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Ceramic Production in the Banda Area (West-central Ghana): An Ethnoarchaeological approach

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Introduction

The main goal of this project is to investigate the impact of trade and new products on patterns of production and consumption in the Gold Coast hinterland during the 19th and early 20th century, as the area became integrated into a market economy dominated by European interests, creating access to new products. The flow of European products into the hinterland certainly impacted the exchange and production of local goods, especially the degree of specialized production. The research is focused on ceramic production in the Banda Traditional Area (west-central Ghana) during the 19th and early 20th century; however, other products locally manufactured are considered, since they highlight the economic changes that occurred. This paper reports on ethnoarchaeological research conducted during August through December of 1994, and on archaeological data from the site of Makala Kataa (Stahl 1992, 1993b, 1994). This study is part of the Banda Research Project, a larger project devoted to a study of the political economy of the Banda Area during the period between 1700-1920, under direction of Dr. Ann Stahl, State University of New York at Binghamton.

Geographic context

The Banda Traditional Area is located in the extreme northwest of the Brong-Ahafo region (west-central Ghana), immediately south of the Black Volta. The area is dominated by a range of high hills, the Banda hills, that rise abruptly (1930) ft; 588 m) from a rolling landscape of savannah woodland (Figure 1). It is a transitional region, lying immediately north of the tropical forest. The area is dominated by five ethnic groups: Nafaana, Kuulo, Ligby, Mo and Ewe. The economic basis in Banda is subsistence farming (yams, groundnut, manioc, tomato and maize), supplemented by some cash crops, especially tobacco. In Dorbour, the main setting for the research, potting is a significant economic activity for women, both potters and traders. Dorbour is located on the west side of the Banda hills with easy access by foot to a gap in the hills (Tombe Gap), which allows communication between villages to the east and west of the hills. Limited research also carried out in three villages belonging to the Sampa Traditional Area (Adadiem, Jenene and Bondakile) where ceramic production and weaving are, or were until recently, major economic activities¹.

Research problem and methodology

During the late 19th century the British wrested control of the Gold Coast hinterland from Asante, with the goal of expanding the markets for British manufactured goods and to acquire raw materials (Constantine 1984). This fact led to the integration of the hinterland regions into a world market dominated by European interests and in early 20th century to direct British colonial control (Arhin 1974, 1979). The influx of manufactured products affected local production systems (Goucher 1981; Steiner 1985). My research focuses on how broader market processes affected local production, especially of ceramics production. Did the access to manufactured vessels affect consumer demand and the goods being produced? Does the contemporary pattern of production provide an adequate model for past production?

In order to assess change and continuity in ceramics through time I used several sources of information: archaeological material from the 19th-20th century site of Makala Kataa; ethnographic information on ceramic production and distribution from three potting centers (Dorbour, Adadiem and Bondakile (Figure 1)); neutron activation analysis (NAA) of ceramics and clays; and historic documents. Through ethnographic research I tried to look at production strategies that may indirectly depend on broader, multiregional levels of interaction, mainly market demand. Research in Dorbour included: 1) interviews with potters to collect information on techniques of production, stylistic variability and standardization of both forms and decoration of vessels among the different potters: 2) interviews with potters and non-potters about ownership, use and life span of kitchen assemblages, both ceramic and non-ceramic, in order to understand how change in types of vessels may have impacted production; and 3) interviews with villager regarding trade of pots, markets, and consumer preference. Archaeological and ethnographic ceramics and clavs from both abandoned and currently used clay pits were analyzed using NAA. Geochemical analysis provided information on the origin and production patterns of archaeological ceramics from Makala Kataa, using the ethnographic ceramics and the clay samples as baselines against which to compare the archaeological vessels.

Production of ceramics

Today potting is a specialized activity confined to three villages west of the Banda hills carried out only by women, who produce a variety of vessel forms and sell them in local markets throughout the area. Older women relate that potting was formerly more widely practiced. Several abandoned clay pits and a greater variety of vessel forms and decoration types in archaeological contexts seem to confirm the assumption of change in ceramic production during the 19th century (Stahl 1989, 1992, 1994). At the same time both ethnographic information and historic documents show a dramatic change in patterns of specialization as the area became increasingly integrated in mercantile networks with easier access to European goods.

