between the elders of the Mo people and the Sisaala people over a dog's head which was a sacrificial offering to the earth god, Teo. The dog was the preferred animal because it was considered as a friend to man. As such, a sacrifice with the dog was synonymous to a sacrifice with a human being. The head and legs of the dog were key parts used in the sacrifice. They symbolized authority and leadership and were eaten only by the elders. The disagreement over the improper distribution of the animal parts led to the separation. The ancestors of the Mo people living in Sabule today settled near an ant hill. They referred to themselves as people 'under the ant hill' which in the Mo language was translated as *chawu buli*. The term *chawu buli* has over the years been corrupted to 'Sabule'. The Mo encountered the Gonja, Dagomba and the Kupre people, whom they fought and defeated. After defeating and driving away the people, they did not settle on their land. Rather they farmed on the settlements of the people they defeated. They however settled close to the area occupied by the Gonja, now known as Gonja Dimbia, 'that is, the abandoned settlement of the Gonja people'.

The Mo people were engaged in a number of ethnic wars. They rendered help to other people like the Asante to fight their battles. The association of the Mo people with Akan speaking peoples explains why certain Akan practices are found in Mo culture. Akan traits in Mo culture can be seen

in the adoption of some Twi names and titles, chieftaincy system, wearing of cloth, carrying of the chief in a palanquin, the use of golden ornaments, and the use of the *gbonjen*, a loud sounding drum. Some Twi names and titles like Danquah, Kyei and *Mmrantehene* can be found in Mo as Damkwa, Chewa and *Mmrantehene* respectively (Ntabaneejue, 2010). Among the Mo, chieftaincy or royal succession is patrilineal and property succession is matrilineal.

Two main clans make up the Mangom Mo people of Sabule. They are Chaara and Weleila clans. Each clan is responsible for a particular deity. The deities at Sabule are Teo (the earth god), Bofo and Jebuni. According to oral information collected at Sabule, there are two Jebunis: the 'Junior' Jebuni and the 'Senior' Jebuni. The priest of the Chaara clan is responsible for 'Junior' Jebuni and Bofo while the priest for the Weleila clan renders services to 'Senior' Jebuni.

The Yam festival is a common celebration for all Mo communities. It is preceded by a number of rituals. Teo has the unique right of approving the dates for the celebration. His approval is dramatic in the sense that it is noticed when the chicken offered as sacrifice lies backwards with its chest facing the sky. Before the celebration of the yam festival, it is required that some harvested new yams are brought to Teo and the other deities. The festival is usually celebrated from July to September. During the festival:

Members of the community ensure that they have harvested enough yams. At dawn the chief's drummer beats the drums to invoke the spirits of the ancestors to join in the celebration. The drum also wakes up the women to prepare mashed yam meal. Pouring of libation and sprinkling of mashed yam are performed by the chiefs and individual clan heads. Domestic animals like sheep, goats, chicken are sacrificed to the deities (Ntabaneejue, 2010; Personal communication, 2012 with Margretta Morgan).

Food and meat are distributed among friends during the festival. Strangers and the needy are not exempted. The young men in the village move from one house to the other to help in the pounding of the yam *fufu.* They also eat some of the food they help to pound. During this festive season family and communal disputes are resolved and discussed. Marriages are also contracted.

1.8 History of the Gonja

The oral traditions collected from the Mo people at Sabule indicate that Gonja Dimbia was once inhabited by the Gonja people. The site was abandoned after the ancestors of the current Mo people of Sabule conquered and drove the Gonja settlers away. A brief exposition of the history of the Gonja people is made for an understanding of the settlers of Gonja Dimbia. The Gonja state was founded by immigrant Malians. Gonja belongs to the Guang linguistic group. The Gonja state was founded in the 16th century (Boahen, 1966:56; Wilks, 1971:431). Goody (1954:7) describes Gonja as a conquest state mainly inhabited by Grusi or Mossi speaking peoples with Guang-speaking chiefs. The creation of the Gonja state is intimately related to the struggle between the Mali Empire and the Begho area for gold supplies (Wilks, 1971:431). Gonja tradition, recorded in Arabic probably at the beginning of the 18th century (see Wilks, 1966), claim that the founder of the Gonja kingdom, Nabaga, was a member of a punitive expedition sent by the King of Mali against Bighu (Begho) as a result of the fall in the consignments of gold reaching the Malian markets. The Dyula, who were active agents in the gold trade, appeared to have diverted the gold they purchased to the coast through Akan intermediaries. The Malian kings were therefore deprived of the opportunity of making good profits in the gold trade at a time when favourable conditions of exchange brought about by the growth in world demand for gold prevailed. In an attempt to divert the gold trade to Malian markets the Malian king sent an expedition to Bighu (Begho). Nabaga, choosing to remain in the prosperous Voltaic region, led his calvary north to attack and sack Buna, before crossing the Black Volta to establish his camp at Yagbum, east of the Black Volta and a few kilometers north-

east of Bole.

From Yagbum, Nabaga embarked on wars of expansion and extended the frontiers of his kingdom. He made wars against the autochthonous peoples. These wars of expansion are recorded in *Kitāb Ghunjā,* a mid-18th century document in Arabic. A section of the Dyula community at Bighu supported Nabaga to wage wars against the indigenous populations.

In the mid-16th century the Gonja also moved through the area occupied by the Bono and settled in the sparsely populated country along the valley of the southern Black Volta (Wilks, 1971:415). Yagbum became the capital of the Gonja rulers who were the descendants of Nabaga. It was during the reign of King Jakpa Lanta who reigned from 1622-3 to 1666-7 that the major expansion of Gonja from its original nucleus around Yagbum took place (Boahen, 1966:56; Wilks, 1971:431).

Jakpa Lanta extended his conquests as far east as the Oti River. He established a number of administrative divisions which he distributed among his sons. He also waged war on the Bono State with its capital at Bono Manso (Meyerowitz, 1950: 57, 1958: 119; Wilks, 1971: 426; Effah-Gyamfi, 1974:113-114). It is claimed that Jakpa Lanta invaded the Kintampo province of the Bono state (Meyerowitz, 1958:119), an area close to the Sabule area. The Bono king, Afena Diamono declared war against Jakpa Lanta but he was defeated and committed suicide. The expansionist policy of Jakpa Lanta (who abdicated in 1666-7 and died in 1672-3) brought Gonja into conflict with the southern Mossi kingdom of Nanumba. A large area previously belonging to Nanumba was incorporated into the eastern Gonja division of Kpembe. The Gonja also made incursions into the western frontier of Dagomba especially in the Daboya area where there were important salt deposits.

In latter part of the 17th century, the Dagomba relinguished to the Gonja some of their westernmost territories including Daboya. The court of the Dagomba King was transferred from Yendi Dabari near the White Volta into eastern Dagomba and ultimately to Yendi, some 32 kilometers away.

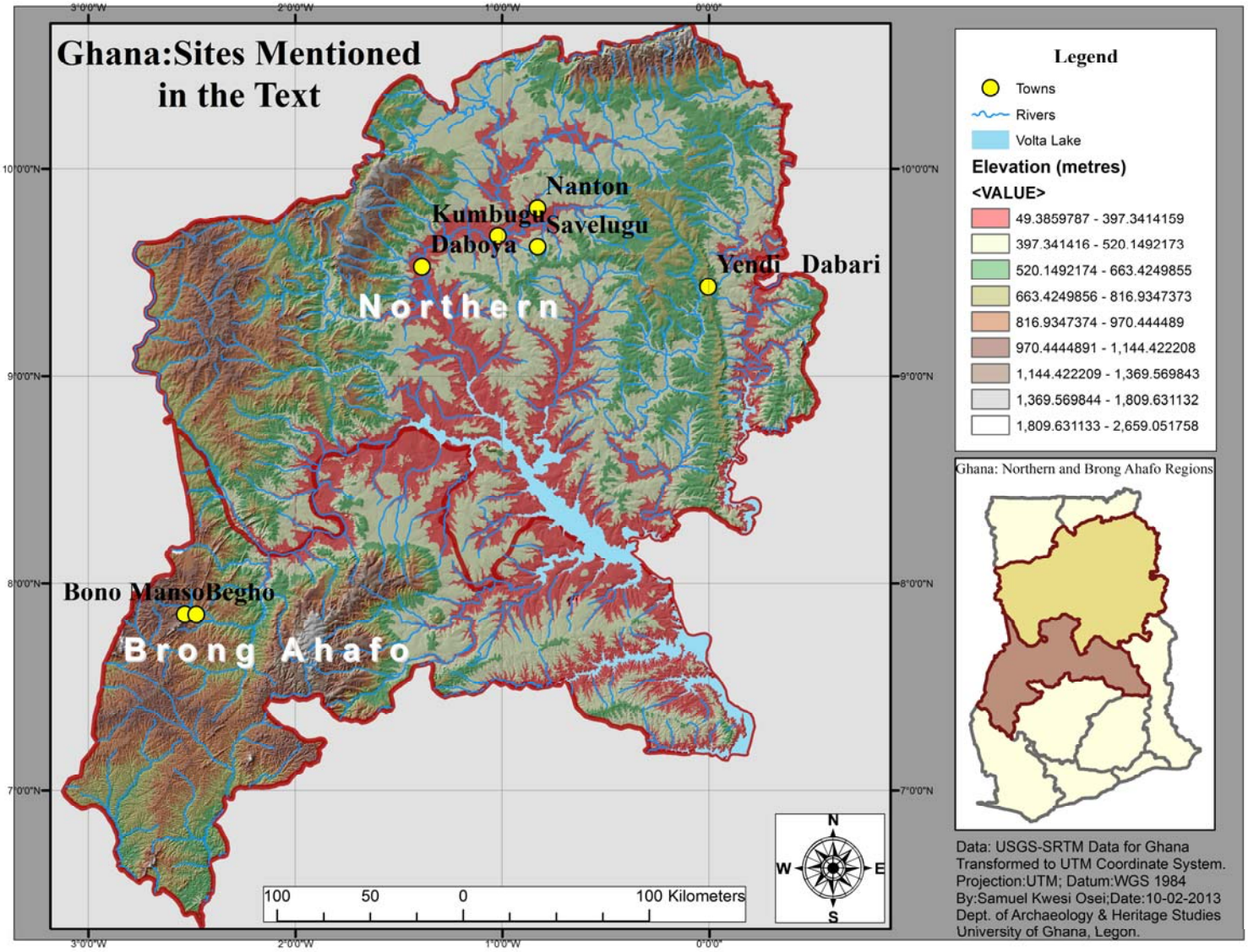
The last phases in the struggles between Dagomba and Gonja occurred early in the 18th century (Wilks, 1971:431, 450). Intermittent border warfare continued between the Dagomba and the Gonja until 1713 when a Gonja calvary invaded western Dagomba and captured the Dagomba divisions of Kumbugu, Nanton and Savelugu. Yendi Dabari, the earlier seat of the Dagomba court was completely abandoned. The Dagomba forces were reorganised and rallied by Andani Sigili who fought and defeated the Gonja. However, Gonja retained control of the former Dagomba territory west of the White Volta, including Daboya. By the close of the 18th century Gonja was firmly and directly under Asante control (Wilks, 1971:454).

The Gonja state was created in areas inhabited by indigenous peoples who have little in common with their overlords. The Nbanya, as the descendants of the Malian settlers at Yagbum are known, constituted a princely estate dispersed throughout the territorial divisions created by Jakpa Lanta (1622-3 to 1666-7) (Wilks, 1971:432). The subject peoples who were mainly indigenous peoples constituted a commoner estate known as the *nyamasi.* Members of the commoner estate retained their distinct identities and maintained ritual control over the land exercised through land-priests (Boahen, 1966:56-57; Wilks, 1971:432). The Gonja rulers by and large left the social and religious institutions of the conquered peoples under them intact. To this day, it is the priest and local chiefs who enrobe all the Divisional Chiefs except the Kpembewura or the Paramount chief of the Gonja.

It is because the religious and social institutions of Gonjaland were left intact that there is no distinct Gonja culture. Gonjaland is made up of several cultures of the component estates (Wilks, 1971:433).

Of intermediate status between the princely and commoner estates were the Muslims, the *Kramo*. There were probably some Dyula Muslims in the Gonja area before the foundation of the kingdom. With the foundation of the kingdom, Muslims became an important estate, only lower in importance to the princely estate. The dominant element in the Muslim estate were the Dyula, especially the Kemaghatay and the Jabaghatay who settled in Gonja under the patronage of the Nbanya at the beginning of the 17th century. This muslim element, because of their contact with other Muslim communities outside the Gonja kingdom, became prominent in the commercial life of the kingdom. It is thought that the development of the kola trade between the forest country to the south and Western Sudan must have been partly due to their initiative (Wilks, 1971:432).

Gonja controlled the north-eastern trade with the Upper Niger regions (Boahen, 1966:58). In the 19th century, there was a shift in trade from the older centres such as Buipe in western Gonja to the new trade centre at Salaga in the Kpembe division of Gonja. Salaga became the major entrepôt in the kola trade in West Africa and attracted settlers from Hausaland and Bornu who gradually dominated the older Dyula trading element in Gonjaland.



Map 2: Map of Some Sites Mentioned in Text.

The Gonja King and divisional chiefs recruited *Imams* and other Muslim functionaries (including those responsible for regulating Islamic festivals which had replaced earlier ones) from the Muslim estate. Strong Islamic features were to a certain extent superimposed on traditional institutions. Among the Islamic features can be cited the existence of *Imamates* and other specifically Muslim offices, the use of the Muslim calendar, the observance of major Islamic festivals and the widespread adoption of Muslim fashions of naming, circumcision and burial (Boahen, 1966:57).

The development of literacy was an important consequence of Muslim influence in Gonja. Arabic and Islamic books from North Africa and the Middle East were brought to Gonja and Muslim law was increasingly studied and taught. Gradually, a tradition of local scholarship was established as exemplified in the mid-18th century *Kitāb Ghunjā*, a publication (in Arabic) of Gonja traditions related to the early formative years of the Gonja kingdom and a chronicle of events of the first half of the 18th century. This scholarly work was written by a member of the Gonja Kamaghatay, al-Hājj Muhammad b. Mustaphā. Centres of learning grew up not only in Gonja but also in Dagomba on the model of older Western Sudanese tradition of Jenne and Timbuctu (Wilks, 1971:453).

In conclusion, it can be said that although oral traditions collected in Sabule are silent on when the Gonja established themselves in the area, documentary sources make it clear that it was from the mid-16th century when the Gonja settled in the Bono area and the sparsely populated country of the southern valley of the Black Volta that the Gonja probably had contact with the Sabule area. The wars of expansion waged by Jakpa Lanta, from 1622-3 to 1666-7 may have further strengthened the position and influence of the Gonja in the area of our research.

1.9 Organization of Work

A discussion of the research is made in five chapters. The first or introductory chapter is the background to the study area, some research questions, the aims and objectives of the study, an

explanation of the methods adopted for the study, and a description of the geographical setting of study area. The next chapter is a review of relevant literature to the study area. Chapter Three describes the methods employed for the study as well as research findings. Reconnaissance survey and excavations conducted during the research are discussed in this chapter. Chapter Four is a detailed analysis as well as the interpretation of the archaeological finds recovered from the excavations at Gonja Dimbia. The last chapter, Chapter Five summarizes and provides concluding remarks of the work done.

Chapter Two

Archaeology in the Brong-Ahafo Region

2.0 Introduction

This chapter reviews archaeological research in the Brong-Ahafo area that are of importance to the study area. The Brong-Ahafo Region is significant in the archaeology of Ghana. Many sites have been researched in this area. They include Begho (Posnansky, 1979, 1987; Stahl, 1994a), Kintampo (Carter and Flight, 1972; Stahl 1985a, 1985b), Bono Manso (Effah-Gyamfi, 1985), Bonoso and Ahwene Koko (Boachie-Ansah, 1986a), Jema (Davies, 1972), Asantekwa (Davies, 1972), Banda (Stahl, 2004), Bonoase and Mumute (Dombrowski, 1976). For the purpose of this study, attention will be drawn to researches on these sites.

2.1 Literature Review

Excavations by West African Trade Project personnel between 1970 and 1979 tested all residential quarters of Begho, as well as several neighbouring industrial sites in the area (Posnansky, 1979:26, 1987:18, Stahl, 1994:86). Under the Project, the Begho area was researched by Posnansky and Crossland. Posnansky mentions that at the Nyarko quarter of the Begho township pottery recovered showed differences from the previous quarters excavated and the dates disclosed an early second millennium A.D. occupation similar to the site of Nyama Gboo excavated by R.D. Mathewson north-east of Namasa in 1967. He identified a number of pottery goldweights at both the Nyarko and Kramo quarter. Some fragments of crucibles were found at the Dwinfour quarter which indicated that the crucibles bore traces of bronze (Posnansky, 1974-76:3).

It must be noted that some anthropological, historical and oral traditions have been collected in the Begho area by Ameyaw (1965), Goody (1965) and Wilks (1961) (Crossland

and Posnansky, 1978:80). Historical documents suggest that Begho developed in response to Mande traders moving south from centres on the middle Niger (i.e. Jenne) in the 13th or 14th century (Wilks, 1961; Goody, 1964). However, radiocarbon dates suggest that part of the site predates the trans-Saharan trade by two to three centuries (Stahl, 1994a:86). Local-ceramics from the Nyarko quarter are unique and included some micaceous and design-painted pottery. Some of the potsherds were extremely weathered and rims of some of the sherds were decorated with notches. The most predominant decoration is roulette, found on the lower part of the pots. Red-slipping is uncommon on the Nyarko pottery but common on the Brong, Kramo and Dwinfour pottery. Two radiocarbon dates from this area of the site (1120 ± 75 A.D. (N-21421) and 1045 ± 80 A.D. (N-2142) (Crossland, 1975, 1976:86) point to an initial occupation in the eighth century B.P. Other finds from the Nyarko site are bovid remains, ivory and spindle whorls. It appears that Mande traders probably came into contact with people already resident in the area who were exploiting locally available gold resources.

A variety of artisanal specialties were practiced at Begho such as iron working, ivory, smithing, textile and pottery technologies. Textile production is attested by numerous spindle whorls, many of which are painted and resemble spindle whorls from the important merchant town of Jenne Jeno on the Niger River (Posnansky, 1987:17-18; Stahl, 1994a:86). In Crossland's study on traditional textile industry in north-west Brong-Ahafo he concluded that spindle whorls found in the archaeological record confirmed that Begho had a long tradition of spinning and weaving. The excavations revealed three kinds of spindle whorls: spherical, spherical with flat top and carinated spindle whorls (Crossland, 1975:71). He mentions that the association of spindle-whorl production and the art of fine painting with a Mande-speaking group showed a possible earlier link with spinning, weaving, dyeing and painting. Some design-painted sherds were identified on the surface of settlement mounds north of

Begho at Namasa and Old Bima (Bravmann and Mathewson, 1970:139-141) (Crossland, 1975:71-72).

Although Begho's role in long distance trade dwindled, archaeological evidence suggests continuity in material culture of everyday life, including building style and ceramics. Local potting is today dominated by Mo-speaking peoples in the village of Bondakile, about 20 km from the site of Begho (Crossland 1975; Stahl, 1994a:89). Similarities between Mo pots and pots from the Brong quarter at Begho suggest that Mo people supplied utilitarian pottery to the occupants of Begho (Crossland and Posnansky, 1978; Crossland, 1989, Posnansky, 1976; Stahl, 1994a:89).

Crossland identified two main Phases from his research at Begho. They are the Nyarko Phase and the Begho Phase. The pottery from the Nyarko site, the earlier phase, was divided into five main wares: Nyarko Ware; Bono Ware; Micaceous Ware I, Micaceous Ware II; Silima Ware (Design-painted Ware); and Miscellaneous Ware. From the Begho sites of Kramo, Dwinfour D1 and D3, Brong B1 and B2 he identified six groups; Begho Ware; Bono Ware; Micaceous Ware I, Micaceous Ware II, Silima Ware (Design-painted Ware) and a Miscellaneous Ware.

Crossland's study showed a lack of considerable foreign influence on Begho pottery. Only a small percentage of the total sherd assemblage represented design-painted sherds which indicated that the foreign trading element was small and probably made up of only men who obtained their utility pottery from a common source as the other indigenes of the community. The classic survival of the painting tradition associated with Mande men at Kokua confirmed the assertion that the design-painting on ceramics was acquired as a result of the Mande contact (Crossland, 1975:72). Small numbers of design-painted pottery have been recovered from excavations at Begho quarters. The largest number ever recorded from

any single site west of New Buipe comes from the Nyarko site of which the total is 289. The design-painted pottery is known as Silima Ware. The ware has been defined by Richard York who excavated large numbers of this pottery from New Buipe (York 1973:120-132; Crossland, 1973a:42).

Sherds belonging to this ware are fairly large and well preserved. Linear designs in shapes varying from light to dark shades of red are found painted on the external and internal or sometimes both surfaces of sherds. A painting tradition survives in the village of Kokua located about 18 kms west of Begho where Dwera men (Muslims) specialize in the production of design-painted spindle whorls. The paint is prepared from red haemitite clays and a variety of white and yellow clays mixed in a tree gum medium (Crossland, 1973:43). Painted pottery is usually regarded as Mande influence from the north based upon similar painted pottery from Koumbi Saleh, the capital of the ancient Sudanic state in southern Mauritania (Davies, 1964; Goody, 1964; Wilks, 1961; Stahl, 1994:90).

The chronological date of the Begho urban complex spans between the 11th century and the 18th century (see Anquandah, n.d.:4). Some other dates have been acquired from imported 17th and 18th century European pottery and stoneware as well as a 17th century Chinese porcelain piece, many European glass beads and Indian cowrie shells. These material evidence suggests the peak period and final phase of Begho (Anquandah, n.d.:4). The presence of remains of domesticates such as cattle, sheep, goats, pigs, domestic fowls and non-domesticates such as antelope, wild fowl found in many residential sites indicates that the inhabitants of Begho hunted animals for food (Anquandah, n.d.:6).

Mr. Alexander Kuma, a workman at Begho was the first to have discovered Mumute (located about 700 metres south-west of the B-2 Begho site) in 1972 (Dombrowski, 1976:66). Total excavation was adopted in order to ascertain the extent of the site and village. The

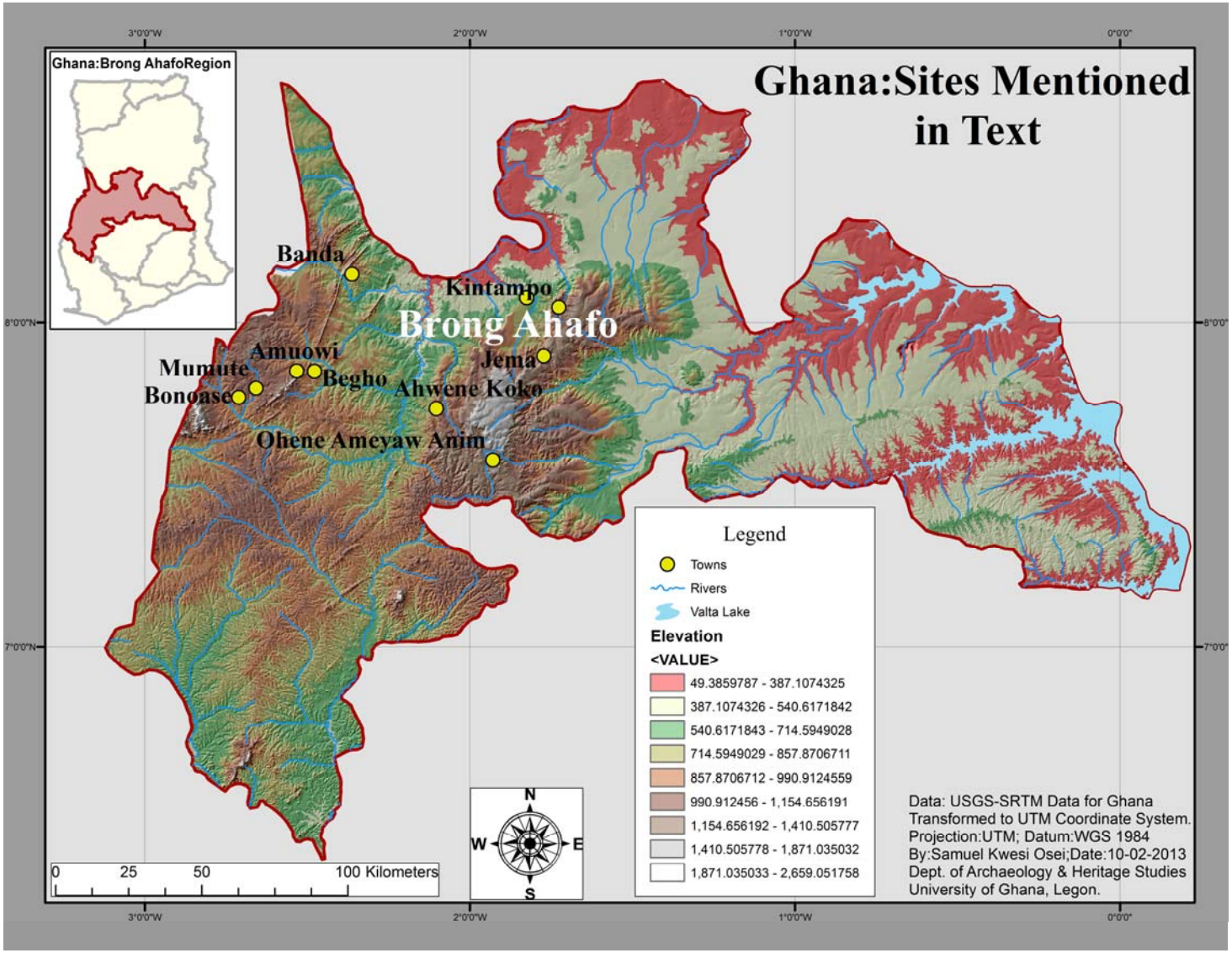
excavations revealed the remains of about three houses represented by *daga* or baked clay concentrations which were quite thick and continuous but irregular. Present on the site was a line laterite blocks whose purpose was uncertain. A large amount of pottery was recovered from the site. Other finds included clay figurines; 'rasps'; polished stone axes, probably used as agricultural tools; grooved stones and other ceramic objects, Davies described as 'ladles'. Vessel forms consisted of jars and bowls. The jars had moulded decoration. Some sherds were circular in shape and had drilled holes in the middle. Decorations were predominantly walking comb stamps possibly made with 'rasps' (Anquandah, 1965; Dombrowski, 1976:67), incisions and grooving. Dombrowski has suggested that the ground stone axes may have served as woodworking tools. Some sherds were slip decorated. The site produced several lugs and a jar ring base demonstrating the antiquity of the tradition in Ghana (Dombrowski, 1976:66). Several basal and upper grinding stones; quartz balls; hammerstones; figurines; a small quartz bead; haematite and stone bracelet or anklet were found at Mumute. The only faunal remains recovered were the teeth of cattle *Bos*. The most occurring of stone objects from Mumute were the ground stone axes.

Bonoase, 'the place under or near the mountain Bono' is located some few kilometers west of Hani, slightly west of Nserekeseso plain. Bonoase was first found by Mr. D. Calvocoressi in 1965 when he identified 'rasps' and other materials near the headwaters of Surkorkor stream (Dombrowski, 1976:68). There exist on the site four concentrations of lateritic rocks of which two are rectangular and one lineal but the fourth has no definite pattern. Three out of the four concentrations contained artifacts of the Kintampo industry. It has been suggested that the three laterite areas may be house bases which might represent a dwelling of two or more individuals (see Dombrowski, 1976:68). Most of the materials were surface finds. The pottery was weathered and it was difficult to identify decorations on the

sherds. A few of the sherds were decorated with grooves, walking-comb 'rasp' stamps. More 'rasps' were found at Bonoase than at Mumute. Similar materials as found at Mumute are grinding stones, haematite and daga or baked clay. Dombrowski (1976:70) has concluded that Bonoase may have existed a little earlier than Mumute and although covering a wider area, may have been occupied for a shorter period than Mumute.

