

# BEADS

Journal of the Society of  
Bead Researchers



1996-1997

Vols. 8-9



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Cover. *Juang*: Middleman on his way to make a marriage proposal in the village of Guptaganga. He carries a sacred stick and several strings of beads (photo: A.K. Kanungo).



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KARLIS KARKLINS, editor

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# BEADS AMONG THE JUANG OF INDIA

Alok Kumar Kanungo

*The Juang comprise a major primitive community in the state of Orissa in east-central India. Until relatively recently, they had a rich material culture. In particular, their dress and ornaments were very important to them. Today, only very old women wear beads and other ornaments in the traditional way, except on special occasions. This paper seeks to reconstruct the traditional costume of the Juang, with emphasis on the beads, and notes the changes it has undergone over the past 130 years. The findings are based on a survey of the ethnohistorical literature combined with active participant fieldwork in 1995 and 1997, among the Juang of the Keonjhar District in general and of Gonasika village in particular.*

## INTRODUCTION

While research has been conducted on the beads of India for many years, those utilized by primitive communities have rarely been interpreted using a multidisciplinary approach incorporating anthropological, archaeological and historical evidence. This paper utilizes such an approach to investigate traditional bead use by one of the most primitive communities of India—the Juang.

The Juang comprise one of the major aboriginal communities of Orissa State. Inhabiting the forested districts of Keonjhar, Dhenkanal and Angul, they divide themselves into two groups: the *Thaniya* (those who stayed behind) and the *Bhagudiya* (those who did not).<sup>1</sup> According to the 1981 census, there were 30,285 Juang who claimed to be autochthons of Gonasika, a hilly region encompassing 12 villages which is considered to be the capital of the Juang. Gonasika has an elevation of about 1,000 m A.S.L., and is the source of the Baitarani River in Keonjhar District. The latter, which is home to most of the Juang, is 8,240 km<sup>2</sup> in extent, and consists of two quite distinct ecosystems. The eastern part has valleys and lowlands, while the

west is mountainous with extensive plateaus and peaks reaching nearly 1,100 m A.S.L.

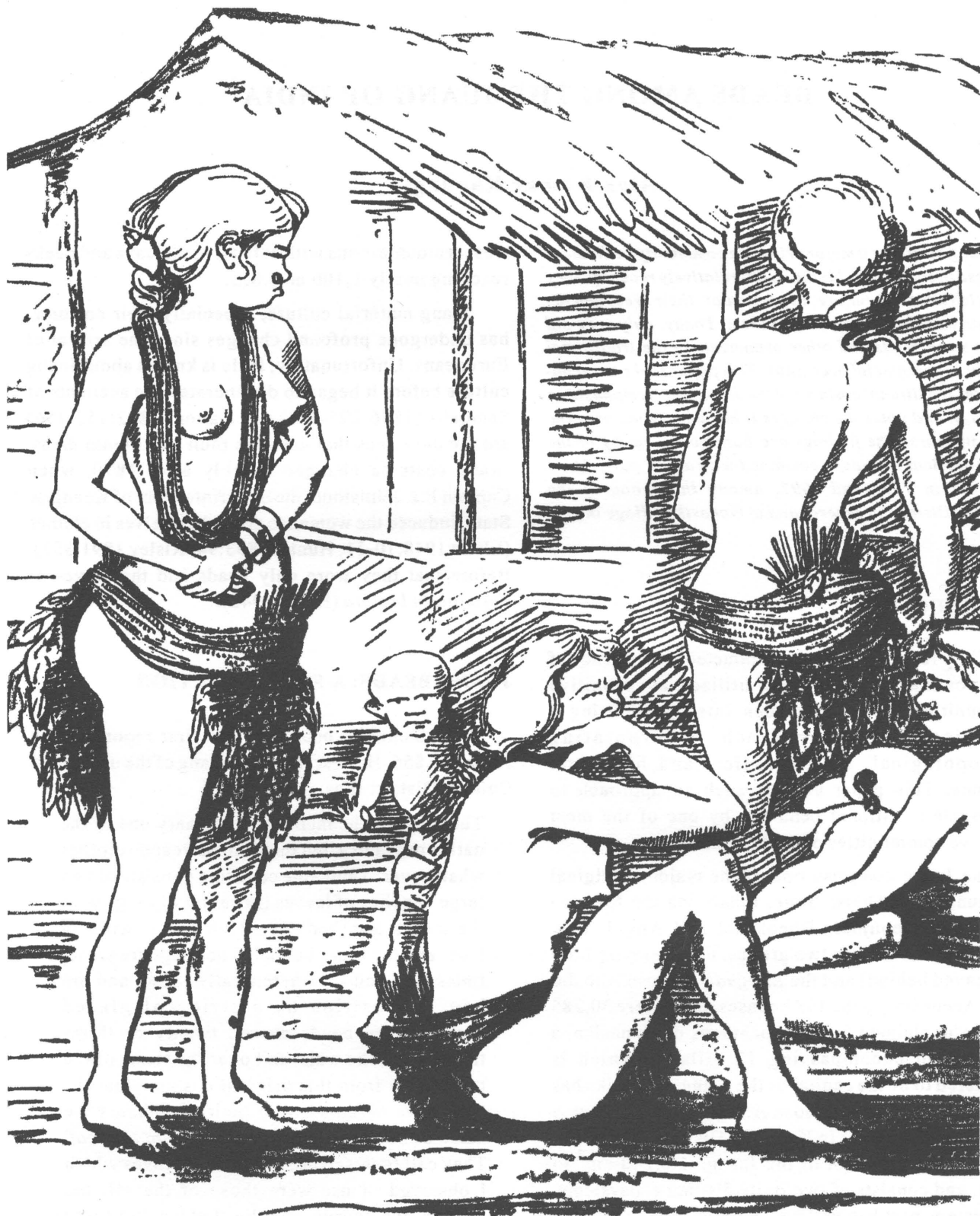
Juang material culture, especially their costume, has undergone profound changes since the arrival of Europeans. Unfortunately, little is known about Juang culture before it began to degenerate. The accounts of Samuells (1856:295-303) and Dalton (1872:152-156) are the only ones that describe their traditional dress. Juang costume changed quickly after 1870, when Captain F.J. Johnstone, the Superintendent of Keonjhar State, induced the women to dress themselves in clothes (Elwin 1948:10-11; Hunter 1893:94; Risley 1891:353). Before that they wore only beads and the leaves of *Terminalia bialata* (Elwin 1948).

## JUANG BEADS: A RETROSPECTION

E.A. Samuells published the first report on the Juang in 1856. He described the Juang of the undivided Cuttack District thus:

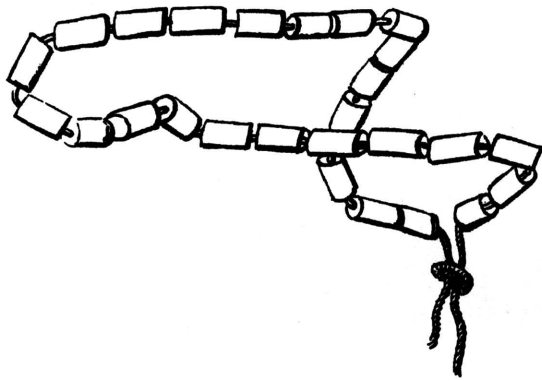
The dress of the men is the ordinary one of the native peasantry, but the women wear no clothes whatsoever. Their sole covering consists of two large bunches of leaves (or rather of twigs with the leaves attached) of which one is worn in front and the other behind. The twigs are sometimes fastened together generally loose, and are kept in position by a string of glazed earthen-ware beads passed twenty or thirty times round the waist and over the stems of the twigs. It is from this original costume that the tribe have obtained from their neighbours the name of Puttooa—quasi *the people of the leaf*. They call themselves Juanga. The leaves which I observed in use were those of the *sál*, the *jamoon*, the *koorye*, and the *chaldua*, but I was





**Figure 1.** Detail of a drawing by Major Strange of "Kumlee and her friends" (Samuells 1856). They wear strings of beads about their necks and waists.





**Figure 2.** A “specimen of the beads of which the girdle is composed” by Major Strange (Samuells 1856).

told that the leaves of the bur, the peepul, the mhowa and the kendooa, in fact all large and smooth leaves are used indifferently. These leaves are changed daily, and are generally in consequence clean and fresh-looking.

No covering is worn on the upper-part of the person; but most of the females I have seen had necklaces of coloured earthenware beads (made by themselves they told me) which hung down to their waists in numerous folds; and nose, ear, and hair ornaments, sketches of which will be found in the accompanying engravings, were common amongst them.

Their hair was generally of the shock order, but was gathered rudely into a knot at the back of the head, and fastened by a string terminating at each end in a silver or brass button (Samuells 1856:296-297).

This is not only the first publication on the Juang, but also one of the first attempts to describe beads ethnographically. The study is illustrated with drawings by Major Strange which depict beaded Juang women (Fig. 1) and a bead string from a girdle (Fig. 2). In the above quote, Samuells describes various aspects of Juang culture, some of which are very important in understanding their beads. These include details about the material composing the beads, the shape of the beads, the mode of wearing them, the amount of beads worn by the Juang, and the makers of the beads.

Colonel Dalton was the next to document the Juang, at a time when cloth was replacing leaves under the direction of Captain Johnstone. Dalton’s

observations were made in Dhenkanal District in the late 1860s:

The females of the group had not amongst them a particle of clothing, their sole covering for purposes of decency consisted in a girdle composed of several strings of beads from which depended before and behind small curtains of leaves [Fig. 3]. Adam and Eve sewed fig leaves together and made themselves aprons. The Juáangs are not so far advanced; they take young shoots of the Ásan (*Terminalia iomentosa*) or any tree with long soft leaves, and arranging them so as to form a flat and scale like surface of the required size, the sprigs are simply stuck in the girdle fore and aft and the toilet is complete. The girls were well developed and finely formed specimens of the race, and as the light leafy costume left the outlines of the figure entirely nude, they would have made good studies for a sculptor.

The beads that form the girdle are small tubes of burnt earthen ware made by the wearers. They also wore a profusion of necklaces of glass beads [Fig. 4], and brass ornaments in their ears and on their wrists... (Dalton 1872:155).

Dalton not only mentions the use of both burned earthenware beads and glass beads, but also notes how differently the two were worn: the former to hold the lower dress and the latter for necklaces.

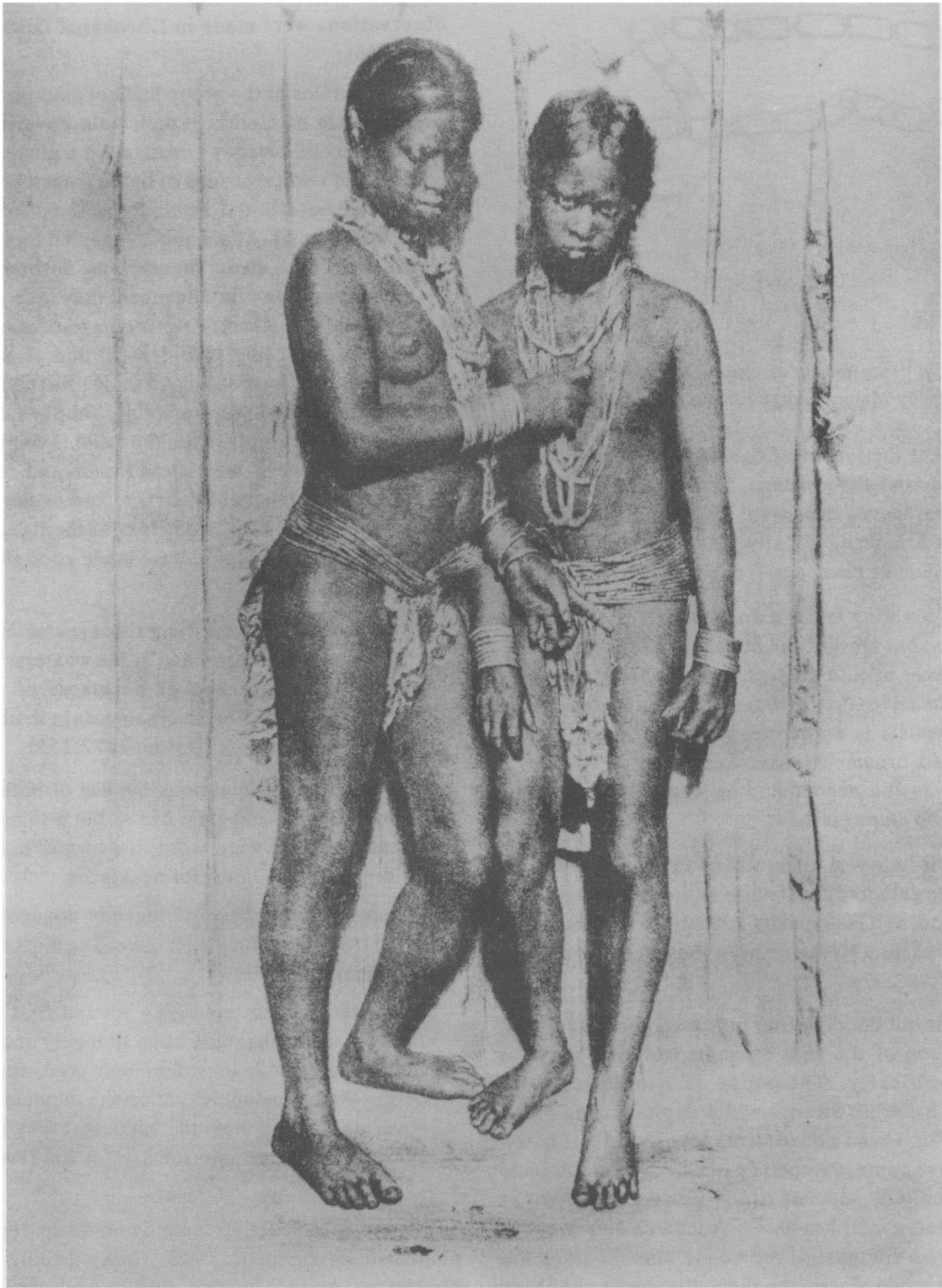
There are a number of legends concerning the origin of traditional Juang costume. The most common among them is as follows:

The river goddess emerging for the first time from the Gonasika rock, came suddenly on a rollicking party of Juáangs dancing naked, and ordering them to adopt leaves on the moment as a covering, laid on them the curse that they must adhere to that costume for ever or die (Dalton 1872:156).

The most exhaustive paper by far on the Juang was published by Elwin in 1948. Concentrating on the district of Angul, he had this to say about their costume:

The leaf-dress is a simple and natural one. So long as the Juang live to themselves in the recesses of their hills, so long as there are no out-





**Figure 3.** "Juang Girls. This illustration... was obtained at Gonásika in Keonjhar, noticed in the account of this tribe as the legendary cradle of the race. The beads or bugles forming the girdles are of fine earthen-ware made by themselves. The bracelets are of brass and the necklaces of glass beads or flowers. The rest of the attire is of leaves" (Dalton 1872:Pl. XXXIII).



**Figure 4.** “Very typical specimens of the Juang Tribe... at Gonásika in Keonjhar” (Dalton 1872:Pl. XXXIV). Note the different necklace styles.

side eyes to pry and stare, it is well adapted to the innocent ways of the people. Any kind of large leaf can be used. The leaves are brought from the jungle in the early morning, laid on the ground in rows and pressed flat with earth or stones. A girdle is made with a large number of bugles [tubular beads] of baked earth which are threaded onto strips of bark-cord; the girdle is a substantial thing, fairly heavy, sometimes as thick as a dozen or fifteen rows of cords and bugles. The leaves are stuck into this by the sprigs so as to form thick aprons back and front; the loins are left uncovered.

These leaves are full of magic, and have to be carefully protected. The previous day's leaves are thrown away very early in the morning while it is still dark, not even the husband knowing

where. They are thrown into a pit and the wearer spits on them. Great care must be taken to pick up any leaf or bit of leaf that falls from the girdle.... if a leaf is left on the ground and someone treads on it, the wearer may die. If the parents of a girl trod on the leaf or stepped over it, it would be a sin equivalent to incest. If a witch could get hold of the leaf, she could send a tiger to devour the wearer or a snake to bite her; she could make her barren or unclean (Elwin 1948:43).

Elwin not only details the procedure of preparing the women's daily dress, but also discusses the material used for threading the beads: bark cord which some traditional Juang and all the Bondo (a sister community living on the Bondo hills of the Malkanagiri District) still use for threading glass beads. It is interesting to note that while modern



Juangs no longer utilize the leaf dress, the beads they now use (like the discarded leaves in Elwin's account) are spat upon before they are discarded or new ones are worn to avoid black magic.

Elwin goes on to say that the traditional costume of the Juang is on the verge of disappearing. However, he notes that women continue to wear the leaf dress on religio-ceremonial occasions in general and in the interior regions in particular:

In Keonjhar and Dhenkanal the leaf-dress soon became a thing of the past. But it survived in Pal Lahara. N.K. Bose found women wearing leaves in 1928 and I did so also in 1942. And everywhere there are certain survivals. Many Juang women wear a few leaves under their cloth as a magical protection. At a wedding the bride is attired in her traditional leaf-dress. At dances the Juang put on their leaves with the utmost willingness and are evidently delighted to have any excuse to do so. The belief in the power of the worn leaf is as strong as ever (Elwin 1948:45-46).

The Juang have been the subject of a number of other studies as well, but none of them has stressed beads. No subsequent scholar has recorded either earthenware beads or leaf dress among these people.

At least one researcher (Peter Francis, Jr. 1998: pers. comm.) has questioned the accuracy of the early accounts which identify the girdle beads as "earthen ware" and "glazed earthen-ware," wondering—especially in the latter instance—if they might not have been composed of opaque dull-red glass instead. Unfortunately, none of the "earthenware" beads are preserved in any museum. Although both Samuells (1856:297) and Dalton (1872:153) were told that the beads were locally made, Dalton (1872:153) states emphatically that the Juang "neither spin nor weave, nor have they ever attained to the simplest knowledge of pottery." It is, therefore, possible that at least some of the beads were imported glass specimens.

Terracotta beads, including tubular varieties, are currently produced in the village of Panchmura in the Bishnupur District which is about 100 km northwest of Calcutta. As observed by the author, the potter-cum-beadmaker makes a long, thin cylinder in his workshop and cuts it into pieces before coloring them with deep ocher and firing them in a kiln. The

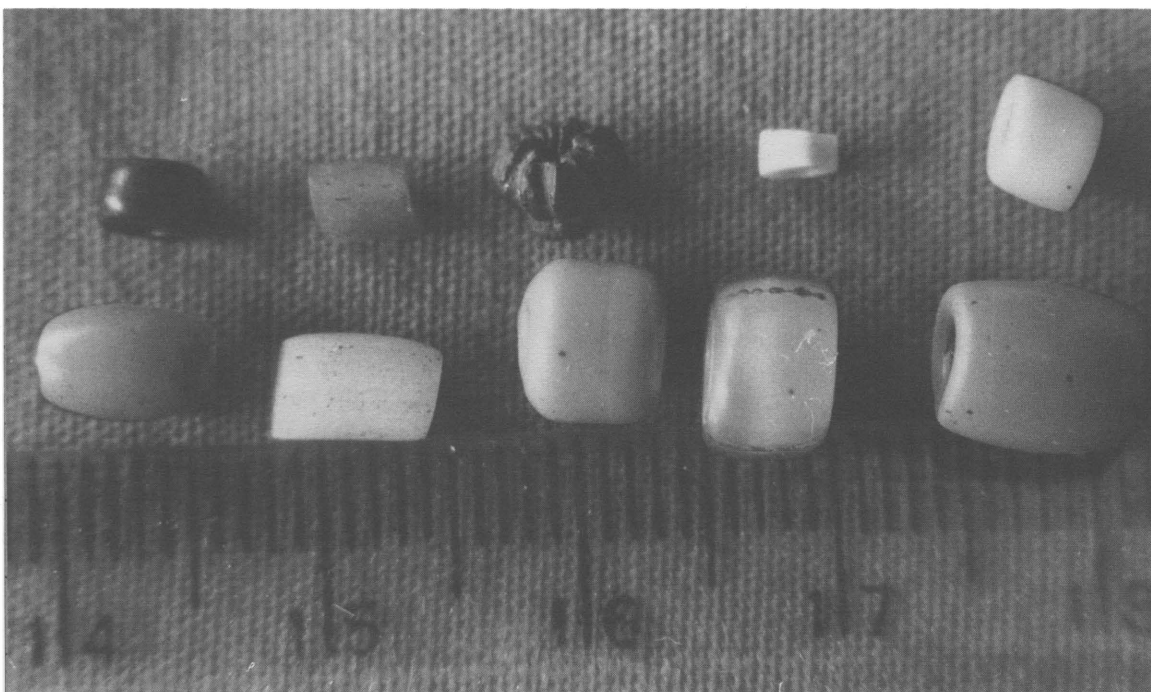
oxidation technique (air is allowed into the kiln during firing) is used to obtain a red color, while the reduction technique (air is not allowed to enter the kiln) is used to produce black beads. A lack of scientific investigation and excavation in the region of the Juang, coupled with the non-use of earthenware beads by the Juang for generations, presently make it impossible to determine if there was trade between the Panchmura beadmakers and the Juang in the past. However, it is important to note that most of the glass beads presently used by the Juang come from the Calcutta old market (discussed below).

## MODERN JUANG BEADS

The Juang used to be one of the most ornament-loving peoples in tribal India. Now only the older Juang women maintain this tradition (Pl. IA), especially at Gonasika. The increasing price of beads, the disintegration of the folk arts, and the impact of modernization and poverty have all played a role in the extinction of this tradition. Just five decades ago, the Juang used to wear only beads and no clothes, like the present-day Bondo.

Traditionally, no Juang should be without at least a single bead string around the neck. For them it is a symbol of courage and fortune. One specific case is the single red bead worn at the neck of Srikant Juang, the only Juang to graduate from Keonjhar Government College Boys Hostel, which is for him the identity of Juang. When putting on any new beads, irrespective of the sex or age of the person, the tradition is to invoke the name of *thaniputi*, the village deity (Pl. IB).

On a child's first birthday, the parents present it with its first thread of beads, and such gifts continue irrespective of the child's sex until about the age of five. Thereafter, only girls continue to receive gifts of beads. The gifts increase with every festival until marriage. During the marriage proposal, a fancily dressed middleman (*madhyasta*) visits the bride's house with a sacred stick from the youth dormitory<sup>2</sup> and a number of variously colored bead strings from the groom's parents (*see cover*). On receipt of these beads, the bride's parents confirm the proposal. Richer suitors send more strings of colorful beads (Pl. IIA top) and *pohala* (large red glass beads of furnace-wound manufacture; Pl. IIA bottom). All the



**Figure 5.** A selection of beads in current use among the Juang. The majority are glass and appear to be a mixture of European and Indian-made varieties; the exception is the seed bead (*bomo*) in the upper center (photo: A.K. Kanungo).

bride's beads are combined with other ornaments in preparation for her approach to the marriage platform (*mandap*). During the ceremony, the groom presents her with the marriage string (*ahuda mali*) which is fashioned of alternating white and reddish-brown glass beads (Pl. IIB). This is the beginning of her reornamentation as on her first visit to her parents' place following the wedding, the new wife brings back her old ornaments (Pl. IIC). At the end of the life cycle, all the beads worn at the time of death are generally burned with the body.

The Juang use mostly glass beads (Fig. 5, Pls. IID, IIIA top), followed in popularity by beads fashioned from seeds, silver and old coins. Bought from peddlers or obtained at the local weekly market, the glass beads usually come from the Calcutta old market (which sells beads produced at Agra) or from Andhra Pradesh (which sells beads produced at Papanaidupet).

The seed beads they make themselves. The most common seeds used for this purpose are those of *Symplocos cochinchinensis* and *Coax lachryma jobi* Linn., known locally as *bomo* (Fig. 5, Pl. IIIA bottom) and *erimindri*, respectively.

The silver and old-coin beads are produced by the local ironsmith (*kamara*). To make silver beads, the ironsmith melts some silver in the form of old coins and jewelry in an old can, and pours it into a mold which is sometimes decorated internally with traditional designs. The mold is generally of stone but is sometimes also made of clay by the smith. Coin beads are produced either by perforating a coin or by hammering a loop to one edge (Pls. IIA top, IIIB). Coins perforated by driving a nail through them are cheaper than those with drilled holes.

While performing fieldwork among the Juang, the author wondered why these people adopted red beads as their symbol. Two explanations are provided by legends current among the Juang. One relates that during a war between the Juangs and the tigers, only the red-beaded Juang survived. The red bead, therefore, became auspicious. The other legend states that the father of the Juang, a saint who lived on the Gonasika hill, used a string of red beads as a rosary. Following his preference, later generations adopted the color as well. From a scientific viewpoint, it is possible that the locally produced earthenware beads were consistently red (which is quite possible if the



beads were fired in an open fire or a kiln which allowed air to enter) and wearing them eventually became a tradition.

## CONCLUSION

Modernization has brought noticeable changes to Juang culture. These people, who once bedecked themselves with strings of beads from neck to navel, now wear only 5-15 strings of glass beads of different colors, but mostly red and mostly in necklaces. Boys use a string of *bomo* beads and/or a single string of red glass beads. Elderly women prefer traditional ornaments and cover most of their body with beads. Middle-aged persons wear a mixture of new glass or plastic beads and traditional beads, but only during festive occasions. The young prefer plastic and metal beads because they are readily available and economical, too. They usually wear old red-glass beads only as a tribal symbol. However, during festivals they use all the glass beads they have at home. There is no evidence of the use of earthenware beads among the present-day Juang.

## ACKNOWLEDGEMENTS

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## ENDNOTES

1. The Juang believe that Gonasika is their original homeland, where they had a mythical origin. With

the passing of time, some Juangs moved away from Gonasika. At present, those who do not reside within the territory of Gonasika are considered *Bhagudiya*, while those who do are *Thaniya*.