In Dorbour the principal economic activities are subsistence farming, potting and trading in pots. Today farming is both a male and female activity; however, throughout the whole region it is reported that farming was exclusively a male activity until recently (30-40 years ago)². Men had the obligation to provide female members of the extended family with foodstuffs. Most of the women in Dorbour are or were involved in potting; more recently trading of pots has become another source of income for women in the village. According to older women the number of potters has increased dramatically in the recent past (40-50 years). The number of younger women who are now learning is fairly high, and there were two cases of older women, in their early and late 60s, who were learning potting as a replacement to spinning which is no longer profitable. Some women not engaged in pot production buy unfired pots from potters, fire and sell them in markets and villages on the east side of the Banda hills.

In Dorbour the clay is obtained near the Palati river (Survey Dept. Map 1:125,000), where several clay pits have been dug. The potters collect their own clay, usually helped by children or male relatives. Women are prohibited from entering the pit while menstruating. Today men may dig clay to sell to the potters who can't do it themselves. In Adadiem women are not allowed to go into the clay pit. The current clay pit is fairly recent (used in the last 10-15 years, after the old clay pit was exhausted) and according to the potters the quality of clay is not as good as that from the old pits, resulting in more breakage during firing. The pit is about 1 km northeast of the village and not too far from the old clay pit. Today only boys and young men dig the clay. The old clay pit was an underground pit dug under a thick layer of laterite. It was dug exclusively by older men; when they start migrating to cocoa farming areas, women started entering the pit to dig the clay. It is general believed among the potters that this is the reason why the clay disappeared, forcing them to start a new pit. Today only boys and young men dig clay for their female relatives.

In all the potting centers, pots are made by individual women, who may be helped by a younger daughter who is learning. Ceramic production takes place in the courtyard of the compound, not in specific workshops or specialized activity areas. A potter works on groups of 6-8 pots at once³, taking 3 days to complete each group. Each potter can make a wide variety of pot types; however, they only work on one type of pot at a time, contributing to a high degree of homogeneity in size and decoration. The pots are made by drawing the clay, using a rounded piece of calabash or an old metal lid as turntable. On the first day the potter makes the rim and body of the pot, except for the base; on the second day, after the rim and body are fairly dry, the pot is turned upside down and the base is built adding clay and

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Date	Prov/Type	West Side	East Side	Bondakile	<u>Unass</u>	
Early 19th C.	PII/SB	2	1	6	1	
	PII/BB	1	1	8		
	PII/SJ	10				
	PII/BJ	10				
Late 19th-	PI/SB	2	7		3	
Early 20th C	PI/BB	4	9			
	PI/SJ		10		3	
	PI/BJ	4	9			
1930s-1960s	AH/SB		3			
	AH/BB	1		2		
	AH/SJ	1	1		1	
	AH/BJ	2	1			

Table 1: Provenience of vessels (PII, Phase II; PI, Phase I, AH, Ahenkro middens)

shaping it, sometimes using a wooden paddle; on the third day, after the base is dry, the interior is scraped to achieve very thin walls, the body is decorated using a corn cob, and the rim and shoulders are burnished with a pebble.

Unlike the making of the vessels, firing is a collective activity, with several potters helping each other. However, each potter has her own firing pile, the pots belonging to different women not being mixed. Neighbors, relatives and traders help during the firing, since the process requires a rapid succession of activities which must be completed while the pots are still very hot. The pots are piled on a bed of small pieces of wood; additional branches or bark from larger trees are placed vertically on the sides of the pile. The size of each pile depends on the size and number of vessels. In Dorbour, since most of the pots produced are small, a firing pile can have several layers of pots. In Adadiem, the firing piles have only one layer, even when small pots or bowls are being fired; this seems to be a product of past practice since this village formerly specialized in the production of big cooking and storage vessels.

