

BEADS: Journal of the Society of Bead Researchers

Volume 4 (1992)

Article 1

1-1-1992

Beads: Journal of the Society of Bead Researchers - Volume 4 (complete)

Follow this and additional works at: <https://surface.syr.edu/beads>



Part of the [Archaeological Anthropology Commons](#), [History of Art, Architecture, and Archaeology Commons](#), [Science and Technology Studies Commons](#), and the [Social and Cultural Anthropology Commons](#)

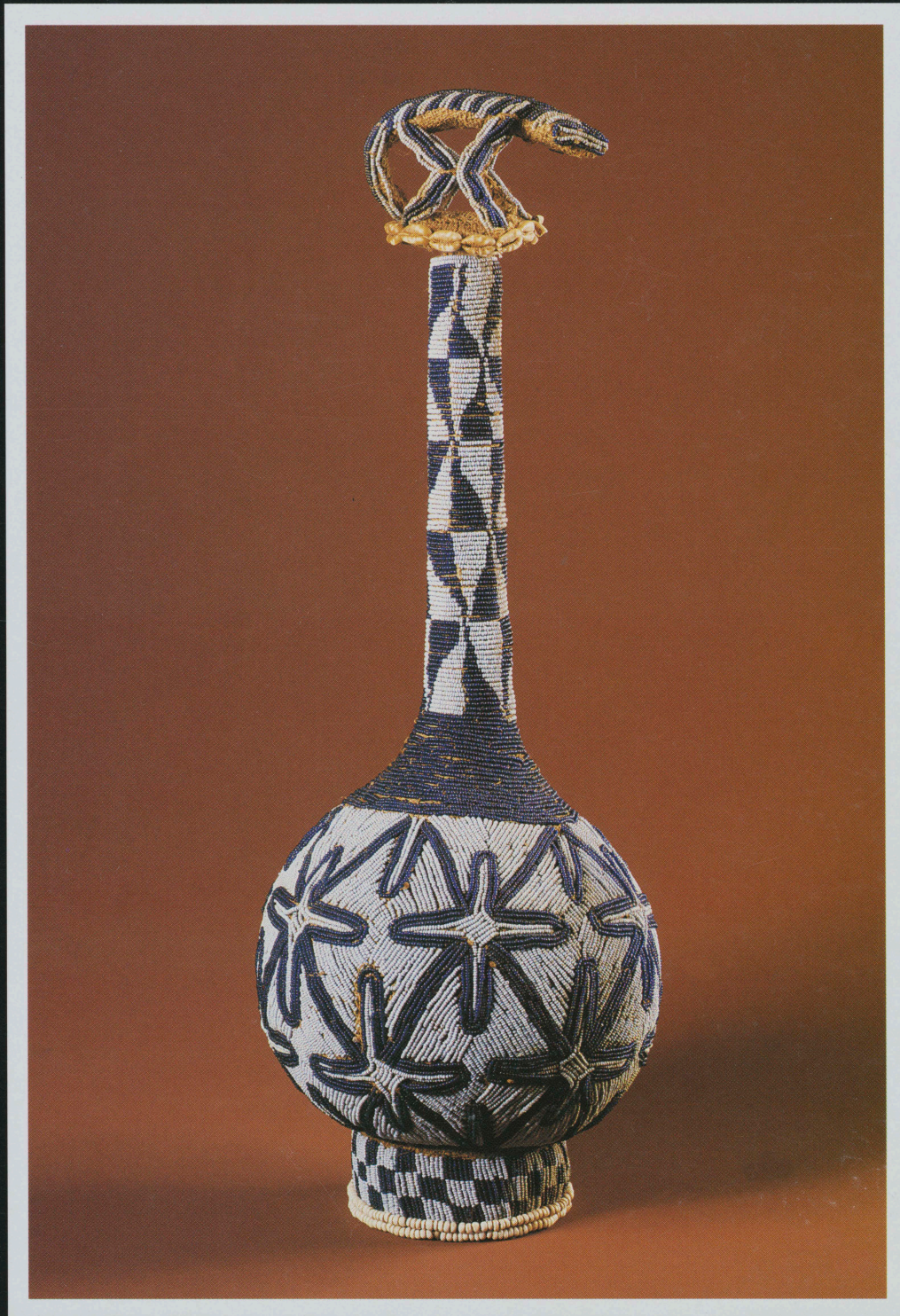
Repository Citation

(1992). "Beads: Journal of the Society of Bead Researchers - Volume 4 (complete)." *BEADS: Journal of the Society of Bead Researchers* 4. Available at: <https://surface.syr.edu/beads/vol4/iss1/1>

This Full Issue is brought to you for free and open access by SURFACE at Syracuse University. It has been accepted for inclusion in BEADS: Journal of the Society of Bead Researchers by an authorized editor of SURFACE at Syracuse University. For more information, please contact surface@syr.edu.

BEADS

Journal of the Society of
Bead Researchers



1992 Vol. 4

Beaded Calabash (Cameroon)

THE SOCIETY OF BEAD RESEARCHERS

Officers for 1992

Jamey D. Allen

Lester A. Ross

Karlis Karklins

President

Secretary/Treasurer

Editor

Editorial Advisory Committee:

Roderick Sprague, chair

Lester A. Ross

Marvin T. Smith

Publications Committee:

Mary Elizabeth Good, chair

Karlis Karklins

Lyle M. Stone

BEADS (ISSN: 0843-5499) is published annually by the Society of Bead Researchers, a non-profit, scientific-educational organization which aims to foster serious research on beads of all materials and periods, and to expedite the dissemination of the resultant knowledge. Subscription is by membership in the Society. Membership is open to all persons involved in the study of beads, as well as those interested in keeping abreast of current trends in bead research.

There are four levels of membership: Individual - \$15.00; Sustaining - \$35.00; Patron - \$75.00; and Benefactor - \$150.00 (U.S. funds). All levels receive the same publications and benefits. The Sustaining, Patron and Benefactor categories are simply intended to allow persons who are in a position to donate larger amounts to the Society to do so. Members receive the annual journal, *Beads*, as well as the biannual newsletter, *The Bead Forum*.

General inquiries, membership dues, address changes and orders for additional copies of this journal (available for \$14.50 postpaid in North America or \$16.50 overseas) should be sent to:

Lester A. Ross, SBR Secretary/Treasurer
P.O. Box 7304
Eugene, OR 97401
U.S.A.

Books for review and manuscripts intended for the journal, as well as items for the newsletter (such as brief articles, announcements of recent publications, requests for information, and summaries of current research) should be addressed to:

Karlis Karklins, SBR Editor
Parks Canada
1600 Liverpool Court
Ottawa, Ontario K1A 0H3
Canada
(613) 990-4814

Information for authors is provided on p. 2.

©1993 Society of Bead Researchers

Printed in Canada

T & H Printers Ltd., Gloucester, Ontario

Production: Suzanne H. Rochette

Cover Layout: Rod Won

BEADS

1992 Vol. 4

Journal of the Society of
Bead Researchers

KARLIS KARKLINS, editor

CONTENTS

Information for Authors	2
Color Plate Captions	3
The Beads of Cameroon PIERRE HARTER; translated by HOWARD OPPER	5
The Beads of Roman and Post-Medieval Antwerpen, Belgium KARLIS KARKLINS and TONY OOST	21
Beads in the Lives of the Peoples of Southern Togo, West Africa PASCALE NOURISSON; translated by PIERRE NADON	29
On the Date of the Copper Age in the United States A. MORLOT	39
Identifying Beads Used in the 19th-Century Central East Africa Trade KARLIS KARKLINS	49

BOOK REVIEWS

Moss and Scherer: <i>The New Beadwork</i> OLIVE R. JONES	61
Karklins: <i>Trade Ornament Usage Among the Native Peoples of Canada: A Source Book</i> OLGA KLIMKO	62
Camps-Fabrer: <i>Bijoux berbères d'Algérie</i> MARIE-JOSÉ OPPER	63
Kurinsky: <i>The Glassmakers: An Odyssey of the Jews, The First Three Thousand Years</i> PETER FRANCIS, JR.	65
Brill and Martin: <i>Scientific Research in Early Chinese Glass</i> RODERICK SPRAGUE	69

INFORMATION FOR AUTHORS

1. Papers submitted for publication must be typed double-spaced on 8-1/2 x 11 in. or 21.0 x 29.5 cm, white, non-erasable bond paper with 1 in. margins. Submissions should not exceed 40 pages including references cited. The hard copy should be accompanied by the text on a 3½ or 5¼ in. disk in Word Perfect 5.1 or ASCII file.
2. Citations and references should follow the style of *American Antiquity* 48(2):429-442 (April 1983).
3. All manuscripts must be prepared with the following internal organization and specifications:
 - a. First Page: 1) place title 2 in. below the top margin, typed in upper case letters; 2) center author's name(s) 5 spaces below title; 3) begin text 5 spaces below the author's line.
 - b. Abstract: an informative abstract of 150 words or less should comprise the first paragraph.
 - c. Acknowledgements: these are to be placed at the end of the article, before the references cited.
 - d. Author's Affiliation: place author's name, affiliation and address adjacent to the right margin immediately following the references cited.
 - e. Tables: each table must have a short title and be typed double-spaced on a separate page.
 - f. Figure Captions: list the captions for black and white illustration (Figures) sequentially on a separate page using Arabic numerals; color illustrations (Plates) should be listed separately using Roman numerals.
4. Number all pages consecutively from the title page through the references cited.
5. All headings should be situated 3 spaces below the preceding text and flush with the left margin.
 - a. Primary headings are to be capitalized.
 - b. Secondary headings are to be typed using upper and lower case letters.
 - c. Tertiary headings are to be the same as the secondary headings with the addition of an underline or italics.
6. Illustrations
 - a. All drawings and photographs should be of publishable quality, with black and white photographs having sharp contrast.
 - b. Black and white photographs should be submitted as glossy 5x7 or 8x10 in. prints.
 - c. Color illustrations will be considered if of sufficiently high quality to warrant the high cost of reproduction; they should be submitted in the form of 3-1/2x5 in. or 4x6 in. prints (for initial assessment), or 35mm slides.
 - d. Figure and plate numbers are to be pencilled lightly on the backs of drawings and photographs, and on the mounts of color slides and the sleeves of larger transparencies.
 - e. Photographs of objects, and maps, site plans, etc., must include a metric or metric/inch scale.
 - f. When several items are shown in a single frame, each object is to be designated by a lower case letter, and the caption should include references to these letters.
 - g. Illustrations obtained from museums or other institutions must be accompanied by a letter from the appropriate institution granting permission to publish and indicating that reproduction fees, if any, have been paid by the author.
7. Each manuscript will be reviewed by at least one member of the Editorial Advisory Committee. Articles of a specialized nature will also be reviewed by one or more persons who have expertise in the thematic content, cultural or geographical region, or time period dealt with in the manuscript.
8. If review remarks are such that substantial changes are required before a manuscript is acceptable for publication, the revised paper will be re-reviewed by the original reviewer prior to its final acceptance.
9. Manuscripts will be judged on the accuracy of their content, appropriateness for an international audience, usefulness to other researchers, and consistency with the research and ethical goals of the Society.
10. Each author or set of co-authors will receive 6 complimentary copies of the journal. Book reviewers will receive one copy. Reprints, in multiples of 25, will be available prepaid to authors if there is sufficient interest. An order form will be sent out when the journal goes to press. Reprints will consist of the appropriate journal pages, complete with color plates, if any, stapled together at the upper left corner.

COLOR PLATE CAPTIONS

- Cover. *Cameroon*: Beaded calabash with lizard stopper, 19th century; 44 cm high; Grassfields, Bamum (courtesy Staatliche Museen zu Berlin, Preussischer Kulturbesitz, Museum für Völkerkunde).
- Pl. IA. *Cameroon*: Detail of the beadwork on a Bansa bowl stand.
- Pl. IB. *Cameroon*: Various styles of decorated wound beads: a-b, longitudinal stripes; c, feather decoration; d-e, spiral stripes; f, arabesques or floral motifs; g, dots; h, perpendicular stripes.
- Pl. IC. *Cameroon*: *Ngaka* medicinal necklace which incorporates chevron beads, striped and monochrome wound beads, cowries, a leopard tooth and a perforated flint.
- Pl. ID. *Cameroon*: Beaded calabash with double-leopard stopper, 19th century; 60 cm high; Grassfields, Bamum: Fumban (courtesy Field Museum of Natural History, Chicago; neg. no. A109104c).
- Pl. IIA. *Cameroon*: Leopard-crest headdress, 19th century; 42 cm high; Grassfields, Bamum: Fumban (?) (courtesy Field Museum of Natural History, Chicago; neg. no. A109101.4c).
- Pl. IIB. *Cameroon*: Elephant mask with leopard crest, 19th century; 80 cm high; Grassfields, Bamiléké: Dschang (courtesy Field Museum of Natural History, Chicago; neg. no. A109099c).
- Pl. IIC. *Cameroon*: Royal stool with leopard caryatid, 19th century; 57 cm high; Grassfields, Bamiléké: unspecified (courtesy Field Museum of Natural History, Chicago; neg. no. A109098c).
- Pl. IIIA. *Togo*: Stall of a bead dealer at the great market in Lomé (photo by P. Nourisson).
- Pl. IIIB. *Togo*: *Atektan*, a display of objects used in the voodoo cult at the market in Lomé (photo by P. Nourisson).
- Pl. IIIC. *Togo*: Beads utilized in the voodoo cult of Togo: a, *afli*; b, *azagba*; c, *gblenti*; d, *tomé gblenti*; e, *ésoui*; f, *agplati*; g, *ogba*; h, *alen n'kou*; i, *hounsokoui*; j, *asiakodé*; k, *ouékou*; l, *aholoukou*; m, *honkou*; n, *hounjévé*; o, *akpohé*; p, *akossou*; q, *égo*; r, *aglobo*; s, *végla*; t, *abodé*; u, *ananou*; v, *éfa*; w, *panzi*; x, unknown; y, *kakambé*; z, *nouanlivi* (photo by Philippe Ayrault).
- Pl. IVA. *Togo*: A beaded box for storing precious objects (photo by P. Nourisson).
- Pl. IVB. *Togo*: A voodoo followers' procession (photo by P. Nourisson).
- Pl. IVC. *Togo*: A bracelet for the god Dan Anydohoédo, the rainbow snake (photo by Philippe Ayrault).
- Pl. VA. *Togo*: Necklaces for Sakpata, god of smallpox (photo by P. Nourisson).
- Pl. VB. *Togo*: A bracelet for Egou, god of iron and car accidents (photo by Philippe Ayrault).
- Pl. VC. *Togo*: *Toutou-akpan* — a diviner's necklaces (photo by Philippe Ayrault).
- Pl. VD. *Morlot*: Explanation of the Figures. **Fig. 1.** Bead of enamel, or opaque stained-glass, in the Museum at Copenhagen, said to have been found near Stockholm, Sweden. **Fig. 2.** Fragment of bead of the same sort, in the same Museum, from an antique grave in Denmark. **Fig. 3.** Bead of the same sort, from the ossuaries of Beverly in Canada, as given by Schoolcraft. **Fig. 4.** Baldric of glass, bought at Hanover, Germany. **Fig. 5.** Baldric from Beverly. Schoolcraft's Indian tribes, Vol. I, plate XXV, fig. 14 [ed.: aside from shape, Morlot's bead bears no resemblance to Schoolcraft's illustration which depicts an undecorated blue bead].

