

School for International Training
Study Abroad-Ghana (Arts and Culture)
Spring 2002

Asante Indigenous Goldsmithing:
The Impact of Contemporary Culture on
Akan Jewelry

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Abstract

World famous for their gold ornaments, I chose to examine the evolution of Akan jewelry production in "Asante Indigenous Goldsmithing; The Impact of Contemporary Culture on Akan Jewelry." It was through an apprenticeship with a local, indigenous goldsmith and several interviews that I was able to gain insight into not only the techniques and tools used, but the discrepancies that divide those who work in a traditional manner from goldsmiths who incorporate more contemporary machinery. After three weeks of field research in Kumasi, I realized it is a very ambiguous line that separates the two.

Further literary research encouraged me to write aiming at surpassing the generalizations surrounding indigenous goldsmiths. For I feel it the level of skill, creativity, and quality of jewelry is subjective to the individual. Furthermore, it is the demands of contemporary Ghanaian culture, which today's goldsmith must work around, greatly affecting his choice of design and materials, thus inhibiting his ability to enter the international market.

Acknowledgements

Give thanks to Kwasi Boakye (Nana Kuntane) for taking me under his wing and allowing me to apprentice with him. I am extremely grateful for the many hours he took away from his own work, always going out of his way to help me. Of course, even more thanks for his insistence on taking me out at the end of every work day to drink one-one. He is a good man.

More thanks to Dr. Edusei and Dr. Akam for their guidance and push in the right direction. The encouragement from Dr. Akam after my discouraging beginning was very helpful in keeping me motivated. I would also like to show my deep appreciation for Kotoku who not only introduced me to Nana, but would allow me to hang around his office endlessly asking questions.

Special thanks to Diana and her family for helping me find shelter in Kumasi and letting me cook dinner in their kitchen every night. I could not have had a better, happier living situation.

Most importantly I would like to thank my parents for their continuous support and immeasurable love, affording me the opportunity to study in Ghana.

Introduction

More than any other West African people, the Akan are known not only for their wealth of gold, but for the magnificence of their goldsmithing. The Asante, referring to the Twi speaking people of and around Kumasi, are particularly world renowned for their specialty in crafting gold ornaments. This is most likely due to their policy of expansion during the 18th century where with each victory, the best goldsmiths belonging to the defeated tribes were brought back to Kumasi in order to work for the Asantehene. It wasn't until this past century that significant changes in the craft took place. Although the majority of the goldsmiths in Kumasi continue to use the indigenous methods of working, there seems to have been a decline in craftsmanship, where the production of contemporary Akan jewelry is not necessarily differentiated by the tools being used, but rather issues of quality. The standard of jewelry today is much lower than it was throughout history for reasons I feel are due to a changing culture and a lack of finances among the consumer. Pure gold jewelry has been replaced by the lightweight and heavily alloyed, where contemporary items resembling that of traditional jewelry hardly compare with those that came before.

This brings up the issue of what exactly constitutes "traditional" jewelry. Historically, jewelry was reserved explicitly for royalty, therefore, I choose to define "traditional" jewelry as those crafted to look like the original pieces associated with chieftaincy. Likewise, the term "contemporary" also calls for redefinition. For some reason, people tend to associate "contemporary" jewelry as those that have been inspired by European designs.¹ However, one can hardly view this as contemporary considering it

has been an influence since the beginning years of trade with the Portuguese. A more accurate assessment would describe the ever-increasing assimilation of European designs and western iconography that have become so fashionable in today's Ghanaian society. Overall, when using the term "contemporary," I am alluding to what is going on now. Furthermore, the word "modern" is in reference to something originating during the past few decades.

Having come to Ghana with a background in jewelry design has allowed me to make comparisons between the way in which the local, indigenous goldsmiths work and those who learn the art in a classroom setting. Although one could argue that those who apprentice are not as well-rounded as students who tend to have more knowledge pertaining to safety, alloy, and design, I believe there are more notable distinctions blurring the line between the two types of craftsman.