The firing process takes about an hour to an hour and a half, depending on the size of the pile and number of vessels. The firing itself takes only about 30-40 minutes, the remaining time being used to blacken the pots with dry groundnut shells or grass, and to dip the pots in a solution of pounded bark and water. All but the water storage vessels are dipped in this solution, since, according to the potters, it would give a bad taste to the water. The bark solution gives a shiny finish to the vessels, which disappears once they are used.

Specialization of production

The ethnographic research revealed a pattern of differential specialization among the villages in the area. Adadiem, Bondakile and Dorbour are mostly potting centers, while other villages (e.g. Jenene) formerly specialized in dying of cotton and weaving. Weaving and spinning were very widespread economic activities in the region: all women knew how to spin, and in all the villages men were weavers. Easy access to cheap imported cloth led to a decline in these activities. As a result more women started potting in the potting villages, and became increasingly involved in farming in all the villages.

Cotton production was encouraged by colonial officers for local consumption (e.g. Ghana. National Archive. Accra n.d.b.:285, 555) and seems to have occupied an important place in the local economy (Ghana. National Archive. Accra. n.d.a.:Report May 1904; Ghana. National Archive. Kumasi. 1929:9-10). Kokoa and Debibi seem to have been major cotton producers where people from other villages would go to get their raw material. In Kokoa men produced spindle whorls which were used throughout the whole region, including the potting villages (Crossland 1975, 1989:78-80; Crossland and Posnansky 1978:81).

The potting villages also reveal a complementary pattern of production; potters in Adadiem make (or made in the past) primarily large water storage vessels and big cooking pots (chó koo, chó hóló, suro chó and mbete), while potters in Dorbour make mainly small cooking pots and small water storage pots (suro chó, suro chó ble, signoló and djolongo). In the last 30-35 years a new bowl type, used to grind vegetables, started being produced in all the potting villages. According to older informants, women formerly ground vegetables for sauce in regular eating bowls, but recently potters started producing a vessel with incised lines in the interior surface, creating a rough surface to allow an easier grinding. Women in Dorbour suggested that they modeled these after metal grinding bowls with irregularities in the interior, while a potter in Bondakile suggested that the grinding bowls are clay copies of some Asante stone bowls4. Today, this is perhaps the most common type of ceramic vessel being made and traded in the villages, since it sells well in different markets (Crossland 1989:72).

In Dorbour the major types of pots produced are grinding bowls, signoló (a vessel used to cook "soup" or the sauce used with pounded yam) and suro chó (cooking pot). Eating bowls were commonly produced in the past, but are now rarely made, since they are being replaced by enamel bowls and small pots. Drinking water storage pots (chó koo) are made, but only by more skilled potters. Large water storage pots (chó hollo) were made only in Adadiem, but are now rarely produced, since in most villages the water is stored in metal barrels (oil drums). In the past more forms were produced on a regular basis. Some of those forms are still produced, but only occasionally and by customer order.

The wares produced in villages today are almost exclusively utilitarian. Ceramics are not used for social display, and most of the ritual vessels are utilitarian pots used in ritual contexts. The exception is the *kotondee*, a small pedestaled bowl, which is used only during funeral ceremonies today; however, in the past it reportedly served as a woman's eating bowl.

Specialization of production: an archaeological analysis

Both potters in Dorbour, and consumers in Ahenkro and Makala agreed that the pattern of specialization between Dorbour and Adadiem existed in the recent past, which led me to ask whether this type of specialization also existed when the archaeological site of Makala Kataa was occupied. Stahl's previous analysis shows increased homogeneity in decorative treatment during the occupation of Makala Kataa (Stahl 1992, 1993b, 1994). Technological attributes, especially geochemical composition of pastes, can provide deeper insights into production patterns. Geochemical analysis has been successfully applied in the study of specialized production (Arnold et al. 1991; Blackman et al. 1989, 1993) and in the identification of origin for ceramics (Neff 1992). Using NAA, I examined the degree of homogeneity or heterogeneity of ceramic groups, and of provenienced clay samples from abandoned and contemporary clay pits. The comparison of clays and ceramic paste characteristics allowed to attribute a regional origin to the ceramics consumed at Makala Kataa, and to assess the degree of fit between past and present production systems.