In the Techiman area, the Geological Survey Department of the Gold Coast made isolated surface collections from sites near villages and towns such as Tanoboase, Tuobodom, Techiman, Manso and Asekye (Davies, 1972). Finds collected during the surveys were mostly potsherds, grinding stones, stone tools and flakes. In the 1960s Oliver Davies (1972:104) visited the Techiman area and found three brass bowls at Techiman. In 1965, James Anquandah (1965) undertook an archaeological survey of Techiman-Manso and Wechi area. He excavated a test pit at the Techiman Secondary School site and described the pottery from the excavation. Anquandah also visited other sites including Tanoboase, Manso and Kenten.

In the early 1970s, Effah-Gyamfi (1974) collected oral traditions and conducted archaeological reconnaissance and excavations at sites within the ancient Bono state. He excavated Amuowi I, Amuowi II and Bono Manso. The Amuowi I site where the ancestors of the Techiman people are said to have emerged from a sacred hole has been dated by radio-carbon date to A.D. 440 ± 70. The site produced pottery including sherds whose outer surface was treated with a glittering sheen of mica. The decorations on the pottery consisted of comb stamping, herring bone stamping and corn cob roulette-on-herringbone stamping. Also found at Amuowi I were thirteen pottery discs, two and eleven of which were recovered from the excavation and a bare rock respectively.



Map 3: Map of Some Sites Mentioned in Text .

The weights of ten of the ground potsherd discs neatly fall within the Islamic weight standard and it is possible that the pottery discs were used as gold weights.

At Amuowi II finds from the excavations included potsherds, animal bones, metal objects, cowry shells, locally manufactured smoking pipes, imported green bottle fragments, a piece of glazed tankard made in England and dated to 1820-25 and daub pieces.The pottery was decorated with single and multiple grooves, cord roulette, grooving-on-cord roulette, incisions, comb stamps, corn cob roulette and a combination of grooves and comb stamps, grooves and cord roulette and grooves and corn cob roulette. Vessel forms include those whose shapes were copied from brass vessels. A single radio-carbon date of A.D. 1610 ± 80 was obtained for the site.

The excavations at Bono Manso produced pottery, smoking pipe fragments, spindle whorls, beads, iron slag, bones, ivory objects, grindstones, pieces of daub and metal objects. The pottery consists of wares with broken pot fragments in the fabric, sherds with silvery flakes of muscovite in the inner fabric and Silima Ware characterized by motifs of horizontal lines of red paint at the outer lips of rim sherds. Decoration on pottery include cord roulette, corn cob roulette, single grooves, multiple grooves, incisions, comb stamps, cuneiform or triangular stamps, dot stamps, rim-lip notches, grooves-on-cord roulette. Vessels forms include jars with interior concave profiles and exterior convex profiles similar to some of the vessels from New Buipe and Gonja Dimbia. A single radio-carbon date of A.D. 1380 ± 75 was obtained for the site. A stoneware dated to post 1750 A.D. was also found at Bono Manso.

Between 1974 and 1977, Effah-Gyamfi (1985) embarked on further research at Bono Manso, the results of which have been published in the book, *An Archaeological Investigation into Early Akan Urbanism*. Among the finds were pottery, locally manufactured

smoking pipes, iron arrowheads and bracelets, knives, spoons, cuprous objects, copper needles, ivory bangles and bracelets, part of an ivory cup, glass and stone beads, upper and lower grindstones and rubbing stones and sharpeners. He identified eight wares namely Phase I Ware, characterized by a fine sandy texture with oxidized interior walls and mica inclusions; Phase II Ware which is similar to Phase I Ware in having a fine sandy texture and mica in the inner fabric and also characterized by quartz and laterite as the major constituents of the fabric; Phase III Ware, with a fairly high firing temperature above 800ºC and characterized by quartz fragments in the fabric and a conspicuous speckle of silvery flakes of muscovite which glitter in the sun; BeghoWare ; Silima (Design-Painted Ware); Mica-Coated (Micaceous) Ware characterized by mica coating on the outer surface of sherds; Ahwene Koko Ware and Miscellanous sherds which do not fall into any distinctive group (Effah-Gyamfi, 1985:101-176).

Phases I, II and III have been assigned dates of 1250-1450 A.D., 1450-1600 A.D. and 1600-1750 A.D. respectively. The foundation of the capital of the Bono state, according to Effah-Gyamfi (1985:209-210), would seem to have been between the late 13th and early 14th century A.D. Although interregional trade took place during the period the settlememt was a rural type which seemed to have witnessed a simple socio-political organization. Between the late 15th and early 16th centuries A.D., the settlement seemed to have increased its contacts with other neighbouring towns such as Ahwene Koko. It was during this period that economic specialization in the form of iron, textile and copper/brass industries took place. Between the mid-16th and early 17th centuries, the settlement had reached its peak and it was marked by a compact, nucleated plan which, from the available evidence reflects a general rise in trade and wealth and most probably of a greater political centralization than in the previous periods. The town seemed to have witnessed a decline in size and population from

about the late 17th century A.D. until the early 18th century when it was invaded by Asante. However, the site was not abandoned until about the mid-18th century.

In November, 2005 Boachie-Ansah (2005:41) undertook a reconnaissance survey of Nsamankwa Forest, a sacred grove in the Techiman Metropolis. The Techiman Traditional Council and the Techiman Metropolitan Assembly have plans to build a cultural village on the site. Traditional history of Techiman claims that it was the settlement of the three ancestors of the Fante, Obunumankoma, Odapagya and Osono who migrated from the Techiman area to Mankesim during a succession dispute in the Bono state. A two-day reconnaissance survey undertaken on the site revealed no evidence of ancient occupation. Only remnants of discarded pottery from the surrounding houses in the vicinity of the grove were found.

In January, 2006 Boachie-Ansah with the assistance of forty-five final year undergraduate students of the Department of Archaeology, University of Ghana, sank seven test pits at the Nsamankwa Forest site. No cultural materials were recovered. A portion of the Amanfrom Grove known as Ohene Ameyaw Anim where Techiman traditions claim that Kwakye Ameyaw I disappeared into the ground during the Asante-Bono war of 1722/3 was also excavated. The site, which is near the Techiman Secondary School, produced locally-manufactured pottery including a micaceous ware, Begho Ware and a ware with a concrete-like fabric similar to Gonja Dimbia Ware I. Other finds from the site include locally-manufactured pipes, a fragment of a salt glazed stoneware painted in cobalt blue which continued to be manufantured into the mid-18th century, a spindle whorl, pieces of iron slag, lower and upper grinding stones, a fragment of a mirror, a lady's sandal (probably left at the site by a present-day farmer), a cuprous finger ring and needle, shells of a land tortoise, bones of bovids including a goat, cattle, moles, a squirrel and a bird.

On the basis of the smoking pipes as well as the Rhenish stoneware found in the excavations, the excavator has concluded that the site began in the 17th and survived into the 18th century (Boachie-Ansah, 1985:83).

The Wenchi people claim that their ancestors came out of a hole in the ground at Bonoso near the source of the Ayasu stream, about 14 km south of Wenchi metropolis. Wenchi traditions also claim that the ancestors of the Wenchi people first settled at Bonoso before moving to Ahwene Koko which later became the capital of the state. Paul Ozanne (1965:22, 1966:8) visited Bonoso and Ahwene Koko in 1964. No finds of archaeological significance were collected from Bonoso. A few potsherds and smoking pipes were collected by Ozanne at Ahwene Koko. Ozanne also visited the Methodist Mission house where Kintampo Culture materials had been previously found. Oliver Davies (1972) made an archaeological survey of the country and collected sherds and 'rasps' from the town of Wenchi and the village of Nkonsia, about 6 km south of Wenchi. Davies described the site as a 'Kintampo-neolithic site, mixed with 17th century material'. Also identified were few quartz flakes and tools, end-scrapers, chisels, yellow chert, weathered rolled rims, 17th century sherds, pieces of iron-slag, stone hoe, thin polished piece of sandstone bracelet, a stone disc and a stone cylinder.

In 1975, Boachie-Ansah (1978, 1986b) conducted excavations at Bonoso and Ahwene Koko and reconnaissance survey at Twemma, Adwadie and Kaam, all in the Wenchi Traditional Area. The research also involved the collection of oral traditions on origins, settlements and chronology of the Wenchi State, as well as on food items, trade, and local industries such as metal working, weaving and potting. The aim of the research was to use archaeology to throw light on the history of the ancient Wenchi State. To this end, excavations were conducted in 1975 at Bonoso (7º 37'N, 2º 05 'W) and Ahwene Koko (7º 29'N, 2º 12'W),

two ancient settlements of the indigenous inhabitants of the Wenchi Traditional Area (Boachie-Ansah, 1976: 27-31, 1985: 41-72, 1986a, 1986b: 53-70).

The excavations at Bonoso produced pottery, iron slag, animal bones and grinding stones. Two radio-carbon dates of AD 710 ± 95 and AD 980 ± 85 were obtained for Bonoso. These dates appear to be significant. Goody (1965:1) has interpreted the tradition of "coming out of a hole" to mean claims of "autochthonous status." The two early dates for Bonoso, together with the fact that smoking pipes and European imported goods were completely absent in the excavations seemed to support the oral traditional claim that Bonoso was occupied in pre-Atlantic contact period and that the Wenchi people have been settled in their area for quite a long time. However, the excavator thought it was unwise to place much reliance on two dates for which there is always the chance that they are aberrant. Besides, the two dates were inverted in terms of their stratigraphic positions, and therefore needed to be clarified by more dates (see Boachie-Ansah, 2000a:29). This prompted him to conduct further excavations at Bonoso in August 1999 (Boachie-Ansah, 2000a: 27-49; 2000b:1-54). Unfortunately, the charcoal found in the excavation was not sufficient to make up samples for radio-carbon testing.

Finds from the excavations at Bonoso included pottery (which was classified into three main wares namely Bonoso Ware I, Bonoso Ware II and Bonoso Ware III), a few iron tools, iron slag and animal bones. Bonoso Ware III has a hard concrete-like fabric similar to one of the wares from Gonja Dimbia. In January 2010, Boachie-Ansah (personal communication, May 2013) excavated Bonoso. The excavations produced pottery similar to those found in the 1975 excavations. A few painted sherds were also found in the excavations. Two calibrated 2-sigma dates of 680-776 A.D. (KIA42817) and 663-774 A.D. (KIA42818) were obtained for

the site. The early dates for the site seem to indicate an autochthonous origin of the Wenchi people. In January 2013, Boachie-Ansah and Abass Iddrisu also conducted excavations at Bonoso. Finds from the excavations consisted of iron slag and pottery similar to that found in the 2011 excavations.

The excavations at Ahwene Koko also produced pottery (including Begho Ware probably traded from the Begho area), spindle whorls, locally manufactured smoking pipes, snail shells, grindstones, a perforated stone, a polished stone axe, cuprous objects and a glass bead. Among the pottery were small bowls which elders claimed were used for spinning cotton. A 1629 Dutch map (see Daaku and van Dantzig, 1966:14-15) mentioned Wenchi as a producer of gold and cloth. The glass bead, cuprous objects, spindle whorls and 'spinning' bowls all testify to trading activities and contact with the outside world. A single radiocarbon date of 1585 ± 80 A.D. (N-2345) was obtained for the site. The pottery from Ahwene Koko was similar to pottery from Bonoso in terms of paste characteristics, decoration and vessel form, an indication that the inhabitants of the two sites had a common ancestry as claimed by oral traditions.

In March 2010, another excavation was conducted at Ahwene Koko. Finds consisted of pottery, locally manufactured smoking pipes, grindstones, cuprous objects consisting of a ring, a fragment of a container, probably a *forowa* (brass containers for storing cosmetics, lotions, medicinal powders, and valuables such as gold dust, beads and cowry shells), what appears to be the handle of a cuprous receptacle, a fragment of a cuprous bracelet, iron slag, a Venetian glass bead of 16th-19th century date and a clay spindle whorl. Begho Ware sherds were found among the pottery. Also found in the excavations were small hemispherical neckless open bowls claimed to have been used for spinning cotton. It is noteworthy that a

smoking pipe was found at the very bottom of the excavated pit. This suggests that the site began in the era of the introduction of tobacco and cannot therefore predate the 17th century. While the smoking pipes and their distribution in the excavated trench suggest a 17th century or later date, the two charcoal samples submitted for age determination, all recovered from a depth of 45 cm, have produced earlier dates than the 17th century or later date inferred from the smoking pipes.The 2-sigma carbon dates are 771-887 A.D. (KIA42822) and 1411-1461 A.D. (KIA42823). The dates provided by the smoking pipes and the glass bead as well as the discrepancy between the two carbon dates obtained from the same level are sufficient for rejecting the carbon dates. The carbon dates do not date the context of the site and may have been derived from older woods which predate the site. As the excavator has commented (Boachie-Ansah, 2013), this is supported by the fact that *forowa* are recent art works that were produced from around 1780 until about 1930 (Ross, 1983:54).

No artifacts were found at Adwadie (7º 32' N 2º 5' W), during the reconnaissance undertaken in 1975 (see Boachie-Ansah, 1978:120-121, 1986a:66). A few potsherds and a piece of European tobacco pipe were found at Twemma (7º 42' N 2º 07' W) in 1975 (Boachie-Ansah, 1978:121-122, 299-305, 1986a:66-67, 207-212). Among the sherds from Twemma were Begho Ware sherds, micaceous sherds and sherds with a hard concrete-like fabric similar to some of the pottery from Gonja Dimbia. Sherds similar to those from Ahwene Koko were also found. Finds recovered in 1975 at Kaam (7º 44' N 2º 07' W) include sherds of Begho Ware, micaceous sherds similar to those from Bonoso and Ahwene Koko, sherds with a hard concrete-like fabric similar to one of the Gonja Dimbia wares and a European briar smoking pipe with the inscription “Germany” at the base.

In January 2011, excavations were conducted by Boachie-Ansah at Kaam. Pottery similar to those collected during the 1975 reconnaissance survey as well as sherds with concrete-like fabric similar to Gonja Dimbia Ware I were found in the excavations. Also found were several smoking pipes with quatrefoil bases. Two calibrated 2-sigma dates of 1395-1468 A.D. (KIA42820) and 1387-1428 A.D. (KIA42821) were obtained for the site (personal communication with J. Boachie-Ansah, May 2013).

From 1983 to 2001 Ann Stahl (1994b:181-203, 2001) worked in the Banda area where she excavated two sites namely Kuulo Kataa and Makala Kataa. Kuulo Kataa is dated by radiocarbon to the early 14th to mid-17th century (Stahl, 2001:115). Makala Kataa has been divided into two phases namely Early Makala and Late Makala. Early Makala is dated to ca. 1780-1820 (Stahl, 1999; 2004:54) and Late Makala began about 1896 and was abandoned about twenty years later (Stahl, 2004:57-58). Altogether, three phases were identified. These are Kuulo Phase, Early Makala (Makala Phase 2) and Late Makala (Makala Phase 1).

The period of the trans-Saharan trade is expressed in the Kuulo Phase at Kuulo Kataa, a site belonging to the minority Kuulo (Dumpo) people who presently live in Dumpofie village. An early settlement at Kuulo Kataa (ca. 1300-1650) is contemporary with Begho. Excavations at Kuulo Kataa have yielded a remarkable density of pottery and iron slag. Although there is no direct evidence for the manufacture of pottery at the site, the remarkable volume of discarded pottery has made Ann Stahl (2004:55) to suggest that the villagers at Kuulo Kataa produced iron and pottery to supply a regional trade that may have linked the site to neighbouring entrepôts like Begho or Old Bima. Faunal remains recovered suggest the practice of regional trade in wild animal products. The archaeological evidence of copper alloys, gold weight, imported glass beads and some marine shells attest to the fact that Kuulo

Kataa was also involved in interregional trade. As Stahl (2004:55) has commented, 'these goods attest connections with the north (copper) and south (gold) and are consistent with documentary sources that stress the region's importance in the trans-Saharan trade' (Wilks, 1982a). Atlantic connections are also indicated by the presence of smoking pipes (locally made imitations of European forms) which probably also represent the diffusion of tobacco. Stahl (2004:56) has also suggested that maize phytoliths found in 16th- to 17th- century contexts suggest experimentation with other New World crops as well.

The 17th- and early 18th- century attacks on Begho, first from the north (Niger kingdoms) then the south (Asante) in a struggle to command the northern trade (Wilks, 1982b) seem to have affected the Banda area. This is because the Kuulo Phase ended in the second half of the 17thcentury. It appears therefore the site was abandoned as a result of these wars.

At Early Makala, excavations revealed that by the late-18th to early-19th centuries, the people of Banda were living in relatively stable village settlements (Stahl, 1999; 2004:56). Daily life regained a degree of normalcy after Banda's submission to Asante rule in 1773-1774 (Yarak, 1979). There was a clear indication of vibrant local exchange expressed by the pottery assemblage. Neutron activation conducted on the pottery indicates that the inhabitants acquired jars from the west of Banda hills and bowls from the east of Banda hills (see Stahl, 2004:56). Maize was by now established in the area and supplemented indigenous domesticated crops. Evidence for the Atlantic trade during the period is limited. The material expressions of this trade include a small number of gun flints and imported glass beads. The Early Makala Phase appears to have ended shortly after conflicts with the neighbouring Gyaman state (1817-1818).

The gap separating the occupations at Early and Late Makala may be as great as 70

years. Late Makala was not settled until the end of the 19th century, probably after 1896 when British troops were stationed in Banda. Smoking had become a frequent practice by the turn of the 19th century. This was because locally made smoking pipes had become common. The accessibility of European goods such as ball clay pipes, bottle glass, and glass beads indicates an increase in petty trading that connected inhabitants of Late Makala to intercontinental trade. At this Phase (ca. 1890-1920), archaeological evidence suggests that the inhabitants of Late Makala built homes which were not permanent, intending to replace them with more substantial dwellings with time (Stahl, 2004:58-59). Some of the houses of Late Makala were probably pole-and-daga structures of types built on farms today and sometimes raised as rainy-season kitchens. In 1896 the Banda peoples moved to Bui on the Black Volta River as a result of harassment by the troops of Samori who waged a destructive campaign in western Gonja, north of Banda (Stahl, 2004:54). Late Makala houses were probably built rapidly using less material and labour than the coursed construction that characterized Kuulo Kataa and Early Makala. The villagers may have built these structures rapidly when they left Bui to reoccupy their former village sites. As Stahl (2004:57) has suggested these less permanent houses were built because the villagers 'may have been reluctant to invest in more durable structures until they judged whether the peace imposed by the British was a lasting one'.

In 1916, A. E. Kiston of the Geological Survey of the Gold Coast visited Kintampo and during a geological survey collected several artifacts including pottery, sandstone axes, polished stone axes, grindstones, stone chisels, scrapers and hammars, 'rasps' or 'cigars' and grooved stones (Davies 1972:60-61). In 1935, N. R. Junner also visited Kintampo and reported of a rockshelter on the way to Yabraso, near the Kintampo resthouse (see Davies, 1972:61). This rockshelter or cave was located by Oliver Davies (1972:60) who found several

hollows with many quartz flakes made from small pebbles. Also found were quartzite flakes and many 'cigars'.

Also in the Kintampo area, Davies (1972:12-13) collected several quartz and quartzite microliths, flakes, cores and blades. Junner also found what Davies (1972:13) has described as 'a very thick piriform handaxe of quartzite' in 1935 at Asantekwa. In the same area, Davies (1972:13) found stone tools in the form of polished stone axes, scrapers, chisels, blades, microliths, iron slag and pottery.

The study of sites in the Kintampo area has in most cases been focused on sedentism and origin of food production as well as a classification of archaeological finds into 'Buobini' or Kintampo Tradition (see Stahl, 1985b; Carter and Flight, 1972; Flight, 1967). Philip Rahtz of the University of Birmingham in 1966 was the first to report on the Kintampo K6 site. Flight excavated three rockshelters in the Kintampo area. The rockshelters are K1 (Bwigheli) which means in Mo dialect, 'the high rock', K6 (Onyame Bekyere) meaning 'God will provide' in the Akan dialect and K8 (Buobini) meaning 'the old hole', also in the Mo dialect. He came up with the term, Buobini culture which he named after K8 rockshelter where it was best represented. Subsequently, it was re-named the 'Punpun phase' (Rahtz and Flight, 1974, Watson, 2008:140). Cultural materials associated with this culture are lithics and ceramics. The Buobini culture was also represented in K1 and K6. At about 1600BC the Buobini culture came to an end in K1 rockshelter (Flight, 1967:72-73). Flight distinguished another culture, Stone Axe culture at K6 where he found two small axe fragments. Heavy rolled rims and plain incurved rims with a zone of oblique comb-impressed motif on the shoulder were found. Also present were polished greenstone axe blades, sandstone rasps and some rubbers or

grindstones. By radiocarbon dating K1 rockshelter provided a date that spanned roughly between 1600-1200 B.C. (Flight, 1967:74-75).

The only sites with an earlier ceramic occupation underlying Kintampo complex layers are K1 and K6 rockshelters. Stahl (1994a) mentions that the overlap in radiocarbon dates for Punpun and Kintampo levels suggests a rapid transition between the two. Flight (1976:220) however, stresses discontinuities between Punpun and Kintampo ceramics and suggests that the rapid transition must reflect population replacement (Stahl, 1994a:78). Gavua (1985:111) has argued that the Punpun Tradition cannot be associated with the Kintampo Culture since the available information does not demonstrate a clear relationship between the Kintampo culture and the preceeding Punpun Tradition.

Some species of *Bos* and some two faunal remains of an immature guinea fowl were identified at both sites by Carter and Flight (1972). These could however not be distinguished as belonging to wild or domestic species (Stahl, 1985a: 210,215; 1994a:76). The only potential plant domesticate identified at K6 was *Vigna unguiculata* (cowpea or black-eyed pea). There is the likelihood that these seeds represent a primitive, and not domesticated form of *Vigna* (Stahl, 1994a:76). The remains of pearl millet (*Pennisetum glaucum*) dating to 3460 ± 200 and 2960 ± 370 B.P. have been recovered at the archaeological site of Birimi, northern Ghana, associated with the Kintampo Cultural complex. This finding represents the earliest known occurrence of pearl millet in sub-Saharan Africa (D'Andrea, Klee and Casey, 2001). This may indicate that evidence for plant cultivation may be found at Kintampo culture sites. Faunal remains of some wild species like the duicker (*Cehalophus* sp.), and royal antelope (*Neotragus)* were found at Kintampo levels at K6. Flight (1976:217; Stahl, 1994a:76) states that there was less giant snail shell (*Achatina achatina*) in the Kintampo layers compared to the underlying Punpun layers. Stahl (1985b: 143-144, 1994a:76) mentions that most of these

animal species found in the Kintampo Culture Levels are attracted to cleared areas and it may reflect a shift in predation toward garden hunting or exploitation of animals attracted to human settlements. Numerous small shell beads were also recovered from K6 (Flight, 1976; Stahl, 1985b:138, 1994a:267). Some of the beads from K6 are made up of marine shell which indicates trade with coastal areas (Stahl, 1985b:138, 1994a:77). The next chaper is about the reconnaissance survey and excavations conducted at Gonja Dimbia

Chapter Three

Archaeological Survey and Excavation of Gonja Dimbia

3.0 Introduction

This chapter concerns itself with the methods adopted for the research at Gonja Dimbia. It describes the site, gives an account of the reconnaissance survey undertaken during the research andprovides a description ofthe method of excavation. It also describes the stratigraphy of the excavated units.

3.1 Reconnaissance Survey

Reconnaissance survey was conducted between June andAugust, 2012 with a team of two researchers and three field assistants. It involved a number of transect walks on the abandoned site in Sabule currently referred to as Gonja Dimbia.

During the reconnaissance, two pits dug by Professor Kojo Amannor and his team researching on anthropogenic dark soil were found. The pits contained potsherds and gave us the impression of cultural materials we were likely to encounter during excavation. The pits dug by Professor Kojo Amannor are found at two locations namely 08˚ 03' 383" N, 001˚55.306" W and 08˚03' 381" N, 001˚55.234" W. The vegetation in this area consists partly of trees which predominantly are medicinal and nutritional, and partly of grasses which grow up to a height of between 0.9 and 1.20 metres. Some of the trees are used as firewood and are of great significance to the community. Trees on the site include the baobab *(Adansonia digitata), dawadawa (Parkia biglobosa),* silkcotton *(Cochlospermum vitifolium),* moringa *(Moringa oleifera),* shea (*Vitellaria paradoxa*) and teak *(Tectona grandis).* The *dawadawa (Parkia biglobosa)* is the most common plant on the site. The baobab (*Adansonia digitata*) is found at the north-west boundary of the site. To the south of the new Sabule settlement are a

grove of nim trees (*Azadirachta indica*) and a teak *(Tectona grandis)* plantation.

A site-mapping exercise undertaken from 8th to 11th February, 2013 and involving the use of GPS, measuring tapes, total station, pins, tags and stadia rod showed that the site which measures about 350 x 470 metres is characterized by eight mounds some of which measure over 50 metres long and about 1.65 metres high (see Map 2).

Human skeletal remains were found at N 08˚03'435", W001˚55 ' 232". Presently, about three houses belonging to a Dagarti family have been built on one of the mounds located in the middle of the site. The houses are located at 8˚ 3 '60.4 " N and 1˚ 55 ' 14.0 " W. It is quite obvious that the Dagaaba section of the present-day Sabule village is built on the ruins of Gonja Dimbia. The entire Gonja Dimbia is scattered with potsherds and the house walls of the Dagaaba of Sabule contain several potsherds, an indication that the houses were built on the ruins of the ancient site (see Figure 3). Cultural surface materials collected during this survey consisted of a human tooth and several potsherds. The settlement of the ancestors of the Mo people, now a sacred grove (N 8˚ 3 ' 12.6 " W 1˚ 55 ' 19.6 ") is located to the south-west of the present-day Sabule village. The groove is about 500 x 400 metres in size and it is also positioned 406 metres south-south-west of the trench excavated by the author.

3.2 The Excavations

The area excavated is an abandoned settlement of the Gonja people (see Figure 4). The excavations were conducted at the site from 6th to 14th October, 2012 by a team of five made up of the researcher, a technician, and three assistants from Sabule village. A Test Pit measuring 1 x 1 metre and a Trench measuring 2 x 4 metres were excavated. The Test Pit and the Trench were positioned 24 metres and 27 metres respectively north of one of the pits dug by Professor Amannor (see Map 2). The Trench was dug at a location of 8˚3' 231" N, 1˚55'14.8" W and at an elevation of between 875 and 900 metres above sea level. The Test

Pit was also dug on the slope of an elevation of 875 metres (see Map 3). The Test Pit attained a depth of 150 cm while the Trench attained a depth of 166 cm.

3.2.1 Method of Excavation

A Test Pit measuring 1 x 1 metre and a Trench measuring 2 x 4 metres were vertically excavated in order to acquire stratigraphic and chronological information as well as to obtain cultural materials and faunal remains (see Fagan and DeCorse, 2005). The stratigraphy of the excavated units was identified by natural layers. Tools used in the excavation included shovels, hand trowels, hand brushes, line level, measuring tapes, ranging poles and sieves. Cultural materials that were retrieved were bagged according to their respective levels.

The main challenge encountered during the research was that the excavations were interrupted by rains (see Figure 5). This made it quite difficult to distinguish between the various soil layers as the method adopted for excavation was by natural stratigraphy.

3.3 Stratigraphy

Three natural stratigraphic layers were identified in the Test Pit. The first layer was characterized by a black humus soil with rootlets, bones and very little pottery. This layer measured 40 cm thick on the average. The presence of cultural materials in the first layer of black humus soil seem to support the view of the soil scientist headed by Professor Kojo Amannor that the dark earth in the Sabule area are anthropogenic in nature. The first layer was underlain by the second stratigraphic layer of brown loose soil which ended at a depth of 80 cm. This layer contained pieces of bones and pottery and produced the largest quantity of finds. The third layer consisted of a loose reddish soil of about 30 cm thick with very little pottery. A compact red, gravelly sterile soil was reached at a depth of 150 cm (see Figure 6 and 7).