Methodology

The information within this study was obtained through a combination of both fieldwork and literary research. Providing me with the core aspects of indigenous goldsmithing was Kwasi Boakye, a local goldsmith with whom I apprenticed with for three weeks. Taught by his father beginning at the age of ten, Boakye has been practicing his craft for over forty years now. This allowed me to confidently rely on him as an expert informant, supplying me with the most critical information regarding technique. While working on my own designs alongside Boakye I kept a log of the processes he taught me and recorded any thoughts I had pertaining to the differences between the ways in which I am accustomed to working in the United States and his own methods. It was through this practice of participant-observation that I gathered the majority of my first hand knowledge.

Although Boakye provided me with a wealth of information on indigenous goldsmithing, cross-referencing with other informants also played a key role in my research experience. I conducted both structured and unstructured interviews, however both remained somewhat formal in that my purpose behind speaking with the individual was always to ask questions pertaining to Akan jewelry.ⁱⁱ On two occasions I was able to attend the Federation of Ghanaian Jewelers meeting for the Asante region, which is comprised of local goldsmiths from Kumasi. There, I was afforded the opportunity to speak with several indigenous goldsmiths and conduct structured interviews in the sense that the questions were preconceived. Repeatedly, I used this same oral questionnaire in interviewing every helpful member of the union. Due to a language barrier however, I

had to keep the questions fairly simple and straightforward. I chose not to document any responses while speaking with the local goldsmiths fearful that the idea of being recorded might dissuade them from answering sincerely. These too were the reasons for not issuing a prewritten questionnaire. It was then when speaking with professors or former jewelry students of K.N.U.S.Tⁱⁱⁱ rather that the interviews became less structured, more closely resembling casual conversation. These interviews were not based as much on a question-answer format, but was a chance for me to record any knowledge they had relating at all to Akan jewelry. My decision to organize the interviews in that manner, of keeping a more formulaic system at the meeting, had to do both with the amount of people there was to speak with, as well as their common occupation of indigenous goldsmithing. On the other hand, it was easier for me to have broader discussions with the professors because of their fluency in English and their familiarity with an academic project such as this. Better acquainted with the interviewing procedure, it was with these informants that I would often jot down responses and various notes as they wrote.

Lastly, in order to form a complete, well-rounded overview of Akan jewelry, I looked at useful literary sources. One book, *The Gold of Africa*, was particularly helpful in that it had an entire chapter devoted to Ghanaian jewelry. These texts were a good supplement for certain historical information I was unable to obtain in the field.

Chapter One

The History of Akan Jewelry

Intarnishable and indestructible, gold has always been a symbol of power, impressive to all who come across it. At one point, it was even believed to embody a spirit capable of driving the one who found it insane. Medieval Arab geographers in their early exploration of West Africa recorded that they felt it was as fear provoking as it was intriguing.

Ghana has always been notorious for its abundance of gold, hence its original name, The Gold Coast, chosen by early Portuguese explorers who encountered a great deal of gold nuggets and jewelry after landing in the fishing village of Shama. The region being so prosperous, it is not surprising that the Akan were able to perfect the craft of goldsmithing. Traditionally, the art of the metal craftsman was handed down from father to son, and it was forbidden to share the knowledge with any outsider. Jewelry was only to be worn by the wealthy and royal, making the goldsmithing trade one of prestige. Goldsmiths worked only for the Asantehene and anyone making anything out of gold had to obtain permission from him to do so.