2. A dormitory (*mandagarh*) well made of carved beams and pillars stands in the center of all the Juang villages of Keonjhar. This is the school of folk culture and the storehouse-cum-temple for the musical instruments. It is a big, comfortable habitation open along one side and with a high verandah. On the occasion of every important event in their corporate life, the males assemble here, encircling a continuously burning fire in the middle of the dormitory. Each and every auspicious event begins here. Visitors are entertained in the dormitory, including wedding guests.

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# **AKYEM TE: THE TECHNOLOGY AND SOCIO-CULTURAL SETTING OF THE ABOMPE BAUXITE-BEADMaking INDUSTRY, GHANA**

**Yaw Bredwa-Mensah**

*Drawing primarily on data obtained from recent research at Akyem Abompe, Ghana, this paper examines the technology and socio-cultural setting of a stone-beadmaking industry in the forest zone of Ghana. Preliminary ethnographic observation of the industry not only reveals that it is community-based, but that it also interacts in a complex way with other local crafts in the village. The production process and marketing of the beads are discussed, as is the antiquity of the industry.*

## **INTRODUCTION**

*Akyem te*, meaning "stone from Akyem land," is the expression used by the Ga-Dangme, the immediate southern neighbors of the Akyem people, to describe bauxite beads made by Akyem Abompe beadmakers. Bauxite beadmaking is one of the extant ancient crafts in the Akyem Abuakwa Traditional Area in southeastern Ghana. I have been engaged in the study of ancient craft industries among the Akyem people since February 1991. This paper presents the results of preliminary research on the beadmaking industry at Akyem Abompe, including its organization, technology and socio-cultural aspects. It also surveys the archaeological and oral historical evidence concerning the antiquity of the industry.

## **THE AKYEM PEOPLE**

The Akyem of southeastern Ghana are an Akan-speaking people organized into three paramountcies (*aman*): Akyem Abuakwa, Akyem Kotoku and Akyem Bosome. Like their other Akan ethnic-group members, the Akyem are recognized by a number of distinctive cultural traits. Linguistically, they speak Akyem, one of the major dialects of Akan (Dolphyne and Dakubu 1988:52). They also have a

common custom of naming their offspring from a set of names according to the weekday of birth. Every Akyem belongs to one of eight exogamic matrilineal clans or *abusua*. They have a centralized political system in which paramount chiefs (*amanhene*), queen mothers (*ahemaa*), divisional chiefs (*ahemfo*), and a number of sub-divisional chiefs (*adikrofo*) and their family members (*adehye*) constitute the ruling elite.

The present concern is with the Akyem Abuakwa people who, before British colonization in the 19th century, comprised a powerful state. They occupy a semi-deciduous forest zone characterized by moderately grouped lofty trees with a matted undergrowth (*see* Hall and Swaine 1981:19). Today, except in the forest reserves where indiscriminate felling of timber and farming are prohibited by the national government, large portions of the original forest have turned into secondary forest, characterized by climbers, shrubs and soft woody plants.

The subsistence of the Akyem Abuakwa people revolves around agriculture. Farming produces a variety of staple crops such as plantain (*brode*), cassava (*bankye*), cocoyam (*mankani*), yams (*bayere*), maize (*aburo*), and such vegetables as tomatoes (*ntoosi*), peppers (*mmako*), okra (*nkruma*), onions (*gyeene*) and egg plant (*nyaadewa*), all for household consumption. Citrus fruit (*ankaa*) and tree crops like kola (*bese*) and oil palm (*abe*) are also cultivated. Cocoa was once an important cash crop. In the past, gold mining was the principal economic activity in Akyem Abuakwa (Addo-Fening 1976:33-39). Other economic activities include the hunting, trapping and gathering of wild forest resources, as well as the raising of livestock and traditional crafts. The craft industries use some forest products for basketry and bauxite for beadmaking.



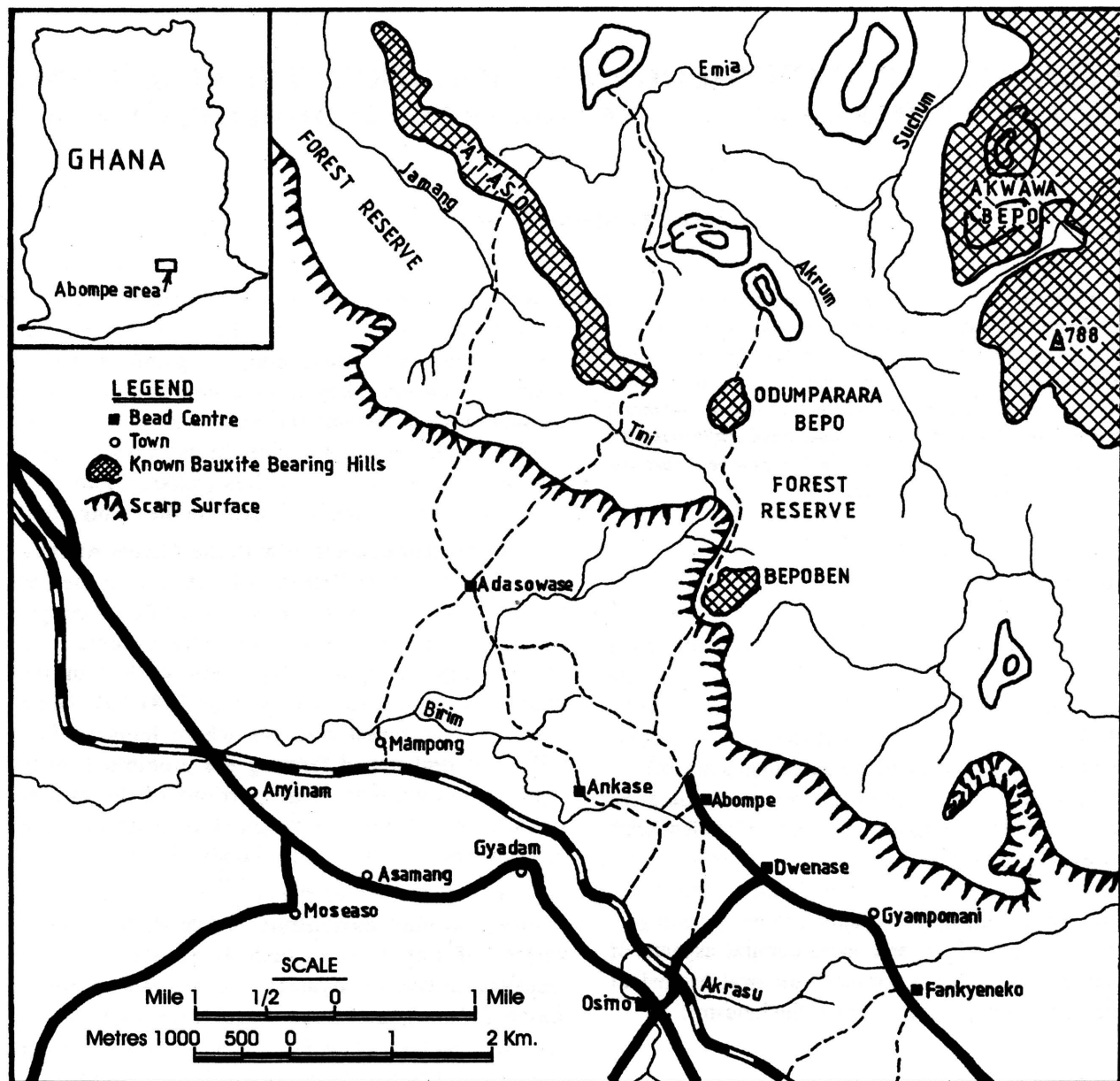


Figure 1. Map of the Akyem Abompe area showing the beadmaking centers and bauxite-bearing hills (drawing: Armah-Tagoe).

#### BAUXITE BEADMaking IN AKYEM ABOMPE

Beadmaking was quite commonly carried out in some Akyem Abuakwa villages in the past. The villages of Abompe, Adasowase, Ankase, Dwenase, Fankyeneko and Osino (Fig. 1) were once important

stone-beadmaking centers (Davies 1967:285, 1976; Shaw 1945:45-50). At present, the village of Abompe is the only remaining production center where beadmaking is still being carried out. Abompe is located in the foothills of the bauxite-bearing Begoro Plateau some 3.6 km north of Osino (Fig. 1).

## Organization of the Bead Industry

The bauxite-beadmaking industry at Abompe is community-based. Comparative ethnographic data indicate that such industries are common worldwide and that they are vital components of the economies of contemporary ethnic societies (e.g., Anquandah 1992, n.d.; Bredwa-Mensah 1990; Crossland and Posnansky 1978). In this paper, I use the term "community-based industry" to mean any local craft industry which requires that 1) large groups of households specialize in it; 2) the extractive and productive activities of the industry be regulated through socially instituted mechanisms; and 3) a variety of complex economic networks link the industry with other associated crafts.

Bead production at Abompe is carried out on a household basis and the bauxite-bead industry involves almost every household in the village. The manufacturing processes may involve the combined efforts of members of each household. However, some beadmakers often engage the services of others to perform some tasks. The beadmakers consider some production stages, especially grinding and polishing, to be energy sapping and time consuming. Consequently, they—particularly the aged ones—employ paid labor to carry out these tasks.

Regulation of the mining and use of bauxite, the basis of the Abompe beadmaking industry, is the collective responsibility of the entire community. The bauxite mines are regarded by the villagers as their common property. Traditionally, the control of the land is rested in the village chief and elders. However, by customary law, every member of the village enjoys the right of beneficial use (*see* Akpaloo 1992:701-702). The mining of bauxite, for instance, may be performed by anyone from the village, though presently only a few young men engage in it either on a full-time or part-time basis.

The act of obtaining bauxite is linked to traditional religious practices. It is claimed that Bepoben (Red Hill) is the abode of the guardian spirit of the Abompe village. This spirit is also the custodian of the bauxite resources. To carry on operations at the mines, the workers first provide a drink of palm wine or schnapps to the chief and elders of the village which is to be given to the guardian and ancestral spirits. Taboos are imposed to regulate the mining of bauxite. Members of the village are forbidden to carry out any work at the

mines on Sundays and any other day declared sacred (*da bone*) by the indigenous calendar. Menstruating women are prohibited from going to the mines. According to local informants, these and other social sanctions are imposed to restrain miners from over-exploiting the bauxite resources.

The Abompe bauxite-beadmaking industry exhibits a complex interaction with other crafts in the village. The beadmakers depend on a number of specialized artisans for the supply of tools and materials. Two old men presently supply the beadmakers with knives, metal spokes and short iron bars. The demand for iron-tipped wooden drills by the beadmakers is met by two middle-aged men who have specialized in their production. A number of young men also supply, on request, sandstone or quartzite grinding stones. Raffia-fiber thread, needed for stringing the finished beads for market, is produced by some male farmers on a part-time basis.

## Topography and Distribution of the Bauxite Resources

Bauxite, the beadmakers' raw material, is found in the geological deposits of the Begoro Plateau near Abompe (Fig. 1). The plateau forms part of the Akuapem and Togo ranges. The basic rocks that form these ranges are Upper Pre-Cambrian metamorphosed arenaceous, pebbly and argillaceous sediments represented by indurated quartzites, schists, hematic quartz schists, sericites, shales and phyllites (Bates 1962:52; Kesse 1985:12, 39).

The surface areas of the plateau represent the oldest and highest erosion levels. The surface has been strongly dissected, and deep, steep-sided valleys with swift-flowing rivers (like the Jaman, Birim, Emia, Suchum, Tini, Akrum and Akrasu) cut into the geological deposits. Above the general level of the plateau are flat summits over 600 m above sea level which represent ancient peneplain residual hills. Caps of lateritic-silicate bauxite of Tertiary age (Brash 1962:81; Dixey 1955; Junner 1946; Junner and Hirst 1946) occur on the flat hilltops. Among the best-known of the bauxite-bearing hills are Odumparara Bepo (Kitson 1917; Kesse 1985:153) and Bepoben (Red Hill) near Abompe, Ataso (Twin Hills) located near the Jaman River north of Adasowase



(Cooper 1936:7) and Akwawa Bepo (Geological Surveys of Ghana:4, Fig. 1).

The bauxite resources of Odumparara Bepo and Ataso have been exploited by the Akyem Abuakwa people for beadmaking. Today, as in the past, the stone required by the beadmaking villages is obtained from the ancient mines of these two hills. At present, mining is carried out only at Odumparara Bepo by a few young men from the village of Abompe. The hill, 700 m above sea level, is located in the Southern Scarp Forest Reserve, 6.5 km north-northwest of Abompe. A recent survey shows that the hilltop is densely dotted with ancient and modern mines and mounds of mining debris (see Kitson 1917). Thick forest undercover precluded precise mapping of the area.

### The Nature and Method of Bauxite Exploitation

The bauxite from Odumparara Bepo comes in various forms. There are pebble-sized nodules locally called *nsaworowa*, large cobbles (*abopa*) and, occasionally, small slabs (*nsamso*). The quality, too, is highly variable. The cobbles are coarse and earthy-looking or rock-like. The slabs, which are highly prized, are compact or fine-grained and clay-like in texture. The material is usually banded, with colors including white, gray, red, yellow, brown and purple.

The bauxite is recovered by pit mining. Six pits were in operation during the research team's visit in February of 1993. The miners comprised two crews, each made up of nine men.

The pits, measuring 1.8 m x 1.1 m, are open-mouthed and rectangular in shape. They are sunk to a depth of about five meters in some parts of the hill. The shafts may reach a lithomargic clay level that marks the end of the bauxite deposits at this depth. Lateral tunnels or underground side-workings are then dug to a distance of about four meters to exploit the bauxite. A tunnel cannot be too long because the shaft of a miner's neighbor may be located only a few meters away. All the inspected shafts had either three or four such lateral tunnels radiating from them.

The mining is performed using simple tools. These include a spade, a short handled pickaxe and a locally made iron adze head mounted longitudinally on a wooden handle. The shafts are dark and, as it is

impossible to work in a lateral tunnel without light, the miners carry small kerosene lamps (*bobo*) made of tin plate.

Footholds dug at almost regular intervals in the shaft walls provide access to the tunnels. A miner may get to the bottom of a shaft by planting his feet in the footholds while he leans back firmly against the opposite side of the shaft. He keeps his balance by pressing his hands firmly against the wall that supports his feet. This method is markedly different from that observed by Thurstan Shaw during a visit to the Akyem during the early 1940s. According to him, the mine pit was accessed by a ladder made of split bamboo poles (Shaw 1945:46).

The bauxite in each pit is mined by three workmen. One man digs while another loads the bauxite and mining debris into an old metal container, usually an abandoned bucket. The load is lifted out of the pit by the third man who is positioned at the edge of the shaft, pulling a tough bush rope tied to the container. The excavated material is heaped in small piles a short distance from the shaft.

The stone is sorted at the end of the workday. Chips are struck from the cobbles to determine quality. This process results in discrete scatters of rejected material and mining debris which usually form low mounds near the mine pits.

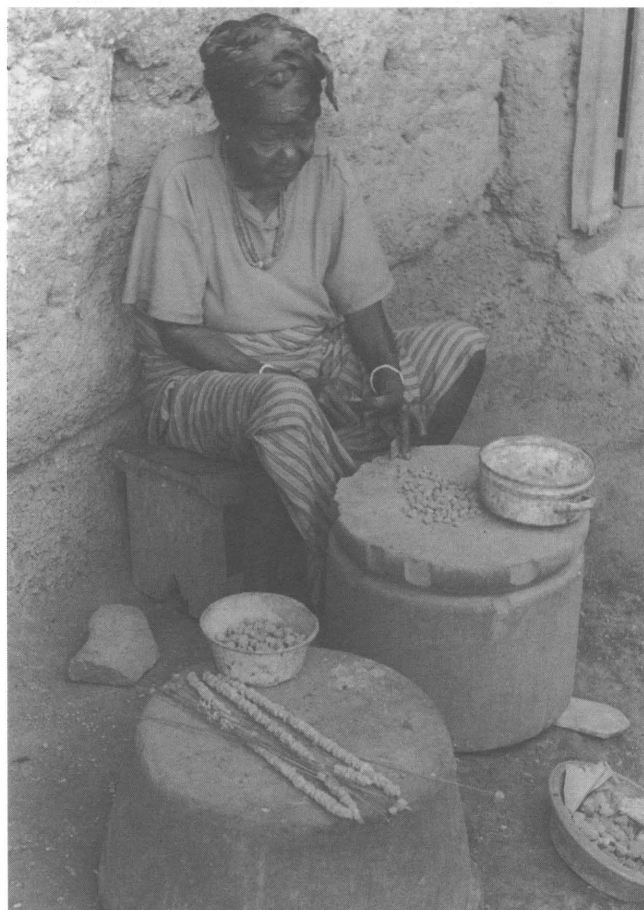
The selected material is stockpiled according to type. The miners sell it to middlemen who visit the mines on Tuesdays and Saturdays. Sometimes the miners and the middlemen enter into an agreement where the latter, after carrying a certain quantity of the bauxite to Abompe for the miner, return for the same quantity for themselves.

### Bead Manufacture

The Abompe beadmakers may buy bauxite from either the miners or the middlemen. The technology for manufacturing the beads is simple and non-mechanized. The processes employed include chipping, drilling, grinding and polishing.

### Chipping

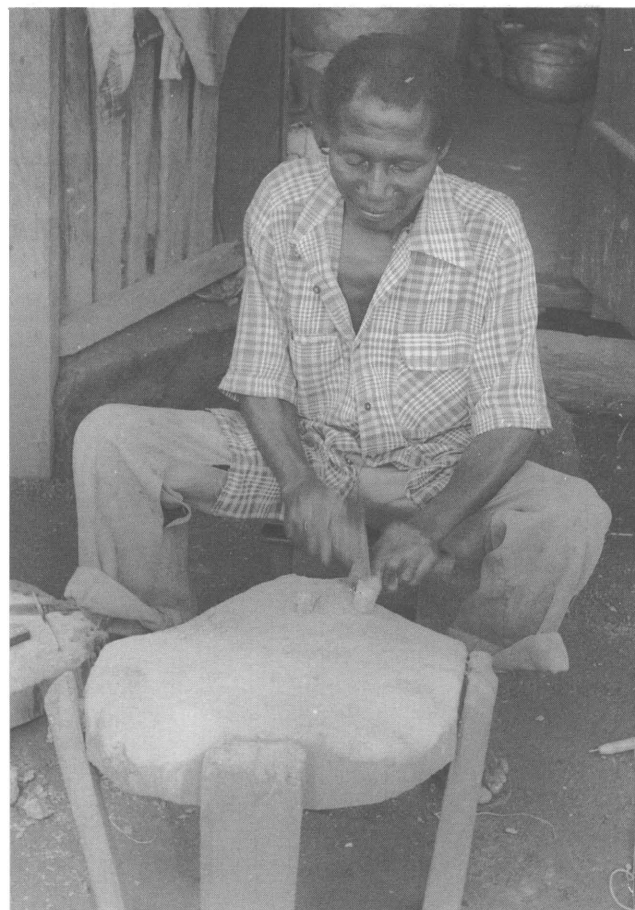
As a first step in beadmaking, the large bauxite cobbles are split into convenient sizes. Depending on



**Figure 2.** Chipping bauxite pieces into short disc beads at Akyem Abompe using the indirect percussion technique (photo: Bosman Murey).

its size, one of the resultant fragments may be chipped into one or more bead preforms or roughouts. Two principal chipping techniques are employed (indirect percussion and direct percussion) and their application depends on the type of bead to be produced. Indirect percussion is used in the manufacture of short disc beads (Fig. 2). The beadmaker places the split stone on a wooden anvil, usually a disused mortar (*wadufun*) or a piece of wood (*duasin*). A locally made knife (*dwidwa dade*) is positioned on the stone at the point where it is to be cut. The stone is firmly pressed on the anvil with the tip of the forefinger of the hand that holds the knife. The edge of the knife is then struck with an iron rod (*abosobaa*), thereby cutting through the stone.

Direct percussion is used to manufacture long tubular beads. In this process, the beadmaker firmly



**Figure 3.** Chipping bauxite pieces into long tubular beads using the direct percussion technique (photo: Bosman Murey).

holds the split cobble on the wooden anvil with a precision grip. The cobble is rotated while being struck repeatedly with a long knife until the required form has been obtained (Fig. 3).

The resultant debitage is swept up every morning and dumped in large piles (Fig. 4). This is subsequently used to produce smaller beads. It was observed that beadmakers who produced small-sized beads went to the workshops of those who made large beads to scavenge raw materials from the chipping debris.

### **Drilling**

Drilling is the next stage in the manufacturing process. At Abompe, the beadmakers drill beads using bows (*tadua*) and spindle drills with scrap-iron points (*pane*). When Thurstan Shaw visited the mining

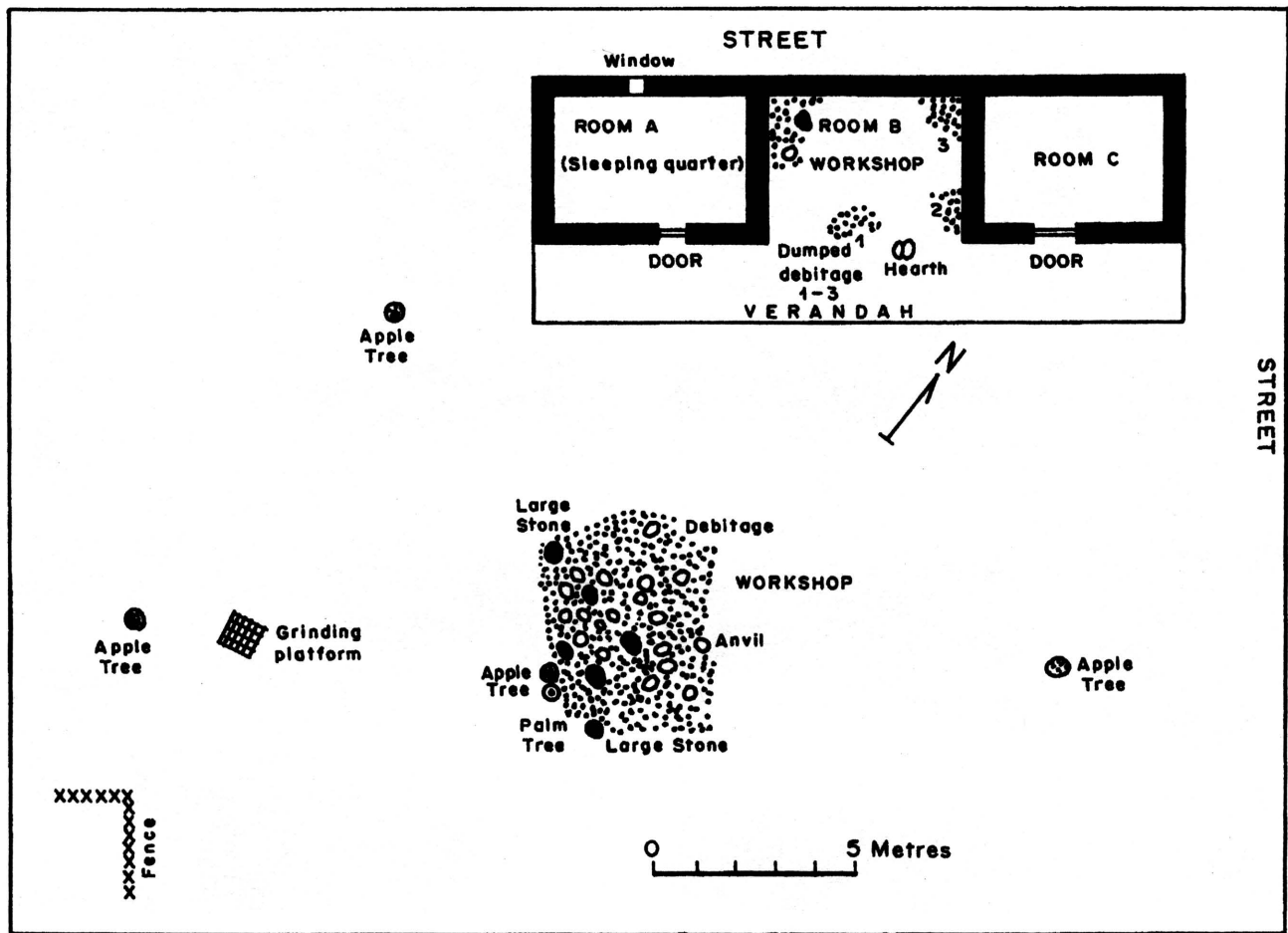


Figure 4. Ground plan of house D47 at Akyem Abompe showing the workshops, grinding area and debris scatter (photo: Bosman Murey).

villages during the Second World War, the iron head of the spindle drill was made from a section of an umbrella spoke (Shaw 1945:47). Today, however, it is fashioned from the spoke of a disused lorry-tire rim.

The preform to be drilled is placed in one of several small, round holes situated at the edge of the wooden anvil. The bow thong is looped around the drill spindle and a cap usually made from a palm kernel is placed on the butt end of the spindle, enabling the beadmater to exert pressure on it. A few strokes of the bow drive the drill through the preform (Fig. 5).

A small disc bead one centimeter or less in length is drilled from one side and the process may take less than one minute. On the other hand, a long tubular bead is drilled from either end, a process that takes a little more time to complete.

There is significant breakage during the drilling process due to flaws in the preforms and miscalculations in drilling. Thus, broken preforms exhibiting drill marks form part of the workshop debris that is swept up everyday and dumped in large piles (Fig. 4).

#### *Grinding and Polishing*

After the preforms are drilled, their edges are smoothed and shaped by grinding and polishing (Fig. 6). The preforms are first slipped onto a lorry-tire spoke, being firmly kept in place by small fruit nuts at the ends of the spoke. The beads are then rubbed back and forth on a hard grinding stone of sandstone or quartzite until the edges are evenly shaped. Some water scooped by hand is poured on the beads during grinding to speed the process.