- Pl. VIA. *Antwerpen Beads: Kaasstraat Site. R.1:* 1, Ic1; 2, Ic*(a); 3, IIa6; 4, IIIc*(a). **R.2:** 1, IIIc1; 2, IIIc3; 3, IIIc*(b). **R.3:** 1, IIIc'*(a); 2, IIIc'*(b); 3, IIIc'*(c); 4, IIIc'4. **R.4:** 1-2, IIIe*(a); 3, IIIe*(b)(photo by K. Karklins).
- Pl. VIB. *East African Trade:* Tray of European trade beads in the Henry M. Stanley collection (© Africa-Museum, 3080 Tervuren, Belgium).

THE BEADS OF CAMEROON

Pierre Harter

Translated by Howard Opper

Glass beads have long played an important role in the art and culture of Cameroon, a country situated on the east side of the Gulf of Guinea in West Central Africa. This article reviews the different kinds of drawn and wound glass beads that have found broad acceptance in west-central Cameroon and discusses their diverse applications. Beads of other materials, as well as cowries and buttons, are also dealt with.

EDITOR'S INTRODUCTION

A version of this article first appeared in 1981 under the title "Les perles de verre au Cameroun" in *Arts d'Afrique Noire* (no. 40, pp. 6-22). It was initially intended that Mr. Harter produce an expanded and updated version for *Beads* but he died before this could be accomplished. As Mr. Harter's article provides much useful information not generally available to English-speaking researchers, it was subsequently decided to publish a translation of it.

The text presented here is essentially as it appeared in the original article, although passages dealing with the manufacture of European glass beads have been deleted since the technology is now generally known. In addition, a few errors of fact have been corrected and reference citations have been inserted in the text where possible. Mr. José Harter of Louveciennes, France, was able to provide many of the photographs that appeared in the original article. Replacements for the missing illustrations were obtained from the Field Museum of Natural History in Chicago, and the Museum für Völkerkunde in Berlin, both of which hold sizeable collections of the art of Cameroon.

Dr. Christraud M. Geary of the National Museum of African Art, Smithsonian Institution, is thanked for reviewing the translation and providing elucidative comments.

INTRODUCTION

Following the discovery of the Bight of Biafra and the Camarões River by Portuguese navigators Fernão do Po and Fernão Gomes, commercial exchange with the indigenous population of the coast of what is now Cameroon was instituted in 1472, and lasted for almost 150 years. The Dutch subsequently took over until the middle of the 18th century. Commercial supremacy was next conquered by the French and, especially, the English. Finally, beginning in 1868, with the establishment of the Woermann trading firm of Hamburg at what is now the town of Douala, German influence became more and more important, leading to the exclusive commercial treaty of 1884 between the Douala King Bell and King Akwa.

Intensive trading, sometimes direct but mostly through intermediaries, existed with northern Arab populations well before the first contact with Europeans. This trade included the importation of very diverse items, notably precious red coral from the Mediterranean and, already at this time, glass beads. It equally affected an important inter-African traffic, including a bluish coral (*Allopora subviolcea*) that was gathered from the rocky bottom of the Biafran coast. This coral was ground into bead forms by local African populations and then traded to neighboring countries.

Within this vast commercial movement, the first European navigators found themselves as competitors with their fabrics, metal goods and glasswares. The Europeans were often surprised to find their trade beads refused, the local population preferring bead styles that were already in their possession. European glass manufacturers, therefore, began to copy the existing specimens which were then replicated for

centuries; certain of these beads are still being produced today. In the beginning, artisans from Murano in Venice were the exclusive producers, followed by new suppliers in Bohemia and Holland, notably in Amsterdam. Workshops were later created in England, Germany and France as well.

BEADS UTILIZED IN WEST-CENTRAL CAMEROON

Two principal types of glass beads can be distinguished in Cameroon according to their method of manufacture: drawn and wound. The rare molded beads that may be encountered are recent and do not have a place in the traditional nomenclature.

Drawn Undecorated Tubular Beads

Known as *tomenda* (Bafang), *fa* (Bali) or “pipe beads,” these were made from a hollow gather of glass that was drawn to a length shorter than that for seed beads. The beads exist primarily in two colors: blue and red. Tamara Northern (1975: 136) believes that the red beads are much rarer than the blue ones because one of the red buffalo heads decorating the seat of a post-1855 statue from Afo-A-Kom was repaired using blue beads. However, others seem to consider the blue beads as being the rarer of the two.

These are probably the most ancient beads known in Africa and, without doubt, replaced precious coral beads over the centuries.

Blue Tubular Beads

These were replacement beads, but opinions vary on the identity of the beads that they replaced. According to Monod (n.d.), they may have replaced Phoenician or Carthaginian glass that was originally made to imitate lapis lazuli which was formerly found in Armenia and the Sinai. In fact, tubular azure-blue beads, more or less translucent and called *nana*, have been found for a long time by the Ado (the Yoruba of the Republic of Bénin) in small antique funerary jars in tumuli in the region. According to Commander F. Forbes (1858: 28), these precious beads could be purchased in 1850 for half their weight in gold dust. Africans would not accept comparable larger versions

of this bead (15-30 mm instead of 8-12 mm) proposed by European importers since the 17th century, the best of which permitted observation of the perforation through the glass. Furthermore, the Arab geographer Yakut already mentions blue glass beads in Africa at the beginning of the 13th century.

Concerning Cameroon, it would appear that these beads were replacements for bluish-coral beads manufactured in Benin and traded throughout West Africa. Pax (1928: 30-36) assumed that they correspond to *Allopora subviolacea*, gathered along the rocky coast of the former British Cameroon. This coral, when made into small cylindrical beads, had a bluish-violet color and took on a greenish tint through transparency.

Unfortunately, no known examples of these precious beads exist today. A few fragments of this coral were collected in 1886, by the German K. Greeff in the Gulf of Guinea near the island of São Tomé. Exhibited for 40 years in daylight at the Hamburgisches Museum für Völkerkunde, they lost their tint, making them unrecognizable today. Neither R. Mauny nor T. Monod were successful in obtaining even one example of this coral in either Nigeria or Cameroon. Nevertheless, there is much historical evidence for the existence of these beads.

A. Talbot (1926) indicated that this coral was being gathered in riverbeds (actually, the ocean) already in the 13th century during the time of Oba Ewuare, a king of Benin.

In 1554, the navigator Ramusio (1554: 126) alluded to these small, thin tubes of “blue stone,” called *corili*, that blacks put in the fire to differentiate them from glass beads that could not withstand this test.

The Englishman Richard Hakluyt (1589: 333) spoke of “blue stones like beads” worn by the indigenous population during the late 16th century. Several years later, P. de Marees (1602) observed “blue-green and black stones from which beads are made by polishing them” in the Forcados River on the Gulf of Guinea.

In 1617, S. Braun (1625) described small stones, called *accarin*, offered by the local coastal population near Mount Cameroon where the stones were found in the ocean along the reefs and cliffs, just like coral. Seen from afar, they appeared to have a brilliant sky-blue color but, examined closely, they were transparent with a greenish hue.

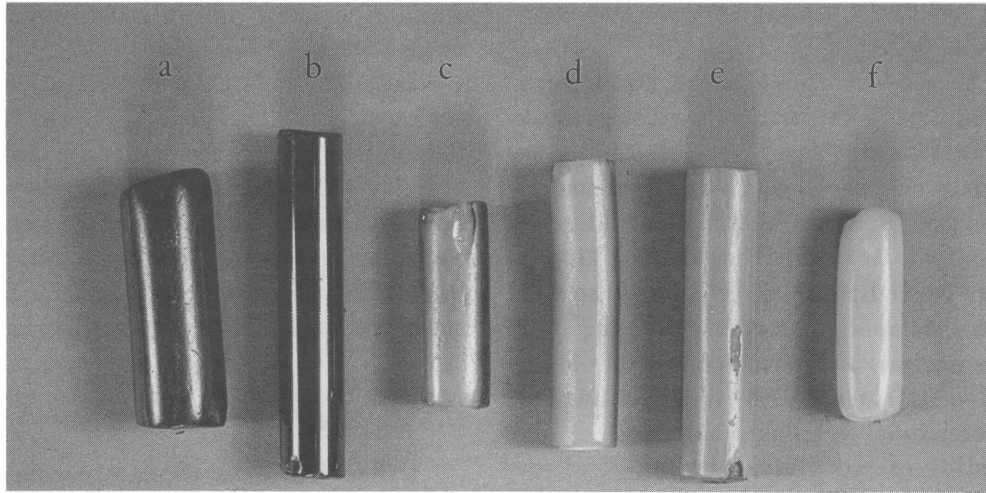


Figure 1. Drawn tubular beads from Cameroon: a-b, blue; c-f, red.

In 1668, O. Dapper (1686) reported that this blue coral or *akoril* was pulled from the rocky bottoms of riverbeds by divers, and ground into oval beads in the same manner as branch coral. It was transported by the Dutch from its place of origin (the area from the Rio del Rei to the Camarões River) to Lahou on the Côte d'Ivoire and all along the Gold Coast.

John Barbot (1732) also mentioned *akory* or "blue coral" in 1682. Finally, in 1708, W. Bosmann of Hamburg once again mentioned blue coral as a precious trade article in West Africa, sold for its weight in gold if it attained a certain size.

Then, as indicated by Mauny (1949: 33-36), references to this famous material ended in the 18th century as if its exploitation had finally caused the disappearance of this kind of coral. The last recollection was that of T. Hutchinson (1858) who reported seeing this same false coral strung in the form of beads on the forehead and atop the head of King Akwa of Douala.

It is certain that European glass factories copied these beads in abundance, but it is probable that they were preceded by other imports, possibly Arab; Snelgrave, who traded in Cameroon in 1704, noted beads of value coming from the interior.

Many types of blue beads of different origins can be found together on the same object. Some are blue-black with a clear blue translucency, and 10-27 mm long by 5-8 mm in diameter (Fig. 1,a). They undoubtedly correspond to *nfwaya* beads, attributed to and reserved for chiefs as E.M. Chilver (1961)

observed at Nso, a kingdom in the northern part of the Cameroon Grassfields. These beads were used to purchase slaves at the rate of three necklaces or a hundred beads for one slave.

Another type is translucent blue-gray (10-27 mm long by 3-6 mm in diameter). A third, of an attractive translucent blue-green color, is much smaller (10-15 mm long by 3 mm in diameter). A fourth type (Fig. 1,b), with a deep blue-black color, a purplish translucence and with more brilliance than the preceding beads, is perfectly straight and regular (30 mm long by 5.5 mm in diameter). The perforation is well formed, and the bead is probably more recent than the others. Finally, there are very small, transparent aquamarine examples (4.5 mm long by 3.5 mm in diameter). They are often found mixed with blue seed beads on Bamiléké objects, such as those from Bansa. I have never seen the long, straight, tubular, opaque pale-blue beads called *nsomnom* which were observed at Nso by E.M. Chilver (1961).

Red Tubular Beads

Here, also, opinions vary regarding the nature of the beads that the red glass tubes replaced. Small jars from the necropoli at Ados contained red tubular beads called *lankan* (16-22 mm long by 10-14 mm in diameter). They were perfectly polished, with a bright vermilion color imitating red coral. Monod (n.d.) thinks they are Phoenician, based on the Semiticopunic word *kouara* which signifies "city,"

and is also the name of a town in northern Dahomey, now the Republic of Bénin.

Beads of true Mediterranean red coral were, nevertheless, polished in the artisanal workshops of the Benin Kingdom in present-day Nigeria. Examples we can cite include a ceremonial coral fly whisk and an agate headdress from Benin in the Pitt-Rivers Museum collection in Oxford, England. When the last king of Benin submitted to the English in 1897, he did so with grand pomp, covered almost completely in coral.

I have personally examined several tubular beads of real coral (Fig. 1,f) mixed with glass imitations on the seat of a ceremonial Bamiléké chair .

Tubular beads of red glass imitating coral are probably the trade beads that were imported in the greatest quantities. W.G.N. van der Sleen (1973) indicates that they were found in large numbers at all Arab and pre-Portuguese sites in East Africa (e.g., Zanzibar and Mapungubwe). According to him, tubular beads of red glass from Venice did not appear until the end of the 18th century.

Again, different types of red beads with different origins can be found on the same object. Some beads are translucent red with an opaque white core, and measure 10-20 mm in length by 4-7 mm in diameter. Several of these beads have been found mixed with coral beads in ancient traditional necklaces from North Africa (Fig. 1,c). Others are almost identical, but the red color is clearer (6-20 mm long by 3-5 mm in diameter) (Fig. 1,d). Yet another type has a thin, dull outer layer of opaque Indian red glass covering an opaque black core (10-18 mm long by 3.5-6.5 mm in diameter) (Fig. 1,e). Its perforation and form are more irregular than that of the other two types. Similar beads that are shorter and have a larger diameter are shown as no. 132 on a 1909 sample card of the Società Veneziana per la Industria delle Conterie at the Pitt-Rivers Museum. This particular type exists in full necklaces in Mali, but is rare along the Atlantic coast.

At Nso, E.M. Chilver (1961) examined dull-red tubular beads called *mban-a-cecer* and used as spacers. They are, therefore, less valuable than the blue-black tubular beads reserved for chiefs.

Other Tubular Beads

I have been able to examine much rarer undecorated tubular beads that are somber green or

white. The latter probably correspond to the *kiyon* beads seen by Chilver (1961) at Nso.

Tubular beads are not well suited for adorning sculpted forms. This is possibly why the Bamiléké in the southern part of the country use mostly seed beads, utilizing tubular beads only for the seats of stools because of their strength. They are sewn in concentric rings, the tubes being fixed by a stitch between each bead in the same row. The Bamum people use them to adorn the fabric necklaces worn by warriors.

Drawn "Seed" or "Pound" Beads

Called *futomtcha* (Bamiléké), these small semi-spherical beads with a uniform color are especially common in the southern part of the Grassfields, particularly among the Bamiléké. Old beads of this form, being handmade, vary greatly in size and in the form of their perforation, whereas modern beads are often smaller and much more uniform (2.0 mm by 1.5 mm) because they are mechanically produced.

Other than a few rare exceptions (objects decorated or repaired relatively recently), seed beads from western Cameroon are of opaque glass, most often red, white or black. On the contrary, those found in Nigeria, especially on Yoruba objects, are often transparent with more varied colors. Local chromatic symbolism is responsible for the particular success of these three colors and the lesser interest in other hues. Black, symbol of the night, evokes the great mystery of relations with and sometimes conflicts between the dead and the living, materialized by burnt wood and black smoke. White, the symbol of the dead and the color of their bones, is used to repel evil spells, to protect against diverse misfortunes; medical rites found universally in Africa were symbolized by using the white of kaolin.

Red is the color of blood and the symbol of life. Pregnant women are painted with this color. Red is an attribute of power with which the royal heir or *menkam* in the Bamiléké kingdoms is anointed during his succession, and the king or *fon*, after his death, has always been represented by a powdered paste of *peh* (camwood).

The red beads (*pepan*) are of particular interest because they allow one to formulate certain hypotheses regarding the origins of the interest shown by Africans in these beads which were demanded from

European traders. Older beads have two superimposed layers, the inner one being ordinary transparent glass which appears blackish, while the external layer is a very pretty, opaque Indian red. Their size seems to be larger in the Bamiléké area (3.5 mm by 1.5 mm) than in the Ndop plain, near Bamenda in the northwestern Grassfields (2.0 mm by 1.0 mm). It would appear that their fabrication ceased a long time ago as I have noticed that many older objects exhibiting these beads have since been repaired using slightly larger beads with an opaque white core covered by a transparent bright red layer. Called *katsuki* by the Fulbe, they are found throughout Africa for a long period of time up to the beginning of this century. The Indian red seed beads were manufactured in Europe into the first half of the 19th century. They are definitely not included in the 61 colors of seed beads in the 1909 sample card of the Società Veneziana per la Industria delle Conterie where opaque white and black beads are represented, as well as those that are red with a white core (no. 98).

