

**DEVELOPMENTAL TRENDS IN INDIGENOUS POTTERY MAKING AT
MFENSI, IN THE ASHANTI REGION OF GHANA**

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DECLARATION

I hereby declare that this submission is my own work towards the Master of Philosophy in African Art and Culture, and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

There are series of revolutionary changes occurring on indigenous pottery production technologies with respect to product forms at different periods of time. Mfensi, is one of Ghana's indigenous pottery centres. The village is very dynamic in its pottery products and technological practices. This study investigated the developmental trends of the indigenous pottery at Mfensi to assess changes in pottery production technologies, forms, and factors driving the changing trends. The study was qualitative, based on historical research design. Purposive sampling technique was used to select potters for interviews; workshops for observation; and indigenous pottery wares from the 1960s- 1980s periods and 1990s to date were collected for analysis. Findings from the research revealed that indigenous pottery production at Mfensi continues to use wood fuel kilns, hand driven potter's wheel; drying; packing, and firing techniques remain unchanged, except clay extraction method. In terms of pottery forms, traditional water storage pots and grinding bowls have been complemented by clay stove, incubators and crucibles; water coolers have declined to water jugs and eventually to clay water filters. Mfensi produced one form of flower pots which was smallish, v-shape and biscuit before the 1980s; but in contemporary times, they produce diverse designs: pot, tree, and drum-like shapes which are relatively bigger and tall, standard painting decorations with metal stands. However, changing trends in pottery making are driven by potters' desire to gain market, modern ceramic technologies, customers' specifications, and potters innovations and job experiences. The results underscore indigenous pottery being slow to the adoption of modern technologies and improved forms. There is thus the need for value addition, improved quality to meet contemporary standards and consumer needs; whilst government should spearhead the creation of pottery villages; and access to market, modern technologies and financial incentives.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Pottery remains among the oldest craft of human visual culture worldwide (Adu-Gyamfi et al., 2016) transcending through chronological and cultural boundaries (Adebimpe, 2015). Evidences of pottery making can be traced from the Neolithic era with the involvement of diverse forms of systems of traditional knowledge, material resources, tools, and skills (Pfaffenberger, 1992; Cooper, 2000; Sikdar and Chaudhuri, 2015). The evolution of pottery has been associated with a series of revolutionary changes occurring at various periods of time, particularly in techniques of production and also in art forms. For instance, there is evidence from the archaeological sites of Nsukka in Nigeria, where indigenous pottery has changed from crude or thick unfired pottery to thin walled but fired pottery wares (Hartle, 1967 cited in Ibeanu, 2006). Among the Naraguta potters in Nigeria, there is an observable change in pottery techniques: old pots have very long and narrow necks with small mouth, but presently such pots-*Tulu and Kula de Baki Ukwu* have shorter and wider neck with a mouth wide enough to enable use of the hand to clean the pots (Ibeanu, 2006).

In line with the revolutionary changes in indigenous pottery making, some proponents (Adu-Gyamfi et al., 2014; Annku and Adu-Agyem, 2012; Edusah, 2000) are of the view that changes in pottery making are crucial because when particular technological patterns are practiced continually over a period of time it refuses to be dynamic and hence becomes colloquial, monotonous and rendered economically and socially less valuable to meet trendy needs.

Some pottery researchers like Adebimpe (2015) and Adu-Gyamfi et al. (2015) argue that the position that traditional pottery has survived modernisation is weakening as a result of technological and social changes. The authors point out that in recent times, the studio pottery, which combines traditional and modern pottery which is mainly glazed, has emerged due to the impact of globalisation since the 1990s. Citing specific cases, they indicate that pottery in Italy, China, Japan and many other countries have advanced beyond only pots and other domestic containers. In consistent with this, Obukwelu (2006) reveals that Igbo traditional pottery (Nigeria) is changing from its rustic stage in the home to the studio and factories where designs, standards and shapes are improved. Similarly, indigenous pottery making societies in Ghana irrefutably are engulfed in a massive cultural change due to economic development, educational reforms and the growing population pressure (Edusah, 2000). The National Commission on Culture (2010) reports that pots which were in earlier times constructed with a flowing profile and hard simple decoration have now assumed angular complex forms. Quinn (2004) posits that the new era of indigenous pottery making is merging craft skills to modern design practice where aesthetic features are balanced against pottery functionality.

Several factors have been attributed as being responsible for spearheading new developments in indigenous pottery making. Quinn (2004) contends that with modernisation, the contemporary artist has been able to manipulate the conventional way of production by making pottery wares more sculptural towards aesthetic appeals. Abaka-Atta (2005) citing Vecchi (2001) indicates that modernism has brushed off the dust of the past towards a new era. The author, however, maintains that no artist works without connecting his or her past or without inspiration from the history of art. Furthermore, the complexity of social life, cross-cultural influences, and adulteration

due to transfers of skills from one person to the other might be contributory factors to this fact (Speight and Toki, 1999; Stark, 2003). Fening (2015) contends that the recent changing global economic conditions and lifestyles and competition from factory based medium or large scale industries considerably affect indigenous pottery operations.

In addition to these factors, there are also concerns that indigenous pottery making have suffered setback due to modernisation that brought in aluminum, iron and ore products to gain more prominence on indigenous pottery due to their durability and ease of transportation (Adebimpe, 2015; Adu-Gyamfi et al., 2014). For instance, indigenous pottery production, exchange and consumption in the Banda area of west central Ghana has been affected by the historical developments ranging from the present competition with alternative vessels (made of metal and plastics) to political economic disruptions that affected the community relationships within and outside the region (Stahl et al., 2008).

There is also a pervasive perception of the European colonialism in Ghana as elsewhere in Africa where colonial state stifled indigenous manufactures through the importation of cheaper substitutes to domestic products (Rodney, 1972 cited in Majuk et al., 2010). It is recognised that Africa's incorporation into the colonial market economy has eroded and reshaped diverse forms of pottery designs and production technologies (Cruz, 2003). Brown (1981) extends this argument by asserting that the dynamics of pottery craft are controlled by factors like education of potters, supply of raw materials and attitudes of potters.

With these developments and factors affecting the status of indigenous pottery making, nonetheless, several researches (see Adu-Gyamfi et al., 2014; Asante et al.,

2013; Annku & Adu-Agyem, 2012; Annku & Lodonu, 2012; Stahl et al., 2008) on pottery in Ghana has primarily focused on theoretical and socio-cultural dimensions, the economic significance of transforming utility through local raw materials, the impacts of globalisation on pottery, production, consumption forms and exchange. Indeed, the systematic analysis of the pottery developmental trends is missing and therefore the present study investigates the developmental trends of indigenous pottery making at Mfensi.

1.2 Statement of the Problem

Historically, indigenous pottery making at Mfensi has been an aged long tradition. The National Commission on Culture (2010) reports that Mfensi is among the old Ghanaian communities which have demonstrated appropriate traditional pottery making techniques and produced more complex pottery in style. Pottery making at Mfensi has continually served domestic purposes-cooking, bathing; palm-wine, medicine, ornamental and water storage and source of employment for both the young and the aged. However, with the growing utilisation of refrigerators, metallic and plastic plates and cooking pots, buckets; and blenders, and their functional values, including their quality and aesthetic appeal, the survival of such traditional pottery industry seems threatened (Asmah et al., 2013). Consequently, Asmah et al. (2013), and Adu-Gyamfi et al. (2014) opine that the indigenous pottery making activities in Mfensi is declining due to reduced local demand resulting from value decline and use in the society.

Brown (1981) also asserts that changes in technology have affected Ashanti pottery making of which Mfensi remain an important producing centre. Contrary to these assertions, preliminary investigation with potters at Mfensi reveals that indigenous

pottery making remains consistently dynamic. Indeed, the community which was traditionally known for producing quality traditional earthen wares has now expanded their production to include flower pots and bricks which utilise different technologies other than traditional hand-built method for local pottery.

These developments give an indication of the dynamic nature of indigenous pottery making pertaining to types of pots, designs, decorations, technology among other things. Moreover, this domestic art, although has been known to be the exclusive preserve of women, especially the elderly (Kquofi et al., 2013), is gradually shifting from women's dominance to that of men. These developments suggest that indigenous pottery making at Mfensi is undergoing some developmental trends which needs to be investigated. This study, therefore, seeks to examine the developmental trends in indigenous pottery making at Mfensi, in the Ashanti Region of Ghana.

1.3 Objectives of the Study

The objectives of the study were:

1. To study the technological changes in indigenous pottery production at Mfensi.
2. To discuss the changes that have occurred in indigenous pottery forms at Mfensi.
3. To explore the factors influencing the changing trends in pottery-making at Mfensi.

1.4 Research Questions

In line with the objectives, the following research questions were asked:

1. What are the technological changes in the indigenous pottery production at Mfensi?
2. How had indigenous pottery forms at Mfensi evolved over the years?

1.6 Definition of Terms

Form refers to the overall shape and sizes of a pot, together with the character of component parts such as rims and handles, and also and colour and style of decoration.

Technological practice refers to the clay extraction, preparation or processing, fashioning or shaping; decorative forming; firing and post firing treatments (Gosselain, 1995) including tools, products types and designs in producing pottery.

Trend: It refers to the temporal dimensions in line with changes in indigenous pottery making tools, skills, raw materials, designs, forms and technological practices.

Indigenous: It refers to originating or occurring naturally in a particular place; native.

1.7 Importance of the Study

The study offers some importance in relation to:

- The study is a useful reference material of importance to art educators, potters, ceramist, ethnographers and researchers to find solutions to the misguided practices which unknowingly continue to affect the originality of the indigenous pottery-making which is likely to deprive the future generation of the historical undertones of their inherited craft.
- The study provides information on both old and the current pottery forms and methods of production. This helps to develop measures to enhance the creation and reinforcement of its collective identities. This is also necessary as cultural globalisation and the dominant foreign culture are constantly influencing local art industries and gradually diminishing the value of local material cultures in diversity (Yuan-Lung, 2016).

- The study potentially contributes in spearheading the call for investment in traditional pottery making in Ghana. This is because the study provides the areas in indigenous pottery making technological practices that have remained less developed to produce standardised products to equally compete for a place in the various spheres of modern Ghanaian lifestyles.
- The study attempts to provide the basis of understanding the past of indigenous pottery making including and the contemporary trends. In this regard, the study impacts on decision making and policy formulation on the preserve and development of such cultural craft industries in Ghana.

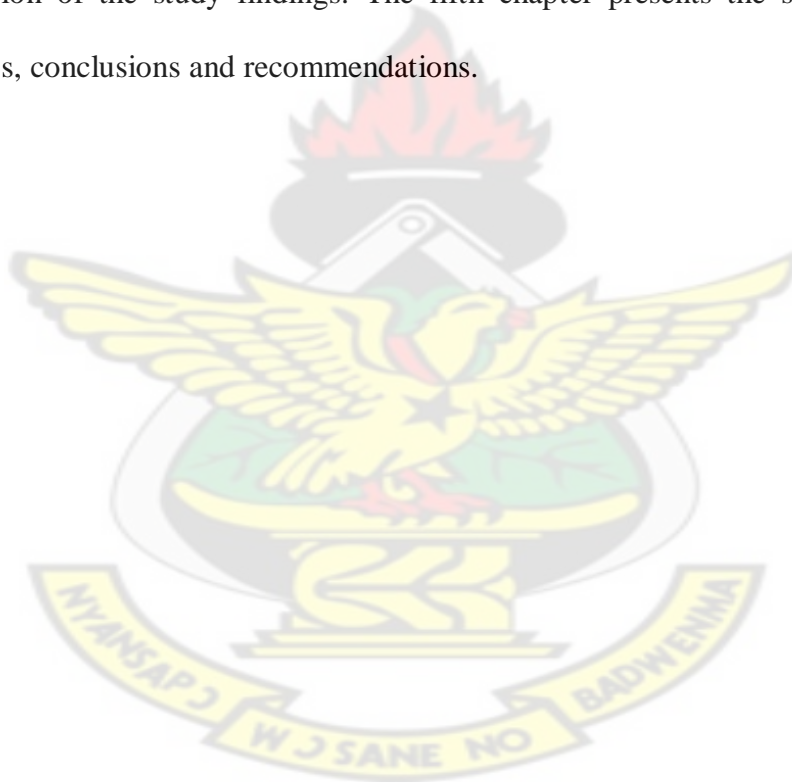
1.8 Limitations of the Study

Some of the potters failed to reveal some of their pottery making techniques based on the fact that they make their work unique and as such they regard such information as their professional secrets. Undoubtedly, this position on the part of some potters affected the volume and detail of information accessed. Moreover, most of the potters are young people who have not experienced some aspects of pottery change in the community before the 1990s, while few potters are versatile in producing pottery varieties (e.g. grinding pots, coolers, water jugs, flower pots, *fufu* bowls, beer mugs) and conversant with techniques of glazing, painting and designs. Hence, the potters with long experiences and versatility were much targeted.

Furthermore, most of the potters were not familiar with the exact year period within which some of the developments in the indigenous pottery making occurred.

1.9 Organisation of the Study

The study is organised into five chapters. Chapter one focuses on the background to the study, problem statement, objectives, research questions, scope, and definition of terms and the importance of the study. Chapter two focuses on the relevant related literature review of the developmental trends of indigenous pottery making with regards to the theoretical framework and conceptual framework and other important concepts on the topic. The third chapter presents the methodology used in executing the research. The fourth chapter deals with the presentation, interpretation and discussion of the study findings. The fifth chapter presents the summary of key findings, conclusions and recommendations.



CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Overview

The chapter reviews relevant related literature on developmental trends of indigenous pottery making. It starts with depth theoretical review and a conceptual framework. This is followed by the definition of concepts, history of pottery making, production techniques, morphology and styles of indigenous pottery making, contemporary pottery making, challenges and factors affecting the indigenous pottery making.

2.2 Theoretical Review

2.2.1 Change Theory

In assessing the developmental trends in indigenous pottery-making, Lewin's theory of change remains essential. Stark (1991) in citing several authors (Foster, 1965; Glick, 1977; Hallifax, 1894 and Selsor, 1988) maintains that systems change to accommodate new functions, which may involve industries that use ceramic components in the production process. Lewin's theory is the most influenced model of the change process in human systems. Lewin introduces three concepts (driving forces, restraining factors and equilibrium) as determining change process. The theory states that driving forces push in a direction that causes change to occur because they facilitate the person in the desired direction to cause shifts in the equilibrium towards change. For change in pottery and ceramic innovation to occur, Bulbeck (2009) states that internal factors such as population growth and innovative individuals are important. External catalyst for ceramic change include such factors as competitive emulation (Miller, 1982), foreign pressure, the introduction of new ceramic

technologies and emergent art markets and other market demands (Lindahl and Pikirayi, 2010).

The theory second concept, which is the restraining forces, according to Lewin, counters driving forces to hinder change from occurring because they push the person in the opposite direction and shift in equilibrium which opposes the change. In this regard, it is worthy to comment that traditional pottery has survived and it is still relevant to some peoples need in spite of modernisation that brought in substitutes such as metals, aluminium, plastics, and ceramic products (Adebimpe, 2015; Stahl et al., 2008; Rice, 1996; Ibeanu, 2006). Boateng (2017) opines that traditional potters in Ghana have limited formal education and hence, the shallow outlook for modern technology; they are poor and are not able to afford machinery and equipment and too many taboos preventing its advancement. Others like Brown (1981) and Lalithambika (2003) also argue that due to factors such as illiteracy and poverty, the techniques of indigenous pottery limits significant developments. Lindahl and Pikirayi (2010) support this line as they argue that traditional potters do not even know the technological improvements that take place in different parts of the country and go through traditional methods based on family experience.

The third concept of Lewin change theory is the “equilibrium”. Lewin defines equilibrium as a state of being where driving forces equal restraining forces and no change occurs. He argues that it can be raised or lowered by changes that occur between the driving forces and restraining forces. This implies that changes in indigenous pottery making may not significantly happen when both driving forces and restraining forces remain in equilibrium.

Kurt Lewin theorised three-stage model of change known as unfreeze, transition and freeze. These three elements of change are distinct and remain vital stages in the change process. Lewin defines unfreezing as the process which involves finding a method of making it possible for people to unlearn an old pattern that was counterproductive in some way. Lewin emphasise that unfreezing is necessary to overcome the strains of individual resistance and group conformity. He states that unfreezing can be achieved by the use of three methods: (i) increasing the driving forces that direct the behaviour away from existing situation or the status quo; (ii) decreasing the restraining forces that negatively affect the movement from existing equilibrium and finally (iii) by finding a combination of the two methods listed above.

Transition is the second stage and it involves moving to a new level of changing or movement. This stage involves a process of change in thoughts, feeling, behaviour or the three. Stark (1991) indicates that changes in pottery attribute level may include the innovation, shift in frequency of morphological and stylish attributes, while changes in assemblage level includes replacement of decorative style or vessel forms and organisation of production. In countenance to this position, Lindahl and Pikirayi (2010) posit that new technologies are adapted within cultures to support existing patterns of behaviour. Bell and Dourish (2007) argue that it is difficult for some forms of technology to get over the threshold of the home, not simply for economic reasons, but for religious ones because technology pollutes the purity or the sacredness of such places and therefore it is kept away. From the economic perspective, Huffman (2007) and Pikirayi (2001) state that any rapid change in a culture comes at a cost, and that cost is assessed by the value of change as perceived by the culture. If the value is too low compared to the cost, people of that culture do not accept change. If the value is high and the cost is low, the people are prone to accepting change. For transition to be

sustained, Huffman, 2007 and Pikirayi, 2001, believe that change could be enforced as a result of shift in access to accustomed raw materials as in the case of pottery clay, temper, and fuel for firing so that the change becomes part of a future culture. Irrefutably, these factors may be crucial towards potters' decisions for transition in any innovation. In pottery-making, this period may be associated with some level of confusion as potters switch from the old ways of doing things to new ways of doing things.

Freeze is the last stage of crystallizing and adapting the ownership of the new concept. Refreezing involves establishing changes as a new habit, so that it now becomes the "standard operating procedure". Without this stage, it is easy to go back to the old ways (Kritsonis, 2005). For potters, this stage is crucial as there may exist as a habit of using particular tools and methods and hence even with any introduction of new methods, they may still stick to their old methods because they are accustomed to them.