**Figure 5.** Drilling bead preforms with the bow-drill (photo: Bosman Murey).

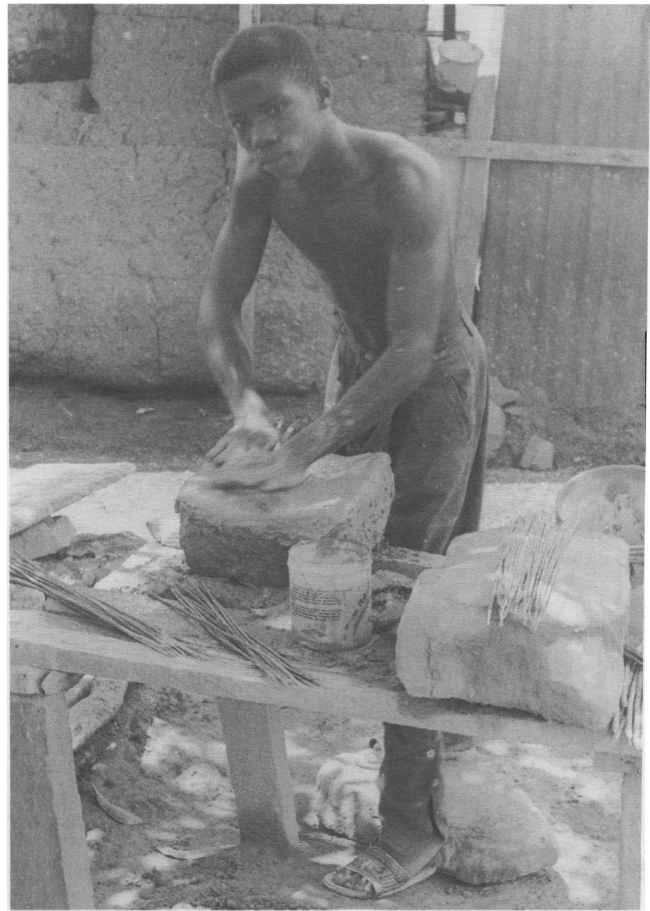
The ends of a bead are ground flat by fixing one end in a small wooden vice held in one hand and rubbing the exposed end back and forth on a grinding stone until the surface is smooth and even. The grinding area of a workshop is easily recognized by the presence of pink bauxite slurry produced during the grinding process.

The polishing of beads is a lengthy and painstaking process. It is akin to grinding except that water is not poured on the beads. Furthermore, fine sand is used as the abrasive.

After grinding and polishing, the finished beads are strung on raffia fiber in preparation for marketing.

## MARKETING AND DISTRIBUTION

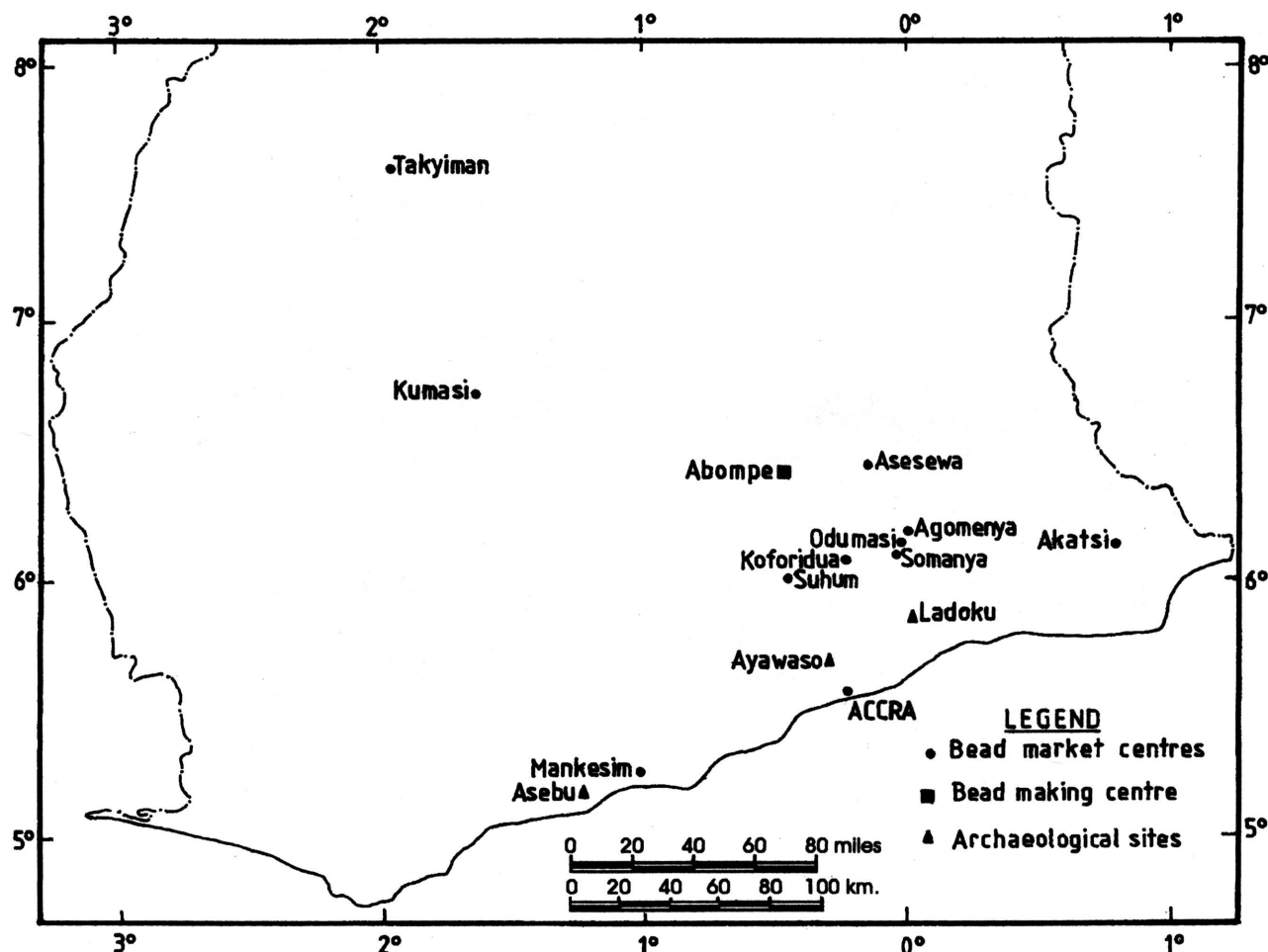
The bauxite beads of Abompe are traded throughout Ghana and her three immediate neighbors: Togo, Burkina Faso and Côte d'Ivoire. Itinerant art



**Figure 6.** Grinding bead preforms mounted on lorry-tire spokes (photo: Bosman Murey).

traders carry the beads to other parts of Africa and the world. Beads likely produced in Abompe have been noted in Mali, Sierra Leone, Senegal, South Africa, Zimbabwe and the United States (DeCorse 1996: pers. comm.). Intermediary traders, predominantly women, travel to Abompe to buy for markets where the value of the beads is higher. Local markets in southern Ghana that serve as main distribution outlets include Accra, Akatsi, Kumase, Koforidua, Suhum, Krobo Odumasi, Somanya, Asesewa, Mankessim and Agomenya (Fig. 7).

Two main categories of bead products are purchased by the traders: finished beads and preforms. Finished beads command higher prices and are widely distributed. Preforms, on the other hand, have a lower value. The unfinished beads are bought by some local traders specifically for bead houses in Accra (Ga) and the Krobo areas. Here, Ga and Krobo bead dealers



**Figure 7.** Map of southern Ghana showing modern bauxite-bead market centers and archaeological sites where bauxite beads have been recovered (drawing: Armah-Tagoe).

employ the same grinding and polishing techniques as used by the Abompe to produce finished beads. One such establishment is Teshie House in Accra where I observed Ga beadmakers grinding and polishing bead preforms purchased at Abompe.

### BEAD TYPES AND SOCIAL CONTEXTS

The Abompe beadmakers produce five bead types (Pl. IIIC) which the local people classify on the basis of social function, shape and size (Table 1). It is not easy for an outsider to penetrate the classification scheme for the beads. In some cases, the scheme—which is not as simple as presented here—is diffused. For instance, the Abompe people refer to all waist beads, no matter

what their size or shape, as *asenemu*. At the same time, the extra large disc beads and the large and long tubular ones worn by adult females as waist beads are known respectively as *tompodie* and *teteaso*.

The beads play very important roles in the socio-cultural lifeways of the Akan-speaking Abompe people and their immediate neighbors, particularly the Ga and Krobo. In everyday life, men, women and children wear bauxite beads as body ornaments. Beads worn for this purpose are of varied designs and colors. They are visibly displayed around necks, wrists and ankles. Females may wear bauxite beads on one part of the body for a lifetime. For instance, females begin to use waist beads in early childhood and this use continues into adulthood.

**Table 1. Types of Bauxite Beads Made at Abompe.**

Type	Description	Function
<i>Asenemu</i>	Large/medium disc beads (Pl. 1a)	Waist beads worn by young and adult females
<i>Tompodie</i>	Extra-large disc beads	Waist beads worn by adult females
<i>Bakon</i>	Large/medium/small disc beads (Pl. 1b)	Wrist beads used by males and females
<i>Teteaso</i>	Large/medium/small long tubular beads	Wrist/waist beads used by males and females
<i>Konmu</i>	Medium/small disc beads (Pl. 1e)	Necklaces worn by males and females
<i>Nantu</i>	Small disc beads (Pl. 1c)	Ankle and calf beads worn by females
<i>Odaano</i>	Large/medium/small beads of various shapes (Pl. 1d)	For lockets

The Akyem people call the bauxite beads *aboo* (meaning “stone”). A spoke-full of beads is called *abaa*. According to the beadmakers, three spoke-fulls make a girdle (*taban*). Between two to six girdles are worn by women around the waist (*asenemu*). It is believed that beads worn thus not only decorate the body but also help to shape and give it the round and oval feminine figure which signifies beauty in Akan society. Traditionally, it is a disgrace for an adult female to live without wearing waist beads. It is a common belief among male adults in the research area that waist beads worn by their female counterparts play a significant role in sexual intercourse by serving as a device to arouse passion. It is not surprising, therefore, that waist beads are a regular and constant feature in the daily lives of adult Akan females.

Special occasions demand the use of specific bead colors. During child-naming ceremonies, performed eight days after a baby is born, nursing mothers and their babies are adorned with white or gray bauxite beads. These colors signify newness, vitality and success in life in Akan social and religious contexts. A nursing mother may wear medium-sized white beads to express success in child delivery. The newly born baby

is also adorned with small-sized bauxite beads to signify its formal acceptance into the society.

At funerals, bereaved families and sympathizers wear red, brown or purple bauxite beads. These colors indicate a state of loss and mourning. The Abompe people have an expression, “*yereko we aboo*,” which literally means “we are going to chew stones.” According to the elderly people of Abompe, this means abstaining from food, the most reverential thing one can do to mourn the dead. The Abompe elders further explain that the earth (*Asase Yaa*) is the mother of all living things and so every living being that dies returns to the womb of the earth to be born again. Beads made of bauxite (a material obtained from the ground) are worn by the Abompe people at funerals to signify that the dead have gone to the original mother.

Traditional puberty rites performed to initiate young women into adult life are occasions for wearing bauxite beads. During such rites (*dipo*) among the neighboring Krobo, the participants are adorned with different types of beads, including those of red and brown bauxite. According to the Krobo, these colors signify maturity. Thus, young Krobo women wear the bauxite beads to show that they are mature and ready for marriage.



## THE ANTIQUITY OF THE BAUXITE BEAD INDUSTRY

It is difficult to determine the precise age of the bead industry on internal evidence. Oral history only suggests that it is of remote antiquity. Thurstan Shaw (1945:50) assessed the age of the industry as follows:

Tradition suggests that it was already flourishing a century ago. The oldest people now living declare that the oldest people who were engaged in the industry in their youth found large digging pits already excavated, and this suggests a greater antiquity than a hundred years; but there seems to be no evidence to show whether 200 or 300 years or more would be nearer the mark.

On the basis of archaeological surface materials from Odumparara Bepo, where recent and ancient mines have supplied bauxite to make beads at Abompe, Davies (1967:285-287) has suggested that the industry may date back to medieval times. There is, however, some comparative material from dateable contexts in nearby regions. Excavations by R.B. Nunoo at Asebu yielded twenty beads from the first and second layers of site A. One bead type was made of bauxite. Through the association of imported European ceramics from the Rhineland and smoking pipes, he estimated that the site may predate the 18th century (Nunoo 1957:12).

Anquandah (n.d.), cited in Quarm (1989:6-7), also reported that archaeological excavations at the ancient Ga-Dangme market settlement of Ladoku yielded a total of 140 beads. Eleven of these were fashioned from various stones, namely bauxite, agate, quartz and carnelian. The site is assigned to the period between 1400 and 1700.

My research at the ancient Ga capital of Ayawaso also provided a number of beads. Seven of these were bauxite specimens recovered from stratigraphic layers dated between 1620 and 1680 (Bredwa-Mensah 1990).

## CONCLUSION

Research at Abompe is still in progress. Nevertheless, through interviews and participant observation, vital information concerning various aspects of the local bauxite-beadmaking industry has been recorded. The research reveals that stone

beadmaking at Abompe involves several production stages, some aspects of which involve several households, and that the organization of the industry exhibits a complex interaction with other local crafts. It was also observed that chipping and drilling result in discrete scatters of debitage that accumulate in workshop areas despite the fact that the workshops are swept every day.

Bauxite beads feature prominently in the daily lives of the Abompe people and their neighbors. To them, beads not only serve as everyday ornaments, but also belong to the cultural realm; special occasions demand the use of specific bead types and colors. Thus, beads are used to communicate communal feelings concerning the various rites of passage.

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## IMITATION PEARLS IN FRANCE

Marie-José Opper and Howard Opper

*To achieve the perfect imitation pearl has been the goal of numerous European beadmakers for over 700 years. In France, the art of making false-pearls spread rapidly after Jacquin discovered how to fill hollow glass beads with a pearl-like substance in the 17th century. Since that time, many diverse recipes have been tried and used to satisfy the French public's enormous appetite for affordable, yet elegant, imitations of fine pearls. In the 19th and early 20th centuries, these types of beads became even more popular than before, as they emerged as the principal components of costume jewelry worn by celebrated stage personalities.*

### EARLY IMITATION PEARLS

Desired not only for their beauty and worn as jewelry in France, fine pearls were also sold by apothecary shops as medicine several centuries ago. A liqueur was made with them and used to cure various illnesses. On his doctor's orders, Louis XIV took tablets mixed with pearls and gold as medication in the mid 17th century (Franklin 1905:409). For whatever purpose, only the wealthiest could afford fine pearls. However, this did not detract in the least from the general population's unabating desire for faux pearls. The beauty and status these imitations convey have served to assure an ongoing and enormous demand for them over many hundreds of years in France. Imitation pearls were mentioned as early as the 13th century in *Le livre des métiers*, a compilation of corporate by-laws in which, for unknown reasons, sale by mercers of these items was forbidden (Boileau 1270:Article 6, Title LXXV). Unfortunately, there is no known contemporary documentation that describes these beads or their method of manufacture.

Before Jacquin's important discovery in 1686, mercury was used to give hollow clear-glass beads a pearl-like luster. As a merchant dealing in these beads, Jacquin was well aware of the toxicity of the substance and the health hazards for both makers and wearers. It was his daughter-in-law's request for a necklace of false pearls that prompted Jacquin to develop a method for making the beads without the use of mercury. He found that mixing ammonia with the scales of the bleak, an European freshwater fish, produced a paste that well imitated the luster of pearls (Sauzay 1884:223-225). The use of this paste, called *essence d'orient*, to coat the inside surface of clear blown-glass beads spread rapidly throughout France. The interior was then filled with wax.

Glass was not the only material used to make imitation pearls toward the end of the 17th century. According to Haudiquet de Blancourt (1697), there were several recipes which utilized other substances. He considered glass to be an inferior material for this type of bead, due not only to its fragility, but also to the dangers of using mercury to color it. De Blancourt also downplayed the bleak-paste method, because both the paste and the wax melted in warm temperatures.

De Blancourt offers two different recipes in his 17th-century work on the secrets and curiosities of the art of glassworking. The techniques are interesting in their method of producing large beads from very small pearls. In the first, a mixture of vinegar and turpentine is distilled. Small seed-sized pearls, strung on silver or gold wire, are suspended over the distilled solution, and all of this is placed in a double boiler (*bain-marie*) for 15 days. A paste is made from the softened pearls which is formed into beads in silver molds lined with gold. The beads are dried in the sun, suspended once again on silver or gold wire. After drying, they are





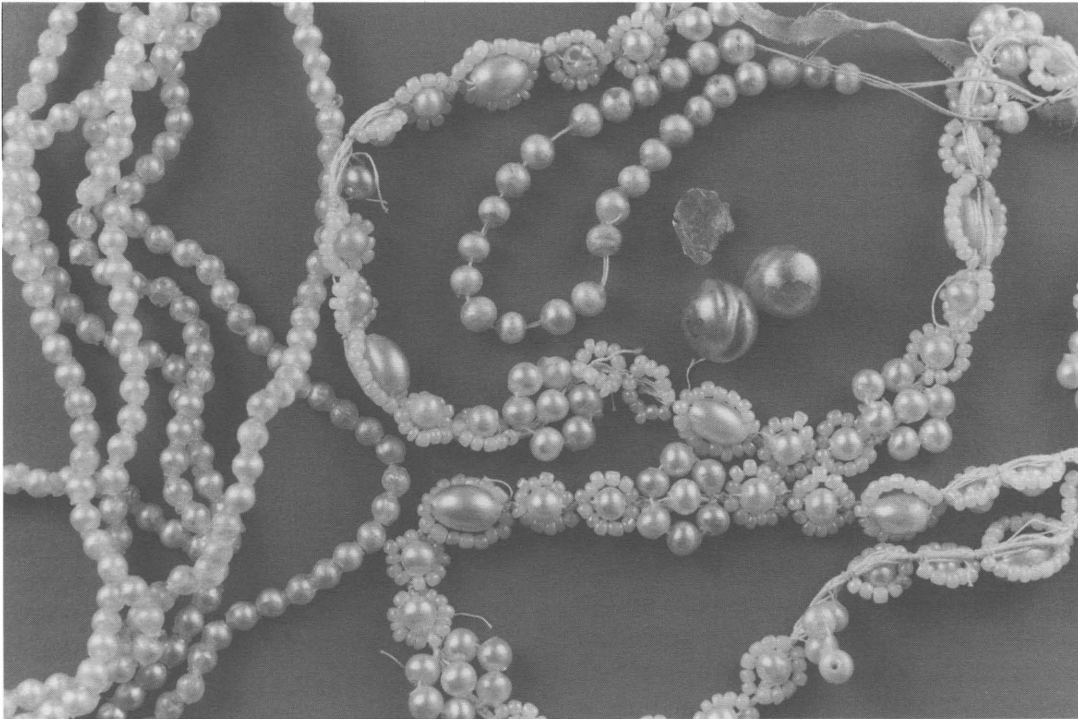
**Figure 1.** Eighteenth-century workshop with women filling hollow glass beads with *essence d'orient* (Diderot and d'Alembert 1751-1752:Pl. iii).

placed in a stream for 20 days, where they become as hard as they were originally. Next, the beads are soaked in a solution based on mercury and slaked lime for 15 days. Finally, they are placed in a hermetically sealed container that is lowered into a well for 80 days (de Blancourt 1697:544-547).

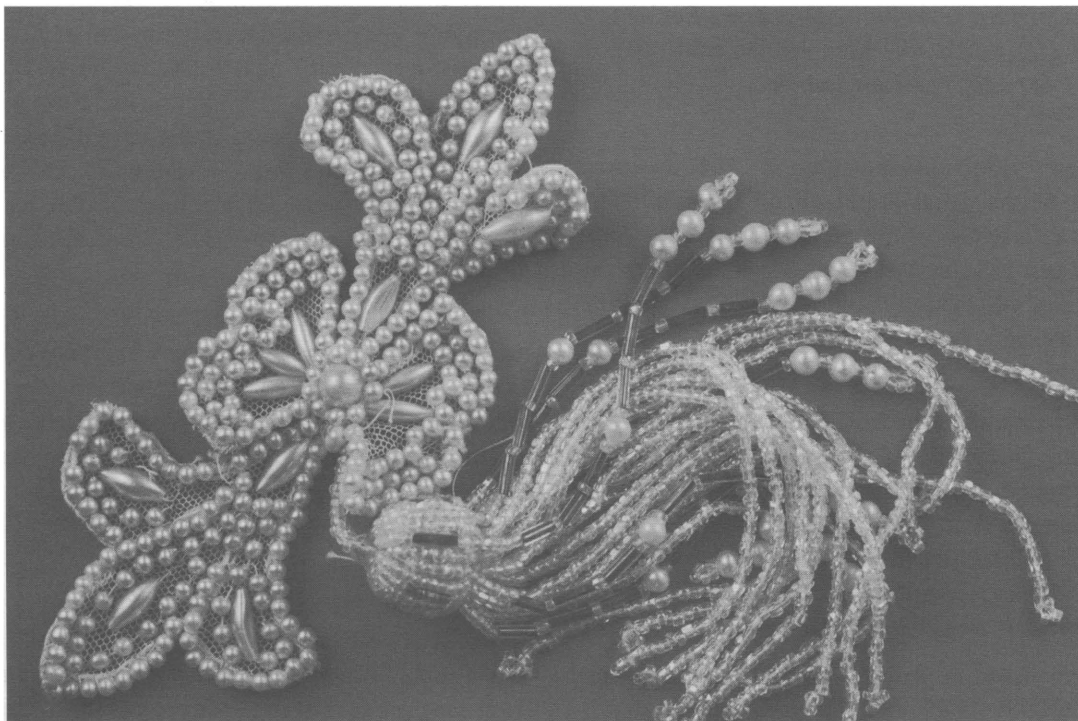
The second method is faster. Seed-sized pearls are crushed into a fine powder which is dissolved in alum water. The resulting paste is washed with distilled water, then with bean water. The paste is double boiled for 15 days. It is then formed into beads in gold-lined silver molds and dried. The beads are next wrapped in a sheet of silver foil and stuffed into the body cavity of a barbel, a large freshwater fish. The fish itself is covered all over with a barley paste and cooked in an oven like a loaf of bread. To make the beads lustrous, they are then cooked in a mixture of herb juices, *gratuli*, alum, a small amount of powdered pearls, saltpeter and lead oxide. If the beads are not hard enough after drying,

they are cooked once again, this time in a mixture of calamine, sulfuric acid and egg whites. The final step is to wrap them in barley paste and bake them in an oven (de Blancourt 1697:552-555).

The production of false pearls continued to grow in the 18th century. A mid-century encyclopedia covering handicrafts and manual trades includes a three-page segment illustrating the process (Diderot and d'Alembert 1751-1772:*l'émailleur*, Pls. i-iii). Plate iii in the series (Fig. 1) describes the manner in which blown glass beads were filled with *essence d'orient*. The *essence* was sucked into a pipette and then blown into the bead which was then attached to a waxed stick and plunged into a bowl of melted wax. The final step involved piercing the wax core to produce the hole. To further enhance their luster, false-pearl beads were made using a special opale-scent French glass called *girasol* (Barrelet 1954:119). Traditionally, men were responsible for blowing the glass beads, while women filled them.



**Figure 2.** Examples of wax-filled glass beads, late 19th century (Opper collection).



**Figure 3.** Ornaments fashioned from wax-filled glass beads, late 19th century (Opper collection).

## FALSE PEARLS IN THE 19TH CENTURY

The techniques for making faux pearls remained essentially the same through the 19th century. Beadmakers continued to imitate nature by creating irregular as well as perfect shapes (Figs. 2-3). An experienced lampworker could make up to 300 hollow glass beads in one day (Sauzay 1884:220-221). Although somewhat difficult to imagine, Sauzay (1884:226) also reported that a good worker was capable of filling 40,000 beads per day.

Under the rubric of "beads," 19th-century trade almanacs provide a wealth of information concerning the names and addresses of beadmaking workshops. In 1805, a man named Truchy is mentioned as Jacquin's grandson and inheritor of the business which continued to make high-quality imitation pearls for export as well as for the French market (*Almanach du commerce de Paris* 1805-1806). Truchy's address is given as 10, rue du Petit-lion Saint Sauveur, Paris, which is the same street mentioned by du Pradel (1692,I:248) as the location of several vendors of Jacquin's false pearls in the 17th century. In 1842, Truchy purchased a second workshop on the same street. He named his two studios *Aux Trois Perles* and *La Grosse Perle*, and it was here that he continued to make beads for the Parisian public as well as for export.

The Truchy name appears again in 1865, this time in the form of the great-grandson of Jacquin. The workshops won several prestigious international awards between 1851 and 1862, and it is probably the great-grandson who provided information about the life and legend of Jacquin to Sauzay (1884:221-225).

Other imitation-pearl beadmakers found in 19th-century almanacs include Audy, Tiby, Bouche, Bourguignon, Dumeniel, Fenet, Genielle, Hedelin, Lebrun, Touguant, Topart and Rouyer. Among these names, those of Audy, Bourguignon and Topart continued on into the next century (*Annuaire-almanach du commerce* 1900:2222). Topart's name eventually became a registered trademark.

An advertisement for a shop where imitation pearls were sold in 1865, describes in romantic detail the new trend toward free-spirited, more-whimsical

jewelry and attire. Aptly named *À l'Ombre du Vrai* (In the Shadow of the Real), the shop was located in the heart of Paris:

There exists a pretty and almost mysterious small shop on the rue Vivienne that is illuminated night and day, and where one can see the richest and most elegant women slipping in and out. What is this stylish little shop? It is one of the temples of coquetry, a salon where one can experiment with the shadow of the real. It is the place in Paris with the most glitter, where "diamonds and pearls" are the least expensive, because *l'Ombre du Vrai*, as its name implies, offers the sparkle and the allure but not the value. Here can be found a thousand new inexpensive items that are such perfect imitations of the real that even the rich wear them, fooling all but those who know their secret (Mereau 1865:63).