I believe that the Indian red seed beads were replacement beads, meant to provide copies of similar red beads, probably of Indian origin [ed.], dating to the Middle Ages. In fact, in 1941, E. Vernier and P. Gaudebout examined small Indian red glass beads from semi-Arab tombs (Arab sites were all destroyed upon the arrival of the first Portuguese) of pre-16th-century origin along the northwest coast of Madagascar. These ancient beads were monochrome and much more irregular in size. They were of tubular, annular and spherical form (Musée de l'Homme, no. 61.60.142), and duller than those of Venetian or Dutch origin. Other colors included amber yellow, transparent lemon yellow, jade green, jade white and transparent mint green. Van der Sleen (1973) observed that these beads were also found at other pre-Portuguese sites in East Africa (Mapungubwe and Zimbabwe), as well as in the Transvaal.

The link that can serve to connect these two types of Indian red beads is found at the Institut Fondamental d'Afrique Noire in Dakar, Senegal, where they are juxtaposed in the same strand of beads (no. 49.253). It was found by Q. Brouin in Niger at the old site of Ksar de Djado.

It is more difficult to evaluate the age of the white beads (*fofo*, *atogotshe*) and the black ones (*manu*) —

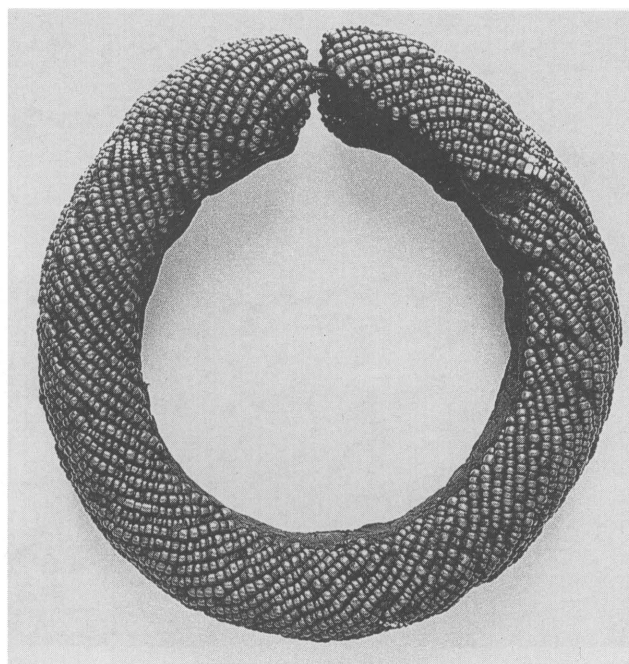


Figure 2. Bamiléké warrior's necklace.

both handmade — because they seem to have been continuously made until recent times.

White, black and Indian red were the colors most employed in western Cameroon. However, other rarer colors were sometimes used in certain territories: dark blue (Bafut), royal blue (Bamum), sky blue (Banka), mauve (Bafut), and, even more exceptional, clear green, rose, chrome yellow, bright red, etc. These are undoubtedly of more recent manufacture.

Less valuable than all the others, seed beads were still valued at approximately one teaspoon of beads for a full-day's work at the end of the last century.

Other than in Bamiléké country where they decorated a special type of warrior necklace, seed beads were used strictly for the adornment of sacks, leopard skins, ritual calabashes, belts, scabbards, certain masks and, especially, carved wooden objects such as ceremonial stools, commemorative statues, ceremonial staffs and footrests. The small size of the beads allowed them to conform to the delicate contours of a sculpture, and also facilitated the production of various fine designs better than any other bead form. Seed beads were threaded in long rows, fixed by a stitch every 4-5 cm to a piece of fabric that was stretched on the underlying wood and held in place by tiny pegs. The rows were then sewn side by

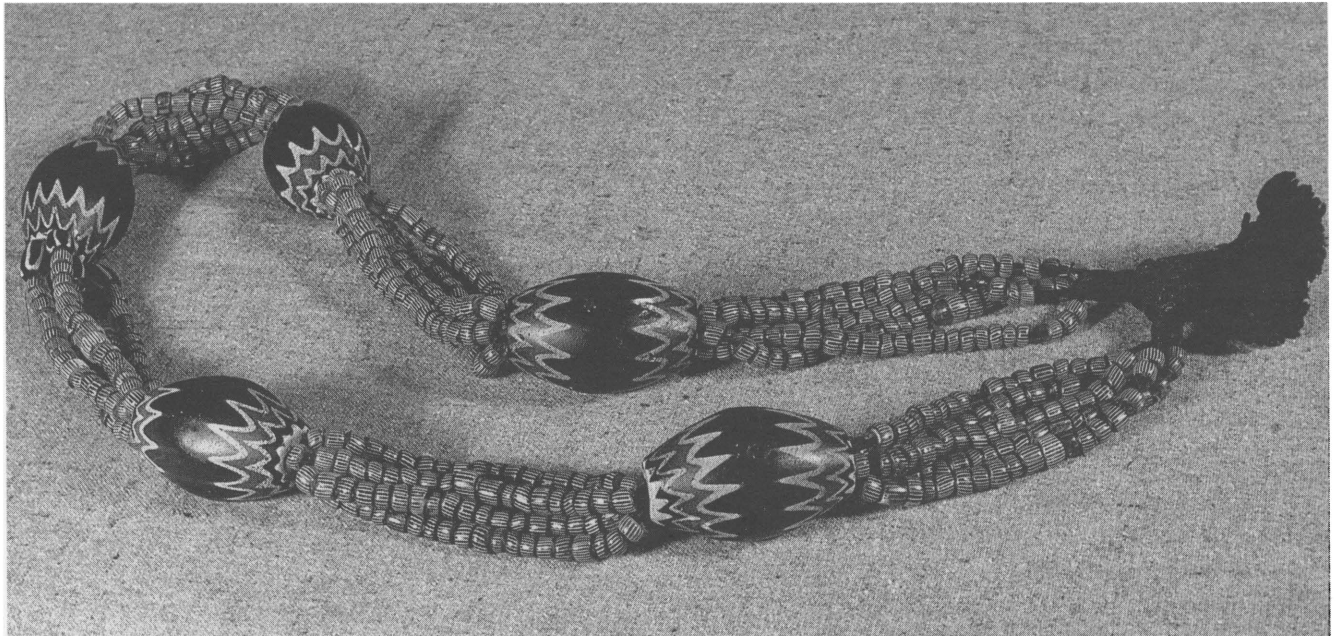


Figure 3. A royal Bamiléké necklace of chevron and *tosi* beads.

side. By simply changing the direction of the rows, even when using the same color beads, it was possible to depict certain details (e.g., breasts, shoulder joints and necklines)(Pl. IA).

Bamiléké warrior necklaces of the Dschang region were formed of a flat iron ring whose ends overlapped, permitting a certain amount of play in the object. The ring was spirally wrapped in leather to a diameter of about 35 mm except at the ends. The leather was covered obliquely with strings of seed beads, almost always Indian red in color (Fig. 2).

Decorated Drawn Beads

Distinctive beads with colorless bodies decorated with 20-30 thin white stripes are called *tosi* (Bafang), *ketcha* (Bangangte), *tokcheu* (Dschang) or *sakinci* (Nso). They are fairly small, varying from 5.5 to 9.0 mm in diameter and 3 to 13 mm in length. I once examined an entire necklace of this kind of bead in the northern savannah region of Bafut, where the glass was not colorless, but transparent pink. This necklace encircled the neck of a cult statue of a pregnant queen.

These are the most precious beads in the Grass-fields; wearing them is strictly reserved for chiefs and

dignitaries authorized by the chiefs (*fonte*, *mafo*, etc.) who wear them only during public events. Chiefs wear these beads at all times in multi-strand necklaces, or alternating with other beads, usually chevrons (Fig. 3). Their value is incredibly high, each strand said to be equivalent to two slaves or one wife. Chilver (1961) indicates a value of 20 beads for one male slave at Nso.

When asked about their provenience, people from Nso say that they come from the northeast, from Ntem or Banyo in the area of the Islamic Fulbé. The Bamiléké also indicate a northern origin. I found a few of them mixed in with other beads in a *keakea* necklace from Nigeria. Very close copies can still be purchased at markets in Mali from Bamako to Gao. However, the glass of Cameroonian *tosi* is perfectly clear and radiant (undoubtedly caused by the addition of lead which explains their higher specific gravity) (Fig. 4,a-c), whereas the beads from Mali are more ordinary and less clear with a faint bottle-green tint (Fig. 4,d-e). People from Cameroon, when shown these beads, can easily distinguish them from their own.

Similar clear beads are present on the 1909 Venetian sample card mentioned previously, but there are two times fewer stripes.

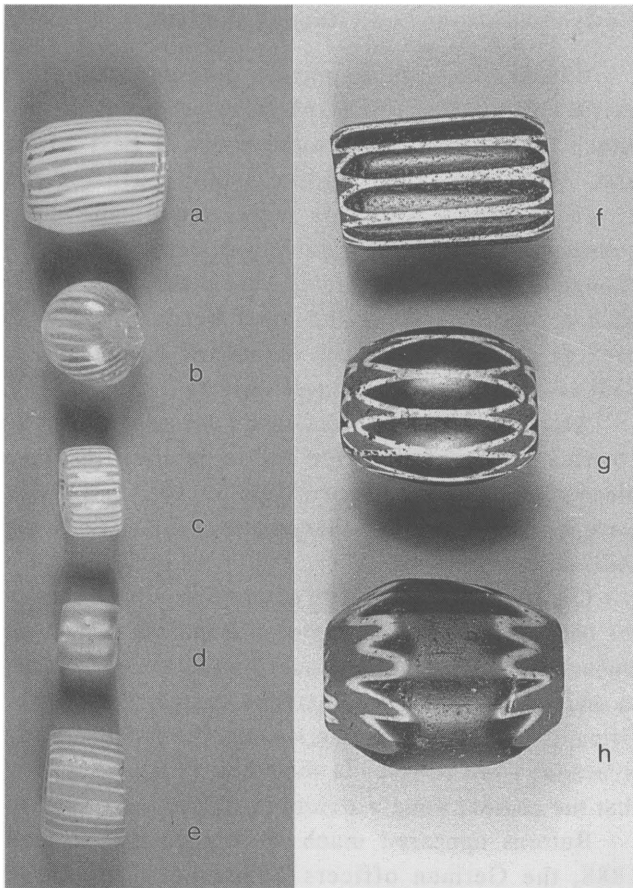


Figure 4. Decorated drawn beads: a-e, colorless beads with white stripes (*tosi*); f-h, chevron beads.

Drawn Chevron Beads

Somewhat less valuable than the preceding ones, chevron beads are known as *ngassossock* or *mantu zeu* (Bafang), *siban* (Nso) or *bufo* (Bamunka). They are worn not only by monarchs for whom the largest examples are reserved, being alternated with one or several strands of *tosi*, but also by all uncommon people (the parents of twins, *Ngaka*, etc.).

The beads were made from drawn glass canes formed of six concentric layers in the form of twelve-pointed stars, except for the outer layer. Going inward from the exterior, the colors are blue, opaque white, Indian red, white, blue and white (Fig. 4,f-g). There is a seventh layer of ordinary transparent glass at the core of older examples (Fig. 4,h). The tapered ends exhibit six ground facets, giving the beads a barrel shape.

These beads, called *perla rosetta*, were made in Venice for centuries. Large quantities can be found

throughout West Africa, whereas their presence in East Africa is exceptional. The largest can reach a size measuring 7 cm in length by 5 cm in diameter, and can be seen especially in Cameroon, Gabon and Zaire, where they are all very high in the bead hierarchy.

Striped Spherical Wound Beads

Known as *mbapi* or *ngapui* (Bafang), these are large opaque Indian red beads about 20 mm in diameter with slightly flattened ends, sometimes with a slight comma-shaped "tail" at the perforation. The beads are decorated with four longitudinal black-on-red-on-white stripes (Pl. IB,a).

These are essentially medicinal beads, reserved exclusively for members of the *kungan* society, being attached to the hair of their masks. They are also utilized in medicinal necklaces, *ngaka*, where they alternate between four to six cowries, chevron beads, blue beads (*mba mantu*) and perforated flints or *louk-sie* (Pl. IC).

Some examples of these beads appear to be very old, with an unknown origin. It is curious that they do not appear in the southern part of the country, and never in the Bamenda region. At the Treichville market in Abidjan, Moussa Cissé sells similar beads, but they are smaller, more flattened at the ends, and blue stripes almost always replace the black (Pl. IB,b). He says he imports them from Ghana. Venetian glassmakers manufactured the latter type up until the last World War, exporting them to Africa through German and Dutch intermediaries.

Yet another striped example has an Indian red core and an opaque white exterior decorated with alternating red and blue stripes [ed.]. Such beads effectively adorn the base of a striking leopard-crest headdress from Bamum (Pl. IIA).

Wound Beads with Combed Decoration

Made one by one, these beads have translucent carnelian-colored bodies decorated with combed feather designs of opaque white glass with a blue-gray interior (Pl. IB,c). The beads are 16-22 mm in length and 8-9 mm in diameter. They are used uniquely in women's necklaces and can still be found attached to braids of hair on the masks of the *kungan* society of the Bamiléké.

This type of bead was already being made during the first centuries B.C. and A.D. in Alexandria. However, these were larger (20-40 mm long by 12-15 mm in diameter), and made of opaque black or maroon glass. Those found in great quantity throughout Africa are typically Venetian, being manufactured and exported until the end of the 19th century. An example is no. 620 in the 19th-century Venetian bead book at the British Museum (Karklins 1985: 75).

Wound Beads with Spiral Decoration

Certain oblong beads of carnelian-colored glass exhibit a spiral stripe of clear glass with two entwined white filaments at its center (Pl. IB,d). Others, made of opaque black glass, exhibit a white spiral that protrudes slightly from the surface (Pl. IB,e), whereas the spiral stripe in the preceding variety is impressed in the bead. In the Grassfields, these beads are used in the same manner as those described previously.

Wound Beads with Arabesques

In the shape of a date pit, these oblong beads are composed of opaque white glass decorated with four blue longitudinally oriented floral-like appliquéés (Pl. IB,f). A bead of this type is shown in the 19th-century Venetian bead book as no. 504 (Karklins 1985: 65), though the blue of these specimens is more inclined toward ultramarine than those found in western Cameroon. This leaves one to wonder at the number of workshops that must have manufactured the same bead styles. This is the type of bead that Stanley carried with him when he set out to find Livingstone.

Monochrome Spherical Wound Beads

Very different from the four preceding beads, these are larger, semi-spherical (13 mm by 18 mm), and made of transparent blue opaline glass. There are slight circular protrusions or depressions in the glass at the edge of the perforation.

Merchants in Amsterdam were already trading these beads in the 17th century [ed.], but local inhabitants say that they are recent and from Germany. Called *mba mantu*, they are used only in necklaces, particularly those of diviners. They are also placed in the hair of *kungan* masks.

Cowries, Buttons and Other Ornaments

Before the appearance of glass beads, there existed a trade in cowrie shells, or *mbuun* (Bagam), which were imported from the coast of East Africa and, especially, the Maldivé Islands. During the colonial period, cowries were one of the most commonly used items of exchange, serving as small change and having less value than other trade goods such as brass manillas and other beads. They were used as gaming pieces and objects of divination, as well as beads used to decorate objects.

