

THE KROBO AND *BODOM*

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Certain relatively large beads, almost always found in Ghana, have come to be called "bodom" by bead traders, collectors, and researchers. Most students of this bead believe it is the product of the Krobo powder-glass industry proliferating today in southeastern Ghana. Upon closer inspection, however, there appear to be two distinct groups of bodom that we may, for convenience, call "old" and "new." While the new bodom are definitely made in Ghana today, using techniques that have been observed and documented, the old bodom are substantially different in enough ways to suggest that they were made elsewhere by other methods. This study examines the origins and methods of manufacture of bodom and tests the hypothesis that the Krobo made old bodom.

INTRODUCTION

Bodom beads (pronounced bo-DOME or baw-DAWM) have been studied by a number of individuals, principally Lamb (1971, 1976) and Liu (1974, 1984, 1991). Lamb (1971) first thought it unlikely that the old *bodom* could have originated south of the Sahara, but by 1976, he had reversed his opinion based upon observations of Krobo beadmakers. Although Lamb should be given considerable credit for his pioneering studies of this bead and the powder-glass industry in general, it is possible, in light of Liu's closer inspection of *bodom*, that Lamb may have erred in his later study. Other literature concerning these particular beads is scanty. The articles already cited plus some recent summaries by Peter Francis (1990a, 1990b, 1993) are virtually the only academic references one will find concerning *bodom*. There are other references concerning beadmaking in Ghana (Haigh 1991, 1992; Sinclair 1939; Sordinas 1965; Wild 1937) which are useful for tracking the powder-glass industry in space and time, but these references provide little insight into the

enigmatic old *bodom*. The very interesting work of Kalous (1979), which was a strong rebuttal to Lamb, is basically a linguistics analysis that does not help us understand the fundamental questions related to old *bodom*: Who made them? How old are they? What materials were used? How were they made?

Evidence presented in this study is derived mainly from field observations in Kroboland during the 1990s, and visual inspection of beads collected in West Africa, mainly Ghana. There are, indeed, two main *bodom* styles: old and new. New Krobo-made *bodom* have many of the features of old *bodom*, while contemporary powder-glass techniques used in making these new *bodom* suggest many techniques concerning how old *bodom* may have been made. Yet, it remains conjectural whether the Krobo were actually the makers of old *bodom*.

The classic old *bodom* is a large bead, sometimes measuring 5 cm (2 in.) or more in either diameter or length. It is frequently biconical and typically has a yellow surface with a black core. It sometimes features decorations that resemble Venetian lampwork in that the bead appears to have glass rods or fragments applied onto the base by some hot-working technique (Pl. VC top, center). A second classic style has swirling or flowing designs seamlessly blended with the surface, as if the bead had passed through a molten state (Pl. VC bottom). In either case, old *bodom* usually bear no evidence of grinding and typically retain a smooth glassy surface. New *bodom*, made of powder glass, have designs that are more jagged (powdery in appearance), have a gritty matte finish, and show evidence of grinding (Pl. VD top, most beads). New *bodom* do not always have cores different in color from the surface of the beads (Pl. VD bottom, right).

To complicate matters further, there are *bodom* that appear to share features of both the old and new

styles described above. In addition, there are certain smaller beads, including the *akoso* (Pls. VIA top, bottom, VIB top), *ologo* (close in appearance to Venetian lampworked bicones), or *zagba* (long striped beads), that are technically similar in many respects to *bodom*, the main differences being size and shape. Finally, contemporary Krobo informants identify a number of *bodom* patterns, giving rise to such compound names as *akoso-bodom*.

"*Bodom*" is a word of Akan origin (Kalous 1979). The term is current in major bead markets and bead-producing areas of Ghana, including the Ashanti Region, Kroboland, and Accra. Among bead traders, the term is often applied to a single large and old (or old-looking) bead that may command a top price if *bodom* status can be attached to it. In Twi, the Akan language of the Ashanti, *bodom* can refer to a type of tree, in addition to a type of bead. The plural in Twi is *abodom*, a term Hausa traders sometimes use. Among the Krobo, who speak a Ga-Adangbe dialect, *bodom* means "big bead" or "the biggest bead in the necklace." The Krobo language is more closely related to Ewe than it is to Akan dialects (Twi and Fanti, for example), although there is considerable Akan vocabulary in Krobo.

There is a certain "look" to the beads Lamb (1976) calls "*bodom*," and his work appears to be the first in-depth investigation of this particular bead. He observed Krobo beadmaking and commissioned a Mr. Tetteh to make *bodom*, work that was done convincingly enough to conclude that it was the Krobo who made old *bodom*. Kalous (1979), in his rebuttal, argued that the beads described by Lamb are not true *bodom*, that true *bodom* are not the products of powder-glass technology, and that true *bodom* could not have been made by the Krobo. Kalous does not offer alternative names for the beads in question, nor does he discuss alternative technologies or possible origins.

It is not clear whether Lamb and Kalous were talking about the same bead. Lamb discusses the types of beads shown in his photographs, calling them "*bodom*," while Kalous, without photographs, talks about beads that the Ashanti call "*bodom*." It is never clear whether Kalous actually ever saw the beads he discusses. Lamb likely attached the catchy Ashanti term to the beads in question without giving it too much thought, after which the term became the popular

Ghanaian marketing term that it is today. To Kalous, "*bodom*" is a misnomer for the beads Lamb describes. We know which beads Lamb was discussing; the same cannot be said for Kalous.