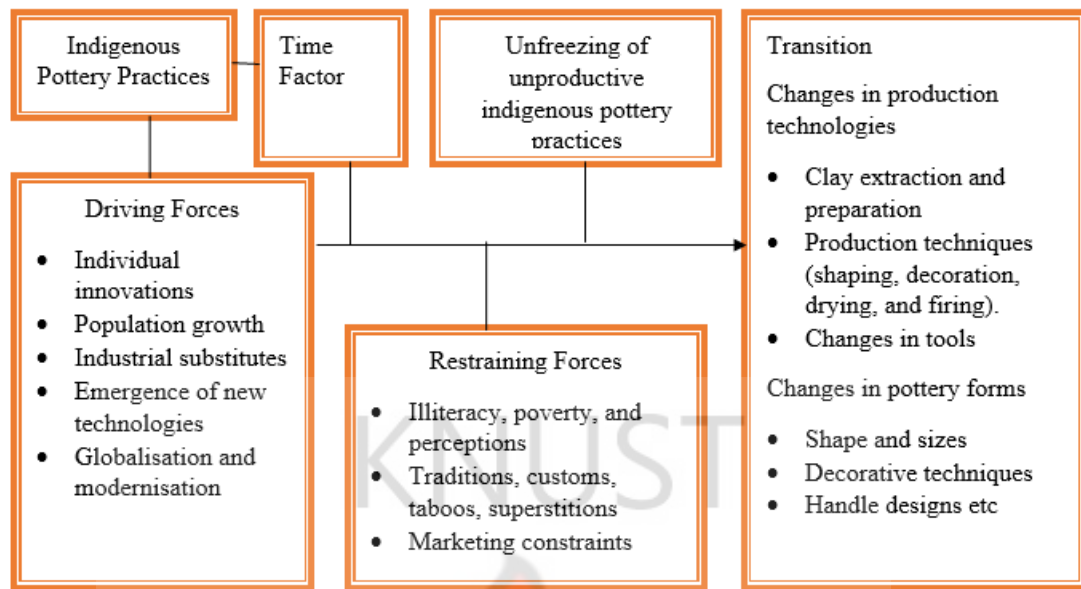
The change theory is related to the present study because the driving forces are relevant to explore the factors that are influencing developmental trends in the indigenous pottery making. Restraining forces may help contribute in understanding why some indigenous pottery technologies have not changed; and or no change taking place or remain in an equilibrium position. The stage of unfreeze determines which aspects of indigenous pottery technological practices that have been unlearned or outmoded. Transitions provides the new innovations that have been changed or emerged in the indigenous pottery making. Refreeze determines the extent to which modernisation has influenced indigenous pottery-making.

2.3 Conceptual Framework

Figure 2.1 represents the conceptual framework on developmental trends in indigenous pottery making. Indigenous pottery making with time is affected by driving forces such as individual innovations, population growth, availability of industrial substitutes (refrigerators, aluminium and plastic utensils, blenders, cups etc.) new technologies and the impacts of globalisation and modernisation. The driving forces affect the trends of indigenous pottery making in the aspects of its technological practices (material extractions and preparation, shaping, decoration, drying, firing, tools and fabric usage) and forms (shape, rims, handles and styles).

However, before existing driving factors can cause any change in the indigenous pottery making, it must rise above the restraining forces such as societal taboos, customs, superstitions and negative perceptions, illiteracy and poverty of potters which affects the change process. Otherwise, change in pottery making cannot be materialised. Additionally, a transition in pottery technological practices and forms are determined by an unfreezing of unproductive indigenous pottery methods. Nonetheless, change in indigenous pottery making cannot also be realised when both restraining forces and driving forcing are in equilibrium.

Figure 2.1: Conceptual Framework



Source: Author's Construct (2017)

In brief, there have been series of revolutionary changes in indigenous pottery technologies and product forms at different time periods due to some driving forces. Hitherto, some indigenous pottery making practices have been sustainable due to some restraining forces such as societal customs and socio-economic such as illiteracy, poverty and perceptions of potters.

2.4 What is Pottery?

The term pottery has diverse meanings. Some published definitions of pottery include the following: Firstly, one old definition of pottery is that it includes a variety of wares from crudest vessels of prehistoric times to the most beautiful; decorated porcelains, stoneware and earthenware; it also includes many articles such as large grain-jar used in ancient times for storing corn and other dry materials, wine-jars and modern sanitary ware and the large tanks for containing corrosive acids (Searle and Grimshaw, 1959). This definition points out the variety of wares made by potters; and it is an old human

craft. However, its salient on raw materials and technology dimensions that explain pottery making. Pottery also includes earthenware and any article made from clay or from a mixture containing clay and another material or a class of ceramic artefacts in which clay is formed into containers by hand or in molds or with potter's wheel, usually decorated, and fired (Ashmore and Sahre, 2000).

Wikipedia (2017) provides some definitions of pottery: pottery refers to all ceramics wares or materials which, when shaped, contain a significant amount of clay. Exceptions are those used for technical, structural or refractory applications. Pottery also includes (i) the art and wares made by potters; (ii) ceramic material; (iii) a place where pottery wares are made; and the (iv) business of the potter. The above definitions seem narrow and do not provide explicit information on how pottery is made. However, the technical definition of pottery used by the American Society for Testing and Materials (ASTM) is "all fired ceramic wares that contain clay when formed, except technical, structural and refractory products. In consistent with the technical definition, Merriam-Webster dictionary defines pottery as objects (such as bowls, plates, etc.) that are made of clay, usually by hand and then baked at high temperatures so that they become hard; it involves the art or activity of making objects out of clay; a place where potters made objects of clay. Violatti (2014) refers pottery to all objects of clay that have been fashioned out into desired shape, dried and either fired or baked to fix their form. Similarly, Edusah (2000) defines pottery as encompassing all objects made of clay or with the addition of other materials, shaped, dried and then made hard and permanent by action of considerable heat. In consistent with Violatti and Edusah definitions for pottery, Dinsdale (1986) states that pottery is clay that is modelled, dried, and fired, usually with a finish into a vessel or decorative object. It also refers to the art or craft of a potter or the manufacture of pottery

(Dinsdale, 1986). From the three authors' definitions for pottery, it can be deduced that pottery is an art which follows a systematic process of series of activities in its production and moreover, it points out the crucial production activities involved in the pottery making. Clay which is the basic raw materials as indicated in the definitions above is a fine-grained earthen material or natural rock or soil material that combines one or more clay minerals with traces of metal oxides and organic matter, plastic and cohesive (Obeng and Atiemo, 2005). Indigenous pottery is hand-made by shaping plastic clay into objects and firing them to appreciable temperatures in open fires or in pits to effect a permanent physical and chemical change (Baba, 2009; Asante et al., 2013).

2.5 Overview of Pottery Development

Pottery remains as one of the oldest human inventions which begun prior to the Neolithic period, with ceramic objects like the Gravettian culture "Venus of Dolni Vestonice" figurine discovered in present day Czech Republic Dating back to 29,000-25,000 BC and pottery wares that were discovered in Jiangxi, China dates back to about 18000 BC. Early Neolithic pottery has been found at Jomon in Japan estimated to approximately 10,500 BC, the Russia Far East (14,000 BC) Sub Saharan Africa and South America (Derevianko et al., 2004; Violatti, 2014).

History of pottery making in Africa from the archaeological perspective can be from Sudan (Mercader et al., 2000). Pottery remains among the oldest art of making. Perani and Smith (1998) assert that before the 20th Century, Africans south of the Sahara had no knowledge of the potter's wheel and hence clay vessels were hand-built. Barley (1994) indicates that hand-built vessels date back to the early millennium BC. Swiss archaeologist discovered remains of the oldest pottery in Central Mali dating back to

at least 9,500 BC (Bradley, 2007). Moreover, the relationship of the introduction of pottery in many parts of Sub-Saharan Africa with the spread of Bantu languages has long been recognised (Bostoen, 2007).

In Ghana, Anquandah (2006) reveals that almost every region in Ghana provides some evidence of remains of ancient clay hearths, smoking pipes and vessels for cooking, carrying, storage and serving of water. Historically, several ancient settlements such as Manso, Dawu-Akuapen, Shai, Mamponteng, Tafo, Banda, Pankrono, Tanoso and other places have demonstrated that in the period AD 1200- 1800, these communities became more complex in style with regards to their standards of living (National Commission on Culture, 2010). For instance, pots from Dawu excavations are dated about 1450 AD. At Asebu, in the Central archaeological excavations in 1957 discovered preserved pots which included dishes, cups, and water pots. Similar findings were observed Techiman, Accra, and in Ahinsan, near Kumasi, terracotta figures were uncovered from royal cemeteries (Nyarko, 1975). This gives an indication that indigenous pottery centres are wide spread in Ghana.

According to Kwafo (1966), the history of indigenous pottery making in Ghana originated from early men's effort in arriving by the shape or form of a basket using clay to use as a container for domestic purposes. In explaining the method used in the early pottery making, he explains early men took a medium basket and plastered the walls from inside and when it was dried, it was baked. The basket burnt completely and the pot was down successfully. He assumes that this method was adopted when indigenous pottery was in its embryonic stage. However, Kwafo acknowledges that presently the indigenous pottery modelling is done without the basket. He further points out that the earliest potteries were produced by women; where they fashioned

by hand, copied the forms of basket, leather bags and gourds and were baked in the sun or in fire.

Rattrary (1927) reports that in the Ashanti traditional setting, it is recounted that the first potter was a woman called “Osra Aboagya” who hailed from Tafo. It is believed that she learnt the art from “Odumankoma”, that is God, the Creator (Abata-Atta, 2015). The history of pottery in Ashanti is an important component among other factors which can be largely attributed to the deposits of quality clay over the years (Nsiah, 2007). Pottery in Ashanti is generally hand-built with the application of techniques such as pinch, coil and mold. In some of the indigenous pottery communities, Acheampong (2015) asserts that Ashanti potters use a combination of these existing methods to produce a pot. The tools used by the indigenous Ashanti potters remain the same. These consist of simple items: thin curved metal for scrapping, smooth stones for burnishing, corn cobs for making designs, piece of rugs, calabash, and pieces of shaped wood for smoothing (Acheampong, 2015). Acheampong also notes that these tools which were handed over to the contemporary traditional potters have remained unchanged by their grandparents for several years. Nsiah (2007) indicates that Ashanti potters have avoided the adoption of any type of mechanical equipment for their production and that Acheampong (2015) maintains that indigenous potters in Ashanti have stuck to their simple techniques of making pots transmitted to them by their ancestors.

2.5.1 Importance of Indigenous Pottery

Acheampong (2015) argues that traditional Ashanti pottery almost the identical shapes and styles with modest peculiarities due to the functions of the wares to the local communities. Kwafo (1966) asserts that “prior to the introduction of iron pans, enamel

pans, aluminium pans, coal pots, electric stoves, buckets and cups for cooking, washing and bathing purposes by the European merchants, these potteries had their substitutes made locally with clay to serve similar purposes”. For the Ashanti indigenous potter, the objective is to produce pots usually for its usefulness but not for aesthetic purposes. The pots produced are important for their domestic, ritual, religious or medicinal utilities; and these dictate their shapes, sizes and styles. Brown (1980) notes the peculiar specialty of the traditional Ashanti water container, a palm wine container and various cooking utensils and eating bowls. Rattray (1927) registered pots under three separate uses:

- i. Pot for cooking and eating: *osene*-cooking; *kukuo*-cooking medicine; *apotoyewaa*-grinding and serving food; *nkwansen*-cooking soup.
- ii. Pot used as containers (water and wine): *ahina*-holding drinking water; *apourdor*-a large form of ahina; *akotokyiwa*-keeping palm wine.
- iii. Pots for washing, bathing and containing pomade: *dwaresen*- for bathing; *sradeyewa*- keeping pomade.

The importance of the indigenous pottery making cannot be underestimated in the past and in the modern times. Pots serve several purposes in a society. In the traditional African societies, pots are widely for many purposes. Different types of pots are made in different communities for household and domestic purposes, whilst others serve some commercial, religious and cultural significance (Asante et al., 2013). Indeed, every pot in the society depicts a philosophy of the society and reverberate believe of the people in them. This is reiterated by Amenuke et al. (1991) that circular pots are usually associated with God, who is the giver of life. Symbolically, water is a factor that upholds life which is why a circular pot is used in storing water. Ethnographic pottery from Densu River Valley derives from potting centres of Weija, Oblogo,

Afuaman and Maheean (Bredwa-Mensa, 1996). The Ga people widely used a range of pottery vessels for domestic and other activities, including storage, ritual, cooking and serving food, medicine, and storage of wine and steaming (Bredwa-Mensah, 1996).

Ibeanu (2006) citing authors such as Hoggarty (1967), summarises the domestic importance of pottery in the traditional societies in Nigeria. He asserts that using pots for cooking enhances the taste of foods and prepares them for digestion, also the heat of cooking also softens the meat and makes the protein content available to man when chewed. The invention and spread of pottery led to the new methods of food preparation such as boiling, frying, toasting, brewing and distilling (Ibeanu, 2006). Pottery according to Ibeanu (2006), also increased the range of potential food resources and maintenance of natural juices/liquids such as water; pottery enable detoxification of certain food plants for human consumption and enhances the palatability of food/drinks because blending of tastes caused by the presence of free soluble salts in the porous clay which impact desirable taste to foods (solid and liquid) during cooking or storage. Storage water pots serve as local refrigerator as a result of a process of heat evaporation of water oozes out through the microscopic openings in vessel walls. This makes water from storage pots to be very cool and pleasing to drink than water from fridge, plastic and metal containers (Ibeanu, 2006).

In consistent with these traditional importance of indigenous pottery, Adebimpe (2015); Eduash (2000) reveal that in many cultures, pottery making was one of the household art necessitated by the need for storage containers and cooking. Thus, pots were made for fertility wedding rites, funeral rites, cooking and household chores etc. In some cultures, notably India, pottery was the disposable material comparable to present day paper, Styrofoam or polystyrene (Adebimpe, 2015). Nonetheless, it can

be argued that with the growing importance of modern pottery substitute products with relatively higher functional values such importance of traditional pottery products is reducing their significance in the modern society.

Pottery as an aspect of a people's technological tradition is adapted to the socio-cultural needs of the people. For instance, apart from the utilitarian wares for daily use, some pottery wares were made for ritual and depicted statues symbols and others were used for preparation and preservation of agricultural products. Presently, some traditional potters have started targeting tourism markets by producing flower vases and other fanciful wares (Ibeanu, 2006). Indeed, as several indigenous pottery is fairly distributed in Ghana, their potentials in economic activities involving employment, sales, generation of higher production volumes, increase exports and introduction of innovation and entrepreneurial skills are worth mentioning (Fening, 2015). This means that the dynamic roles of pottery industries in developing countries like Ghana, can insure as engine of growth through which objectives of development can be realised.

2.6 Methods of Indigenous Pottery Making

There are different methods of pottery making depending on the type of pot the potter is making. According to Barley (1994), varieties of pots come with different methods. However, traditionally, the basic methods in pottery making are coiling, throwing and slab building method (Quinn, 2004). These methods are elaborated below.

2.6.1 Coil Method

Many of the early ceramics were hand-built based on simple coiling method techniques involving rolling into long coils that were then pinched and beaten together to form the body of a piece of vessel (Kelvin, 2001). By this method, the artist had to

turn the vessel around in order to wind the coils along required direction to form the object. Boateng (2017) also describes the traditional coil method as involving preparation of ropes of clay and then placing a lump of clay in a calabash or a pot to serve as tounette. He indicates that the clay forms the base of the pot which the potter shapes with her hands to systematically build up the pot from those bases by adding strips of clay. The interior is smoothened usually with a wooden pestle, while the potter turns the pot with her legs and free hand. Potters enlarge the pot by gradually thinning down the walls with wooden beater. A round stone is put in the pot to ensure that the clay is compressed as it is beaten against it. Boateng (2017) points out that that coil method is widely used in making big pots.

2.6.2 Pinch Method

A pinch pot is a simple form of hand-made pottery produced from ancient times to the present. The pinching is to create pottery that can be ornamental or functional and has been widely employed across cultures and times (Dinsdale, 1986). The process begins with a ball of clay. Thumbs are pushed into the centre, and then rudimentary walls are created by pinching and turning the pot. The pot is then pushed on a flat surface to create the base. By this process, the base is made by rolling three coils and pressing them together into the bottom of the pot (Arnold et al., 1996). With regards to traditional pottery making in Ghana, Boateng (2017) reveals that in building small pots, the pinch method is widely applied. He explains that the process involves round lump of clay being scooped out from the top as the sides are sharpened to form the rim; turning is done as the buttom is made when the pot is made leather hard; and the inside of the pot is scrapped and allowed to dry.

2.6.2 Slab Method

By this method, plastic clay is rolled to a certain thickness, and pieces are cut out based on selected patterns and joined with a thick pasting slip and coil (snakes). The pieces or slab may be employed flat, curved prior to pasting the slip. Slabs may also be placed over the rocks, bowls, plastic forms among others, to create interesting shapes from the sheet and assembling them into desired forms (Sikdar & Chandhuri, 2015).

2.6.3 Wheel-Thrown

Wheel throwing involves using the potter's wheel to make objects. Some authors like Barnett et al. (1995) recognise this method as a contemporary form of pottery making. The potter's wheel is described as a machine used in shaping of round ceramic wares. Other uses of the potter's wheel involve the trimming excess clay from dried wares and for applying incised decoration or rings of colour (Tony, 1993). Despite this method relatively recent, its usage involves a bulk of energy which does not directly originate from the hands of the potter but from the turning wheel. Hitherto, Rado (1988) argues that the introduction of the potter's wheel brought some benefits with regards to speed, symmetrical shape, and efficiency. On the ceramic practice in Ghana, the Ghana Investment Promotion Centre (GIPC) indicates that the introduction of the potter's wheel by European ceramists Michael Cardew and Von Stocker in 1942 to the potters in the Volta and Greater Accra Regions revolutionized pottery to some extent (Halluska, 1999).

2.7 Indigenous Pottery Making Processes

In indigenous pottery making, the production sequence is carried out in six general stages, namely raw material procurement; clay processing or preparation; shaping or

fashioning; decorative forming; and firing and post firing treatments (Gosselain, 1995). However, Fowler (2008) indicates that it is not all the stages that are necessary for producing pottery. For instance, he indicates that clays may not be prepared before forming, objects may be subject to one or more firing, and pots may not be decorated, or may not receive any post firing treatments. Fowler (2008) further points out that these ranges of stages provide diverse choices for potters and their execution make pottery production operations full of stylistic phenomena, governed by cultural norms and values as much as the range of shapes and decorative attributes of vessels.

2.7.1 Clay Extraction

Clay is found underground, sometimes several metres beneath the surface. Very often, it is dry and friable (UNEVCO, 2006). Clay deposits are often on the surface, but occur in certain stream river beds. Potters may be seen as selective in terms of selection of a particular clay for making pots. This may be due to the fact that not all types of clay are suitable for making pottery (Sikdar & Chandhuri, 2015). The knowledge of clay selection depends on the age old of the potter and he/she can easily identify its suitability just by observing its colour and texture (Ibid). Selection of suitable clay for pottery making is explained by the importance of longevity and the fine finishing (Asante et al., 2013). Traditional potters use hoes and machetes to extract the lump of clay (Boateng, 2017).

2.7.2 Preparation of Clay

Preparation of clay starts with the cleaning of any extra material. Then, mixing it with water until supple and flexible blend is obtained. Using a wicker sieve, she removes any dirt that may be mixed with pure clay.

2.7.3 Beating and Kneading the Clay

Beating and kneading the clay are used to prepare the clay for modelling. The clay is kneaded to obtain a homogenous consistency which neither sticks to the hand too much nor fails to hold together (Rattray, 1927). The beating eliminates air bubbles further to make it possible to mix the possible layers of clay (UNEVCO, 2006). Kneading is a step in preparing clay for shaping. It involves manipulating the clay in a fashion somewhat like kneading dough for bread (Wikipedia, 2017). Using a wicker sieve, potters remove any dirt that may still be mixed with pure clay. Using pestle potter gradually adds water to the clay and kneads the mixture directly with hands to make it homogenous as possible. She transforms the ball which she continues to knead carefully so as to remove any air bubble that might spoil the firing. She transforms the ball into long rope of clay which she places on a piece of rag which will absorb all the humidity (UNEVOC, 2006).