After grinding off their convex dorsal surface, the cowries were applied end to end in parallel lines to a piece of cloth so that the two "lips" on the ventral side were visible. A knot at either corner of the lips secured the shell to the cloth.

Objects ornamented with cowries have been seen in the past few years in the center of Bamiléké country at Baham, Bazou and Bafoussam. Cowries were sewn end to end in order to form Bamiléké crowns for queens. Often chosen from among prisoners, the great servants (*tchinda*) wore cowries in their hair in the same way that the ancient Fang warriors in Gabon wore them.

Buttons appeared much more recently. Around 1888, the German officers Tappenbeck and Kund noted the desire of Bassa women of southeastern Cameroon for porcelain or mother-of-pearl shirt buttons. The Germans imported 12 cases of them, but the market was quickly saturated and, by 1891, their successor, named Zenker, could no longer find any takers. These are the buttons that decorated the *tukum* of the Banka chiefdom.

Objects worn as pendants included leopard teeth (Fontem mothers of twins), small tortoise shells (Chief Njiki II of Bangangté), and beads made of perforated brass (A. Diehl, 1911, Linden Museum, Stuttgart, no. 75.108).

OBJECTS DECORATED WITH BEADS

Less celebrated than sculptors, and more easily forgotten, bead artisans have, nonetheless, contributed greatly by giving certain objects their strongly expressionistic allure. The only artist mentioned in the literature is Fon Yonga II, the king of Bali, who was seen at work by the German colonial officer Hirtler in 1891.

The most widely known Cameroonian objects to be decorated with beads are, without doubt, the ritual calabashes (cover; Pl. ID): *n'tu*, *m'ba* and *koko* (Bafoussam), *mimbo* (Bamenda) and *ugi fa* (Bali). In the past, when skulls eroded from the royal graves, some of the debris was appropriated from the site and placed in a beaded calabash. This replaced the missing skull and decorated the receptacle of the sculpted bowl which was carried during ceremonies commemorating the dead king. In fact, these calabashes are empty today and play only a minor role as royal attributes. In the case of full-blown formal ceremonies, queens aligned themselves behind the seated *fon*, each one carrying her calabash on her shoulder or in front of her chest. The long necks of the objects, formed from several juxtaposed calabash necks, were not waterproof, and thus were evidently not used as bottles for raffia wine.

A cloth generally decorated with *futomtcha* beads covers the entire calabash, imparting geometric polychrome designs to its neck, body and base. The designs include chevrons, lozenges and checker patterns (Bana, Bamesso, Bangou, Banyangam, Batouffam, etc.). The body is sometimes decorated with round areas containing swirled decorations (Bakassa, Baméka, Bandoumja, etc.). Further north, calabashes have a more barrel-shaped body (Bafut, Kom, etc.) than those from the Bamiléké region, and are ornamented with designs reminiscent of a spider's web.

The stoppers are made of wood covered with beaded cloth, often in the shape of the male sex organ. They also take the form of symbolic animals (e.g., the turaco bird, lizards, elephants [Fig. 5] and chameleons), all being linked with the legend of divine choice between man's eternity and his mortality.

Much rarer are beaded leopard skins called *guop n'gwi koko* (Bafoussam). Bernhard Ankermann described the first ones in Bali in 1907, and F. Christol photographed beaded skins from Bandjoun in 1925. I only saw one once, in 1957, at Bana. Unfortunately, it has since disappeared, having burned with other treasures in the great fire of 1961. This skin belonged to Mafo Mbialeu, the wife of Fon Tchokonjeu who reigned during the mid-19th century. It was certainly the most extraordinary of all known examples. Worn during dances, the gyrations of its blue, red and white form were enhanced by the rhythmic whirling of its enormous stylized rear claws and the symbolic lizards

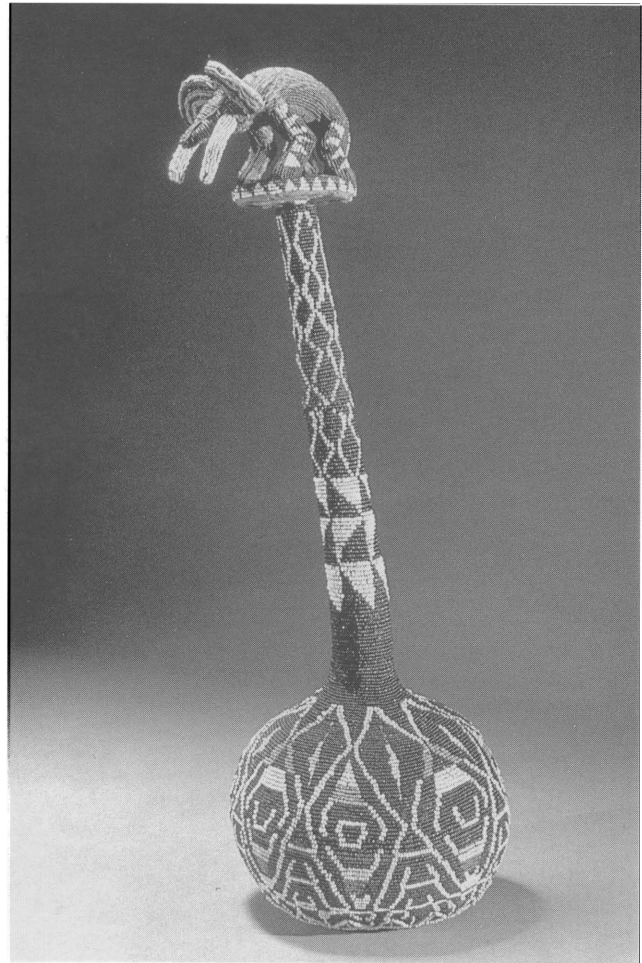


Figure 5. Beaded calabash with elephant stopper, 19th century; 50 cm high; Grassfields, Bamiléké: Bamentum (courtesy Field Museum of Natural History, Chicago; neg. no. A109103c).

on the front paws, evoking their mortal power. The geometric form of the head, its strange oblique eyes and triangular whiskers added to the disquieting aspect of the beast. The two specimens from Bandjoun do not have this surrealistic allure, but are simply decorated with beaded chevron and lozenge-shaped designs.

Even more exceptional are the beaded wooden skulls or *atwonzen* (Dschang), of which I know only four examples. They are held between the hands of the king during the slow victory dance called *nzen*.

Wooden or cloth masks are often adorned with beads. Without doubt, the most spectacular are the cloth elephant masks (Fig. 6; Pl. IIB): *tu pum* (Bafang), *beumtok* (Batouni), and *tchom m'bam n'tan*



Figure 6. Elephant mask (*tu pum*).

(Bana). These are very strange, formerly constructed of bark or fiber cloth made of raffia grass. The exterior is lined with an indigo cotton fabric and hemmed with red imitation felt, or with a simple red cotton fabric if they are more recent. The masks are pierced by two circular eyes edged with red imitation felt reinforced with plantain fibers. The nose and, especially, the mouth are indicated only by beads, if they appear at all. Large circular or semi-circular ears are sewn onto each side of the mask and made rigid with a tightly sewn design of small *futomtcha* beads. A long flap 40-120 cm in length, often weighted at the extremities by a row of large beads or cowries, hangs down both in front and behind. Certain masks lack the rear flap, and the front flap takes the form of a tube which is reminiscent of an elephant's trunk. The chief sometimes wears a cloth disk 40-70 cm in width (Fig. 7). The whole thing is entirely

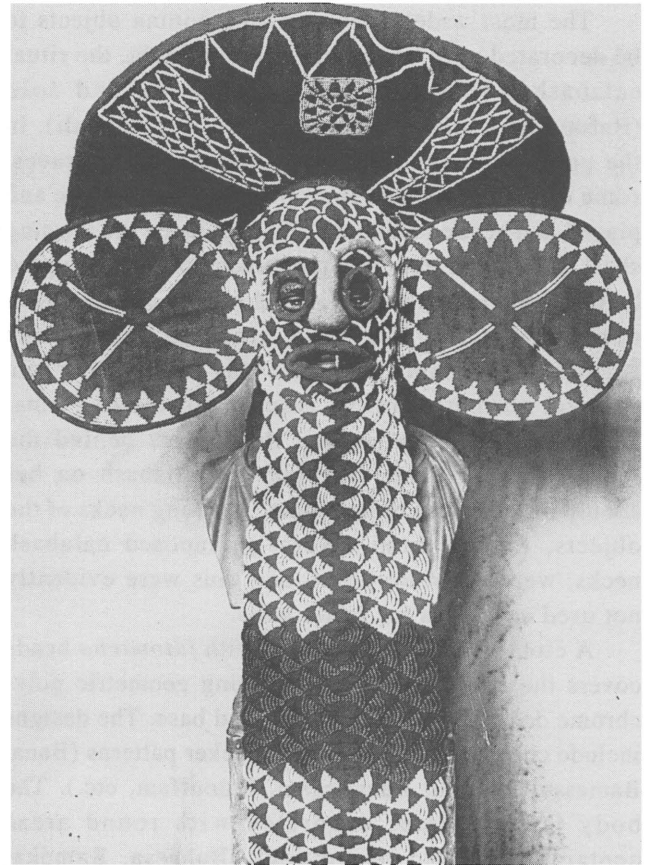


Figure 7. Disc-topped elephant mask; Grassfields, Bamiléké: Bangwa (courtesy Staatliche Museen zu Berlin, Preussischer Kulturbesitz, Museum für Völkerkunde).

decorated with beads arranged in chevrons, isosceles triangles, circles and, sometimes, stylized lizards.

These cloth masks are widespread in the Bamiléké country, whereas they are rarely found in the northern areas. At both Bandjoun and Bafoussam they are worn only by members of the *mkem* (A. Albert). Further east (Bana, Bakong, etc.), they are attributed to the *kuosi* societies whose members dance each week at death celebrations and at their biennial public celebrations and dances (M. Littlewood). In the west, it is again different: the masks are connected with the *aka* society of wealthy men from the Fontem basin. Robert Brain reveals that in Bangwa they were previously retained by the *manjong* society which is equivalent to the eastern *kuosi*. By consequence, they were different from those of the Bangwa *manjong* society.

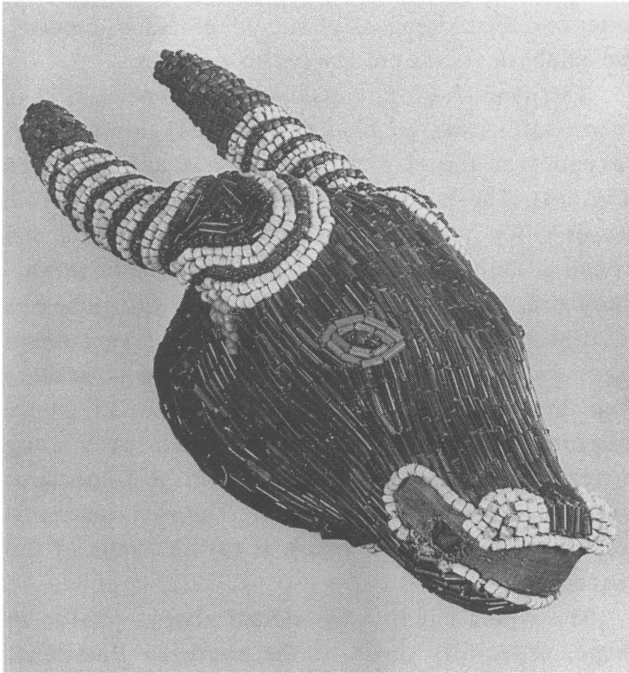


Figure 8. Buffalo mask covered with tubular blue beads and trimmed with Indian red and white specimens; Grassfields, Batibo near Bali (photo by Steinkopf; courtesy Staatliche Museen zu Berlin, Preussischer Kulturbesitz, Museum für Völkerkunde).

The *kuosi* dancers are clothed in vests or shirts of red imitation felt adorned with beads and cowries. Several indigo batik loincloths are wound around their waists. Heavily laden with these opulent clothes, each participant moves with slow, mysterious, undulating movements, turning in circles while flourishing their dancing whisks. According to their status, dignitaries additionally wear one or more leopard skins attached to their necks. If it is a *fon*, *fonte*, *mafo* or a highly titled person, a high, flat, folded headdress or prestige cap spiked with red parrot feathers or the feathers of a goatsucker (*tu nzen*) is worn under the cowl.

The *tu pum* can be compared to the *tu kum* of the *kungan* society of Banka which are covered with buttons and cowries. At Bandjoun, these same masks were worn by the *ma ku*, a kind of policeman and executioner in the service of the *fon* (A. Albert).

The *fé* (Bangan-Fokam) is a headdress in the form of a toque crowned with an animal that may be made of carved wood, but is most often made of cloth

reinforced and stuffed with fiber. In all cases, the object is enveloped in a cloth garnished with multicolored beads. The headdress is worn alone, or in combination with a *tu kum* mask, thus combining two types of animals on the same dancer. The animal may be a bird, two dogs side by side, a snake, a chameleon or, above all, a leopard. It is possible that the dogs, despite their pointed heads, and the chameleons, with their large salient eyes, are merely representative of leopards, with their repetitive designs of diamonds, checkerboards or isosceles triangles representing leopard spots. The *fé* is worn only by members of the royal family on the occasion of various dances (*nzé* at Batchingou, *nzeu* at Bangan-Fokam, and *mambang* at Mankon).

Particular to the Bamiléké country, if not just to its northern border (Bagam), wooden masks entirely adorned with beads are normally found in the northern kingdoms. As a general rule, they are unique items used by royalty.

Large bovine masks covered with blue tubular beads of the *tomenda* type or cowrie shells exist in most territories (Fig. 8). Certain other masks, aside from the royal ones made of wood, may be covered with beads or cowries and belong to the societies of princes such as the *ngirih* of the northern region, or the exceptional *kam* or *akam* masks of the masked societies owned by important families having royal origins. These are flat anthropomorphic masks of which only the beard and hair are decorated.

I have already mentioned that commemorative statues from the northern region of the Grassfields are mostly decorated with tubular beads which do not permit the reproduction of fine detail and imbue a somewhat rigid aspect overall. Figures of servants entirely covered with sewn cowries can be found in both Bandjoun and Baham (Fig. 9). Statues covered with beads are rare in the Bamiléké country, but when they are so adorned, it is with small *futomtcha* beads which imbue a more precise decorative effect (Pl. IA).