Four natural stratigraphic levels were also identified in the Trench. The first layer was

characterized by a black, compact and moist humus soil with rootlets, bones, daub, charcoal and pottery. Measuring about 40 cm at its thickest section, the first layer was underlain by the second layer which consisted of a brown loose soil with charcoal, ash, potsherds, an iron bracelet, a metal arrowhead, iron slag, bones, shells, grindstones and a piece of ivory. The second layer which contained more finds than any other layer measured about 80 cm thick at its thickest section and was underlain by the third layer which consisted of a thin black soil of 5 cm thick. This layer, completely devoid of finds was reached at an average depth of 120 cm. Underlying this thin third layer at a depth of 125cm was the fourth layer of loose reddish soil of about 40 cm thick. Finds from the fourth layer consisted of charcoal, bones, iron slag, daub and pottery. The sterile layer of red soil with gravels was reached at a depth of 160 cm (see Figure 8 and 9).

Thirteen charcoal samples were collected at depths of 48, 85, 100, 110, 126, 132, 140, 145, and150 cm below the surface of the Trench. No charcoal sample was collected from the Test Pit because the charcoal from the pit was too close to the surface. Five of the samples were prepared and sent for dating at the Scottish Universities Environmental Research (SUERC) Radiocarbon Laboratory in the United Kingdom.

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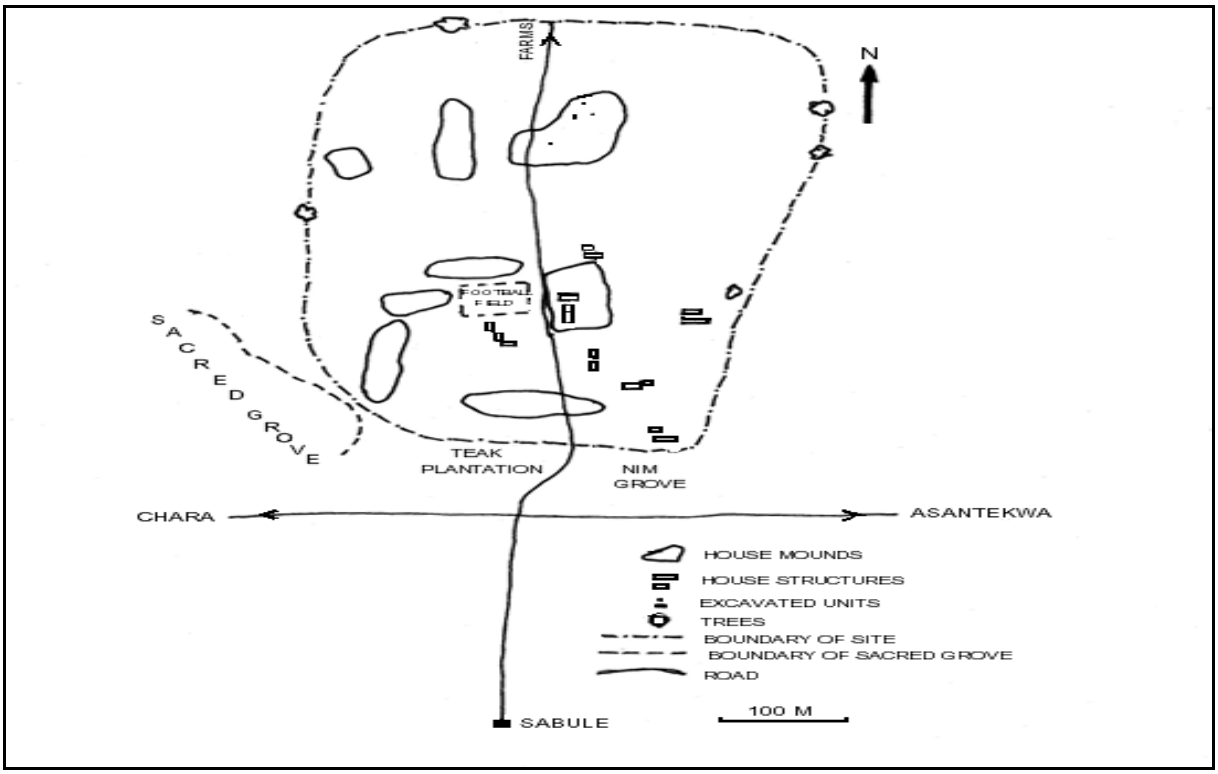
Figure 3. Gonja Dimbia: Housewall with pottery.

Figure 4: Excavation of Trench.

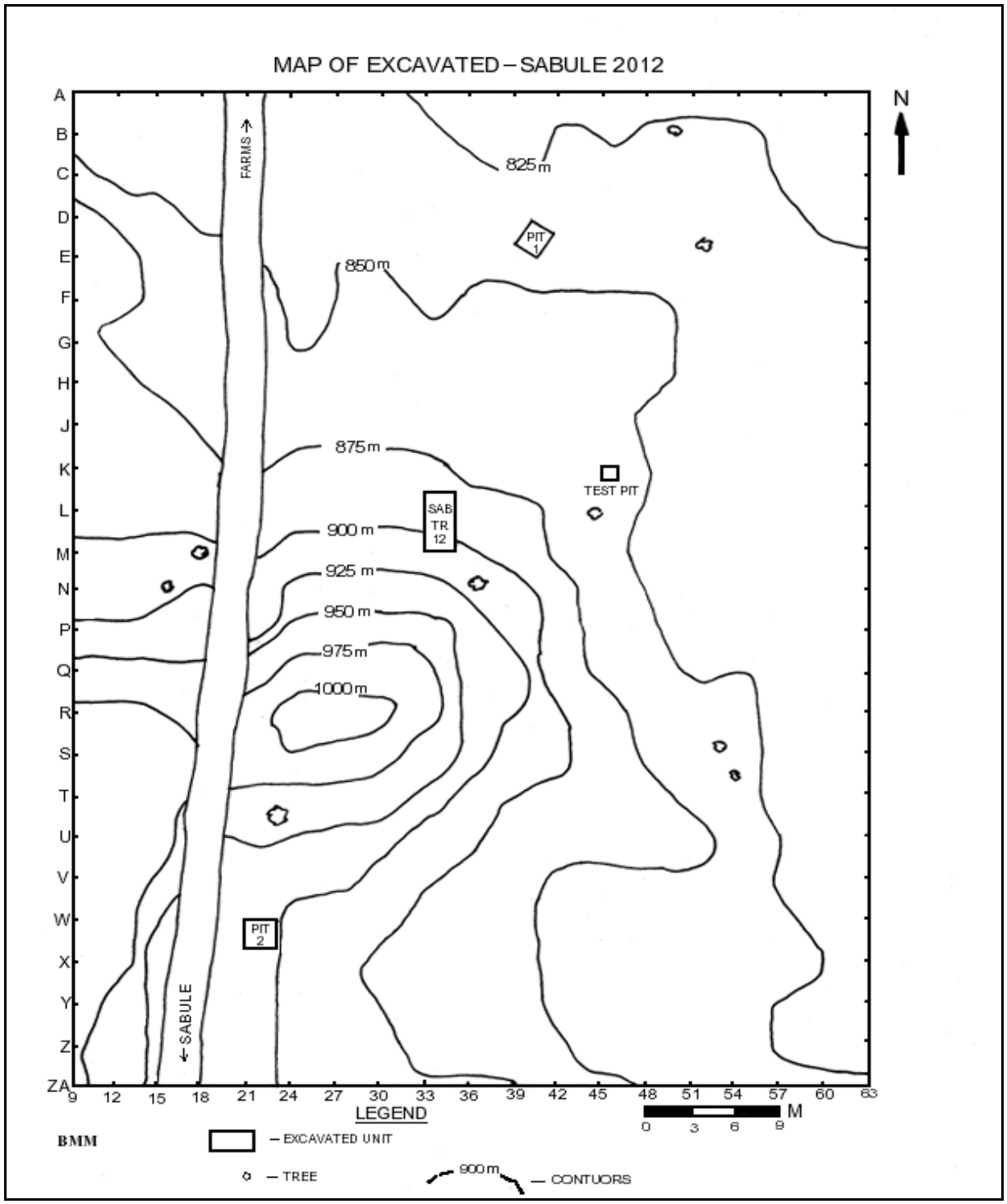
Figure 5: Trench Filled With Rain Water.

3.4 Conclusion

The stratigraphy has shown that more cultural materials were retrieved from the second layer of the Trench and Test Pit. The predominant finds consist of pottery. The analysis of the finds will be dealt with in the next chapter.



Map 4: Planimetric map of Gonja Dimbia



Map 5: Topographic Map of Gonja Dimbia.

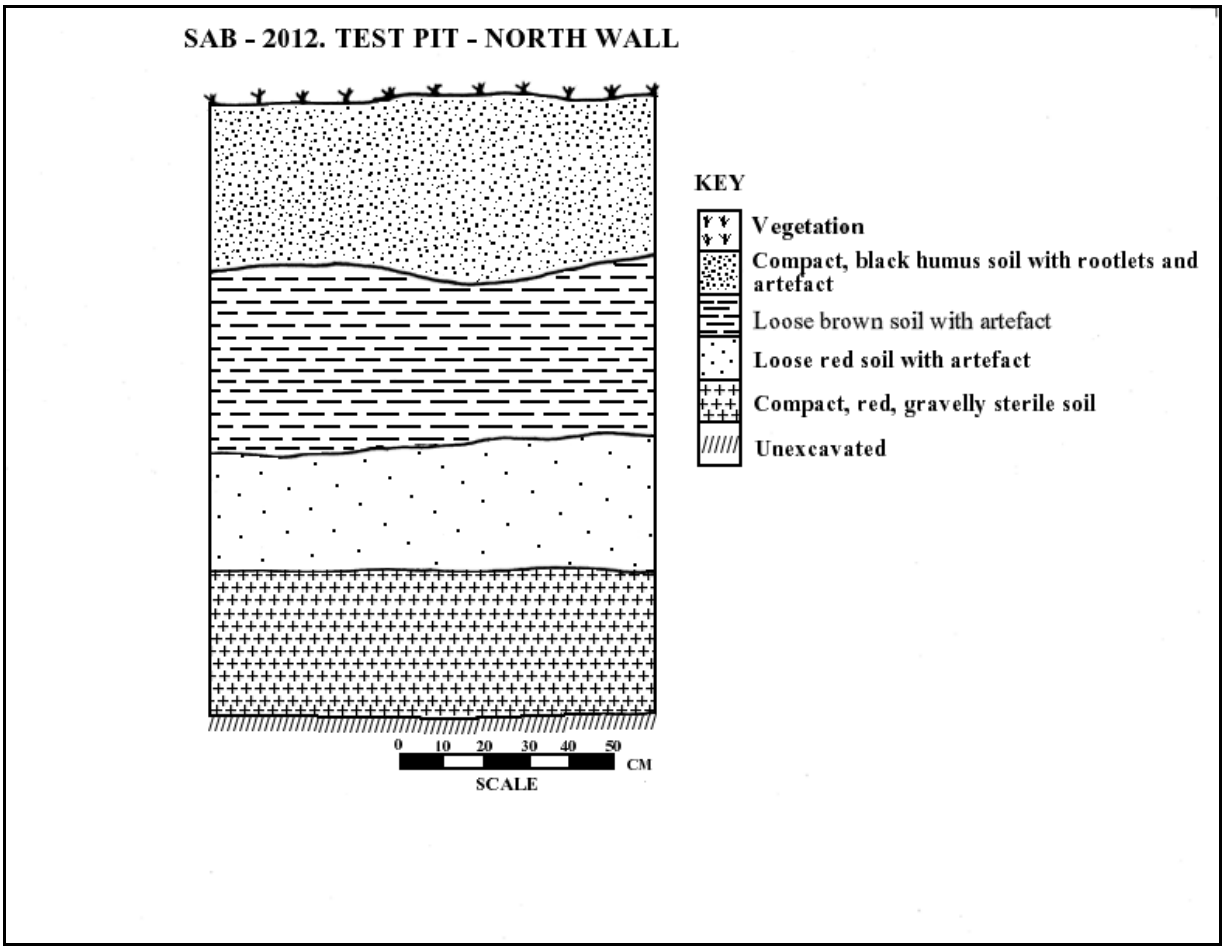


Figure 6: Gonja Dimbia: Section of North Wall of Test Pit.

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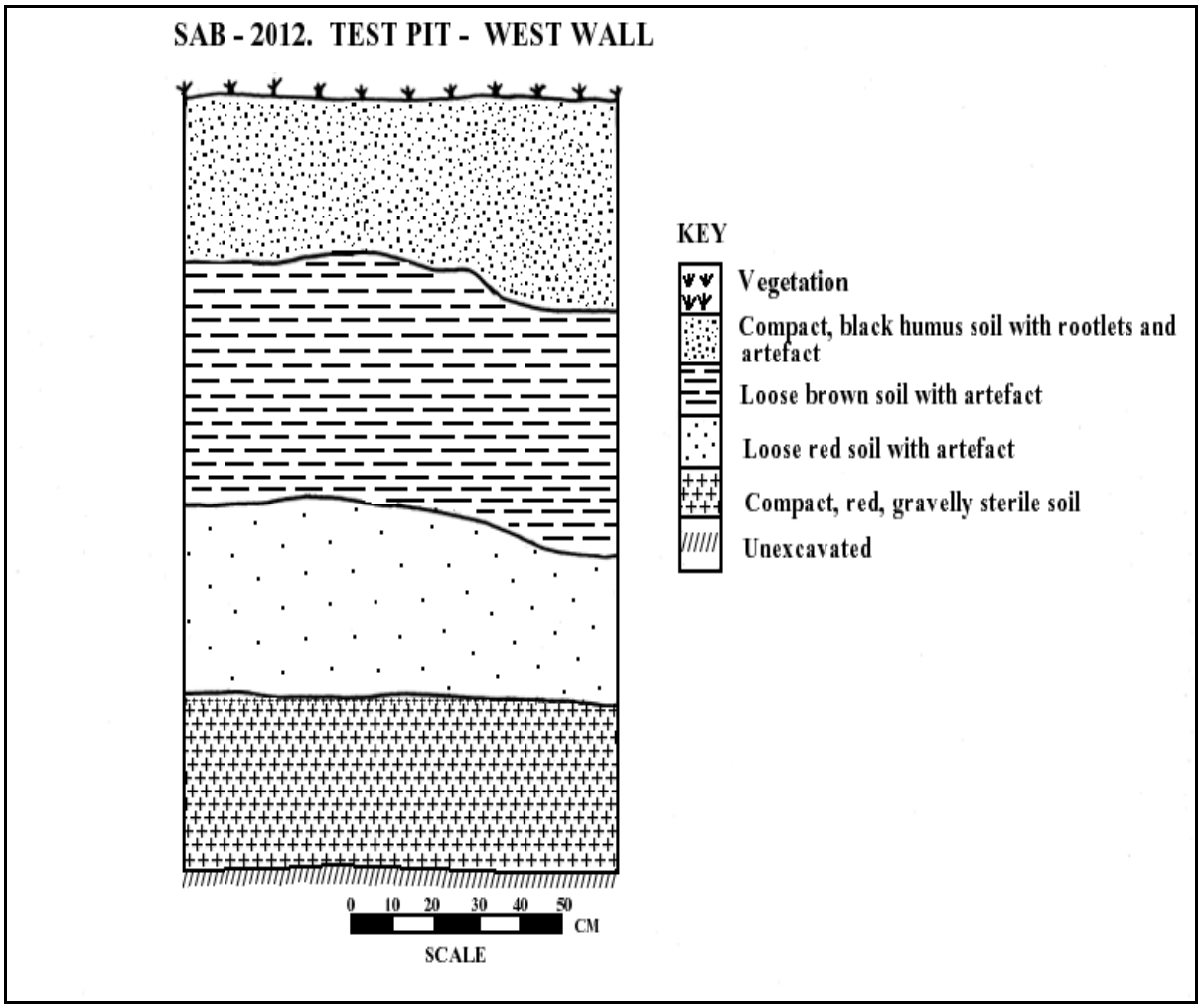

Figure 7: Gonja Dimbia: Section of West Wall of Test Pit.

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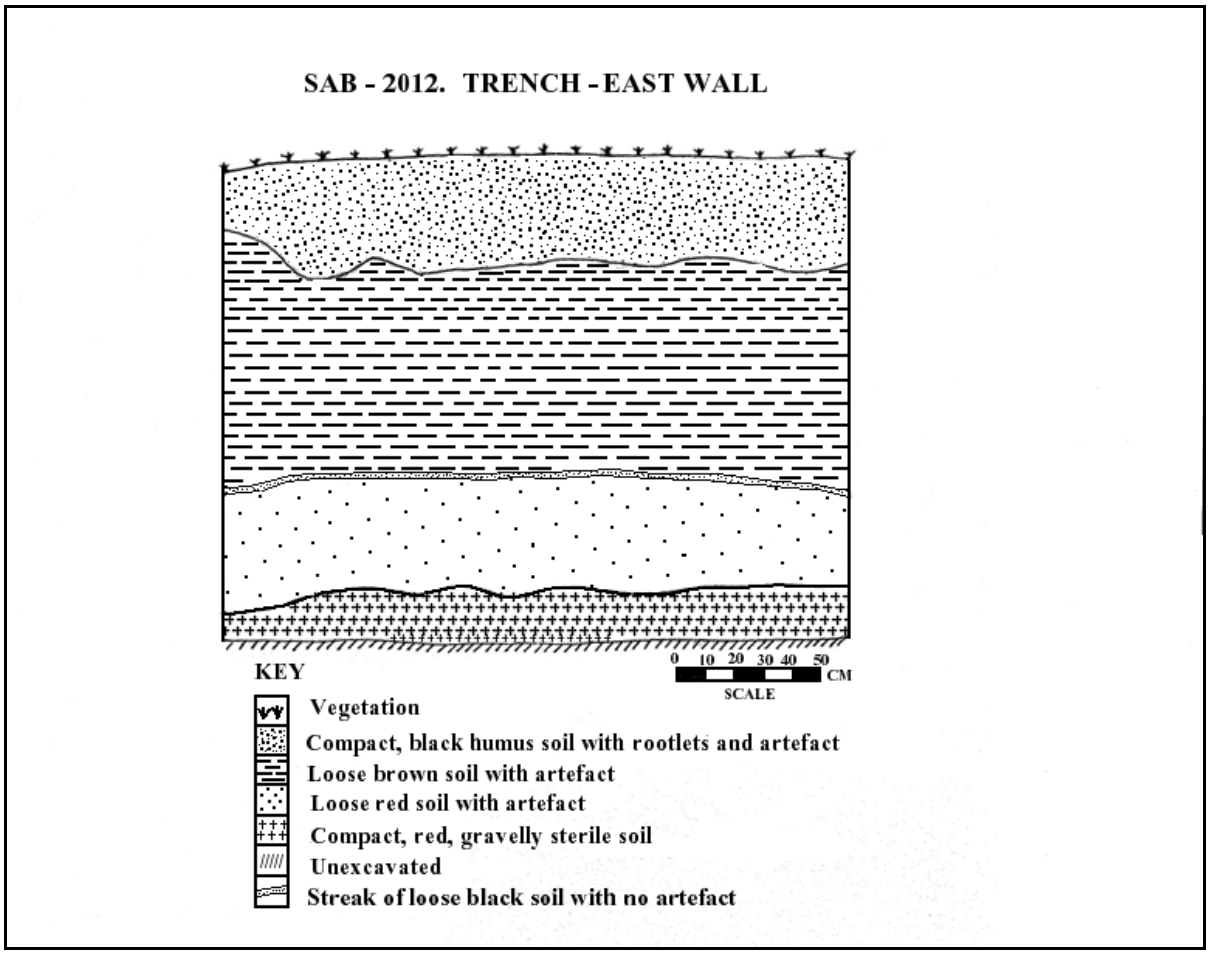

Figure 8: Gonja Dimbia: Section of East Wall of Trench.

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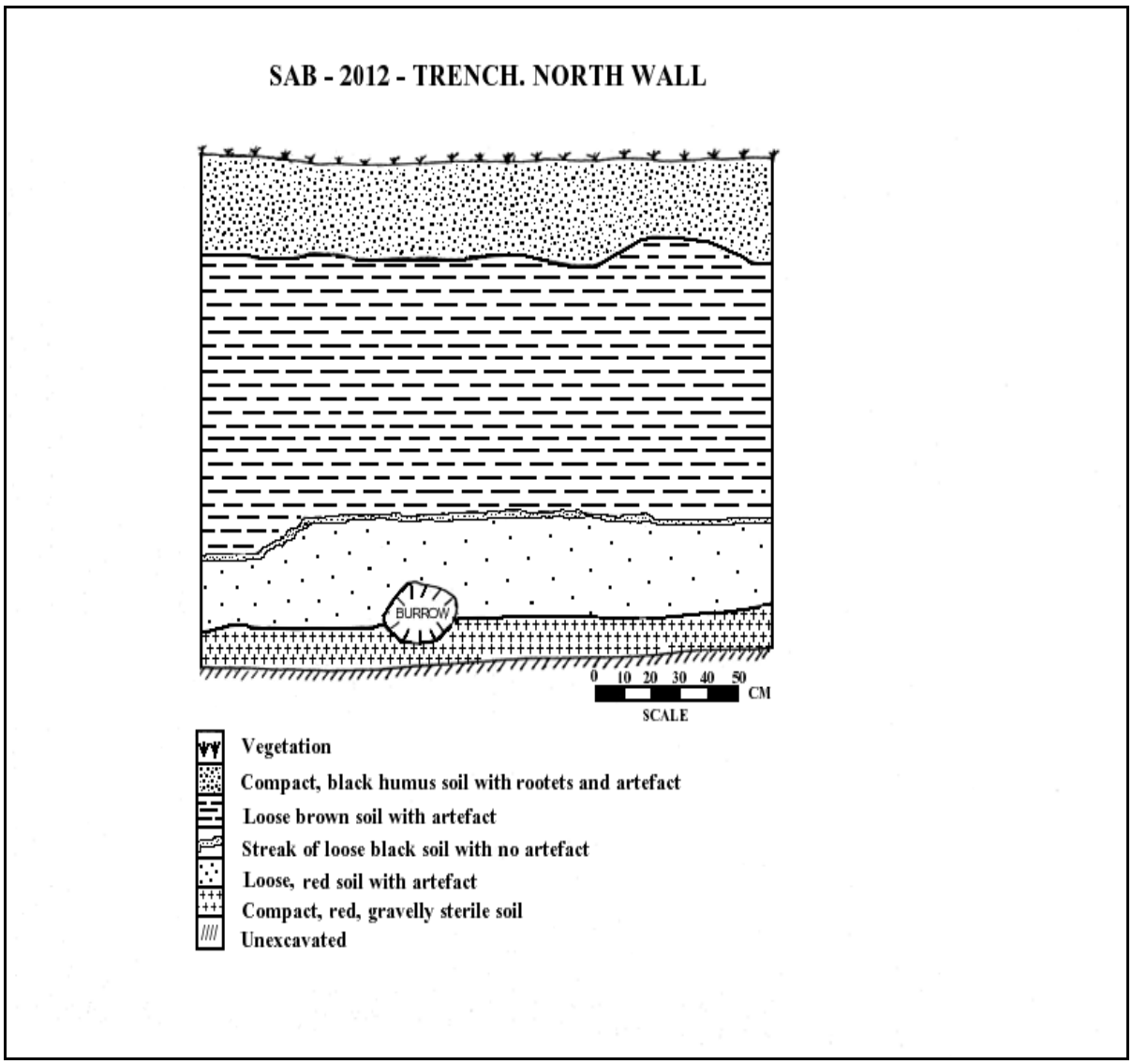

Figure 9: Gonja Dimbia: Section of North Wall of Trench.

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Table 1: Stratigraphy and Finds from Test Pit .

Test Pit	**Depth**	**Level**	**Natural Stratigraphy**	**Quantity ofFinds**	**% of Finds**
	0 - 40 cm	1	Black humus soil with rootlets and very little pottery.	Pottery 5 Bones 2	1.08 0.43
	40 – 80cm	2	Brown loose soil with cultural materials.	Pottery 445 Bones 3	96.32 0.64
	80-110cm	3	Reddish loose soil with very little pottery.	Pottery 7	1.51
	135-150cm	3	Reddish compact gravelly sterile soil.	0	
Total				**462**	100.00%

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Table 2: Stratigraphy and Finds from Trench.

Trench	**Depth**	**Level**	**Natural Stratigraphy**	**Quantity of Finds**	**% of Finds**
	0 – 40 cm	1	Black humus moist soil with rootlets containing cultural materials.	Pottery 3271 Bones 23	35.48 0.24
	40-120cm	2	Brown loose soil with cultural materials.	Shells 24 Pottery 4774 Ivory 1 Piece of iron bracelet 1 Iron arrowhead 1 Bones	0.26 51.78 0.01 0.01 0.01 2.09 0.02 0.03 0.08

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				193 Iron slag 2 Grindstone 3 Charcoal samples 8	
	120- 125cm	3	Streak of black soil with no finds.	0	
	125- 150cm	4	Reddish loose soil with some pottery	Pottery 896 Grindstones 4 Bones 10 Charcoal samples 5 Iron slag 3	9.71 0.04 0.10 0.05 0.03
	150- 160cm	4	Reddish compact gravelly sterile soil.	0	

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Total				**9219**	100.00%

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Chapter Four

Analyses and Interpretation of Archaeological Finds

4.0 Introduction

This chapter deals with the analyses of the finds recovered from the excavations at Gonja Dimbia. The finds consisted of potsherds, grindstones, a piece of ivory, an iron arrowhead, an iron bracelet, bones, shells and charcoal samples. A quantitative description of the finds is expressed in the Table III below.

Archaeological finds from the Test Pit constitute 462 (4.77%) of the total finds excavated whiles 9,219 (95.22%) make up materials from the Trench (see Table I and II).

Preliminary classification and sorting of cultural materials began on the site as finds were grouped by their respective levels. Post excavation classification began with sorting of materials into pottery, iron tools, faunal remains, iron slag, charcoal samples, and grindstones.

Table 3: Total Finds From Excavation.

Element	Test Pit	Trench	Total	% of Total
Potsherds	457	8,941	9,398	97.07
Bones	5	226	231	2.38
Shells		24	24	0.24
Grindstone		7	7	0.07
Piece of ivory		1	1	0.01
An arrowhead		1	1	0.01
An iron bracelet		1	1	0.01

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Charcoal samples		13	13	0.13
Iron slag		5	5	0.05
Total	**462**	**9,219**	**9,681**	**99.97**

4.1 Pottery

The bulk of the finds from the excavations consists of locally-produced pottery, 9,398 pieces of which were recovered from the excavated pits. These constitute 97.07% of the total finds. On the basis of paste characteristics, surface treatment, vessel forms and decorations, the pottery was classified into separate wares. Sherds of each ware were grouped based on their sizes and shapes inorder to determine the function of pottery vessels. The sherds were measured on their longest axes and grouped into three main categories on the basis of size. These three categories consisted of those which measured 0-5 cm, 5-10 cm and 10-15 cm. The potsherds of each ware were also grouped according to their vessel parts: Rim, Neck, Body, Carination, Handle and Base (see Table IV). The decorations on the sherds of each ware as well as the surface treatment of the sherds were noted and described.

A study of the pottery revealed three wares named Gonja Dimbia Ware I, Gonja Dimbia Ware II and Gonja Dimbia Ware III.

Table 4: Gonja Dimbia Vessel Parts Recovered From Excavated Units .

Vessel Parts	**Ware I**	**Ware II**	**Ware III**	**Total**	**% of Total**
Rim	1810	277	268	2355	25.05
Neck	520	124	44	688	7.32
Body	5547	470	179	6196	65.92

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Base	69	6	20	95	1.01
Handle	4	0	0	4	0.04
Carination	46	5	8	59	0.62
Indeterminate	1	0	0	1	0.01
Total	**7997**	**882**	**519**	**9398**	**99.97**
% of Total	**85.09**	**9.38**	**5.52**	**99.99**	

4.2 Gonja Dimbia Ware I

Gonja Dimbia Ware I consists of well fired sherds with a hard concrete-like fabric which contains fragments of quartz and laterite. The colour of inner and outer fabric is black, brown and grey. A total of 7,997 sherds which constitute 85.09% of the total sherds recovered from the excavations belong to Gonja Dimbia Ware I.