The analysis of ceramics from Makala Kataa allowed the identification of some factors of change in the local production system. The site has been excavated by Dr. A. Stahl as part of her long-term project developed in the Banda area since 1986. Makala Kataa has two distinct occupations, one early 19th century and one later 19th century, abandoned in the 1920s. The occupation at Makala Kataa is clustered in two foci: the earlier (Makala Phase II) and the later occupation (Makala Phase I) (Stahl 1992, 1993b, 1994).

The NAA was carried out at the Missouri University Research Reactor. One hundred and sixty samples were analyzed that included: 1) archaeological ceramics from both occupations at Makala Kataa; 2) ceramics from historic middens around Banda-Ahenkro, excavated by Andrew Black, a doctoral student at SUNY Binghamton; 3) clay from abandoned and currently used clay pits; and 4) ethnographic ceramics from Dorbour, Adadiem and Bondakile. The archaeological ceramics were classified according to form (bowls and jars) and size (big and small). Ten samples of each type were analyzed⁵ (Table 1).

NAA differentiated three main groups of origin for the clays and ceramics based on their geochemical signatures. The clay samples collected from abandoned pits near Bui, Bongase and Sabie fell into one group, which I call the East side group. The West side group includes clay samples and ethnographic samples from Dorbour and Adadiem. Distinguished from the West side group, the Bondakile group, includes only ceramics and clays from Bondakile (Figure 2).

Except for two bowls, all vessels from Phase II proveniences at Makala Kataa belonged to the Bondakile and West side group (Table 1). Chemical signatures suggest that bowls came disproportionately from Bondakile, while the West side group yielded mostly jars (only 3 bowls are included in this group). Vessels from Phase I contexts (late 19th century-early 20th century) are concentrated mainly in the East group of origin, related to the clay pits of Sabie, Bongase and Bui. All these clay pits are abandoned, but there is recollection among older women of them being used. Yet big jars and big bowls come mostly from the West side group. The sample from the Ahenkro middens is divided between the West and East side groups. It is clear that there was also a certain specialization of production: big jars and big bowls came from the West side and Bondakile.

The NAA analysis shows the change in production and consumption strategies through time: early in the 19th century there was a high degree of specialization, which does not coincide with the specialization documented ethnographically. However, it confirms that in the recent past women on the east side of the Banda hills produced vessels for local use⁶.

Marketing strategies for ceramics

Today all the ceramics come from the West side of the Banda hills. Potters from all the potting centers sell their own wares both in markets or in villages; however, this wasn't the case in the recent past. Changes in marketing strategies are the result of easy access and widespread use of metal vessels, which occurred in the last 30 to 40 years.

The consumption and use of ceramic and non-ceramic vessels in non-producer villages was the main goal of the research done at Banda-Ahenkro and Makala. In the past women from the villages on the east side of the Banda hills report that they had as their main activity trade in ceramic vessels. They would walk periodically to Dorbour and especially to Adadiem to buy pots, both for their own consumption and to transport to major markets (e.g., Wenchi, Mele-Brahani and Techiman). Trading of ceramic vessels gave women from the East side of the hills a regular income, which allowed them to provide for some of their needs, especially the acquisition of European cloth. Ceramics were also used as part of the wedding traditions: "parties" of young women went to the potting villages to buy the pots that the mother of the bride had to provide.

The expansion of the mercantile system increased access to metal vessels, which became the preferred vessels due to their long life span and durability. Both potters on the west side and women on the east side of the hills report that about 30 years ago, fewer women traveled to the production centers, and the use of pottery as wedding gifts started to be replaced by metal vessels. Ceramic vessels were now reduced to ritual and religious functions, and used for the storage of drinking water. In response, the potters themselves and traders from the west side of the hills began to travel to the east side of the Banda hills more often. This resulted in a new strategy of marketing. The small local markets, such as Ahenkro, Sase and Adadiem, are very recent, and are too far away for these women to go to the east side of the hills and sell only at the market, because of the high risk of not selling the whole load of vessels. The principal strategy that developed was to go through the villages, selling door to door. The close relationship between two katoos (extended families) from Dorbour and individuals from the same families living on the east side of the Banda hills, allows Dorbour women to travel to this area and stay several days, until they sell their loads of vessels.