Most ceremonial chairs are covered with beads, particularly when the seat and base are flat. While many of the chairs are undecorated, a good number exhibit rows of perforations which were used to attach decorative cloth. A royal Baleng chair (Fig. 10) is a very good example. It represents a standing triumphant *fon* whose legs merge with the caryatid hind legs

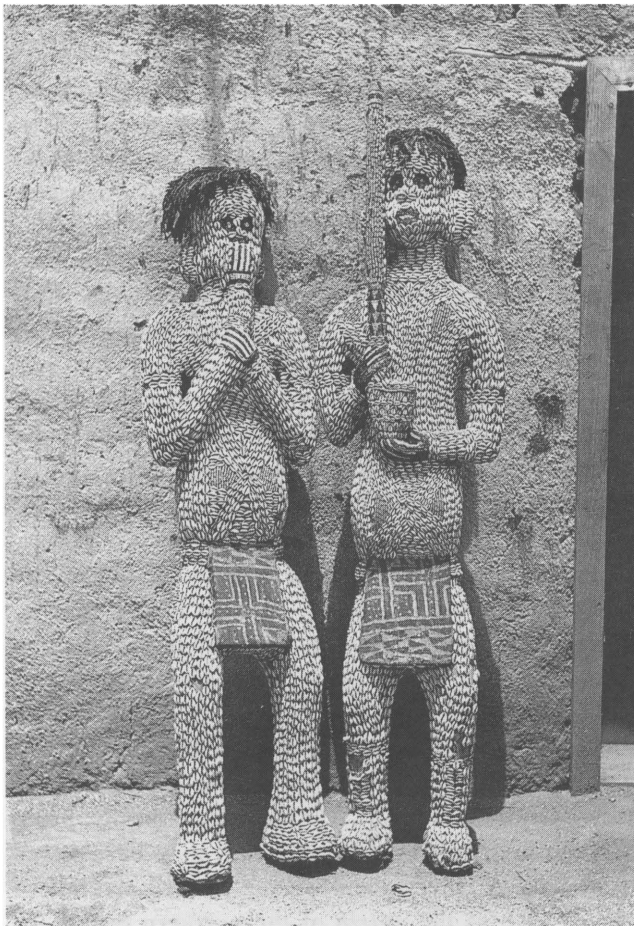


Figure 9. *Tchinda* statues decorated with cowries, Baham region.

of the elephant that supports the seat. With its small concave face, its high asymmetrically decorated convex forehead and its round cap, a skull held in the left hand is reminiscent of cubist art. The headdress of this war trophy suggests that it is the head of a chief and not a common warrior. The diverse symbols (sun, star, crescent moon, cross and other geometric designs) displayed on the body are not without interest and doubtless correspond to recent conceptions.

Small backless stools are found in all the territories, including the poorest. These consist of a simple seat supported by a caryatid animal — leopard (Pl. IIC), elephant (Figs. 11-12) or hyena, in order of frequency — or a human figure.

Sculptures of stands for supporting calabashes have a flatter receptacle than those for pots of *peh*, a type of maize porridge, or cola-nut bowls. While the

latter two are only occasionally decorated with beads, the calabash stands are always so adorned.

The handles of fly whisks used in dances, *sé leng koko* (Bafoussam) or *beuka* (Bamenda), are made of carved wood to which horse tails are attached (Fig. 13). These are veritable war trophies cut from horses killed in battles against the Bamum, Fulbe and Chamba. Only they know the usage of this trophy. They are royal attributes, and each *fon* possesses several examples. The *fon* can authorize certain dignitaries or warriors to use them as long as no more than three individuals use the same one. Elegantly manipulated by dancers of the *kuosi* or *nekan* societies, they are sometimes thrown at a spectator whom the dancers wish to honor. The recipient must pick it up, kiss it, and return it to the hands of the dancer.

The whisk handles are almost always phallic in shape, especially those of the southern Bamiléké. *Futomtcha* beads, generally in a chevron pattern, cover the surface. Other, more complex, handle forms are sometimes encountered including double animal horns (Banka, Foreke), and representations of a monkey (Batie), elephant (Dschang, Bamendou), bird, or one (Bamum) or two (Babouantou) persons.

Less-important objects were sometimes also embroidered with beads: the handles of drinking horns and battle swords, bracelets, pipe stems, the staffs of rank of queens or *tcheu-tcha* (Bamendou), and certain horned *nekan* dancing helmets (Batouni, Bangangfokam).

Other bead-decorated articles include ceremonial bags such as those that Senbum II of Banson offered to the German officer van Houben. They were accompanied by two beaded royal belts representing entwined double-headed serpents, each with a pendant shaped like a triangular bag. One was decorated with a chameleon, the other with a large spider. These belts are attached by means of beaded straps in the form of protective serpents which Bamiléké kings sometimes wear around their necks during periods of mourning.

Peg-shaped ear ornaments also exist, measuring 6-7 cm in length and garnished with chevron patterns (R. Widmaier, Bali, 1912). Also from Bali, A. Diehl brought back a number of *cache-sexe* decorated with beads in 1911. Finally, there are large rectangular sword scabbards with two lateral handles decorated with chevron or lozenge-shaped designs (Fig. 14).



Figure 10. Royal Baleng chair representing a triumphant *fon* or king holding the head of an enemy chief.



Figure 11. Royal stool with elephant caryatid (Bamiléké).



Figure 12. Royal stool with double-headed elephant caryatid, 19th century; 40 cm high; Grassfields, Bamiléké: unspecified (courtesy Field Museum of Natural History, Chicago; neg. no. A109102c).



Figure 13. Dongmo, the next to the last *fon* of Bamendou, holding two dancing fly whisks.

REFERENCES

Barbot, Jean

1732 *A Description of the Coasts of North and South Guinea*. London.

Beck, Horace C.

1928 Classification and Nomenclature of Beads and Pendants. *Archaeologia* 77:1-76.

Bernard-Thierry, Solange

1959 Perles magiques à Madagascar. *Journal de la Société des Africanistes* 29, fasc. 1:33-90.

Bouchaud, Joseph

1952 La côte du Cameroun dans l'histoire et la cartographie. *Memoir de l'IFAN* 5.

Braun, Samuel

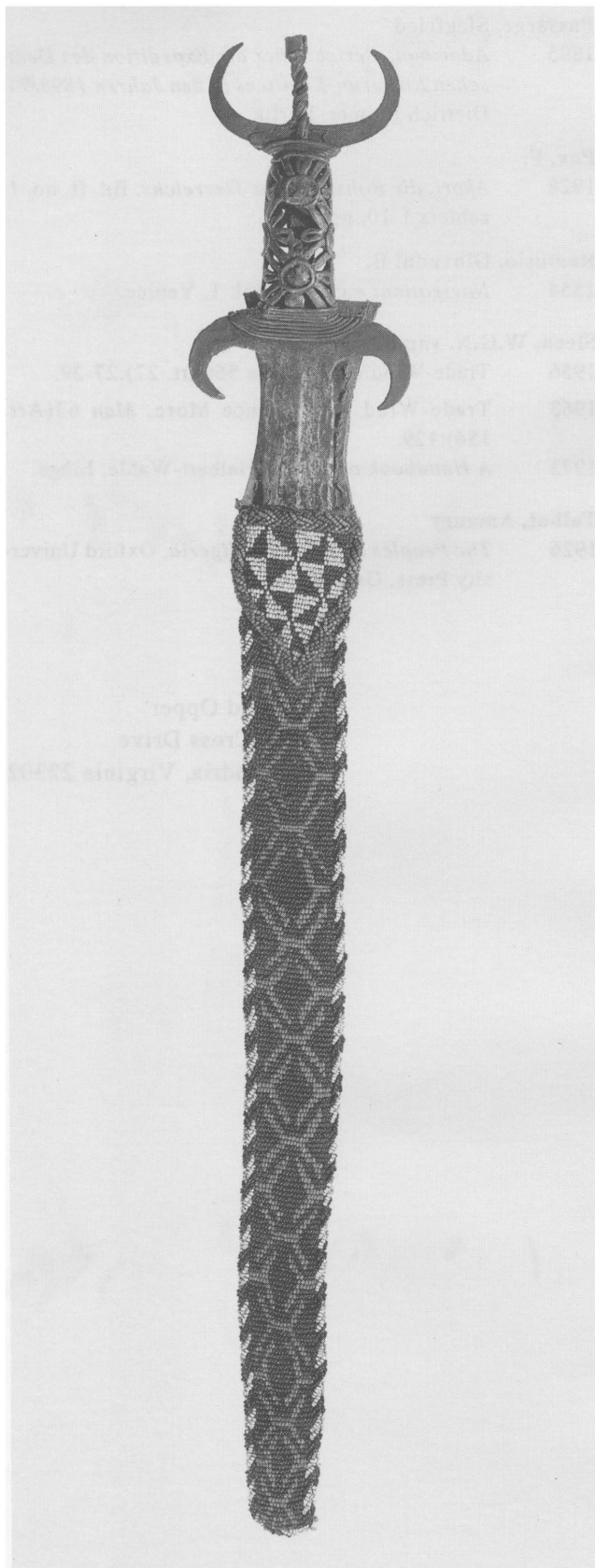
1625 *Navigaciones quinque Samuelis Brunonis*.

Chilver, E.M.

1961 Nineteenth Century Trade in the Bamenda Grassfields Southern Cameroons. *Afrika und Übersee* 45(4):233-258.

Dapper, Olfert

1686 *Description de l'Afrique*. Amsterdam.



Dekowna, M. and A. Szymanski

1970 Recherches sur les techniques d'exécution des objets de verre anciens par les méthodes pétrographiques. *Annales du 5^e Congrès international historique du verre*, Prague, pp. 337-351.

Forbes, Frederick E.

1858 *Dahomey and the Dahomans*. Cass, London.

Fourneau, Jean

1952 Sur des perles anciennes de pâte de verre provenant de Zanaga (Moyen Congo). *Bulletin de l'IFAN*, Serie B, T. 14, no. 3, pp. 956-969.

1954 Recherches sur l'origine des perles de Zanaga. *Bulletin de l'IFAN*, Serie B, T. 16, no. 1-2, pp. 1-21.

Hakluyt, Richard

1589 *The Principal Navigations*. Vol. 2, Part 2. G. Bishop and R. Newberie, London.

Hutchinson, Thomas J.

1858 *Impressions of Western Africa*. Longmans, Brown, Green, Longmans and Roberts, London.

Jeffreys, M.D.W.

1961 Aggrey Beads. *African Studies* 20(2):97-113.

Karklins, Karlis

1985 A Sample Book of 19th Century Venetian Beads. In *Glass Beads*, 2nd ed., pp. 41-84. Parks Canada, Studies in Archaeology, Architecture and History, Ottawa.

Krieger, Kurt

1943 Studien über Afrikanische Kunstperlen. *Baessler-Archiv* 25(2):54-103.

Lamb, Alastair

1970 Some Observations on Glass Beads in Ghana, West Africa. *Annales du 5^e Congrès international historique du verre*, Prague, pp. 247-250.

Leclant, Jean

1956 Egypte-Afrique, quelques remarques sur la diffusion des monuments égyptiens en Afrique. *Bulletin trimestriel de la Société française d'Égyptologie* 21:29-41.

Marees, Pieter de

1602 *Beschrijvinghe ende historische verhael van het Gout koninckrijck van Guinea*. Amsterdam.

Figure 14. Prestige sword with beaded sheath, 19th century; 51 cm high; Grassfields, Bamum: Fumban (courtesy Field Museum of Natural History, Chicago, neg. no. A109153).

Mauny, Raymond

- 1949 Que faut-il appeler pierres d'aigris? *Notes Africaines* 42:33-36.
- 1957 Note sur l'âge et l'origine des perles à chevron. *Notes Africaines* 74:46-48.

Monod, Theodore

- 1947 Perles anciennes connues au Portugal et en Afrique Noire Occidentale. *II^a Conferencia Internacional des Africanistas Bissau*, pp. 389-392.
- n.d. Perles et verroteries anciennes trouvées au Dahomey. *Congrès international des Afr. de l'Ouest I* (Dactyl in XV-6 Doc. IFAN, Dakar).

Morgen, Curt von

- 1972 *A travers le Cameroun du Sud au Nord*. 2 vols. Archives d'histoire et de sociologie de l'université fédérale du Cameroun. Yaoundé.

Musée Curtius

- 1958 *Trois millénaires d'art verrier à travers les collections publiques et privées de Belgique*. Exhibition Catalogue, Liège.

Northern, Tamara

- 1975 *The Sign of the Leopard: Beaded Art of Cameroon*. William Benton Museum of Art, Storrs, Connecticut.

Passarge, Siegfried

- 1895 *Adamaua: Bericht über die Expedition des Deutschen Kamerun-Komitees in den Jahren 1893/94*. Dietrich Reimer, Berlin.

Pax, F.

- 1928 *Akori, die Rohstoffe des Tierreichs*. Bd. II, no. 1, cahiers 1-10, pp. 30-36.

Ramusio, Giovanni B.

- 1554 *Navigazioni e viaggi*. Vol. 1. Venice.

Sleen, W.G.N. van der

- 1956 Trade-Wind Beads. *Man* 56(Art. 27):27-29.
- 1963 Trade-Wind Beads Once More. *Man* 63(Art. 154):129.
- 1973 *A Handbook on Beads*. Halbart-Wahle, Liège.

Talbot, Amaury

- 1926 *The Peoples of Southern Nigeria*. Oxford University Press, Oxford.

Howard Opper
1023 Cross Drive
Alexandria, Virginia 22302

THE BEADS OF ROMAN AND POST-MEDIEVAL ANTWERPEN, BELGIUM

Karlis Karklins and Tony Oost

Excavations conducted at several sites in Antwerpen, a principal city and seaport on the Schelde River in northern Belgium, have uncovered a small but significant collection of glass beads. These range from a decorated specimen of the Roman period to tubular square- and star-sectioned beads of the 16th-17th centuries. The Post-Medieval specimens, found in the cesspits of merchants' homes, give us an idea of what Antwerpen was exporting during the early part of this period.

INTRODUCTION

Much is known about the sources of specific types and styles of European glass beads of the 19th and 20th centuries. Unfortunately, this does not hold true for earlier times. While the data base for Dutch beads is relatively sound (Baart 1988; Karklins 1974, 1983, 1985a), this is not the case for other countries. For various reasons, European archaeologists have generally been reluctant to study beads, especially those of the Post-Medieval period. Without comparative data from other contemporary bead-producing centers, it is impossible to state categorically which beads were made in which countries at a specific time. In an attempt to increase the existing data base for Europe, Karklins visited the Archaeology Department of the Kunsthistorische Musea, Antwerpen, in October of 1984 to examine the glass beads recovered from three sites in the old part of the city: Stadsparking, Kaasstraat and Waterkerende Muur. The excavation of these sites, all of a rescue nature intended to salvage the archaeological deposits prior to building construction, was conducted by the Archaeology Department of the City of Antwerpen. At the Kaasstraat site, assistance was provided by members of the Antwerpse Vereniging

voor Bodem- en Grotonderzoek, the local archaeological society.

The beads are classified using the system developed by Kenneth and Martha Kidd (1970) as expanded by Karklins (1985b). An asterisk (*) denotes varieties not recorded by the Kidds. A sequential letter is appended to their codes for ease of reference. Where possible, correlations are also made with the system devised for 16th-century Spanish trade beads by Marvin T. Smith and Mary Elizabeth Good (1982). While the Munsell values identified for the beads in the two systems do not always match exactly, the beads are, nonetheless, visually identical.

Colors are identified using common color names supplemented by Munsell color codes (Munsell Color 1976). Diaphaneity is described utilizing the terms opaque (op.), translucent (tsl.) and transparent (tsp.). Opaque beads are impenetrable to light except on the thinnest edges. Specimens that are translucent transmit light but diffuse it so that an object (such as a pin in the perforation) viewed through them is indistinct. A pin in the perforation of a transparent bead is clearly visible.

In the bead descriptions that follow, Pl. = color plate, R. = row in color plate and # = position in row.