Many of the sherds are blackened with soot and were probably used for cooking on open air fires. The sherds are well fired and are in good condition with 6,382 (79.80%), 1,482 (18.53%) and 133 (1.66%) falling within 0-5 cm, 5-10 cm and 10-15 cm respectively when measured on their longest axes. Red-slipping was quite unpopular and characterized 1,680 (21.0%) of the total sherds belonging to the ware. Unslipped sherds are represented by 6,317 sherds which constitute 78.99% of the total sherds of the ware. A total of 5,289 sherds constituting 56.27% of the total sherds belonging to the ware are burnished and the remaining 2,708 sherds constituting 28.81% of the sherds of the ware are unburnished.

Similar wares as Gonja Dimbia Ware I have been found at Bonoso (the ancestral home of the Wenchi people), Kaam (a site in the Wenchi metropolis from where the Wenchi people moved to their present township), Twemma (another site in the Wenchi Traditional Area), Bono Manso and

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Ohene Ameyaw Anim near the Techiman Secondary School (Boachie-Ansah, 2005:66-69). The sherds from Bonoso and Ohene Ameyaw Anim have been named Bonoso Ware III (Boachie-Ansah, 1986:121, 2000a:32) and Ohene Ameyaw Anim Ware 3 (Boachie-Ansah, 2005:66) respectively. At Bono Manso, the sherds similar to Gonja Dimbia were found among the Silima Ware sherds from the site (Effah-Gyamfi, 1985:27, 35, 160-161).

The total number of sherds belonging to Gonja Dimbia Ware I that are undecorated exceed the total of decorated sherds. Out of the total of 7,997 sherds, 3,252 sherds constituting 40.66% of the ware are decorated and the remaining 4,745 sherds constituting 59.33% of the ware are undecorated (see Appendix 4a). A variety of decorations are found on the sherds. The most popular decoration is twisted cord roulette. A total of 1,644 sherds constituting 50.55% of the total decorations on sherds of the ware are decorated with twisted cord roulette. The decoration is mainly found on body sherds. Other decorations include grooves achieved by dragging a tool with a blunt end on the leather-hard pottery. Out of a total of 311 grooved sherds, 229 (73.63%) are decorated with multiple grooves, with the remaining 82 sherds (26.36%) decorated with single grooves. The majority of the grooves are aligned in a horizontal pattern, but a few are aligned vertically, or horizontally and vertically. Grooves occur on rim lips, on the inner parts of rims, necks, shoulders and on bodies of vessels. Single and multiple grooves constitute 3.88% of the total decorations on Gonja Dimbia Ware I sherds.

Channelling (Figure 10a), produced with broad instruments with rounded terminals or ends mainly characterizes bases and rims of sherds. The total number of sherds that are decorated with channeling are 335 sherds constituting 10.30% of decorated sherds of Gonja Dimbia Ware I. Single and multiple incisions, predominantly aligned horizontally and constituting 15.76% of the total decorations on Gonja Dimbia Ware I sherds were found on 513 sherds. Occasionally, some are

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aligned in an oblique pattern. Some of the incisions are best described as striations achieved by raking. Multiple incisions are popular than single incisions and appear on 303 sherds which constitute 59.06 % of the sherds that are incised. Incised motifs are found on necks, shoulders and bodies of vessels.

Other decorations are comb stamps (represented by 40 sherds) which are roundish or squarish in shape and constitute (Figure 10b; 1.23%) of the total decorations on Gonja Dimbia Ware I sherds; perforated holes (represented by 21 sherds) which constitute 0.64% of the total decorations on Ware I sherds; short linear stabs (represented by 11 sherds) achieved by impressing short broom-like sticks to produce linear impressions of between 5-7 mm long and which constitute 0.33% of the decorations on Ware I sherds ; wavy line stamps (0.24% and represented by 8 sherds) achieved by impressing a tool in the form of a wavy line on vessels ; dot stamps (0.18% and represented by 6 sherds) achieved by stamping or impressing a tool with a rounded terminal on vessels; finger impressions (0.18% and represented by 6 sherds) probably achieved by impressing the tip of the finger on vessels; herring bone stamps on body sherds (0.12% and represented by 4 sherds) achieved by impression a tool in the shape of a herring-bone on the pottery ; hollow stalk stamps on body sherds (0.09% and represented by 3 sherds) produced by stamping or impressing a hollow stalk on vessels; diamond impression (0.03% and represented by 1 sherd) which appears on a body sherd in the form of a diamond geometric or a rhombus shape ; and incised leaf motif (0.03% and represented by 1 sherd) which is a drawing of a leaf on the pottery. Short linear stabs are often obliquely or vertically aligned.

In other instances, a combination of two, three or four decorative techniques was employed on the same sherd. The combined decorations include multiple grooves and cord roulette (Figure

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10c; 1.78%); multiple incisions and cord roulette (1.72%) usually found on body and neck sherds; comb stamps and multiple grooves (1.01%); wavy line stamps and multiple grooves (0.58%). Also present on Gonja Dimbia Ware I sherds are a combination of decorations which are found on the rim, neck, shoulder or body of vessels. They include triangular stamps and multiple grooves (Figure 10f; 0.36%); single groove and cord roulette (0.70%); multiple grooves and multiple incisions (0.55%); dot stamps and multiple grooves (Figure 10d; 0.33%); multiple grooves and hollow stalk stamps (0.30%); channelling and comb stamps (0.21%); channelling and single groove (0.21%); comb stamps and single groove (0.18%); comb stamps and multiple incisions (0.12%); finger impressions and multiple grooves (0.12%); hollow stalk stamps and multiple incisions (0.09%); triangular stamps and cord roulette (Figure 11g; 0.03%); multiple grooves and short diagonal lineal stabs (0.12%); wavy line stamps and cord roulette (0.12%); short linear stabs and multiple grooves (Figure 10e; 0.12%) and short linear stabs and multiple incisions (0.12%).

Other combined decorations are dot stamps and cord roulette and multiple incisions (0.06%); half moon stamps and single groove and short lineal stabs (0.03%); comb stamps and multiple incisions and single groove (0.03%); comb stamps and multiple grooves and finger impressions (0.03%); multiple grooves and multiple incisions and dot stamps (0.06%); dot stamps and cord roulette and single groove (0.09%); multiple grooves and multiple incisions and comb stamps (0.09%); hollow stalk stamps and comb stamps and multiple incisions (0.03%); dot stamps and multiple grooves and comb stamps (0.09%); cord roulette and hollow stalk stamps and multiple grooves (0.03%); herring bone stamps and multiple grooves and cord roulette and comb stamps (0.03%); multiple grooves and finger impressions and hollow talk stamps (0.03%); single groove and wavy line stamps and single incisions (0.15%); multiple incisions and comb stamps and short lineal incisions (0.03); hollow stalk stamps and multiple grooves and comb stamps (0.03%); wavy

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line stamps and hollow stalk stamps and multiple grooves (0.03%); cord roulette and multiple grooves and single wavy groove (Figure 10h: 0.03%) and hollow stalk stamp and single groove and multiple grooves (0.06%)

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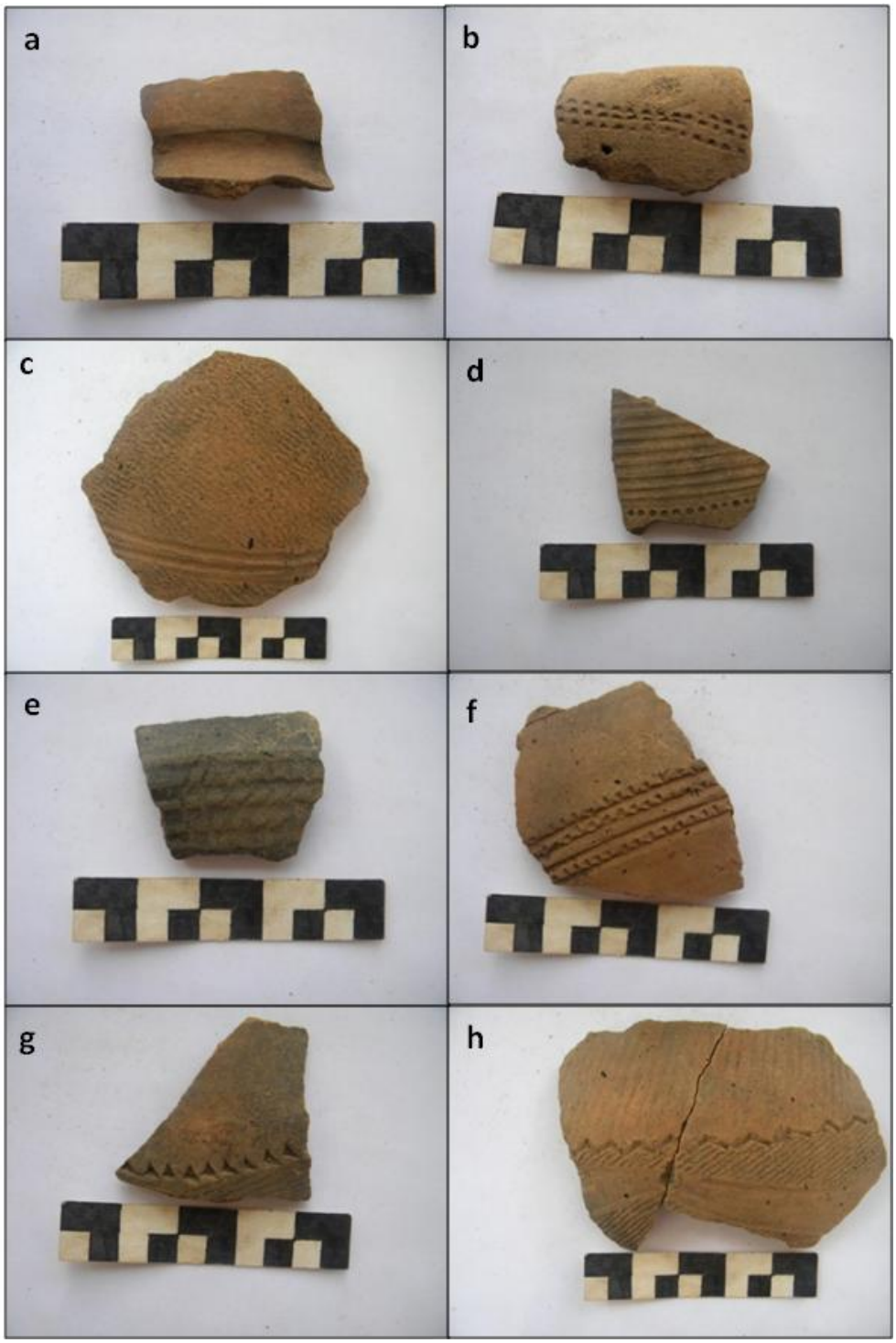

Figure 10: Decorations on Gonja Dimbia Ware I sherds: Channelling (a), Comb stamps (b), Multiple groove and cord roulette (c), Dot stamps and multiple grooves (d), Short linear stabs and multiple grooves (e), and Triangular stamps and multiple grooves (f), Triangular stamps and cord roulette (g), and Cord roulette and multiple grooves and wavy groove (h). .

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4.2.1 Gonja Dimbia Ware I Vessel Forms

Gonja Dimbia Ware I is predominantly characterized by vessels with flowing profiles. Vessels with angular profiles are few. This can be discerned from the fact that out of the total of 7,997 sherds, only 46 (0.53%) are characterized by carinations. Rim, neck, body, handle and base sherds constitute respectively 22.63%, 6.50%, 69.37%, 0.05% and 0.86% of the total sherds of the ware. One sherd was quite indeterminate representing 0.01% of the total sherds. Out of a total of 925 diagnostic rim sherds, 183 (19.78%) are jars, and the remaining 742 (80.2%) are bowls (see Table V). A jar is here defined as a spherical vessel with constricted neck and whose height is greater than the diameter. Bowls on the other hand are hemispherical vessels with neckless or unpronounced or almost unnoticeable necks and whose height is equal to or lesser than the diameter. Altogether, 9 jar forms and 6 bowl forms were identified.

4.3 Gonja Dimbia Ware I Jar Forms

4.3.1 Gonja Dimbia Ware I: Jar Form 1

The jars consist of spherical vessels whose everted rims curve sharply to join the neck at both the interior and exterior (Figure 11a-c). About 32 sherds, constituting 17.48% of the total jars and 3.41% of the total vessels of Gonja Dimbia Ware I belong to this vessel form. Rim lips are rounded (a), tapered (b) or squared (c). Rim diameter ranges from 26 cm to 58 cm. The decoration on the vessels consists of a combination of multiple horizontal grooves and crisscross incisions on the neck and rim lip, a combination of multiple horizontal grooves and wavy stamps on the neck and shoulder and comb stamps on the neck; channelling on the rim and neck of vessels and single horizontal groove

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on the rim and multiple haphazard incisions on the exterior and interior shoulder of the rim.

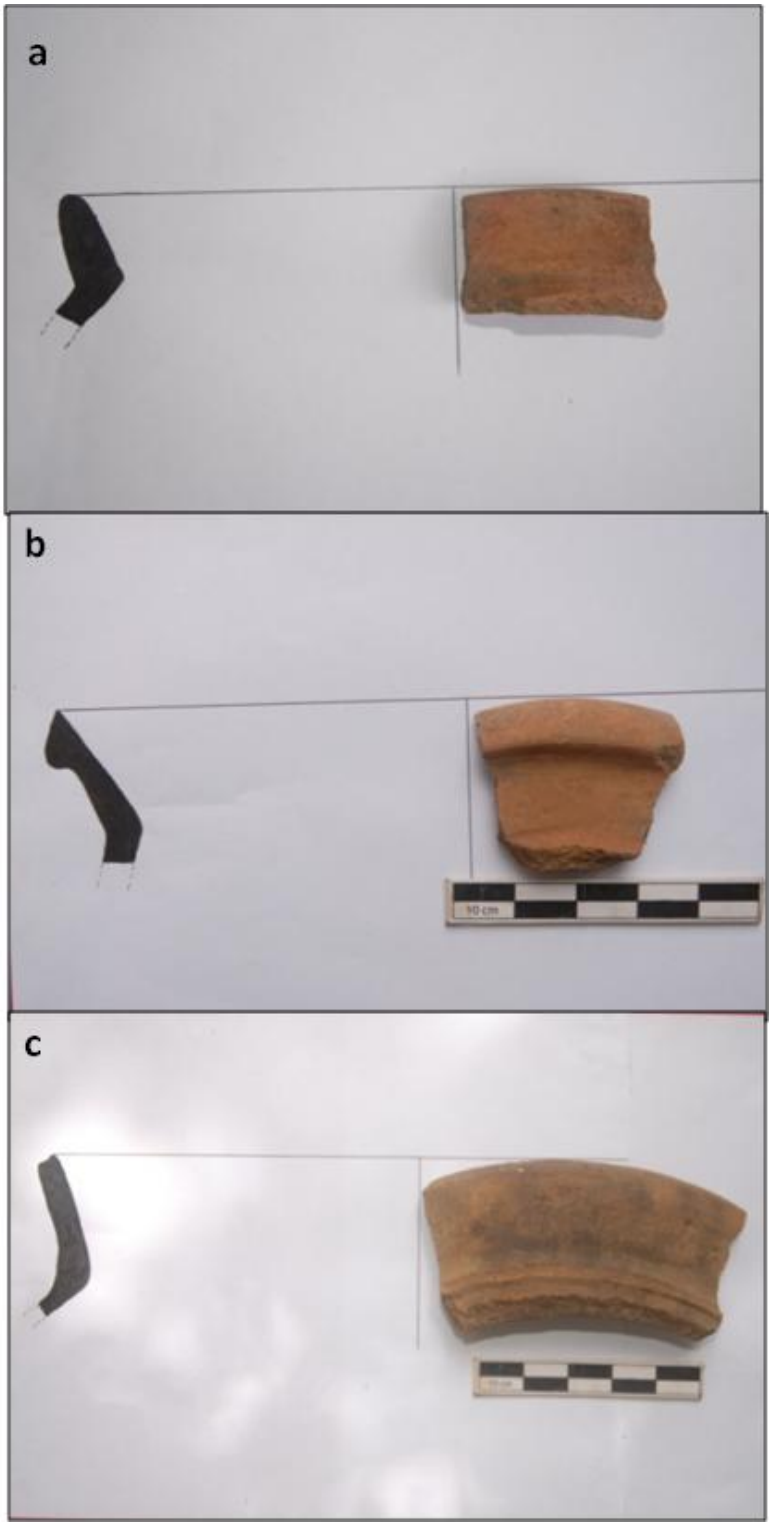

Figure 11: Gonja Dimbia Ware I: Jar Form 1 (a, b and c).

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Decorated sherds are represented by 15 sherds (46.87%) and the remaining 17 sherds (53.12%) are undecorated. Some of the sherds belonging to the vessel form are blackened with soot, an indication that they were used for cooking. A total of 18 sherds are blackened with soot. Both burnished and unburnished sherds are represented. The jar form was represented in Level 2 of the Test Pit and Level 1, 2, and 4 of the Trench (see Appendix 1a). The jar form was found in all levels of the Trench that produced pottery.

4.3.2 Gonja Dimbia Ware I: Jar Form 2

The second jar form comprises spherical vessels whose everted rims curve smoothly at both the interior and exterior to join the neck (Figure 12). The vessel form is represented by only 2 sherds from the Trench (see Appendix 1b). Rim lips are rounded and all the 2 sherds are burnished. One sherd is blackened with soot from open air fire. Rim diameter of 1 sherd is 42 cm and the other sherd has a rim diameter of 52 cm. The two sherds are decorated. The jar form constitutes 1.09% of the total jars and 0.21% of the total vessel forms of the ware.

The jar form is similar to Ohene Ameyaw Anim Ware 3 Jar Form (see Boachie-Ansah, 2005:69, Fig.16a).

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Figure 12: Gonja Dimbia Ware I: Jar Form 2.

4.3.3 Gonja Dimbia Ware I: Jar Form 3

The third jar form (Figure 13) constituting 11.47% of the total jars, and 2.22% of the total vessels of the ware, are spherical vessels whose everted rims curve sharply in the interior and sharply at the interior to join the neck. The vessel form is represented by 21 sherds, 5 of which are red-slipped. Out of the total of 21 sherds 18 are burnished and 6 are decorated. Rim diameter ranges from 24 cm to 44 cm. Decoration consists of short horizontal stabs on the shoulder of the sherd; rectangular stamps on the neck; multiple incisions on the shoulder; and triangular stamps on the neck. Like the first and second jar forms, vessels of this form are blackened with soot and were probably used for cooking. The jar form was represented in Levels 1, 2 and 4 of Trench, i.e., in all the levels of the Trench that produced pottery (see Appendix 1c).

The jar form is similar to Ohene Ameyaw Anim Ware 3 Jar Form b (see Boachie-Ansah, 2005:69, Fig.16b).

Figure 13: Gonja Dimbia Ware I: Jar Form 3.

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4.3.4 Gonja Dimbia Ware I: Jar Form 4

The fourth jar form (Figure 14a-b), consisting of 74 sherds, and constituting 40.43% of the total jars and 7.89% of the total vessels of Gonja Dimbia Ware I, is characterised by spherical jars whose rims bend to form a concave profile at the interior and a convex profile at the exterior before joining the neck. Rim diameter ranges from 32 to 72cm. Rim lips are rounded (a) or squared (b). The vessel form is represented by 71 burnished sherds and the remaining 3 sherds are unburnished. Red-slipped sherds are represented by 8 sherds. Thirty-one sherds are decorated and the remaining 43 are undecorated. Decoration consists of single horizontal grooves in the interior part of the rim or at the exterior part of the shoulder; multiple incisions, channelling, triangular stamps and wavy line stamps all at the rim-neck joint. The vessel form was represented in Levels 1 and 2 of the Test Pit and Levels 1, 2 and 4 of the Trench (see Appendix 1d). This means that the vessel form was represented in all the levels of the Trench that produced pottery.

The vessel form is also represented at the Begho B2 site (see Crossland, 1989: 155, Figure 17, Pot Form A); New Buipe (see York, 1973:149-150, Figures 72 and 73); Amuowi I (Effah-Gyamfi, 1974: 194, Figure 4, Mic. Ai); Amuowi II (Effah-Gyamfi,1974 :231, Figure 12 F(i)-F (ii); Bono Manso (see Effah-Gyamfi, 1974: 259, Figure 17b, 1985: 155, Figure 34b: 9, 162, Figure 35:1-2) and Ohene Ameyaw Anim near Techiman Secondary School (Boachie-Ansah, 2005:55, Figure 10e-f).

The vessel form is similar to gourd vessels used in carrying water to the farm. The interior concave profile of the vessel makes it difficult for the water contained in it to over-spill. It is likely that such vessels were used in transporting water from streams to the house or from the house to the farm.

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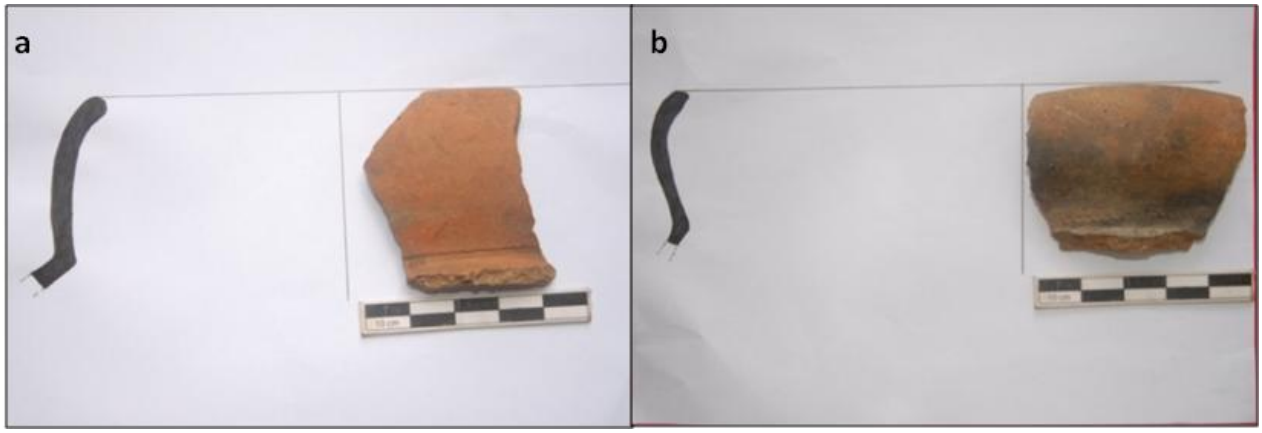

Figure 14: Gonja Dimbia Ware I: Jar Form 4 (a and b).

4.3.5 Gonja Dimbia Ware I: Jar Form 5

Jar Form 5 (Figure 15) is a spherical vessel with everted rim which curves smoothly in the interior and sharply at the exterior. It has a squared rim lip. The vessel form is represented by one burnished sherd from Level 1 of the Trench (see Appendix 1e). It is decorated with multiple incisions at the interior part of the rim-neck joint. Rim diameter is 52 cm and the vessel form constitutes 0.54% of the total jars of Gonja Dimbia Ware I, and 0.10% of the total vessels of the ware.

Figure 15: Gonja Dimbia Ware I: Jar Form 5.

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4.3.6 Gonja Dimbia Ware I: Jar Form 6

The sixth jar form (Figure 16a-c) is also a spherical vessel with an almost over-turned everted rim. Rim lips are rounded (Figure 16a) or squared (Figures 16b and 16c). Rim diameter ranges from 28 cm to 52 cm. Four sherds are unburnished and thirty-eight are burnished.

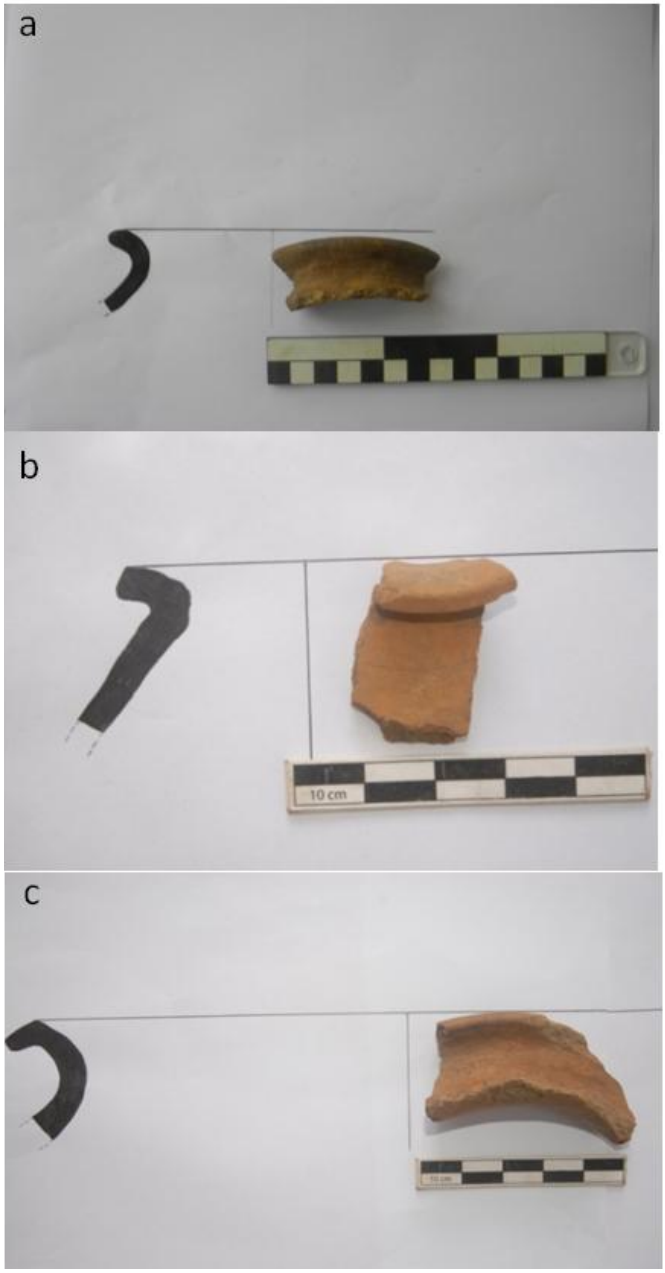

Figure 16: Gonja Dimbia Ware I: Jar Form 6 (a, b and c).

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Decorations consist of a single incision at the rim-neck joint; dot stamps at the neck; wavy-line stamps at the exterior part of the rim-neck joint. Twenty sherds are blackened with soot. The vessel form was represented in Level 2 of Test Pit, Levels 1, 2 and 4 of Trench (see Appendix 1f). Sherds belonging to the vessel form were found in all the levels of the Trench from which pottery was found. The vessel form constitutes 22.95% of the total jars of Gonja Dimbia Ware I, and 4.48% of the total vessels of the ware.

4.3.7 Gonja Dimbia Ware I: Jar Form 7

The seventh jar form (Figure 17a-b) is a spherical jar with a short everted, squat rim. The vessel form is represented by 8 sherds, one of which has a squared rim lip and the remaining 7 have rounded lips. Rim diameter ranges from 8cm to 32 cm. Decoration consists of single horizontal grooves on the body and on the exterior part of the rim-neck joint; multiple grooves on the exterior part of the rim-neck joint; a combination of single grooves and dot stamps at the rim-neck joint and wavy line stamps on the body. Five out of eight sherds are burnished. All sherds are blackened with soot, an indication that thevessels were used for cooking. The jar form constitutes 4.37%of the jar forms and 0.85% of total vessel forms of the ware.

Figure 17: Gonja Dimbia Ware I: Jar Form 7 (a-b).

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Sherds of the vessel form were recovered from Levels 1, 2, and 4 of Trench, i.e., from all the levels of the Trench that contained pottery (see Appendix 1g).4.3.8 Gonja Dimbia Ware I: Jar Form 8

The eighth jar form (Figure 18), represented by a single sherd, and constituting 0.54% of the total jars and 0.10% of the total vessels of Gonja Dimbia Ware I, is characterised by an almost straight rim. The sherd was recovered from Level 3 of the Trench (see Appendix 1h). Rim diameter is 32 cm. Decoration consists of dot stamps below which are multiple circumferential grooves. Vessel is blackened with soot and probably used for cooking.