2.7.4 Shaping/Fashioning

Many African women potters are not familiar with the coil methods and are completely ignorant of the wheel. The potter models her object directly from the lump of clay. This is the oldest method existing today. She places the clay in the centre of an upside-down pot on which some wood ash has been scattered to prevent the clay from sticking to the base (Adu-Gyamfi et al., 2014). Using only her hands, she gradually works to produce the shape desired. Bent doubles, she removes round the lump of clay she is fashioning and builds up the object, thinning the clay with her hands. She keeps some water close by which she constantly moistens her hands so that the clay cannot stick to them. The walls of the pot are thinned out by pressure as she moves round it, using

her thumb on the inside and her first and second fingers on the outside. She uses a wooden spatula to smooth the outer surface and removes any rough traces, and she even up the run by a repeated circular movement (Gosselain, 2000). She then smoothen the inner surface within her wet hands and uses a small damp rag to finish off the rim. Using a stick, an empty corncob or a piece of cord, she decorates the pot with geometrical design. The pots are dried in the courtyard, away from the wind and sun. She completes her work by removing them from the bases and applying the finishing touches with her damp hands. She now places the pots on a piece of metal sheeting and leaves them outside to continue the drying process (UNEVCO, 2006). Later on, the pots are placed under cover and left to dry for a further week, usually on a grid over a constant fire (Ibeanu, 2006).

2.7.5 Finishing and Decoration

The decorative motifs are units of designs impacted on the body of pottery wares when they are leather-hard (Arnold et al., 1996). Examples are net, zig-zag, smoothness, groove, herring bone, maize cob, twisted cord designs, etc. On the other hand, decorative techniques are tools/ methods used to achieve the observed designs on the pot. They include pointed sticks, fingernails, roulette, impression, burnishing carved wood (Ibeanu, 2006:115).

Boateng (2017) point out that traditional potters increase the lustre of their pots by using decorative techniques such as sgraffito. He indicates that potters press the patterns in their wares with twisted or plaited straw or natural objects such as corn cob; semi-circles, animals and objects. He also notes that red slips are used in painting pots that are sun baked (dried) and then polished with smooth pebbles. However, Irye (1981) cited in Fowler (2008) observes that Inkandla-Umladzi potters mainly apply

four groups of techniques in decorating their pottery. Fowler (2008) indicates that the techniques include incision (cutting into the surfaces) and excision (removing clay from the surface) and cutting techniques, impression (pushing into the surface) is a displacement technique, appliqué (applying clay to the surface) is a joining technique and burnishing (smoothing the surface using an implement) is a surface-finishing technique (Ibid). Incision and impression are used to create geometric (mainly triangles and diamonds), curvilinear, and naturalistic (e.g. leaves) motifs. Fowler (2008) further reports that the decoration of modern Zulu pottery has been subject to diverse innovations both in terms of the tools used to decorate pottery and decoration itself.

Speight and Toki (2000) reveal that the finishing techniques employed over the years in the production of traditional pottery for their aesthetic, philosophical and utilitarian values have varied in many ways. They assert that the products are embellished with simple incised lines and complex geometric incisions or relief plant shape patterns as decorations. Arnold et al. (1996) maintain that decoration should complement and enhance a piece and be an integral part of the total design.

2.7.6 Drying

Before burning, the modelled clay pottery has to dry 8 to 10 days. After one day, the objects get the consistency of leather (UNEVOC, 2006). Ibeanu (2006) notes there are three methods of achieving this: (i) sun drying by leaving the pots under the sun especially in dry season. This quickens pottery production; (ii) drying the pots under the room temperature during the rains and; (iii) smoking the pots by placing them on bamboo rafter above the fireplace. Boateng (2017) refers these unfired pots as green wares and they make dull sounds when knocked.

2.7.7 Firing

According to Traditional Hand Crafted Gallery (2014), “pottery is made by forming a clay body into objects of a required shape and firing them to high temperatures in a kiln which removes all the water from the clay, which induces reaction that leads to permanent change including their strength, hardening and setting their shape”. Similarly, the essence of firing pottery is reinforced by several authors such as Ibeanu (2006); Baba (2009); Asante et al. (2013) indicating that the indigenous pottery is made by forming plastic clay into objects of required shapes and firing them to appreciable temperatures in the open or in pits to induce reaction that lead to permanent changes including increase in length, hardening and setting their shape. The length of firing depends on the size, thickness and number of wares (Boateng, 2017). Vincentelli (2008) opines that black-smoke firing is a characteristic finish dating back to the earliest times and it is still found in many parts of the world, from Indonesia and Africa to the Americas. There are various methods of achieving this, but typically, the pots are lifted on long poles from the hot ashes of the born fire and plunged into sawdust or vegetable matter (Vincentelli, 2008). In some cases, the potters form small groups and fire their wares in designated spots. Small pieces of dry sticks, grasses as well as small stones (for support) are laid in the firing arena and the pots are systematically arranged in such a way that the mouths face the ground for the first layer of larger pots (Ibeanu, 2006). Bakor Women in Pottery Production in Colonial Southeastern Nigeria avoid the pots cracking during firing; fine sand was added to the clay in appropriate proportions (Majuk et al., 2010).

Several Ashanti traditional pottery, villages and communities such as Afari, Pankrono, Tafo are known to practice open firing pottery. Awadzi (2002) contends that the

bonfire method of firing clay wares remains the oldest means used by traditional potters in Ghana and parts of Africa. Other writers like Korankye and Oteng (2008) hold the view that the method of firing clay objects ultimately makes them hard and impervious to water was discovered accidentally. It is evident that indigenous pottery firing methods largely remain open firing method.

2.8 Tools and Raw Materials

For the indigenous potters, tools could be anything suitably found in the environment such as a piece of metal for scrapping; piece of wood and corn cobs for making designs; smooth stones, rugs and discarded stainless steel spoons for smoothing and burnishing (Asante et al., 2013). Boateng (2017) identifies a variety of indigenous pottery tools and their main uses. He indicates that a wooden piece of flat stick is used for shaping the pot; (b) Cob of corn is used for pulling the walls of the pot; (c) Smooth round pebble is for burnishing; (d) Broken biscuit (bisque) pot used as a support; Burnt strip of palm stem in a round form used as scrapers and; (e) Rag for cleaning and shaping the rim of the pots. It thus can be argued that the traditional potter uses simple and cheap tools for the production of pots.

The basic raw material for pottery making is clay, which differ in colour depending on the nature of the parent rock. Clay is defined as fine-grained earthy material that develops plasticity when wet and losses it water of chemical combination when fired (Allen and Zubrow, 1989 cited in Ibeanu, 2006). Clay bodies are mixed with additives that give the clay different properties when worked and fired; thus pottery is made from raw clay but a mixture of clays and other raw materials. Empirically, clay deposits have been established naturally and geologically as a source of primary material core to indigenous and industrial pottery in Ghana (Anquandah, 2006;

Craven, 2007). It is usually in abundant almost in every locality and has a unique property of being easily fashioned into a variety of forms.

Clay for pottery appears in different colours. In line with this, Asihene (1978) identifies grey, green, red, brown and yellow. However, Ratray list Ashanti pottery clay colours as white, red, yellow, grey and brown. Mfensi clay has been used by traditional potters over several decades in producing potteries as it can withstand high temperatures. It is also appropriate for the production of some medium range refractory materials and has a shrinkage percent of 11. Thus, Mfensi clay is not difficult to form and does not easily crack after forming. Nsiah (2007) suggests that it is appropriate to add some shamot (grog) or sand to reduce shrinkage of Mfensi clay products. Adu-Gyamfi et al. (2014) point out that Ghanaian indigenous pottery is a process of amalgamating indigenous pots and other locally available complimentary materials for effective integration towards creating a variety of products and expanding existing markets. The authors indicate that the usual used materials for integrating with pots include metals, beads, bones, feathers, glass, blood, textile material, leaves, cowries and shells. Hence, clay is the primary raw material for indigenous pottery making, however, there are variety of other materials that are integrated depending on the type of pottery being made.

2.9 Indigenous Pottery Morphologies and Styles

Indigenous potteries in Ghana have strong regular shapes and set of patterns or forms; whilst others have strong shapes and sets of patterns; rounded forms and accordingly categorized according to what they are used for such as for food serving, containers and cooking pots (Boateg, 2017). However, in the Suazoid pottery in the Windward Islands (St. Lucia), Hofman and Bright (2004) found that the dominant shapes are

mainly coarse ware which includes simple contours which are usually unrestricted. Along with the coarse ware, there is a finer ware with more composite, complex and boat shaped vessels made of hard-fired, fine clay and with polished surfaces.

Besides, most vessels are made thicker, with the surfaces normally scrapped or polished. The authors also established that there were finger-notched rims associated with their pottery later phase, whilst bowls have wide and flat handles, extended rims handles and rim lugs. Bases tend to be flat, whilst low ring bases and legs are also preset. Other features of the Suazoid series are legs and footed griddles, pot stands, sprouts, body stamps, spindle whorls, pierced cylinders popularly known to them as loom weights, freestanding, figurine and clay pestles (Hofman & Bright, 2004).

Style “is a polythetic set of attributes present by virtue of common descent from identifiable artifacts-production system” (David, 1992 cited in Fowler, 2008). However, for ceramics, Fowler (2008) states that style is defined in terms of the production system that generated the redundant sets of attributes that can be observed in finished products particularly shape, size and decoration.

Speight and Toki (2000) cited in Asmah et al. (2013) point out that indigenous pottery products are often embellished with simple incise lines and complex geometric incisions or relief plant shape patterns as decoration. Nonetheless, this observation is general and does not point out to any particular pottery making with regards to a particular group of people. Some studies reveal some styles of indigenous pottery in Ghana specifically with regards to the Ga indigenous pottery. For example, an ethnographic pottery study from the Densu valley centres of Weija, Oblogo, Afuaman and Mahean by Bredwa-Mensah (1996) showed that the interior of the eating pots (bowls) were burnished and smuged whilst the exterior surface of food bowls are

slipped with red ochre. Vessels used were roughened and textured on the outer surface are slipped with red ochre. However, the interior surfaces of grinding bowls are incised while the bottom parts of the steaming pots are pierced.

Boachie-Ansah (1998) excavation at Wodoku, the ancestral home of the Nungua (Ga) people of Accra yielded pottery that were similar to the 16th and the 17th Century sites in the Accra Plains (Ayawaso, Ladoku). He notes that the sherds of these pottery are mainly blackened with soot from an open air fire, mostly burnished, red-slipping was, however, unpopular; multiple and single horizontal decorations, incisions, rim-lip notches, triangular stamps, dot stamps, short linear stabs or vertical incisions on necks, shoulders or bases of vessels, applied plastic decorations consisting of cylindrical lobes of clay on the rim/bodies of vessels, comb stamps. As the above studies reveals some essential information on Ga pottery morphology and styles, so far not much is known on the morphology and styles of the Mfensi (Ashanti) indigenous pottery and the present study among other things seeks in filling this gap.

2.9.1 Forms of Indigenous Pottery

The potters in Ghana are able to make any pre-determined shapes by bearing in mind the intended functions of them. In comparative terms, the traditional pots are of few varied shapes. The traditional pottery in the various regions of Ghana follows certain basic forms-oval, semi-circular, angular and cylindrical forms (Nyarko, 1975: 17). The shapes present important symbolic meanings:

In traditional pottery, the oval form denotes pots for cleansing, hence the oval shape of the Akan bathing pot Kutu; circular form denotes receptacles for liquids which are traditionally regarded as life-giving, and therefore, sacred, hence the container of the drinking water of the Akan Ahina; the semi-circular form denotes benevolence, tenderness of heart, and kindness, hence the Akan meal bowl Ayewa (Nyarko, 1975:17).

Flat ware is, however, uncommon in most areas. Boateng (2017) indicates that the material and the techniques of the craft man uses determine the forms he makes as well as his decoration. The shape of the pottery vessel is primarily determined by the use for which it is intended and by which it is formed. On these properties depends the technique of its making and this, in turn, limits the range of forms in which it can be made. Nyarko (1975) strongly assert that most of the pottery shapes in Ghana of the different pots have continued to be produced without any significant change in their forms. For instance, the cooking and the storage pots have retained their angular shapes through the past decades for the excavated pottery objects bear witness

2.10 Resilience of Indigenous Pottery Making

Stahl et al. (2008) agree with Rice (1996) that traditional potting has survived as a practice with long-term continuity despite stylistic changes. This is what Sakyi (1994) has to say “The older indigenous potters are very conservative and not susceptible to change. Nyarko (1972) cited in Acheampong (2015) argues that “The design of Ashanti pottery has remained static for many centuries without much significant evolution in its shape and decoration. He maintains that generally there is little incentive and opportunities to improve on the techniques the young potters learnt from their older potters. In support of this, Ibeanu (2006) asserts that indigenous pottery making has consistently demonstrated some resilience despite the impact of modern innovations over the years. Based on Adimpe (2015) observation of Dada pottery in Illorin in Nigeria, he notes that traditional pottery has a wider and increased acceptability among the rural and the urban dwellers for domestic uses and interior decorations with the growing hotel and hospitality industries.

Several reasons contribute to the survival of the indigenous pottery in the era of modernization. Ali (2015) maintains that the survival of the industry has been attributed to the social, religious and economic importance of the pottery in the traditional Igbo society. Ibeanu (2006: 118) argues that even though the production of some pottery has declined (pitcher pots, eating bowls) other types of are still being sustained by some socio-cultural factors in the African society and even traditional title holders (men and women) are expected to make use of pottery wares (Ibid). He points out that, for example, in Ezeagu Enugu State, title men make use of *njala ozo* pots to wash their hands. He also contends that drinking water from storage pots is more refreshing and pleasant than water from plastic cans. The author also indicates that ceremonial wine pots used to store palm wine during traditional marriages by kindred are still in demand, notwithstanding the traditional religion preference for rituals are prepared and preserved with earthen wares. Ibeanu further argues that in some communities, pots are presented as gifts from mother to her daughter during marriage as a symbol of good behaviour and virginity. Ibeanu's reasons for the resilience of indigenous pottery against modernization are based on the Nigeria setting and not much is empirically known of other places. These observations attest that the survival of the indigenous pottery making notably in African societies hinges on the cultural observances and preservations.

However, Boateng (2017) opines that traditional potters have no formal education and for that matter have shallow outlook in terms of technology; and moreover, they are unable to afford expensive machinery and equipment; and there are too many taboos with the industry preventing its advancement. He further reveals that there is the lack of scientific research to lead them into innovation and renovation; the craft is limited to women as such, it is learnt from home and transferred mother to daughter; they are

unable to build efficient kilns' that can fire wares at high temperature and moreover wares are basically produced by hand. It is evident that traditional pottery making in Africa has proved resilience modern technologies and designs due to social, religious and functional values attached to traditional pottery.

2.11 Contemporary Trends in Indigenous Pottery Making

2.11.1 Decorations, Styles and Uses

Potters working in the recent decades have been very open to decorative innovations. Andrew (2003) asserts that in some cases, these involve the re-arrangements and combinations of traditional motifs and the development of new motifs and techniques. Amstrong (1998) indicates that the development of stylized plant motifs by some potters is a recent development and may be restricted to the twentieth century. The work of some young potters can be distinguished based on the abundant use of appliqué in the form of pellets, coils, and strips that may be incised with deep lines and modeling involving naturalistic techniques such as animals (Jones, 2005; Fowler, 2008).

The Investment Promotion Centre (2016) reports that contemporary Ghanaian pottery is the hallmark of medium-scale manufacturers where the production at this level is semi-automated and geared for markets like the United States and the European Union, with a workforce of 30-50 per company. The reports further indicate that styles range from modern standards to ethnic designs including pottery with “Adinkra” symbols; large village pots of water, wall hangings and other decorative pots; fired, smoked blackened pots decorated with animal motifs for cooking, eating and water storage and large red-fired pots as water coolers or receptacles. Furthermore, Adu-Gyamfi et al. (2014) indicates that the contemporary Ghanaian pottery products are often decorated

with incisions, stamping, embossment, springing, sgraffito and glazing. He also notes that some pieces are often marred by some kind of finishing that is given to them particularly inappropriate glazes. He opines that that these contemporary wares are not matched to compete with the influx of foreign ceramic wares. He describes the contemporary pottery wares as products made to achieve variety in colour, desired finishing effects with philosophical dimensions of ware almost non-existing.

2.11.2 Glaze and Painting

Glazes are simple, super cooled liquids of high viscosity at ordinary temperatures or are glasslike coatings that are fused to the clay surface of a pot by the heat of the kiln (Shaw, 1971 cited in Edusah, 2000:79). In studio pottery glaze composition is normally quite elaborate and time consuming for a busy potter. This is because a variety of chemical compounds are made use and expert skill is needed for good results. However, scientific and technological advancements have made it possible for industrial formulation and composition of glazes that are packed and supplied to the potter in any quantity and quality. Nelson (1971) cited in Edusah (2000) argues that given the foreign exchange constraint and for the fact that the trainer potter wants to be 'part of the pot' from the beginning to the end, glaze operations should be made simpler for generally it contains only three essential elements; silica, flux and refractory elements.

Asmah et al. (2013) point out that inappropriate glazes are applied to the contemporary pottery products in Ghana as decoration. However, the glaze is rarely used on women's pottery, as it is normally requires gas or electric kiln firing. This conventional trend, according to Asmah et al. (2013) can be corrected if other conventional materials and techniques are considered relevant. This ultimately brings to the fore the necessity for

pottery to in mixed media. Speight and Toki (2000) cited in Asmah et al. (2013:2) defines pottery or ceramics in mixed media as “either clay pot or sculpture that incorporates different materials such as wood, metal, textiles, sound or light, glass, paint, or other materials the artist wishes to add to the pottery product”. For traditional pottery, Vecchio (2001) asserts that commercial paints are used, but may be problematic for the market. This may be based on the purposes of the wares on which commercial painting is applied. This is because, currently the improved pots have become highly valuable ornamental artefacts befitting for decorating prominent contemporary places, including banking halls, hotels, living rooms, conference halls and offices of various institutions (Adu-Gyamfi et al., 2014).

2.11.3 Technological Dimensions

Modern potters tend to use the electric style of wheel, as it gives a consistent turning with little effort. Rado (1998) points out some advantages for the preference of electric style of wheels. He indicates that most wheels have several speeds at which to work, usually foot presses down on an “accelerator” or foot plate to control the speed of the wheel head. Electric wheels also tend to be smaller than kick wheels. In a different observation, Adebawale (2014) found no evidence of the use of the potter’s wheel among the Illori in Nigeria. Adebimpe (2015) argues that in contemporary indigenous pottery making, pots are not fired in high temperature as an open fire, but high firing device is often used for the heating.

Traditionally, the basic principles in the pottery production are the coiling, throwing and slab building methods. However, the contemporary approaches have resulted in changing the conventional results of these techniques. Quinn (2004) opine that there has been a new era of pottery from the mid century decades blending craft skills to

modern design practices as aesthetic features are balanced against functionality. He also points out that contemporary artists are not able to manipulate the conventional way of producing pottery products more sculptural to make the wares more appealing. Gosselain (2000) maintains that the introduction of sieves has been very significant change in the pottery production technology. He argues that clay processing has become slightly more efficient.

With regards to tools, Fowler (2008) throws light on the modern Zulu pottery which have been boosted with the introduction of bicycle spokes, metal knives and spoons, hacksaw blades, and bamboo sticks are being used along with the non-industrial knives such as calabash fragments, sharpened wooden sticks, smooth river pebbles, and cloth or leather swatches. He notes that various potters develop their tool kit, but also observed that in the same homestead, potters freely share tools.