BEADS OF THE STADSPARKING SITE

Now an underground parking garage, the Stadsparking site (A.Sp.) is situated in the area enclosed by the town hall, the Butchers' Hall and the Schelde (Fig. 1). The area is just outside the wall and ditch of the "Steen," the 10th-century castle around which grew present-day Antwerpen. The excavations

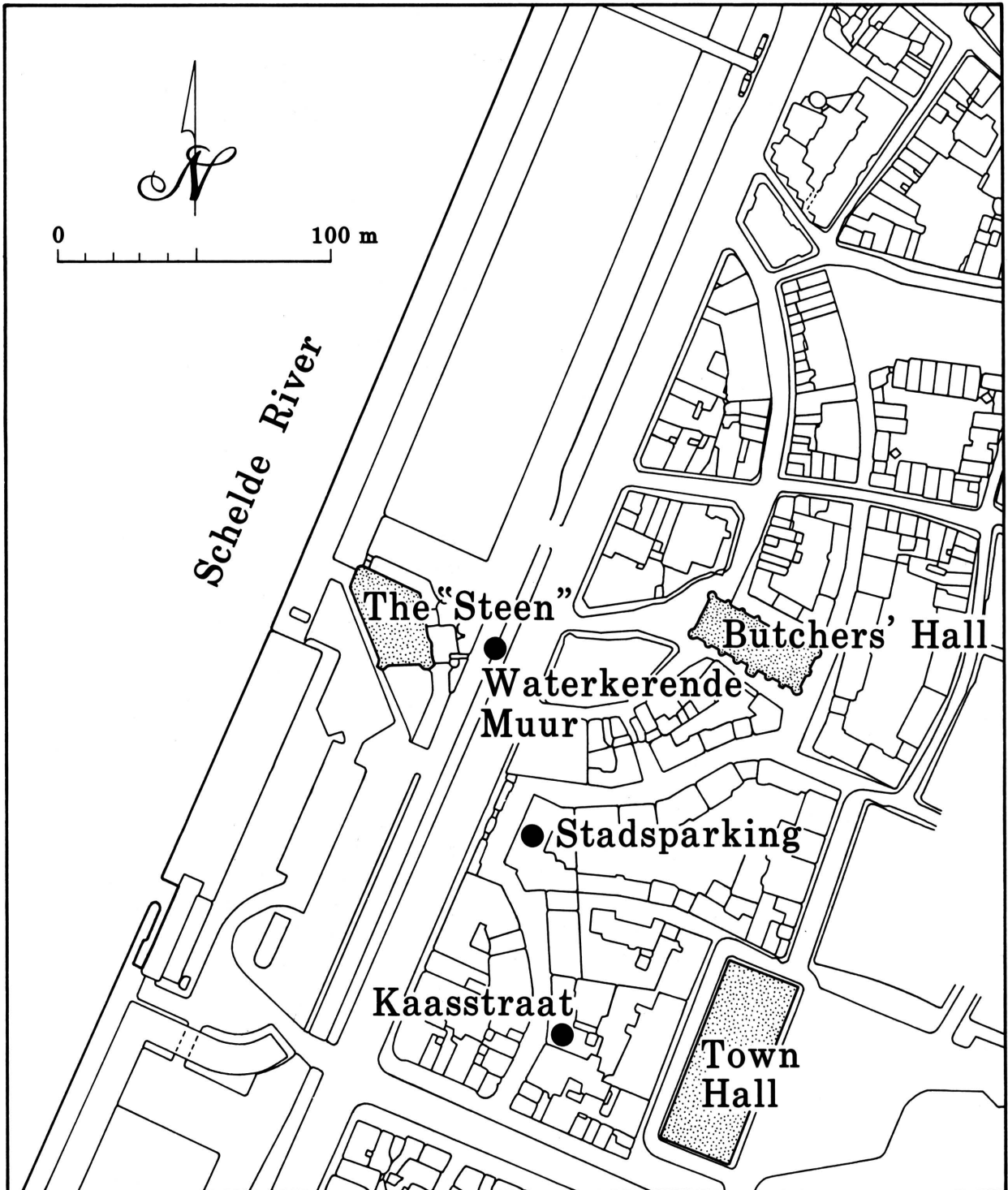


Figure 1. Map of the heart of old Antwerpen showing the locations of the three bead-producing sites (drawing by D. Kappler).

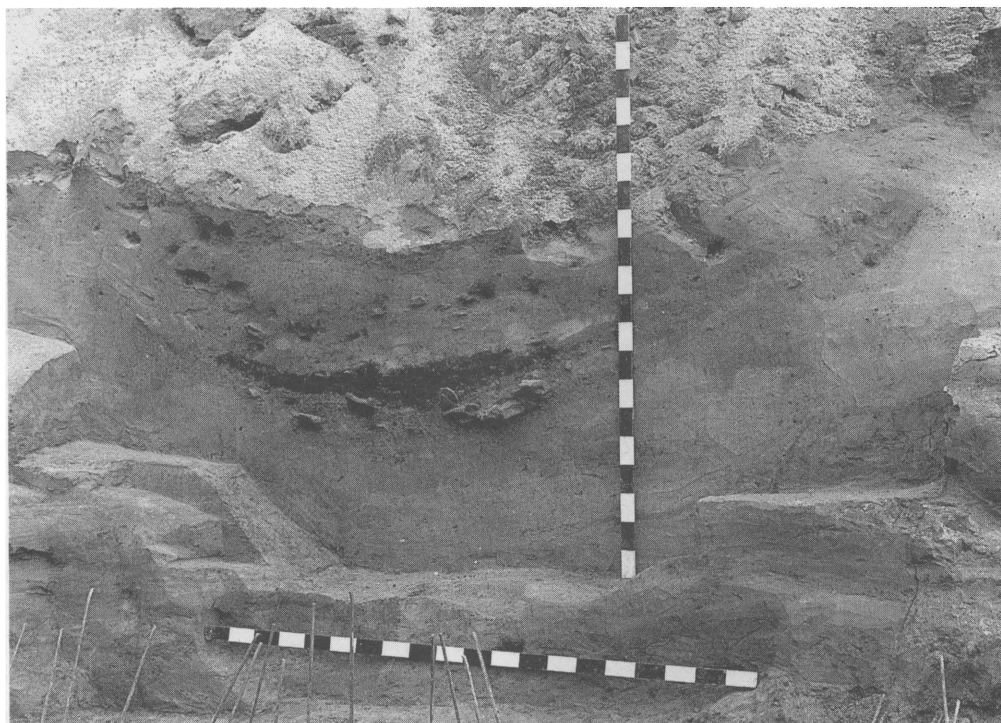


Figure 2. Profile of the Roman trash pit at the Stadsparking site. The bead was found beneath the black charcoal layer. Scale bars are one meter long (© Archaeology Department, City of Antwerpen).

conducted here in the mid-1970s were, by far, the most extensive to be undertaken in the city.

Although the site produced only a single glass bead, it was a very important find as it came from a trash pit (Fig. 2) dating to the Roman period (ca. A.D. 150-ca. 250). The pit, which also contained ceramics, roof tiles, fragmentary glass vessels and animal bones, was a sealed context so the bead is securely dated. It is, so far, the only Roman bead to be excavated in Antwerpen.

The bead was formed by winding a gather of glass onto a metal mandrel until the desired size and shape were achieved. A thread of contrastingly colored glass was then trailed over its surface.

WIIId*(a). Barrel-shaped; tsl.-op. burgundy (10.0RP 4/6) body decorated with a meandering thread of op. light gold (2.5Y 7/8) glass (the glass was wet when the colors were determined); 1 specimen (Fig. 3). The glass is decomposing so accurate measurements could not be obtained.

Diameter: ca. 11.7 mm

Length: ca. 9.5 mm



Figure 3. The Roman bead from the Stadsparking site (2:1) (© Archaeology Department, City of Antwerpen).

BEADS OF THE KAASSTRAAT SITE

Archaeological research was carried out at No. 13 Kaasstraat (A.Ka.2) in 1981 prior to construction of the new Ethnography Museum (Anonymous 1989). Fourteen varieties of glass beads were uncovered in a cesspit (Fig. 4) associated with the oldest part of the house. Accompanying artifacts included ceramics, glass and other objects dating to the late 16th and early 17th centuries (Denissen 1984: 30-3). They indicate a rich household with objects obtained from many parts of the world.

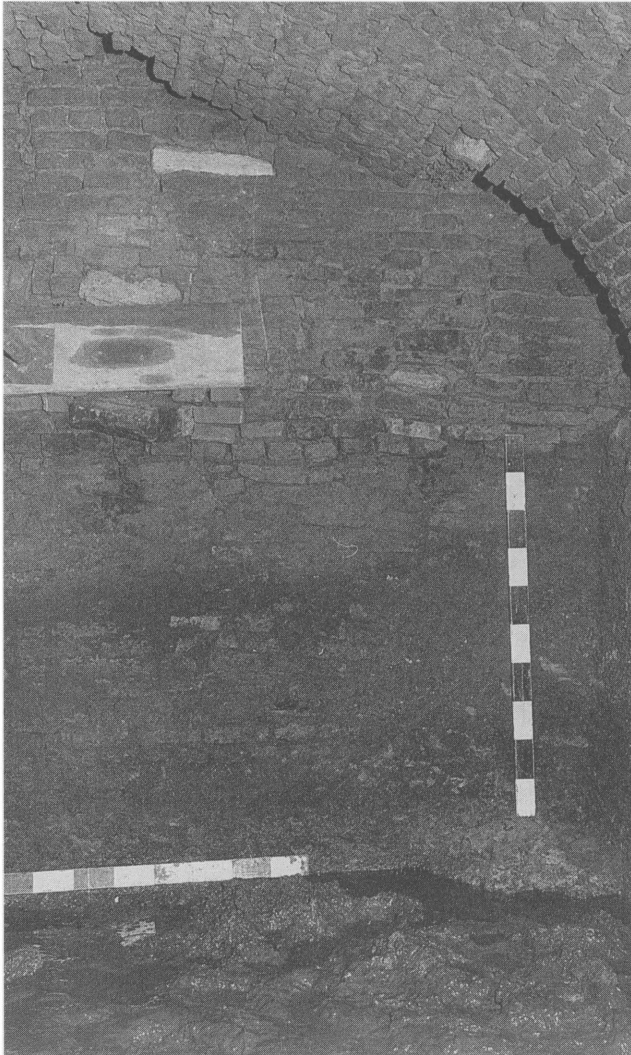


Figure 4. Interior of the vaulted brick cesspit at the Kaasstraat site. Trash was thrown into it via a shaft whose opening is visible in the upper right. Scale bars are one meter long (© Archaeology Department, City of Antwerpen).

The house was owned by various persons from 1577 to 1787, but only one of the actual owners is known to have lived here; Jan Bode, a merchant of spices, dried fruit and sugar, and one of the wealthiest men living on the Kaasstraat, occupied the house in 1582-84. It is likely that either he or one of his successors — druggists and grocers like him — used the beads for trading purposes abroad. Bode is known to have obtained goods from Venice.

The 60 Kaasstraat beads are all of drawn manufacture. They were produced by drawing a hollow gather of glass into a long tube which was then

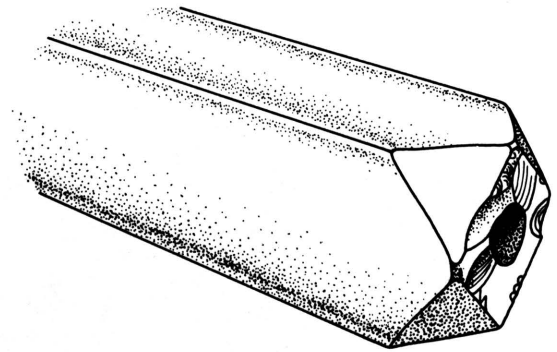


Figure 5. Bead variety Ic*(a) showing the distinctive corner grinding of the tubular Kaasstraat beads (drawing by D. Kappler).

subsequently broken into bead lengths. In most cases, the gather was apparently thrust into a metal mold to give it a square or star-shaped cross section prior to the drawing process. A bulb of percussion on either end of the Ic1 bead reveals that the tube was sectioned by placing it on a sharp edge and then striking it with a sharp blade. Only one of the beads (variety IIa6) was subsequently heat-rounded. The ends of the tubular beads were not fire polished to round them. However, the end treatment of the 22 intact specimens suggests that all of them probably had their sharp corners ground off originally (Fig. 5).

Fourteen Kidd varieties are represented, eight of which have correlatives among the Spanish trade beads recorded by Smith and Good (1982):

Ic1. Long tubular, square cross section; op. Indian red (10R 4/8); 1 complete specimen (Pl. VIA, R.1, #1). The bead has uneven (undulating) sides and a small, off-center perforation. The ends are formed by relatively flat breaks. One end exhibits ground edges.

Diameter: 11.3 mm

Length: 24.9 mm

Ic*(a). Long tubular, square cross section; tsp. bright navy blue (7.5PB 2/7); 21 specimens (2 complete; 19 incomplete) (Pl. VIA, R.1, #2). The sides are uneven; the corners are ground. Smith and Good variety CII.SC.T1.Va.

Diameter: 4.8- 7.0 mm

Length: 47.5-56.4 mm (intact specimens)

IIa6. Oblate; op. black (N 1/0); 1 complete specimen (Pl. VIA, R.1, #3). Similar to Smith and Good variety CI.SB.T1.Vf.

Diameter: 7.9 mm

Length: 6.0 mm

IIIc*(a). Long tubular, square cross section; tsp. bright blue (5.0B 5/7) exterior; op. white (N 9/0) middle layer; tsp. light gray (N 7/0) core; 6 incomplete specimens (Pl. VIA, R.1, #4). The corners have been ground off. Smith and Good variety no. CII.SC.T2.Vb.

Diameter: 4.9-5.8 mm

Length: 28.6 mm (existing maximum)

IIIc1. Long tubular, square cross section; tsp. bright blue (5.0B 5/7) exterior; op. white (N 9/0) middle layer; tsp. bright blue core; 5 specimens (1 complete; 4 incomplete) (Pl. VIA, R.2, #1). Ground corners.

Diameter: 4.4-6.4 mm

Length: 37.0 mm (intact specimen)

IIIc3. Long tubular, square cross section; tsp. bright navy blue (7.5PB 2/7) exterior; op. white (N 9/0) middle layer; tsp. light gray (N 7/0) core (several cores have a violet tint); 5 specimens (2 complete; 3 incomplete) (Pl. VIA, R.2, #2). Ground corners. A long version of Smith and Good variety no. CII.SC.T2.Vf.

Diameter: 5.5- 6.8 mm

Length: 36.5-54.3 mm (intact specimens)

IIIc*(b). Long tubular, square cross section; tsp. bright navy (7.5.PB 2/7) exterior; op. white (N 9/0) middle layer; tsp. bright blue (5.0B 5/7) core; 6 specimens (2 complete; 4 incomplete) (Pl. VIA, R.2, #3). Ground corners. A long version of Smith and Good variety no. CII.SC.T2.Vg.

Diameter: 5.3- 7.6 mm

Length: 30.2-37.0 mm (intact specimens)

IIIc'*(a). Long tubular (twisted), square cross section; tsp. bright blue (5.0B 5/7) exterior; op. white (N 9/0) middle layer; op. black (N 1/0) core; 1 incomplete specimen (Pl. VIA, R.3, #1). Both ends broken; no ground corners. Smith and Good variety no. CIII.SA.T2.Va.

Diameter: 6.6 mm

Length: 15.2 mm (existing maximum)

IIIc'*(b). Long tubular (twisted), square cross section; tsp. bright blue (5.0B 5/7) exterior; op. white (N 9/0) middle layer; tsp. light gray (N 7/0) core; 5 in-

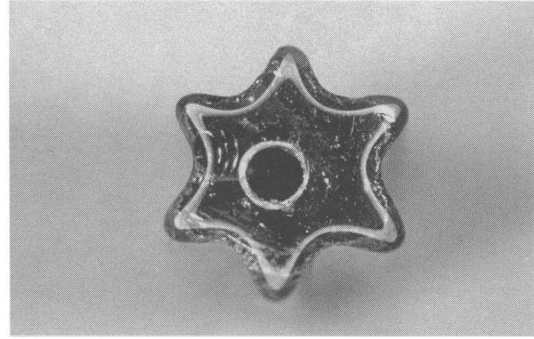


Figure 6. End view of star-sectioned bead variety IIIe*(c)(photo by K. Karklins).

complete specimens (Pl. VIA, R.3, #2). Ground corners. Smith and Good variety no. CIII.SC.T2.Vc.