## THE 20th CENTURY

In the 20th century, others took out registered trademarks including Biardot in Paris, and the Société Anonyme des perles Leuret, located in Proverville, Troyes and Ferte sur Aube. Other trademark companies dealing in false pearls had their workshops outside France, including Gablonz and Venice. These include Scheidel, Schindler, Schwonk, Strauss, Veit, Zeller, Fried (who still exists in Paris), Heusch (Société des Perles des Indes) and Huck (*Annuaire-almanach du commerce* 1900:2221-2222).

Paisseau-Feil, another Parisian beadmaker, was responsible for several patents both in France and outside. In fact, the Archives de l'Institut National de la Propriété Industrielle (France 1904-1949) contain a large number of patents from the beginning of the 20th century concerning the process of making imitation pearls:

1904: Patent 339.171 was issued to Paul Perdrizet for fabricating false pearls from gelatin into which a cotton core was introduced. As the gelatin dried, irregular forms resembling real pearls were obtained.



1906: Patent 360.545 allowed Elias Maalouf to produce celluloid beads soaked in a solution of nitro-cellulose mixed with *essence d'orient*.

1910: Patent 408.041 went to K. Wirth to make press-molded gelatin beads using grooved molds.

1912: Patent 442.196 to Marcel Kraus for the application of *essence d'orient* and then of gelatin onto the surface of glass, opal or nacreous beads. The gelatin layer was iridized and rendered waterproof and wear-proof. In this particular patent, it is of interest to note that the core of certain false pearls was made of opal, which lent an iridized effect to the outer layers of *essence d'orient* and gelatin.

1913: Patent 463.060 issued to Aimé Potiez to use a wooden core covered with *essence d'orient*, gelatin, then varnish. Several diverse names given to imitation pearls are mentioned in this patent, including *primes-perles*, *blues-perles* and *soufflures*. Interestingly, *soufflure fine* is also the name given to real Baroque pearls that are hollow.

1913: Patent 473.533 to J. Paiseau for a beadmaking procedure.

1921: Patent 521.126 to J. Paiseau for a substance replacing *essence d'orient*.

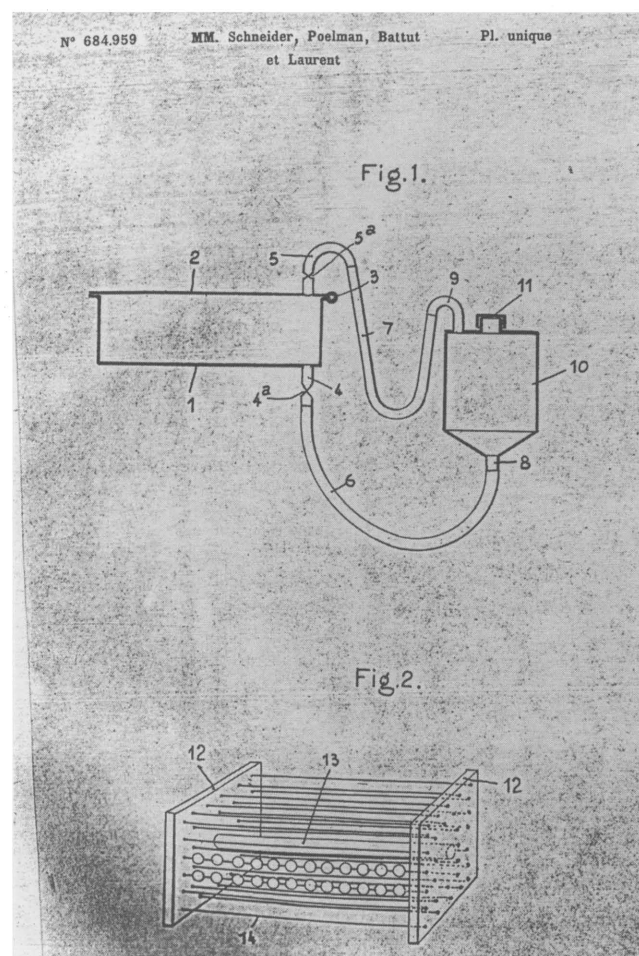
1924: Patent 570.208 to J. Paiseau for the fabrication of a nacreous material. Paiseau called this Nacrolaque, which was widely used in costume jewelry, furniture and other decorations. (Pl. IVA-IVB depict necklaces made by Louis Rousselet, using beads made from Paiseau's Nacrolaque.)

1924: Patent 583.457 to J. Paiseau for diverse products imitating pearls and nacre.

1927: Patent 634.408 to J. Paiseau for working condensed resins into beads using a lampworking torch.

1930: Patent 684.956 to Robert Schneider, in association with Poelman Battut and Laurent, for the fabrication of perfumed imitation pearls. (Although the idea never seems to have caught on, the beadmaker was able to add different per-

N° 684.959 M.M. Schneider, Poelman, Battut et Laurent Pl. unique



**Figure 4.** Robert Schneider's patent no. 684.959 for varnishing beads (Archives de l'Institut National de la Propriété Industrielle).

fumes to his mix, giving the beads a distinct aroma.)

1930: Patent 684.958 to Robert Schneider and associates for a process to iridize beads.

1930: Patent 684.959 to Robert Schneider and associates for a device to varnish beads (Fig. 4).

1949: Patent 948.442 to Poelman for improving the fabrication of imitation pearls by reducing labor time and economizing on the varnishing process.

1949: Patent 1.000.763 to Jean Barracas for a new product imitating pearls which consisted of fish eyes boiled in a solution of sodium chloride. After drying, they were soaked in vegeta-



**Figure 5.** Mademoiselle Chylda, French turn-of-the-century actress, wearing several strands of false pearls (postcard).

ble oil, dried once again, thus obtaining “practically unbreakable beads of great beauty.”

The attraction of faux pearls expanded rapidly during the first quarter of the 20th century. An increasing number of small and medium-sized workshops were established to meet the public’s growing demand. In addition to those already mentioned for their patents, the following individuals who operated workshops also deserve recognition: Fernand Petit (the family still runs an antique jewelry store in Paris called *La Licorne*), Vincent Alexanian, Boucher, Gillot, Gauthier, Stichelbaut, Van Laar, Gripoix and Rousselet. Numerous postcards of the 1900-1912 period reveal not only the popularity of



**Figure 6.** Mademoiselle Cassive, French actress, turn of the century, wearing a choker of false pearls (postcard).

imitation-pearl jewelry and trimmings, but also provide insight as to the fashions of the time (Figs. 5-7; Pl. IVC).

Gripoix, like most other workshops, was a family-run business handed down from generation to generation. The House of Gripoix was an important supplier to the high-fashion industry, particularly to Chanel. In fact, Coco Chanel initially ordered copies of certain pieces of her own original jewelry, and it was from this time on that Gripoix began furnishing her with the nacreous glass-bead jewelry that became her trademark (Oppen and Oppen 1991:53).

Another important beadmaker was Louis Rousselet, whose Paris workshop employed up to 800 persons in Paris during the period between the



**Figure 7.** “La belle Faguette,” turn of the century, wearing strands of false pearls in various ways (postcard).

two world wars (Figs. 8-9). Like his contemporary Gripoix, Rousselet made costume jewelry for the high-fashion industry, as well as for performers at the famous Paris cabarets of the time such as the Casino de Paris, Moulin Rouge and Folies Bergère (Fig. 10; Gumpert 1988:5). Josephine Baker and Mistinguett, the most noted of the cabaret stars, were among Rousselet’s best customers. Although the workshop closed its doors in 1975, the beadmaker’s creations can still be purchased at the boutique Jeanne Danjou, owned by Rousselet’s daughter and grandson, on the Pont Neuf in Paris (Fig. 11; Pl. IVD).

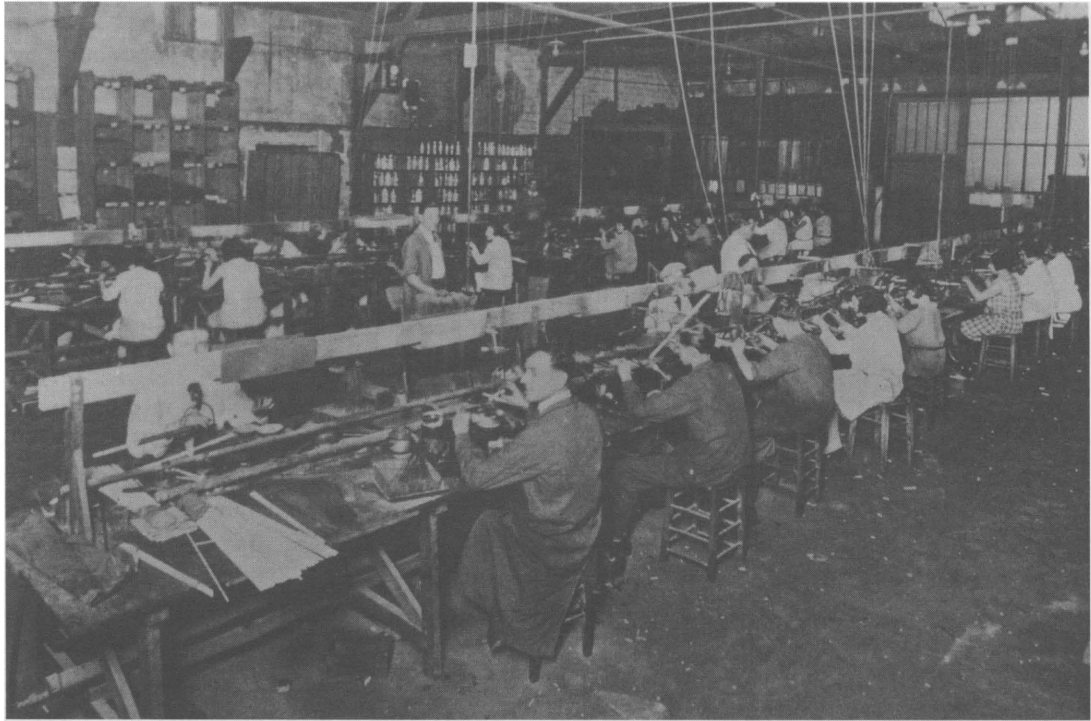
Mistinguett was considered the queen of the Roaring Twenties in France, becoming a symbol of the sumptuous luxury displayed in the entertainment world of the time (Coquart and Huet 1996:152-153). From the midst of equally fabulous and glittering settings, she would enter the stage in wildly incredible costumes, resplendent with feathers and, of course, false pearls. Mistinguett was a frequent visitor to Rousselet’s workshop (Fig. 12) where, at one point, she actually sat at a torch and attempted to make a bead (Fig. 13).

In 1927, J. de Valmont described the current attraction and vogue of beads (Fig. 14). Given the past success of traditional necklaces made exclusively of imitation pearls in rose, jade green, violet and burgundy, the new and more innovative approaches combined these iridized beads and pendants with other components, such as crystal, coral and jade, to create more capricious necklaces to go with coordinated bracelets and dangling earrings. The beads were also widely used to make decorated hair pieces for evening wear (de Valmont 1927:10-12).

## CONCLUSION

The centuries-old French love affair with imitation-pearl beads and pendants is attested to by the number of beadmakers who have specialized in their manufacture. From the 13th century, when Venetian beadmakers brought their lampworking techniques to France, to the invention of *essence d’orient* in the 17th century, and on to the free-spirited time between the two world wars, beadmakers continued to create new methods and techniques in order to keep up with the public’s demand for high-quality imitations. The popularity of different kinds of faux-pearl jewelry reached its zenith in the 1920s and 1930s, when famous stage personalities such as Mistinguett and Josephine Baker paraded their fabulous costumes and baubles before an adoring public. Although imitation pearls are still a popular component in jewelry, there are currently fewer and fewer French beadmakers who make these time-honored imitations of one of nature’s finest natural materials.





**Figure 8.** Louis Rousselet's glass beadmaking workshop, early 1930s (courtesy of Denise and Jean Claude Rousselet).



**Figure 9.** Another section of Louis Rousselet's workshop complex, early 1930s (courtesy of Denise and Jean Claude Rousselet).



**Figure 10.** Parisian cabaret performer festooned with false pearls (*Paris-Plaisirs* 1926:82).

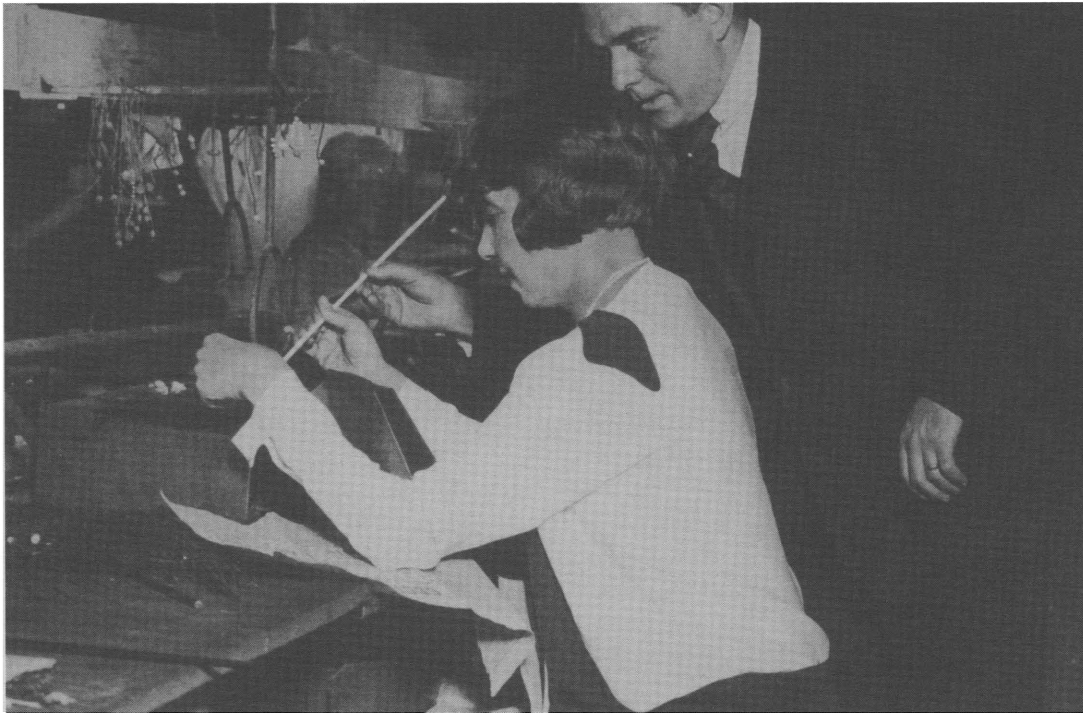


**Figure 11.** Several of Rousselet's necklaces (photo: H. Oppen).



**Figure 12.** Louis Rousselet's beadmakers showing off their imitation pearl necklaces, early 1930s (courtesy of Denise and Jean Claude Rousselet).





**Figure 13.** Mistinguett making a glass bead with Louis Rousselet looking on, early 1930s (courtesy of Denise and Jean Claude Rousselet).



**Figure 14.** Advertisement for Schneider's imitation-pearl jewelry (*Parures* 1926, no. 29).



## ACKNOWLEDGMENTS

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# A HOARD OF STONE BEADS NEAR LAKE CHAD, NIGERIA

Graham Connah

*In 1980, a small pot containing 622 carnelian and quartz beads was found accidentally at Ala, in the Nigerian part of the clay plain south of Lake Chad. It appears to constitute a hoard of wealth which its owner buried and subsequently failed to retrieve. Beads of this sort first appear in this area in the second half of the first millennium A.D., but also occur in second-millennium deposits. However, they are usually found as grave goods, and the Ala discovery is almost the only example of a hoard of such beads known to the author. Their presence on the stoneless Chadian plain indicates the development of trading contacts with other areas, but neither the source of the raw materials nor the place of manufacture of the beads is known. The quartz could have come from the Cameroon Mountains but the origin of the carnelian, often assumed to be from India, remains problematic. More attention needs to be paid to the possibility of West African sources and production, but there is also an urgent necessity both to compile a corpus of firmly dated material and to conduct characterization studies that could throw more light on the origin of the carnelian.*

## INTRODUCTION

The concept of the archaeological hoard—a collection of valued objects hidden by its owner who subsequently failed to recover it—is well known in many parts of the world. In societies with monetary economies based on coinage, such hoards often consisted of collections of coins buried in some sort of container which may or may not have survived. In societies without coinage, accumulated wealth could take a variety of forms, beads among them. Light in weight relative to their value, easy to transport, durable, much sought-after as personal adornments and for ritual use, their continued value, particularly if they were of glass or semi-precious stone, was usually assured. In tropical Africa, for instance, the past importance of beads is clearly apparent from the writings of 18th- and 19th-century European travelers

who frequently carried them to use as payment or as gifts. Thus, Mungo Park, setting out from the Gambia in 1795, carried provisions for two days as well as “a small assortment of beads, amber, and tobacco, for the purchase of a fresh supply, as I proceeded” (Park 1951:85). Several months later, virtually destitute, Park (1951:116) “had not one single bead, nor any other article of value in my possession, to purchase victuals for myself, or corn for my horse”. Given their apparent value, it is hardly surprising that beads are regularly found among the grave goods of African burials dating to the last 1,500 years or so. The discovery of hoards of beads appears to be much less common, probably because they are most likely to be found by accident and the recovery of such saleable material is unlikely to be reported to the relatively few archaeologists around. This makes the hoard of stone beads discussed herein particularly important. Indeed, the author has been able to find only one brief published reference to a similar case in the region from which it came.

## THE SETTING

Lake Chad sits astride the dry savanna that stretches from west to east across the African continent south of the Sahara Desert. The center of an inland drainage basin, it has been subject to both long-term and short-term fluctuations in size so that for approximately the last 3,000 years, there has been an extensive plain of lacustrine clay situated particularly to its south. This plain occupies parts of northeastern Nigeria, northern Cameroon and southwestern Chad, and is subject to annual inundation due to the marked seasonality of its brief wet season and the impervious character of its soil. In spite of a long, hot dry season, this has enabled the area

to become important for grain growing, particularly of sorghum, some of which depends on the retained moisture in the soil following the recession of the floodwater. In addition, livestock husbandry, of cattle, sheep and goats, is important.

Archaeological research has indicated that the area has been occupied by people for the last three millennia, resulting in the formation of substantial and numerous settlement mounds, of which no less than 822 have been recorded (e.g., Breunig, Neumann and Van Neer 1996; Connah 1981, 1984; Gronenborn 1996; Gronenborn et al. 1996; Holl 1996). The subsistence economy of the area seems to have been basically the same throughout the occupation of the clay plain, although rice and millet appear to have been the important crops in earlier times (Neumann, Ballouche and Klee 1996), and hunting and fishing probably contributed more to the diet than is now the case (Gronenborn et al. 1996). The earliest use of iron was in about the 1st century A.D.—according to evidence from the almost 11 meters of deposit at the Daima mound (Connah 1981:146-147)—so that prior to that time, artifacts had to be made of stone or, more commonly, bone. The reason for using the latter was that the clay plain is completely stoneless; at Daima, for instance, stone used at the site had been brought from places 75 km to at least 200 km away (Connah and Freeth 1989:19). In such a context, the presence of glass or stone beads is of considerable interest because the appearance of such exotic materials suggests that long-distance trade was beginning to penetrate the area. At Daima such beads only really appear for the first time in the second half of the first millennium A.D., usually with inhumation burials. This is the background against which the hoard of stone beads discussed in this paper must be viewed.

## THE HOARD OF STONE BEADS

The hoard was discovered during the wet season (normally about July to September) of 1980, near the then settlement of Ala, in northeastern Nigeria (Fig. 1). This place lies on the clay plains to the south of Lake Chad, in an area where the Chad Basin Development Authority at that time had an extensive irrigation scheme under construction. Magara Adam, a workman employed by the Authority, was digging holes for tree

planting along the sides of a new bitumen road that runs towards Ala from the Maiduguri-to-Dikwa road. At a spot south of the settlement of Ala but within sight of it (at approximately 12°11' N. and 13°52' E.), he found a small pot in a gully by the side of the road. It is unclear whether he found it eroding from the side of the gully, or whether he dug it up accidentally in the course of digging a tree hole. However, the former seems more likely because the pot was recovered unbroken with an intact earth fill. The pot was subsequently given to Mrs. Nan Wedderburn, a British woman resident in Maiduguri who had lived in the north of Nigeria for many years. A person conversant with the most commonly spoken local language, Kanuri, she was known to be interested in the history of the pre-Colonial state of Borno, of which the area had formed a part, and it was presumably for this reason that she was given the pot. At that time there was no resident archaeologist anywhere in northeastern Nigeria. However, the author had conducted extensive archaeological research around Lake Chad in the 1960s and late 1970s, and was known to be returning to conduct further fieldwork in early 1981. The pot, therefore, stood outside the Wedderburns' house, still full of earth and with nobody suspecting that it contained anything else. Some time went by and then the Wedderburn's gardener accidentally knocked the pot over, breaking it. It was subsequently noted that the pot was half full of beads, at which point the pot fragments, beads and earth fill were all swept up to show the author on his next visit.

When inspected in January 1981, it was found that the pot could be completely reconstructed (Pl. VA). It proved to be narrow-necked and round-based, measuring 180 mm in height, 150 mm in greatest diameter and with a neck aperture of only 19 mm. The vessel was undecorated and of a buff-colored fabric with a thin dark-brown slip, much of which had worn off. This pot form is one that appears only late in the local archaeological sequence (Connah 1981); i.e., it belongs to the period from the second half of the first millennium A.D. onwards. The lack of decoration or other distinctive features makes it difficult to date the vessel more precisely.

In addition to the pot and the heap of loose beads was a solid lump of earth which preserved part of the internal curvature of the pot and had numerous beads embedded in it. Careful examination of this lump



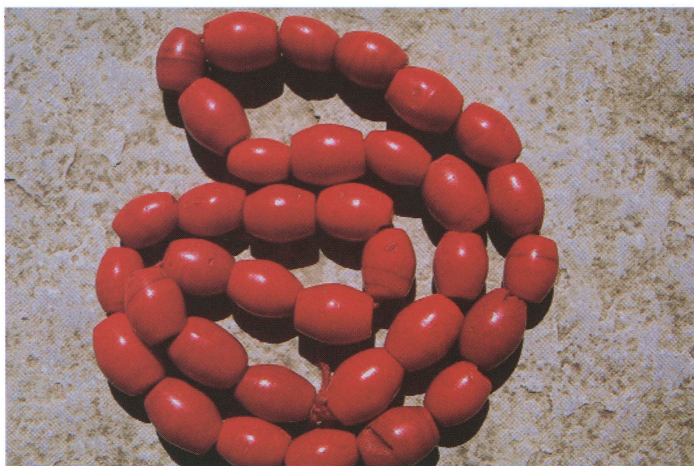


**Plate 1A. Juang:** Juang women wearing typical garments and glassbead necklaces in the village of Guptaganga (Juang photos by A.K. Kanungo).

**Plate 1B. Juang:** The *thaniputi* or village deity of Guptaganga. It is composed of sacred stones and wood.







**Plate IIA. Juang:** Top: The three most common necklaces currently in use by the Juang. Bottom: *Pohala* (large furnace-wound beads produced in India).

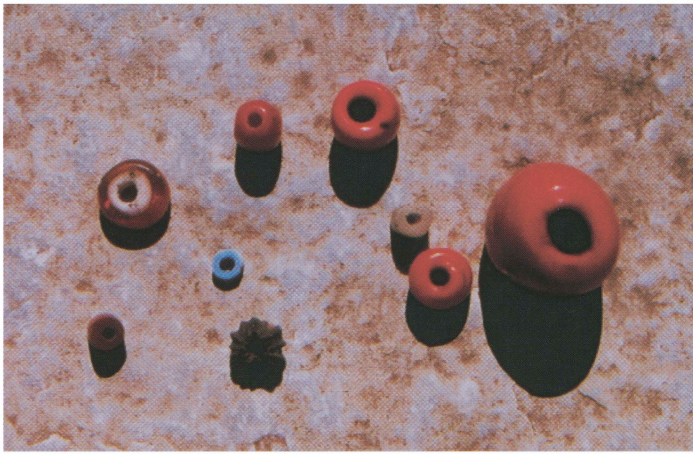
**Plate IIB. Juang:** Various glass-bead necklaces, including marriage strings (*ahuda mali*) of reddish-brown and white beads.

**Plate IIC. Juang:** A newly married woman on her way to her parent's home to return her old ornaments in the village of Phulbadi.