2.12 Challenges of the Indigenous Pottery Industry

2.12.1 Influx of Plastic and Aluminum Products

Originally, the indigenous pot possesses the capacity to perform its intended purpose for water storage and cooling pot conforming to the African philosophy that an artefact befits its purpose when it is functional (Amenuke, 1995). However, the terracotta or bisque fired colour makes the pot less attractive considering the current trends of the vibrant colours of plastic, rubber and ceramic containers which are comparatively cheaper, but equally serve the functions of the pot (Ibid). Commercial painted decoration adds additional appeal for local buyers. It is potentially much more lucrative to cater for art collectors through the gallery system. Consequently, as running water and metal pans become available, the demand for water storage and cooking pots declines. As a coping strategy, careful not to sacrifice the ethnic look,

ceramists create highly crafted, elegant objects worthy of the connoisseur's gaze (Vincentelli, 2008).

Adu-Gyamfi et al. (2014) assert that although these pots could serve as a major source of revenue generation to support the livelihood of many people in the clay industry, there is low patronage for the pots (Craven, 2007). Observations made on the ground portray that the causal reason underpinning this unfortunate situation is the influx of plastic, rubber, metal ware and metal containers to complement the modernity of the Ghanaian lifestyle. The indigenous pottery products are therefore rendered valueless and less useful in society due to their lack of competitive designs, aesthetics and modernism (Sekar et al., 2014). This will imply that there is the crucial need to experiment on transforming the pots into modern economic products without necessarily losing the indigenous flavour.

2.12.2 Limited Innovations

From the perspective of Craven (2007), critical assessment of the aesthetics in terms of shapes, forms, colours and appeal, the indigenous pottery produced in Ghana lack variety and have low standards of designs to meet diverse needs of advanced technological society. Empirically, researchers are of the opinion that the situation is due to the fact that the potters' designs have remained static with no creativity, innovation and versatility new to the users of the pots, especially when society is always craving for new things. He further points out that even the finishing techniques used by the potters in Ghana often fall short of aesthetic qualities requisite for contemporary lifestyle or taste. This situation is due to their inability to gain access to knowledge on improved skills and technology (Annku and Lodonu, 2012).

Adu-Gyamfi et al. (2016) criticise the indigenous pottery in Ghana for been monotonous in approach to production and finishing of indigenous products, conditions they claim are marred with philosophical impacts they suppose to depict. The authors assert that some of these include lack of capital to invest, no modern tools to enhance production and finishing touch, transportation etc. Previous studies indicated that in spite of this problem, pottery production is on the increase. Similarly, Mishra and Mansuri (2016) observed emerging trends of the red clay pottery industry of Vidarbha is traditional are characterized by low technology and low levels of production. Adebimpe (2015) asserts that Dada potters are good, deft in creativity and innovative but are facing many occupational challenges which include lack of working capital as loans from banks, continual usage of old equipment etc.

2.12.3 Production Challenges

In the case of indigenous pottery industry at Vidarbha (India), is suffering from the non-availability of raw materials, lack of working capital, obsolete technology, lack of diversification of products, lack of good marketing facilities, and lack of Research and Development efforts, etc. (Mishra and Mansuri, 2016). Fening (2015) indicates that the working space of the craftsmen are predominantly small and dominated by sole proprietorship making the industry the domain of owner managers. He argues that the items produced are mostly sold on retailed basis and their profit margins were limited, which were mostly spent as daily expenses. Consequently, they do not have the extra capital for expansion of their industrial units. Other challenges confronting the industry include limited resources to purchase raw materials in bulk, lack of credit facilities, marketing, and lack of managerial skills (Fening, 2015).

2.12.4 Marketing Constraints

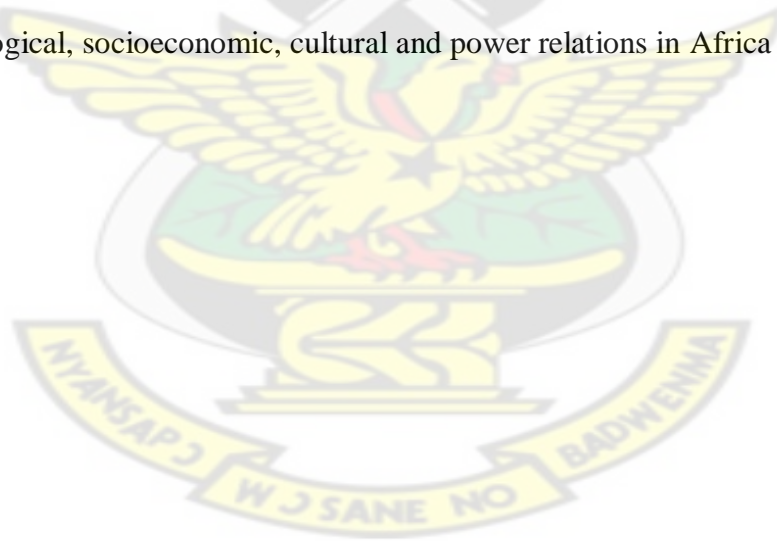
Fening (2015) indicates that pot industrial in Ghana faces a number of difficulties in marketing their products due to growing competition among themselves and in recent years due to the emergence of stiff competition from foreign goods in the era of trade liberalisation. Marketing is a tricky technique involving detection of what the consumers want, then planning and developing a product or service which satisfies those demands and ultimately determining the best way to price, promote and distribute that product (Sekar et al., 2014). Owing to the limited resources and lack of capital the fabricators cannot incur heavy selling cost on publicity, advertisement and other sales promotion measures. Adebimpe (2015) reports that the Dada potter in Nigeria centre needs new marketing and product production strategies to be able to compete with foreign wares and increase the scope of consumers.

Various causal reasons could be underlying the inability of the potters to sell their products, but Adu-Gyamfi et al. (2014) argue that their poor aesthetic attraction to conform to modern lifestyle stands at the forefront. Recently, competition from imported pottery and the negative impacts on local markets has become a pressing issue (Almamari, 2017).

2.12.5 Globalisation and Western Culture Influence

Globalisation emerged in the 1990's as a result of unprecedented advances in communication, transportation and information technologies. Trade and technological revolutions have come to transform not only the Ghanaian milieu, but the very mindsets of its people in the consumption of the visual arts. The youth of today is gradually adapting to Western culture and identity (Annku & Adu-Agyem, 2012). Changing global economic conditions and lifestyles and competition from factory

based medium or large scale industries have drastically affected their operations and thus face risk of extinction (Fening, 2015), whilst economic activities have shifted from largely domestic affairs to more complex international relationships; and that, in itself, affects indigenous pottery making industries and the likes (Siyanbola et al., 2012). With the impact of globalisation at work, it is important to ascertain how local craft industries like pottery are trending in Mfensi. Kwesigah (2017) point out that the introduction of Western pottery skills and technologies in formal education during the twentieth century, mostly took a complete turnaround of ideas in the production and use of pottery. The introduction of ceramic equipment like potter's wheels, kilns, pug mills, extruders to mention some, undermined the local methods that were mainly geared at satisfying local and confined demands. He contends that the starting ground is that the shift in pottery manufacture itself would reflect patterns of contemporary technological, socioeconomic, cultural and power relations in Africa in general.



CHAPTER THREE

METHODOLOGY

3.1 Overview

The procedure of searching for historical data is systematic and preplanned (Porra et al., 2014). The methodology section of qualitative research according to Johnson and Christensen (2012) needs to include information telling how the study was done, where it was done, with whom it was done, why the study was designed as it was, how the data were collected and analysed, and the most important procedures carried out to ensure the validity of arguments and conclusions. With these in mind, the methodology chapter of the study focuses on the research approach and design, sources of data, population and sampling techniques; data collection instruments, methods of data analysis, trustworthiness and ethical considerations and the profile of the study area.

3.2 Research Design

The research approach adopted for the present study is a qualitative research method. Qualitative research involves describing, exploration and description of a phenomenon from a participant perspective (Johnson & Christensen, 2012; Leedy & Ormrod, 2005). Similarly, the study sought to explore the developmental trends in indigenous pottery making at Mfensi with regards to technological practices and pottery forms.

Qualitative research is deep-rooted in empiricism- the doctrine that knowledge is obtainable only by direct experience with physical senses (Johnson & Christensen, 2012; Blair, 2002). Hence, it may be difficult for those with no such previous experiences to understand, but an attachment to a ceramic studio or pottery is directly

connected to touch, sound and smell. The feel of the various stages of clay, the odour, associated with clay and the kiln, the roar of the kiln during firing and the silent orange flames and black smoke that lick out during the firing process, all imprints on the mind and heart of the potter. Certainly, it is natural for information regarding this type of setting to be illuminated with qualitative inquiry. Therefore, the present study was exactly based as those who have shared the experience of the potter's workshop have been stimulated by the tactile, auditory and olfactory senses, the student of art education may learn the sensation, as well as the process.

Five essential characteristics of qualitative research as noted from researchers such as Patton (2002) and Johnson and Christensen (2012) form the main checklist for employing qualitative other than quantitative research in the present study. First, qualitative research takes place in the "natural world" or study real world situations as they unfold naturally; non-manipulative and non-controlling; openness to whatever emerges (Johnson & Christensen, 2012; Patton, 2002). This contextual setting is comparable to illicit the indigenous potters' experiences and observe their activities in their natural settings. The second is the "multiple methods" that are "interactive and humanistic (Patton, 2002) are used. The study was mainly based on interviews, participant observations and archival data (pottery artefacts) of collecting information. Thirdly, qualitative studies" make a sustained focus on context integral to their work and assume that a detailed understanding of human experience is gained through exploring these complexities". Fourthly, it has emergent design flexibility (Johnson & Christensen, 2012: 373). That is openness to adapt to inquiry as understanding deepens and situations change; the researcher avoids getting locked into rigid designs that eliminate responsiveness and pursue new paths of discovery as they emerge (Patton, 2002). Thus, because of the emergent nature of qualitative research, this study remains

fluid and not bound by prior concepts to permit it to follow more important lines of questioning as they occur. The fifth characteristic relates to “context sensitivity” (Johnson and Christensen, 2012). This made it possible and appropriate in placing the research findings in social, historical and temporal context. Similarly, the present study carefully studied Mfensi indigenous pottery making as a component of Ashanti peoples traditional art in Ghana. Moreover, the trend analysis of the indigenous pottery making was based on analysis of the past and the present to understand the changes that have emerged since the modernisation era.

3.3 Research Methods

The study sought to assess the developmental trends on indigenous pottery making at Mfensi by exploring, describing and documenting some changes regarding the technologies and forms that have evolved over the years. Hence, the study was carried out as a historical research to explore the past and the current dimensions of indigenous pottery making. Historical research is done so that researchers can better understand events that have already occurred (past), and study changes of current practices and document changes that have occurred over time (Johnson & Christensen, 2012: 50).

Historical research has been defined as the systematic and objective location, evaluation and synthesis of evidence in order to establish facts and draw conclusions about past events. It involves a critical inquiry of previous age with the aim of reconstructing a faithful representation of the past (Porra et al., 2014). This makes it essential in establishing the relationship between the past and the current pottery making practices. Creswell et al. (2012:73) define historical research as a systematic process of describing, analysing and interpreting the past, based on information from selected sources as they relate to the topic of study.

The historical time makes use of chronology of events and space. Hence, the study sought to identify the developmental trends in pottery making since the modernisation era which were mainly felt in the 1960s through to the 1980s- when modern containers flooded the market and contributed to the emergence of modern pottery industries (Ali, 2015). And then from the 1990s, when globalisation emerged with unprecedented transfer of technology, changing lifestyles and competition, trade and technological revolutions with its effects on Ghanaian milieu and the mindsets of people in the consumption of visual arts (Annku & Adu-Agyem, 2012).

3.4 Types of Data

3.4.1 Primary Data

The methods for collecting primary data included personal interviews, participant observation of pottery production process (clay extraction, preparation, kneading, forming, finishing, and firing) and analysis of current and pottery artefacts.

3.4.2 Secondary Data

As evidenced from the references, the sources of the secondary data were articles in peer review journals, book chapters, research projects and institutional documents. These materials were sourced largely from electronic published sources (internet) and the few unpublished ones obtained directly from libraries, institutions and individuals.

3.4.3 Library Research

Some of the relevant information to the project were collected and reviewed from documentary sources such as books, journal publications and the internet. Libraries played a major role in sourcing for the secondary data. Literatures searched were

sought from the following libraries: Kwame Nkrumah University of Science and Technology Main library, including the Art Department and College of Art.

3.5 Study Population

Population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate (Sekaran, 1992: 225) or a complete set of elements (persons or objects) that possess some common characteristic defined by the sampling criteria established by the researcher. For the purpose of this study, the target population includes all indigenous potters and indigenous pottery products (artefacts), and production processes at Mfensi.

However, some few number of the population was accessed to for the study. The criteria for inclusion were: (i) potters knowledgeable in pottery changing practice; (ii) potters with recognised experiences not less than 30years; (iii) young potters with experiences below 30years; (iv) standard and functioning pottery workshop (i.e. should be equipped with a kiln, wheel and all important tools where production is consistent with varieties of pottery wares); (v) pottery artifacts made within the 1960s-1980s and those made 1990s to date (Table 3.1). The choice of beginning from the 1960s as revealed by the study remains the period for the commencement of indigenous pottery making at Mfensi.

Table 3.1: Accessible Population of the Study

Selection Criteria	Number
Potters knowledgeable in pottery changing practices	5
Experienced potters (not less than 30years)	8
Young potters (less than 30years years of experience)	5
Standard and functioning pottery workshop	2
1960-1980s pottery artefacts	4
1990 to date indigenous pottery models	13
Total	37

Source: Author's Construct (2017).

3.6 Sample Size

Since the objective of qualitative research is to understand and give meaning to a social process, rather than to quantify and generalise to a wider population (Fox et al., 2007), the sample size for the study was 30. In this regard, 1 elderly potter, 8 pottery master sand 5 young potters were interviewed totaling 14 respondents (Table 3.2) and 2 pottery workshops were used for the observational studies.

Table 3.2: Study Respondents

Group	Description	Total
A (90+years)	Elder Potter	1
B (55+years)	Pottery Masters	8
C (20-44years)	Young Potters	5
Total	3	14

Source: Field Data, June 2017.

However, based on the traditional potteries (grinding pots, coolers, water jugs, water filters and flower pots) of Mfensi, 5 different models of pottery wares in the 1960s-1980s, periods were accessed and studied and 9 from the 1990s – date respectively to reach the total of 14 pottery objects (Table 3.3).

Table 3.3: Pottery Models Accessed for the Study

Ware Type	Time Period		Total Objects
	<i>1960s -1980s</i> <i>No. Accessed</i>	<i>1990s - Date</i> <i>No. Accessed</i>	
Grinding Pot	1	2	3
Cooler	2	0	2
Water Jug	1	1	2
Water Filter	0	1	1
Flower Pot	1	5	6
Total	5	9	14

Source: Field Data, 2017.

In all, the population studied totaled to 30 and based on the rules of thumb approach, in qualitative studies such as historical research, access to 20-30 people is typically enough to reach saturation (Patton, 2001). Saturation refers to the point of data collection when no new additional issues are identified and information begins to repeat and further data collection becomes redundant (Kerr et al., 2012).

3.6.2 Sampling Techniques

With regards to the sampling techniques, the participants for the interviews (aged potters and master potters) were purposively sampled for the interviews. The purposive sampling techniques were deemed the appropriate means of getting respondents who are knowledgeable and abreast with the subject matter of interest (Sarantakos, 2006). The choice of these participants for the interviews was due to the following reasons: the aged potter” is the living pioneer and elderly potter in the

community aged not less than 90 years, and have pottery making experience of not less than 60years at Mfensi; whilst, “master potters” are recognized for their high level pottery making knowledge, experience and innovative skills with not less than 30years working experience; young potters relatively are less experienced with less than 30 years’ experience (Table 3.2). Master potters also have trained a number of potters and employ labours and their pottery products are in higher demand and they produce a variety of pottery wares.

Two important indigenous pottery workshops, namely Kofi Abrepor and Braa Kwame workshops at Mfensi were also sampled for the observational studies. Their selection was based on 6 residents’ recommendations for their variety, quality and standard products; recognized experiences and functioning workshops. Patton (2002) notes that snowball sample identifies cases of interest from people who know people, who knows what cases are information-rich, which is a good example for the study.

3.7 Instruments and Data Collection

Data gathering techniques in qualitative research include interviews, observations, audiovisuals material and documents. However, in this study, interviews, pottery artifacts analysis and observations techniques are considered to obtain information on the developmental trends in the pottery making at Mfensi.

3.7.1 Interviews

The researcher collected the first-hand information through interviews. Holstein and Gubrium (2003) describes interviewing in qualitative studies as a unique form of conversation, which provides the researcher with empirical data about the social world, simply asking participants about their experiences, viewpoints and to learn

about ideas, beliefs, attitudes, opinions and behaviours of participants and certain events or phenomenon (Creswell et al., 2012). The interviews were in unstructured form for flexibility and make it possible for researchers to follow the interest and thoughts of the informants, freely ask questions in order as posited by Chilisa and Preece (2005). The use of unstructured interviews in the present study further emanated from the fact that there was the need to obtain deeper understanding of the main changes involved in the pottery developmental trends regarding technological practices, forms and factors influencing pottery changing trends which remains largely unexplored at Mfensi. The interview sessions were one-on-one with the elders (aged) of the pottery activities in the area because they have specialised insight in the indigenous pottery for not less than fifty years; master potters and young potters. Two separate interview guides were used to obtain different information from each group (Appendix I & II).

During the interview sessions, observations were noted especially with regards to non-verbal cues. In general, all the interviews conducted lasted between 30 to 45 minutes. Moreover, the interviews were conducted in “Ashanti Twi” (being the local community’s dialect) to enhance easy communication and understanding between the research and the study participants. The interview responses were audio taped and hand written to support the recordings. This assisted with the transcriptions during analysis.

3.7.2 Analysis of Pottery Artefacts

In the present study, old pottery models included potteries which were produced within the 1960s to the 1980s at Mfensi. Initially, the researcher assumed that such old pottery wares could be obtained from some of the older community members and the potters,

nonetheless, such old models were highly scarce because potters no more produce them. However, the elderly potter and one master potter were conversant with the Mfensi old models produced before the 1980s (especially Coolers, and Water Jug I) and the researcher requested for the replications of the old models to be made for the study.

The analysis of pottery wares involved a comparative study of current pottery products and old products, where all products were assembled, classified, ordered according to periods made (past to the present), and labelled for convenience analysis. The analyses were done based on the analysis guide prepared (Appendix III). However, the samples of the current potteries (flower pots, grinding pots, and water jug I) were obtained from the potters' recently produced pots available in their workshops upon their consents. Analyses of the pottery products were done with the potters who produced the wares and moreover are conversant with the old models, how their values reduced and consequently how the current models evolved. They contributed in the analysis.

3.7.3 Observation

Observation techniques were also used to collect data on the current pottery forms and technological practices at Mfensi from the current master potters. Observation is the systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with respondents (Creswell et al., 2012:84). As a qualitative data gathering technique, observation was used to enable the researcher to gain a deeper insight and understanding of the indigenous pottery current production processes and technologies at work.

Observation allows the researcher to see, hear, and begin to experience reality as participants do (Creswell et al., 2012). Hence, the researcher undertook the

observation as a “participant as observer” (Chilisa & Preece, 2005:34) when the negotiated her way into the pottery making settings and became part of the potters as a living group to better under study the phenomenon. By this approach, the researcher spent a great deal of time at Mfensi to participate in the pottery making, observe, and additionally use the opportunity to interact with the potters to better undertake all phenomena during the observation. This also offered the researcher the opportunity to move around in the setting and observed in more detail depth. The field observation of pottery making was undertaken with the guide of observation checklist (Appendix IV) based on the research questions of the study. During the participant observation, photographs were taken as part of the experience and also relevant information was recorded in the field notebook (during and after the observations).