Used as a means to identify one with a specific class or community, jewelry was originally reserved for special public occasions and official ceremonies. Covering their arms, legs, feet, and neck, the royal Akan wore every type of ornament one could imagine, varying from fingerings, bracelets, and beads to amulets, necklaces, and earrings all at once.(see fig. 1.1) After attending one Yam Festival, Englishman Thomas Bowdich described the king as being "covered with gold," and further wrote that even his workers

"made for an equally splendid sight." His wife, after attending a wedding in Cape Coast reported that the bride wore, "jewelry in her hair and gold brooches on her shirt, manilas encircling her arms halfway up to the elbow, chains across her shoulders, and beautiful girdles."^{iv} Another 16th century description of Akan jewelry came from the Dutchman Pieter de Marees who wrote that the Akan were, "very ingenious in making things, especially in working gold, for they make amazingly beautiful chains and other ornaments such as rings." He continued to describe one of the Akan kings as "beautifully adorned in accordance with their custom, his beard strung with golden beads, and other finery, and gold bracelets around his arms and legs." ^vThe ornate bracelets he was referring to, worn by both kings and queens, held important significance. Usually hollow casted, these gold ornaments were known as *benfia*. Most commonly they were of spiky design, inspired and named after the angular plant *Babadua*. This plant, known for its ability to spread quickly was particularly appropriate for the queen mothers, symbolic for female fertility. Likewise, it was said that, "a plantation of *Babadua* never stops growing," hence its additional significance pertains to the Asante kingdom, illustrating the proverb, "a large clan can never be exhausted." (see fig. 1.5)

Indeed it was always the amount of gold that proved one's wealth, however, it was the animal or figurative decor within the jewelry itself, which illustrated various proverbs such as these, often reflecting the individual's place in society. Certain motifs were to be worn only by the paramount chief, where if seen on any sub-chief, it would be considered an attempt to challenge. For example, only the paramount chief would be entitled to wear a piece with an elephant emblem, for it is the largest animal in the kingdom. The following chief would then wear a piece representing the bush-cow, for if

it weren't for the elephant, he would be the largest animal ruling the land. The porcupine was another animal motif frequently seen in royal jewelry. Used to symbolize the Asante nation, it represents the immortality of their army. The horseshoe shaped fish, known as the mudfish was commonly used for fingerings and can be interpreted in several ways. Usually, it is in reference to a person who holds some sort of responsibility or authority in the society in which he lives.(see fig. 1.3) Although these proverbs at times also alluded to the profession of the owner, for instance, a chief who was also a hunter may have worn a ring with an antelope or a gun, most often proverbs were used to emphasize the power, wealth and bravery of the chief.

It is thought that the art responsible for these brilliant displays of jewelry originated through a combination of a northern Saharan influence, and an extension of the blacksmithing craft already existing in Ghana. Since there is proof that blacksmithing has been in practice since the 1st century B.C., theorists have assumed that goldsmithing could have started not long after. The migration of Mande traders from Mali and Guinea during the 14th century into Ghana brought not only a supply of brass and copper, but new technology and design. It was then that the Akan were introduced to the infamous technique of lost wax casting that they then perfected, taking it to a higher level. Very fond of the versatility and creativity that the lenient process of casting enabled them to use, the Akan favored this method over that of constructing jewelry using sheet metal. It was then with the arrival of the Portuguese, Dutch, and English that the goldsmiths were persuaded to produce even more jewelry for export. In order to meet the new international demand, they compensated their use of gold for silver and brass, which they got from the Europeans themselves. Understandably so, European design started to

influence Akan jewelry, especially in the coastal towns. These impressions can be seen in some of the rings consisting of either a simple knot or heart. Others had symbols of the zodiac or initials of the owner.(see fig. 1.4)

Unfortunately, very little ancient Akan jewelry is anywhere to be found. Most of the pieces around today are from either the 19th or 20'h century. It is extremely difficult to date even the ones remaining because so often they were melted down and recasted. For instance, a royal degree in 1817 ordered that all gold jewelry be melted and reformed in celebration of the Yam Festival. Luckily for trade with the British, some of the pieces endured and were able to be saved for future generations to marvel at.^{vi}



Fig. 1.1 Asante chief in full garb
(The Gold of Africa)



Fig. 1.2 Frog and mudfish
fingerings (The Gold of Africa)