Both Lamb and Kalous have valid points. Lamb is correct in that the beads in question were likely made using powder-glass technology. We might also accept, for the moment, the proposition that it was non-Akan beadmakers in southeastern Ghana or Togo, if not the Krobo, who made the beads he calls "*bodom*." We should agree with Kalous, however, that the *bodom* of the Ashanti is not necessarily the bead discussed by Lamb. The *bodom* of the Ashanti and other Akan peoples is deeply intertwined with traditional religion, shrouded in mysticism, rarely displayed, shielded from outsiders, and kept in special places. Ashanti *bodom* are "found," not produced, are sometimes said to come "from the north," and are charged with supernatural powers, such as the ability to reproduce or grow. Although the Krobo make and possess beads called "*bodom*," these beads might not be the true Akan *bodom*, just special, more-contemporary beads, original designs, or imitations. Some of Lamb's types might be considered true *bodom* by the Ashanti, but it is possible that the Ashanti *bodom* include a number of other bead types, just as the Krobo *bodom* ultimately do.

If we accept the view that the *bodom* concept has Akan origins, the beads Lamb attributes to the Krobo cannot be true *bodom* in the Ashanti sense of the term. What Lamb calls *bodom* are relatively modern beads that greatly post-date true Akan *bodom*. Lamb's *bodom* might not even resemble the Akan types referenced by Kalous. Lamb is talking about certain large beads he says were and are made by the Krobo; he calls these beads "*bodom*." Note that the beads Lamb discusses and other large beads of many descriptions are commonly called *kpo* by the Krobo, a term that may be translated as "loket" in reference to "the largest bead on the necklace." Furthermore, not all Krobos are familiar with the term "*bodom*," which suggests that Lamb may have simply imposed this bead name onto his Krobo associates and the bead "world" in general.

Liu (1991) highlights a subgroup of *bodom* characterized by decorations that look hot worked, the construction of which cannot easily be visualized with our current understanding of vertical or horizontal powder-glass molding techniques. Both Liu and

Lamb, however, mention a component method for making *bodom* and some of Mr. Tetteh's experimental beads were made with just such preformed components. Field research in Kroboland with Ransford Tetteh (no known relation to Lamb's Mr. Tetteh), a Krobo beadmayer, has confirmed these observations of beads made of preformed components. The production of powder-glass beads from components is frequently ignored, yet this component method, to be described below, goes far to explain how many old and new *bodom* were made.

Finally, Sordinas (1965), in a detailed article describing the making of *adjagba* (large striped beads) by the Krobo, does not use the term "*bodom*," although contemporary Krobos might call a large *adjagba* "*bodom*" in certain contexts. Curiously, *adjagba* is an Ewe word, the corresponding Krobo word being *zagba*, which shows the close linguistic relationship between Ewe and Ga-Adangbe (Krobo). The *adjagba* discussed by Sordinas were being made as he performed his study (the early 1960s), while some of the *zagba* pointed to by the author's contemporary informants are clearly from the "old" period, evidencing many classical *bodom* features.

This paper focuses on the types of *bodom* discussed by Lamb and Liu and on the role of the Krobo in their manufacture. By examining current beadmayer practices among the Krobo to identify techniques that could have been employed in making old *bodom*, insights may be gained into how the old *bodom* were made and their alleged Krobo origin.

WHO MADE OLD *BODOM*?

There are a number of active and defunct glass-bead industries in West Africa. Major contemporary powder-glass beadmayer areas in Ghana include Kroboland, some 60-80 km (40-50 mi.) northeast of Accra, and the Ashanti Region where the beadmayers are Ashanti or other Akan groups. Recent beadmayer has also been reported in the Anlo or Ewe areas of the Eastern Region (Haigh 1991, 1992).

Both Lamb (1976) and Sordinas (1965) describe the making of powder-glass beads in Kroboland. Sordinas spent time with a certain beadmayer named Samuel Tetteh (no known relationship to the other Tettehs mentioned above) of Huhunya, a Krobo town.

Sordinas did not use the term "*bodom*" in his study, but Lamb, a decade later, distinguished between *adjagba* and *bodom*, all the while observing several similarities between the two types. Earlier articles describe powder-glass beadmayer by the vertical-mold method at Dunkwa by Apollonians (Nzima) from southwestern Ghana or southeastern Ivory Coast (Wild 1937), and by the horizontal-mold method at Goaso in today's Brong-Ahafo Region (Sinclair 1939). An old man interviewed at Goaso, who happened to recall Sinclair, said that he had made beads in the 1930s and had learned the art in Ivory Coast. These places—Dunkwa, Nzima, and Goaso—are Akan, but not traditional Ashanti areas.

The origins of beadmayer in Ashanti and elsewhere in Ghana are unknown. While the legend of Osei Kwame (an Ashanti from Dabaa, near Kumasi), as reported by Francis (1993), says Ashanti beadmayer started only in 1937, this date is unlikely, given the contemporaneous evidence of beadmayer in Akan areas by Wild and Sinclair. Today, it is the Krobo and the Ashanti who make the bulk of the beads in Ghana. Despite all the fragmented historical references to beads in Ghana, there seem to be few, if any, reliable accounts of powder-glass beadmayer before 1900. In the early 19th century, Bowdich (1819) made some vague references to "boiled" beads at Kumasi, but his account was otherwise very confusing and did more to mislead students with respect to *aggrey* beads than to inform them of the powder-glass industry.

A Nigerian powder-glass-bead industry operated from at least the early 20th century, but this industry now seems to be defunct. Euba (1981-82) believes the Yoruba learned powder-glass technology from the Krobo and only took it up when the materials for their traditional methods became exhausted. The Yoruba industry is distinct from the Ghanaian industries, however, in that the beads were not made in molds and water was used as a binder. Otherwise, beadmayer in Nigeria might reach back to the first millennium, suggesting a possible origin for the Ghanaian industries (Willett 1977). The wound-glass-bead industry of Bida (Nigeria), despite the great differences in technique compared to the powder-glass industry, is important in understanding both the spatial and technological diversity of beadmayer and glass working in West Africa. Future investigations may also reveal current or past beadmayer in Togo and the

Ivory Coast. In the latter country, at Bondoukou, glass-bracelet making analogous to that of Bida was reported by Freeman (1898) in the late 19th century, although no evidence or memory of this industry seems to survive today.