Trading in pots is an activity carried out during almost the whole year, but from August to NYAME AKUMA





December more women come to Ahenkro and neighboring villages to barter wares for calabash seeds and guinea corn, staples that don't grow on the west side of the Banda hills. From August to November is the period when the *ngobie* seed, a type of calabash, is abundant. During November and December the traders also exchange pots for guinea corn.

Bondoukou, Sampa and Mele-Brahani are some of the markets where current potters and traders go to sell their wares. Each potter in the production centers can make a wide variety of vessel types; however, not all the types are brought to all the markets. For example, the potters or pot sellers take primarily grinding bowls to Bondoukou. Other types of vessels don't sell well in this market since other centers of production, closer to Bondoukou, bring cheaper cooking and storage pots. Until recently the availability of lorry transportation from Adadiem and Dorbour allowed the women to bring bigger quantities of pots to specific markets. The end of motor transportation in the two villages seem to have affected the production system, since potters could not make as much profit, and the headloading of vessels increased their price.

Cooking pots, drinking water storage vessels and grinding bowls are sold on the east side of the hills. Both men and women buy ceramic vessels for use mainly on farms. Cooking in the house is done almost exclusively with metal pots; however, every house has at least one clay vessel, usually a small or medium cooking pot, to boil herbs and bark and used as medicine. On the farms ceramic vessels are more often used for cooking and eating. Metal pots are expensive, and on a farm they may lay unattended; if lost or stolen, it would be more difficult to replace them. In the village, metal pots are more practical, due to their resistance and longer life span. Animals, especially goats and chicken move freely through the village, crossing the kitchen areas, and clay pots are subject to constant breakage. On the farms there are no animals, which dramatically increases the life span of clay pots.

Figure 2: Neutron Activation Analysis: plot of all the samples



Conclusion

The access to European goods, mainly to European cloth and more recently to metal vessels, changed the local strategies of production and trade. NAA suggests considerable degree of specialization early in 19th century: ceramic production focused west of the Banda hills, with consumers obtaining particular types of vessels from different villages. This pattern broke down by late 19th century, before the advent of direct colonial administration: pots were made east of the hills and, according to ethnographic data, geared to local consumption. Ethnographic interviews suggest that, during the colonial administration, there was revival of trade with the west side of the hills, and a corresponding decrease, and eventually an end to ceramic production on the east side of the Banda hills. In the recent past, the expansion of a mercantile system and the easy access to metal vessels led to a change in marketing strategies, accompanied by changes in production-e.g., potters and traders from the potting centers started coming to the villages to sell their wares, and production declined.

The combination of both archaeological and ethnographic sources reveal changes in local production and trade strategies as a result of external political and economic factors. Local communities in Banda, and elsewhere, are not static entities; thus the use of ethnographic sources to reconstruct the past needs to be done critically (Stahl 1993a). Comparative ethnoarchaeological analysis is a valuable methodology allowing the identification of change and continuity in societies at the local level.

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Footnotes

- Bondakile was the object of more extensive ethnographic research integrated in the West African Trade Project undertaken by M. Posnanky and his team from 1970 to 1980 (Crossland 1989; Crossland and Posnansky 1978; Posnansky 1973, 1976, 1980, 1984).
- 2. Women would occasionally help in the farms, especially during harvest, but they did not own farms or the crops produced.
- 3. The number of pots depend on the size and type being produced. If working on bigger water storage pots, the number is smaller, 3-4 pots.
- 4. Only one potter was interviewed in Bondakile, thus the information could not be confirmed. According to Crossland, this type of bowl was widely produced by many Akan potting centers in Ashanti, Kwahu and Brong-Ahafo (Crossland 1989:72).
- 5. The sample from Banda-Ahenkro as smaller, including only 12 vessels, three from each category. From Phase II an additional sample of 12 vessels was chosen, since the existence of a midden yielding a big portion of the ceramics excavated could have repercussions on the distribution.
- 6. According to ethnographic information, the production on the East side of the Banda hills was geared mainly for local consumption.

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