Fig.1.3 Proverbial fingerings
(The Gold of Africa)



Fig. 1.4 European fingering
(The Gold of Africa)



Chapter 2

The Survival of Traditional Means

Traditionally, one could only inherit the knowledge of goldsmithing. Kept as a family secret, the skill had to be passed from father to son. Gradually, as the international demand for jewelry increased more people entered the trade, giving rise to apprenticeship. Usually one who wanted to learn the trade would live with a master in his house, where the apprentice's role resembled that of a servant. He would then train with the master for seven years where upon finishing he would either pay the master a parting fee, or stay and work as his partner.(see fig.2.1) The growing number of goldsmiths eventually gave rise to guilds, encouraging a flow of inspiration and creativity. Commenting on West African goldsmiths in 1720, missionary Father Labat wrote, "they work beneath the trees near their houses...they are always seated chatting or smoking endlessly...there are never less than three at work together." ^{vii} Almost three hundred years later, things have not changed much from what these indigenous goldsmiths refer to as, "the local way." ^{viii} These groups of men can still be found today in workshops along the streets of towns and villages.

Although guild are no longer in existence, goldsmiths continue to organize themselves through the Federation of Ghanaian Jewelers, which appears to be more of a social gathering rather than a business group. One of the actual aims and objectives of the group is "to attend funerals and give donations." ^{ix} Otherwise, the union serves as a way for the members to meet new apprentices, and send their taxes to the government as a whole.

A look at past equipment used by goldsmiths would again show that few changes have evolved. Traditionally, their tools consisted of a small anvil, a goat's skin that served as a bellow, some hammers, a pair of plyers, and two or three files, all of which continue to make up the majority today. Of the most intriguing to me, coming from a university background where I am fortunate enough to have access to gas torches, is the brass blowpipe and oil lamp used together in soldering. Fueled by palm oil soaked cotton wool resting on the end of the lamp, air is blown through the pipe into the fire to create the working flame. The size and strength of the flame is then manipulated by the amount of air pressure the blower exerts. Accustomed to the perfect blue cone of the concentrated torch flame, I found the blowpipe particularly difficult to use, unable to control where the heat was being directed on the piece. Hence, it would take me a considerable amount of time to get the smallest piece of solder to melt.(see fig.2.2)

The other source of fire used for either melting or annealing, the process of shortly heating metal to make it more malleable, is provided by a clay furnace. Here a bellow is used to generate a constant rush of air in order to ignite the fire. The bellow is a very simple device comprised of a leather sac fixed between two pieces of wood. Able to expand as it takes in air, a sort of vacuum is created, where as the wood is pressed down, air leaves the nozzle, deflating the sac. With a continuous up and down movement of the upper handle, the air current flows through a small hole at the bottom of the furnace. (see fig.2.3) When gold is needed to be melted, either for casting, to add alloys to lower the karat, or merely to make sheet metal or wire, it is put into a small clay container with a mixture of saltpre, alum, and salt and placed under the charcoal of the furnace. It stays there for about ten minutes or until it reaches a liquid state. The addition of the chemicals

is to speed up the process. It is in the indigenous goldsmith's use of fire that I became aware of the lack of safety precautions they take. Even with sparks of the charcoal furnace popping in every direction, the worker still neglects to wear any form of eye protection.

Having to make one's own sheet metal and wire was another aspect of Asante goldsmithing that as a westerner, I was not accustomed to. With a lack of facilities to purchase manufactured metal, this process is not used alone by the indigenous workers but by every jewelry designer in the region. A painstakingly slow procedure, it involves hammering the block of metal on the anvil until it reaches the desired thickness, periodically stopping to anneal it after it has become work hardened.(see fig.2.4) Wire is then made using a drawplate, a slab of iron with holes of different diameters. Using tongs, it is pulled successively through finer holes until it reaches the correct gage.