**Plate IID. Juang:** A Juang woman in the village of Kadalibadi. She is adorned with several strands of glass beads.



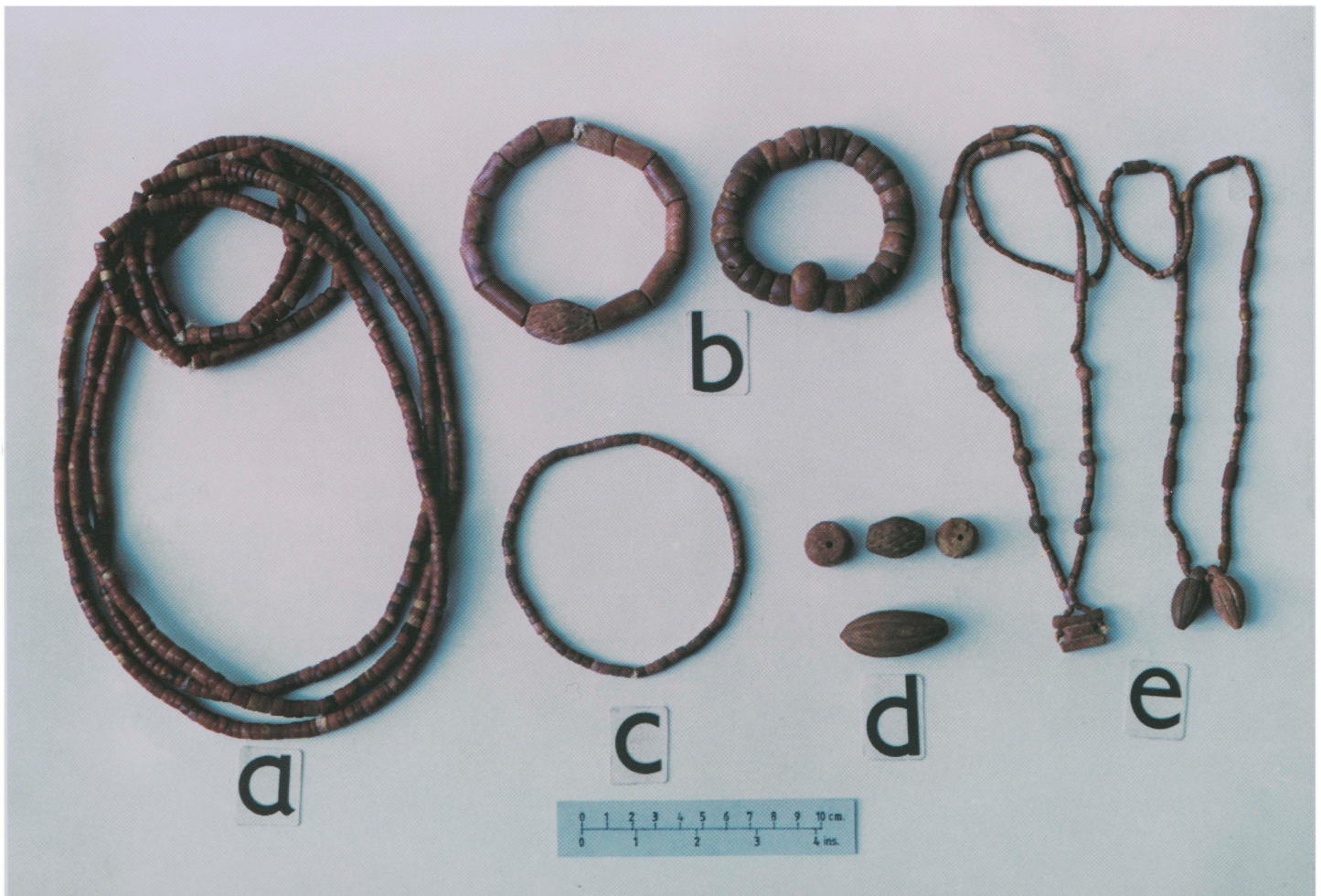




**Plate IIIA. Juang:** Top: Various beads in use today by the Juang. All are glass except the *bomo*. Bottom: *Bomo* (seed) beads.

**Plate IIIB. Juang:** An elderly Juang woman at Guptaganga wearing several necklaces composed of coins and glass beads.

**Plate IIIC. Akyem Te:** The types of bauxite beads produced at Abompe: a, *asenemu* (waist beads); b, *bakon* (wrist beads); c, *nantu* (calf beads); d, *odaano* (loket beads); e, *konmu* (necklace beads) (photo: Bosman Murey).







**Plate IVA.** *Pearls:* A Rousselet necklace featuring Nacrolacque beads from Paiseau's stock (photo: H. Oppen).

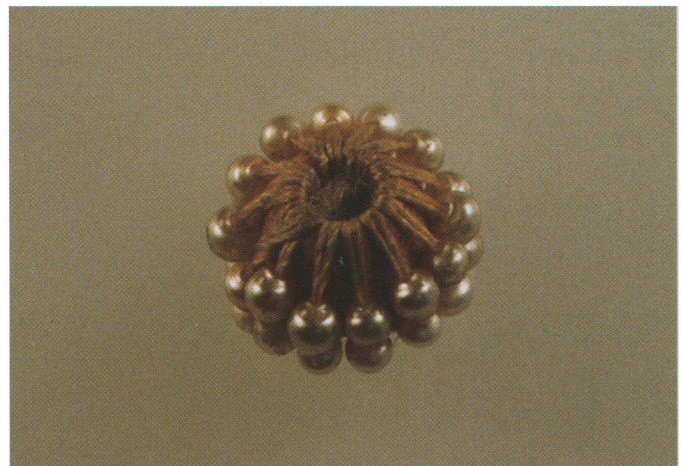


**Plate IVB.** *Pearls:* Another Rousselet necklace composed of Nacrolacque beads (photo: H. Oppen).

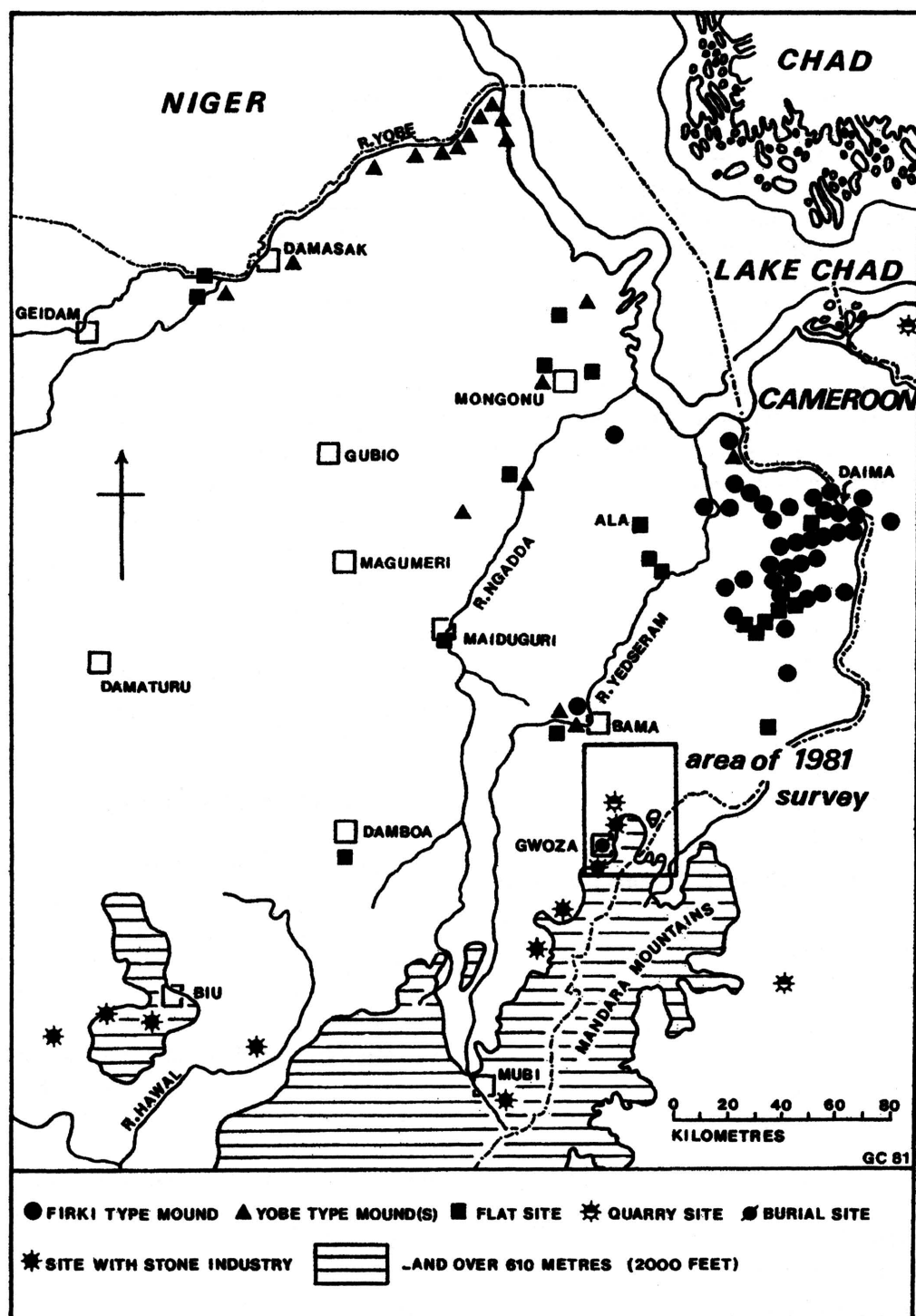
**Plate IVC.** *Pearls:* Mademoiselle Sophia, actress, ca. 1908; false pearls comprise her necklace and choker, and garnish her dress (postcard).



**Plate IVD.** *Pearls:* Beads by Louis Rousselet. **Top:** A yarn bead with imitation pearls. **Bottom:** Various nacreous glass beads (photos: H. Oppen).







**Figure 1.** The location of Ala in relation to other archaeological sites in the Lake Chad region of Nigeria, as known prior to 1981. The 1981 survey revealed a substantial number of additional sites within the survey area (Connah 1984) and subsequent work by others located even more in the region as a whole (e.g., Breunig, Neumann and Van Neer 1996)(drawing: G. Connah).



revealed that the beads had probably been unstrung when put into the pot, and they had occupied the lower half of the vessel. After burial, the upper half of the pot became filled with fine sandy earth that apparently trickled into it over time. Finally, it was noted that the pot had lain in the ground at an angle because the sandy earth in its upper half showed a tilted micro-stratigraphy. The lump of earth was then soaked in water and all the beads contained within it were extracted.

The pot was found to contain 622 stone beads of the following materials: carnelian (562 specimens), quartz (48 specimens) and possible carnelian (12 specimens). The recorded forms are described below. The average measurements provided are approximations only. Furthermore, no weights were recorded because there was no way to accomplish this at the time.

Carnelian; dull red to black; long bicones; 56 specimens.

Average length: 11 mm  
Average diameter: 10 mm

Carnelian; dull red to black; short barrels/short bicones; 21 specimens.

Average length: 9 mm  
Average diameter: 12 mm

Carnelian; dull red to black; short cylinders; 65 specimens.

Average length: 7 mm  
Average diameter: 9 mm

Carnelian; dull red to black; short bicones; 420 specimens.

Average length: 7 mm  
Average diameter: 10 mm

Quartz; white; short barrels/short bicones; 2 specimens.

Average length: 11 mm  
Average diameter: 12 mm

Quartz; white; short cylinders; 11 specimens.

Average length: 7 mm  
Average diameter: 9 mm

Quartz; white; short bicones; 35 specimens.

Average length: 6 mm  
Average diameter: 11 mm

Carnelian(?); dull pink to white; short cylinders; 7 specimens.

Average length: 5 mm  
Average diameter: 9 mm

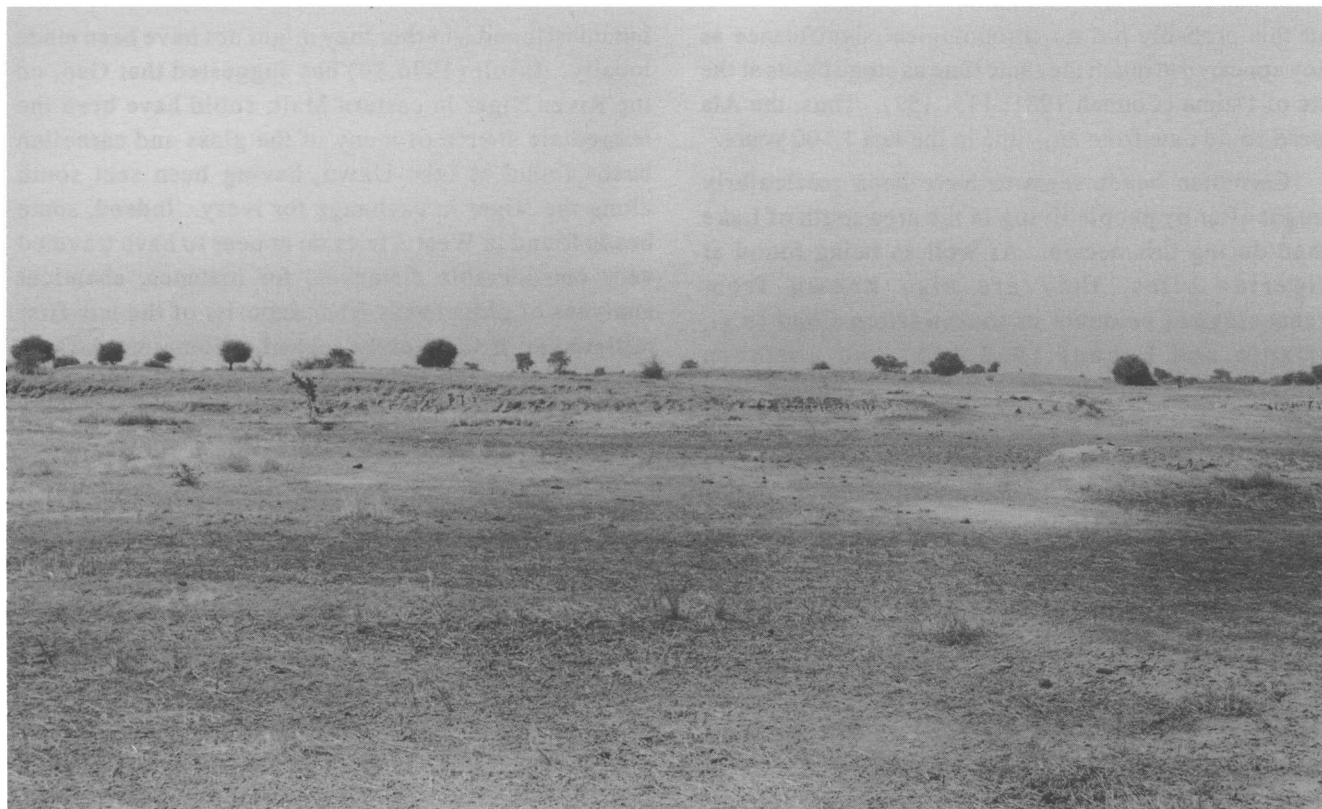
Carnelian(?); dull pink to white; short bicones; 5 specimens.

Average length: 6 mm  
Average diameter: 9 mm

The beads (Pl. VB) were irregularly shaped in many instances and the shapes listed above actually merge into one another, short bicones and short barrels particularly so. Many of the beads, especially the short bicones, were concave or dished at one end. Although not absolutely certain, it appears that the perforation was drilled from one end and the concavity was formed either when the drill broke through the other end or when the workman knocked out whatever material remained in the hole after the drill broke through (cf. Lucas and Harris 1962:44). In the case of the short barrels/short bicones, the concavity had been almost completely removed during the subsequent grinding and polishing of the bead.

## EXAMINATION OF THE HOARD SITE

Soon after the beads were inspected, the author was able to visit the find site in the company of the man who had made the discovery. The general area consisted of a level clay plain with overlying sand in some places. When the visit was made on February 8, 1981, the dry season was well advanced and the only vegetation consisted of a thin thorn scrub (Fig. 2). An extensive area of modern superficial disturbance, probably resulting from the removal of earth during road construction, was found on the west side of the road south of Ala. The east side of this disturbance consisted of a bank about 1.5 m high that ran parallel to the adjacent road embankment. This bank had been gullied by rainfall and it was here that the pot containing the hoard had been found. Inspection of these gullies revealed another pot at a depth of about 0.8 m, but it was empty. It was decorated with mat impressions that are more common early in the Borno pottery sequence (Connah 1981:118; Gronenborn et al. 1996:207), suggesting that the vessel could have been earlier in date than the pot containing the hoard.



**Figure 2.** The Ala site, looking west from the place where the hoard was found, February 8, 1981 (photo: G. Connah).

Other potsherds were thinly scattered through the exposed deposit, as well as over the surface of the extensive area of disturbance. Furthermore, a scatter of natural iron concretions covered this area and samples of these showed a 37.3% content of total iron when analyzed by the Australian Mineral Development Laboratories in Adelaide. The laboratory report commented that the concretions "could not be recommended for traditional African smelting except if there was nothing better in a particular location." In fact, such material was formerly used in this area for smelting iron just because "there was nothing better" on the otherwise stoneless plain south of Lake Chad (Connah 1981:160; Falconer 1911:186). It was also reported that local informants had claimed that one of the biggest slave markets in Borno had formerly been located in the general area. In short, both archaeological evidence and oral tradition indicated that the area had been one of substantial activity in the pre-Colonial past. It was, therefore, given a site number (Borno 124) and recorded as a flat site, there being no trace of either

settlement or midden mounds in the immediate vicinity. Given the minimal surface vegetation in this area for much of the year, it is common to find human skeletal material eroding from archaeological sites, but a careful search around the findspot revealed no such evidence. It seems likely, therefore, that the pot and its beads are indeed a hoard rather than grave goods. Furthermore, evidence from the site of Daima (Connah 1981) suggests that, had the beads been placed with a burial, they would have been strung and worn by the deceased, rather than merely being placed loose in a pot.

### THE SIGNIFICANCE OF THE HOARD

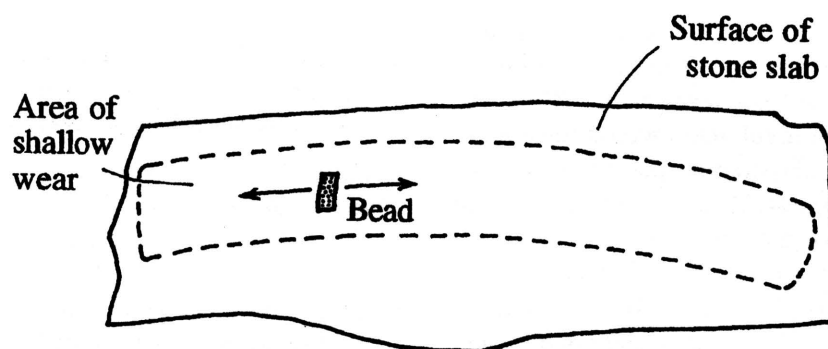
As already indicated, stone beads only really appear for the first time in the Borno sequence in the second half of the first millennium A.D., so although the Ala beads may be older than the pot in which they were buried, they need not necessarily be so. It is interesting that there are no glass beads in the hoard,

but this probably has no chronological significance as they appeared at much the same time as stone beads at the site of Daima (Connah 1981: 115, 157). Thus, the Ala hoard could date from any time in the last 1,500 years.

Carnelian beads seem to have been particularly sought after by people living in the area south of Lake Chad during this period. As well as being found at Nigerian sites, they are also known from archaeological contexts in southwestern Chad (e.g., Griaule and Lebeuf 1950:145) and northern Cameroon; in the latter area, for example, the 16th-century cemetery of Houlouf contained a large number of examples (Holl 1994:155). However, carnelian beads seem to have had a much wider distribution than this in West Africa, although this has never been studied in any detailed synthesis. When such a study is eventually carried out, it may be found that the distribution of carnelian varies considerably both geographically and chronologically. At the ca. 10th-century site of Igbo-Ukwu in southeastern Nigeria, for instance, there were over 15,000 carnelian beads out of a total of 165,000 specimens, otherwise mostly of glass (Shaw 1970, 1:225, 230). In contrast, excavations in second-millennium deposits at Benin City in southern Nigeria produced only six carnelian examples out of a total of 269 beads (Connah 1975:170), and the site of New Bupe in Ghana, occupied mainly during parts of the first and second millennia A.D., had none at all (York 1973:54).

The question that inevitably arises is "What is the source of the carnelian beads?" Clearly, those from sites south of Lake Chad came from outside the clay plain of that area, but the problem is from where? For a long time it has been customary to assume that such beads came from the Gulf of Cambay in northwestern India (Arkell 1936; Shaw 1970, 1:237-238). However, this has never been demonstrated by comparing chemical or physical characteristics, and Sutton (1991:152) has remarked that the "Indian provenance may have been overplayed through ignorance." Nevertheless, such beads could have been one of the consequences of the expanding Indian Ocean trade of the late first millennium and early second millennium A.D., and might have reached West Africa via Egypt or Nubia. In this connection, it is relevant that Horton (1996:332-333) found numerous carnelian beads in deposits of that period at Shanga on the Kenyan coast,

but questioned whether they might not have been made locally. Insoll (1996:80) has suggested that Gao, on the River Niger in eastern Mali, could have been the immediate source of many of the glass and carnelian beads found at Igbo-Ukwu, having been sent south along the Niger in exchange for ivory. Indeed, some beads found in West Africa do appear to have traveled very considerable distances; for instance, chemical analyses of glass beads from deposits of the late first millennium B.C. to early second millennium A.D. at Jenné-jeno in southern Mali revealed that one bead could have come from India or East or Southeast Asia (McIntosh 1995:252-256). However, in the case of the carnelian beads found at West African sites, an origin outside Africa has often been assumed merely because of an apparent lack of African sources of carnelian (DeCorse 1989:44; Insoll 1996:81), other than in Egypt where it "occurs abundantly" (Lucas and Harris 1962:391). Carnelian is a form of chalcedony and it seems unlikely that it is not present somewhere in West Africa. For instance, chalcedony occurs near the Nigerian rockshelter site of Iwo Eleru where it was used for making artifacts for some thousands of years before the second millennium B.C. (Freeth 1984:138), and it is worth noting Horton's (1996:333) remark that chalcedony "is common in East Africa as well as in India." The quartz beads in the Ala hoard, which have also been found elsewhere, sometimes with carnelian beads, may provide a clue. So far as the Lake Chad area is concerned, Lebeuf (1962:116) attributes such quartz to the northern part of the Cameroon Mountains and thinks that the carnelian possibly came from the same area. Another possibility is a source in southern Niger (de Beauchêne 1970), although this was probably jasper which is known to have been used for beadmaking at Ilorin in Nigeria (Daniel 1937:7). It is also possible that carnelian of Indian origin was being worked or reworked into beads in West Africa itself (Edwardes and Arkell 1937; Insoll 1996:82). The problem is complicated by the way in which the term "carnelian" has sometimes been used, and it seems unlikely that much more will be ascertained about the source or sources of carnelian beads in West Africa until comparative chemical analysis or other studies are carried out. Nevertheless, West Africa does seem to have had its own tradition of manufacturing stone beads; e.g., at Ilorin (Daniel 1937) and at Bida (Edwardes and Arkell 1937) in Nigeria, and on the



**Figure 3.** Stone grinding slab in Zaria, 1967, showing manner of use. Not to scale (drawing: G. Connah).

Kwahu scarp in Ghana (Shaw 1945), and this should make us keep an open mind on the matter. Significantly, when shown photographs of the Ala beads, Peter Francis (1998:pers. comm.) commented: "The carnelians look very African to me, not at all Indian."

### STONE-BEAD CRAFTSMEN OF ZARIA

By chance, the author, guided by Alan Leary, then of the Department of Fine Art at Ahmadu Bello University, Zaria, was fortunate enough to witness what may have been some of Nigeria's last stone-bead workers in action on February 8, 1967 (Connah 1965-1967:76-78). In the old part of the city of Zaria, three men were seated on the ground in the gatehouse of a house, grinding carnelian beads. This was done on thin, oblong slabs of stone which appeared to be schist, and which they said had been brought from the River Niger at Jeba (cf. Daniel 1937:8). The craftsmen pointed out a new slab not yet in use which was leaning against a wall. Each man ground one bead at a time, holding it with his fingers so that it was rubbed at right angles to its long axis (Fig. 3). The grinding was carried out with a long lateral swinging movement of the arm which was held straight with a stiff elbow. Water was used to assist in the process. The carnelian in use was a dull red, not very translucent, and seemed to be poor material. When asked, the men said that it came from India and that they received it already drilled. It was noted that the perforations of the beads that they had with them had been drilled from either end and the two segments often met off line. The beads

were cylindrical, but some others were seen that had square cross sections and were made of better material. Six of the latter were purchased for nine shillings, at that time equivalent to two days' wages for an unskilled laborer. In addition to grinding and presumably polishing the beads, it appeared that the craftsmen performed other work on them as well as each man had a series of thin needle-like tools and small chisels. The former were used to clear out occluded perforations. During this task, the bead was held upright between the big toe and the next toe of one foot which rested on the other in such a way that the base of the bead was supported by the side of the other foot. In one instance, the bead whose perforation was being cleaned in this way broke in half because it was badly flawed. Overall, it appeared that the beads had come from elsewhere, indeed perhaps India, and that they were being altered, or at least finished, to suit the local market. It is quite possible that this was a practice of considerable antiquity.

### CONCLUSION

The hoard of beads from Ala is important because, so far as the literature of West African archaeology is concerned, it is almost unique (Effah-Gyamfi [1985:94] reported the discovery of a hoard of 589 quartz beads at Buoyem near Bono Manso in Ghana, but gave no details). It represents accumulated wealth that its owner hid in a pot and then buried, possibly in or near a settlement. As it was not subsequently recovered, it may be presumed that the owner either forgot its location or died before there was an



opportunity to dig it up. The 622 carnelian and quartz beads are exotic items that were transported into the stoneless Chadian plain from elsewhere. Given the relatively small number involved, it would seem more likely that they were the personal possessions of an individual rather than the stock-in-trade of a merchant and they might, in fact, already have been quite old when they were hidden. Potentially, such a collection should be able to provide valuable information concerning the range and direction of trading contacts in this part of Africa. However, the difficulty of dating such items, other than in general terms, and the problems regarding the origin of the raw materials and the place of manufacture, serve as reminders of how little we know about such stone beads. We desperately need a regional synthesis of these artifacts, including a corpus of firmly dated stratified material recovered from controlled excavations. It is also apparent that chemical analysis and other comparative studies need to be directed particularly at the enigma of carnelian in West Africa. It is high time that we made this beautiful material yield a few of its secrets.

#### ACKNOWLEDGEMENTS

Thanks are due Nan Wedderburn for bringing the Ala hoard to the writer's attention and to both her and Bob Wedderburn for much friendship and hospitality. Gratitude is also expressed to Magara Adam who both found the hoard and accompanied the author to the site, and to Alan Leary who introduced the writer to the Zaria bead workers. At the time of writing (1998), the whereabouts of the beads and the pot are unknown but it is probable that they were donated to the Maiduguri Museum which came into existence since 1981. Finally, the writer would like to thank both Karlis Karklins and Peter Francis, Jr., Director of the Center for Bead Research in Lake Placid, New York, for generous assistance during the revision of this paper.