Elsewhere in West Africa, there is contemporary powder-glass bead production in Mauritania using a wet method (binders) without molds to make *murakad*, the so-called “*kiffa*” beads (Oppen and Oppen 1989). To account for the cores of old *bodom*, Liu (1984) suggested that a binding technique similar to the Mauritanian process (and, indeed, the Yoruba process) could have been used. The Mauritanian industry could have spawned the Ghanaian industries, but if anything, the opposite would appear more likely, although it is even more likely that these two widely separated industries developed independently. It is possible that the contemporary powder-glass bead industries throughout West Africa have a common, but as yet unidentified, ancestor industry with roots as deep as ancient Egypt (van der Sleen 1973), but all of this is mere speculation. In the absence of glass-making technology, West Africans were forced to recycle imported glass and, therefore, innovated their various powder-glass industries as the solution to their need for small glass objects—above all, beads.

Limited archaeological evidence suggests the existence, if not the manufacture, of powder-glass beads in Ghana at least as far back as the 1600s (Francis 1993). Krobo Mountain, the outcrop from which the British drove the Krobo in 1892, is now a sacred place visited once annually by the Krobo. In the 1970s, however, Lamb and Kalous sparred over the importance of this rock during their heated debate on *bodom*. Lamb (1976) said there is evidence of pre-conquest beadmiking on the hill, while Kalous (1979) said that this insignificant little tribe, the Krobo, inhabiting this “mountain fortress” and preoccupied with defense, had neither the wherewithal nor the time to produce beads, let alone the fabulous *bodom*. A personal visit in 1998, to the Yilo village atop Krobo Mountain failed to produce any physical evidence of beadmiking, although the several accompanying guides insisted that beads had been made there before the expulsion.

DeCorse’s excavations at Elmina, with the firm terminal date of 1873, have produced a number of interesting clues concerning beadmiking in Ghana.

According to DeCorse (1989), stone abraders (presumably for working beads) found at Elmina have also been found at Ankobra, Secondi, and Winneba, all of which are Akan towns on the coast. There is also some evidence of beadmiking at Begho, a long-abandoned trading center in the interior.

Beadmiking could have come to Ghana from two or three directions during the past several centuries. The Akan reached their current homes from the north and northwest, while the Ga-Adangbe group, including the Ga and Krobo of the southeast, appear to have Yoruba roots to the east. The Ewe followed the Ga-Adangbe from the east. The Akan, moving southeasterly, and Ga-Adangbe groups of southeastern Ghana made contact in Akwapim (the area of modern Koforidua) as early as the 16th century, while the great 17th-century Ashanti priest/statesman, Okomfo (priest) Anokye, came from Akwapim (according to the Ashanti), the last Akan state in the direction of Kroboland.¹ In the early 1800s, the Ashanti Empire under Osei Bonsu encompassed the whole of modern Ghana, including Kroboland, which may account for the Akan component in the Krobo language, the Akan place names in Kroboland, and the *bodom* beads in Ashanti regalia. How much beadmiking technology crossed the Akan-Krobo frontier is rather difficult to determine, but a variation of the Osei Kwame legend has him going to Kroboland to learn beadmiking, instead of dreaming it. Theoretically, beads and beadmiking methods could have been exchanged along this frontier for the past 400 years.

The Krobo were certainly making beads as early as the 1920s. Ransford Tetteh’s “father” at Odumase-Krobo and another octogenarian beadmiker at Tsebi Manya both said they made beads in the 1920s, while the latter presented a *bodom* from this period that he himself had made.

Although the Krobo say they have been making beads for a long time, they frequently admit that they learned the practice from the Ewe, perhaps as recently as the early 20th century. The Krobo are quick to point out, however, that they made a number of technical innovations upon the lessons of their Ewe teachers and, indeed, Krobo beads today are the best made and most innovative of Ghanaian-made beads, as evidenced by their production of *bodom* and a number of other intricately designed beads. Liu’s

“hot-worked” *bodom*, which seems older and is certainly rarer, may be of Ewe origin, while today’s Krobo *bodom* may just be a copy of it.

The Ashanti and other Akan groups claim that *bodom* come from the ground, the north, or both. They do not claim to have made them. They do not say that they get them from the Krobo or that they buy them in the market. The Krobo, on the other hand, living to the south and east of Akan country, claim to make *bodom* and have lately been seen doing it. Thus, three possible groups of *bodom* are hypothesized:

1. New *bodom*, as made by Mr. Tetteh in the 1970s, by Ransford Tetteh in 1992, and by other contemporary Krobo beadmakers in southeastern Ghana, including Charles at Tsebi Manyia.
2. Old *bodom*, featuring “hot-work” decorations, dark cores, and seemingly different materials than the new *bodom*. (Note that what appear to be old *bodom* have been called *aggrey* by Quiggin [1949], in an apparent interpretation of Bowdich [1819].)
3. True *bodom*, elusive, of which few, if any, specimens have been seen and accurately described by outsiders.

In 1992, Ransford Tetteh, who was attempting to duplicate the older style, differentiated between new and old *bodom*, using this very terminology. Lamb (1976) differentiated the new and old styles, stating that the older style is of a quality not reproducible today, but was convinced that the beads of his Mr. Tetteh (the newer style) were close-enough approximations of the older ones to conclude that the Krobo actually made the latter.