Diameter: 6.1-7.1 mm

Length: 29.0 mm (existing maximum)

IIIc'(c). Long tubular (twisted), square cross section; tsp. bright blue (5.0B 5/7) exterior; op. white (N 9/0); tsp. light gray (N 7/0); tsp. bright blue core; 1 incomplete specimen (Pl. VIA, R.3, #3). Corners ground off one end.

Diameter: 6.2 mm

Length: 23.0 mm (existing maximum)

IIIc'4. Long tubular (twisted), square cross section; tsp. bright blue (5.0B 5/7) exterior; op. white (N 9/0) middle layer; op. bright navy blue (7.5PB 2/7) core; 1 incomplete specimen (Pl. VIA, R.3, #4). The corners have been ground off one end. Smith and Good variety no. CIII.SC.T2.Va.

Diameter: 5.2 mm

Length: 13.0 mm (existing maximum)

IIIe*(a). Long tubular, star-shaped cross section (6 rays); op. Indian red (10.0R 4/8) exterior; op. black (N 1/0) core; 5 incomplete specimens (Pl. VIA, R.4, #1-2). The corners of the rays have been ground off one end of three beads.

Diameter: 6.4-12.8 mm

Length: 50.7 mm (existing maximum)

IIIe*(b). Long tubular, star-shaped cross section (6 rays); op. black (N 1/0) exterior; op. Indian red (10.0R 4/8) core; 1 complete specimen (Pl. VIA, R.4, #3). The corners of the rays have been ground off.

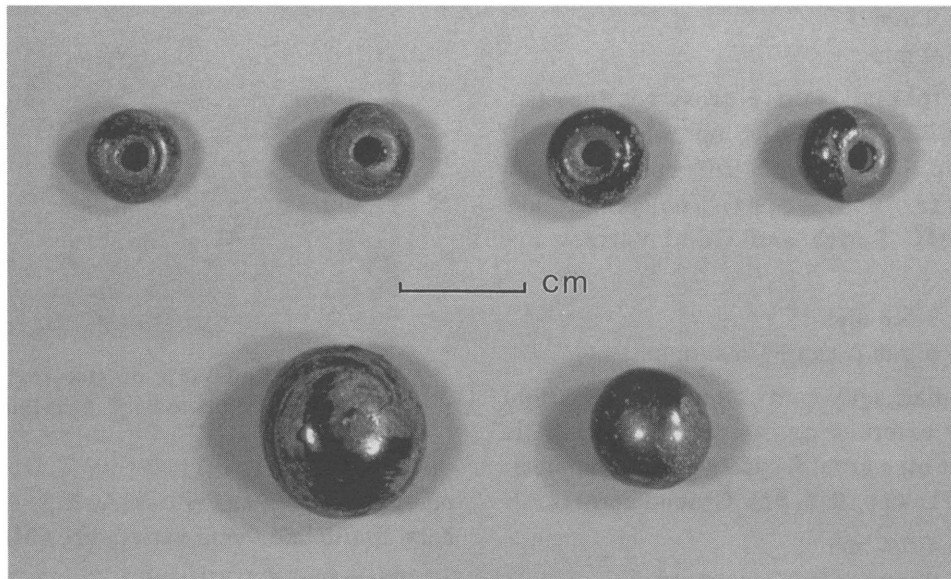


Figure 7. Waterkerende Muur site: top, oblate black beads (IIa6); bottom, black glass buttons (photo by K. Karklins).

Diameter: 7.1 mm
Length: 50.5 mm

IIIe*(c). Long tubular, star-shaped cross section (6 rays); thin op. black (N 1/0) exterior; thin op. Indian red (10.0R 4/8); thick op. black; thin op. Indian red core; 1 complete specimen (Fig. 6). The corners of the rays have been ground down.

Diameter: 14.8 mm
Length: 54.3 mm

BEADS OF THE WATERKERENDE MUUR SITE

Another cesspit was found during the construction of the *Waterkerende Muur* (W.K.M.), a seven-kilometer-long concrete wall designed to protect the inner town against flooding. The pit contained several glass beads and buttons, along with glass and ceramic objects attributable to the late 16th and early 17th centuries. Nothing is known about the inhabitants of the associated house, but it is situated in the same merchant's sector of Antwerpen as the previous site and the artifacts suggest a wealthy occupant.

The beads are all of drawn manufacture. The buttons were produced by winding a gather of viscous glass onto a metal shank. The latter have all since disintegrated.

IIa6. Oblate; op. black (N 1/0); 6 specimens (Fig. 7, top). Similar to Smith and Good variety CI.SB.T1.Vf.

Diameter: 7.9-8.0 mm
Length: 4.5-6.3 mm

Buttons. Oblate to globular; op. black (N 1/0); 2 specimens (Fig. 7, bottom).

Diameter: 9.8-13.9 mm
Height: 8.5- 9.1 mm

DISCUSSION AND CONCLUSION

The Roman bead and associated artifacts from the Stadspark site are important finds for Antwerpen as these objects are the first to document a Roman occupation of this city.

The Kaasstraat site collection is dominated by square-sectioned tubular beads with ground corners, commonly referred to as Nueva Cadiz Plain (types Ic and IIIc) and Twisted (type IIIc') (Fairbanks 1968), although researchers now only apply these terms to specimens from Spanish contact sites (M.T. Smith 1993: pers. comm.). The beads have a wide distribution, being found at sites in many parts of the world, but especially North and South America. In Venezuela, Peru and the southeastern United States, they are attributed to the early to mid-16th century

(Deagan 1987: 163; Mitchem 1988; Smith and Good 1982). However, Fairbanks (1968: 8) originally felt that they were also attributable to the late 16th and possibly early 17th centuries as well, and this is certainly more in keeping with the date assigned to the Kaasstraat cesspit. It is also more in keeping with their chronological position in the American Northeast where they appear in contexts from ca. 1600 to possibly as late as 1710 (Kent 1983; Kenyon and Kenyon 1983; Pratt 1961; Rumrill 1991). It remains to be determined whether the beads from the later contexts are simply at the tail end of a stylistic continuum, or represent a resurgence of the production of earlier varieties at a later date and possibly in another country or countries as postulated by M.T. Smith (1993: pers. comm.). However, given that seven of the nine square-sectioned beads in the Kaasstraat collection have correlatives among the 16th-century Spanish trade beads recorded by Smith and Good, the former seems the likeliest. The star-sectioned beads have no known correlatives elsewhere and are presently unique to Antwerpen.

Where the Kaasstraat beads were manufactured remains a bit of a mystery. While Antwerpen is known to have had a successful glass industry from 1558 to 1625 (El Dekmal-Denissen 1989: 121-33), there is no documentary evidence for the production of glass beads (Hudig 1923). Neither is there any archaeological evidence for their production. All the recovered beads are finished products and do not include wasters from beadmaking. Thus, while there is the possibility that some of the beads did originate in Antwerpen, it is equally possible that they were obtained from Venice, a city that at least one of the site's occupants is known to have dealt with. Most of the Kaasstraat beads are broken specimens, suggesting that they represent discarded merchandise considered unsuitable for sale.

The black beads and buttons recovered from the Waterkerende Muur site also have a broad distribution. Both in the city of Amsterdam and Novoya Zemlya in the Russian Arctic, globular to oblate black-glass buttons appear in late 16th-century contexts (Baart and others 1974: 28). In the American Northeast they are found at archaeological sites dating from the late 16th to the late 17th century (Pratt 1961; Rumrill 1991), and are attributed to the Dutch (Bradley 1987: 158).

Pea-sized black beads (IIa6) appear at about the same time in Amsterdam and continue on until the second quarter of the 18th century (Karklins: personal observation). In New York state and eastern Pennsylvania, these beads appear around 1570 and continue in use until at least 1745 (Kent 1983; Pratt 1961; Wray 1983). These time ranges are certainly in keeping with the late 16th – early 17th-century date postulated for the Waterkerende Muur cesspit.

As for the Kaasstraat beads, it is uncertain where the Waterkerende Muur buttons and beads originated. Without comparative archaeological and chemical data, it is presently impossible to state whether the objects originated locally or were produced elsewhere, possibly Amsterdam.

Considering their contexts and distribution, it is probable that the beads and glass buttons recovered from the Kaasstraat and Waterkerende Muur sites represent merchandise intended for shipment to various trading centers around the world rather than for local consumption. Although relatively few, the recovered specimens give us a good idea of what set sail from the busy port of Antwerpen in the late 16th and early 17th centuries.

REFERENCES CITED

- Anonymous**
1989 *Achter de gevels van het Etnografisch Museum. Archivalisch, bouwhistorisch en archeologisch onderzoek.* Antwerpen.
- Baart, Jan M.**
1988 Glass Bead Sites in Amsterdam. *Historical Archaeology* 22(1):67-75.
- Baart, Jan M. and others**
1974 Knopen aan het Hollandse kostuum uit de zestiende- en zeventiende eeuw. *Antiek* 9(1):18-48.
- Bradley, James W.**
1987 *Evolution of the Onondaga Iroquois: Accommodating Change, 1500-1655.* Syracuse University Press, Syracuse.
- Deagan, Kathleen**
1987 *Artifacts of the Spanish Colonies of Florida and the Caribbean, 1500-1800. Volume 1: Ceramics, Glassware, and Beads.* Smithsonian Institution Press, Washington.

Denissen, Sabine

- 1984 De opgravingen Kaasstraat 13, Afvalput 2 te Antwerpen. III: Het glas. *Bulletin van de Antwerpse Vereniging voor Bodem- en Grotonderzoek* 1:30-33.

El Dekmal-Denissen, Sabine

- 1989 De glasmanufacturen in Antwerpen. In *Het glas in België van de oorsprong tot heden*, edited by L. Engen, pp. 121-133. Mercatorfonds, Antwerpen.

Fairbanks, Charles H.

- 1968 Early Spanish Colonial Beads. *Conference on Historic Site Archaeology Papers, 1967* 2(1):3-21.

Hudig, Ferrand

- 1923 *Das Glas*. Vienna.

Karklins, Karlis

- 1974 Seventeenth Century Dutch Beads. *Historical Archaeology* 8:64-82.
- 1983 Dutch Trade Beads in North America. In "Proceedings of the 1982 Glass Trade Bead Conference," edited by Charles F. Hayes III. *Rochester Museum and Science Center, Research Records* 16:111-126.
- 1985a Early Amsterdam Trade Beads. *Ornament* 9(2):36-41.
- 1985b Guide to the Description and Classification of Glass Beads. In *Glass Beads*, 2nd ed., pp. 85-118. Parks Canada, Studies in Archaeology, Architecture and History, Ottawa.

Kent, Barry C.

- 1983 The Susquehanna Bead Sequence. In "Proceedings of the 1982 Glass Trade Bead Conference," edited by Charles F. Hayes III. *Rochester Museum and Science Center, Research Records* 16:75-81.

Kenyon, Ian T. and Thomas Kenyon

- 1983 Comments on 17th Century Glass Trade Beads from Ontario. In "Proceedings of the 1982 Glass Trade Bead Conference," edited by Charles F. Hayes III. *Rochester Museum and Science Center, Research Records* 16:59-74.

Kidd, Kenneth E. and Martha A. Kidd

- 1970 A Classification System for Glass Beads for the Use of Field Archaeologists. *Canadian Historic Sites: Occasional Papers in Archaeology and History* 1:45-89.

Mitchem, Jeffrey M. and Jonathan M. Leader

- 1988 Early Sixteenth Century Beads from the Tatham Mound, Citrus County, Florida: Data and Interpretations. *Florida Anthropologist* 41(1):42-60.

Munsell Color

- 1976 *Munsell Book of Color, Glossy Finish Collection*. Macbeth Division, Kollmorgen Corporation, Baltimore.

Pratt, Peter P.

- 1961 *Oneida Iroquois Glass Trade Bead Sequence, 1585-1745*. Fort Stanwix Museum, Rome, New York.

Rumrill, Donald A.

- 1991 The Mohawk Glass Trade Bead Chronology: ca. 1560-1785. *Beads* 3:5-45.

Smith, Marvin T. and Mary Elizabeth Good

- 1982 *Early Sixteenth Century Glass Beads in the Spanish Colonial Trade*. Cottonlandia Museum Publications, Greenwood, Mississippi.

Wray, Charles F.

- 1983 Seneca Glass Trade Beads c.A.D. 1550-1820. In "Proceedings of the 1982 Glass Trade Bead Conference," edited by Charles F. Hayes III. *Rochester Museum and Science Center, Research Records* 16:41-49.

Karlis Karklins
Parks Canada
1600 Liverpool Court
Ottawa, Ontario K1A 0H3
Canada

Tony Oost
Museum Vleeshuis
Vleeshouwersstraat, 38-40
B-2000 Antwerpen
Belgium

BEADS IN THE LIVES OF THE PEOPLES OF SOUTHERN TOGO, WEST AFRICA

Pascale Nourisson
Translated by Pierre Nadon

Beads are objects of infinite diversity among the Mina-Guen of southern Togo. They accompany the people in all the material and spiritual aspects of their existence. However, while the beads serve such varied functions as ornaments, currency and emblems of wealth and prestige, they find their principal use in voodoo.

INTRODUCTION

This article is based on fieldwork conducted in the Mina-Guen area of southern Togo from 1988 to 1991. Togo is a small country located on the Gulf of Guinea in West Africa (Fig. 1). Here, as elsewhere in Africa, beads play a major role and have many uses. Their composition varies, including bone, shell, horn, wood, seeds, amber, stone and metal, but glass beads predominate.

COMMERCE IN WEST AFRICA OVER THE CENTURIES

Very early and until the 15th century, intense overland trade was conducted between the various parts of Africa. Among other products, beads arrived in the great urban centers of international trade (e.g., Bida and Kano) from whence they were redistributed to local markets. Thus, the peoples living on or near the Gulf of Guinea had access to beads from North Africa via Mauritania or Mali, cowries from the Indian Ocean, red Mediterranean coral by way of Cairo, beads made in Mauritania, Ghana (by the Krobos) and Nigeria (by the Nupes), and probably the famous "Aygris" beads made of blue coral found off the coast of Cameroon.

Following the first great European voyages of exploration of the 15th century, trade routes changed and it became more and more an ocean-going trade. Explorers and missionaries used beads and cowries as currency and gifts. The slave trade developed in the region, which became known as the Slave Coast. Prominent among the European merchandise that was exchanged for gold, ivory, palm oil and slaves were glass beads which were transported by the ships engaged in the triangular trade (Europe-Africa-North America). Venice was the principal supplier. In 1764, it exported 200 kg of beads per day and 100,000 different types were available. There were also beadmakers in the Netherlands, Bohemia and Germany, as well as lesser producers in Spain, France, Belgium and England. Each region of Africa had its particular currency and preference for certain beads. These were quickly integrated into the local cultures.

After slavery was abolished around 1850, there was a renewed interest in Africa as a source of raw materials that could fuel the economic development of Europe. A second wave of exploration began and the winds of imperialism began to blow. In 1885, Togo became a German protectorate and, after 1918, it was partitioned into two territories entrusted to France and England, respectively. In 1956, the British portion was annexed to the Gold Coast which later became Ghana. The other territory became an autonomous republic under the protection of France until 1960, when independence was proclaimed. During the colonial period, glass beads were among the merchandise of the great trading establishments such as the Compagnie Francaise de l'Afrique de l'Ouest. Beads can still be used to purchase African products and pay for services rendered.