3.8 Data Analysis

The initial step in the analysis of the qualitative data is the immersion of the researcher within the data in order to become familiar with the information. During the process, the researcher took all the collected data, including the field notes and interview transcripts to form a clear understanding of the information obtained. The data were then be coded, conducting content analysis by looking for specific words for which themes can be identified (Terre Blanche & Kelly, 2002 cited in Creswell et al., 2012).

3.9 Trustworthiness of the Research Findings

In order to determine the responses and the artefacts used were genuinely valid primary data, external criticisms of the sources of the data were of paramount importance in establishing the credibility of the research in overcoming forgeries, frauds and counterfeits. Hence the credibility of these qualitative research findings

was established through data triangulation. In this regard data for the study were collected through varied sources: interviews, analysis of secondary data, discussions and field observation.

3.10 Ethical considerations

Ethical issues considered in this study included the right of participants and the scientific dishonesty. The researcher being aware of these tried not to neither falsify nor manipulate data in order to maintain the quality of the study. All the study participants sampled were based on their informed consent and voluntary participation. At the beginning of the interview conversation with the participants, the researcher briefly explained the nature of the interview to be conducted and emphasised on the fact that participants may withdraw at any time. The researcher obtained verbal informed consent from the people before implementing interviews and observations.

According to Burns (2000), both the researcher and participant must have a clear understanding regarding the confidentiality of the results and findings of the study. All the study participants' information and responses shared during the study was kept private and the results were presented in an anonymous manner in order to protect the identities of the participants. Indeed, all audio recordings were destroyed as soon as the study was completed. Moreover, the authors of all the cited scholarly works were referenced in the study and duly acknowledged.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Overview

This chapter comprises the compilation, description, interpretation of the data gathered from the potters through interviews and observations and the discussions of the key findings in relations related literatures reviewed in the second chapter. To facilitate in depth and clearer understanding of the findings, pictures captured during the field data collection has been used to support the presentation and the discussions of the findings, whilst noting some important statements verbatim from the key respondents. The findings are well organised in line with the research questions, whilst most of the results are presented according to themes some generated for better of the study findings.

4.2 Historical Background of Indigenous Pottery Making at Mfensi

Indigenous pottery making was introduced at Mfensi in the 1960s by one Anthony Kumah (Agya Kwasi) from Valkpo near Kpando in the Volta Region. He is not sure of his actual age, but he claims he was exactly ten years during the first eclipse of the sun in Ghana. He initially settled at Tanoso near Sunyani after with his friend Obimpeh who came to his village to learn the pottery trade. Later, Kumah independently settled at Mfensi in the Ashanti Region upon discovering the abundance of clay in the town, where he established his indigenous pottery making as his permanent work. Mr. Kumah said during his arrival at Mfensi, the indigenes did not practice pottery and thus been regarded as the one who first introduced the activity at Mfensi. He indicated, although in his home town people do pottery, but he learnt the work from a white man.

He has trained several potters who have also trained others to expand the work in the community since his arrival. This clearly reveals that indigenous pottery at Mfensi is relatively recent compared to other indigenous pottery making centres in Ashanti such as Pankrono.

4.3 Nature of Indigenous Pottery Making at Mfensi

At Mfensi, traditional pottery making is a full-time business. This means that the people fully depend on it their livelihoods. The industry when it comes to the production is undertaken by men, while the sales are done by the local women, whilst other women who have the capital also establish workshop and employ workers to produce. Mfensi is located on a main busy highway from Kumasi to Sunyani, where the local women take their vantage location to sell the products to travellers. This observation at Mfensi does not support Kquofi et al. (2013) assertion that the indigenous pottery making has been the preserve of elderly women. However, men's control of indigenous pottery production is an evidence that the industry is gradually shifting from women's dominance to that of men.

The traditional potteries produced at Mfensi are mainly water coolers and domestic grinding bowls, however, dealers in pottery also arrange for pottery varieties from Kwahu, Volta Region, Mole and sell them alongside the Mfensi products. At Mfensi, almost all potters know how to do grinding bowls, and four potters (Abrepor, Kwasi Anlo, Braa Kwame and Agya Kwasi) produce coolers and water jugs. It was also noted that only Abrepor produces flower pots, and Braa Kwame makes glaze wares. This means potters have specialised in specific potteries to control their production. This was also noted to be influenced by the educational background and the experiences of

the potters. It was also noted that the young guys these days learn only the grinding pot production which has the largest market.

4.4 Potters Background Information

All the potters found at Mfensi were men. All the pottery masters visited and interviewed had no apprentice; they sometimes employ labourers to assist them. In the words of one pottery master, “I work alone, I have no apprentice. This is because most of the people are lazy and want quick money; they are not ready to learn jobs, so they prefer to be labourers than to be apprentice”. Another pottery master added that “the participation of young people is very limited because they claim the work is dirty and does not appear attractive to them”. This finding confirms Fening (2015) report that craftsmanship is predominantly small and dominated by sole proprietorship making the industry the domain of owner managers.

The traditional potters’ motivation in the pottery making has been influenced by the desire of gaining income to meet their livelihoods. One of the interviewees said that “my motivation for doing the pottery work is to get income for myself and to cater for my family”. Nonetheless, with the emergence of declining indigenous pottery demands (Adu-Gyamfi et al., 2014), potters somehow have lost the enthusiasm in the work. One of potters stated that “I’ve regretted for doing this work because of the marketing problems and low prices for the products; there seem to be limited awareness among most people on the benefits and the uses of traditional pottery products”.

With regards to the potters’ skill acquisition, four of the potters acquired their indigenous pottery skill through apprenticeship. Agya Kwasi, the pioneer potter at Mfensi, learnt the pottery making under a white man at Valpo and after settling at

Mfensi he has trained several potters and some continue to work at Mfensi. Thus, these potters traditionally continue to sustain the hallmark of Mfensi potteries technological practices and forms. Nonetheless, two important potters in the town (Kofi Abrepor and Braa Kwame) obtained their skill from formal Pottery and Ceramic schools. They have had additional training from local potters and ceramic factories. These experiences ultimately have brought some elements of industrial potteries techniques and designs, and the usage of industrial ceramic tools and equipment into the making of traditional pottery making at Mfensi. This finding does not confirm the assertion that traditional potters have limited formal education and hence, the shallow outlook for modern technology as posited by Gosselain (2000); Boateng, (2017).

4.5. Source of Clay

Clay deposits are known naturally and geologically as a source of material core to indigenous pottery in Ghana (Anquandah, 2006; Craven, 2007). Likewise, Mfensi clay has been the main raw material used for indigenous pottery since its inception in the 1960s. The raw material is obtained locally along the banks of River Offin, which flows some few miles from the town. Although, clay still remains the raw material for pottery making at Mfensi, however, potters reported they have observed some significant changes in their quality presently due to over exploitation. Although most of the clay materials which were highly plastic are scarce because they have been extensively and longtime been extracted according to the potters, clay remains the sole raw material for the making of pots at Mfensi.

4.6 Technological Changes in Indigenous Pottery Production at Mfensi

To restate, the study first sought to assess changes in the indigenous pottery production and technological practices at Mfensi. This was analysed based on the clay extraction method, tools, throwing techniques, decoration method, firing and post firing techniques. In all, the information obtained from the most pioneer potter at Mfensi remains the baseline for the assessment of technological changes in indigenous pottery making in the locality.

4.6.1 Changes in Clay Extraction and Transportation Methods

Traditional potters historically used hoes and machetes to extract the lump of clay (Boateng, 2017). Similarly, traditionally, potters at Mfensi use tools such as the spade, mattock and the pick axes in extracting a lump of clay for pottery making (Plate 4.1a). However, under dry conditions, the dug clay is moistened with water (Plate 4.1b) and collected in sacks which are packed and carried on the head. This manual method has remained significant from the 1960 till 2000s. Apparently, it is quite inexpensive, but highly laborious and time consuming as it involves the manual extraction and head loads.

Consequently, this method of extracting clay has been reducing since the 2000s and paving way to the use of mechanical method which involves the use of excavators in extracting large volumes of clay particularly by large scale potters. As evident in Plate 4.2a, excavators extract clay and load them into trucks (Plate 4.2b) to convey clay into pottery workshops. The adoption of the mechanical extraction method may be explained by their convenience, and easy accessibility and transportation of clay in larger quantities by potters compared to the manual method. The minimal use of

manual extraction method may suggest some financial challenges on the part of potters.

Plate 4.1: Traditional methods of clay extraction



(a) Digging of clay



(b) Mixing with water to create lumps

Source: Field Data, July 2017.

Plate 4.2: Current method of clay extraction (2000s till date)



(a) Excavator extracting clay



(b) Excavator loading clay into a truck

Source: Field Data, July, 2017.

The introduction of excavators among indigenous potters may be attributed to the improvement and accessibility of machinery in recent times.

4.6.2 Changes in Indigenous Pottery Tools

Several indigenous pottery tools and equipment and their uses were observed. Through the assistance of potters at the workshops visited, tools were categorised as old, modern and old and still useful as shown in Table 4.1.

Table 4.1: Categories of Indigenous Pottery Tools

Old Tools	New Tools	Old and Still Useful Tools
Manual Potter's Wheel		Potter's wheel
Cutting Wire		Cutting wire
Bamboo Knife		Bamboo knife
Smooth river pebble/ old cloth material	Foam	
A piece of stick	Calipers	

Source: Field Data, July, 2017

4.6.2.1 Old Tools that have not experienced Changes

As shown in Table 4.1, tool kit used in pottery includes the potter's wheel, cutting wire, bamboo knife, smooth river pebble, old cloth material and bamboo knife (oldest tools). New tools, foam and calipers, are classified as old and still useful such as the potter's wheel, cutting wire and bamboo knife. The manual potter's wheel was found to be the main tool used for throwing pottery objects and probably the most useful machine at the various local potters' workshops at Mfensi. This means that since the beginning pottery works in the town from the 1960s to date, the potter's wheel has remained the main tool for throwing pottery objects. The interviews with the potters reveal that the use of the potter's wheel has come to stay in the indigenous pottery works at Mfensi. The reasons for the local potters' consistent use of manual potter's wheel may be due to their convenience; affordability; durability; accessibility, no cost of fuel and ease of use especially in areas without electricity. Moreover, the usage of the potter's wheel from the onset for indigenous pottery at Mfensi may be attributed

to the introduction by some European Ceramist Michael Cardew and Von Stocker in the 1942 to the potters in the Volta and Greater Accra Regions (Halluska 1999 cited in Asante, 2009) where the pioneer potter at Mfensi is noted for obtaining his training. Cutting wire is used by the potters at Mfensi in chopping pottery object from the wheel heard, whilst is used for wedging. Potters reveal that it is among the early tools and they continue to use it in the throwing process. Similarly, the potters said that bamboo knife is among their oldest tools and presently continues to be used for creating lines, designs and decorations in a pot or on the pot as shown in Plate 4.3.

Plate 4.3: Bamboo knife being used for incisions in grinding bowl



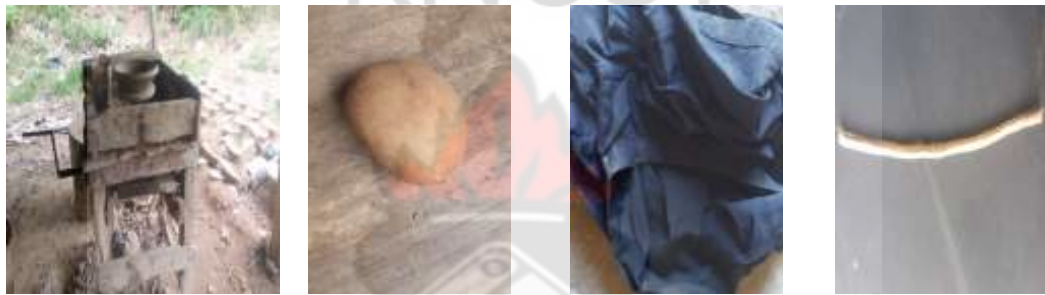
Source: Field Data, July, 2017.

4.6.2.2 Changes in Pottery Tools

The smooth river pebble is regarded as one of the oldest tools in the indigenous pottery making at Mfensi (Table 4.1). Potters used smooth pebbles (Plate 4.4a) for smoothing the surface of pottery objects until the 2000s. However, the indigenous potters at Mfensi presently have changed from the use a piece of smooth pebble (Plate 4.4b) for

smoothing pottery object surfaces to the use of a foam material (Plate 4.5a) since the 2000s. The foam material is widely used among the potters for its multifunctional purposes: for smoothing pot interior and exterior surfaces and absorbing excess water on the pots especially during the throwing process. Initially, potters used an old cloth material (Plate 4.4c) to absorb water and cleaning excesses, but recently, foam materials have replaced the used of old cloths.

Plate 4.4: Some Old Pottery Tools used in Mfensi



a. Potters Wheel b. Smooth Pebble c. Old Cloth d. Piece of Stick

Source: Field Data, July, 2017.

Plate 4.5: New Indigenous Pottery Tools used at Mfensi



a. A piece of foam material b. Calipers

Source: Field Data, July, 2017.

The use of a foam material as explained by the potters emanate from the fact that it has a high ability to absorb moisture, sprinkle water and smoothen ware surfaces compared to rugs (old cloth) and pebbles.

With the exception of the potter's wheel, it can be observed that the indigenous pottery making tool kits at Mfensi remains largely simple and rudimentary since the inception of the pottery making in the locality. Some researchers (Brown, 1981; Lalithambika, 2003) have all indicated that factors like illiteracy and poverty have limited significant development in indigenous pottery. Lindahl and Pikirayi (2010) supported this position by arguing that traditional potters do not even know the technological improvements that are taking place in different places.

The indigenous potters used any piece of stick in undertaking measurement of their pottery objects (Plate 4.4d). Potters revealed this phenomenon had been in place since the introduction of pottery in the community until recently (nearly 15 years ago, according to the potters) that it has completely declined. This was due to the introduction of calipers indigenous potters who have undergone ceramic trainings and those with industrial experiences. Currently, most potters make use of calipers (Plate 4.5b) for measurement during the modelling of pottery objects. The increasing importance of the use of calipers according to the potters was that it makes potters undertake accurate measures, including diverse forms of measurements (circular, straight, interior, etc). It was observed that the use of the calipers is relatively useful for the potters during the modelling of flower pots, whilst few potters (those involved mainly in the production of coolers and grinding pots) occasionally make use any piece of stick to undertake measurements (Plate 4.4d). Indeed, such forms of measurements question the accuracy of sizes in some traditional pottery wares.

The findings on the traditional potters' tool kits reveal that potters have been largely consistent with the use of certain tools since the commencement of the pottery works in the locality particularly the wheel and bamboo knife. Unlike traditional Zulu potters, Fowler (2008) found bicycle spokes, metal knives and spoons, hacksaw blades,

bamboo sticks, sharpened wooden sticks, smooth river pebbles and cloth and leather swatches.

4.6.3 Changes in Pottery Production Techniques

4.6.3.1 Clay Preparation

Pounding as shown in Plate 4.6a of clay is meant to make it looser and stickier to make it easily balled. Initially pounding of clay was done on a table, however, this process has changed in the 2000s and presently, it is done on the ground (on a rubber material) with a big pestle. It was revealed that pounding of clay on the ground relatively speeds up the clay preparation process. As evident in Plate 4.6a, it is pounded on rubber sheet in order not mix it with other soil particles. The pounding process eliminates air bubbles, whilst making it easy to mix the possible clay layers.

The indigenous potters at Mfensi continue to ball and knead after the collected clay material has been pounded (Plates 4.6b & c). This process still remains relevant in obtaining a homogenous consistency which neither sticks to the hand too much nor fails to hold together (Rattray, 1927; Priddy, 1974 in Asante, 2009) and removes air bubbles that might affect the firing (UNEVOC, 2006).

Plate 4.6: Clay Preparation Processes



a. Pounding



b. Balling



c. Kneading

Source: Field Data, Jul 2017.

4.6.4 Throwing Techniques

The study reveals that the processes involved in the throwing of the indigenous pottery objects have basically not undergone any change according to all the potters interviewed. It was observed that the traditional potters use the wheel throwing techniques at Mfensi. The potters admitted that that has been the sole mechanism of throwing all pottery objects since the beginning of the activity in the town. The processes involved in throwing pottery objects observed in one pottery studio at Mfensi are shown in Plates s 4.7a to 4.7e.

The first process involves the throwing of a rounded moistened clump lump of clay centred on the spinning potter's wheel. It was then made even and forced to centre on the wheel by applying pressure with both hands. The thrower tries to centre the lump by first moving a thump across the lump until limited friction is noticed (Plate 4.7a). In the process, the thrower controls his breathing for a while to do the centering perfectly. When asked the rationale behind this practice, the potters explained that, this process makes the weight of the object to be equal to that of the potter”.

Plate 4.7: Throwing Processes in Indigenous Pottery making at Mfensi



a. Depressing



b. Wall drawing



c. Pulling



d. Widening



e. Shaping

f. Finished pot

Source: Field Data, July, 2017.

Using his thumbs on the inside, he creates a depression and his remaining fingers on the outside; he builds the object, thinning the clay with his hands (Plate 4.7a). The potter keeps some water in a bowl which he constantly uses in moistening his hands to make sure the clay does not crack on them. As can be seen in Plate 4.7b, the thrower starts drawing up the walls of the objects with the hands. From here, he pulls up the sides of the object and made thinner between the hands (Plate 4.7c). The process continues to the point where the object had reached the desired height and shape. The widening process is initiated by using a whole hand to open space in the object, particularly at the base (Plate 4.7d) until the desired shape and expansion is achieved (Plate 4.7e) to get the finished product (Plate 4.7f).

The potter then used a cutting wire to cut off the object from the wheel to end the throwing process. The completed object is taken out from the wheel and placed on a flat wooden board to initiate the drying process.

4.6.5 Decorative Forming Techniques

The study revealed that the methods used by the Mfensi local potters in decorating their pottery wares, particularly grinding bowls and water storage pots have remained consistent from the beginning of pottery works in the town till recent times. That

means the methods used in forming decorations on the main potteries (grinding bowls and water jugs) have not changed from the 1960s till date. The main observations were that the potter makes pots, handles and joined them to the body of drying pot after the leather hard. The decorative handles are done through joining techniques after leather hard. Similarly, Irye (1981) cited in Fowler (2008) observed that the Inkanla-Umladzi indigenous potters still apply joining techniques in decorating their pottery wares. However, for grinding bowls, decorative designs (lines) are created through incision techniques using bamboo knife (Plate 4.8) on the spinning potter's wheel during the throwing process. Hitherto, these methods of decorating pots and grinding bowls have been associated with the Mfensi traditional potters from the 1960s till date.

Plate 4.8: Applying incised decoration on a grinding bowl



Source: Field Data, July, 2017.

4.6.6 Drying Method

Throughout the history of indigenous pottery making, Mfensi potters have been using the open sun (Plate 4.8) method in drying their pottery objects before firing. Indeed,

the potters revealed that this method has been the trend of drying pottery objects prior to firing. This suggests that the potters have not identified alternative methods of drying pots. However, the only new development revealed by the potters involved the use of wooden boards on which the fresh pots are placed. It was said that initially the pots were dried on the bare ground, but recently the use of the boards prevent the sticky pottery object from attracting other materials from the ground. The continuous usage of the open sun drying method by the Mfensi potters may be due to convenience, free cost and accessibility of the sunlight; and intensive in the dry season (Ibeanu, 2006). Among the potters at Mfensi, the duration of drying pottery objects depends on its size and the nature of the weather at any particular time. It was revealed that for grinding pots, drying last for two days under a heavy sun, whilst water jugs last for three sunny days.