Francis (1993) has suggested that the true *bodom* will be found in the regalia of the Ashanti royal family. Lamb (1976), in fact, photographed certain beads called “*bodom*” that were said to have come from Ashanti stool regalia. These beads are technically identical to the old *bodom* styles being discussed here. In 1993, the Ashanti Queen Mother, an octogenarian, displayed a “*bodom*,” to use her terminology, that she said she had “met” many years ago (Stanfield 1994). It was a rather large Venetian lampworked bead with a brick red core and red, white, and blue flag-type decorations. It is not known whether this bead possessed the supernatural powers frequently reported for true *bodom*. An interesting experiment would be to show a selection of both new and old *bodom* to

knowledgeable Ashanti informants, such as the Queen and her retainers, and obtain their views on the origins of these beads and whether or not they are true Ashanti *bodom*. The upshot of all this is that it is likely that the “old” *bodom* and the “true” *bodom* are one and the same thing, such that we need not whip the Lamb-Kalous horse any longer. It further appears that Lamb simply applied this Ashanti word to the beads he found and had made in Kroboland, foisting this “foreign” word onto the Krobo.

Lamb (1976) witnessed the Krobo making *bodom* in the 1970s and actually acquired newly made beads that convinced him that the Krobo must have made all of the beads he called *bodom*, including the older types. The photographs in his article show both types. Some of them were from a private collection in Somanya, a Krobo town, while others were said to have come from stool regalia. Ransford Tetteh, along with octogenarian beadmakers interviewed in 1992, said that both new and old *bodom* are/were made by the Krobo. No Akan beadmakers have been observed or reported making these types of beads. The only other candidate groups are the Ewe, including the Anlo around Keta Lagoon, who some Krobos say introduced the Krobo to beadmaking, and the Yoruba, whose wet-formed, moldless industry cannot be entirely ignored.

Haigh (1991) observed the Anlo (Ewe) making beads. In the same article, he makes no mention of the Krobo bead industry, but mentions the Ashantis. In an article on powder-glass beadmaking in Ghana, it is hard to believe that Haigh would make such an omission. Nevertheless, the existence of an Anlo bead industry is believable since Haigh observed the industry first hand.

Both the Krobo and the Ewe came to southeastern Ghana via Yorubaland along a similar route and met at Notsé, in southern Togo. It was at Notsé, according to legend, that the Krobo met their deity, Kloweke, who was Ewe and who introduced *dipo* (female puberty rites) to the Krobo and led them across the Volta. The Krobo may have been settled on Krobo Mountain as early as the 16th century, while the Ewe stayed behind in the area east of Kroboland. The construction of Akosombo Dam and Volta Lake in the 1960s tended to separate these two groups, but historically, the two have been in close proximity.² If one of these groups carried beadmaking skills, it is possible that both of them did.

DeCorse (1989) mentions evidence of bead reworking at Ife (Nigeria) between the 8th and 12th centuries, and among the many theories related to *aggrey* beads, one proposes a powder-glass bead from Ife (Euba 1981-82). Indeed, there is plenty of evidence for beadmaking among the Yoruba, and among the powder-glass beads that may be so attributed, there are specimens that have hot-work-looking decorations and other attributes reminiscent of *bodom* beads.

Beadmaking could have been practiced intermittently for at least four centuries by both the Krobo and Ewe in more or less their current areas, with some periodic transfers of method or spurts of innovation crossing the Krobo/Ewe frontier. Most evidence points to the Krobo as the makers of old *bodom*, but the Ewe make beads even today and may have been influential at different times among Krobo beadmakers, as the octogenarians attest. It is notable that the majority of Krobo informants claim the old *bodom* as their own, but these same informants attribute the closely related *akoso* bead to the Ewe. Could the Ewe have made the *akoso* and then transferred the skills to the Krobo, who proceeded to innovate with the *bodom*?

The question of who made the old *bodom* cannot be answered with certainty. The Krobo are the author's best candidates because they make *bodom* today, have a great tradition of using *bodom* (and many other beads), and are the major source of *bodom* coming on the market. Not all of the old beadmakers interviewed were certain that the Krobo made the old ones, however, and the notion that the Ewe introduced beadmaking to the Krobo, perhaps as recently as a century ago, should not be ignored. Finally, the Yoruba, out of whose territory the Ga-Adangbe (including the Krobo) and the Ewe migrated, cannot be entirely ruled out as the origin of the beadmaking industries and the makers of these mysterious old beads. The least likely candidates are the Ashanti, who never claim to have made these beads and who demonstrate few of the requisite techniques in their current beadmaking practices.

HOW OLD ARE OLD *BODOM*?

Major distinguishing features between new and old *bodom*, as described here, are the nature of the

decorations, the materials, and the cores. Lamb (1976) mentioned that some of the decorations are so fine as to resemble lampwork, but he stopped short of distinguishing clearly between new and old types. He presumably viewed differences as merely temporal variations in workmanship, rather than variations in technique or materials, and grouped all of his specimens, including Mr. Tetteh's experimental beads, into a single class of beads. The old *bodom*, thus, would be the product of the same industry as the contemporary *bodom* he commissioned. Lamb concluded that new and old *bodom* are actually the same bead, while at the same time glossing over differences in materials and quality of workmanship.

Bodom range in age from current to no older than the 19th century. If we can date the material used to color the older types, especially the predominant yellow, we will have a good estimate of the earliest likely date for the production of old *bodom*. No old *bodom* have been scientifically excavated, according to Francis (1993), and from their colors it seems obvious that 19th-century Venetian trade beads served as raw material. Many such lampworked beads are still widely available in Ghanaian markets and, when asked, beadmakers today can identify specifically the European beads preferred for making powder-glass beads and can even identify the beads used to make old *bodom*. In fact, Ransford Tetteh, in the early 1990s, was using old Venetian beads in his attempts to make old-style beads, while other informants, including Kwaku Amedievor (Fig. 1) at Sekesua (Upper Krobo), mentioned several imported beads used as raw materials (e.g., the use of *bunale* [yellow "Hebron" beads] to make *apé*).