Of the indigenous techniques, lost wax casting still remains a frequently used method, but is kept for the larger, heavier goldsmithing projects, such as linguist staffs. The piece being casted is modeled by beeswax and covered with a mixture of clay powdered charcoal and water. When the clay hardens. the entire mold is fired, the wax melts, draining out through a hole in the bottom, and the resulting cast is then filled with : molten metal. Although of inferior quality, more often utilized for delicate articles of jewelry is cuttle fish bone casting, in which a model is pressed between two sanded halves of the dried fish in order to make an impression. The model is then removed and a funnel shape is wedged out connecting the top opening to the hollow shape. Again, molten- metal is then poured into the cast in order to achieve the finished product. Traditionally, goldsmiths were obviously more reliant on these methods before they had

access to sawframes enabling them to precisely cut more intricate pieces from sheet metal.

Inevitably with changing times there have been some modern tools and techniques that have infiltrated the methods of indigenous goldsmithing. Varying upon what one may have access to, there is no standard amount of machinery used among local workers. Two of the most commonly seen however, are the milling machine, or what local goldsmiths refer to as "the pulling machine" and the handrill. The "pulling machine" is used to reduce the thickness of metal or wire, accelerating the chore of hammering it oneself. This is not to say that all local goldsmiths use these machines, nor do those who do necessarily own them. More often, there is a communal machine situated in one group's workshop.(see fig. 2.5)

Likewise, etching could be considered a fairly modern addition to local goldsmithing techniques, but is not favorable to all. The process involves applying wax to an image leaving the negative space clean and dry, and dipping it in a diluted solution of nitric acid to form a relief.

The amount of indigenous goldsmiths in the Asante region greatly outnumber those who work with a more complete set of machines. Originally, I imagined the local goldsmiths chose to work in this manner because of a lack for finances. Judging from their usage of the pulling machine, I assumed they would want any help in making their work easier and more efficient. After speaking with many local workers however, I realized a preservation of tradition is of more importance to them. For the locals, the processes are not at all labor intensive and the addition of gas torches and expensive polishing machines would be of no significance to their work. The techniques of their forefathers have always worked to successfully craft jewelry so there is no need for change now.^x



Fig. 2.1 An Asante goldsmith c.
1900 with his apprentice
(The Gold of Africa)



Fig. 2.2 Using the oil lamp and blowpipe to solder



Fig. 2.3 Igniting the furnace using the bellow



Fig. 2.5 The Milling Machine:
Two crazy goldsmiths working as
a team to pull sheet metal



Fig 2.4 Hammering brass to make sheet metal

Chapter Three

The Production and Use of Contemporary Akan Jewelry

PART I:

One could undoubtedly argue that what distinguishes the indigenous goldsmiths from the more contemporary worker is his lack of knowledge pertaining to alloys, design and safety measures that those with a more formal education have been taught.^{xi} Already having the necessary skills they need to complete their work, the indigenous craftsmen have no need to seek out new knowledge themselves. Furthermore another obvious difference can be seen from an economical standpoint.^{xii} It is amazing just how little is truly essential to construct an article just as well as one made with machines. A designer looking to save money would benefit from using the clay furnace rather than paying for one that is powered electrically, as well as limiting the tools in his workshop to the bare necessities. For even within the studios equipped with all of the latest machinery, the most basic indigenous tools are present. Hence, it is not always the tools that draw the definitive line between these two types of goldsmiths, but rather a style of craftsmanship. While working alongside Boakye I could not help from noticing that he never bothered to measure or ensure the pieces were symmetrical and identical. Cutting into the metal freehand without any preliminary markings, Boakye would comment that, "It's just like drawing. If you can draw, you can make."^{xiii} Without any planning ahead, he would deal with issues as they arose, and if there were ever a problem, would find some last minute device to rig it. These observations, however, are not to be looked at in a derogatory sense for he never failed to complete anything short of magnificence. Similar to painting,

it is the happy accidents that occur from his instinctive work ethic which give life to the works. "It is when things are too exact, they lose their beauty." ^{xiv} Quite different from the way in which I am used to working, trained as a designer to always plan accordingly and make patterns to guarantee the piece is finished the way I had originally envisioned it, I was attracted by this freestyle method of crafting. Likewise, I was so impressed by the simplicity of it all, especially in their method of polishing using a brush and mere lemon water, that I chose to fully embrace my indigenous goldsmithing apprenticeship by working with the same mindset.(see fig.3.1)