Plate 4.9: Sun-drying method of pottery objects (from the 1960s to date)



Source: Field Data, July, 2017.

4.6.7 Packing Techniques

The interviews with the potters did not reveal any change in the techniques of packing dried (bone-hard) pottery objects in the kiln for firing. As shown in Plate 4.10, the dried pots are packed vertically in a kiln such that the mouth of the larger pots gets to the floor of the kiln. It can also be observed that burnt bricks are laid on the floors and

the walls of the kiln to minimise firewood consumption in the firing process. The system of packing pottery objects for firing is such that grinding bowls are systematically arranged in such a pattern where the mouths face the ground for the larger pots. This means that the potters have been very consistent with the method of packing pottery in the kiln for firing.

Plate 4.10: Method of packing pottery objects for firing in kiln



Source: Field Data, July, 2017.

4.6.8 Firing Mechanism

Kilns have been important equipment for firing indigenous pottery products at Mfensi since the introduction of pottery making in the area till present. It was revealed by the potters that the local pottery making industry has been consistent with the use wood kiln for firing their pottery wares. To the potters, they are convenient and familiar with the wood fuel kilns. Thus, the use of wood kilns for firing pottery do not present challenges among the local potters of Mfensi. Presumably, given the increasing concern for deforestation, the wood fuel kiln method for the indigenous pottery may not be sustainable at Mfensi. In contrast with the use of wood fuel kiln firing method by the traditional potters at Mfensi, other proponents (Awadzi, 2002; Ibeanu, 2006;

Vincentelli, 2008; Baba, 2009; Asante et al., 2009) posited that bonfire method remains the oldest method of firing indigenous pottery products in Ghana and in most parts of Africa. Different from Mfensi, the firing techniques used in other Ashanti traditional pottery centres (Afari, Tafo, Pankrono) has been the open firing method (Acheampong, 2015). However, it was found that the continual usage of wood kiln method for firing pottery objects has been dictated by the nature of the clay in the area, contrary to Acheampong (2015) position that the use of kiln is influenced by the fact that wood is plentiful and inexpensive.

4.6.8.1 Firing Stages

The firing mechanism for all pottery objects at Mfensi involves the use of the wood fuel kiln (Plate 4.10). It entails three main stages: slow, and full fire. According to the potters interviewed, these three processes have been the only known processes of firing the pottery objects. These stages of firing have come through experiences of the potters and each stage has its purpose. They stated that the slow firing, which takes one day leads to the draining of the remaining moisture component in the pottery objects after the drying process. This remains consistent of Traditions Hand Craft Gallery (2014) explanation that pottery fired under high temperatures in the kiln removes all water from the clay, to induce reactions that lead to permanent changes including increasing strength, hardening and setting their shape. The potters revealed that the slow firing is manipulated in a gradual manner because they maintained that despite the object achieving bone-hard some quantities of water are still present in the pottery objects, and that will mean that any application of high fire at the initial stage will lead to the breakages of the pottery wares in the kiln.

The slow fire stage is followed by increasing the firing to the middle firing stage. At this stage, the potters said that the smoke from the fire leads to the blackening of the pots in the kiln. The last stage is the full fire, which is quite deeper and last for three days. In this firing stage, the potters indicated that heating of the pots in the kiln starts from the top to the bottom where pots change from ash to brownish or reddish colour. It was observed that the pottery wares which are packed in the fire box (kiln entrance) assume a dark colour due to the relatively severe heat that portion generates.

Some precautions are observed during the firing of the pottery wares to avoid cracking. These include the following. During the firing, the chimney hole is sealed with mud, so that the pottery wares would not experience breakage particularly at their edges. Moreover, when the potter notes that the pottery objects are fully burned, he initiates opening of the kiln at its entrance gradually to regulate the passage of air that enters the kiln. Similarly, Majuk et al. (2010) reported that the Bokor women in the colonial southeastern Nigeria avoid pot cracking during firing; however, these women applied fine sand to the clay in the appropriate proportion. This suggests that techniques of avoiding cracks and breakages differ among indigenous pottery societies. The stages used by the indigenous potters attest their valuable skills they possess and might have not yet identified any processes that potentially can achieve better functional results than these stages and methods of firing.

Plate 4.11: Wood Fuel Kiln Firing at Mfensi (1960s till present)



Source: Field Data, July, 2017.

4.6.9 Changes in Decoration

The interviews with the potters reveal that traditionally, all pottery at Mfensi is produced in biscuit. The traditional pottery products such as those shown in Plate 4.11 are evidence from the field. This biscuit decorated pottery has been a hallmark of Mfensi pottery from its beginning to date. It was found that the pottery wares (mainly grinding bowls, cooler pots, water jugs and flower pots) produced in the 1960s up to the current era are produced in biscuit form. Although Amenuke (1995) contends that the biscuit colour makes the pot less attractive considering the current trends of vibrant colour of plastic, rubber and ceramic containers, it is still fashionable among the Mfensi indigenous potters and equally serves the functions of the pot.

However, some of the potters interviewed revealed that glazing of pottery wares started at Mfensi in the 1990s, particularly for the customers who desired and pay for the cost. This means that glazing is not a necessary stage in the production of indigenous pottery among the Mfensi. It was noted that only two potters do glazing at Mfensi. These indigenous potters also possess ceramic training and industrial

experience. This suggests that traditional potters at Mfensi at the beginning of pottery making did not have the knowledge and tools in glazing pottery wares. Although, this finding confirms Adu-Gyamfi et al. (2014) assertion that contemporary indigenous Ghanaian pottery products are often decorated glazed, but glazing at Mfensi is highly minimal presently.

Among the few products (*fufu* bowl, grinding bowls, beer mug) (Plate 4.13) that potters had glazed were observed from the store of one of the local potters. The potter indicated he started glazing somewhere in the late 1990s. But he notes that demand for glazed pottery wares remain low, and that has currently declined glaze decorated pottery at Mfensi. It was noted that the issue of poor market for the traditional pottery wares prevents potters from incurring additional expenses to their cost of producing glaze pottery. In the statement of the potter who produces glaze pottery, he stated that “I have stopped glazing because of the poor market these days, the glazing materials are scarce and they also are sold at high prices; whilst customers want to buy the glazed pottery wares at a lower cost”.

Plate 4.12: Biscuit decoration method (1960s to date)



Source Field Data, July, 2017.

Plate 4.13: Glaze decorated potteries from Mfensi in the 1990s



Source: Field Data, July, 2017.

However, the potters pointed out that the products are sometimes glazed when it forms part of customers' specification. Based on this finding, some researchers (Adebimpe, 2015; Adu-Gyamfi et al., 2015) argument that traditional pottery has survived modernisation is weakening as a result of technological change.

4.7 Changes in Indigenous Pottery Forms

To re-emphasise, the second objective of the study focused on assessing changes in indigenous pottery product forms. In line with this, the researcher focused on changes in pottery products; and changes in water storage pots, grinding bowls and flower pots for analysis.

4.7.1 Changes in Pottery Products

Traditionally, pottery wares produce at Mfensi were limited to few products such as grinding bowls (*apotoyewa*), (a) coolers, (b) water jugs, (c) and (d) flower pots as shown of Plate 4.14.

Plate 4.14: Old pottery products from Mfensi



a. Grinding bowl

b. Cooler

c. Water jug

d. Flower pot

Source: Field Data, July, 2017.

The pioneer potter confirmed that when he settled at Mfensi in the 1960s, these were the pottery wares he was producing. Presently, the grinding bowls and the water jugs constitute the main pottery products made at Mfensi.

However, some pottery objects which are not indigenous to Mfensi were observed in the pottery workshops. The products are shown in Plate 4.15a – e. One of the potters said that “at first we were mainly producing grinding bowls and coolers, but now we produce a variety of ceramic bowls, cups, sculpture and modern utensils”. One of the newly developed pottery products is the pottery incubator (a). It is fueled with charcoal to provide warmth to day-old chicks which are fragile to cold weather, particularly during the rainy season. Another new product is the brick stove (b); it is also known to the potters as (*Gyapa coal pot*) locally, cruxibus (c) used for melting gold, and glazed eating bowls (d) and cup (e). The potters further pointed out that they could equally make all the new types of cutleries on the market and all objects that can be molded so they can variety of products other than what is found in the market.

Plate 4.15: Newly developed pottery products at Mfensi



a. Incubator



b. Stove



c. Cruxibus



d. Eating bowl



e. Cup

Source: Field Data, July 2017.

In addition to these products, the potters emphasized that they can use the clay to produce several products of plastic and metal cooking utensils, cutlery sets, and eating bowls imported and those produced by local industries. This observation attests the emerging innovations in the indigenous traditional pottery field at Mfensi. The production of these new pottery wares clearly implies that indigenous pottery production has expanded beyond domestic products, but meets some society trendy needs for poultry and mining works. Indeed, the results on the new pottery ware innovations within the indigenous pottery of Mfensi dispute the indigenous pottery making is one of the household art necessitated by the need for storage containers and cooking (Eduash, 2000; Ibeanu, 2006; Adebimpe, 2015).

4.7.2 Change in Water Pot Forms

There are only four indigenous potters who are able to produce the water storage pots at Mfensi (Coolers and Water Jugs). Indeed, comparing this number to the fact that all potters at Mfensi produce grinding bowls means that they are few. In line with this, the two senior most potters at Mfensi (Agya Kwasi and Kofi Abrepor) were interviewed towards establishing some important trends in the designs over the years and the factors influencing such changes. The interviews with the potters revealed that since the beginning of pottery making at Mfensi, four different forms of water storage pots have been produced, namely, cooler (*Konteeaa/Konfeaa*) (Plate 4.16); water jug (i) (Plate 4.17); water jug (ii) (Plate 4.18) and water filter (4.19) from the 1960s till date. Several researchers (Adusah, 2006; Ibeanu, 2006; Asante et al., 2013; Adebimpe, 2015) have indicated that these traditional water storage pots serve as local refrigerators and other domestic significance. Ibeanu (2006) has argued that such water storage pots make water cool and pleasing to drink than water from fridge, plastic and metal containers.

The potters interviewed all maintained that the designs of the coolers (Plate 4.15) also known as *konteeaa/ konfeaa* may vary slightly among different potters, but in general it can be observed that it has a long narrow neck, small circular mouth broad rounded base and sometime with a lid or without. The product can no longer be found in the market since the potters at Mfensi have stopped making this form of cooler since the 1980s unless otherwise ordered by customers. This old form cooler has some resemblance features with the Naraguta old pot in Nigeria, which were described by Ibeanu (2006) as having very long and narrow necks with small mouths. Although the Konteeaa looked fashionable in the 1960s, however, one of the pottery masters interviewed notes that “the narrow neck makes it quite difficult in cleaning the interior

to keep it hygienic for water storage”. Moreover, the smaller mouth does not permit water to be fetched directly from the pot, then pouring it into a cup. It was also difficult to lift since it has no handles. Another pottery master also stated that “people use to break them easily because they had to lift it before they can pour out water from the coolers; it was difficult for people to observe the quality of the water stored in the coolers before drinking, because of the nature of its shape. It was revealed that it was based on these problems associated with the use of the coolers that led to the modelling of “Water Jug I” (Plate 4.17).

Water Jug I (Plate 4.17) which was largely produced in the 1970s is greatly different from the coolers in terms of features and design. It is relatively bigger in size, it is quite tall, elongated cylindrical shape but slightly narrows at its base and top; it expands to its fullest diameter in its centre. Unlike the coolers, Water Jug I (Plate 4.17) has a wider mouth and neck, which make it possible to clean its interior and moreover fetch water directly from it. It is heavier and cannot be easily lifted and thus saves it from easy breakages. Its wideness makes it possible to observe the purity of the stored water before drinking. These features of the Water Jug I irrefutably overcome the challenges associated with the use of the coolers. In support of this finding, Ibeanu (2006) noted that the *Tulu and Kula* among the Baki Ukwu in Nigeria have a short and wide neck with a mouth wide enough to enable use of hand to clean the pots. It also has handles including a lid to protecting water being stored from dust and falling objects. It also has handles, but the potters emphasized that they are not purposely provided for lifting the object, but it serves as a decoration. Presently, the “Water Jug” I (Plate 4.17) is no more being made by the potters in the Mfensi locality unless otherwise been requested by a customer. The reduced production of “Water Jug” I (Plate 4.17) cooler according to the pioneer potter is that when handles breaks, it

becomes deformed and difficult to continue its usage. This reason led to a slight modification on the Water Jug I to become Water Jug II. The main difference between the Jug I and II (Plates 4.17 & 4.18) remain the handles, whilst all other features remain the same. It was explained by the pioneer potter that the handles of the Water Jug II (4.18) so that it can remain in good form for a longer time. It was also revealed that the hand breakage usually leads to cracks and openings on the body which affects the usage. Nonetheless, there is an observed consistency in the body and shape of the water jug pots at Mfensi for all these years. This observation is a proof that traditional potting has survived as a practice with long-term continuity (Stahl et al., 2008; Rice, 1996) and demonstrated some resilience despite the impact of modernisation. Nyarko (1972) wrote that the design of Ashanti pottery has remained unchanged for many centuries without much significance evolution in its shape and decoration. Probably, there is little incentive and opportunities to improve on the techniques young potters learn from older potters. The potters improving from Water Jug I to II may represent changes in the indigenous pottery attribute level in stylish attribute as indicated by Stark (1991). It was noted that since the 1980s, the Water Jug II (Plate 4.18) has remained the last form of water cooler and what is now being produced almost by indigenous potters at Mfensi.

Plate 4.16: Cooler (Kontea/ Konfeaa) Models (1960s)



Source: Field Data, July 2017.

Plate 4.17: Water Jug I (1970s)



Source: Field Data, July 2017.

Plate 4.18: Water Jug II (1980s to date)



Source: Field Data, July 2017.

It can be observed that in terms of decoration, the Jug II has a saucer and the Jug I remain without a saucer but with decorative handles.

Despite some changing styles evolving in the pots making, it can be observed that the traditional pots from Mfensi have few varied shapes ranging from circular to cylindrical shapes as can be observed from Plates 4.16 to Plate 4.18. Indeed, despite some slight changing in cooler styles, changes in shapes still remain identical. This observation still makes Nyarko's (1975) assertion that most pottery shapes in Ghana of different pots have continued to be produced without any significant change in their form becomes valid. Nyarko (1975) thus described the shapes of Ghanaian traditional pots as basically oval, semi-circular, angular and cylindrical. Similarly, the forms of water pots shapes produced by the potters at Mfensi over the years have largely been in the cylindrical shape and circular to serve as water storage containers. Boateng (2017) contended that the shape of pottery vessel is primarily determined by the use for which it is intended. Amenuke et al. (1991) revealed that symbolically, water is a factor that upholds life which is why a circular is used in storing water. Nyarko (1975) indicated that the circular form denotes receptacles for liquids among the Akan, which are traditionally being regarded as life-going. Indeed, the consistency in keeping with the historical trends in pottery coolers has been disputed by Quinn (2004) position that new era of indigenous pottery is merging craft skills to modern designs. Ultimately, the coolers produced at Mfensi are easily identified by the circular shapes, yellowish-brown colours as their hallmarks.

Alongside the Water Jug I and II is the Water Filter (Plate 4.19). Although this typology of pot cannot be found in the general market as observed during the field study, the product has been in place since the 1980s up to date. The reasons were attributed to the following. Firstly, it was noted that only one potter who invented the

product remains the sole producer; secondly, the cost of production is also relatively higher and potter require higher amount of money to be able to produce. Moreover, most of the materials used in making the products cannot be obtained from the locality; hence it is only produced for customers upon request.

Plate 4.19: Clay Water Filter



Plate 4.20: Interior section of Clay Water Filter



Source: Field Data, July 2017.

Water filter probably represents the advanced form of all water storage pots produced at Mfensi. According to the potter (Abrepor), he modelled it based on the industrial water filter products which are currently dominating the market. This pottery product can be considered to be an imitation of imported vessel designed for consumption locally. The potters' reason for making this industrial, household product substitute may be explained by their desire in gaining customers. This pottery ware stands upright, uniform cylindrical shape, short, wide neck, and opened circular mouth. It also has a thick lid which serves as a protector from falling objects and particles (Plate 4.19) and can store more volume of water than the water jugs. It has strong and thick molded handles which make it possible to be lifted. It has a flat base which makes it

stand firm on a stand. The interior has been designed smooth with cemented floor layer (Plate 4.20), and a fixed water filter prepared from white clay which filters the stored water before its consumption. The plastic pipe is connected to the filter object all cemented to the bottom of the water filter. The water filter has other features such as a tape which serves as its outlet. This product is relatively expensive as it sold at GHC160 (US\$40) compared to the water jug sold at GHC15 (US\$3.3). It can be argued that this product of traditional pottery represents high level standardised design comparable to studio and factory wares. It also marks a significant change from low level high level stage.

It was revealed during the interviews that the product has a wider demand from prominent persons and institutions, including Asante Kings, Ghana Ministry of Tourism and Culture for international cultural artefacts exhibition and District Assemblies. This finding connotes with Ibeanu (2006) assertion that traditional title holders are expected to use pottery wares and moreover some traditional potters have begun targeting tourism market by producing fanciful wares. Compared to the other pots produced for water storage, the water filter outer surface is polished with *terra cotta*. It has some incised flower designs and simple lines as its decoration. As explained by the potter who makes the 'water filters', "it is a substitute to the refrigerator and has some health benefits as the water can be used by even patients with asthmatic complications". The making of water coolers in the substitutes for 'water filters' attest the emerging innovative and entrepreneurial skills among the local potters (Fening, 2015). Indeed, the changing trend in traditional water pots at Mfensi from Konteaa to the present water filter and Water Jug II clearly attest to some significant developmental trends in the indigenous pottery attribute level that indicates

innovation, shift in frequency of morphological and stylish attributes, forms; and organization of production (Stark, 1991).

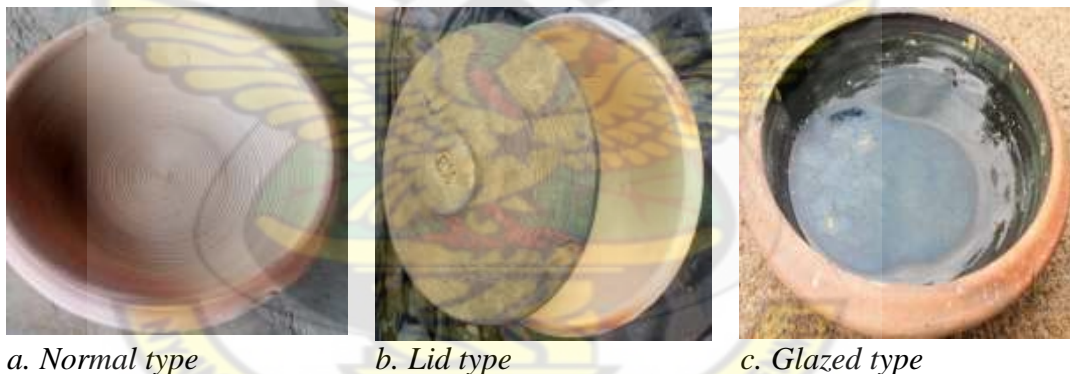
4.7.3 Changes in Grinding Bowls (*Apotoyewa*) Forms

Different forms of grinding bowls have been produced at Mfensi since the 1960s to the present period. “Plates 4.20a – c” depict the traditional grinding bowls (I-normal, II-lidded, and III-glazed) produced at Mfensi. Annku and Lodonu (2012) rate these indigenous pottery forms as falling short of aesthetic qualities requisite for contemporary lifestyle. The normal type (a) is the first model of grinding bowl and its production dates back to the 1960s till date due to its high demand and usefulness among customers at Mfensi. However, new models of grinding bowls with lid (b) and another with an interior glaze (c).