DeCorse's excavations at Elmina have unearthed Venetian lampworked beads with colors that match those of the older *bodom*, suggesting that raw materials appropriate for the making of these beads were available in Ghana before 1873. Leaded yellow-glass beads traced to 19th-century Venice were, thus, probably used for the yellow surfaces of most old *bodom*. These yellow beads are still used as raw material today for the making of "quality" Krobo beads, as witnessed by the author. Before the introduction of ceramic dyes in the early 1980s, almost the sole source of color for powder-glass beads was old European beads.



Figure 1. Retired Krobo beadmaker Kweku Amedievor (born ca. 1911) and his wife at Sekesua, Upper Krobo. He began to make beads about 1931, and reportedly made “nice eye beads” as well as *zagba* during his career (photo: Kirk Stanfield).

If powder-glass beads, including old *bodom*, can be no older than the materials from which they are made, the old *bodom* would logically be somewhat more recent than their materials, such that any extant specimens probably date no earlier than the last half of the 19th century.

WHAT MATERIALS WERE USED?

Until the introduction of ceramic colorants, called “dyes” by Krobo beadmakers, in the early 1980s, beads in Ghana were made almost exclusively from scrap glass and old beads, although metal oxides and other colorants played minor roles. For this reason, older Ghanaian beads come in a limited range of colors (white, gray, yellow, green, and black) with decorations, usually stripes, of red, blue, green, and brown. Clear (colorless), brown, and green bottles, along with window glass, are the most common source of base glass, while opaque white hand-cream jars (*asra*) and cobalt or Bristol-blue medicine bottles are used when available. The latter sell at premium prices in the glass markets. European beads, including reds and greens, were used sparingly because of their cost.

Pre-dye *bodom* seem to have been made with powders of certain leaded yellow Venetian beads for the outer surface and powders or fragments of beads of other colors, usually red, green, and brown, for the decorations. Lamb (1976) mentioned that special glass

ingots from Venice or Jablonec (Gablonz) were used prior to World War II. The black or dark cores of these beads are likely to be comprised of junk glass and may even include sand. It was said by Ransford Tetteh that a mixture of ground powder-glass beads of various colors yields dark or black glass. Indeed, some visible cores have multi-colored flecks in a grayish matrix. To the beadmaker, the core hardly matters; it is merely a material-saving device for conserving valuable colored glass in a core that is unseen. Beads showing the black core through the yellow surface are allegedly more valuable, but it is more likely that the imperfect surface coat is the result of poor technique or paucity of materials. Beads made of old beads, such as the cored old *bodom*, are called *wuajeto* (made of old beads) and those *bodom* with cores visible through the surface are frequently called *wuajeto bodom*.

The colors of certain powder-glass beads are said to be mixtures of glasses of various colors. This is sometimes true of the *awuazi*, a beautiful light blue bead made from a mixture of *asra* and Bristol-blue bottle glass. *Awuazi* are said to have been made on Krobo Mountain, while several octogenarian informants stated that they made these beads in the 1920s and 1930s. The typical *akoso* color appears to be a combination of yellow Venetian lampworked-bead glass and *asra*, as does the color of many *bodom*. *Asra* glass seems to impart a creamy look to the yellow.

The advent of glass dyes in the early 1980s has reduced the labor required to make beads by obviating the need to powder so many old (and expensive) beads. Today’s *bodom* is usually one solid color (no black core), usually yellow, with black, green, or brown decorations. It is also rather common, with whole necklaces available in Ghanaian markets. The trained eye can easily differentiate between old and new, but common sense will tell the buyer that, anytime a whole necklace of these beads is offered, they must be new.

Other materials have been used to color beads. Among these are black and red iron oxides, a certain red shale called *gba tee* (*gba* = red; *tee* = stone), a certain brand of laundry blue, and enamel removed from imported Chinese enamelware.

An elaborate Krobo vocabulary exists for describing old beads used to make new beads. When asked what it would take to make a true *adeopade* (zigzag lines) *bodom*, Joe Akwateh (1994:pers.



Figure 2. Old beads of the *bodom* family. The *akoso* in the center appears to have a fragment of a “green-heart” bead inlaid in it. The green bead on the right appears to be made of Venetian beads. Note the fire-polished appearance and the apparent lack of cold grinding (John Picard collection; photo: Jamey D. Allen).

comm.), at Aketewia (upper Krobo), said he needs *ologo*, *oblekum*, and *kikayi*. *Ologo* (round) is the yellow Venetian bicone colloquially known as the “king” bead (there is also an African-made *ologo* in the *bodom* family to match the Venetian). *Oblekum* is a tiny brown seed bead used to make *oblekumie* (beads that “prevent misfortune”) of any size or to make designs on big beads. Old *bodom* sometimes appear to have the *oblekum* brown for decorations. *Kikayi* were not clearly identified.

Beadmakers obtain old beads from Hausa traders who scour the countryside for used beads. Mixed bags of their findings are on sale in all of the major bead markets. Mostly small European beads, one finds fragments of simple beadwork, broken hanks, and a near-infinite variety of small bead chowder. From one such bag of ten kilos or so, a knowledgeable informant, Vida Doler (1995:pers. comm.) of Atua Akwateh, identified by name a number of European beads, mostly seed- and pony-sized, used by beadmakers in the making of new beads, including:

1. *Kumelo*. The Venetian “green heart” (opaque brick red exterior over a translucent green core); used for *akoso* and *bodom* decorations; larger ones are broken for useable fragments (Fig. 2). Both the color of designs and glass fragments in old *akoso* very frequently call to mind the brick red coating of “green hearts.”