PART II:

I was very fortunate to find someone like Boakye because although there are over two thousand goldsmiths in the Asante region alone, innovation is rare and very few of them have the experience necessary to go beyond the standard. ^{xv} Most of the pieces made today are designed only to satisfy contemporary culture and leave something to be desired in terms of quality. Many simply reproduce the same adinkra symbol, crucifix, and western iconography inspired pieces time and time again. Frequently seen are pendants or charm bracelets featuring Mickey Mouse, the CKI logo, or my personal favorite, the palm tree.(see fig.3.2) Made of very thinly pounded sheet metal, these accessories are of little weight and if made of gold, it is usually heavily alloyed with copper or silver. Catering to popular culture, it is necessary for goldsmiths to produce works such as these to be at all affordable to the consumer, enabling them to earn a living. This is by no means to insinuate that those with a university education always bring forth creative designs of high quality, leaving the indigenous goldsmith responsible

for the run-the-mill, cheap jewelry. Boakye is a perfect example of this. However, it remains true that the two appeal to different markets. Those who can afford up to date machinery tend also to be able to buy pure gold and work without waiting for a commission, allowing them more room for creativity. Thus, they more often tend to showcase jewelry appealing to tourists and wealthy engaged couples in the market for wedding rings. In effect, making an even larger profit than the indigenous goldsmith because the piece was premade. Rarely the local goldsmiths are as fortunate to have the money to produce jewelry of such a high karat. Although, in the developing country of Ghana, probably have a larger clientele.

Additionally, with the adoption of a more intercontinental culture traditional forms of jewelry have become unfashionable in the cities of Ghana, tending to be too bulky to meet the aesthetic.^{xvi} There remains a small demand for them however, in the way there always has, for the purpose of chieftaincy. Again, unfortunately the quality of the jewelry has decreased over the past few decades. Today, many of the regalia items are made from wood and then covered with gold leaf for economical purposes that allow for the same visual stimulation.(see fig.3.3) Although a centuries old technique, it is seen it much more often in contemporary times than expensive cast objects. Possibly a result of the increase in the price of gold and with very little money, modern day chiefs favor this method enabling them to wear just as many glitzy accessories, appearing as rich as those during ancient years.

Large, gold rings are also still being casted, in fact even more than in recent times. Today's models are significantly heavier, but the increase in size has replaced an attention to detail. Similarly, the infamous gold beads of the 18th and 19th centuries

recreated today are weak in comparison. Made of poor alloys, there are a few remaining workshops where craftsman even know how to make them, reflecting a shifting of cultural values.(see fig.3.4)

It is partially because of this lack for finances causing a decline in the quality of Akan jewelry that Ghana is unable to satisfy the international standard for exportation. More so however, it is because the majority of the jewelry produced today is handcrafted and many of the local goldsmiths have no means in which to mass produce enough jewelry to satisfy the large orders of even wholesale trading.^{xvii} A fulfillment of these requirements would necessitate an increasing reliance on European tools, materials, and technology.



Fig 3.1 My finished pieces



Fig. 3.3 Gold leafed elbow amulets



Fig. 3.2 Contemporary jewelry in Kumasi





Conclusion

The tradition of Akan jewelry production has identified the Asante kingdom in particular with a reputation for having a wealth of goldsmiths. Most famous for their impressive design of chief's regalia, Asante's kings and queens would cover their body in ornaments, demonstrating the creativity and skill of the indigenous craftsman. However, the evolution of Ghanaian culture has brought with it a loss for the desire of ancient forms and designs. Significant changes have developed within the past century effecting the standard of jewelry where fine gold has been replaced by silver and brass gilt and very little new designwork is seen. The result of new goldsmithing machinery calls for a higher production rate, greater degree of precision, and better finish in order for Akan jewelry to enter the international market. Perfectly content with the way in which they work, there is no need for the indigenous goldsmiths of today to change, for there is always a market for inexpensively produced jewelry.