It is acknowledged that glazed grinding bowls and that with lid got to Mfensi by one potter known at Mfensi as Braa Kwame. When the potter was engaged in detailed interview, he revealed that he was trying to bring new innovations in the grinding bowls. He said that “the *apotowewa* was only one way and wanted to bring about some form of new design into the business”. He observed that the normal grinding bowl (a) typology remains the first traditionally made grinding bowl at Mfensi. He notes that it is mainly used for grinding vegetables during food preparation and for serving dishes and its production and usage has been sustainable from the 1960s up to date. The sustainable production and the survival of the traditional grinding bowls obviously imply that attest its domestic usefulness in the traditional Ghanaian society despite massive modern industrial blenders and eating bowls. The ware is produced in the biscuit form. Its interior is embellished with lines. In consistent with this, Speight and Toki (2000) affirmed that indigenous pottery products are often embellished with

simple incise lines. It was also noted that the grinding bowl with lid (ii) was produced in the 1980s to enhanced keeping food warm for considerable long hours, whilst protecting served meals from flies, insects and dust. However, potters upon observing that grinding bowl wears rapidly through washing and grinding, it was quite unattractive to use in serving dishes, hence the interior was glazed to enhance its dish serving functions. Lindahl and Pikirayi (2010) posited that such new innovations are mainly adapted within cultures to support existing patterns of behaviour. The glaze grinding bowls (iii) were first produced in the early 2000s, particularly for traditional restaurants which use grinding pots to serve meals to their customers. The transformation of traditional grinding bowls to glazed eating bowls by the potter may be attributed to his background experience in industry pottery making in four factories.

Plate 4.21: Forms of Grinding Bowls at Mfensi (1960s till date)



Source: Field Data, July 2017.

The glazed grinding bowl Plate 4.21(c) clearly depicts value addition to the traditional normal grinding bowl probably towards gaining a wider market. It was revealed that the glazed grinding bowl was made to serve purposefully as eating dishes. According to the potter, this was because the traditional grinding bowl served multi-purposes which makes it undergo wearing rapidly and in most cases unattractive. In all, despite some changing decoration on the traditional grinding bowls produced from Mfensi, it

can be observed that over the decades, its shape has consistently still remained semi-circular.

Indeed, the grinding bowls with lids Plate 4.21b and glazed interiors Plate 4.21c introduced at Mfensi did not receive widespread adoption in the local market like the traditional grinding bowl (*apotoyewa*) as revealed during the study. As revealed by the potter who initiated these bowls, the materials and chemicals for glazing are quite expensive and moreover customers wanted to buy them at lower prices. Based on Lewin's theory of change and Kritsonis (2005) position, this observation will imply that refreezing did not occur as customers did not establish new habits for using the newly produced grinding bowls to remain as standard ones. Kritsonis (2005) stated that without this stage, it is easy to go back to the old ways. Moreover, traditional customers might have accustomed to the use of the traditional grinding bowls that the newly created designs were of less value. Furthermore, Bell and Dourish (2007) argued that it is difficult for some form of technology to get to the threshold of the home, not because of economic reasons, but for religious reasons; and others like Huffman (2007) and Pikirayi (2001) maintained that if the value of change in pottery wares as perceived by the culture is too low the people are not prone to accepting change.

4.7.4 Changes in Indigenous Flower Pot Forms

Plate 4.22, represents the first form of indigenous flower pot produced at Mfensi. Evidently, early flower pots produced at Mfensi in the 1960s were simple in design and smaller in sizes averagely 18cm and expanding to the diameter of 12cm. They appeared more in V-shape with smooth surface. As can be observed (Plate 4.22), the flower pot has a wide open mouth, whilst the base reduces slightly. The indigenous

flower pot is by far smaller in size compared to the current ones observed (Plate 4.22 & 4.23). However, few quantities were produced due to limited demand. This presumably resulted from limited knowledge on the use of flower pots and low level urbanisation in such times.

Plate 4.22: 1960s Flower Pot Model produced in Mfensi



Source: Field Data, July 2017.

Indeed, potters attested that Ghanaians did not know much about the uses of flower pots and therefore the demand was not high. However, somewhere in the 1985 when most people had travelled to Europe, America and other places and realising the uses of flower pots consequently increased the demands for flower pots. It was admitted that this development made potters to produce several designs of flowers to meet the market demands. Sample models were not obtained for the flower pots produced in the 19980s and the 1990s, but the potters revealed that they were similar to the current designs (Plates 4.22, 4.23, 4.24, & 4.25) but just that the pots were decorated using glaze. He indicated that during such periods the glaze materials and chemicals were affordable and highly accessible from the market.

Unlike the flower pots in the 1960s-1970s, the current flower pot designs remain relatively larger and stand tall. Although the sizes, shapes and diameters of traditional

pots vary, some categories stand quite tall, rough surface, long necks, opened-round mouth and decorated motifs. Indeed, the forms shown in Plate 4.23 measures at 42cm high and 19cm wider in diameter; whilst the categories depicted in Plates 4.24 and 4.24 stands at 27cm high and have a diameter of 18cm. Although, some of the flower pots are fired in biscuit decoration (Plate 4.23), it was largely observed that most of the present traditional pots are well decorated using paints; thus, oil painting with different range of colours such as ash, brown, gold or mixed colours put on metal stand (Plates 4.23 – 4.24).

Plate 4.213: Biscuit Designed Flower Pots



Source: Field Data, July 2017.

As shown in Plates 4.24a and b are some of the shapes of the current indigenous produced at Mfensi appearing in round shapes which are identical to the traditional water storage pots? Evidently, they have short opened neck and mouths. Unlike the old flower pot which were in biscuit decorations, the current flower pots at Mfensi are polished in different colour either as single or multi-coloured (Plate 4.24a-c)

Plate 4.24: Contemporary Indigenous Flower Pots Designs at Mfensi



a. Pot-like shape



b. Flower pot on metal stand



c. Tree-like shape

Source: Field Data, July 2017.

Among the other forms of indigenous flower pots produced at Mfensi also includes treelike forms (Plate 4.24c). It reaches the height of 4ft. The body of the pot is decorated in displacement techniques and significantly with oil painting on the surface. This form of a flower pot (Plate 4.24c) is supported by Speight and Toki (2000) assertion that indigenous pottery products are often embellished with simple lines, relief plant shape patterns as decorations. This diversity associated with the current indigenous pottery flower pots may be attributed to social life, cross-cultural influences and adulteration due to transfer skills from one person to another.

4.8 Factors Influencing Indigenous Pottery Changing Trends at Mfensi

The last objective of the study focused on exploring the factors influencing the changing trends in indigenous pottery making at Mfensi. Based on the data collected through interviews, the findings are categorised in the following themes.

4.8.1 Innovative Market Strategies

The interviews with the traditional potters at Mfensi recounted that the demand for indigenous pottery wares presently have reduced drastically compared to in the 1990s.

Potters said they have observed that the demand for the traditional pottery wares has been characterised by irregularities and reductions in sales. Potters stated that the demand for the indigenous potteries presently rises only when tourists are in town. In the words of one potter, “the enthusiasm for the work has gone down because the market is poor and profits have gone down”. Sekar et al. (2014) posited that indigenous pottery products are rendered valueless and less useful in society due to lack of competitive designs and aesthetic modernism. Likewise, some other researchers (Craven, 2007; Annku and Lodonu, 2012) indicated that critical assessment of indigenous potteries produced in Ghana aesthetics in terms of shape, forms, colours and appeal lack variety and have low standards to meet diverse needs of the advanced technological society. Likewise Adu-Gyamfi et al. (2014) maintained that the poor aesthetic attraction of traditional Ghanaian pottery to conform to modern lifestyles stands at the forefront.

In response to the declining demand for indigenous pottery products, the local potters at Mfensi are becoming more innovative than the past to win their customers back. Potters are now saying that they have realised that Ghanaians want new models, for this reason, new varieties of flower pots, coolers have been made; new products like crucibles, incubators, water filters have been made to boost their market. Similarly, Adebimpe (2015) noted that the Dada indigenous potters in Nigeria were in need of new production and marketing strategies to be able to increase the scope of consumers and compete with foreign wares. Anquandah (2006) posited that when tradition refuses to be dynamic, it becomes colloquial and less valuable with time making them difficult to meet trendy needs.

Potters emphasised that they know several pot designs and it is time they do not produce a monotonous approach with the pottery, so there is the need to diversify

pottery products to attract the customers to patronize the products. Potters revealed that people deserve to be served with good quality products; there is the need to improve existing pottery forms to meet people preferences and taste. These reasons have informed their new innovation to re-boost the declining market. This suggests that traditional potters use innovations as techniques for revamping the market for traditional potteries. Marketing is a tricky technique involving the detection of what consumers want and accordingly, developing products which satisfies those demands (Sekar et al., 2014). Presently, potters claim “we try to be like the manufacturing industries which always come out with new products consistently.

4.8.2 Potters Desire to Gain Higher Prices

Almost every potter produces grinding bowls at Mfensi and hence the products flood the common market and the products are demanded at lower prices. Moreover, the competition from imported pottery and its negative reaction on the local market have compounded the already pressing issue (Almamari, 2017). In the statement of one potter, “obviously, we need to make gains and unfortunately, the pots are less expensive, this remains a challenge for us to make a good living because expenditures are high, so you need to make products which have high patronage with good prices that is why I have included the flower pots as new products”. It was noted that the price at which one water jug (II) is sold ranges between (GHC15-25) (US\$3.4 – 6), which potters rate as very low to motivate them to even produce. Fening (2015) argued that the items produced by the traditional potters are mostly sold on retail basis and their profit margins are very limited and are even spent as daily expenses.

Hence, some innovative potters like Abrepor Kofi has additionally specialised in making standardised varieties of flower pots, which he said he has monopolised

because the production requires special skills that limit other indigenous potters' entry. This effort represents a strategy to sustain business by being dynamic and not to remain monotonous. Indeed, he clarified some issues by saying that currently he sells one flower pot around GHC 300 (US\$68), whilst one grinding bowl is sold at GHC1.30pesewas (Less than US\$1). The relatively higher prices for flower pots according to the potter is because the production of flowerpots compared to pots remains highly tedious and moreover requires special technical knowhow. In addition, the same potter also produces cruxibus, clay incubators, clay water filters. To him, the inclusion of new pottery products has contributed to the diversification of his business and confirmed he made higher gains. Development of new products should determine the best way to price, promote and distribute that product (Sekar et al., 2014).

According to Abrepor, because the demand for grinding bowls are low in recent times, it was important that they (indigenous potters at Mfensi) introduce new pottery ware such as flower pots and some other wares to make the industry become quite lucrative. This observation is supported by Craven (2007) assertion that there is low patronage for indigenous pottery; although they serve as a major source of revenue generation to support the livelihood of the people in the clay industry (Adu-Gyamfi et al., 2014). The introduction of new pottery wares contributes to the diversification of the industry towards sustaining the industry by increasing demand for traditional potteries.

4.8.3 Creativity from Potters

The study reveals that new revolutions in the indigenous pottery also emanate from the creativity on the part of the potters who are the main drivers of the industry. The potters interviewed further argue that pottery work is based on creativity where potters use their intuitions, skills, experiences, built upon what others have already done to

model new pottery wares. This finding is not in line with Adu-Gyamfi et al. (2016) critique on indigenous pottery in Ghana that that they are monotonous in approach.

Additionally, potters reveal that they gain more experiences as they continue to work in the industry on the daily basis which result in new innovations. To them, they have acquired adequate experiences on the traditional potteries which help them to come out with new forms. This result attests the dynamics and creativity in the indigenous pottery making. Nonetheless, some potters believe that innovations in pottery are a gift from God, other than experiences from the job. They note that pottery is craft and art, God opens our minds to get skills to design new products.

4.8.4 Customers Specifications

Another source of innovation in the indigenous pottery at Mensi emanates from the pottery customers. In the interviews, potters revealed that some of their customers bring in their specification or bring some pottery models to be fabricated for them. These pottery models and specifications introduced by customers may be observations from the internet, colleagues, market or personal creativity and other sources. Potters maintained that in such cases, the product samples are kept from where potters add such models to their innovations. Consequently, this brings additions to the existing pottery forms. This source of pottery innovations becomes crucial to the revamping of indigenous pottery as Annku and Lodonu (2012) have argued that indigenous potters remain limited access to new knowledge and skills and technology.

4.8.5 Emergence of New Pottery Technologies and Population Growth

Some of the potters interviewed have considered the emergence of modern technologies in ceramics to be responsible for recent innovations in traditional pottery.

One potter stated that with the use of pottery wheels, I am able to make about 700 pots daily; Another potter also added that the use of machines helps us a lot because on a daily basis, I can produce about 800pots; Initially, decoration was made using coins, sticks and bamboo knives and it was quite tedious. Kwesigah (2017) opined that the introduction of Western pottery skills and technologies in the 20th century turnaround production and the use of new ideas.

Moreover, the study reveals that the increase in population growth was attributed to some emerging pottery new development trends. The potters opine that population growth in general has brought about new ideas, technologies, machines, materials, changes in pottery preferences and designs in pottery wares. Likewise, Bullbeck (2009) and Lindahl and Pikirayi (2010) admitted that for change in pottery and ceramic innovations to occur population growth is important.

4.9 Restrains to Changes in Indigenous Pottery

Despite some significant evolution in new pottery forms and designs, the present also reveals that there are some elements of indigenous pottery at Mfensi that has remained stable since the existence of the industry. In the statements of some potters they argue that “I don’t see any change in the traditional pottery making because it is just one-way technique of production. The Kwahus produce the black grinding bowls and they use the open firing; here we have been using the open firing and we produce the brown grinding bowls and the water jugs and the coolers”. This observance on indigenous potters resistance to change what are connoted with Bourdieu concept of ‘habitus’ in terms of patterned practices that people become accustomed to (Whistle, 2003). Some factors have ensured the stability in the indigenous pottery technological practices and forms to some extent.

The study also reveals that presently, glazing materials which were common and inexpensive are now scarce and highly expensive. Moreover, the potters continual usage of wood fuel kilns for firing has been underscored by the high cost of electricity bills potters indicate cannot afford, and high cost of electric kilns which they emphasized are scarce and if needed must be imported. Boateng (2017) argued that indigenous potters are poor and are not able to afford machinery and some equipment. By implication of this finding, potters' inability to use electric kilns serves as restraining factor, which Lewin theory of change posits as driving force that pushes a person to the opposite direction or opposes change. Indeed, among other factors potters attribute their decline in glazing pottery wares to their inability to afford and use electric kilns which they consider as the appropriate technique to glaze. There are scarcities of glazing materials and moreover, even the little ones which can be obtained are expensive, which ultimately increase the production cost and product selling prices. Some of the potters hence argue that this development has limited their production of glazed pottery products because the customers are not ready to buy pottery at any higher price. Socio-economic conditions may influence what type of pottery people can afford more influence.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

The chapter provides the concluding aspect on the study of the developmental trends of indigenous pottery making at Mfensi. The study was based on the assumption that there are series of revolutionary changes occurring on the production technological practices and forms of pottery occurring at various periods of time under certain factors causing the changing trends. Investigations were conducted at Mfensi. In this regard, the chapter presents the summary of the main findings of the study, conclusions and recommendations.

5.2 Summary of Major Findings

The summary of the major findings includes the following.

- i. The traditional method of clay extraction involving the use of spade, mattock, pick axe and conveying on head at Mfensi has given way to the mechanical method of extraction involving the use of excavators and truck conveyance since the 2000s.
- ii. The potter's wheel has remained the most important traditional tool in throwing pottery objects from the past seven decades to the contemporary times, however, calipers and foam materials have quite recently replaced the use of pebbles, old cloth material and sticks for undertaking accurate measurement, smoothing pottery objects.
- iii. Indigenous potters at Mfensi methods pounding, kneading and processes of throwing pottery objects, sun drying technique, pattern of packing pottery objects

in the kiln; the use of wood fuel kiln firing methods and firing processes have all remained unchanged throughout the history pottery works.

- iv. Traditional pottery wares (grinding bowls, water jugs, flower pots and coolers) are produced in biscuit decoration form. However, since the 1990s the uses of glaze (bowls) and oil paints (flower pots) have emerged alongside the wider use of biscuit colour decorations.
- v. Alongside the traditional pottery products: grinding bowls (apotoyewa), water storage pots (coolers) and few flower pots which have remained important potteries to date, potters at Mfensi have introduced non-domestic pottery objects based on the trendy needs: cruxibus, incubators, coal pots, and water filters; *fufu* bowls and beer mugs.
- vi. Water storage pots since the 1960s-70s have assumed several phases beginning with: *Kontaaa* to the *Water Jug I* in 1970s-1980s to *Water Jug II* and advancing to clay made water filters.
- vii. New shapes of grinding bowls have not evolved since the 1960s at Mfensi. However, potters have added value with lids and glazes (1990s-2000) to enhance their dish serving functions and hygienic usage.
- viii. Flower pots produced in the 1960s were v-shaped, small in sizes and short in height with short diameters and left in biscuit forms. However, current traditional flower pots produced at Mfensi are bigger in sizes; and shape ranges from round pot-like, cylindrical and plant-like shape with identical features such as short and long necks, circular mouths, and painted decoration and metal stands.
- ix. The demands for traditional pottery products have generally declined; hence potters have brought in diversity of new designs and models to the existing traditional grinding pots and water jugs to boost their markets and gains.

- x. Indigenous potters at Mfensi attribute changing trends in their industry to the influence of individual potters creativity through intuitions, fabrications, and experiences from work; specifications from customers; evolution of innovative ceramic technologies; changes in population growth and new ideas, preferences and diversity in pottery models and designs.
- xi. Some elements of pottery technologies and forms have remained unchanged: the use of the wheel, throwing method, the use of wood fuel kiln, firing techniques due to low potters' socio-economic conditions, and accustoms to the existing patterns of technology.

5.3 Conclusions

The following conclusions were drawn from the findings of the study.

- i. This study has shown that indigenous pottery producing technological practices at Mfensi since its inception in the 1960s till date are largely stuck to the use of indigenous production technology: hand driven wheels, and wood fuel kilns for firing and moreover continuous dominance of grinding bowls and water storage pots. This presents an indication of potters' maintenance of indigenous pottery values, aesthetics and preservation of indigenous pottery originality.
- ii. This study has revealed that indigenous water storage pots have undergone changes forms from the 1960s to the contemporary time's right from coolers to water jugs and progressing to the replicas of imported water filters. This represents value additions, user conveniences and improved functions. Old flower pots which were v-shape with a mere biscuit appearance have assumed diverse designs: pot and plant like shapes with artistic decorated paints of diverse colours with metal stands.

- iii. The study underscores the fact that changing trends in traditional pottery are driven by potters creativity and experiences from the job, customer designs; increase in population growth; evolving innovative designs; and influx of imported ceramic and pottery models.