2. *Afriyo*. Old white seed bead; can be larger; used for white in “terrazzo” (a type of fragment bead) and other beads. These are the first beads worn by a new mother.
3. *Yomotse-obu* (Obu’s pretty daughter). Old white seed bead with blue stripes used to make “terrazzo.” Also used in bracelets or belts for children.
4. *Ajowa-blu*. Cobalt blue seed bead. Can be used for stripes on African-made *yomotse-obu* and for “terrazzo.”
5. *Yoholo-mue* (*mue* = beads). Small green molded discs; can be used for designs. Worn by pregnant women.
6. *Soso-ba*. Small green (*ba* = green) tubular tile (Prosser) beads; used for designs.
7. *Afriyo-ba*. Green *afriyo*; smaller light green seed bead; used for decorations.
8. *Oblekum*. Tiny brown seed bead; used to make designs on *bodom*, *akoso*, and *powa* (the Krobo version of striped or chevron beads); the brown version of *ajowa-blu*.
9. *Koli*. Light blue translucent seed beads identical to larger beads of the same color; used in belts and armlets; used to make “*koli*.” (That’s no misprint! European “*koli*” are altered by “cooking,” as described by Sordinas [1964].)

Many of these beads, samples of which have been collected, are easily dated to the 19th century or earlier, and inasmuch as Krobo informants are so deeply knowledgeable on this subject, it is plausible that these same materials were used by 19th-century Krobo beadmakers to make old “*bodom*.” More knowledge than skill seems to have reached the late 20th century.

HOW DO THE KROBO MAKE *BODOM*?

Liu’s (1984) proposition that old *bodom* were made using a wet method similar to *kiffa* techniques cannot be ruled out entirely, although evidence derived from current practices suggests that the old ones were likely made using the dry method, which is the method used universally in Ghana’s contemporary bead industry, with one exception.

The basic powder-glass methods used in Ghana for making beads have been well described by a number of researchers, but only Lamb (1976) devoted much

attention to the use of preformed components. The two basic methods are the vertical mold and the horizontal mold, both using dry glass powder. Preformed components of dry powder are made in what amount to horizontal molds, while other preformed components, especially among the older *bodom* types, appear to be pieces of hot-worked glass or bead fragments. Some *bodom* even have European beads imbedded in them (Fig. 2).

According to Krobo informants interviewed in 1992 and 1994, both old and new *bodom* are made of preformed components, as follows. First, a vertical mold the size of the desired *bodom* is prepared. With the mold turned on its side, one of the (normally) two decorations is constructed using the basic methods. The mold, still on its side, is then placed in the oven to fuse what amounts to a segment of the outside wall or "shell" of the bead. This step is repeated with the same mold to create a second shell or as many shells as may be desired. Once the shells have been created, the mold is placed in a vertical position and the newly made shells are fitted into it in the positions in which they were made. A cassava leaf stem (or possibly some other suitably wet, green, slow-burning stick) is centered in the mold to create the perforation. The mold is then filled with base powder, usually yellow, both inside and outside the preformed shells, although it is desirable to keep the outer surfaces of the shells as free of powder as possible. This assemblage is then heated until the components and the base powder have fused. After cooling, the bead is ground to remove any excess base glass that may be covering the decorations.

Ransford Tetteh was using this method for making *bodom* in 1992, and specimens of intermediate steps, including preformed shells, were collected (Pl. VIB bottom). Although this method appears logical and was presented as the method used by the Krobo since at least the 1920s, certain important questions remain unanswered. With respect to old *bodom*, the method described above cannot readily account for the black cores, the lampwork effects, seams that would likely appear on beads made in parts, and the typical biconical shape.

Dark Core

To understand how the black core could have been achieved, return to the beadmaking process outlined

above. As explained by Ransford Tetteh, instead of filling the mold completely with the base color, only enough is added to form the bottom of the bead. Then a thick stick is placed in the mold and base color is added around it to fill the spaces between the shells. After carefully removing the stick, black glass, usually scrap, is added until the mold is almost full, after which, more of the base color is added to form the top end of the bead. It would appear that this more complicated procedure was instituted in an effort to conserve the valuable and scarce yellow glass derived from old beads. Lamb (1976) described a very similar procedure for making the black core: once the yellow base is added, a wooden mandrel is used to push the outer yellow coat outward to make room for the black core. The cassava leaf stem is added after the whole bead is assembled.

It is also possible, although it has not been observed, that the black core was preformed in a smaller mold and positioned after a bit of yellow powder had been added to form the bottom of the bead. Some very rare *bodom* appear to be decorated black or gray cores without a yellow coating.

The black core is usually questioned in terms of how it was made, rather than why it was made. The "why" arguments, as mentioned above, are split between pragmatic material economy and cultural inspirations. Perhaps these old *bodom* have cores because core-forming was the technology of the beadmakers. In West Africa, one finds the so-called *kano* bead, with the monochromes generally attributed to Hebron. There is, however, another would-be *kano* bead that features multi-colored fragments as decoration on a black matrix, formed on cores. These beads also share with old *bodom* a conical perforation, as if they were made on mandrels. Some unusual cored beads are shown in Pl. VIC top.

One is tempted to suspect a link between the wound-bead industry of Bida, the core-formed *kano* beads of likely Middle Eastern origin, and old *bodom*. The link is likely to be the Yoruba, who brought or received glass beadmaking from the North, who hosted the Krobo in the 13th or 14th century (Euba 1981-82), who may have influenced beadmaking in Bida in the 19th century, and who practiced their own powder-glass beadmaking at least in the 20th century.