Figure 18: Gonja Dimbia Ware I: Jar Form 8.

4.3.9 Gonja Dimbia Ware I: Jar Form 9

Jar Form 9 (Figure 19a-b) is a spherical vessel with a carinated body. The vessel form is represented by 2 sherds. One sherd has a rounded rim lip (Figure 19a) and the other has a squared rim lip (Figure 19b). All sherds are from Level 2 of the Trench (see Appendix 1j). Rim diameter is 40 cm. One sherd is burnished and the other is unburnished. Both sherds are blackened with soot. Decorations consist of multiple horizontal and curvilinear grooves on the shoulder and cord roulette

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on the body. The vessel form constitutes 1.09% of total jars and 0.21% of total vessels of Gonja Dimbia Ware I.

Figure 19: Gonja Dimbia Ware I: Jar Form 9 (a-b).

4.4 Gonja Dimbia Bowl Forms

4.4.1 Gonja Dimbia Ware I: Bowl Form 1

Bowl Form 1 is a hemispherical vessel with an incurved rim (Figure 20a-d). Rim diameter ranges from 19 cm to 40 cm. A total of 563 sherds represent the vessel form. Out of the total sherds, 363 are burnished and the remaining 200 sherds are unburnished. Slipped sherds are represented by 102 sherds and the remaining 461 are unslipped. A total of 138 sherds are decorated and the remaining 425 are undecorated. Decoration consists of channeling on the rim; multiple horizontal grooves on the rim; twisted cord roulette on the body; squarish comb stamps on the rim, multiple incisions on the rim; a combination of multiple horizontal grooves and short linear stabs on the rim; a combination of twisted cord roulette and herring bone stamps; a combination of comb stamps and multiple horizontal grooves on the shoulder; a combination of cross-hatched incisions and dot stamps on the shoulder; a combination of twisted cord roulette and multiple horizontal grooves on rim and body and a combination of channelling and dot stamps on the rim. Sherds blackened with

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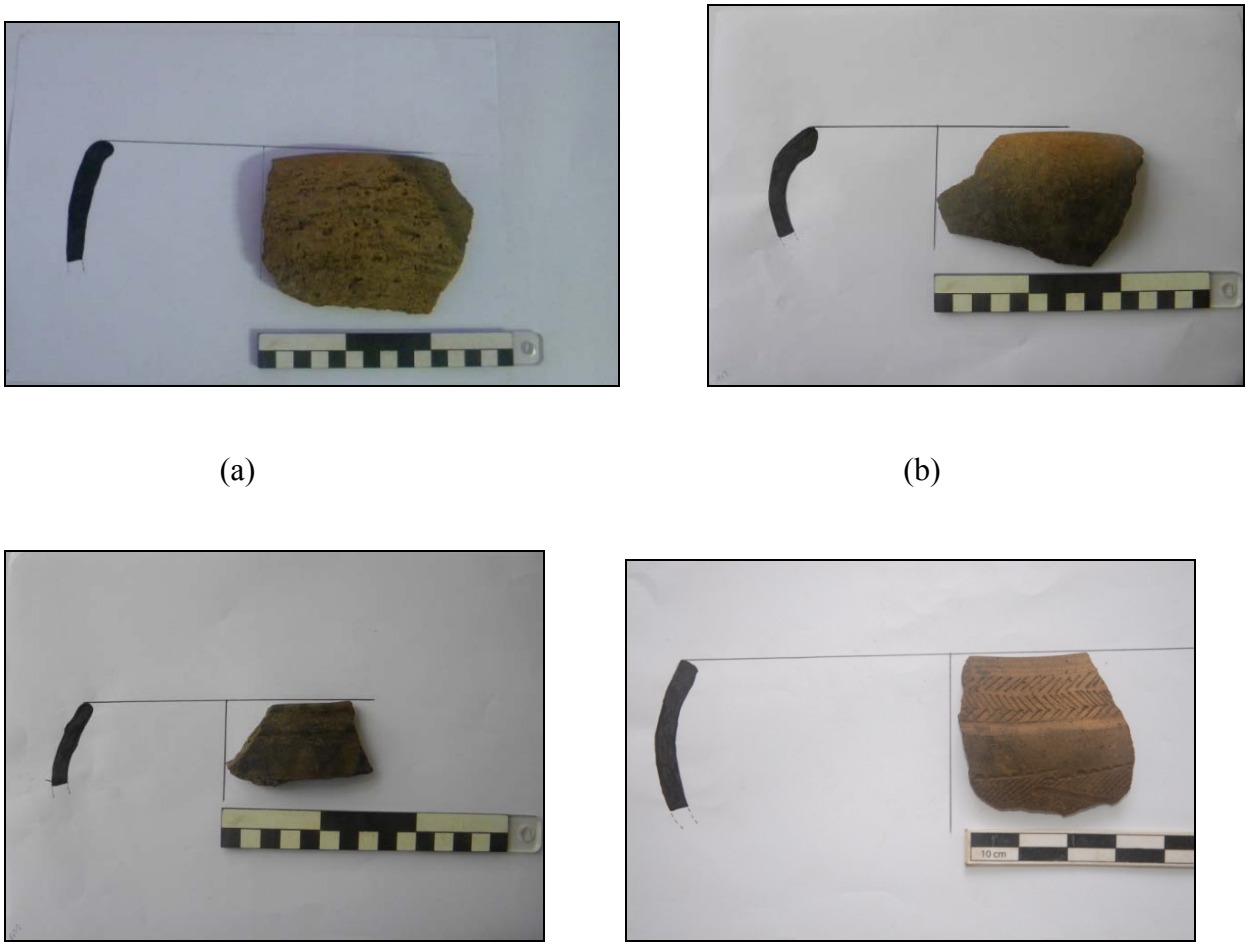
soot are 227 sherds, an indication that the vessels were used for cooking. The vessel form was represented in all cultural Levels of Test Pit and Trench (see Appendix 1k). The vessel form constitutes 75.87% of the total bowls of Gonja Dimbia Ware I, and 60.0% of the total vessel forms of the ware.



(a) (b)

(c) (d)

Figure 20: Gonja Dimbia Ware I: Bowl Form 1 (a, b, c and d).

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4.4.2 Gonja Dimbia Ware I: Bowl Form 2

The second bowl form of Gonja Dimbia Ware I (Figure 21a-b) is a hemispherical bowl with incurved rim and a carination between the rim and the body. Rim diameter ranges between 32 cm and 92 cm. Some of the sherds are large and some of the vessels were perhaps used for storing water or grains. The vessel form is represented by 39 sherds of which 8 are red-slipped. All the sherds are burnished. Decoration consists of multiple circumferential grooves below the rim lip and above the carination; wavy-line stamp below the carination; single grooves below the carination; a combination of triangular stamps and multiple circumferential grooves with triangular stamps above the carination and the multiple circumferential grooves just below the carination. Seventeen of the sherds are blackened with soot. The vessel form was found in Level 2 of Test Pit and Levels 1, 2 and 4 of Trench (see Appendix 1m). It constitutes 5.25% of the total bowls of Gonja Dimbia Ware I and 4.16% of the total vessel forms of the ware.

Gonja Dimbia Ware I Bowl Form 2 is similar to the only bowl form found at Ohene Ameyaw Anim (see Boachie-Ansah, 2005:67:Fig.15e).

(a) 

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(b) 

Figure 21: Gonja Dimbia Ware I: Bowl Form 2 (a and b).

4.4.3 Gonja Dimbia Ware I: Bowl Form 3

Bowl Form 3 (Figure 22) is a hemispherical bowl with incurved rims and ledges separating the rim from the body. Rim diameter ranges from 38 cm to 42 cm. All the four sherds are burnished and blackened with soot. Two of the sherds are red-slipped and all the four sherds are decorated. Decoration consists of short linear stabs on the ledges; comb stamps arranged in oblique patterns on the rim and a combination of criss-cross incisions and short linear stabs on the rim. All the four sherds were recovered from Level 2 of the Trench (see Appendix 1n). The vessel form constitutes 0.53% of total bowls and 0.42% of total vessel forms of Gonja Dimbia Ware I.

Figure 22: Gonja Dimbia Ware I: Bowl Form 3.

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4.4.4 Gonja Dimbia Ware I: Bowl Form 4

Also represented in Gonja Dimbia Ware I sherds are bowl forms which are hemispherical bowls with straight rims (Figure 23a-d). Rim diameter ranges from 32 to 42 cm. Rim lips are rounded (Figure 23a), or squared (Figure 23b). The vessel form is represented by 37 sherds out of which 31 are burnished and 20 are decorated. Decoration consists of single horizontal grooves on the body (Figure 23c); multiple circumferential grooves on the body and a combination of multiple horizontal grooves and dot stamps just below the rim lip. Some of the sherds are characterised by ridges (Figure 23d) which are decorated with notches. A total of 27 sherds are blackened with soot. The vessel form is represented in Levels 1, 2, and 4 of the Trench and they amount to 4.98% of total of bowls and 3.94% of total of vessels of Ware I of Gonja Dimbia (see Appendix 1p).

(a)

(b)

(c)

(d)

Figure 23: Gonja Dimbia Ware I: Bowl Form 4 (a-d).

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4.4.5 Gonja Dimbia Ware I: Bowl Form 5

The fifth bowl forms (Figure 24a-c) are open hemispherical bowls represented by 81 sherds with beaded (Figure 24a), squared (Figure 24b) or rounded (Figure 24c) rims. Rim diameter is greater than body diameter and ranges from 32 cm to 56 cm. The bowl form constitutes 11.32% of the total bowls and 8.96% of the total vessel forms of Gonja Dimbia Ware I. Seventy of the sherds belonging to the bowl form are burnished and fourteen are unburnished. Red-slipped sherds are represented by 8 sherds. Only 14 sherds are decorated. Decoration consists of channelling just below the rim lip; multiple circumferential grooves below the rim lip and comb stamps arranged in a zig-zag pattern together with multiple horizontal grooves on the body; a combination of channelling, single groove and multiple oblique incisions below the rim lip; dot stamps below the rim lip; multiple vertical incisions on the body; a combination of comb stamps; short linear stabs and multiple circumferential grooves below the rim lip. A total of 51 sherds are blackened with soot. The vessel form is represented in Levels 1, 2, and 3 of the Test Pit and Levels 1, 2, and 4 of the Trench (see Appendix 1q). The form is therefore represented in all the levels of the excavated units in which pottery was recovered.

Gonja Dimbia Ware I Bowl Form 5 is similar to Ohene Ameyaw Anim Ware 3 Bowl Form C (see Boachie-Ansah, 2005:69, Fig.16c).


(a)


(b)

.

(c)

Figure 24: Gonja Dimbia Ware I: Bowl Form 5 (a-c).

4.4.6 Gonja Dimbia Ware I: Bowl Form 6

The sixth bowl form (Figure 25a-b) is a hemispherical shallow bowl with short everted rims which sit on the base and measure about 1.5 cm to 5.5 cm in height. Rim diameter which ranges from 16 cm to 32 cm is wider than the diameter of the base which ranges from 24 cm to 30 cm. The vessel form is represented by 15 sherds, 9 of which are burnished. Five are red-slipped and 6 are decorated with channelling or single and multiple grooves and comb stamps between the rim and the base. Eleven sherds are blackened with soot. These sherds could have served as lamps. Some may also have been used as containers of body lotions or pomade. The vessel form constitutes 2.02% of the total bowl forms and 1.60% of the total vessel forms of Gonja Dimbia Ware I. The vessel form is represented in Level 2 of the Test Pit and in Levels 1 and 2 of theTrench (see Appendix 1r).

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Figure 25: Gonja Dimbia Ware I: Bowl Form 6 (a-b).

4.5 Gonja Dimbia Ware I Base Forms

4.5.1 Gonja Dimbia Ware I: Base Form 1

Gonja Dimbia Ware I is characterized by only three base forms. Base Form 1 (Figure 26) is a ring base with the base diameter ranging from 16 cm to 24 cm. Both the interior and exterior of the base are concave in shape. The base form is represented by 11 sherds, 7 of which are burnished. Red-slipped sherds are represented by 6 sherds and 5 sherds are blackened with soot. Only one sherd is decorated and the decoration consists of single circumferential incision between the body and the base. It is represented in Levels 1, 2 and 4 of the Trench and constitutes 83.33% of the base forms of Gonja Dimbia Ware I (see Appendix 1s).

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Figure 26: Gonja Dimbia Ware I: Base Form 1.

4.5.2 Gonja Dimbia Ware I: Base Form 2

The second base form is pedestalled base (Figure 27). The exterior part of the base is concave in shape. The pedestal is about 2.6 cm high and is decorated with chanelling and dot stamps. Base diameter is 20 cm. The base form is represented by 1 sherd from Level 3 of the Trench (see Appendix 1t). The sherd is unburnished and blackened with soot. The form constitutes 8.33% of the total base form of Gonja Dimbia Ware I.

Figure 27: Gonja Dimbia Ware I: Base Form 2

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4.5.3 Gonja Dimbia Ware I: Base Form 3

The third base form (Figure 28) is also represented by 1 sherd from Level 2 of the Trench (see Appendix 1u). The base is flat and the adjoining body is decorated with multiple circumferential grooves. The base is burnished and blackened with soot. Base diameter is about 18 cm.

Figure 28: Gonja Dimbia Ware I: Base Form 3

Table 5: Gonja Dimbia Ware I :Vessel Forms.

Jar Form	Quantity	% of Total Jar Forms	% of Total Vessel Forms
1	32	17.48	3.45
2	2	1.09	0.21
3	21	11.47	2.27
4	74	40.43	8.00
5	1	0.54	0.10
6	42	22.95	4.54
7	8	4.37	0.86
8	1	0.54	0.10
9	2	1.09	0.21

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Sub-Total	**183**	**99.96**	**19.78**
Bowl Form	**Quantity**	**% of Bowl Forms**	**% of Total Vessel Forms**
1	563	75.87	60.86
2	39	5.25	4.21
3	4	0.53	0.43
4	37	4.98	4.00
5	84	11.32	9.08
6	15	2.02	1.62
Sub-Total	**742**	**99.97**	**79.18**
Grand Total	**925**		
Base Form	**Quantity**	**% of Base Forms**	**% of Total Vessel Forms**
1	10	83.33	1.06
2	1	8.33	0.10
3	1	8.33	0.10
Sub-Total	**12**	**99.99**	**1.26**
Grand Total	**937**		

4.6 Gonja Dimbia Ware II

The second ware is named Gonja Dimbia Ware II and it is made up of 882 potsherds which constitute 9.38% of the total sherds from the excavations. It is micaceous and consists of sherds with mica on the outer fabric. The mica seems to have been deliberately applied to the outer surface and was probably not a constituent of the clay used in manufacturing the pottery. The inner fabric contains fragments of quartz. The inner fabric is sandy and colour of the inner and outer fabric is

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brown or black.

Gonja Dimbia Ware II sherds are also similar to Mica-coated (Micaceous) Ware of Bono Manso (see Effah-Gyamfi, 1974: 258-261, 1985:161-163), Begho Micaceous Ware I (Crossland, 1989:38-41), Daboya Tradition 4 Ware A3 (Shinnie and Kense, 1989:93) and New Buipe Micaceous Ware, the sherds of which were intentionally smeared with a thin slip containing a very high proportion of muscovite (York, 1973:146-151).

About 677 (76.75%), 188 (21.31%) and 17 (1.92%) sherds fall within 0-5 cm, 5-10 cm, and 10-15 cm respectively when measured on their longest axes. A total of 412 sherds are red-slipped. These constitute 46.7% of the total sherds of Ware II. A total of 470 sherds are unslipped. These constitute 53.28% of the total sherds of the ware. A total of 453 sherds are burnished. These constitute 51.36% of the total sherds of the ware. The remaining 429 sherds constituting 48.63% of the total sherds of the ware are unburnished.

The total number of sherds belonging to Gonja Dimbia Ware II that are decorated exceed the total of undecorated sherds. Out of a total of 882 sherds, 553sherds constituting 62.69% of the ware are decorated (see Appendix 4b). The remaining 329 sherds constituting 37.30% of the ware are undecorated.Unlike Gonja Dimbia Ware I, sherds of Gonja Dimbia Ware II are predominantly decorated.

Various decorations are found on the sherds. The most predominant decoration are grooves. A total of 148 sherds are decorated with grooves. Grooves constitute 27.11% of the total decorations on sherds of Gonja Dimbia Ware II. A total of 102 sherds are decorated with multiple grooves. Multiple grooves (Figure 29a) constitute 18.44% of the grooves and single grooves found on 48 sherds constitute 8.67% of the grooves found on Gonja Dimbia Ware II sherds. Grooves are mostly found on the rim lips, on the inner parts of rims, shoulders and on bodies of vessels. Comb stamps

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are also found on Gonja Dimbia Ware II sherds. A total of 113 sherds are decorated with comb stamps (Figure 29b) which constitute 20.42% of the total decorations on Ware II sherds. The comb stamps are either squarish or circular in shape and the decorations usually occur on the shoulders and bodies of sherds. A total of 33 sherds are decorated with incisions which constitute 5.96% of the decorations on Ware II sherds. A total of 19 sherds are decorated with multiple incisions which constitute 3.43% of the incised decorations on Ware II sherds. Fourteen are decorated with single incisions which constitute 2.53% of the incised decorations on the sherds of the ware.

Channelling (Figure 29c) constitutes 4.15% of the decorations on Ware II sherds and was applied on 22 sherds of the ware. Other decorations on Gonja Dimbia Ware II sherds include triangular stamps which are found on 13 sherds and constitute (2.35%) of the decorations on the sherds of the ware; twisted cord roulette (Figure 29d) which constitutes 1.62% of the total decorations of the ware and are found on 9 of the sherds; dot stamps characteristic of 9 sherds and which constitute (1.62%) of the total decorations of the ware and herringbone stamps found on 2 sherds and which constitute a mere (0.36%) of the total decorations of the ware. Perforation constitutes (0.18%) of the total decorations of the ware and was found on only 1 sherd. Finger impressions (Figure 29e) were also found on 2 sherds. The decoration constitutes (0.36%) of the total decoration of Ware II sherds.

Half-moon stamps were found on only 2 sherds. The decoration constitutes (0.36%) of the total decorations of the ware. Hollow stalk stamps were found on a single sherd and constitute (0.18%) of the total decorations of the ware.

Similar to the decorations on sherds of Gonja Dimbia Ware I, a combination of two, three or four decorative techniques were employed on Gonja Dimbia Ware II sherds. The multiple

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decorations include grooves and comb stamps (22.23%); single groove and single incision (1.98%); multiple groove and triangular stamps (1.80%) and single incision and comb stamps (Figure 29f) which constitutes 0.90%. Other combined decoration include channelling and comb stamps (0.54%); multiple grooves and cord roulette 0.54%; dot stamps and single groove (Figure 29g; 0.54%); multiple grooves and wavy line stamps (0.36%); comb stamps and hollow stalk stamps (0.36%); multiple incisions and single groove (0.36%); multiple grooves and herring bone stamps (Figure 29i; 0.36%); cord roulette and multiple grooves 0.18%; short linear stabs and comb stamps (0.18%); channelling and single groove (0.18%); channelling and multiple incisions (0.18%); hollow stalk stamps and multiple grooves (0.18%); finger impressions and multiple incisions (0.18%); comb stamps and finger impressions (0.18%); comb stamps and multiple grooves (Figure 29j ;0.54%); short linear stabs and multiple grooves (0.18%); and multiple grooves and finger impressions (0.18%).

The combined decorations which consist of three or more decorations are a combination of hollow stalk stamps and multiple grooves and comb stamps (0.18%); comb stamps and single groove and single incision (0.36%); cord roulette and multiple groove and triangular stamps (0.18%); triangular stamps and multiple grooves and multiple incisions (0.18%); hollow stalk stamps and multiple incisions and multiple grooves (Figure 29k; 0.54%); comb stamps and multiple grooves and finger impressions (0.18%); multiple grooves and cord roulette and comb stamps (0.36%); multiple grooves and comb stamps and herring bone stamps (0.18%); half moon stamps and comb stamps and herring bone stamps (0.18%); comb stamps and short linear stabs and multiple grooves (Figure 29l; 0.18%) and hollow stalk stamps and comb stamps and single incision (0.54%).

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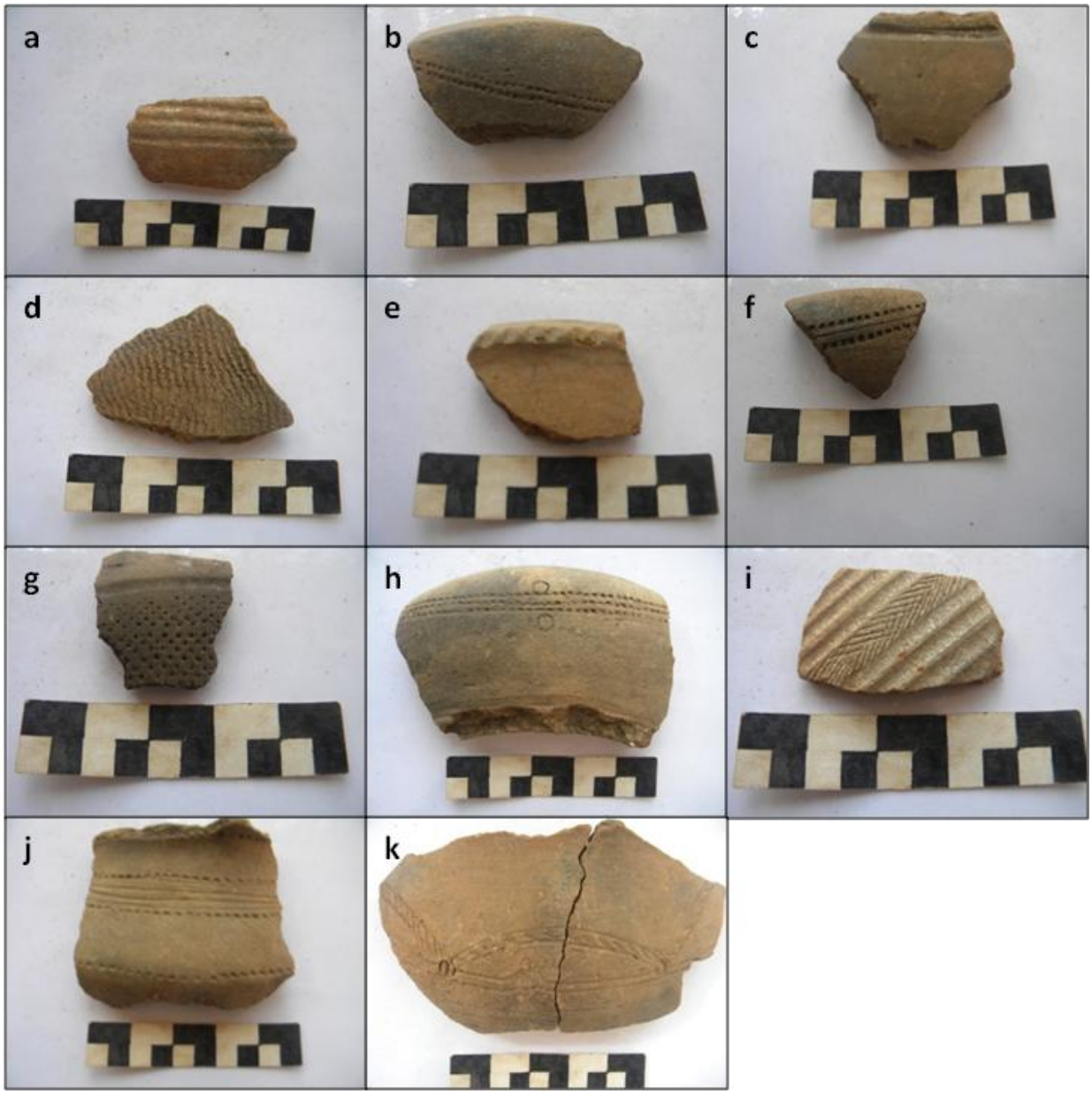

Figure 29: Decorations on Gonja Dimbia Ware II sherds: Multiple grooves (a), Comb stamps (b), Channelling (c), Twisted cord roulette (d), Finger impressions (e), Single incision and comb stamps (f), Dot stamps and single groove (g), Comb stamps and hollow stalk stamps (h), Multiple grooves and herring bone stamp (i), Comb stamps and multiple grooves (j), and Hollow stalk stamps and multiple incisions and multiple grooves (k) (Data Source: Margretta Morgan).

4.7 Gonja Dimbia Ware II Vessel Forms

Gonja Dimbia Ware II is predominantly characterized by vessels with flowing profiles rather than angular profiles. The vessels with angular profiles are few and this can be discerned from the

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fact that out of a total of 882 sherds, only 5 (0.56%) are carinations. Rims, necks, bodies and bases constitute respectively 31.40%, 14.05%, 53.28%, and 0.68% of the total sherds of the ware. No handles were found. Out of a total 107 diagnostic rim sherds, 40 (37.38%) are jars, the remaining 67 (62.61%) are bowls (see Table VI).

4.8 Gonja Dimbia Ware II Jar Forms

4.8.1 Gonja Dimbia Ware II: Jar Form 1

The first jar form, represented by 30 sherds, constitutes 75% of the total jar forms and 28.03% of the total vessel forms of Gonja Dimbia Ware II. Jar Form 1 is a spherical vessel whose rim curves to form a concave profile at the interior and a convex profile at the exterior (Figure 30). It is similar to Ware I Jar Form 4. Rim lips are rounded (a) or squared (b). Rim diameter ranges from 40 cm to 62 cm. The vessel form is represented by 30 sherds, 7 of which are red-slipped and all the sherds are decorated. A total of 13 sherds are burnished. Decoration consists comb stamps on the rim; channeling on the rims; short linear stabs; multiple incisions on the rim-neck joint; a combination of channeling and multiple grooves and triangular stamps on the rim and rim-neck joint; and comb stamps and circular (hollow reed) stamps on the rim. Thirteen of the sherds are blackened with soot. The vessel form was represented in Level 2 of the Test Pit and Levels 1, 2, and 4 of the Trench (see Appendix 2a).

The vessel form is similar to Mica-Coated (Micaceous) Ware vessel Form B (Effah-Gyamfi, 1974:259; Fig.17B, 1985:162; Fig.35 (2); Begho Micaceous Ware Pot Form A (Crossland, 1989: 155; Fig.17A) and New Buipe Micaceous Ware Vessel Forms 1-3 (York, 1973:149-150; Fig.72 (1-3).

.

(a) (b)

Figure 30: Gonja Dimbia Ware II: Jar Form 1 (a-b).

4.8.2 Gonja Dimbia Ware II: Jar Form 2

The second jar form of Gonja Dimbia Ware II is a spherical jar with short everted squat rims which measure about 0.6 cm to 1.5 cm in height. The rim-neck curvature is sharp both at the exterior and interior. Rim diameter ranges from 18 cm to 46 cm. Rim lips are rounded (Figure 31). The vessel form is represented by 8 sherds, five of which are burnished. One sherd is red-slipped and 5 are blackened with soot. All the sherds are decorated. Decorations consist of multiple grooves, comb stamps, channeling and a combination of comb stamps and multiple grooves all at the rim-neck joint and a combination of comb stamps and single groove on the rim-neck joint and the shoulder. The jar form constitutes 20% of the total jar forms and 7.47% of the total vessel form of Gonja Dimbia Ware II. The vessel is represented in Levels 1, 2 and 4 of the Trench i.e., from all the levels of the Trench that contained pottery (see Appendix 2b).

The jar form is similar to Bono Manso Mica-Coated (Micaceous) Ware Vessel Form 2 (Effah-Gyamfi, 1985:162: Fig.35 (2, top).

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Figure 31: Gonja Dimbia Ware II: Jar Form 2.