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# BEADS, PENDANTS AND BUTTONS FROM EARLY HISTORIC CREEK CONTEXTS AT THE TARVER SITES, GEORGIA

Thomas J. Pluckhahn

*Recent excavations conducted on historic Creek Indian components at the Tarver (9JO6) and Little Tarver (9JO198) sites in central Georgia produced an extensive collection of European trade material, including a large sample of glass and lapidary beads, pendants and buttons. The bead collection is significant for its size, as well as the fact that virtually all of the material was recovered from undisturbed and tightly dated burial contexts attributable to the relatively brief period between about 1695 and 1715.*

## INTRODUCTION

The adjoining Tarver (9JO6) and Little Tarver (9JO198) sites are located near Macon in southwestern Jones County, Georgia (Fig. 1). The two sites occupy most of a broad ridge overlooking the confluence of Town Creek and the Ocmulgee River. The Tarver sites are located only about 10 km to the northwest of the famous site of Macon Plateau (9BI1), now part of the Ocmulgee National Monument. Massive excavations at Macon Plateau by the Works Progress Administration in the 1930s revealed the remnants of an early-18th-century British trading post and associated Creek village (Fairbanks 1956; Kelly 1938; Mason 1963; Waselkov 1994).

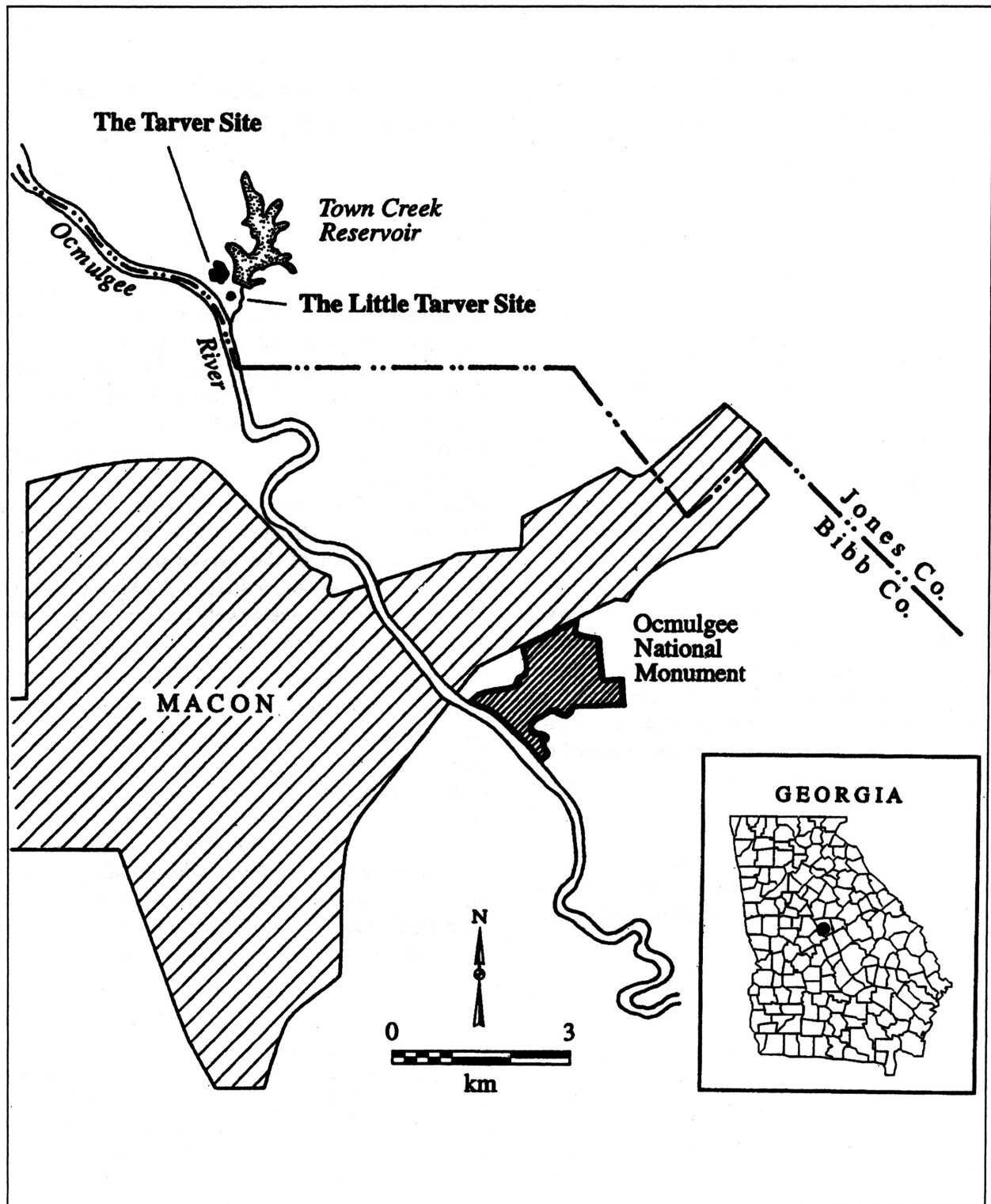
Like Macon Plateau, the Tarver sites are historically important as the location of one of the Creek Indian towns of the late 17th and early 18th centuries. During the 1680s, Creeks living along the Chattahoochee River in what is now western Georgia and eastern Alabama found themselves the object of attention among both the Spanish and the English. After learning that British traders were operating among the Indians in the area, the Spanish moved to reassert their control by burning several towns and establishing Fort Appalichicola. Subsequently, many

of the Creeks moved east to the Ocmulgee River Valley to be closer to the English traders and further from the Spanish. Early maps and records document at least ten towns in the area during the early 18th century (Cumming 1962:213; Hann 1988:363; Swanton 1946:437-438). But the Creeks' stay in the Ocmulgee Valley was brief; just 25-30 years after their arrival, the British forced the Creeks from the area in the aftermath of the failed Indian uprising known as the Yamasseee War (Crane 1929). Thus, the historic Creek occupation of the Tarver sites, like those of Macon Plateau and other sites in the Macon area, can be securely dated to a relatively brief interval between around 1695 and 1715.

The planned construction of a new water treatment plant and associated infrastructure precipitated data recovery on a portion of the Tarver site, and on the entire Little Tarver site. In order to comply with federal regulations, archaeological data recovery was necessary to mitigate the loss of information due to construction (Pluckhahn 1997). The work was completed by Southeastern Archeological Services, Inc., under sub-contract with Woodward-Clyde Federal Services, Inc., and was funded by the Federal Emergency Management Agency (FEMA).

Data recovery on the Tarver sites commenced with the excavation of a number of shovel tests and test units, and culminated in the mechanical stripping of large portions of the two sites. Despite the fact that both sites had been severely impacted by erosion, features were relatively common, with a total of 406 being identified in the 2,345 m<sup>2</sup> of soil excavated at the two sites.

The largest of the four excavation blocks on the Tarver site contained the remains of two or three small



**Figure 1.** Location of the Tarver sites (drawing: Gisela Weis-Gresham).





**Figure 2.** View to the north of Structure 1 at the Tarver site (photo: Gisela Weis-Gresham).

and insubstantial summer houses, similar to those used slightly later by the Creek Indians (Bartram 1792). Three burial pits (Features 49, 50 and 51) were identified in the center of Structure 1, the better preserved of the structures (Figs. 2 and 3). One additional grave (Feature 30) was found some distance away in another excavation block which contained no definitive architectural patterns.

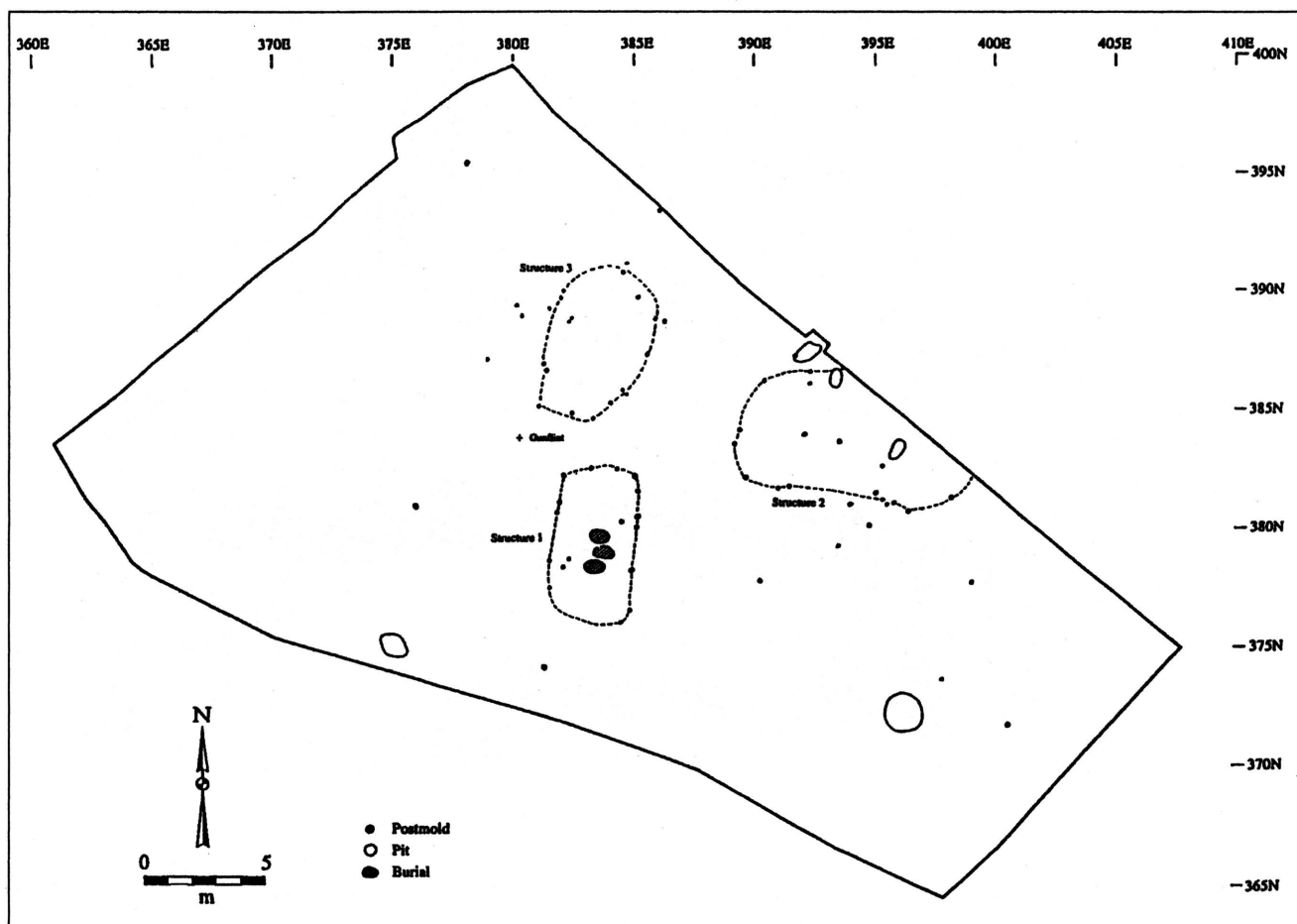
Limited architectural evidence was discovered in the one large excavation block on the Little Tarver site. However, the partition of the 10 burials into three distinct clusters suggests that a few small structures may have been present (Fig. 4).

## THE BEAD ASSEMBLAGE

The Tarver sites produced an extensive collection of artifacts, including a number of objects of European origin. Perhaps most impressive were the quantity and variety of the beads, pendants and buttons of glass and stone. These artifacts not only outnumbered all the other trade goods combined, but were actually the most

abundant of any artifact class, outnumbering even pottery and flaked lithics.

Totaling just under 53,000 beads, the collection from the Tarver sites is one of the largest ever professionally excavated in the southeastern United States. All but 24 of the specimens, or less than one-tenth of one percent of the total collection, were found in burial contexts. Fourteen of the 16 historic Creek burials uncovered at the two sites contained at least a few beads. The only exceptions were the graves of two adults (Features 28 and 39) on the Little Tarver site. In order to maximize bead recovery, the fill from burials and selected other features which contained small beads was water screened through 1/16 in. mesh. Because most of the beads were encountered in burial contexts, we were limited in the amount of analysis and photography that could be conducted according to an understanding between FEMA and the Muscogee Creek Nation. However, we were able to sort the assemblage into varieties so that the beads could be adequately described and quantified. Following analysis on site, all the artifacts from burial contexts were reinterred.



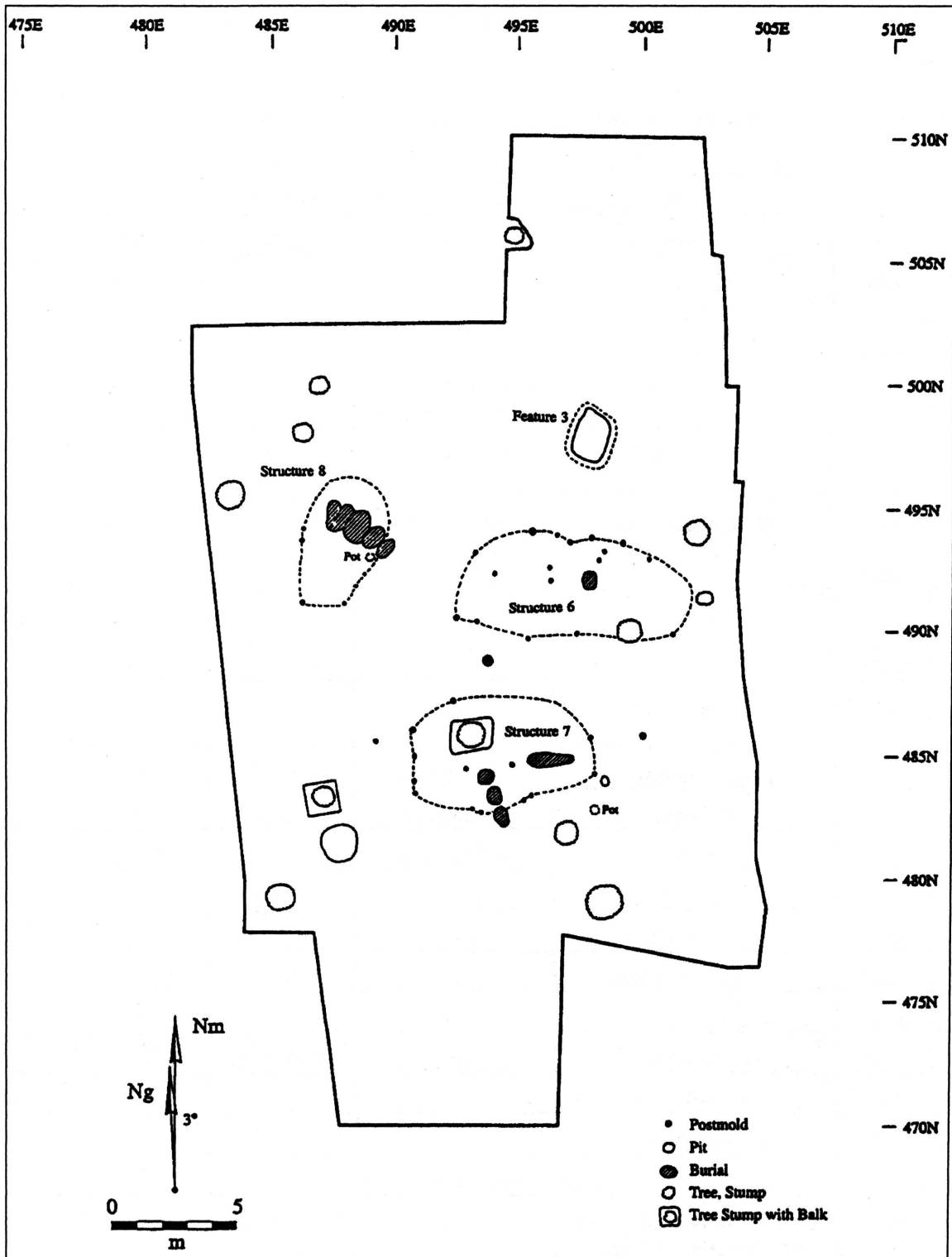
**Figure 3.** Plan view of Block B at the Tarver site showing the location of structures and burials (drawing: Gisela Weis-Gresham).

The bead assemblage from the Tarver sites includes some varieties that are very common on Creek sites, as well as a few that are quite rare. The beads were classified using the typology developed by Kidd and Kidd (1970, 1983) and expanded by Karklins (1985). A minimum of 40 Kidd varieties are present in the collection. Thirteen bead varieties are unlike any of those described by the Kidds. These are denoted by an asterisk (\*).

Table 1 lists the recorded bead varieties and their quantities. The first column correlates the recorded bead varieties to Plate VI, while the other columns provide the appropriate Kidd code and other relevant details. The descriptions are based on nomenclature provided by Brain (1979), Deagan (1987), Kidd and Kidd (1983) and Smith and Good (1982). In the case of

the large quantities of seed beads encountered in a few of the features, the total numbers were estimated based on weight. The range of measurements was often approximated by picking out what appeared to be the largest and smallest examples of each variety. Time constraints precluded the use of the applicable Munsell color charts to describe the beads.

Table 2 relates the recovered beads to specific burials and also lists associated grave goods. Determination of the age and sex of the interred individuals was conducted in the field, and was limited by the amount of analysis that was permitted. Features 47, 53 and 58 did not contain any bone, but are presumed to be the graves of infants or children based on the small size of the pits. Feature 409 was looted before it could be excavated, precluding estimation of the burial's age or sex.



**Figure 4.** Plan view of the excavation block at the Little Tarver site showing the location of possible structures and burials (drawing: Gisela Weis-Gresham).



**Table 1. Bead Inventory for the Tarver Sites.**

Pl. VI Key	Kidd Code	Diaphaneity/Color	Shape	Size Range (mm)		Quantity
				Length	Diameter	
Single-layered (Monochrome) Drawn Beads						
a	Ila40	op. turquoise	ring	0.5-1	1-2	45,269
b	Ila6 Ila7	op. black	ring/subspherical	1.7-2	2-3	
c	Ila40 Ila41	op. turquoise	ring/subspherical	1.5-3	2-4	
d	Ila13	op. white	ring/subspherical	1.3-1.9	3	
e	Ila55 Ila56	tsl. dark blue	ring/subspherical	1.5-3	2-4	
f	Ila25 or Ila35	op. light aqua blue	subspherical	4.5-9.8	5.4-7.0	224
g	Ila36 or Ila46?	op. light blue	subspherical	2.7-3.7	5-5.5	2,040
h	Ila55 Ila52	tsl. dark blue	subspherical	4.7-7.3	6.8-7.5	93
i	Ila40	op. turquoise	subspherical	3.8-7.5	4.5-8	16
j	Ila13	op. white	subspherical	5.5-8	7-7.5	1,311
k	Ila1	op. red	subspherical	2.9-4.1	2.5-3	130
l	Ila6	op. black	barrel	3.5-7.1	6-9	650
m	Ila54	tsl. dark blue	oval	13.5-17	5.1-7.3	156
n	Ila42	op. light aqua blue	oval	9.5-13.2	5.6-6.5	6
o	Ila32?	tsl. turquoise/light green	oval	11-15.2	6.3-8	3
p	Ila*	op. dark blue	oval	11.4-14.5	6.3-7.8	12
q	Ila*	op. dark blue	subspherical	2.7-3.5	4.5-5	260
r	Ila22	op. light brown	spherical	7.3	7.5	1
Multi-layered Drawn Beads						
s	IVa5	op. red exterior/ tsl. green core (Cornaline d'Aleppo)	ring	1.3-2.5	2.4-4	1,678
t	IVa6	op. red exterior/ tsl. green core (Cornaline d'Aleppo)	spherical	3.6-4.9	4.4-6.2	705
u	IIla1	op. red exterior/ op. black core (Cornaline d'Aleppo)	tubular	5.9-15.5	3.5-8.7	107

**Table 1. Continued.**

Decorated Single-layered Drawn Beads						
v	Iib32?	op. white with 2 red and 2 light blue stripes	oval	12.1	7.1	1
w	Iib*	tsl. dark blue with 2 white stripes	spherical/ subspherical	5.5-8.5	7-8.5	117
x	Iibb27	tsl. dark blue with 3 red-on-white stripes	subspherical	6.5	6.6	1
y	Iibb28 ?	tsl. dark blue with 3 red-on-white stripes	oval	13	7	1
z	Iib67	tsl. dark blue with 3 white stripes	oval	15	6.7	3
aa	Iibb25	op. light blue with 3 red-on-white stripes	oval	14-16.9	7-7.3	5
bb	Iibb12	op. white with 3 blue-on-red stripes	subspherical	6.5	9	1
cc	Iibb24	op. light blue with 3 red-on-white stripes	subspherical	6.3	6.4-6.8	4
dd	Ib*	op. white with 4 red stripes	tubular	15.9	4.5	1
ee	Iib53?	tsl. green with 8 white stripes	subspherical	7.4	8	1
Decorated Multi-layered Drawn Beads						
ff	IVbb3	op. red exterior with 3 black-on-white stripes/ tsl. dark green core (Cornaline d'Aleppo)	subspherical	7.3-8.5	7.4	4
gg	IIIb*	op. blue exterior with 12-14 white stripes/op. white middle layer/op. blue core	tubular	15-18	3.8-5	20
Monochrome Wound Beads						
hh	WIic7?	tsl. green	pentagonal-faceted	8-9	10-11	4
ii	WIId1	tsl. light gray	"raspberry"	8-9	9-10	1
jj	WIId4	tsl. amber	"raspberry"	8-9	9-10	86
kk	WIle*	indeterminate (patinated)	ribbed subspherical "melon"	5.5	6.5	1
ll	WIIf*	indeterminate (patinated)	faceted oval	6.1	2.1-2.3	2

**Table 1. Continued.**

Polychrome Wound Beads						
mm	W IIIb*	tsl. burgundy (appears black) with intertwined white stripes	subspherical	9	11.7	1
nn	W IIIb*	tsl. burgundy (appears black) with 3 spiral white stripes	subspherical	6.4	8.3	2
oo	W IIIb*	op. black with feathered design of light blue and aventurine glass	oval	-	8	1
pp	W IIIa*	gilded op. olive green (Seven Oaks Gilded)	oval	9-10.5	5.7-6.2	27
qq	W IIIa*	gilded op. olive green with impressed dot and line decoration (Seven Oaks Gilded Molded)	oval	10.4	7.4	1
Glass and Lapidary Pendants						
rr		colorless (quartz)	faceted ovate (Florida Cut Crystal)	20-26	13-16	15
ss		tsl. blue (glass)	ribbed teardrop (Punta Rassa)	23-26	11-14	2
tt		tsl. blue (glass)	fairly smooth teardrop (Punta Rassa)	21-30	10-15	19
Glass Buttons						
uu		tsp. light gray	spherical	8.1	10.5	3
vv		op. dark blue with white stripes and yellow dots	spherical	8	12	1
TOTAL						52,985

**Single-layered (Monochrome) Drawn Beads**

The most common beads at the Tarver sites, as on most sites of similar age, were monochrome "seed" (under 2 mm in diameter) and very small (2-4 mm in diameter) glass beads of drawn manufacture. Encompassing ring-shaped and subspherical specimens, these beads were present in various shades of turquoise (IIa40-41; Pl. VIa, c), black (IIa6-7; Pl. VIb), white (IIa13; Pl. VIc) and blue (IIa55-56; Pl. VIe). They accounted for approximately 85% of the assemblage, and were recovered in substantial

quantities (at least a few hundred) in virtually all of the graves that contained beads. These beads tended to be particularly plentiful in the graves of children, with a total of over 5,000 being associated with five of the nine child burials. The same pattern appears to have held true at Macon Plateau. Although total bead counts for the burials there have not been published, Mason (1963) notes that "thousands" and "many" beads were recovered from the graves of children.