Lampwork Effects

The explanation of the lampwork effects is more conjectural. New *bodom* usually have ragged lines for decorations that were obviously made of glass powder not so carefully poured. Many of the old types, however, and including *akoso*, have smooth-edged flowing decorations, often cruciform. These effects could have been achieved by carefully pouring extremely fine powder of the right type of glass before heating the shells to much higher temperatures than are possible when an ordinary bead with a perforation is being made. Lamb (1976) stated that, if the temperature is just right, there will be a certain amount of viscous flow on the outside of the bead. Even newly made ordinary beads sometimes show this flow (Pl. VIC bottom).

If there is no perforation at risk of closing, as would be the case if only a shell of a bead were being made, there would be no temperature constraints or limits on the duration of firing. Components could thus be heated enough to get the glass to flow. Such temperatures have long been achievable, inasmuch as there is a history of metal casting in both Ghana and Nigeria using forced air. Even today, with the mass production of beads, temperatures hot enough to get glass to flow and yield a lampwork appearance are sometimes attained, as evidenced by many newly produced powder-glass beads available in Ghanaian markets. Certain older powder-glass beads, copies of which are still being produced, have preformed eyes that have attained a glassy appearance, no doubt the result of high temperatures achieved in the absence of the perforation constraint when making preformed eyes.

A second type of lampwork effect looks somewhat like trailed decorations. These decorations seem to have been made by hot working fragments of glass or glass beads with techniques that are still in use today. Some of the most prized beads in Kroboland are those made by heating and reshaping whole European beads or carefully prepared bead fragments. At Elmina, DeCorse (1989) uncovered what appear to be fragment beads and, in 1992, the reshaping of both whole beads and fragments was observed at Odumase-Krobo. In addition, seamless translucent beads are currently being made of bottle fragments (Pl. VID top).

It is likely that fragments of beads and other glass objects were used to construct components and it is



Figure 3. The mold on the left is for making the base of a *zagba* type. The one on the right is used to make decorative components (Kirk Stanfield collection; photo: Robert K. Liu).

possible that some of these fragments were hot worked into shape before the complete component was assembled. DeCorse (1989:49) reports evidence of the winding of viscous glass shards at possible 17th-century sites.

Eye beads are currently made by first preparing eyes in small molds (Pl. VID bottom). The technique appears to be quite old, with certain old specimens resembling Middle Eastern styles. A recently found mold, said to be some twenty years old, had nothing more than thin U-shaped indentations resembling the decorations on *akoso* (Fig. 3). Preformed eyes and other decorations are positioned along the sides of bead molds during the filling process and, from Lamb's photographs of Mr. Tetteh's work, it seems obvious that preformed decorations were used to make his new *bodom*.

An interesting method for making hairpin-shaped line designs on *akoso* beads involving the use of water was observed at Tsebi Manyi. First, a multiple vertical mold is soaked in water. While the mold is still wet, yellow glass is sprinkled in the holes to create the outer coat of the bead. With a pin, the beadmaker scrapes the standard *akoso* loops out of the yellow. He then spreads glass powder the color of the decorations into the scraped out lines. If two colors of decorations are required, the pin process is repeated. Once the decorations are made, the cassava stem is inserted and the mold is filled with base color, which today is usually the same glass powder mixture as the outer coating.



Figure 4. A new *bodom* obtained in Ghana. Note the seam between the yellow base and the cruciform decoration on the right (Kirk Stanfield collection; photo: Jamey D. Allen).

Designs on many new *bodom* and *akoso* appear to have been made using this technique, with line designs that are scratchier looking and thinner than the designs on old *bodom*. If the procedure were more carefully performed, however, with more appropriate glass and if the beads were heated longer at higher temperatures, it is quite possible that a hot-worked effect could result.

Seams

If *bodom* beads are made of preformed components, one might expect seams between them and many, in fact, do have obvious seams, especially newer, hastily made ones (Fig. 4). The seams are not so apparent on the older specimens, possibly because the components were fused at higher temperatures, the materials were different, or in some cases, the beads were finished better. Some classic “flowing” cruciform *bodom* appear to have different shades of yellow glass inside and outside the decorations, suggesting different batches of powder, while the seam between the shell and the rest of the outer coating appears to be the cruciform decoration itself. Translucent beads made today of bottle fragments are virtually seamless, having been made by manipulating fragments in a mold, a kind of hot-working technique. Apparently, bottle glass can be softened enough to shape round, seamless, clear beads that, incidentally, once tricked a major bead dealer in Dakar who mistook

them for certain old “Dutch” beads usually found in Mali. A characteristic that many of these new translucent beads share with certain old and new *bodom* is cracks around one end of the perforation, where the glass fragments have not been completely fused. These cracks result from repeated manipulation of the softened glass with an awl-like device (a “pin”) consisting of a nail driven into the end of a shaped stick or dowel. Indeed, this device may be considered a mandrel used to manipulate hot glass.

Biconical and Round Shapes

So far, explanations for the seams, dark core, and hot-working effects of old *bodom* are suggested by current practices. The biconical and round shapes of most older *bodom* defy explanation by the techniques observed so far, however. Many of the old *bodom* with these shapes exhibit no evidence of grinding, something that would be required to achieve these shapes in beads produced in vertical molds.

There are two possible explanations concerning how biconical, round, or otherwise tapered but unground beads could be mold made. The first method involves what might be called a vertical half-mold, the bottom of which is in the shape of half the bead (an end), with the top part of the mold extending vertically or, more likely, continuing to angle outward slightly. Joe Akwateh (1994:pers. comm.), at Aketewia (Upper Krobo), described the process as follows:

Make one end of the bead in the mold, then add the other end very carefully. After cooking for a while, the glass powder will begin to fuse and the bead will be strong enough to manipulate. The bead may then be turned over so that the original freestanding end can take the shape of the mold.