4.8.3 Gonja Dimbia Ware II: Jar Form 3

The third jar form is represented by 2 sherds. Jar Form 3 is a spherical jar whose rims are almost over-turned (Figure 32). The rim lip is decorated with channeling (a) or is rounded (b). One sherd is burnished and the other is unburnished. One sherd is red-slipped. The rim diameter of one of the sherds is 42 cm and the other has a rim diameter of 40 cm. The 2 sherds are decorated with multiple horizontal grooves at the rim-neck joint. One of the sherds is blackened with soot. One sherd came from Level 2 of the Test Pit and the other one was recovered from Level 1 of the Trench (see Appendix 2c). The vessel form constitutes 5% of the total jar forms and 1.86% of the total vessel forms of Gonja Dimbia Ware II.

The vessel form is similar to Bono Manso Mica-Coated (Micaceous) Ware Vessel Form 1 (Effah-Gyamfi, 1974: 259; Fig.17A, 1985:162; Fig.35 (1); New Buipe Micaceous Ware Vessel Form 4 (York, 1973:150; Fig.73(4) and Begho Micaceous Ware Pot Form C (Crossland, 1989:155; Fig,17C).

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(a) (b)

Figure 32: Gonja Dimbia Ware II: Jar Form 3 (a-b).

4.9 Gonja Dimbia Ware II Bowl Forms

4.9.1 Gonja Dimbia Ware II: Bowl Form 1

Four bowl forms were identified in Gonja Dimbia Ware II sherds. The first and predominant bowl form is represented by 57 sherds which constitute 85.07% of the total bowl forms and 53.27% of the total vessel forms of Gonja Dimbia Ware II. Bowl Form 1 is a hemispherical bowl (Figure 33) with incurved rims. Rim lips are squared (a) or rounded (b). Rim diameter ranges from 36 cm to 48 cm. Nine sherds are burnished and the remaining 48 sherds are unburnished. Fifty sherds are decorated. Decorations consist of comb stamps on the shoulder; wavy-line stamping just below the rim-lip; hollow reed (circular) stamps just below the rim-lip; channeling just below the rim-lip; multiple circumferential grooves at the rim-neck joint; a combination of oblique incisions and multiple grooves just below the rim-lip; a combination of comb stamps and multiple circumferential grooves on the shoulder; a combination of incisions and comb stamps just below the rim lip and on the shoulder; a pair of multiple grooves enclosing short vertical incisions; a combination of comb stamps and single incision on the shoulder and a combination of obliquely aligned linear stabs and

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single groove just below the rim lip.The vessel form was represented in Levels 1 and 2 of the Test Pit and Levels 1, 2, and 4 of the Trench (see Appendix 2c).

(a)

(b)

Figure 33: Gonja Dimbia Ware II: Bowl Form 1 (a-b).

4.9.2 Gonja Dimbia Ware II: Bowl Form 2

Bowl Form 2 is a hemispherical vessel with an incurved rim and a carination located about 1.5cm to 2.7cm below the rim lip (Figure 34). It is represented by 4 sherds which constitute 5.97% of the total bowls and 3.73% of the total vessels of Gonja Dimbia Ware II. Rim lips are rounded (a) or squared (b). Three of the sherds are from Level 3 and one from Level 1 of the Trench (see Appendix 2d). Rim diameter ranges from 40 to 50 cm. Two of the sherds are red-slipped and all the sherds are burnished and decorated. Decoration consists of channelling below the rim lip; comb stamps on the body; what appear to be finger impressions or notches at the edge of the carination and a combination of comb stamps, multiple circumferential grooves and a relief decoration in the form of an arch all between the rim lip and the carination. Two of the sherds are covered with soot.

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(a)

(b)

Figure 34: Gonja Dimbia Ware II: Bowl Form 2 (a-b).

4.9.3 Gonja Dimbia Ware II: Bowl Form 3

The third bowl form (Figure 35) is a hemispherical bowl with straight rims. The bowl form is represented by 4 sherds, all from Level 2 of the Trench (see Appendix 2e). Rim lips are rounded. Rim diameter ranges from 26cm to 32cm. One sherd is burnished and the remaining three are unburnished. All the sherds are decorated, 3 with channeling below the rim lip; and one with multiple circumferential grooves combined with comb stamps a few millimeters below the rim lip. Three sherds are blackened with soot. The vessel form makes up 5.97% of the total bowl forms and 3.73% of the total vessel forms of Gonja Dimbia Ware II.

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Figure 35: Gonja Dimbia Ware II: Bowl Form .

4.9.4 Gonja Dimbia Ware II: Bowl Form 4

The fourth bowl form (Figure 36 a-b) is represented by 2 sherds which constitute 2.98% of the total bowls and 1.86% of the total vessels of Gonja Dimbia Ware II. It is an open hemispherical bowl with rounded (a) or squared (b) rims and rim diameter of 44 cm. All sherds were recovered from Level 2 of the Trench (see Appendix 2f). One sherd is red-slipped and one sherd is blackened with soot. One sherd is burnished and the other is unburnished. The sherds are undecorated.

(a) (b)

Figure 36: Gonja Dimbia Ware II: Bowl Form 4 (a-b).

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Table 6: Vessel Forms: Gonja Dimbia Ware II.

Jar Forms	**Quantity**	**% of Total Jar Forms**	**% of Total Vessel Forms**
1	30	75	28.03
2	8	20	7.47
3	2	5	1.86
Sub-Total	**40**	**100**	**37.38**
Bowl Forms	**Quantity**	**% of Total Bowl Forms**	**% of Total Vessel Forms**
1	57	85.07	53.27
2	4	5.97	3.73
3	4	5.97	3.73

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4	2	2.98	1.86
Sub-Total	**67**	**99.99**	**62.61**
Grand Total	**107**		

4.10 Gonja Dimbia Ware III

The third ware, Gonja Dimbia Ware III is a design-painted ware similar to Silima Ware (see Davies, 1964; Shinnie and Kense, 1989; York, 1973; Mathewson, 1968). It is a characteristic trait of the Volta confluence area in Ghana (see Effah-Gyamfi, 1985:149). Davies (1964) attempted to draw a parallel between Gonja pottery and that from Koumbi Saleh. As Effah-Gyamfi (1985:149) has noted, other archaeologists, in attempting to find links between the Middle Niger region, where design-painting is a common trait, and the north-western part of Ghana where Mande trading activities were particularly strong between the 15th and 18th centuries A.D. (see Goody, 1964; Wilks, 1961; Posnansky, 1973a), have considered small quantities of these sherds as imports either directly or indirectly connected with the Middle Niger area (Posnansky, 1973b:10; Crossland, 1976:51). Design-painted pottery has been associated with the Gonja (see Davies, 1964). However, York (1973:121) who worked in Gonja has observed that the painting tradition is pre-Gonja, suggesting that it is earlier than the Mande infiltration into the area, though it certainly increased in

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importance and quantity during the Mande colonization from about the late 16th century A.D.

A total of 519 sherds which constitute 5.52% of the sherds from the excavations at Gonja Dimbia belong to Gonja Dimbia Ware III. The sherds are usually painted red on the rim, rim-neck joint, or design-painted on the body. It is also well fired and the inner fabric contains laterite fragments. A total of 336 (64.73%), 172 (33.14%) and 11 (2.11%) sherds fall within 0-5 cm, 5-10 cm and 10-15 cm respectively when measured on their longest axes. The colour of the inner fabric is black or grey.

The total number of sherds belonging to Gonja Dimbia Ware III that are decorated exceed the total of undecorated sherds. Out of the total of 519 sherds, 321 (61.84%) sherds are decorated (see Appendix 4c). The remaining 198 sherds which constitute 38.15% of the sherds are undecorated. Like Gonja Dimbia Ware II, sherds belonging to Gonja Dimbia Ware III are predominantly decorated.

The most popular decoration is grooves. A total of 102 sherds constituting 18.44% of the total decorations on sherds of the ware are decorated with grooves. A total of 66 sherds are decorated with multiple grooves. Multiple grooves (Figure 37a) constitute 20.56% of the grooves and single grooves (Figure 37b) found on 36 sherds constitute 11.21% of the grooves found on Gonja Dimbia Ware III sherds. The decoration is mainly found on body sherds.

Other decorations on Gonja Dimbia Ware III sherds include channelling (Figure 37c) which are found on 59 sherds which constitute 18.38% of the decorations on Gonja Dimbia Ware III sherds. Design-painting is found on both interior and exterior parts (Figure 37d-e) of sherds. Painted designs are predominantly in red. Only 1 sherd is decorated with a band of black paint. The bands of paint are found on the rim lip or body of the sherds.

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Painted designs constitute 14.01% of the decorations on Gonja Dimbia Ware III sherds. They were applied on 45 sherds of the ware. The painted decorations consist of bands of red paint on the rim; red vertical lines in the interior of vessels (Figure 37f) and red horizontal lines in the interior of vessels.

Other decorations on Ware III sherds include comb stamps (Figure 37g) which are found on 17 sherds and constitute 5.29% of the decorations on the sherds of the ware; twisted cord roulette which constitutes 0.93% of the total decorations of the ware and are found on only 3 sherds; hollow stalk stamps, dot stamps and short linear stabs each of which was found on only 1 sherd and each of which constitutes 0.31% of the total decorations of the ware.

In some cases, two or three decorative techniques were employed on the same sherds. The combined decorations include wavy line stamp and multiple grooves 5.60%;comb stamps and multiple grooves (Figure 37h; 4.67%); channelling and multiple grooves (Figure 37i; 4.36%); dot stamps and multiple grooves (1.24%); design painting and multiple grooves (0.93%); wavy line stamps and channelling (0.62%); single groove and multiple incisions 0.93% and design painting and channelling 0.31%.

Other combined decorations include multiple grooves and finger impressions 0.31%; multiple grooves and cord roulette (0.31%); channelling and comb stamps (Figure 37j; 0.31%); channelling and finger impressions (Figure 37k; 0.31%); single incisions and cord roulette (0.31%); wavy line stamps and single incisions (0.31%) and cord roulette and channelling (0.31%).

Other combined decorations are wavy line stamps and design-painting (0.31%); channelling and comb stamps and single grooves (0.62%); channelling and single incision and design painting

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(0.31%); design painting and channelling and multiple grooves (0.31%) and hollow stalk stamps and multiple grooves and comb stamps (0.31%).

(a) Multiple grooves

(b) Single groove

(c) Channeling

(d) Design-Painting(exterior part of sherd)

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(e) Design-Painting (geometric design)

(f) Design-Painting (interior part of sherd)

(g) Comb stamps

(h) Comb stamps and multiple grooves

(i) Channeling and multiple grooves

(j) Channeling and comb stamps

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(k) Channeling and finger impressions

Figure 37: Decorations on Gonja Dimbia Ware III sherds (a-k).

4.10. 1 Gonja Dimbia Ware III Vessel Forms

Out of a total of 87 diagnostic sherds, 36 (41.37%) were jars and 50 (57.47%) were bowls. Only 1 diagnostic base sherd was identified (see Table VII). Rims, necks, bodies and bases constitute 51.63%, 8.47%, 34.48%, and 3.85% respectively of the total sherds of Gonja Dimbia Ware III. Eight carinated sherds which constitute 1.54% of the total sherds were found. No handles were found. Vessel forms are predominantly those with flowing rather than with angular profiles.

4.10.2 Gonja Dimbia Ware III Jar Forms

4.10.2.1 Gonja Dimbia Ware III: Jar Form 1

The first jar form is a spherical jar with almost out-turned rim. Rim lip is characterized by channelling (Figure 38a) or are rounded (Figure 38b). All the 12 sherds representing the vessel form are painted. Rim diameter ranges from 28 cm to 48 cm. Seven sherds are burnished. Decoration consists of channelling on the rim and a combination of channelling on the rim and multiple circumferential grooves, combstamps and multiple oblique incisions in the inner part of the rim. One sherd was picked from the surface. The remaining eleven sherds were represented in Level 2 of Test

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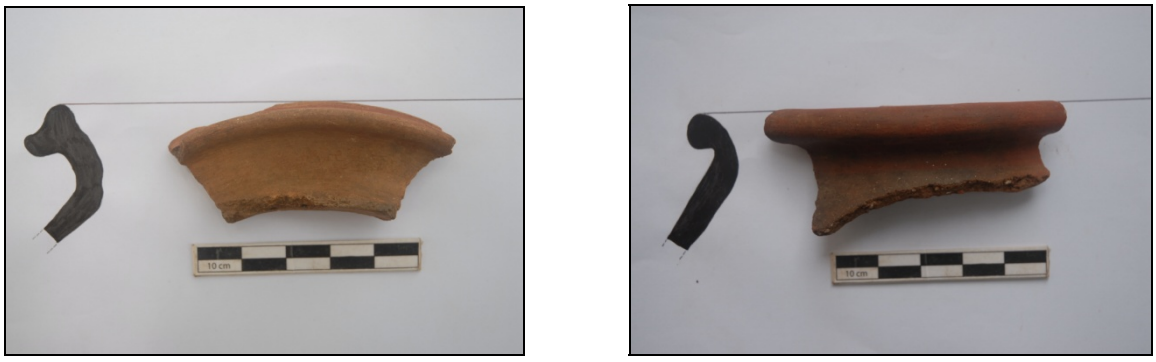
Pit and Levels 1, 2, and 4 of Trench (see Appendix 3a). The vessel constitutes 33.33% of the total jar forms and 13.79% of the total vessel forms of Gonja Dimbia Ware III.



(a) (b)

Figure 38: Gonja Dimbia Ware III: Jar Form 1 (a-b).

4.10.2.2 Gonja Dimbia Ware III: Jar Form 2

The second jar form is a jar with an everted rim and rounded rim lip (Figure 39). The rim curves to form a concave profile in the interior and a convex profile at the exterior (a) or a concave profile in the interior and a straight profile at the exterior (b). Rim diameter ranges from 44 cm to 54 cm. All sherds are burnished and painted red. Two sherds are blackened with soot. Decoration consists of single circumferential groove either in the interior or exterior part of the rim. The vessel form is represented by only 3 sherds, 2 from Level 2 and 1 from Level 3 of the Trench (see Appendix 3b).

The jar form constitutes 8.33% of the total jar forms and 3.44%of the total vessel forms of Gonja Dimbia Ware III.

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(a)


(b)

Figure 39: Gonja Dimbia Ware III: Jar Form 2 (a-b).

4.10.2.3 Gonja Dimbia Ware III: Jar Form 3

Also represented in Gonja Dimbia Ware III are spherical jars with everted rims which curve sharply at the interior and exterior to join the neck (Figure 40). Sherds representing the jar form are painted in red and are all burnished. One sherd is decorated with multiple circumferential grooves just above the rim-neck joint. The two sherds representing the vessel form were recovered from Level 2 of the Trench (see Appendix 3c). The rim diameter of one sherd is 36 cm and the other sherd has a rim diameter of 54 cm. The jarform constitutes 5.55% of the total jar forms and 2.29% of the total vessel forms of Ware III.

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Figure 40: Gonja Dimbia Ware III: Jar Form 3.

4.10.2.4 Gonja Dimbia Ware III: Jar Form 4

The fourth jar form (Figure 41) is a jar with an everted rim which curves to form a convex profile in the interior before joining the neck. The 5 sherds representing the vessel form are all burnished and painted red. Rim diameter ranges from 38 cm to 42 cm. Decoration consist of a single groove and channelling at the rim-neck joint. Sherds belonging to the vessel form were found in Levels 1 and 2 of the Trench (see Appendix 3d).The vessel form constitutes 13.88% of the total jar forms and 5.74% of the total vessel forms of Gonja Dimbia Ware III sherds.

Figure 41: Gonja Dimbia Ware III: Jar Form 4.

4.10.2.5 Gonja Dimbia Ware III: Jar Form 5

Jar Form 5 is similar to Gonja Dimbia Ware I Jar Form 4 and Ware II Jar Form 1.The rim curves to form a concave profile in the interior and a convex profile at the exterior (Figure 42). The form is represented by 10 sherds 8 of which are burnished. All the sherds are decorated. Rim lips are rounded (a) or squared (b). Some of the sherds are really big and represent huge pots which may

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have been used for storing water. Rim diameter ranges from 44cm to 66cm. Decoration consists of channelling at the rim-neck joint and the exterior parts of the rims; a combination of channelling and comb stamps on the exterior part of rims and a combination of comb stamps, channelling and a single groove on the rim and rim-neck joint**.** Sherds of the vessel form were found in Levels 1, 2, and 4 of the Trench (see Appendix 3d). The vessel form constitutes 13.88 % of total jar forms and 5.81% of total vessel forms of the ware.

(a)

(b)

Figure 42: Gonja Dimbia Ware III:Jar Form 5 (a-b).

4.10.2.6 Gonja Dimbia Ware III: Jar Form 6

The sixth jar form is a spherical jar with an everted rim and a carination between the shoulder and the base (Figure 43). It is similar in shape to Jar Form 9 of Gonja Dimbia Ware I. Rim lips are

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rounded (a) or tapered (b). Rim diameter ranges from 36 cm to 40 cm. Body diameter is wider than rim diameter. The 4 sherds representing the vessel form are all burnished and painted red. Three sherds are decorated. Decorations consist of wavy line stamping on the shoulder and a combination of wavy line stamping and multiple circumferential grooves between the rim and the carination. All the 4 sherds are blackened with soot. The sherds were all recovered from Level 2 of the Trench (see Appendix 3f). The vessel form constitutes 11.11% of the total jar forms and 4.65% of the total vessel forms of Gonja Dimbia Ware III.

(a)

(b)

Figure 43: Gonja Dimbia Ware III: Jar Form 6 (a-b).

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4.11 Gonja Dimbia Ware III Bowl Forms

4.11.1 Gonja Dimbia Ware III: Bowl Form 1

Bowl Form 1 is an open hemispherical bowl with a thickened rim whose lip is rounded (Figure 44a) or tapered (Figure 44b). Rim diameter is wider than the diameter of the body. The vessel form is represented by 21 sherds all except one of which are burnished. Rim diameter ranges from 30 cm to 70 cm. All the sherds are decorated. Decoration consists of painting (in red) on the rim; painted vertical lines in the interior of vessels; painted horizontal lines in the interior of vessels; red painting on the exterior rim; multiple circumferential grooves on the rim, exterior part of the body and interior part of the rim; single circumferential grooves in the interior part of the rim; single incision at the exterior rim-neck joint; a combination of zig-zag comb stamps, horizontal grooves and dot stamps at the shoulder. Sherds belonging to this ware were found in Level 3 of the Test Pit and Levels 1, 2, and 4 of the Trench (see Appendix 3g). The vessel form constitutes 24.41% of the total bowl forms and 24.13% of the total vessel forms of Ware III.

(a) (b)

Figure 44: Gonja Dimbia Ware III: Bowl Form 1 (a-b).

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4.11.2 Gonja Dimbia Ware III: Bowl Form 2

The second bowl form (Figure 45a-b) is a hemispherical bowl with an almost straight rim. Rim lips are rounded and vessels have single circumferential grooves or channelling just below the rim lip. Rim diameter ranges from 30 cm to 50 cm. The vessel form is represented by 6 sherds all of which are burnished. The vessels are painted red on the outside wall. Three of the sherds are from Level 1 of the Trench and three sherds are from Level 2 of the Trench (see Appendix 3h). Four of the sherds are blackened with soot from open air fire. The bowl form constitutes 12.0% of the total bowl forms and 6.89% of the total vessel forms of the ware.

(a)

(b)

Figure 45: Gonja Dimbia Ware III: Bowl Form 2 (a-b).

4.11.3 Gonja Dimbia Ware III: Bowl Form 3

Bowl Form 3 (Figure 46) is a hemispherical bowl with an almost straight rim which stands on a base that is concave in shape. Rim lip is flat. Rim diameter is 22cm and the height of the bowl is 5 cm base diameter is 20 cm. The bowl form is represented by one sherd from Level 2 of the Trench (see Appendix 3j). The vessel is painted red and is decorated with a combination of single

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circumferential groove and dot stamps immediately below the rim lip.The bowl form constitutes 2.0% of the total bowl forms and 1.14% of the total vessel form of Gonja Dimbia Ware III.

Figure 46: Gonja Dimbia Ware III: Bowl Form 3.

4.11.4 Gonja Dimbia Ware III: Bowl Form 4

Bowl Form 4 (Figure 47) is a short hemispherical bowl with a short everted rim. The bowl is about 2.9 cm in height. The diameter of the rim is 26 cm while the base diameter is 18 cm. It is represented by a single unburnished but painted sherd from Level 3 of the Trench (see Appendix 3k). It is blackened with soot and could have been used as a lamp. The sherd is undecorated. The rim lip is squared. It constitutes 2.0% of the total bowl forms and 1.14% of the total vessel forms of the Ware III.

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Figure 47: Gonja Dimbia Ware III: Bowl Form 4.

4.11.5 Gonja Dimbia Ware III: Bowl Form 5

Bowl Form 5 (Figure 48) is a hemispherical bowl with incurved rim. Body diameter is wider than rim diameter which ranges from 38 cm to 52 cm. The vessel form is represented by 16 sherds all from Levels 1, 2, and 4 of the Trench (see Appendix 3m).

Decoration consists of single circumferential groove about 1.8 cm below the rim lip; multiple circumferential grooves on the body; comb stamps horizontally arranged on the body or in criss-cross pattern; channelling just below the interior part of the rim; a combination of multiple incisions (on the body) and channelling about (1.5 cm below the rim lip); a combination of comb stamps and multiple grooves on the body and a combination of channelling and zig-zag comb stamps on the body. The sherds are also painted in red colour over the rim or the body. The bowl form constitutes 18.60% of the total bowl forms and 18.39% of the total vessel forms of Ware III.

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Figure 48: Gonja Dimbia Ware III: Bowl Form 5.

4.11.6 Gonja Dimbia Ware III: Bowl Form 6

The sixth bowl form (Figure 49) is a hemispherical bowl with an incurved rim and a carination. Rim lips are rounded and rim diameter which ranges between 32 cm and 50 cm is narrower than the diameter of the body. The diameter is located between 2.6cm and 4.5cm below the rim lip. The vessel form is represented by 5 burnished and painted sherds. Decoration consists of circumferential comb stamps on the body; a combination of circumferential multiple grooves and comb stamps on the body; a combination of comb stamps, multiple incisions (all on the rim) and short linear stabs on the carination. The bowl form is represented in Levels 1, 2 and 4 of the Trench and it constitutes 10.0% of the total bowl forms and 5.74% of the total vessel forms of Gonja Dimbia Ware III (see Appendix 3n).

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Figure 49: Gonja Dimbia Ware III: Bowl Form 6.

4.12 Gonja Dimbia Ware III Base Form

4.12.1 Gonja Dimbia Ware III: Base Form 1

Only one base form (Figure 50) was identified. It is identical to the base of Ware III bowl Form 3. The only sherd of the form is painted red and is decorated with multiple circumferential grooves. The diameter of the base is 12 cm. The sherd was recovered from Level 2 of the Trench (see Appendix 3p).

Figure 50: Gonja Dimbia Ware III: Base Form 1.

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4.13 Perforated pottery disc

A circular pottery disc with a diameter of 6.8 cm and a circular hole in the middle was recovered from Level 2 of the Trench. It is 1 cm thick and the diameter of the hole in the middle of the disc is 1 cm. The paste and fabric of the disc is similar to Gonja Dimbia Ware I. The disc is probably a treadle of a loom.

Table 7: Vessel Forms: Gonja Dimbia Ware III.

Jar Forms	Quantity	% of Total Jar forms	% of Total Vessel Forms
1	12	33.33	13.79
2	3	8.33	3.44
3	2	5.55	2.29
4	5	13.88	5.74
5	10	27.77	11.49
6	4	11.11	4.59

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Sub-Total	**36**	**99.97**	**41.37**
Bowl Forms	**Quantity**	**% of Total Jar forms**	**% of Total Vessel Forms**
1	21	42	24.13
2	6	12	6.89
3	1	2	1.14
4	1	2	1.14
5	16	32	18.39
6	5	10	5.74
Sub-Total	**50**	**100**	**57.47**

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Grand Total	**86**		**98.85**
Base Form			
1	1	100	1.14
Sub-Total	**1**		
Grand Total	**87**		**99.98**

4.14 Faunal Remains

The faunal remains recovered from the excavations are the remains of invertebrate and vertebrate animals. Invertebrate remains include shells of land and fresh water molluscs. Vertebrate remains are bones of animals and humans. A piece of ivory was found. Faunal remains recovered sum up to 256 (see Appendix 5).

4.14.1 Shells

In all, 24 shells, all from the second level of the Trench were recovered from the excavations. These are 13 (54.16%) shells of *Donax oweni,* an edible fresh water mollusc which lives offshore and in

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estuaries; 1 (4.16%) shell of *Lantina globosa*, a fresh water mollusc found on rocks in rivers and 10 (41.66%) shells of *Achatina achatina*, the edible giant African snail found on dense forest floors (see Chart I).

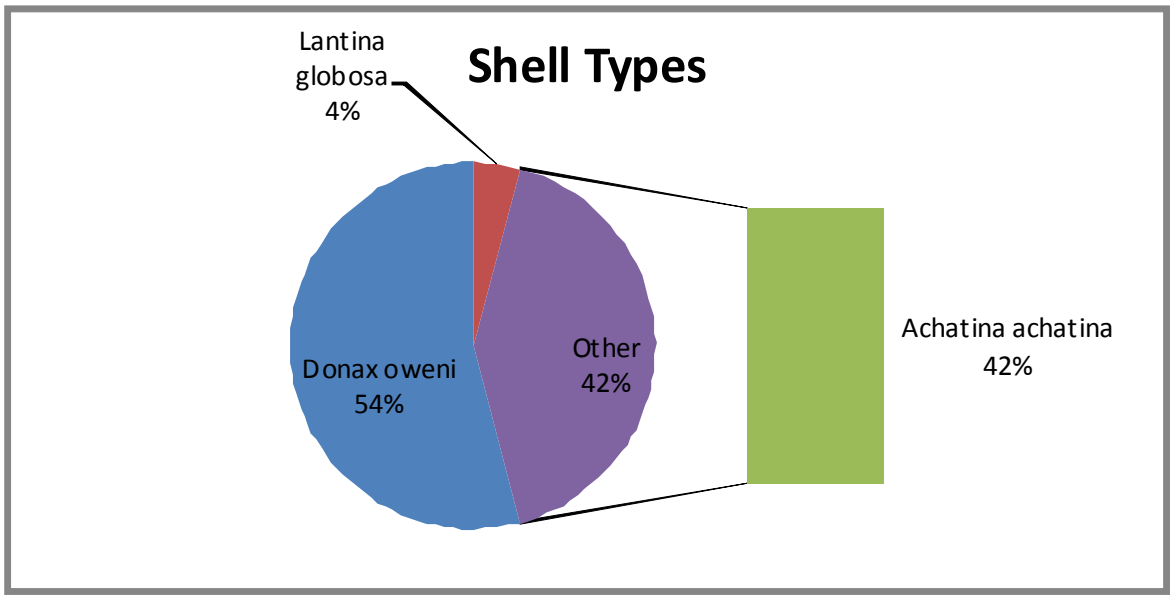

Chart 1: Distribution of Shells Recovered and Analysed.

4.14.2 Bones

The bones found in the excavations can be grouped as follows:

Faunal –Bones		
Genus/ Species	**Quantity**	**% Of Total**
Human (Homo Sapiens)	5	2.18
Bos Taurus(Cattle)	70	40.61
Bovidae	93	30.56
Reptilia (Land Tortoise)	4	1.74
Carnivora (Dog)	8	3.49

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Unknown	23	10.04
Aves	2	0.87
Equus Caballus(Horse)	12	5.24
Rodentia (Grasscutter)	11	4.80
Pisces (Fish)	1	0.43
Total	**229**	**99.96**

A total of 229 bones were recovered from the excavations. The predominant bones were those of bovids. A total of 93 (40.61%) are bones of bovids. A single bone each of a goat and a sheep, each of which constitutes 0.43%of the total number of bones were found.

A total of 70 domestic cattle (*Bostaurus*) bones which constitute 30.56 % of the total bones were found. Four of the cattle bones have butchery marks.