Seed beads, usually of opaque or transparent blue glass, are common on archaeological sites in Florida



**Table 2. The Varieties and Quantities of Beads Associated with Burials at the Tarver Sites.**

Burial	Beads			Other Grave Goods
	Kidd Code	Key to Plate VI	Quantity	
Feature 47 (infant?)	IIa40/IIa41, IIa13	a, c, d	6,870	iron bracelets
	IIa25/IIa35	f	7	
	IIa55/ IIa52	h	28	
	IIa40	i	2	
	IIa13	j	36	
	IIa6	l	1	
	IIa54	m	18	
	IIa42	n	2	
	IIa32?	o	2	
	IIa*	p	12	
	IVa5	s	3	
	IVa6	t	95	
	IIIa1	u	32	
	IIb*	w	113	
	IIbb28?	y	1	
	IIb67	z	2	
	IIbb25	aa	3	
	Ib*	dd	1	
	IVbb3	ff	3	
	IIIb*	gg	20	
Feature 53 (infant?)	IIa40/ IIa41	c, d	1,698	pottery vessel fragment
	IIa55/ IIa52	h	22	
	IIa13	j	51	
	IIa6	l	2	
	IIa54	m	137	
	IVa5	s	4	
	IIb*	w	4	
	IIbb12	bb	1	

**Table 2. Continued.**

Feature 53 (continued)	IIbb24	cc	4	
	IVbb3	ff	1	
Feature 58 (infant?)	IIa6/IIa7, IIa40/IIa41, IIa55/IIa56	b, c, e	3,007	none
	IIa13	j	174	
Feature 78c (young adult female)	IIa6/IIa7, IIa40/IIa41, IIa13, IIa55/IIa56	b, c, d, e	402	iron bracelets
	IIa25/IIa35	f	216	
	IIa55/ IIa52	h	5	
	IIa13	j	2	
	IIa1	k	123	
	IIa42	n	4	
	IVa6	t	3	
	IIbb27	x	1	
	IIbb25	aa	2	
Feature 78d (child)	IIa40/IIa41, IIa13, IIa55/IIa56	a, c, d, e	5,077	copper button, 2 iron buttons, brass C-bracelet, iron sword fragment
	IIa36 or IIa46?	g	2,025	
	IIa55/ IIa52	h	12	
	IIa40	i	6	
	IIa13	j	467	
	IIa6	l	583	
	IIa32?	o	1	
	IIa*	q	259	
	IVa5	s	3	
	IVa6	t	2	
	IIb67	z	1	
	IIb53?	ee	1	
	WIIc7?	hh	3	
	WIId1	ii	1	
	WIId4	jj	86	

**Table 2. Continued.**

Feature 78d (continued)	WIIe*	kk	1	
	WIIIf*	mm	1	
	WIIIf*	nn	1	
	WIIIf*	oo	1	
	decorated button	vv	1	
Feature 78f (adult male)	IIa40/IIa41, IIa13, IIa55/IIa56	c, d, e	16	28 brass tinklers, bone-handled knife
	IIa36/IIa46	g	14	
	IIa55, IIa52	h	1	
	IIa13	j	41	
	IIa6	l	1	
Feature 78g (adult male)	IIa40/IIa41, IIa13	c, d	9,451	iron scissors, 2 brass pins, brass needle, iron bracelets, 3 brass C-bracelets
	IIa40	i	1	
	IIa13	j	1	
	IIa1	k	7	
	IVa5	s	45	
	IVa6	t	587	
Feature 31 (child)	IIa40/IIa41, IIa55/IIa56	c, e	9,451	26 copper buttons
	IIa25 or IIa35?	f	1	
	IIa55, IIa52	h	3	
	IIa40	i	1	
	IIa13	j	161	
	IIa6	l	53	
	IVa6	t	13	
Feature 49 (child)	IIa40/IIa41, IIa55/IIa56	c, e	2,431	28 shell beads
	IIa13	j	375	
	IIa6	l	1	
	WIIc7?	hh	1	



**Table 2. Continued.**

Feature 50 (child)	Ila6/Ila7, Ila40/Ila41, Ila13, Ila55/Ila56	b, c, d, e	13,760	124 copper beads, 3 copper buttons, 5 brass C-bracelets, 6 shell earpins, 1 black-glass bottle, Colonoware pot, brass kettle
	Ila36 or Ila46?	g	1	
	Ila55/ Ila52	h	20	
	Ila6	l	1	
	IVa5	s	1,610	
	IIIa1	u	75	
	WIIj*	ll	2	
	WIIIa*	pp	27	
	WIIIa*	qq	1	
	Florida Cut Crystal	rr	15	
	Punta Rassa Pendants (ribbed)	ss	2	
	Punta Rassa Pendants (smooth)	tt	19	
	tsp. light gray button	uu	3	
Feature 51 (adult of unknown sex)	Ila6/Ila7, Ila40/Ila41, Ila13, Ila55/Ila56	b, c, d, e	331	none
	Ila55/Ila52	h	1	
	Ila6	l	2	
	IVa5	s	13	
Feature 409 (unknown age and sex)	Ila6/Ila7, Ila40/Ila41, Ila55/Ila56	b, c, e	13	none
	Ila40	i	3	

dating to the first half of the 16th century. Beads under 4 mm in diameter are sometimes referred to as "embroidery beads" because they were frequently used to ornament clothing (Deagan 1987:169-170). However, they were also undoubtedly strung on necklaces. The recovery of many seed beads in the neck region of the burials at the Tarver sites supports the hypothesis that most were utilized in this manner. More direct evidence is supplied by a number of blue seed beads found strung on a fragment of cordage at the neck of the child buried in Feature 31 at the Tarver site. Also common at the Tarver sites (and on many other

Creek sites in the Southeast) are somewhat larger monochrome drawn beads. The specimens exhibit a great deal of variety in size, shape, color and diaphaneity (Pl. VIf-r). The translucent to opaque turquoise beads in spherical (Ila40) and oval (Ila32?) shapes (Pl. VII, o) appear to equate with those that are sometimes referred to as "simple tumbled turquoise" or "Ichtucknee Blue" (Deagan 1987:171). Deagan (1987:171-175) reports that these are found in late-16th-century and (more commonly) 17th-century contexts in Spanish Florida.

### **Decorated and Undecorated Multi-layered Drawn Beads**

The multi-layered drawn glass beads in the Tarver collection consist primarily of those that are of the Cornaline d'Aleppo style. Having a distinctive opaque red exterior and a translucent green or opaque black core, these beads are relatively common on Creek sites of the 17th and 18th centuries. Varieties that are represented include a tubular form (IIIa1; Pl. VIu); seed and very small ring-shaped specimens (IVa5; Pl. VIs); a somewhat larger subspherical form (IVa6; Pl. VIIt); and a decorated variety with three black-on-white stripes (IVbb3; Pl. VIff).

Cornaline d'Aleppo beads were found in small quantities in most (n=10 or 62.5%) of the graves at the Tarver sites. The smallest examples were particularly abundant in the grave of a child (Feature 50) on the Tarver site. The larger specimens were plentiful only in the graves of an adult male (Feature 78g) and a child (Feature 47) on the Little Tarver site. Mason (1963) mentions that Cornaline d'Aleppo beads were encountered in only four of the 35 graves at Macon Plateau. All four burials were identified as adults (Mason 1963; Powell 1994). Half of these were females; the sex of the other two could not be identified.

At the site of mission San Luis near Tallahassee, Florida, Cornaline d'Aleppo beads were found exclusively in Spanish contexts, prompting Mitchem (1993:409) to suggest that they were reserved for Spanish use, rather than being for trade with the native population. While this may have been the case at San Luis and in Spanish-controlled Florida, the common occurrence of these beads at Tarver and, to a lesser extent, at Macon Plateau (Mason 1963) suggests that they were easily obtained from British sources on the Carolina frontier.

Twenty examples of another multi-layered bead variety were recovered from Feature 47 at the Little Tarver site. These are tubular specimens with an opaque blue exterior decorated with 12-14 white stripes, an opaque white middle layer and an opaque blue core (IIIb\*; Pl. VIgg). This bead is reportedly quite rare in the Southeast (Marvin Smith 1996:pers. comm.), but is relatively common on Seneca Iroquois sites dating from around 1650 to 1675 (Wray 1983). These beads were likely manufactured

in either Amsterdam or Venice (Karklins 1998:pers. comm.).

### **Decorated Single-layered Drawn Beads**

A number of different varieties of decorated single-layered drawn beads were recovered from the Tarver sites, but generally only in small quantities. The vast majority were found in Feature 47 at the Little Tarver site, apparently the grave of an infant or young child. The most common variety (n=117) is translucent dark blue with two white stripes (IIb\*; Pl. VIw). These were spherical to subspherical in shape. A similar oval variety with three white stripes (IIb67; Pl. VIz) was recovered in much smaller numbers. Feature 47 also produced a single specimen of a bead with a white body decorated with four red stripes (Ib\*; Pl. VIdd). Other striped white beads found at the site include varieties IIb32? (Pl. VIv) and IIbb12 (Pl. VIbb).

A single translucent green bead with eight white stripes (IIb53?; Pl. VIee) from Feature 78d is similar to a specimen in the Tunica Treasure collection (Brain 1979:98). Beads of this type have been found on sites in Louisiana, Mississippi, Michigan and Texas (Brain 1979:112).

A bead style represented by several varieties (IIbb24-25, IIbb27-28?) has a blue body decorated with three red-on-white stripes (Pl. VIx-y, aa, cc). Deagan (1987:170-171) suggests that striped beads such as these originated earlier than monochrome beads, and states that blue beads with red-on-white stripes are the most common striped beads in Florida. Brain (1979:104) notes that this variety has been found at a number of sites in the Southeast.

### **Wound Glass Beads**

Wound glass beads became increasingly common in the Southeast after about 1650 (Deagan 1987:175). At the Tarver sites, all the wound beads were found with just two burials, both of which were children (Feature 78d at Little Tarver and Feature 50 at Tarver). However, the only variety that these two burials had in common is the translucent green, pentagonal-faceted one (WIIc7?; Pl. VIhh). Mason (1963) describes the recovery of similarly shaped "decahedral" beads of green, white and brown glass from the graves of two

children at Macon Plateau. Although the sample is small, the fact that this bead type was restricted to children's graves both at the Tarver sites and at Macon Plateau suggests that this was a deliberate custom.

The 87 "raspberry" beads (WIIId1, WIIId4; Pl. VIIi-jj) from Feature 78d at the Little Tarver site are similar to those that have been excavated at many other sites throughout much of North America (Brain 1979:111; Deagan 1987:178; Good 1972). The Tarver specimens, all but one of which were amber colored, were found tightly clustered in the area of the child's neck, indicating that they had comprised a necklace.

Three decorated wound beads, each represented by a single specimen, were also found in Feature 78d. Two of these have translucent burgundy bodies which appear black unless held up to a strong light. One is decorated with three spiral white stripes (WIIIB\*; Pl. VIInn). The other exhibits a lattice-like design formed by three intertwined white stripes (WIIIB\*; Pl. VIImm). These varieties have been found at a few sites in the Southeast, the Midwest and the Northeast (Brain 1979:110; Rumrill 1991:Plate IIB). They may be of Dutch manufacture (Brain 1979:110). The third specimen, represented by two fragments, is a black oval bead with a combed or feathered design of light blue and aventurine glass (WIIIB\*; Pl. VIoo). Marvin Smith (1996: pers. comm.) notes that beads of this type have typically been found in contexts dating slightly later than the Creek component at the Tarver sites.

Feature 50 at the Tarver site produced 28 examples of Seven Oaks Gilded (WIIla\*; Pl. VIpp) and Gilded Molded (WIIla\*; Pl. VIqq) beads. These were first described by Goggin (n.d.) based on finds from a few sites in Florida. The Seven Oaks beads in the Tarver assemblage were generally poorly preserved, and the gilding was missing from many of the specimens. The glass beneath the gilding appeared to be opaque olive green, as noted by Goggin (n.d.). The single Gilded Molded example exhibits a simple line and dot design. Although these designs were previously thought to be imparted by molding, Peter Francis (1998:pers. comm.) believes they were imparted by a small pronged tool. Mitchem (1993:402) reports that Seven Oaks beads have been found at the mission sites of San Luis and San Juan del Puerto in Florida, and at the mission at Casas Grandes, Mexico.

Three wound beads from Features 78d and 50 could not be properly classified as they were too heavily patinated to determine the original color. All that could be observed was that the glass was opaque and dark. One of them is a ribbed-subspherical or "melon" bead (WIIe\*; Pl. VIkk); the other two are faceted-oval forms (WIIj\*; Pl. VIII). One of the latter seems to exhibit four or five longitudinal facets. The other is slightly different. It has large tapered facets separated from each other by smaller triangular ones.

### Glass and Lapidary Pendants

Feature 50 at the Tarver site produced all the recovered glass and lapidary pendants. These include 15 Florida Cut Crystal pendants (Fig. 5; Pl. VIrr), another type defined by Goggin (n.d.). These teardrop-shaped ornaments, ground to shape from quartz crystal, exhibit variously shaped facets and a small perforation at the narrow end (Pl. VC). The holes were drilled from one side. When the drill broke through the other side, it removed a tiny flake in this area which is still visible. Although many of the pendants had been displaced by an intrusive burial, several were found around the child's neck, suggesting that they formed a necklace. Their dimensions are consistent with those recorded by Goggin (n.d.).

Florida Cut Crystal pendants are generally thought to date to the late 16th century (Deagan 1987:180; Goggin n.d.). However, Deagan (1987:180-181) notes that Fairbanks recovered a slightly smaller ovate form at Appalachian mission sites in Florida and suggests that this variety may be slightly later (approximately 1650 to 1700). The Tarver examples probably fall into this latter category.

Noting the amount of labor involved in the production of Florida Cut Crystal pendants, Deagan (1987:181) suggests that they were probably either special gifts to the Indians from the Spanish, or represent personal possessions of the Spaniards that somehow came into the hands of the natives. The Tarver examples may represent plunder from the raids made by Creek Indians and British soldiers against the Spanish and Indians in Florida in 1702 and 1704. Mitchem (1993:403) notes that Florida Cut Crystal pendants are most common in Florida, but have also been found in Louisiana, Tennessee and Virginia.





**Figure 5.** Florida Cut Crystal pendants from the Tarver site. Note the variation in shape (photo: Gisela Weis-Gresham).

Feature 50 also produced 21 Punta Rassa Teardrop pendants in various shades of translucent blue glass (Pl. VD). Again, many of these had apparently been displaced by an intrusive burial, but a few were found *in situ* near the child's neck and appeared to have comprised a necklace with the Florida Cut Crystal pendants. Although they exhibit considerable variation in size and shape (Fig. 5), the pendants correspond closely with the dimensions cited by Goggin (n.d.). Most have smooth surfaces except for the occasional presence of small nodes at the neck (Pl. VIIt), but two exhibit several longitudinal ribs (Pl. VIss). With the exception of these two, all the specimens have flanges that encircle the body parallel to the long axis, suggesting that they were pressed in a mold. However, a tiny scar or pontil mark at the bottom of most specimens indicates that they were first free formed from a gather of molten glass before being clamped in the mold. On the complete examples, a suspension loop is present at the narrow end.

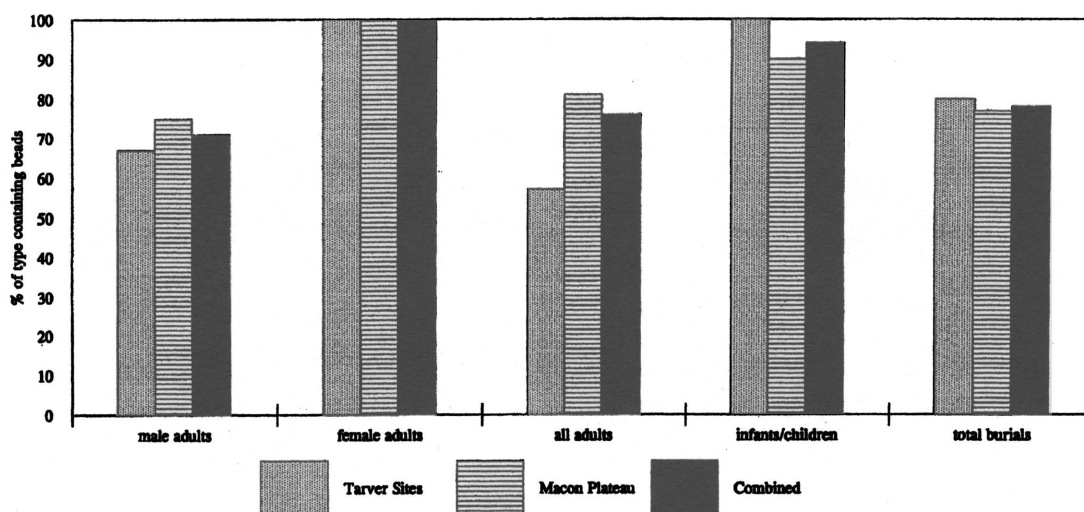
Prior to the Tarver excavations, Punta Rassa pendants were only known from a few sites in Florida,

primarily Spanish missions, and from Macon Plateau (Fairbanks 1956; Goggin n.d.; Mitchem 1993). Goggin (n.d.) feels that the specimens from Macon Plateau are late examples, and that the pendants were more common in the early 17th century. Mitchem (1991), citing Muller (1972), notes that earrings formed of such pendants were popular in Spain during the 16th century.

Like those at the Tarver site, the two Punta Rassa pendants at Macon Plateau were also found in the grave of a six- or seven-year-old child (Fairbanks 1956; Mason 1963). Again, although the sample size is quite small, this coincidence would appear to be more than fortuitous, and likely reflects Creek mortuary customs.

#### Glass Buttons

A small sample of glass buttons was recovered from the Tarver sites. One specimen, with a very dark blue body decorated with yellow dots and white stripes (Pl. VIvv), was found in the grave of a child (Feature



**Figure 6.** The relative frequency of beads in the historic Creek graves at the Tarver and Macon Plateau sites (drawing: Gisela Weis-Gresham).

78d) on the Little Tarver site. Equipped with a metal loop shank, the button appears identical to examples from Hiwassee Island in Tennessee (Lewis and Kneberg 1946:Plate 85c) and Fort Moore in South Carolina (Story n.d.). Unfortunately, no contextual data are available for either of these examples.

The three remaining specimens (Pl. VIuu) were found in Feature 50 at the Tarver site. These colorless spheres were poorly preserved and crumbled upon excavation. Their identification as buttons is less than certain, but they were not perforated and, therefore, did not appear to be either beads or pendants.

## DISTRIBUTION PATTERNS

Although they had primarily become fashion accessories by the 18th century, beads may have retained their role as a mode of communication well into the historic period (Braund 1993:123-124). Whelan (1991) has noted the possible social and ritual significance of different types and colors of beads among the 19th-century Dakota, and how these meanings may be manifested in the archaeological record, particularly in burials. However, with the exception of Mitchem's (1991) analysis of the distribution of beads and pendants at the San Luis site in Florida, relatively little attention has been paid to the social context of beads among historic Indian

groups in the southeastern United States. The bead collection from the Tarver sites offers an opportunity to search for such contexts, particularly in combination with bead data from the closely related site of Macon Plateau.

Several general trends in bead distribution at the Tarver sites have already been noted. The most obvious is the tendency for the graves of children to contain both larger numbers and greater varieties of beads. Beads were present in all of the children's graves at the two Tarver sites, compared with only 57% of the adult burials (Fig. 6). Of the eight graves which contained more than a thousand beads, only one (Feature 78g on the Little Tarver site) belonged to an adult. Moreover, the graves of four of the eight children (excluding the looted burial) contained at least ten varieties of beads, while this was the case with only one adult (Feature 78c). The same general pattern appears to hold for Macon Plateau where glass beads were present in nine of the ten children's graves (Mason 1963). Clearly, there is a strong association between beads and the graves of children on Creek sites in the Macon area.

Fig. 6 also demonstrates that the occurrence of beads may be correlated more strongly with the graves of females vis-à-vis those of adult males and adults in general. Each of the seven identified adult female graves in the combined sample from Tarver and Macon Plateau produced at least one bead. This in

**Table 3. Color Frequency Among the Larger Beads at the Tarver Site.**

Color	Quantity	Percent
Blue	2,979	43.7
Red	1,812	26.6
White	1,315	19.3
Black	655	9.6
Gold	28	0.4
Clear	19	0.3
Green	4	<0.1
Brown	1	<0.1
Total	6,813	100.0

comparison with 71% of the adult males, 76% of the adults as a whole and 78% of all the burials. Although the evidence is equivocal due to the small sample size, the data from these three sites are consistent with ethnographic observations which suggest somewhat more frequent use of beads among women (Adair 1775; MacCauley 1887).

It is difficult to determine color frequency for the Tarver bead assemblage. The smaller beads were generally not sorted by color, and a number of the larger specimens are multicolored. The frequency of the dominant colors of the larger beads is presented in Table 3. At least in general, Smith's (1987:151) observation of a preference for blue beads on historic Indian sites in the Southeast holds true at Tarver. The inclusion of the smaller specimens would significantly increase the counts of blue, black and white beads.

How the four dominant colors were distributed among the burials at the Tarver and Macon Plateau sites is documented in Fig. 7. Blue and white beads were found in most of the graves at all three sites. Black beads occurred in smaller quantities in many of the graves at the Tarver sites, and were even less common at Macon Plateau. Red beads (typically Cornaline d'Aleppos) occurred slightly less frequently at the Tarver sites.

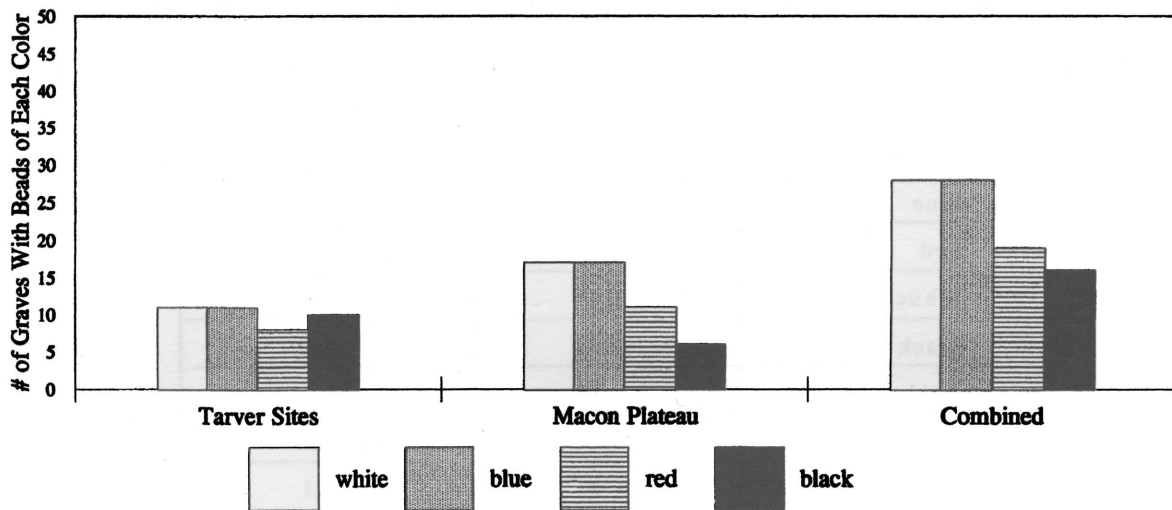
Fig. 8 contrasts the occurrence of the principal bead colors among the different segments of the burial

populations at the Tarver sites and Macon Plateau. In this series of graphs, the values are expressed as percentages of the total sample for each subset of the population. Because only a small number of the remains at Tarver could be adequately sexed in the field (and the percentages for the site are therefore skewed), the data from the Tarver sites and Macon Plateau have been combined.

Beads of each of the four colors occur more frequently in the graves of women and children than in those of males or adults in general. This should probably be expected, given that beads were more frequent among these segments of the population. However, there are some potentially significant differences in the occurrence of colors among the different age and sex groups. For example, white beads occurred in a far higher percentage of the graves of infants and children than those of adults. In contrast, the relative frequency of white beads in the graves of women was roughly equal to the average for all the burials combined, while the male and adult subcategories contained lesser percentages of white beads.

The strong incidence of white beads in the graves of children may be significant as it seems to mirror the tendency for children to be accompanied by objects of shell. The possible association of white beads and shell tends to be borne out by the grave goods





**Figure 7.** The number of graves at the Tarver sites and Macon Plateau which contained beads of the four dominant colors (drawing: Gisela Weis-Gresham).

associated with the child in Feature 49 at the Tarver site. The material included several necklaces of columella beads and white glass beads.

Generally, in the belief systems of the southeastern Indians, white was considered "the color of that which is old, established, pure, peaceable, holy, united, and so forth" (Hudson 1976:235). Among the Cherokee, colors were associated with the four cardinal directions, white relating to the south, as well as to warmth, peace and happiness (Hudson 1976:132).

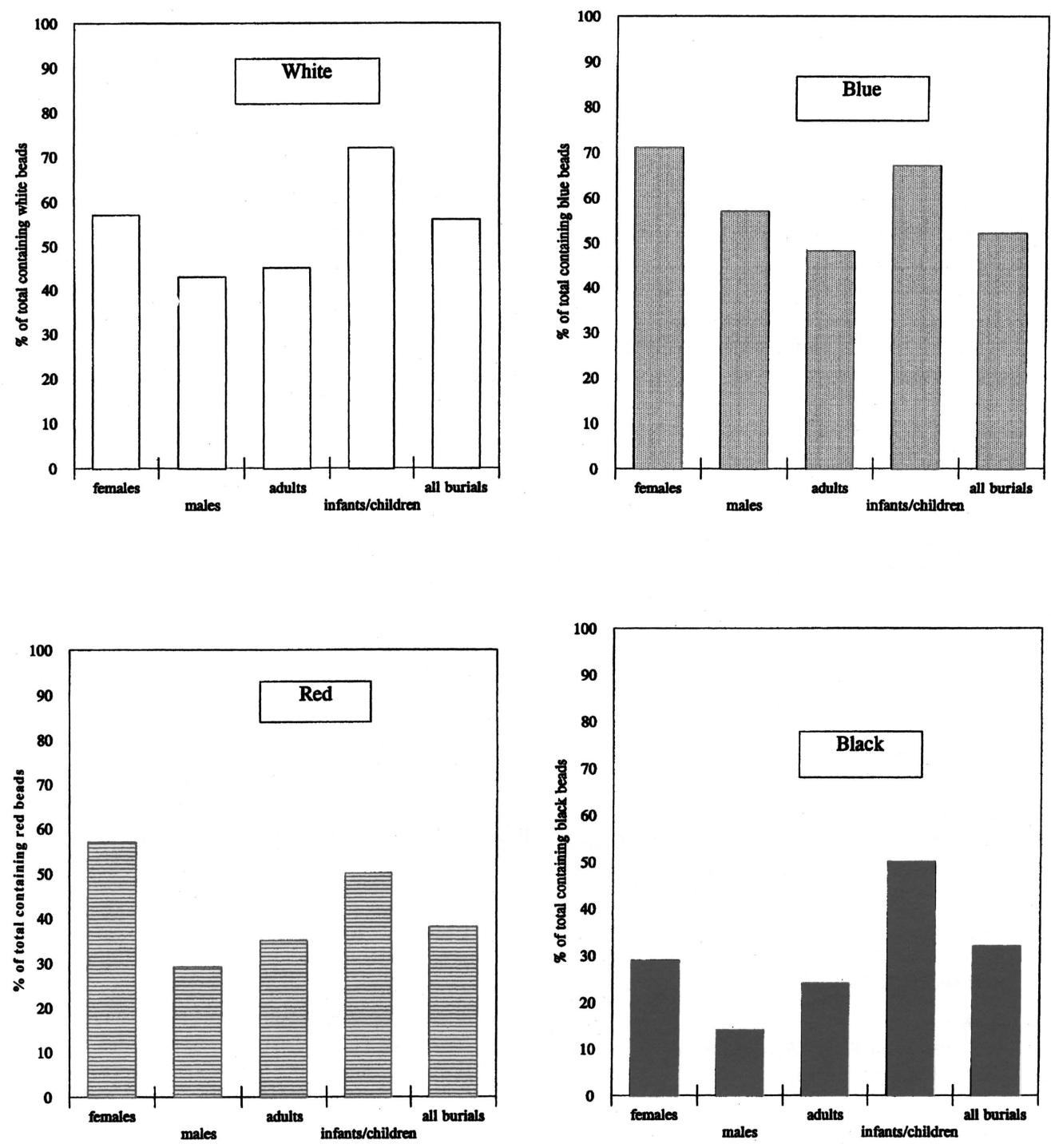
Although the highest percentage of blue beads was found in the graves of women, significant quantities were also found with children and, to a lesser extent, males. Swanton (1946:517), citing Speck (1909), notes that late-19th-century Yuchi women wore strings of blue beads around their necks, and that these were said to have something to do with fertility. In the Cherokee belief system, blue was symbolic of north, the direction of cold, trouble and defeat (Hudson 1976:132).