This technique can be used even for the perplexing cruciform decorations and may explain why the ends of certain of these biconical beads are not symmetrical. Using one or two pins, it is not hard to visualize how a hot bead may be manipulated, as is done with the contemporary translucent beads. The bead could be inverted several times during the cooking, all the while maintaining the perforation with a pin. On many old *bodom*, the perforation is conical with cracks or seams around the larger end of the

perforation which is frequently concave, presumably from hot piercing. Considerable grinding of the ends frequently removes these features. These same perforation features are observed on the new "seamless" translucent beads made of softened fragments of colored window louvers.

There has been resurgence in recent years of beads composed of separately made halves (ends) which differ from those produced using the half-mold method just described for old *bodom*. The contemporary examples are obvious copies of Venetian bicones and analogous older African-made beads in the *bodom* family called *ologo* by the Krobo. The mass-produced new ones are not always well made and commonly feature discontinuous designs between the two halves. In many cases, the two halves are not flush at the equator, suggesting that the upper and lower hemispheres were cooked separately before being attached. Virtually all the new two-part beads have a colored equator where the two halves are attached, apparently with ceramic colorants as "glue." While the mismatched halves are common in the new bicones, the perforations themselves always line up, suggesting that the bead was manipulated with a pin subsequent to the joining of the two halves. This two-part method for making biconical and even round beads greatly reduces grinding and finishing time, while the widespread use of powdered ceramic colorants reduces material-preparation time.

Yet another alternative method, which has been suggested by Liu (1984), would be a horizontal half-mold, a variation on the observed technique of turning a vertical mold on its side to create shells or a variation of the two-part method just described. With a horizontal half-mold, either a thin shell with just the outer coating and decoration, or a complete half-bead, including a black core, could be constructed. Certain old *bodom* suggest that only the shells were made, while apparently more contemporary beads, such as certain *zagba*, suggest full halves were preformed. Two identical horizontal half-molds also raise the possibility of a closed two-part mold having been used in the past.

CONCLUSIONS

The weight of evidence suggests that it was the Krobo who made the old *bodom*. The old *bodom*

logically predate the 1892 British expulsion of the Krobo from Krobo Mountain, their traditional home. The techniques used to make both old *bodom* and related beads survive today among contemporary beadmakers, the major differences between old and new *bodom* amounting to materials and workmanship.

The Krobo make *bodom* today and they are the best candidates for authorship of the old *bodom*. They most likely made all of the beads Lamb called *bodom*, including the old "hot-worked" types. We cannot, however, entirely rule out the Ewe as the makers of some of the older related beads, such as the *akoso*. The Ashanti and, in general, the Akan, although they probably have beadmaking traditions as old as the Krobo, are not likely to have made these particular beads. Akan *bodom* from "the north" might actually be different beads and may or may not include the types of beads discussed here. Ultimately, the entire *bodom* "industry" might be traceable to Yorubaland.

Good evidence of a Krobo origin for *bodom* is their ability to make such beads today, while there is, as yet, no evidence of any beadmaking skills elsewhere in the region, past or present, as refined as those of the Krobo. The beadmaking tradition in Kroboland likely came from the east, from Yorubaland, and the Yoruba probably brought it from the north or were influenced by northerners. The Akan beadmaking tradition came from the north and west, but there is no evidence that the Akan ever made the types of beads described here.

Old *bodom* are not likely to predate the 19th century. None of these beads have been scientifically excavated, although other types of powder-glass beads have been found at various sites around Ghana (DeCorse 1989). The materials for making these beads, especially the older *bodom*, seem to be derived from European trade beads dating to the 19th century. What other source of yellow glass predating Venetian beads in West Africa could possibly give these beads greater age? "Hebron" beads? Indian/Asian *lada* beads? The yellow base and the decorations of the *bodom* are obviously the colors of Venetian beads, with some allowances for impurities that can pollute the process and for other exotic ingredients, such as old bottle glass.

Upon visual inspection, old *bodom* frequently included preformed components made using dry powder-glass technology. Some current techniques,

which could have been employed in the past, begin to resemble hot working, such as use of the awl-like "pin" device (a proto-mandrel) to work glass fragments into seamless, round, translucent beads. Temperatures hot enough to get glass to flow, resulting in lampwork effects, have always been achievable, as evidenced by both new and old Ghanaian-made beads.

New and old *bodom* were differentiated in this study for the purposes of clarifying major issues concerning this bead. Now, as this study concludes, these two categories should be recombined because, in fact, the two are rather inseparable, being extremes of dry, molded, powder-glass technology in use over the past two centuries. Old and new varieties differ mainly in materials, quality of workmanship, and age, but not much in technique or origin. None of these beads are Akan or European and none have been made by the wet powder-glass method. These *bodom* are dry powder-glass beads made in molds by the Krobo.

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ENDNOTES

1. Ewe informants say that Anokye was actually an Ewe from Notsé and the name would likely be spelled "Anotse" in Ewe or Krobo. The /ky/ in

Akan has the same /ch/ sound as the /ts/ in Ewe and Ga-Adangbe. The Krobo language is more closely related to Ewe than it is to Akan, although there is much Akan vocabulary in Krobo. Ransford Tetteh's town name, Odumase-Krobo, is Twi and translates as "under the odum tree." There is also an Odumase in the Ashanti Region, along with a Bodomase—"under the *bodom* tree."

2. *Akoso* means "crossing" or "blocking," as in the *Akoso-mbo* Dam and the *akoso* bead, which typically has crossed hairpin decorations. *Akosu* is either a misspelling of the bead name or from another language.

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