Twelve bones of a horse (*Equus caballus*) were also recovered from the excavations. These constitute 5.24 % of the total bones from the excavations. No butchery marks were found on the horse bones.

A total of 5 human bones which constitute 2.18 % of the total bones were found.

Also found from the excavations were bones of the *Carnivora.* These consist of 8 dog bones which constitute 3.49 % of the total bones. One dog bone had butchery marks

Also included in the bones were eleven (*Rodentia)* bones, all of which were cane rat bones. These constitute 4.80 % of the total bones recovered from the excavations.

A total of 2 bird *(Aves)* bones which constitute 0.87 % of the total bones were found. Only one of the bones had butchery marks. The bones could not be identified to specific species.

Only a fragment of a fish *(Picses)* bone which constitutes 0.43% of the total bones was identified.

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It was from the lower jaw of the fish.

Four *Reptilia* bones, all of land tortoise were also recovered from the excavated units. They constitute 1.74 % of the total bones.

A total of 24 bones which constitute 10.38% of the total bones could not be identified.

4.14.3 Ivory

A piece of carved, undecorated ivory was recovered from the excavations. It is 8 mm thick, 3.7 cm wide and measures 7 cm in diameter. The curvature of the ivory piece indicates that it was part of a bracelet.The ivory possibly may have come from the tusk of an elephant. It is also likely to have functioned as an aesthetic object for the decoration of the human body especially by women.

Figure 51: A piece of carved ivory.

4.15 Iron Slag

Five pieces of iron slag were found in the Trench. Two pieces were recovered from Level 2 and three pieces were recovered from Level 4. The presence of iron slag in the bottommost stratigraphic level of the Trench indicates that Gonja Dimbia is an Iron Age site and that its inhabitants may have smelted iron.

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Figure 52: Pieces of Iron Slag.

4.16 Iron Bracelet and Arrowhead

A corroded iron bracelet with a diameter of about 10 cm and an iron arrowhead measuring 11.7 cm long were recovered from the excavation. They were all recovered from the Level 2 of the Trench. It can therefore be inferred that the inhabitants of this settlement may have been users of iron.

Figure 53: Iron bracelet (a) and Iron Arrowhead (b).

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4.17 Grindstones

Seven upper grindstones or querns of quartzite which constitute 0.07% of the total finds from the excavations were recovered from Levels 2 and 4 of the Trench. They are round in shape. They measure 5.5 cm, 6.0 cm and 6.7 cm wide. These may have functioned as objects for grinding food items into smaller particles.

Figure 54: Grindstones.

4.18 Dating the site

Silima Ware (Gonja Dimbia Ware III) has been found at Gonja Dimbia. This ware has been dated to 1300-1850 at Daboya (Shinnie and Kense, 1989:72). At New Buipe, the pottery was found in Phase II (dated by radio-carbon to 780 ± 100 A.D. and 790 ± 100 A.D.) and Phase III (with radio-carbon dates ranging from 1495 ± 95 A.D. to 1640 ± 90 A.D. (York, 1973:20, Table II, 131, Table XXVII). Silima Ware has also been found at Yendi Dabari (Shinnie and Ozanne, 1962:87) which was probably abandoned in 1713-14 A.D. (Ozanne, n.d: 31). At Begho, the ware has been found at the Nyarko Quarter dated to the early second millennium A.D. (Posnansky, 1976:3; Crossland, 1976:36, 42-44), and at the Begho B2 site dated to post-16th century A.D. (Crossland, 1989: 105). At

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Bono Manso, the ware was mainly confined to Phase I assigned a date of 1250-1450 A.D. (Effah-Gyamfi, 1985:27, 35, 160-161). By cross-cultural inference, it is likely that Gonja Dimbia dates between 1300 and 1850.

The two other wares from Gonja Dimbia, namely, Ware I and Ware II have also affinities to pottery from some areas of the Brong-Ahafo Region and northern Ghana. Gonja Dimbia Ware I, characterized by sherds with hard concrete-like fabric with fragments of quartz and laterite has affinities with Bonoso Ware III (see Boachie-Ansah, 1986:121, 2000:32) from Bonoso (the ancestral home of the Wenchi people), Kaam (a site in the Wenchi metropolis from where the Wenchi people moved to their present township) and Twemma (another site in the Wenchi Traditional Area). Bonoso has produced two uncalibrated radiocarbon dates of 710 ± 90 A.D. (N-2343 and 970 ± 85 A.D. (N-2344) (Boachie-Ansah, 1986:133), and two calibrated 2-sigma radiocarbon dates of 680-776 A.D. (KIA 42817) and 663-774 A.D. (KIA 42818). Kaam has produced two calibrated 2-sigma dates of 1395-1468 A.D. (KIA 42820) and 1385-1428 A.D. (KIA 42821). Twemma has also been dated by 2-sigma calibrated radiocarbon dates to 1440-1524 A.D. (KIA 42824) and 1418-1446 A.D. (KIA 42825).

Two other sites, Bono Manso and Ohene Ameyaw Anim, all in the Techiman Traditional Area of the Brong-Ahafo Region, have also produced pottery similar to Gonja Dimbia Ware I. The Bono Manso concrete-textured sherds with well-fired hard fabric which are similar to Gonja Dimbia Ware I were found among the Silima Ware sherds from the site (Effah-Gyamfi, 1985:151). These sherds have been assigned to Phase I which has been assigned a date of 1250-1450 A.D. (Effah-Gyamfi, 1985:27, 35,160-161). Similar sherds as Gonja Dimbia Ware I have also been found at Ohene Ameyaw Anim near the Techiman Secondary School (see Boachie-Ansah, 2005:66-69).

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Ohene Ameyaw Anim has been dated to the late 17th and 18th centuries by locally manufactured smoking pipes and a Rhenish salt-glazed stoneware.

Gonja Dimbia Ware II sherds, characterized by mica coating on the outer surface are similar to Mica-coated (Micaceous) Ware of Bono Manso (see Effah-Gyamfi, 1974:258-261, 1985:161-165), Begho Micaceous Ware I which is also characterized by intentionally applied mica on outer surface of sherds (Crossland, 1989:38-41), and New Buipe Micaceous Ware, the sherds of which were also intentionally treated with a thin slip containing a very high proportion of muscovite (York, 1973:146-151).

The Brong Quarter of Begho from where the micaceous pottery was recovered has been dated by five radiocarbon dates which range from 1430 ± 100 A.D. to 1710 ± 100 A.D. indicating an occupation between 14th and the early 18th centuries (Crossland, 1989:10).

Seven calibrated radiocarbon dates ranging from 1297 A.D. (N 2493) and 1630 A.D. (N 2491) have been obtained for Bono Manso (Effah-Gyamfi, 1985:204). At New Buipe, the mica-coated pottery was found in Phases II and III. Phase II has been dated by two carbon dates to 780 ± 100 A.D. (I - 2702) and 790 ± 100 A.D. (I -2701) while Phase III has been dated by five radiocarbon dates which range from 1495 ± 90 A.D (I-2705) to 1640 ± 90 A.D. (I - 2702) (York, 1973:145, Table XXIX).

Taking into consideration the early days of Bonoso, the sherds which are similar to Gonja Dimbia Wares I and II are dated at Bonoso, Kaam, Twemma, Ohene Ameyaw Anim, Bono Manso, Begho and New Buipe from 663 A.D. to 1810 A.D. By cross-cultural dating, the wares from Gonja Dimbia probably date to this period. The two dates of 663 A.D. and 1810 A.D provide a range of about 1,147 years. This is too wide a range compared to a range of 391 years obtained for the carbon

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dates for Gonja Dimbia (see Table VI). It is therefore not very useful for dating the site. We must now turn our attention to the radiocarbon dates obtained for Gonja Dimbia.

Five carbon samples in the form of charcoal were prepared and sent for dating at the Scottish University Environmental Research (SUERC) Radiocarbon Laboratory in the United Kingdom. The five samples were retrieved from depths of 110, 132, 140, 140, and 150 of Levels 2 and 4 of the Trench. The samples with their laboratory numbers and the levels from which they were recovered are indicated in the Table below:

Table 8: Radiocarbon Dates of Charcoal Samples from Gonja Dimbia.

Lab. No.	Depth	Uncal bp	CalAD 68.2%	Cal AD 95.4%
GU30190	110 cm	619 ± 29	AD 1324-1393	AD 1400
GU30191	132 cm	428 ± 29	AD 1436-1471	AD 1498-1615
GU30192	140 cm	660 ± 29	AD 1306-1385	AD 1321-1392
GU30193	140 cm	554 ± 29	AD 1345-1419	AD 1360-1432
GU30194	150 cm	654 ± 29	AD 1310-1387	AD 1324-1394

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration programme (OxCal4).

There are anomalies in the dates. For example the second sample (GU30191) collected from a depth of 132 cm is later than the first sample (GU30190) collected at a depth of 110 cm. It is also regrettable that no range was given for the first sample (GU30190) collected from a depth of 110 cm. It is therefore difficult to tell whether the second date partly coincides with the first date.

The third sample (GU30192) collected at a depth of 140 cm, the same depth at which the fourth sample (GU30193) was collected have produced two different calibrated 2-sigma dates of 1321-

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1392 A.D. (GU30192) and 1360-1432 A.D. (GU30193). However, this problem is alleviated by the fact that the two dates partly coincide. They also coincide with the last date of 1324-1394 A.D. (GU30194).

The anomalies may be due to differing ages of the samples since no clear-cut evidence of disturbance was detected in the archaeological record. It must be noted, however, that all together the dates fall within 1321-1615 A.D. This falls within the period when Silima Ware (Gonja Dimbia Ware III) was in use in several parts of Ghana. The total absence of imported European goods seems to support a pre-Atlantic contact period dating provided by some of the samples. It is possible that the 1498-1615 A.D. date provided by the second sample (GU30191) may not be reliable. On the other hand, the site may have been occupied before and during the Atlantic contact period. If this was the case, then, the two carbon dates for the uppermost levels may reflect, or may partly reflect the actual dates of the levels. In that case, the lack of European imported goods may not be due to the fact that the site pre-dates the Atlantic contact period. Rather, it may be due to the paucity of European goods in the hinterland even during the Atlantic period. It is also possible that the 1498-1615 date (GU30191) may have partly coincided with the 1400 A.D. date (GU30190) had a range been given to the 1400 A.D. date.

In the light of the discussions above, there is a need for more carbon dates to throw light on the chronology of Gonja Dimbia.

Be that as it may, the carbon date of 1498 A.D.-1615 A.D. (GU30191) falls within the second half of the 16th century during which time the Gonja expanded their frontiers from their camp at Yagbum. The carbon samples which produced this date were collected only 7 cm below Level 3, which was completely devoid of archaeological finds and which probably represents a break in occupation of the site. If the carbon date really reflects the true age of the site, this break in

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occupation may be related to the Gonja conquest of the area. It is likely that the conquered natives were overwhelmed by the fear some Gonja calvary and probably many people abandoned their settlements immediately after the Gonja conquest.

4.19 Interpretations of the Finds

The analysis of the pottery has revealed three main wares namely, Gonja Dimbia Ware I, Gonja Dimbia Ware II and Gonja Dimbia Ware III. Each of these wares consists of several forms of jars and bowls. These jars and bowls were certainly used for various purposes. In some cases, the deposit of soot on the vessels betrays their use as cooking vessels or as vessels for warming food. Jars which were probably used as cooking vessels and/or vessels for warming food include some of the vessels of Gonja Dimbia Ware I Jar Forms 1(Figure 11a-c), 2 (Figure 12), 6 (Figure 16a-c), 7 (Figure 17a-b) and 8 (Figure 18), and Gonja Dimbia Ware I Bowl Forms 1 (Figure 20a-d), 2 (Figure 21a-b) and 4 (Figure 23a-d); Gonja Dimbia Ware II Jar Forms 1 (Figure 30a-b) and 2 (Figure 31), and Gonja Dimbia Ware II Bowl Form 2 (Figure 34a-b); Gonja Dimbia Ware III Jar Form 6 (Figure 43a-b) and Gonja Dimbia Ware III Bowl Form 2 (Figure 45a-b).

It is also possible that some of the huge bowls and jars were used for storing water or grains. Included in this group are some of the vessels of Gonja Dimbia Ware I Bowl Form 2 (Figure 21a-b). It is also likely that some of the vessels were used for fetching water from streams. Included in this group of vessels are Gonja Dimbia Ware I Jar Form 4 (Figure 14a-b), Gonja Dimbia Ware II Jar Form 1 and Gonja Dimbia Ware III Jar Form 5 (Figure 42a-b) which are characterized by rims with interior concave profiles that were probably made to prevent water from spilling over.

Some of the shallow bowls such as Gonja Dimbia Ware I Bowl Form 6 (Figure 25a-b) were probably used as lamps. Their short walls would have permitted the exposure of the wicks to give light to their surrounding areas.

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Red-slipping was practised by the potters who made the pottery from Gonja Dimbia. The red-slipping was well done and the slip is firmly glued to the pottery which has a beautiful glossy appearance. The shapes of the pottery were also well done, an indication that the potters were experts. The painted pottery with its geometric designs may be a reflection of the aesthetic value placed on the pots by the potters and their users.

It is noteworthy that many of the vessel forms were found in all the levels except Level 3 of the Trench which was completely devoid of finds. Level 3 of the Trench may represent a break in occupation of the site. However, the presence of similar vessel forms in the stratigraphic levels above and below Level 3 indicates that even if there was a break in occupation, the site was re-occupied by people with similar ceramic tradition, possibly by the same group of people.

The ceramic disc with a hole in the middle, if indeed is a treadle of a loom is suggestive of weaving. The iron slag and iron tools suggest that the inhabitants of the site were perhaps iron smelters and iron users. They also suggest that the site is an Iron Age site.

The piece of ivory bracelet suggests that body ornamentation was practised and that elephants were available in the area which is close to the Mole Game Reserve where elephants can still be found. The grindstones suggest a diet of pulverized vegetables. The faunal remains indicate that the inhabitants of the site subsisted on dog, cattle, sheep and goat meat. The dog is a delicacy in many parts of northern Ghana and the butchery marks on the dog bones indicate that the dog was butchered for food. Wild animals eaten by the site's inhabitants included cane rat, land tortoise and perhaps unidentified bovids. This implies that hunting was practised. The inhabitants also subsisted on the meat of birds as well as on shellfish.

The presence of *Achatina achatina* shells raises a whole lot of questions. Snails are tabooed by inhabitants of northern Ghana. The presence of snail shell in the excavations may mean that

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Gonja Dimbia was also inhabited by people such as the Bono to whom *Achatina achatina* is a delicacy. This interpretation is in consonance with the nature of Gonja settlements which consisted of large population of indigenes and compounds of houses in which the Guan rulers, the princes and their relations lived. The conquered natives within the Gonja state were allowed to live their lives with very little or no interference with their cultures (see Boahen, 1966:56-57; Wilks, 1971:432). *Achatina achatina* is a forest species and its presence at Gonja Dimbia is indicative of contact between the Gonja Dimbia area and forest regions of Ghana.

The horse is a prestigious animal and it is the rich and influential in society who keep horses. It is expensive to keep horses and in northern Ghana it is mostly kept by chiefs who use them in various ceremonies. In the past, horses were used in warfare. The horse bones are indicative of social stratification at Gonja Dimbia. The animal may have been owned by a chief, a rich influential person in the society or a member of the Gonja calvary. It is noteworthy that seven out of the eleven horse bones were found in Level 2 (80-120 cm below the surface), that is above Level 3 which probably represents a break in occupation. It is therefore likely that, some of the bones, if not all, are probably associated with the Gonja period.

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Chapter Five

Summary and Conclusion

5.0 Introduction

This chapter focuses on an overview of the issues discussed in the previous chapters in relation to the objectives of the study. It is a summary of the research findings. It also includes recommendations about what must be done by way of research in the Gonja Dimbia area.

5.1 Summary

Oral traditions collected from the Mo people at Sabule show that Gonja Dimbia (meaning "Gonja abandoned settlement") was once occupied by the Gonja people. However, the traditions are silent on the period when the Gonja settled on Gonja Dimbia. The site was abandoned after the ancestors of the current Mo people of Sabule conquered and drove the Gonja settlers away. Documentary sources however make it clear that it was from the mid-16th century when the Gonja settled in the Bono area and the sparsely populated country of the southern valley of the Black Volta that the Gonja possibly had contact with the Sabule area. It is further suggested that the wars of expansion waged by Jakpa Lanta (1622-3 to 1666-7) may have further strengthened the position and influence of the Gonja in the study area.

Archaeological survey and site mapping (June, 2012-February, 2013) revealed some surface finds of pottery and skeletal remains and a premolar of a bovid at Gonja Dimbia. By the site mapping exercise, eight settlement mounds were identified out of which one had three Dagaaba houses built on it. The entire Gonja Dimbia is scattered with potsherds and the house walls of the Dagaaba of Sabule contain several potsherds, which indicate that the houses were built on the ruins of the ancient site (see Figure 3). The settlement of the ancestors of the Mo people, now a sacred

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groove, is located to the south-west of the present-day Sabule village.

The excavated units (Test Pit and Trench) produced 9,681 finds of which 9,398 are locally-produced pottery. Three and four stratigraphic levels were identified in the Test Pit and the Trench respectively. Archaeological finds include potsherds, grindstones, an ivory, an iron arrowhead, an iron bracelet, bones, shells and charcoal samples. Further studies on the pottery have revealed three main wares named, Gonja Dimbia Ware I (Concrete-like fabric), Gonja Dimbia Ware II (Mica-Coated Ware) and Gonja Dimbia Ware III (Design-Painted Ware).

York (1973:121) has observed that at New Buipe, Silima Ware is pre-Gonja though the Ware certainly increased in importance during the Gonja colonization. At Bono Manso, the Ware was mainly confined to Phase I which has been assigned a date of 1250-1450 A.D. (Effah-Gyamfi, 1985:27, 35, 160-161). Thus Silima Ware is also pre-Gonja at Bono Manso. At Gonja Dimbia, Silima Ware also predates the Gonja since the lower levels which have also produced Silima Ware have been dated to between 1321 and 1432 A.D.

The ceramic tradition at Gonja Dimbia shares some similarities in vessel forms, techniques of surface finish, paste characteristics and some aspects of decoration with ceramic tradition at Begho, Bonoso (the ancestral home of the Wenchi people), Kaam (a site in the Wenchi metropolis from where the Wenchi people moved to their present township), Twemma (another site in the Wenchi Traditional Area), Bono Manso, Ohene Ameyaw Anim near the Techiman Secondary School, Daboya and New Buipe. Silima Ware (Gonja Dimbia Ware III) found at Gonja Dimbia is also known at Daboya, New Buipe, Yendi Dabari, Bono Manso and Begho. Gonja Dimbia Ware I (the ware with a concrete-like fabric) is also found at Bonoso, Kaam, Twemma, Ohene Ameyaw Anim near the Techiman Secondary School and Bono Manso. Gonja Dimbia Ware II, characterized by a coating of mica on the outer surface is also known at Bono Manso, Begho and Daboya. The

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material culture of Gonja Dimbia has therefore affinities with sites in northern Ghana and some areas of the Brong-Ahafo Region.

Vessel forms consist of spherical jars with everted rims and open hemispherical bowls or hemispherical bowls with incurved rims. Other vessel forms include short hemispherical bowls with everted rims which could have been used as lamps or containers for body pomade. Decoration on sherds consists of twisted cord roulette, single and multiple grooves, channelling, single and multiple incisions, wavy line stamps, dot stamps, comb stamps, short linear stamps, hollow stalk stamps, herring bone stamps, triangular stamps and design-painting. Combined decorations on sherds include grooves and cord roulette, incisions and cord roulette, grooves and comb stamps, grooves and wavy line stamps, triangular stamps and grooves, grooves and cord roulette, grooves and incisions, grooves and dot stamps, grooves and hollow stalk stamps, channelling and comb stamps, channelling and grooves and wavy line stamps and cord roulette.

The predominance of Gonja Dimbia Ware I over Gonja Dimbia Ware II and Gonja Dimbia Ware III perhaps indicates that the ware was produced on or near the site and that it represents a utilitarian ware.

Pieces of iron slag and iron objects recovered from the excavations suggest that the settlers of the site probably smelted or forged and used iron which implies that the site is an Iron Age site. The piece of ivory bracelet is suggestive of the practice of body ornamentation. The ivory provides a hint that elephants were in the area. The evidence of grindstones suggests among other uses a diet of pulverized plant foods. The faunal remains show that the inhabitants of the site subsisted on dog, cattle, sheep and goat meat as well as cane rat, land tortoise, birds, shell fish and unidentified bovids.

It is noteworthy that most of the finds were found in Level 2 of the excavated pits. Pottery

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was found in all the levels except Level 3 of the Trench which was completely devoid of finds. The site appears to have had two periods of occupation, one below Level 2 of the Trench and the other above Level 3. Level 3 of the Trench, totally devoid of finds consisted of a thin layer of about 5 cm. The level may represent a break in occupation of the site. This suggests that the break in occupation was for a brief period. However, the presence of similar forms in the stratigraphic levels above and below Level 3 suggests that even if there was a break in occupation, the site was reoccupied by people with silimar ceramic tradition, possibly by the same group of people. This implies a continuation of cultural practices characteristic of the lower levels in the upper levels of the Trench. It is a well known fact that Gonja rulers did not interfere with the culture of the peoples they conquered. This may explain why despite a break in occupation (as indicated in Level 3 which was devoid of finds and which separates the lower and upper levels of the Trench), similar ceramic traditions are found in both the lower and upper levels of the Trench.

Several of the faunal remains were also found in Level 2 of the Test Pit and the Trench. A total of seven bones were found in Level 2 of the Trench (80-120 cm below the surface), that is above Level 3 which probably represents a break in occupation and possibly the period of Gonja invasion. It is therefore likely that, some of the bones, if not all, are probably associated with the Gonja period. It is interesting that most of the horse bones were found in Level 2 of the Trench, i.e., above Level 3. As already indicated, the horse is a prestigious animal and it is the rich and influential in society who keep horses. It is probable that the horse was kept by a Gonja chief or soldier. The horse bones are indicative of social stratification at Gonja Dimbia.

The presence of cultural materials in the dark humus soil in the excavated units would seem to support the view that the dark humus soils in the Sabule area have a relationship with human activities and that they are, as claimed by soil scientists, anthropogenic in nature.

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The chronology of site has been inferred from cross-cultural analysis and radiocarbon (C14) dating. Silima Ware found at Daboya (Shinnie and Kense, 1989:72), New Buipe (York, 1973:20, Table II, 131 Tale XXVII), Nyarko quarter of Begho (Posnansky, 1976:3; Crossland, 1976: 36, 42-44), Begho B2 site (Crossland, 1989:105) Yendi Dabari (Shinnie and Ozanne, 1962:87) and Bono Manso (Effah-Gyamfi, 1985:27, 35, 160-161) has also been found at Gonja Dimbia. The Ware has been dated to 1300-1850 A.D., 680-1730 A.D., the second millennium A.D., post-16th century A.D., 1713-1714 A.D. and 1250-1450 A.D. at Daboya, New Buipe, Nyarko quarter of Begho, Begho B2 site, Yendi Dabari and Bono Manso respectively. The Ware therefore dates from about 680-1850 A.D.

Irrespective of anomalies in dates, dates provided by the carbon samples place Gonja Dimbia to the period between 1321 and 1615 A.D. The date falls within the period when Silima Ware (Gonja Dimbia Ware III) was in use in some parts of Ghana. Judging from the three dates obtained from depths of 140 cm and 150 cm below the surface, the site appears to have began in the 14th century A.D.

The sherds which are similar to Gonja Dimbia Ware I (the ware with a concrete-like fabric) and Gonja Dimbia Ware II (the ware with mica on the outer surface) are dated at Bonoso, Kaam, Twemma, Ohene Ameyaw Anim, Bono Manso, Begho and New Buipe from 663 A.D. to 1810 A.D. By cross-cultural dating, the wares from Gonja Dimbia probably date to this period. The two dates of 663 A.D. and 1810 A.D provide a gap of about 1,147 years. This is too wide a gap and is therefore not very useful for dating the site. We must now turn our attention to the radiocarbon dates obtained for Gonja Dimbia.

Unfortunately, there are problems with some of the carbon dates for Gonja Dimbia. Sample GU30191 (collected at a depth of 132 cm), contrary to expectation, produced a later date (A.D.

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1498-1615) than that of sample GU30190 (collected at a depth of 110 cm) which produced a date of A.D.1400 (no range given). Samples GU30192 (collected at a depth of 140 cm), GU30193 (also collected at a depth of 140 cm) and GU30194 (collected at a depth of 150 cm) have produced 2-sigma calibrated dates of A.D. 1321-1392, A.D. 1360-1432 and A.D. 1324-1394 respectively. These dates coincide with one another and may generally reflect the actual date of the site. The dates probably indicate that the site began in the 14th century. It is also possible that sample GU30191 (collected only 7 cm below Level 3 which probably represents a break in occupation) which has produced the date of A.D. 1498-1615 – a date which partly falls within the second half of the 16th century, the period of Gonja expansion, may also reflect the true date of the site. However, because the date is later than that of GU30190 collected above it, there is a need for more carbon dates to clarify the dating of the site. It is also unfortunate that the date of A.D. 1400 produced by sample GU30190 was not provided with a range or statistical deviation. This reinforces the fact that more carbon dates are needed to throw light on the chronology of the site.

5.2 Recommendations

The research has provided adequate information about the material culture of Gonja Dimbia. However, nothing is known about the material culture of the ancestors of the Mo people who are said to have driven the Gonja people from Gonja Dimbia. It is also not known when the Gonja people were driven from Gonja Dimbia. There is the need for an archaeological research involving excavations to be undertaken at the abandoned settlement of the Mo people. This abandoned settlement, located south-south-west of Gonja Dimbia, must be excavated to know when the Mo people drove away the Gonja from Gonja Dimbia. The abandoned Mo settlement is now currently being used as a cemetery. There is therefore the need to convince the Mo Chief and elders of Sabule for permission to excavate portions of the site not likely to expose burials.

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More dates are needed to throw light on the chronology of Gonja Dimbia. It suggested that some of the large mounds be excavated to throw light on the chronology of the site.

5.3 Conclusion

The archaeological investigation at Gonja Dimbia has revealed a material culture characterized by pottery with several vessel forms which may have been used for cooking, storage, and perhaps as lamps or pomade containers. The material culture has affinities to some sites in Ghana including Daboya, New Buipe, Yendi Dabari, Begho, Bono Manso, Ohene Ameyaw Anim, Bonoso, Kaam, and Twemma. The presence of pieces iron slag and iron tools suggest that the site is an Iron Age site and that its inhabitants were also iron users. The carbon dates suggest that the site began in the 14th century. This means that there was a settlement at Gonja Dimbia before the coming of the Gonja in the mid-16th century. The initial occupation was interrupted by a short break represented by a thin layer of soil of about 5 cm thick. Shortly thereafter, a group similar in culture to the earlier inhabitants occupied the site. The carbon dates also fall within the period when the Gonja began their expansionist policies by conquering and ruling over other peoples. The horse bones found in the excavations suggest social stratification and the bones of sheep, goats, unidentified bovids, domestic cattle, cane rat, birds, fish, shells of land tortoise and shell fish provide evidence of subsistence practices of the people. The grinding stones suggest a diet of grains and of pulverized vegetables.

It is not known when Gonja Dimbia was abandoned. The carbon samples which produced the dates were taken from depths of 110 cm and below. They do not therefore date the abandonement of the site. Future research should focus on excavations in the area where the ancestors of the Mo (who are said to have conquered the Gonja and driven them away) settled and in other areas of Gonja Dimbia to establish when the site was abandoned by the Gonja.

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Chapter Five

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Appendices

Appendix 1: Gonja Dimbia Ware I Sherds.

Gonja Dimbia Vessel Forms

Appendix 1a: Distribution of Gonja Dimbia Jar Form 1 Sherds.

Level	Test Pit	Trench	Total	% of Total
1		10	10	31.25
2	1	15	16	50.00
4		6	6	18.75
Total	1	13	32	100.00%

Appendix 1b: Distribution of Gonja Dimbia Jar Form 2 Sherds.