Apprenticing with Kwasi Boakye, however, made me see there are exceptions to the stereotypes surrounding indigenous goldsmiths. While able to find literature written about the history and design of Akan jewelry, I noticed many generalizations being made ; within the text in respect to a movement away from the traditional work ethic of the goldsmith, as well as opinionated views pertaining to what constitutes acceptable contemporary design. Attempts to offer solutions to the problem of Ghanaian jeweler's inability to compete internationally, many of the texts recommend incorporating more technology without considering the indigenous goldsmith's desire to preserve tradition. I caution future researchers against taking the same readings as necessarily valid

information without taking into account the motives of the goldsmith. Secondly, one should look to avoid bias and imposing their own personal taste in critiquing modern Akan jewelry

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- ⁱ Kotoku Worlenyo, personal meeting, 6 MAY 2002.
- ⁱⁱ Julia Crane, *Field Research and Anthropology: A Student Handbook* (3rd ed), Prospect Heights, Illinois, Waveland Press Incorporated, 57-58.
- ⁱⁱⁱ Kwame Nkrumah University of Science and Technology
- ^{iv} France Borel, *The Splendour of Ethnic Jewelry*. London, Thames and Hudson Ltd., 39.
- ^v Timothy Garrard, *The Gold of Africa*, Munich, Prestel-Verlag, 42.
- ^{vi} Garrard, 45
- ^{vii} Garrard, 57
- ^{viii} Joseph Gati, personal interview, 20 APRIL 2002.
- ^{ix} Federation of Ghanaian Jewelers: Asante Region Branch union dues pamphlet
- ^x Kwasi Afful, personal interview, 20 APRIL 2002.
- ^{xi} Kofi Asomaning, personal meeting, 23 APRIL 2002
- ^{xii} Kotoku Worlenyo, personal meeting, 6 MAY 2002.
- ^{xiii} Kwasi Boakye, apprenticeship meeting, 29 APRIL 2002.
- ^{xiv} Dr. Kwadwo Edusei, personal meeting, 29 APRIL 2002
- ^{xv} Garrard, 62
- ^{xvi} Garrard, 51
- ^{xvii} Aba Amoesiwa Hudson, *Developing Metal Jewelry for the Export Market*, KNUST College of Art,