Red beads also occurred more often in the graves of women relative to other segments of the population. Red was generally associated with conflict, war, fear, disunity and anger among southeastern Indian groups (Hudson 1976:235). Given this, it is perhaps noteworthy that red beads were found in a relatively small percentage of male graves. In ethnographic observations of the southeastern Indians, red is often mentioned as the most common choice of color for body paint and hair dye (Swanton 1946).

Black beads occurred in a slightly lower percentage of the graves of children at the Tarver and Macon Plateau sites. However, the differences between children and the other subsets of the population are even more dramatic than with the color white. Black beads occurred less frequently than any of the other principal colors in the graves of males, females and adults in general. Among the Cherokees, black was associated with the west, which was also identified with the moon, the souls of the dead and death (Hudson 1976:132). Swanton (1946:528-529) mentions black as a common shade of body paint in the Southeast.

## CONCLUSION

The size, diversity and temporal specificity of the bead collection from the Tarver sites will, no doubt, make it of considerable interest to archaeologists and bead researchers. However, in addition to its possible diagnostic value, the collection is important for what it may convey about early historic Creek society. The strong occurrence of beads in the graves at the Tarver sites, as well as at Macon Plateau, indicates that these were valued trade items and favored possessions during the late 17th and early 18th centuries. Although the choice of particular colors and varieties of beads may well have varied greatly from individual to individual, the association of particular varieties and



**Figure 8.** Comparison of the occurrence of the four principal bead colors in the burial population at the Tarver and Macon Plateau sites (drawing: Gisela Weis-Gresham).

quantities of beads with certain segments of the population both at the Tarver sites and Macon Plateau hints at deliberate cultural preferences.

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## BOOK REVIEWS

### *Manik-Manik di Indonesia/Beads in Indonesia.*

**Sumarah Adhyatman and Redjeki Arifin.**  
Penerbit Djambatan, Jakarta. Distributed by  
Indoarts, Inc., 3424 Sacramento Street, San  
Francisco, CA 94118. 1993. i-xvi + 164 pp., 63  
b&w figs., 155 color figs. \$48.00 (hard cover) +  
\$4.25 postage in the U.S. (\$58.00 + \$5.25  
abroad).

This very welcome work doesn't just "fill a gap" in the bead literature of the Insulindies—it *is* the bead literature of the Insulindies. Until the publication of *Beads in Indonesia*, the bead researcher had to comb a multitude of learned and art journals for information, thinly strewn. This book pulls most of the relevant information together for the bead amateur and provides the more serious researcher with a few pointers for further study.

The book starts with a sketchy overview of the world's ancient beadmaking centers and bead trade, especially with reference to Southeast Asia. It is when the authors reach Indonesia proper that they are on firmer ground. They appear to be especially familiar with Java and Sumatra—ancient, old and modern—though their main slant is archaeological throughout. Much of the available bead literature deals with these two large islands and their colorful past; *Beads in Indonesia* introduces the main types of old and contemporary beads with color illustrations of acceptable quality which are vital for comparative purposes.

Well-captioned, high-quality color illustrations are doubly necessary until the bead world manages to agree on a fixed terminology and comprehensive classification system for beads. "Jatim polychromes, mistakenly called 'Majapahit Beads' by antique dealers who were looking for a popular trade name..." is the authors' lament when describing a very distinctive bead of East Java (Jatim, i.e. "Java

Timor")(p.63). Just about any researcher comes up against such local names, whether they were bestowed by dealers, collectors or the bead owners and users. "Pony bead" and "padre bead" don't mean much to an Indonesian collector, but neither do "Banter bead" or "Manang bead" to a French one. Descriptive names like "bird bead" or "polychrome eye bead" are self-explanatory and useful if supported by good illustrations. For that matter, "mutisalah" is by no means a universal term for the peppercorn-sized bead of opaque Indian-red glass! Some Insulindian peoples who value this drawn or coiled bead highly call it by completely different names.

Various ethnic groups name their own beads, but such terminology should only be used very sparingly in pure bead research. It belongs properly to the province of the ethnographer and *Beads in Indonesia* is not intended to be an ethnographical study. That, considering the variety of peoples in Southeast Asia's largest nation, would fill a book ten times the size of the present volume!

The volume is well written and easy to read, but in some parts it tantalizes rather than informs. A casual statement like "in Kalimantan 16th century Chinese monochrome beads were changed into eye beads..." (p.7) begs the traditional journalist's questions: when, where, how and who? A statement like "...considering that the practice of burial in megalithic stone graves can continue into the classical period, and based on the latest data concerning Indo-Pacific beads, it might be necessary to review this dating..." (p.38; reference to East Java) is much easier to take than unsubstantiated assertions casually tossed about!

The last chapter, "Modern Beads," is very informative; it demonstrates the authors' hands-on involvement with current bead affairs. Modern Egyptian and African beads are indeed turning up in the Insulindian markets; "new-beads-as-old" are sold, bartered, substituted, renovated and ground;

well-known antiques are reproduced, faked... you name it! The burgeoning Indonesian bead manufactories draw on a pool of economical skilled labor. If they can satisfy the buyers' demand for pretty beads and leave the antiques where they belong—in Indonesian hands—long may they flourish!

The bibliography at the end of *Beads in Indonesia* is fairly sketchy. Its most useful aspect is the inclusion of a number of works by younger Indonesian researchers which may not yet be well known overseas. This being the case, further information on how and where to obtain copies of their studies would have been valuable.

*Beads in Indonesia* is a well-produced and attractively bound book, one in a series of Penerbit Djambatan's Indonesian Cultural Heritage dual-language texts. This policy ought to increase the size of print runs and thus reduce cost, but that doesn't seem to be the case. In the Singapore market at any rate, compared to similar-sized tomes, it is considered very expensive. This is a pity; the Insulindians are exactly the people who should read it!

In the introductory pages of the book is a caveat that speaks straight to the heart of many readers, especially those who live in areas trying to preserve an endangered heritage. The authors initially hesitated to publish this work because:

...books on antiques will stimulate the demand for the objects concerned and will increase their prices. Archaeologists thus fear the damaging of more historical sites by illegal digging. But the insatiable demand by international collectors and art dealers for Indonesian antiques will continue, and as the reality has shown, the existing preventing measures are inadequate..." (p. xiii).

Is it too much to hope that every serious student and admirer of these fascinating artifacts will take these words to heart and buy this book, not a bead?

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*Catalogue of the Beck Collection of Beads in the Cambridge University Museum of Archaeology and Anthropology: Part 1, Europe.*

**The Bead Study Trust.** Cambridge University Museum of Archaeology and Anthropology, Downing Street, Cambridge CB2 3DZ, England, U.K. 1997. 160 pp., 117 b&w figs., 2 color fiches. £9.95 (\$19.70US) postpaid (soft cover).

The Bead Study Trust (BST), England's premiere organization of bead researchers, has produced the first in a series of publications that fulfil its mission since 1980: to publish the Beck Collection. Four volumes are anticipated, and will cover different regional aspects of the collection acquired by Horace C. Beck in his lifetime, and now housed at the University Museum at Cambridge. The BST is a small but dedicated group of scholars and enthusiasts, whose members have particular areas of interest. The first volume pertains to beads from Europe, and spans such areas, in sequence, as: England, Ireland, Scotland, Denmark, Sweden, France, Switzerland, Italy, Corsica, Sardinia, Spain, Tunisia, Malta, Crete, Cyprus, Rhodes, The Eastern Mediterranean, Greece, Russia, and Hungary—all areas from which specimens in the collection are derived.

The catalogue is organized such that original assemblages, as acquired and kept by Beck, are presented. This is a logical and simple approach to presentation, but is not always useful—depending on what one may wish to study—for a diverse collection that contains materials such as stone, metal, natural materials (teeth, bone, shell, ivory, amber and other fossils), faience, and a broad variety of glass beads which may range anywhere from ca. 30,000 B.C. through medieval times.

Beck made concerted efforts to get researchers (mainly archaeologists) to describe beads in a comprehensive manner that would be meaningful, and which would allow assemblages to be compared one to another. He is primarily remembered for composing his classification of beads and pendants, published in 1928, and used with greater and lesser success by those who have followed him. In this new catalogue, it is greatly ironic that Beck's advice was not incorporated into bead descriptions. Although Beck did not classify glass beads by their specific technologies (as he was often unfamiliar with or undecided about much of this,



as were most archaeologists of the day), he implied the usefulness of this approach in his writings. Certainly, since those times, with the increase of understanding of glass technology and of its importance and usefulness, most modern researchers attempt to arrange and classify glass beads in this manner. The Beck catalogue suffers from a presentation that largely ignores this aspect, and thus has quite limited usefulness. The descriptions of the beads include size, shape, color and decoration. However, these are themselves clumsy or misleading, and are in an obtuse form; e.g., "orange opaque" where "opaque orange" would make more sense (elsewhere descriptions say "dark blue" and not "blue dark," which is sensible). Shape names are sometimes incorrect; e.g., "gadroned" where "melon-form," or "globular" where "spherical" would be more accurate. Bead descriptions are augmented by occasional black-and-white drawings. In several instances, the drawing is paired with the wrong description—which is an unfortunate error. Thus, we can read of beads that are described as "cylindrical," when the shape pictured is clearly a sub-oblate (p. 31); or a "rock crystal" bead that is depicted as a dark glass bead with light-colored trail decoration of zigzag lines (p. 47). Adequate proofreading would have caught these errors before the book went to press. One hopes that subsequent volumes will have more complete and accurate descriptions and illustrations.

The catalogue begins with some 21 pages of introductory material. Submissions include a brief preface by George Boon, concerning the BST and its founding; a biographical essay on Beck's career by Flora Westlake (his daughter, and founder of the BST); an essay by Peter Francis, Jr., expressing the importance of Beck's pioneering efforts; a list of Beck's publications (thought to be complete, or nearly so); and an introduction by Julian Henderson, with Helen Hughes-Brock covering the scope of the collection. These papers are interesting and informative, particularly for any bead enthusiast or researcher who understands the nature of Beck's place in history—or who may want to know such information. These materials may be the true contribution to bead research contained in this book.

The BST felt that printing illustrations in color would have been prohibitively expensive, and opted for the solution of including two pages of color micro

fiche. Although some readers may be put off by the need of using a micro-fiche reader (a somewhat outdated and inconvenient apparatus), it is not as bad as may be supposed. One may attend the local library to use a fiche reader, though it is also possible to get a good look at the images using only a hand-held slide viewer. The photographs are excellent and beautiful, and greatly enhance the usefulness of the book.

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*The Ghanaian Bead Tradition: Materials, Traditional Techniques, Archaeological and Historical Chronology, Bead Usage, Traditional-Sociological Meaning.*

Kumekpor, M.L., Y. Bredwa-Mensah and J.E.J.M. van Landewijk. Ghana Bead Society, Box C788, Cantonments, Accra, Ghana. *Special Paper* 1. 1995. i-viii + 44 pp., 8 b&w figs. Price unknown (paper).

The Ghana Bead Society, which was established in 1993, is the first bead society in Africa, and it seems fitting that this should happen in a country where there is such a rich bead tradition. Its membership includes both Ghanaians and expatriates, and the program includes building a permanent bead collection and reference library, encouraging local bead production and making contacts within the wider field of bead studies. The credibility of the society was evident when the first edition of this booklet came out.

The second edition, which is already out of print, contains five chapters. The first, "Introduction to Bead Materials," covers techniques and materials—including natural materials, stone and, of course, glass. Techniques covered include drilling and polishing, and there is an informative section on identification, imitation and alteration. Chapter two covers annotated archaeological and historical chronology, while the third deals with socio-traditional usage and the meaning of beads. Chapter four covers "New and Post-Modern Trends," while the last chapter winds up with an account of the Ghana Bead Society. There is a map of Ghana, a reference bibliography, some line drawings, and the cover has five color illustrations.

Moving to a more detailed analysis, the words "palm kernel hull" are used on pp. 1, 2 and 8 in a context that suggests that coconut shell is intended. In describing the making of wound glass beads, a small gather of molten glass is wound round a wire—not quite the same as the description on p. 4, paragraph 2; and a marver (not a maver) is used to shape the wound bead. Venice, rather than Venetia, is the source of imported glass beads. The description of powder-glass beadmaking on pp. 5-6 is good, although the vexed question of the antique Bodom beads is avoided. Sometimes reference citations omit the relevant page; sometimes (as in the case of the Keta beads [pp. 5-6, 8-9]) the discussion is incomplete, and one has to infer that genuine *mamadzonu* and imitation *yevudzonu* refer to Keta beads (Keta is not on the map) and that the process is almost certainly that assigned to Goaso and described by G. E. Sinclair in 1939, and by Peter Francis, Jr. (1993b).

Chapter two, an annotated archaeological and historical chronology is, in my view, the best and most authoritative part of the book, containing details of various types of beads in archaeological contexts and many excavation sites including the little-known glass-working site at Begho. There is a tantalizing gap in the lack of a reference to the relevant excavation report that describes the evidence for glass beadmaking there, unless the reference entry to M. Posnansky, 1970, is the one.

The third chapter is essential reading for those interested in the part that beads play in traditional Ghanaian life, whether worn by type, by gender or by position in society. In a religious context, certain beads are prescribed, whether as priestly wear or as offerings. When a chief is "outdoored" (this appears to mean the process of public investiture but is not a word in general use; p. 18), certain beads are essential as part of the validating process, and the practice is described. On a more mundane level, women need to wear waist beads as an essential part of their costume. When a baby or a young woman is "outdoored" (that word again; pp. 19, 20) there is a rite of passage involved, and there certain types of beads have to be used in a prescribed way. Marriage, pregnancy and death also call for the use of specific beads. The material of which

beads are made is also important, and the significance of some examples is given; the way in which beads are strung and worn can be significant as well.

Chapter four discusses the revived interest in beads in the modern context of preserving tradition vis-à-vis the burgeoning bead trade, the need for accurate information and validation, and control and checks on the export (and possible plundering) of old, rare and valuable beads. The preceding pages have made it clear just how important this sort of knowledge is and so the Ghana Bead Society is to be warmly congratulated for its initiative in sponsoring the recording of traditional beliefs, usage and attitudes relating to beads, as well as encouraging archaeological research and publication. Over and above all this, the Society supports the appreciation of beads within contemporary life, as by holding a fashion show entitled "Ghanaian Beads—A Fashion Statement" as its annual fund raiser event in 1996.

Reviews are intended to tell the reader what the publication is about and whether it is worth buying or reading—which this is. They should also point out where improvements can be made. The Ghana Bead Society has already supplied a page of corrigenda that appears at the outset (although there are many more not listed). This page includes three extra references, but it is surprising not to find among those the booklet by Peter Francis, Jr. (1993a). In fact, the reference lists in both booklets include items not found in the other, though the work under review has a greater number deriving from Ghanaian publications. Some spellings need correction (e.g., "tektites" for "tectites; p. 5), and an eagle-eyed proofreader would have been beneficial. Having said all that, this is a booklet well worth having, and we look forward to a revised third edition before too long, as well as further publications from The Ghana Bead Society.

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*Les Perles: Au fil du textile.*

**Natacha Wolters.** Dans le droit fil. Syros, 9 bis, rue Abel-Hovelacque, 75013 Paris, France. 1996. 152 pp., 158 color figs., 4 b&w figs., bibliography. 250 French Francs (paper cover).

In the introduction, Claude Fauque dedicates Natacha Wolters' book *Les Perles: au fil du textile* to the "dialogue between beads and thread." Superbly illustrated, the book describes not only techniques from the past, but also contemporary methods, principally from Europe. Throughout, the author provides unique insights pertinent to the history of beadwork.

The first of five chapters covers the renewal of interest in beads during the 1960s, and the further development of this interest in the U.S. in the 1970s. A history of beads follows, they being describing as rich in symbolism throughout the world since prehistoric times. Magical beads have entered into the composition of numerous talismans, adorning fetishes and decorating the accessories of magicians and sorcerers. Today, in Europe, simple beaded and sequined textiles made in China and India at bargain prices can be found everywhere in ready-to-wear shops. In contrast, wonderfully intricate creations by the high fashion industry show a grand extravagance in the use of materials and the mastering of beading techniques.

The translated title of Chapter 2 is "Man and Beads, or how man invented glass beads, made them last through the centuries, associated them with their rituals, wore them in town as well as in the country." The photograph of coral-colored bead samples from the Salvadori glassworks (France) is particularly interesting. Among other things, Salvadori is known for its reproduction of old colors from the past. However, Wolters' statement that Salvadori is the only

current producer of glass beads in France (p. 32) is somewhat misleading. Actually, Salvadori is the only maker of *seed* beads left in France, whereas there do exist several glass beadmakers, most of them producing for the high fashion industry (Oppen and Oppen 1991).

Following an explanation of how millefiori beads are made is a passage (p. 38) that mentions several names given to specific beads. Given the wide range of such names and their descriptions in the existing bead literature, more attention to already-published research would have strengthened this section considerably.

In her description of wax-filled blown glass beads, the author describes them as being made in only two colors: goldtone, made with yellow pigment, and coppertone, made with cinnabar. Other wax-filled blown beads were additionally decorated by applying *essence d'orient*, a nacreous coating, to the inside surface of the beads, as mentioned in another section by Wolters (p. 41). It should be noted that several other colors also existed, made to imitate stones used in jewelry. Colors were sometimes combined to give a jasper-like effect.

Glass beadmaking is then covered, followed by how beads were used in religious rituals. Wolters next discusses 19th-century costumes and fashions in both urban and rural areas. Page 48 shows two typical examples of early 20th-century postcards. Respectively, they depict a girl and a grown woman from Brittany, both dressed in their traditional Sunday finest. These postcards are particularly interesting because they are adorned with actual samples of beads and sequins attached to the cards. Unfortunately, the author dates these rare examples to the 1920s, whereas the postcards are typical of those published after 1906, but before the beginning of the Second World War. In fact, the stamp cancellation on one of the postcards shows a mailing date of 1908.

Brittany is a region that has long conserved the practice of wearing traditional costumes. This tradition is of such cultural importance that the French government has led an official inquest since 1990, seeking out and documenting Breton women who continue to wear these decorated costumes.

Embroidery using beads is covered in the third chapter of the book. Numerous examples are shown



and discussed, such as beaded fabrics from ancient Egypt and Byzantium, embroidered religious articles used in 17th-century French churches, and icons. Also shown is a 19th-century English chair entirely covered with beaded embroidery. Different techniques of embroidered beadwork are described. Every fabric is the result of a different and sophisticated technique, and these different techniques, used at different times during the evolution of this art form, serve to identify the age of the fabric.

The astonishing method called *sable* appeared in France at the end of the 17th century, and seems to have been perfected in Paris. It called for using the smallest seed beads available; up to 155 of these tiny beads being used to cover only one square centimeter! The beads were attached using a method influenced by both basket-weaving and lace-making techniques, and resulted in a very supple material.

In the fourth chapter, Wolters shows various examples of beads that have been embroidered, strung, knitted, woven, and crocheted to create purses, mittens and other items. In the 19th century, colored glass beads from Berlin offered a wide range of colors, allowing beadworkers to make whatever they wished. The goal of finished pieces from this period was to imitate intricate paintings. Motifs were, for the most part, symbolic; some of the more popular themes were flowers and other plants. Romanticized rural scenes were also very popular, as were patriotic and domestic subjects. Contemporary objects, such as a Zulu necklace and a bracelet from Togo, are also included in this section.

Loosely translated, the fifth and final chapter is titled "Crazy About Beads." Here, Wolters concentrates on collectors and artists alike. Examples shown include French masterpieces from beadworking studios, work by the House of Lesage and the House of Vicaire, and objects from the collections of the Berlin Museum of Decorative Arts, as well as the Museum of Fashion and Textiles in Paris. Also depicted are works by individual contemporary artists and pieces from private collections.

Several lines written by noted French bead author M.-F. Delarozière end the chapter. Having written the

marvelous book on Mauritanian beads, *Les Perles de Mauritanie*, she opened a whole new world of beads to European and American enthusiasts alike. It is regrettable, however, that Mme. Delarozière continues to describe chevron/star beads as possibly dating to the 1st century B.C., having been made in Alexandria. This is a very old story, one that has been debunked time and again by researcher/author Jamey D. Allen (1995).

All of the numerous color photographs in *Les Perles: au fil du textile* are of excellent quality and, for the most part, very informative. However, less emphasis should have been given to photos of loose beads whose connection with the subject of beadwork is questionable at best (pp. 30, 35, 43, 144-145). Additional photographs of work by the renowned embroiderer Lesage (who wrote the preface to the book), or by the author herself, might have been more appropriate.

Despite the small criticisms in this review, *Les Perles: au fil du textile* is very well written, and contains much well-researched information. It will make a significant addition to the library of most any beadworker, collector, artist or researcher.

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**Opper, Marie-José and Howard Oppen**

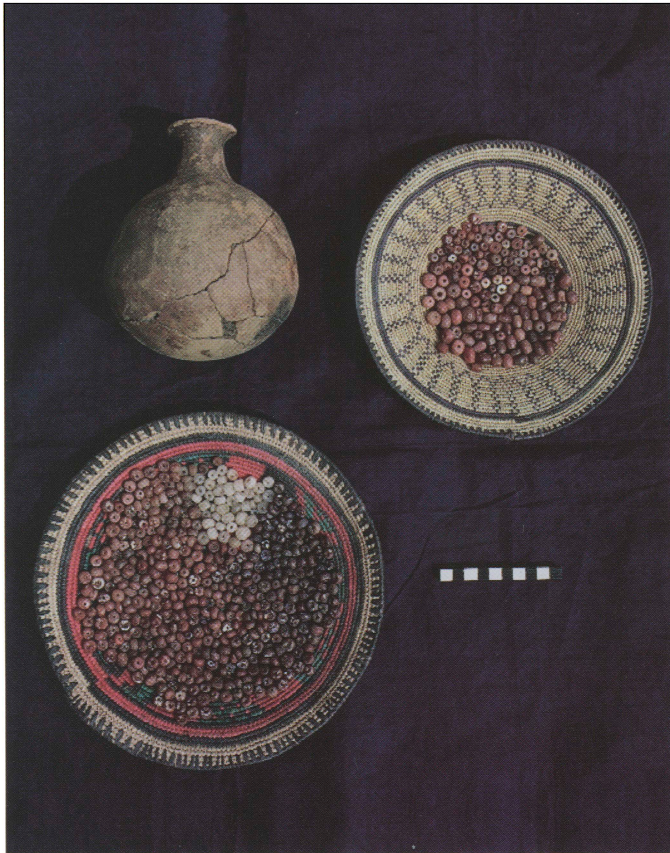
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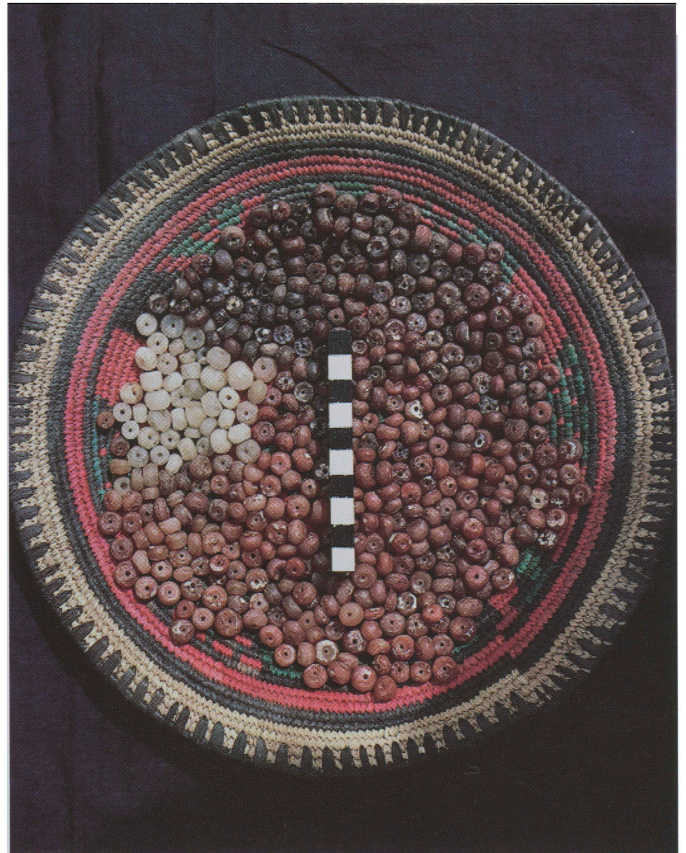
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**Plate VA.** *Ala hoard*: The pot as reconstructed along with the carnelian and quartz beads that it contained. The beads in the upper right consist primarily of long bicones; centimeter scale (photo: G. Connah).

**Plate VC.** *Tarver*: Florida Cut Crystal pendants. Note the variation in shape (photo: Gisela Weis-Gresham).



**Plate VB.** *Ala hoard*: Close-up view of some of the carnelian and quartz beads of the Ala hoard. Scale is in centimeters (photo: G. Connah).

**Plate VD.** *Tarver*: Punta Rassa Teardrop pendants. The flange or raised mold seam is clearly visible on several specimens (photo: Gisela Weis-Gresham).







**Plate VI. Tarver:** Bead varieties from the Tarver sites; the letters correspond to those in the key column of Tables 1 and 2 (photo: Gisela Weis-Gresham).