Level	Test Pit	Trench	Total	% of Total
1		2	2	100.00
2				
3				
Total		2	2	100.00%

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Appendix 1c: Distribution of Gonja Dimbia Jar Form 3 Sherds

Level	Test Pit	Trench	Total	% of Total
1		6	6	28.57
2		14	14	66.66
4		1	1	4.76
Total		21	21	99.99%

Appendix 1d: Distribution of Gonja Dimbia Jar Form 4 Sherds

Level	Test Pit	Trench	Total	% of Total
1	1	17	18	24.32
2	1	41	42	56.75
4		14	14	18.91
Total	2	72	74	99.98%

Appendix 1e: Distribution of Gonja Dimbia Jar Form 5 Sherds

Level	Test Pit	Trench	Total	% of Total
1		1	1	100.00
2				

.

4				
Total		1	1	100.00%

Appendix 1f: Distribution of Gonja Dimbia Jar Form 6 Sherds

Level	Test Pit	Trench	Total	% of Total
1		14	14	33.33
2	2	25	27	64.28
4		1	1	2.38
Total	2	40	42	99.99%

Appendix 1g :Distibution of Gonja Dimbia Jar Form 7 Sherds

Level	Test Pit	Trench	Total	% of Total
1		2	2	25.00
2		5	5	62.50
4		1	1	12.50
Total		8	8	100.00%

.

Appendix 1h: Distribution of Gonja Dimbia Jar Form 8 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2				
4		1	1	100.00
Total		1	1	100.00%

Appendix 1i: Distribution of Gonja Dimbia Jar Form 9 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2		2		100.00
4				
Total		2		100.00%

Appendix 1k:Distribution of Gonja Dimbia Bowl Form 1 Sherds

Level	Test Pit	Trench	Total	% of Total

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1	4	143	147	25.92
2	23	313	336	59.25
3 & 4	3	81	84	14.81
Total	30	537	567	99.98%

Appendix 1m Distribution of Gonja Dimbia Bowl Form 2 Sherds

Level	Test Pit	Trench	Total	% of Total
1		12	12	30.76
2	1	25	25	66.66
3		1	1	2.56
Total	1	39	39	99.98%

Appendix 1n: Distribution of Gonja Dimbia Bowl Form 3 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2		4	4	100.00
3 & 4				
Total		4		100.00%

.

Appendix 1p: Distribution of Gonja Dimbia Bowl Form 4 Sherds

Level	Test Pit	Trench	Total	% of Total
1		7	7	18.91
2		23	23	62.16
3& 4		7	7	18.91
Total		37	37	99.98%

Appendix 1q: Distribution of Gonja Dimbia Bowl Form 5 Sherds

Level	Test Pit	Trench	Total	% of Total
1	1	20	21	25.00
2	4	50	54	64.28
3 & 4	1	8	9	10.71
Total	6	78	84	99.99%

Appendix 1r: Distribution of Gonja Dimbia Bowl Form 6 Sherds

Level	Test Pit	Trench	Total	% of Total

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1		8	8	53.33
2	1	6	7	46.66
3 & 4				
Total	1	14	15	99.99%

Appendix 1s: Distribution of Gonja Dimbia Base Form 1 Sherds

Level	Test Pit	Trench	Total	% of Total
1		3	3	30
2		6	6	60
3 & 4		1	1	10
Total		10	10	100%

Appendix 1t: Distribution of Gonja Dimbia Base Form 2 Sherds

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Level	Test Pit	Trench	Total	% of Total
1				
2				
4		1	1	100.00
Total		1	1	100.00%

Appendix 1u: Distribution of Gonja Dimbia Base Form 3 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2		1	1	100.00
3 & 4				
Total		1	1	100.00%

.

Appendix 2 Gonja Dimbia Ware II

Appendix 2a: Distribution of Gonja Dimbia Jar Form 1 Sherds

Level	Test Pit	Trench	Total	% of Total
1		10	10	33.33
2	1	13	14	46.66
3		6	6	20.00
Total	1	29	30	99.99%

Appendix 2b: Distribution of Gonja Dimbia Jar Form 2 Sherds

Level	Test Pit	Trench	Total	% of Total
1		5	5	62.50
2		2	2	25.00
3		1	1	12.50
Total		8	8	100.00%

Appendix 2c: Distribution of Gonja Dimbia Jar Form 3 Sherds

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Level	Test Pit	Trench	Total	% of Total
1		1	1	50.00
2		1	1	50.00
3				
Total		2	2	100.00%

Appendix 2d: Distribution of Gonja Dimbia Bowl Form 1 Sherds

Level	Test Pit	Trench	Total	% of Total
1	1	32	33	57.89
2	2	19	21	36.84
3		3	3	5.26
Total	3	54	57	99.99%

Appendix 2e: Distribution of Gonja Dimbia Bowl Form 2 Sherds

Level	Test Pit	Trench	Total	% of Total
1		1	1	25.00

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2		3	3	75.00
3				
Total		4	4	100.00%

Appendix 1 Appendix 2f: Distribution of Gonja Dimbia Bowl Form 3 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2		4	4	100.00
3				
Total		4	4	100.00%

Appendix 2g: Distribution of Gonja Dimbia Bowl Form 4 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2		2	2	100.00
3				
Total		2	2	100.00%

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Appendix 3: Gonja Dimbia Ware III

Appendix 3a: Distribution of Gonja Dimbia Jar Form 1 Sherds

Level	Test Pit	Trench	Total	% of Total
1		7	8	66.66
2	1	2	3	25.00
3		1	1	8.33
Total	1	10	12	99.99%

Appendix 3b: Distribution of Gonja Dimbia Jar Form 2 Sherds

Level	Test Pit	Trench	Total	% of Total
1		1	1	33.33
2		2	2	66.66
3				
Total		3	3	99.99%

Appendix 3c: Distribution of Gonja Dimbia Jar Form 3 Sherds

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Appendices

Level	Test Pit	Trench	Total	% of Total
1				
2		2	2	100.00
3				
Total		2	2	100.00%

Appendix 2 Appendix 3d: Distribution of Gonja Dimbia Jar Form 4 Sherds

Level	Test Pit	Trench	Total	% of Total
1		2	2	40.00
2		3	3	60.00
3				
Total		5	5	100.00%

Appendix 3e: Distribution of Gonja Dimbia Jar Form 5 Sherds

Level	Test Pit	Trench	Total	% of Total
1		2	2	20.00
2		6	6	60.00

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3		2	2	20.00
Total		10	10	100.00%

Appendix 3f: Distribution of Gonja Dimbia Jar Form 6 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2		4	4	100.00
3				
Total		4	4	100.00%

Appendix 3g: Distribution of Gonja Dimbia Bowl Form 1 Sherds

Level	Test Pit	Trench	Total	% of Total
1		4	4	19.04
2		12	12	57.14
3 & 4	1	4	5	23.80
Total	1	20	21	99.98%

.

Appendix 3h: Distribution of Gonja Dimbia Bowl Form 2 Sherds

Level	Test Pit	Trench	Total	% of Total
1		3	3	50.00
2		3	3	50.00
3				
Total		6	6	100.00%

Appendix 3j: Distribution of Gonja Dimbia Bowl Form 3 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2		1	1	100.00
3				
Total		1	1	100.00%

Appendix 3k: Distribution of Gonja Dimbia Bowl Form 4 Sherds

Level	Test Pit	Trench	Total	% of Total
1				
2				

.

4		1	1	100.00
Total		1	1	100.00%

Appendix 3m: Distribution of Gonja Dimbia Bowl Form 5 Sherds

Level	Test Pit	Trench	Total	% of Total
1		1	1	6.25
2		8	8	50.00
3		7	7	43.75
Total		16	16	100.00%

Appendix 3n: Distribution of Gonja Dimbia Bowl Form 6 Sherds

Level	Test Pit	Trench	Total	% of Total
1		2	2	40.00
2		2	2	40.00
3		1	1	20.00
Total		5	5	100.00%

Appendix 3 Appendix 3p: Distribution of Gonja Dimbia Base Form 1 Sherds

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Appendices

Level	Test Pit	Trench	Total	% of Total
1				
2		1	1	100.00
3				
Total		1	1	100.00%

Appendix 4

Appendix 4a: List of Decorations on Gonja Dimbia Ware I Sherds

Decoration	**Quantity**	**% of Total**
Cord roulette	1642	50.44
Single groove	82	2.51
Multiple groove	229	7.03
Single incision	210	6.45
Multiple incision	303	9.30
Comb stamping	40	1.22
Perforation	21	0.64

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Short linear stabs	11	0.33
Channelling	335	10.29
Wavy line stamps	8	0.24
Dot stamps	6	0.18
Herring bone stamps	4	0.12
Hollow stalk stamp	3	0.09
Finger impressions	6	0.18
Diamond impression	1	0.03
Leaf impression	1	0.03
Wavy cord roulette	2	0.06
Multiple groove and cord roulette	58	1.78
Wavy line stamp and multiple groove	19	0.58
Triangular stamp and multiple groove	12	0.36
Dot stamp and multiple incision	1	0.03
Multiple grooves and comb stamps	14	0.43
Channelling and finger impression	1	0.03

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Channelling and comb stamp	7	0.21
Channelling and single groove	7	0.21
Channelling and multiple groove	1	0.03
Single groove and comb stamp	6	0.18
Dot stamp and single groove	11	0.33
Short linear stabs and multiple incisions	4	0.12
Dot stamps and multiple grooves	11	0.33
Single groove and cord roulette	23	0.70
Multiple incisions and cord roulette	56	1.72
Channeling and multiple incisions	2	0.06
Multiple grooves and hollow stalk stamps	10	0.30
Multiple grooves and multiple incisions	18	0.55
Multiple grooves and comb stamps	19	0.58
Short linear stamps and multiple grooves	4	0.12
Hollow stalk stamps and multiple incisions	3	0.09
Comb stamps and multiple incisions	4	0.12

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Finger impressions and multiple grooves	4	0.12
Wavy line stamp and cord roulette	4	0.12
Hollow stalk stamp and cord roulette	1	0.03
Comb stamps and cord roulette	2	0.06
Herring bone stamps and multiple grooves	1	0.03
Multiple incisions and herring bone stamps	1	0.03
Cord roulette and diamond impression	1	0.03
Single incision and single groove	1	0.03
Multiple grooves and diamond stamp	2	0.06
Cord roulette and triangular stamp	1	0.03
Triangular stamp and diamond impression	1	0.03
Multiple grooves and circular impression	1	0.03
Channelling and multiple incisions	2	0.06
Multiple grooves and short diagonal stabs	3	0.09
Dot stamp and cord roulette and multiple incisions	2	0.06
Half moon stamps and single groove and short linear stabs	1	0.03

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Comb stamps and multiple grooves and finger impression	1	0.03
Multiple grooves and multiple incisions and dot stamp	2	0.06
Dot stamps and cord roulette and single groove	3	0.09
Multiple grooves and multiple incisions and comb stamps	3	0.09
Hollow stalk stamp and comb stamp and multiple incisions	1	0.03
Dot stamp and multiple grooves and comb stamps	3	0.09
Cord roulette and hollow stalk stamp and multiple grooves	1	0.03
Herring bone stamp and multiple grooves and cord roulette and comb stamps	1	0.03
Multiple grooves and finger impression and hollow stalk stamp	1	0.03
Single groove and wavy line stamp and single incision	3	0.09
Cord roulette and comb stamps and short linear incisions	5	0.15
Triangular stamps and multiple grooves and cord roulette	1	0.03
Hollow stalk stamp and multiple grooves and comb stamp	1	0.03
Wavy line stamps and hollow stalk stamp and multiple grooves	1	0.03
Cord roulette and multiple grooves and single wavy groove	1	0.03
Hollow stalk stamp and single groove and multiple incisions	1	0.03

.

Wavy line stamp and cord roulette and multiple grooves	2	0.06
Total	3252	99.8%

Appendix 4b: Lists of Decorations on Gonja Dimbia Ware II Sherds

Decoration	**Quantity**	**% of Total**
Cord roulette	9	1.62
Single groove	48	8.67
Multiple grooves	102	18.44
Single incision	14	2.53
Multiple incisions	19	3.43
Comb stamps	113	20.42
Triangular stamps	13	2.35
Perforation	1	0.03
Channelling	23	4.16
Herring bone stamps	2	0.36
Dot stamps	9	1.62
Finger nail impression	2	0.36

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Appendices

Hollow stalk stamps	1	0.18
Half moon stamps	2	0.36
Cord roulette and multiple grooves	1	0.18
Multiple grooves and wavy line stamp	2	0.36
Grooves and comb stamps	123	22.23
Channelling and comb stamps	3	0.54
Multiple grooves and triangular stamps	10	1.80
Multiple grooves and cord roulette	3	0.54
Short linear stabs and multiple grooves	1	0.18
Single incision and comb stamps	5	0.90
Comb stamps and hollow stalk stamp	2	0.36
Dot stamps and single groove	3	0.54
Single incision and single groove	11	1.98
Short linear stabs and comb stamps	1	0.18
Multiple grooves and herring bone stamp	2	0.36
Multiple incisions and single groove	2	0.36

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Hollow stalk stamps and multiple grooves	1	0.18
Comb stamps and multiple incisions	1	0.18
Triangular stamps and comb stamps	1	0.18
Channelling and multiple incisions	1	0.18
Channelling and single groove	1	0.18
Finger impressions and multiple incisions	1	0.18
Comb stamps and finger impressions	1	0.18
Multiple grooves and finger impressions	2	0.36
Hollow stalk stamps and multiple grooves and comb stamps	1	0.18
Comb stamps and single groove and single incision	2	0.36
Cord roulette and multiple groove and triangular stamps	1	0.18
Multiple grooves and comb stamps and herring bone stamps	1	0.18
Triangular stamps and multiple grooves and multiple incisions	1	0.18
Hollow stalk stamps and multiple incisions and multiple grooves	3	0.54
Comb stamps and multiple grooves and finger impressions	1	0.18
Multiple grooves and cord roulette and comb stamps	2	0.36

.

Half moon stamps and comb stamps and multiple grooves	1	0.18
Multiple grooves and comb stamps and herring bone stamps	1	0.18
Comb stamps and short linear stabs and multiple grooves	1	0.18
Hollow stalk stamp and comb stamps and multiple grooves and single incision	3	0.54
Total	553	99.86

Appendix 4 Appendix 4c: Lists of Decorations on Gonja Dimbia Ware III Sherds

Decoration	**Quantity**	**% of Total**
Cord roulette	3	0.93
Single groove	36	11.21
Multiple grooves	66	20.56
Single incision	3	0.93
Multiple incisions	16	4.98
Comp stamps	17	5.29
Painting and Design painting	45	14.01

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Appendices

Short linear stabs	1	0.31
Channelling	59	18.38
Dot stamps	1	0.31
Hollow stalk stamps	1	0.31
Wavy line stamps and multiple grooves	18	5.60
Painting and channeling	1	0.31
Channelling and single groove	14	4.36
Comb stamps and multiple grooves	15	4.67
Dot stamps and multiple grooves	4	1.24
Multiple grooves and finger impressions	1	0.31
Painting and multiple grooves	3	0.93
Multiple grooves and cord roulette	1	0.31
Channelling and comb stamps	1	0.31
Channelling and finger impressions	1	0.31
Single groove and multiple incisions	3	0.93
Single incision and cord roulette	1	0.31

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Appendices

Wavy line stamp and single incision	1	0.31
Wavy line stamp and channelling	2	0.62
Cord roulette and channeling	1	0.31
Wavy line stamp and design painting	1	0.31
Channelling and comb stamps and single groove	2	0.62
Hollow stalk stamp and multiple grooves and comb impression	1	0.31
Painting and channelling and multiple grooves	1	0.31
Channelling and single incision and design-painting	1	0.31
Total	321	99.91%

.

Appendix 5: Faunal Analysis Form

SITE: SAB/ 2012

RECORDER: B.M.MUREY DATE 18/11/2012.

UNIT/PIT	LEVEL IN CM	ELEMENT/ DESCRIPTION	COUNT	GNAW MARKS	MINI	BURNT	CHARRED	BUTCHERY MARKS	WHOLE	FRAGMENTS	TOTAL	GENUS/SPECIES
TP	1	Ribs	1							1	1	Human(homo sapiens)
TP	1	Bone shaft	1							1	1	Bovid
TP	2	Ribs	3		1					3	3	human(homo sapiens)
UNIT 1 TR1	1	Bone shaft	3							3	3	Bos Taurus(cattle)

.

"	1	Teeth	2							2	2	Bos Taurus(cattle)
"	1	Rib	2					2		2	2	Bos Taurus(cattle)
"	1	Tibia (proximal)	1							1	1	Bos Taurus(cattle)
"	1	Bone shaft	4							4	4	Bovid(goat/sheep)
"	1	Rib	1							1	1	Bovid(goat/sheep)
"	1	Fibula(distal)	1							1	1	Bovid(goat/sheep)
"	1	Humorous(distal)	1							1	1	Bovid(goat/sheep)
"	1	Tooth(premolar)	1							1	1	Bovid(goat/sheep)
"	1	Femurs(distal)	1							1	1	Bovid(goat/sheep)
"	1	Patella	1							1	1	Bovid(goat/sheep)
"	1	Tibia(distal)	1							1	1	Bovid(goat/sheep)
"	1	Non diagnostic	1							1	1	Bovid(goat/sheep)
"	1	Plastron	1							1	1	Reptilian(land tortoise)
UNIT/TR1	2	Plastron	2							2	2	Reptilian(land tortoise)

.

"	2	Lower jaw	3		3				1	2	3	Carnivora(dog)
"	2	Bone shaft	1					1		1	1	Carnivora(dog)
"	2	Tooth(canine)	1						1		1	Omnivora
"	2	Scapula	1							1	1	Omnivora

UNIT/PIT	LEVEL IN CM	ELEMENT/ DESCRIPTION	COUNT	GNAW MARKS	MINI	BURNT	CHARRED	BUTCHERY MARKS	WHOLE	FRAGMENTS	TOTAL	GENUS/SPECIES
UNIT/TR 1	2	Bone shaft	16							16	16	Bovid(goat/sheep)
	2	Humerus (distal)	4		4					4	4	Bovid(goat/sheep)
	2	Ulna(proximal)	1			1				1	1	Bovid(goat/sheep)

.

	2	Tibia(proximal)	7			1				7	7	Bovid(goat/sheep)
	2	Tibia(distal)	1							1	1	Bovid(goat/sheep)
	2	Patella	1							1	1	Bovid(goat/sheep)
	2	Femurs(distal)	1							1	1	Bovid(goat/sheep)
	2	Rib	3			1	1			3	3	Bovid(goat/sheep)
	2	Calcaneum	1						1		1	Bovid(goat/sheep)
	2	Scapula	1							1	1	Bovid(goat/sheep)
	2	Lower jaw	2		2				1	1	2	Bovid(goat/sheep)
	2	Tooth premolar	1						1		1	Bovid(goat/sheep)
	2	Radius	2		2					2	2	Bovid(goat/sheep)
	2	no diagnostic	1							1	1	Unknown
	2	Coracoids	1							1	1	Aves(Bird)
	2	Bone shaft	1					1		1	1	Aves(Bird)
	2	Radius	1							1	1	Bos Taurus(cattle)
	2	Bone shaft	8							8	8	Bos Taurus(cattle)
	2	Calcaneum	1						1		1	Bos Taurus(cattle)
	2	Vertebra	2						2		2	Bos Taurus(cattle)

.

	2	Teeth(2molars,2premolars)	4						1	3	4	Bos Taurus(cattle)
	2	Hurnerous(distal)	1							1	1	Bos Taurus(cattle)
	2	Scapula	2		2					2	2	Bos Taurus(cattle)
	2	Ribs	3					3		3	3	Bos Taurus(cattle)
	2	Uncifourn	1						1		1	Bos Taurus(cattle)
	2	Nondiagnistic	4					1		4	4	Unknown
	2	Scapula	1							1	1	Equus caballus
	2	Lower jaw	1							1	1	Equus caballus
	2	Calcaneum	1						1		1	Equus caballus
	2	Tibia(proxiaval)	1							1	1	(Domestic horse)

*Bone shaft cut and probably used as a necklace

	LEVEL IN CM	ELEMENT/ DESCRIPTION	COUNT	GNAW MARKS	MINI	BURNT	CHARRED	BUTCHERY MARKS	WHOLE	FRAGMENTS	TOTAL	GENUS/SPECIES
Unit tri	2	Innominate	2							2	2	Equus cabal
	2	Non diagnostic	2							2	2	
	3	Boneshaft	3		2					3	3	Bovid(goat and sheep)
			1									
	3	Plastron								1	1	Reptilia(land tortoise)
	1	Boneshaft	1				1			1	1	Bovid(goat and sheep)
	1	Radius(distal)	1			1				1	1	Bovid(goat and sheep)
	2	Innominate	2							2	2	Bovid(goat and sheep)

.

	2	Rib	4							4	4	Bovid(goat and sheep)
	2	Bone shaft	15	1		1				15	15	Bovid(goat and sheep)
	2	Tibia	2			1				2	2	Bovid(goat and sheep)
	2	Ulna	1							1	1	Bovid(goat and sheep)
	2	Femur(distal)	1							1	1	Bovid(goat and sheep)
	2	Cannon bone	1							1	1	Bovid(goat and sheep)
	2	Lower jaw	4							4	4	Bovid(goat and sheep)
	2	Teeth	3							3	3	Bovid(goat and sheep)
	2	Tibia(proximal)										
	2	Nondiagnostic	1							1	1	Bovid(goat and sheep)
	2	Tooth(molar)	1						1		1	Human (homo sapiens)
	2	Ribs	4							4	4	Rodentia(grass cutter)
	2	Lower jaw	2						1	1	2	Rodentia(grass cutter)
	2	Innominate	1						1		1	Rodentia(grass cutter)
	2	Femur	1						1		1	Rodentia(grass cutter)
	2	Tooth	1							1	1	Rodentia(grass cutter)

.

UNIT/PIT	LEVEL IN CM	ELEMENT/ DESCRIPTION	COUNT	GNAW MARKS	MINI	BURNT	CHARRED	BUTCHERY MARKS	WHOLE	FRAGMENTS	TOTAL	GENUS/SPECIES
Unit tri	2	Lower jaw	2		2					2	2	Carnivora(dog)
	2	Lower jaw	1							1	1	Pisces-(fish)
	2	Tooth premolar	1						1		1	Bos Taurus- cattle
	2	Rip	3					1		3	3	Bos Taurus- cattle
	2	Lower jaw	5		3					5	5	Bos Taurus- cattle
	2	Scapular	8		4					8	8	Bos Taurus- cattle
	2	Skull	3							3	3	Bos Taurus- cattle
	2	Cuneiform	1								1	Bos Taurus- cattle
	2	Femur(distal)	1					1	1	1	1	Bos Taurus- cattle

.

	2	Tibia(distal)	1							1	1	Bos Taurus- cattle
	2	Horn core	2		1					2	2	Bos Taurus- cattle
	2	Bone shaft	10							10	10	Bos Taurus- cattle
	2	Non diagnostic	16							16	16	Unknown
	3	Astragalus	1							1	1	Equus caballus
	3	phalanges	2		1					2	2	Equus caballus
	3	Femur(proximal)	1							1	1	Equus caballus
	3	Horn core	1							1	1	Bos Taurus- cattle
	3	Lower jaw	1							1	1	Rodentia (grass cutter)
	3	Femur	1						1	1	1	Rodentia(grass cutter)
	3	Non diagnostic	3	1						3	3	Unknown
	3	Shell	2									

.

Appendix 6a

Scottish Universities Environmental Research Centre
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RADIOCARBON DATING CERTIFICATE

21 May 2013

Laboratory Code	SUERC-46106 (GU30190)
Submitter	Margretta Morgan Archaeology Department University of Ghana P.O. BOX L3 LEGON - GHANA
Site Reference	Sabule
Context Reference	LEVEL 2/ 110 cm
Sample Reference	SAB/TR/2012/1
Material	Charcoal : 2012
$\delta^{13}C$ relative to VPDB	-26.0 ‰
Radiocarbon Age BP	619 ± 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- B Tripney Date :- 22/5/13

Checked and signed off by :- E. Dunbar Date :- 22/5/13

University of Glasgow

The University of Glasgow, charity number SC004401

The University of Edinburgh

The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336

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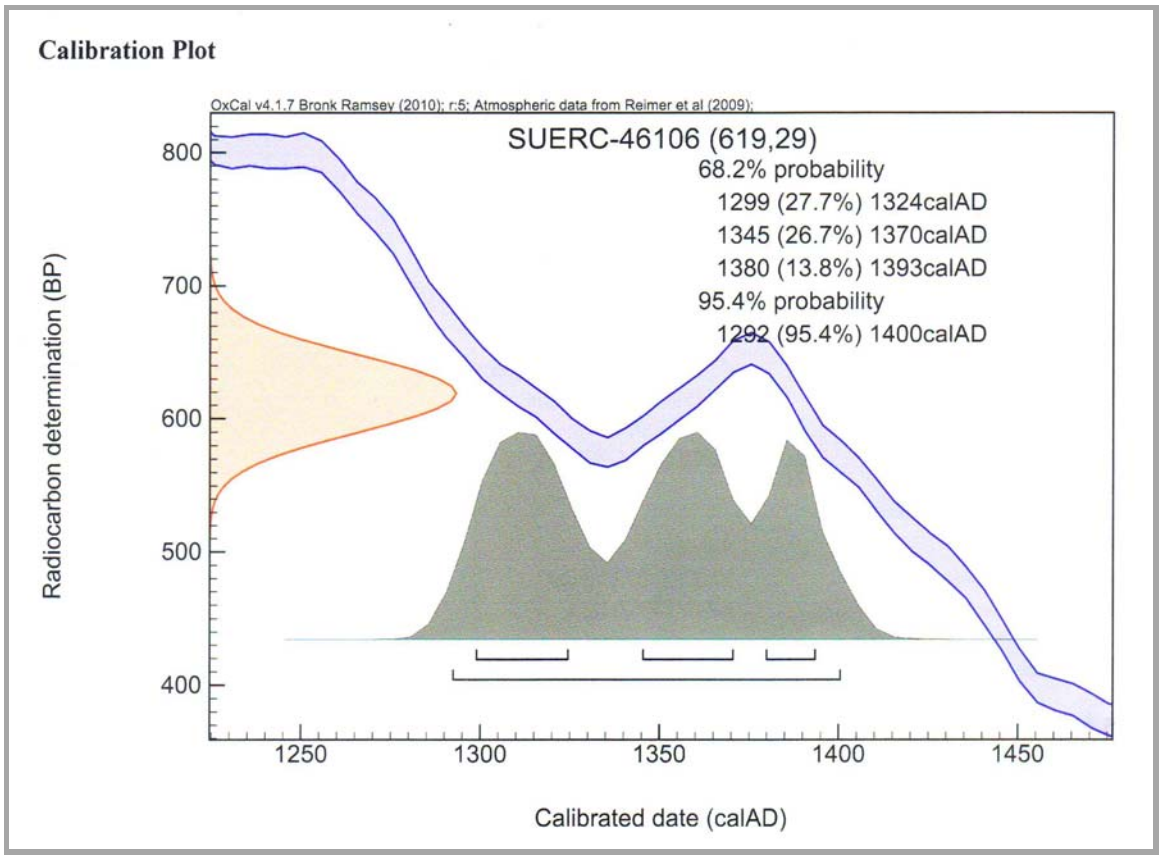
Appendix 6a: Radiocarbon Dating Results



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Appendix 6b

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RADIOCARBON DATING CERTIFICATE

21 May 2013

Laboratory Code	SUERC-46110 (GU30191)
Submitter	Margretta Morgan Archaeology Department University of Ghana P.O. BOX L3 LEGON - GHANA
Site Reference	Sabule
Context Reference	LEVEL 4/132 cm
Sample Reference	SAB/TR/2012/2
Material	Charcoal : 2012
$\delta^{13}C$ relative to VPDB	-23.6 ‰
Radiocarbon Age BP	428 ± 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- B Tagoe Date :- 22/5/13

Checked and signed off by :- E Dunbo Date :- 22/5/13

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