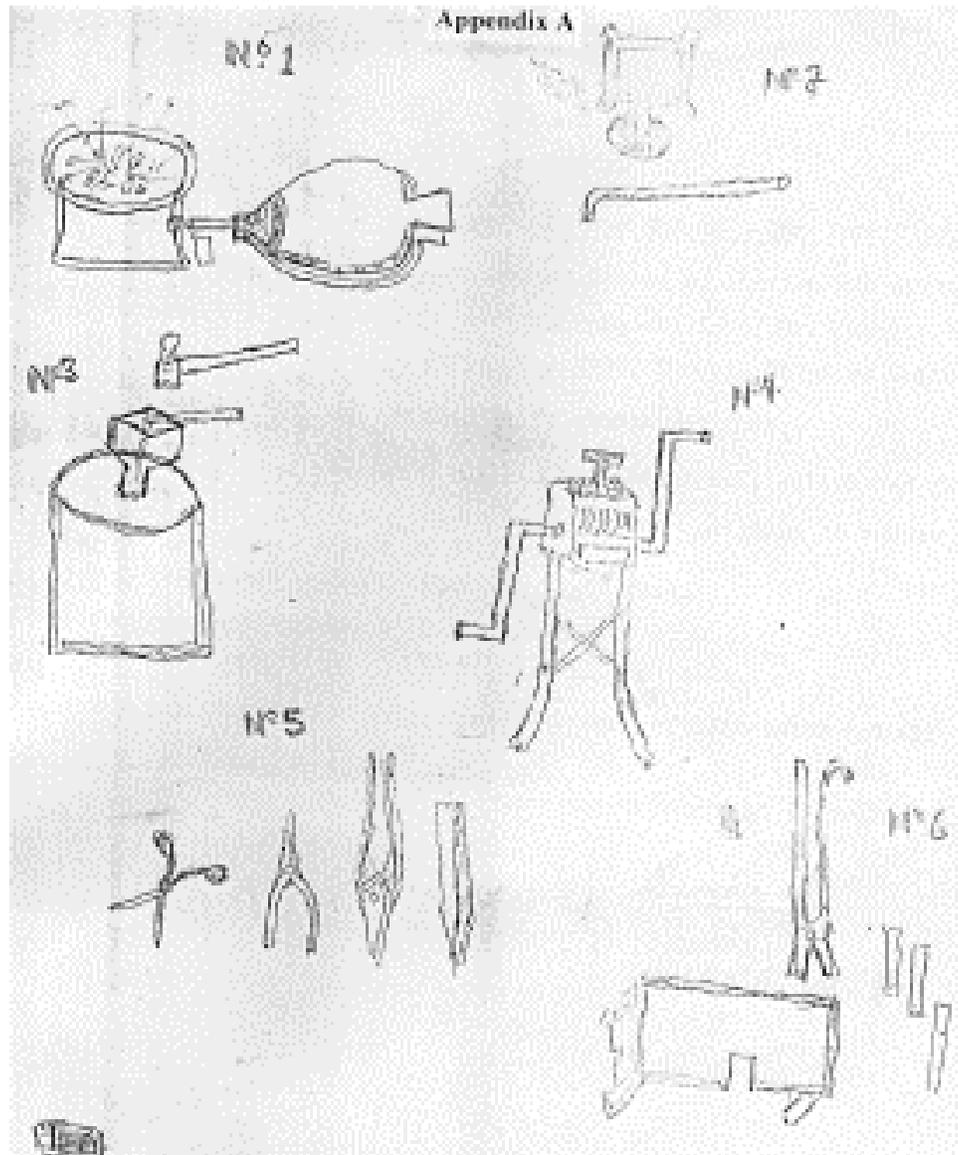
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Appendix A



GRAND SALES 2001
KUMASI
NOV. 26 - DEC. 2, 2001

TEACHER ARKASI BOAKYE
MEMBER OF KUMASI
JEWELLERS ASSOCIATION

NAME TEACHER ARKASI BOAKYE

STAND JEWELLERS ASSOC.

TEACHER ARKASI BOAKYE
MEMBER OF KUMASI
JEWELLERS ASSOCIATION
P.O. BOX 3493
KUMASI
GHANA

Appendix B

TESTIMONIAL
TO WHAT I HAVE LEARNED

This is to certify that the bearer, Miss Wilson, New York City, USA in America from New York in the United States of America has studied and completed Gold-smithing under the sponsorship of Mr. Kwesi Bonye, Gold-Smith of Post Office Box 3493, Kumasi, Ghana as follows:-

1. Local fire work for melting gold, silver and glass.
2. How to use the pliers to pull up and shape gold, silver and glass.
3. How to use the hammer to beat gold, silver and glass to reduce them to various sizes as desired.
4. How to use her mouth to blow and light fire.
5. How to use the hands to make chains.
6. She knows very well how to handle all the tools.

She has therefore completed all the work of Gold-smith and all that she wanted to learn from me.

I therefore recommend her to any who ever may want to employ her as a competent Gold-smith.

Kwesi Bonye
Mr. Kwesi Bonye
(Gold-Smith)

GHANA. W. F