5.4 Recommendations

Based on the findings of the study, the following recommendations are made to the Government, Non-Governmental Organizations, Ministry of Trade and Industry, Tourism and Culture, and Ministry of Education.

- i. The contemporary indigenous pottery products at Mfensi are produced in biscuit form, with some incision and painting decorations. This does not match to compete with the influx of foreign ceramic wares. This trend, however, can be corrected if other-non-conventional materials and techniques are considered to considerably add value as well as give an appropriate marketing environment for the indigenous pottery towards reduced poverty and economic growth.
- ii. As indigenous potters' adoption of modern technologies are affected by their socio-economic situations, appropriate measures should be instituted to increase their access to funds, encourage the participation of private investment, guaranteed funds, and tax incentives, provision of modern machinery and training and retraining of potters.
- iii. Policies should be articulated to create favourable conditions and institutional support for investors in the indigenous pottery industry while protecting the Ghanaian values and heritage as potters have declined the production of old models like traditional coolers and water jug I. In this regard, there is the need to encourage commercial banks to lend to activities in the traditional potteries.

- iv. Traditional pots for water storage and grinding bowls since the 1960s to contemporary times have not undergone changes that add value and suits the modern needs and improved quality. Thus, all efforts to support potters' development such as training, supply of modern kilns and ceramic equipment should be provided to improve quality to meet local and international standards whilst preserving the aesthetic originality of products.
- v. Generally, indigenous pottery tools remain so simple and rudimentary to undertake modern designs and modern pottery standards. There is therefore the need to modernise the technological practices and introduce the application of modern tools and equipment.
- vi. In line with the declining market access to indigenous pottery at Mfensi, traditional pottery is reducing their importance. Hence, government efforts must facilitate global market access for the traditional pottery through local and international trade fairs, trade agreements; opening of new markets through trade fairs, traditional festivals, dissemination of information, awareness creation, adopted by public institutions, displays and exhibitions of both local and global audiences.
- vii. Indigenous pottery products have generally focused on water storage pots and grinding bowls. This implies limited innovations in the traditional pottery industry and consequently less demands. Hence, traditional potters need to bring about functional models and innovative designs through research based on consumers taste and preferences, situational analysis, other modern designs, on the few existing ones in boosting patronage and higher prices.
- viii. As the young people are not ready to learn the indigenous trade and a means of ensuring continuity, it is recommended that government and non-governmental organizations team up in building pottery centres at Mfensi that will enhance and

cut down labour and incomes invested in pottery and provide a favourable working environment for all who wish particularly the youth; and create marketing opportunities for the products. The Ghana Education Service (GES) should make possible arrangements to integrate traditional pot making in the curriculum of the Junior High Schools at Mfensi to further encourage the youth to develop an interest and keep up the industry.

- ix. Future studies should focus on discovering traditional pottery new innovations in other traditional pottery centres such as Kwahu, Tafo, Mole, Kpando to document holistic changes in the indigenous potteries in Ghana.



REFERENCES

- Abaka-Atta, M. (2015). *Feminity in Pottery, Resurrecting the Feminine Tough to the Practice*. Unpublished MA, KNUST.
- Acheampong, A. (2015). *Investigation into the Dying Indigenous Pottery Industry in the Ashanti Region*. Unpublished M'Phil Thesis, KNUST.
- Adebimpe, O. (2015). Pottery Production and Entrepreneurship Perspective for Job Creation and Poverty Alleviation: A Case study of Dda Pottery, Okelele, Ilorin, Kwara, State, Nigeria. *Journal of Economics and Sustainable Deelopment*, Vol. 6(2), 172-178
- Adu-Gyamfi, V. E., Boahin, J. O. B., Asubonten, J.K. (2014). The Economic Significance of Transforming Utility of Pottery in Ghan through Integration of Veg-Tanned Leather, and other Local Raw Materials. *International Journal of Science Technology*, Vol. 3 (7), pp. 429 - 434
- Ali, E.V. (2015). A Critical Survey of Growth, Decline and Sustainability of Traditional Pottery Practice among the Igbo OF South Eastern Nigeria. *Journal of Modern Craft*, Vol. 7 (2)
- Almamari, B.M. (2017). Imported Traditional Pottery: Methods of Overcoming the Challenges for Traditional Ceramics Industries in Oman. *Humanities and Social Sciences*, Vol. 5 (1), pp. 1-4
- Amenuke, S.K. (1995). *Notes on General Knowledge in Art and Vocational skills for senior Secondary Schools and Teacher Training Colleges*. Kumasi: KNUST Press.
- Amenuke, S.K., Dogbe, B.K., Asare, F.D.K., Ayku, R.K. & Baffoe, A. (1991). *General Knowledge in Art for Senior Secondary Schools*. Accra: Ministry of Education
- Annku, M.F. & Lodonu, J. (2012). Consumption of Visual Art Forms in Contemporary Ghana. *International Journal of Humanities and Social Sciences*, Vol. 2 (17), pp. 245-250
- Annku, M.F. & Adu-Agyem, J. (2012). "The Impact of Globalisation on the Art of Contemporary Ghana". *Ghana Mining Journal*, pp. 86-91
- Anquandah, P. J. (2006). *The Traditional Potters Craft*. Accra: National Commission on Culture
- Arnold, M.J., Geary, C.M. & Hardin, K.L (eds.) (1996). *African Material Culture*. Bloomington & Indianapolis: Indiana University Press
- Asante, E. A. (2009). *Ghanaian Women in Selected Indigenous Ghanaian Arts*. PHD Thesis, KNUST, Ghana (Unpublished thesis).

- Asante, A.E., Adjei, K & Opoku-Asare, N.A. (2013). The Theoretical and Socio-cultural Dimensions of Kpando Womens's Pottery. *Research on Humanities and Social Science*, Vol. 3(1), pp.60-72
- Asihene, E. V. (1978). *Understanding the Traditional Arts of Ghana*: Crandbury, New York.
- Asmah, A.E., Frimpong, C. ad Asinyo, B. (2013). Enhancing the Value of Indigenous Pottery products with Surface Decoration Methods and Macrame. *Art and Design Studies*, ISSN 2224-059X online Vol. 8 (2013) 1-8)
- Awadzi, E.K. (2002). Design and construction of a portable gas kiln for senior high schools in Ghana. MA Thesis unpublished, Art Education Dept, KNUST.
- Baba, M. 2009). Pottery Production an Hierakonpolis during the Naqada II Period: Towardsa reconstruction of firing techniques. *British Museum Studies in Ancient Egypt and Sudan* (Issue 13), pp. 1-3
- Barley, N. (1994). *Smashing Pots: Works of Clay from Africa*. Washington, D.C.: Smithsonian, Institute Press.
- Barnett, W, K., and Hoopes, J. H. (eds.) (1995). *The Emergence of Pottery*, Smithsonian Institution Press, Washington, DC.
- Bell, G. and Dourish, P. (2007). Back to the Shed: Gendered visions of Technology and domesticity. *Personal and Ubiquitous Computing* 11, 373-381
- Blair, B. C. (2002). A Qualitative Study of the R.L. Bloomfield and Anthen Potteries as a Model of Narrative Inquiry in Historical Research in Art Education Education. Athens, Georgia.
- Boateng, E.K (2017). *Ceramic for Senior High Schools and Colleges*. NUUT Company Ltd. Kumasi - Ghana.
- Bostoen, K. (2007). "Pots, Words and the Bantu Problems: On Lexical Reconstruction and Early African History". *Journal of African History*, 48 (2007), pp. 173-1999
- Bradly, S. (2007). A Swiss-led Team of Archaeologist has Discovered Pieces of the Oldest African Pottery in Central Mali, dating back to at least 9,400BC, SWI swissinfo.ch-the internal service of Swiss Broadcasting Corporation (SBC), 18 January 2007
- Bredwa-Mensah, Y. (1996). *The Production and use patterns of Ga Pottery in Lower Densu Valley, Western Accra*, Institute of Acrhaeology, UK. 1996. Retrieved on 7/6/2017 from www.piajournal.co.uk/article/download/pia.95/175
- Brown, A.W. (1981). *Appropriate Technology and Dynamics of Village Industry: A Case Study of Pottery in Ghana*. *Transactions of Institute of British Geographers*, Vol. 6 (3), pp. 313-323

- Bulbeck, D. (2009). The Application of Darwinism Cultural Evolutionary Theory to Ceramics: The Case of “Soft Pottery” from Luwu, South Sulawesi, Indonesia. BAR International Series 1915
- Chilisa, B & Precee, J. (2005). African Perspective on Adult Learning: Research Methods for Adult Educators in Africa. CTP Book Printers, Cape Town
- Craven, A. (2007). The Pottery of Northern Ghana. Retrived on 10th March, 2017 from <http://interpretingceramics.com/iss010/articles/03.htm>
- Creswell, J.W., Ebersohn, L., Eloff, I., Ferreira, R., Ivankova, N.V., Jansen, J.D., Nieuwenhuis, J., Pietersen, J., Clark, P.V.L., & Van der Westhuizen, C. (2012). First Step in Research (10th Impression Ed.). Interpak Book, Pietermaritzburg, South Africa.
- Cruz, M.D. (2003). Shaping Quotidian World: Ceramic production and Consumption at Banda, Ghana, c 1780-1994. Unpublished PhD Dissertation, Department of Anthropology, State University of New York at Binghamton, NY
- Dinsdale, A. (1986). ‘Pottery Science: materials, process and product.’ Ellis Hard Limited.
- Edusah, S.E. (2000). Sources of Glaze Materials in Ghana. Journal of Kwame Nkrumah University of Science and Technology, Vol. 20, Nos.1.2, &3, 2000
- Fening, P. A. (2015). The State of Cottage Industries in Ghana: A Case of Cast Aluminium Pot Fabrication Industry. Asian Journal of Humanities and Social Sciences (AJHSS), Vol. 3 (2), 100-107
- Fowler, K. D. (2008). Zulu Pottery Production in Lower Thukela Basin, Kwa Zulu-Natal, South Africa. Southern Africa Humanities, Vol.20, pp. 477-511
- Fox, N., Hunn., & Matters, N. (2007). Sampling and Sampling Size Calculation. The NIHR RDS for the East Midlands/ Yorkshire & the Humber
- Gosselain, O.P. (1995). Identities Techniques. Le Travail de la Potereri au Cameroun. PHD Dessertation, University of Brussels.
- Gosselain, O.P. (2000). Materialising Identities: An African Perspective. Journal of Archaeological Method Theory, 7, 187-217
- Halluska D. (1999). *Pottery and Progress: Traditional and Contemporary Pottery in Vume, Ghana*. Africans Diaspora ISPs, Paper 14.
- Hofman, C., and Bright, A. (2004). From Suazod to Folk Pottery: Pottery Manufacturing Traditions in Changing Social and Cultural Environmenton St. Lucia In: New West Indian Guide 78 (1/2), Leiden, 73-104
- Huffman, T. N. (2007). Handbook to the Iron Age: The archaeology of precolonial farming societies in Southern Africa. Scottsville: Univeristy of Kwa Zulu-Natal Press

- Ibeanu, A. M.(2006). Pottery Making in Nigeria: Continuity and Change. Ashakwu Journal of Ceramics, Vol. 3, pp. 114-121
- Johnson, B. and Christensen, L. (2012). Educational Research: Quantitative, Qualitative and Mixed Approaches (4th Ed). Sage Publications, USA.
- Keer, A., Hall, H., and Kozub, S. (2002). Doing Statistics with SPSS. London, Sage
- Korankye, T & Oteng, I.K. (2008). Ceramic for West AFRICA Secondary Schools. Cape Coast. Nyarkod Printing Works.
- Kquofi, S., Olowonirenu, A. and Asante, E.A. (2013). Panoply of Selected Asante and Ijaw Cultural Practices: Comparative and Descriptive Study. African Journal of History and Culture, Vol. 5 (4), pp. 78-86
- Kritsonis, A. (2005). Comparision of Change Theories. International Journal of Scholarly Academic Intellectual Diversity; 8:1, 2004-2005
- Kwaffo S. J. (1966), *Pottery in Akan Cultural Life*, KNUST, Kumasi (unpublished thesis)
- Kwesigah, P. (2017). Technology and Innovation: Pottery Production and Development in Uganda. playpen.meraka.csir.co.za/.
- Lalithambika, (2003). Techno-socio-economic survey on the living and working conditions of the traditional potter communities of Kerala, IRTC, pp.22-45
- Leedy, P. & Ormrod, J.E. (2005). Practical Research Planning and Design (8th Ed.). New Jeesey, Peason Prentice Hall.
- Lindahl, A., & Pikirayi, I. (2010). Ceramic and Change. An Overview of Pottery Production. Archaeological and Anthropological Sciences, 2(3), 133-149
- Majuk, S.E., Erim, O.P., Ajor, O.J. (2010). Bakor Women in Pottery Production in Colonial Southeastern Nigeria. Journal of International Social Research Research, Ordu, Turkey, Vol. 3/11 Spring
- Mercader, J.et al. (2000). Ceramic Traditions in African Forest: Characterisation Analysis of Ancient and Modern Pottery from Ituri, D.R Congo, Journal of ARCHAEOLOGICAL Sciences (Vol. 27. pp. 163-182
- Mishra, S. P. & Mansuri, A. K. J. (2016). Emerging Trends of Red Clay Pottery Industries at Vidarbha. International Journal of Innovative Research and Development, Vol. 5 (12), pp. 105-113
- National Commission on Culture (2010). retrieved April, 20, 2017 from <http://www.ghanaculture.gov.gh>
- Obenj, K & Atiemo, E. (2006). Burnt Bricks from Clay for Housing Construction in Ghana: An assessment of clay Deposits. Journals of Building and Road Research, Vol. 10 (1&2) Jan-Dec, 30-38.

- Obukwelu, K.O.I. (2006). Gbo Pottery in Nigeria: Issues of Form, Style and Technique (Abstract). <http://pocketknowledge.tc.columbia.edu/home.php/viewfile/15999>. Date retrieved 19-03-2017
- Patton, M.Q. (2001). *Qualitative Evaluation and Research Methods* (3rd Ed). Newbury Park, CA: Sage Publications
- Perani, J. and Smith, F.T. (1998). *The Visual Arts of Africa: Gender, Power and Life Cycle Rituals*. Prentice-Hall
- Pikirayi, I. (2001). *The Zimbabwe Culture: Origins and Decline of Southern Zambezi States*. Walnut Creek, New York and Oxford: Altamira Press
- Pirikayi, I. and Lindahl, A. (2010). *Ceramics and the Ethnographic Present: Toward a Middle Range Approach in Interpreting Pottery in Southern African Iron Age Studies*.
- Porra, J., Hirschheim, R., & Parks, M.S. (2014). The Historical Research Method and Information Systems Research. *Journal of the Association for Information Systems* Vol. 15 (9), pp. 536-576
- Quinn, B. (2004). *Mid-century pottery* (1st Ed.). London: Coran Octopus Ltd, pp.68, 110
- Rattray, R.S. (1927). *Religion and Art in Ashanti*. Oxford: Clarendon Press.
- Rice, P.M. (1996). Recent Ceramic Analysis: Composition, production and theory. *Journal of Archaeology Research*, 4, 165-202
- Sakyi, E. (1994). *New Dimensions in Indigenous Firing of Pottery in Ashanti*. Thesis, KNUST.
- Sarantakos, S. (1998). *Social Research* (2nd Ed). London: MacMillan Press Ltd.
- Sekaran, U. (1992). *Research Methods for Businesses: A skill building Approach* (2nd Eds.). John Wiley & Sons Inc, USA.
- Sikdar, M. & Chaudhuri, P. (2015). Pottery making tradition among the Prajapati community of Gujarat, India. *Euras Journal of Anthropology* 6 (1): 1-14
- Siyanbola, W.O., Abiodun, A., Oluseyi, E.I., Olamide, O.O., Aderemi, H.O., AND Sanni, M. (2012). Indigenous Technologies and Innovation in Nigeria: Opportunities for SMEs. *American Journal of Industrial and Business Management*, Vol. 2, 62-75 <http://dx.doi.org/10.423/ajibm.2012.2200>
- Speight, C.F & Toki, J. (1999). *Hands in Clay*. New York: McGraw-Hill Company, Inc
- Stahl, A.B., Cruz, M.d., Neff, H., Glascork, M.D., Speakman, R.J., Giles, B., and Smith, L. (2008). Ceramic Production, Consumption and Exchange in Banda area, Ghana: Insights from Composition Analysis. *Anthrol. Archaeol.* (2008)

- Stark, M.T. (1991). Ceramic Change in Ethno Archaeological Perspective: AKalinga Case Study. Asian Perspectives, Vol. 30 (2), University of Hawaii Press.
- UNEVOC (2006). Motivating for Skills Development: Campaign Package. Booklet 7.09-Pottery
- Vincentelli, M. (2008). Trajectories: Survival, Revival and Innovation in Women Ceramics, Northern Clay Center, September 19 – November, 2, 2008
- Violatti, C. (2014). Pottery and Antiquity. www.ancient.eu/pottery. Date Retrieved: 06/04/2017
- Yuan-Lung, Y. (2016). Applying Cultural Elements to Ceramic Teaching-Using Indigenous Pottery Kettles in Taiwan as Example. US-China Educational Review B, Vol.6 (9), pp. 561-568

APPENDICES

Appendix I: Interview Guide for Aged Potter (Pottery Elders)

Developmental Trends in Indigenous Pottery Making at Mfensi, in the Ashanti Region of Ghana

1. Sex
2. Age
3. Years of experience
4. How did you learn the pottery making?
5. What was your motivation of becoming a potter?
6. What do you know about the history of pottery making at Mfensi?
7. What pottery products is Mfensi traditionally noted for?
8. Have you noticed some changes in their forms over the years?
9. What purposes do they serve?
10. Have you observed new pottery products in addition to the old [pttery types?
11. What changes have you noticed in the methods of extracting and transporting clay for pottery works?
12. Name the pottery making tools associated with the early pottery making at Mfensi?

13. What variation/s can you make on the tools used over the years?
14. What reasons do you think have accounted for changes in pottery technologies?

Appendix II: Interview Guide for Pottery Masters and Young Potters

1. Sex
2. Age
3. years of experience
4. Number of apprentice/employees
5. What is your motivation in pottery making?
6. What are the traditional pottery products of Mfensi?
7. What are the new pottery produced that have been innovated at Mfensi in recent times?
8. what are the reasons for the emergence of new pottery wares at Mfensi?
9. What reasons have accounted for the emergence of new potteries at Mfensi
10. What changes have you noticed on the tools used for indigenous pottery making?
11. What changes in the techniques and the processes of preparing clay for pottery works?
12. Have you observed changes in their styles of decorations indigenous pottery products?
13. What changes have you noticed in the methods and processes of pottery firing?

14. What do you consider as the source/s of new innovations in the traditional pottery making at Mfensi?

Appendix III: Checklist for Pottery Analysis

1. Ware name
2. Ware date range (earliest date and latest date)
3. Sherd (rim, body, base)
4. Vessel class (bowl, flagon, jar, jug etc)
5. Forms of component parts (feet, handles, spouts etc)
6. Vessel size by rim diameter and height
7. Vessel treatment (burnishing, glaze, polish etc)
8. Techniques of forming decorations
9. Method of manufacture (hand built, wheel thrown etc)

Appendix IV: Checklist for Observing Pottery Production Techniques

1. Clay extraction method/s
2. Clay preparation and processing
3. Methods of pottery making
4. Style of pottery decoration
5. Firing method and processes
6. Finishing techniques