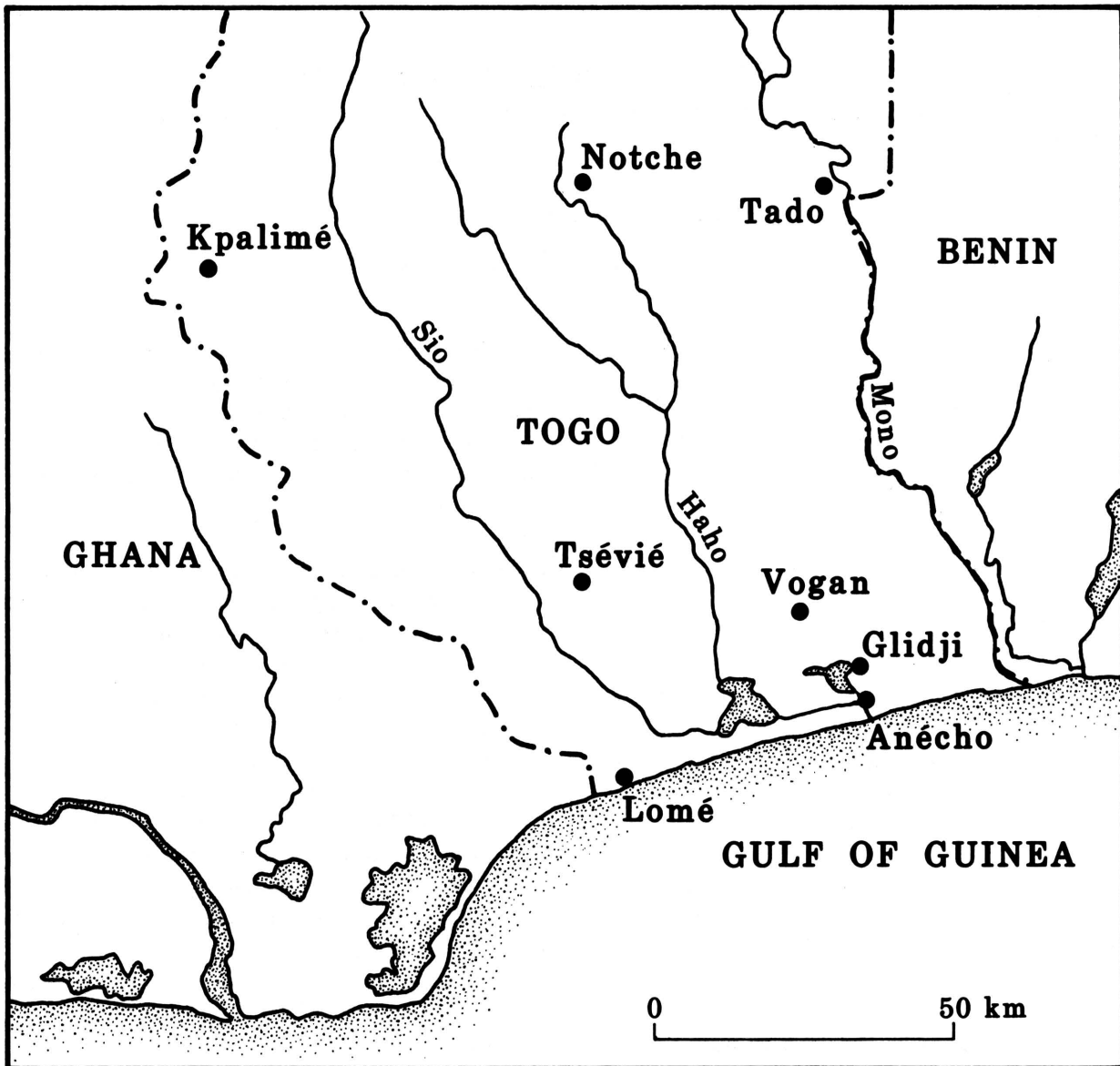


Figure 1. Map of southern Togo showing the study area (drawing by D. Kappler).

Today, the trade in beads has lost much of its importance because beads are no longer used as currency, but they are still valued, nonetheless.

HISTORICAL SKETCH

Southern Togo is a crossroads of various influences. The intermingling of groups of different origins has enabled linguistic, cultural and religious interpenetrations to gradually form a syncretic but relatively homogeneous whole.

The region has been affected by many migrations which began in the 12th century. The first group to arrive came from the east, from the Yoruba kingdom of Oyo (descendent from Ifé). They settled in Tado and formed the Adja Kingdom. Important migrations emanating from Tado began in the 14th century. The first wave settled in Notché, cradle of the Ewe, and a second wave moved southward, forming the Fon of Allada, Abomey, Porto Novo, etc. In the 17th century, the tyranny of a Notche king dispersed the Ewe groups which headed for the plateaus, the coast (Anlo,

Bê) and the southeast (Ouatchi). At about the same time, groups coming from Ghana (Fontis from El Mina and Guen from Accra), in flight because of tribal wars, settled in Glidji. They became the Mina-Guen who mixed with the Ewe. In the 19th century, Yoruba arrived from Nigeria, and Fons, Plas and Pedas came from Benin. Moreover, former slaves, liberated from Brazil, came back to establish the great families of Anecho. This intermingling of peoples has been facilitated by the lagoon system, the rivers and the sea.

THE PRESENT-DAY BEAD TRADE IN TOGO

Nowadays, the trade in beads is handled mainly by three categories of merchants:

1) Specialized Hausa traders who supply themselves in the great manufacturing and transit centers or in the villages where old women sometimes sell them their treasures. Most have stalls in the large market at Lomé (Fig. 2) where there are beads that are very varied, often old, rare and costly, and purchased by foreign collectors and some native dealers.

2) Female bead dealers that furnish vendors specializing in the sale of cult objects or the voodoo worshippers directly. Their stalls are also in the great market at Lomé (Pl. IIIA) and here may be found some old beads of European origin, many Ghanaian powdered-glass beads and some multicolored beads in 500-g bags from Czechoslovakia. Certain dealers have stalls in the city.

3) Small displays (*atekbans*) that group together everything that is used in the voodoo cult, including beads, that belong to women of Yoruba origin (Pl. IIIB). The impressive number of these stalls reveals the importance of this religion. The *atekbans* sell only beads that are used in the cult (about 50 types with their vernacular names) already strung in bracelets or necklaces for a specific use or for a specific god.

THE RELIGIONS OF SOUTHERN TOGO

Voodoo forms a coherent, very structured and very dynamic system, but with many local variations. There are influences from the east (the Orishas cult) and from the west (the five-foot throne of the Ashanti). To these may be added the beliefs akin to

the Adjas of the Tado: the cult of the *Tros*. For these people, the cosmos is a set of forces that can be captured, directed, exploited or neutralized by way of religion.

At the top of the hierarchy is Mawou, a unique, universal god who cannot be surpassed, who can be addressed directly. He is sometimes associated with Lissa, representing the female part of the Mawou-Lissa couple. Subservient to this supreme force is a myriad of gods, the voodoos. Twins and ancestors have a status similar to the voodoos. They are respected and adored. Each child that is born possesses the divine essence (*kla*) of an ancestor (*djoto*) that guides its destiny. Man tends to communicate with this invisible world as he would with his neighbors. This communication is performed through sacrifices, prayers, rites, taboos and charms.

There are symbolic representations of the voodoos and sanctuaries are built for them. Voodoos manifest themselves through possession or by means of occurrences unleashed to warn, provoke or satisfy man. Man is ignorant of the causes of events, but the gods know them and can intervene to unleash or suppress them. However, notwithstanding their power and knowledge, the voodoos look like men and live like them. They are the messengers of Mawou who created them and entrusted them to ably manage the human world and safeguard tradition.

There are many divinities and the pantheon fluctuates considerably in time and space. Some voodoos are interethnic. They consist of natural phenomena or historical/mythical persons. This is the case with the deities Heviesso, Sakpata, Dan, Mami-wata, Aziza, Egou, Legba, etc. Others are only ethnic, domestic or individual as is the case with the 41 voodoos venerated by the Guen. The voodoo is not only the composition of a force, a being or a thing, but is composed of places, times and events that constitute its legend. It covers the universe of these people. No important move, no event can take place without consulting the voodoo which determines the step to take. Religious power is held by the priests: the *hunons* who preside over the ceremonies. There are also the diviners and healers, the *bokono*. They are scholars who can, by consulting the oracles of Afa (the voodoo of human destiny), specify the causes of problems and point to solutions. Finally, there are the followers of the voodoos. Initiation takes place in a



Figure 2. Glass beads offered for sale by a Haussa trader at the great market in Lomé (photo by P. Nourisson).

convent. One may become a follower by loan, purchase, inheritance from a voodoo, or by revelation. In the latter case, Afa reveals to the person that his torment comes from a voodoo and that it will cease only if he submits entirely.

BEAD USE AND SYMBOLISM

There are many and varied uses for beads: secular, magical and religious. Beads are not only ornaments that bear witness to an individual's esthetic taste; they represent a form of communal expression and belong to the cultural realm. Their esthetic value, widely recognized and shared, contributes to making certain bead ornaments admired by all. Bracelets and necklaces are a part of all the important events of life: birth, marriage and death. *Akossou*, *gblenti*, *aglobo* (chevron) and coral beads are the most desired (Pl. IIIC). These are signs of beauty and wealth because they are becoming more and more scarce and expensive; a necklace of chevron beads now costs 100,000 F. CFA at Lomé. They are insignias of social

rank, the attributes of kings and chiefs. Persons out of the ordinary and members of important families display an abundance of necklaces and sometimes own magnificent beaded objects such as bags, scabbards, hats and boxes (Pl. IVA). Also, the ancestral five-foot throne may be decorated with beads whose number varies according to the number of slaves owned by the ancestor. Other ornaments include the strings of beads traditionally worn around the waist by young girls to hold their loin cloths. When shaken, they produce a faint sound said to be very erotic.

Even to this day, beads have retained a fiduciary value. They are part of the treasures that old women bequeath to their daughters and may be fallen back on in case of financial difficulties.

In contrast with other African countries, beads are hardly ever vested with magical or therapeutical powers in Togo. The great number of charms (*ébos*) made to ward off ill fortune and maintain or bring destiny to favorable terms rarely incorporate beads. Only one such charm, against jealousy, was observed. It was a small canvas pouch that contained a seed and a few *panzi* beads.

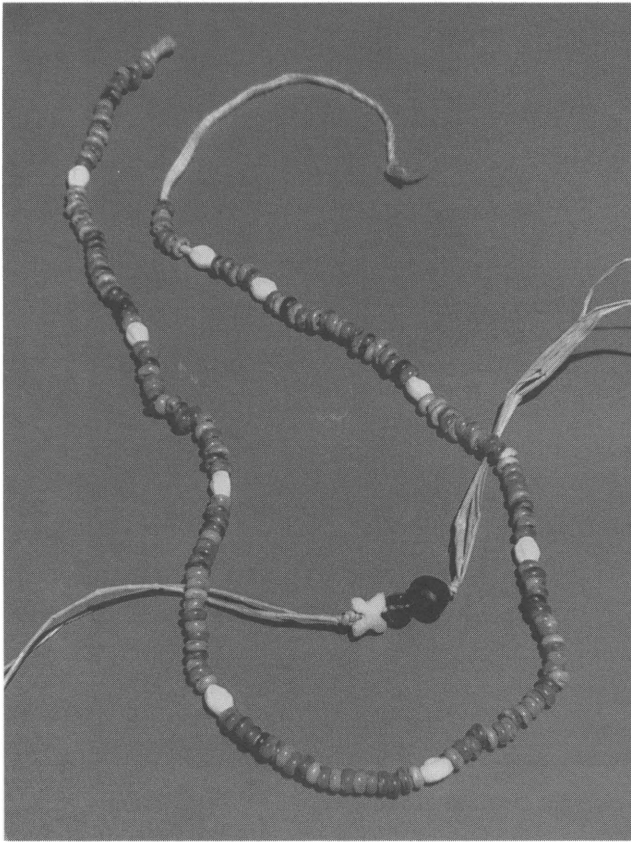


Figure 3. A necklace for twins, and a bracelet for the third child of the same sex born in sequence (photo by Philippe Ayrault).

There are, however, some occasions where particular strands possess a power of their own. There are, on the one hand, bracelets and necklaces worn by twins. Called *vénavi-djonou* (Fig. 3, long strand), they are composed of small shells mixed with white beads and cowries. They are given to the child during a special welcoming ceremony to calm and enable him to make the most of his potentiality. If one of the twins dies, a wooden statuette replaces him to restore the duality broken by death. This statuette plays the role of a living person in every day life; it is made to eat, sleep and so on. It is sometimes decorated with beads symbolizing the cultural and religious affiliation of the deceased twin.

On the other hand, when a couple has three children of the same sex in succession, the last one, reputed to be troubled or sick, must undergo a ceremony to calm or cure him. A small bracelet (Fig. 3) is made which contains three beads strung on raffia:

honkou, *afl* and a red bead (however, there are several variations). The child wears it until the string breaks.

Finally, when there have been many miscarriages or deaths of young children in one family, a belt composed of small multicolored beads is placed around the waist of the child that is born following this series of events to bring him luck and vigor.

However, it is in the purely religious field that beads are used most often. They are used at all levels of religion. They are part of the long list of objects that the novice must buy before going into the convent. Many ritual operations are necessary before the beads may be worn. The most important one is washing them in lustral water where ritual plants have macerated. Voodoo practitioners wear their complete panoply only during great ceremonies (Fig. 4; Pl. IVB). For everyday use, they only wear a bracelet or necklace that evinces their allegiance to a certain god and shows their status in the religious hierarchy. The other beads are kept in a carefully chosen, safe place. In the voodoo cult, each god is represented by an ensemble of beads. An individual bead has no significance. Thus, all the strands worn by a person must be considered, as well as the sequence of beads on each strand.

For example, the god Dan Anydohoédo (rainbow snake) is represented by *gblenti*, *ésoui*, *panzi* and *azagba* beads (Pl. IVC). A legend explains that Dan Anydohoédo lives underground, but sometimes comes out in the middle of the forest and rises in the air to plunge into the water. On the spot where he comes out of the ground, he leaves excrement which is composed of the beads just named. They are often collected by Aziza, a small facetious spirit who buries them for safekeeping. The red bead (*ésoui*) corresponds to the evil and angry side of the divinity; the blue (*gblenti*) represents its calm and benevolent side. The *panzi* and *azagba* beads, predominantly yellowish green, combine with the *ésoui* and *gblenti* beads to symbolize the colors of the rainbow. The followers of Dan also wear double-row strands of cowries around their ankles (Fig. 5).

Mami Wata, a mermaid from the sea, enjoys luxury, perfumes and the color white. In her many necklaces are found *égo*, *ouékou*, *tomé gblenti* and white beads (Fig. 6), to which can be added mosaic beads (Fig. 7).



Figure 4. Ceremony marking an initiate's exit from the convent at Glidji, Togo (photo by P. Nourisson).

For Densou, divinity of fresh water, the strands, which are very varied and colorful, must contain small shells which are also used for the god Tohosou who protects ill-formed children.

The necklace for Heviesso, great god of thunder and lightning, is very typical. It is composed of small red beads (*hounjévé*) and two oval beads of carnelian or red glass separated from each other by a *hounsokoui* or *honkou* bead (Fig. 8, inner strand). Another form is very long and composed of pairs of cowries alternating with *honkou* beads (Fig. 8, outer strand). It is worn across the chest (Fig. 9).

As for Sakpata, god of smallpox, the strands are quite varied. Often encountered are beads whose decoration is reminiscent of the disease's pustules such as *hounsokoui* or *aholoukou*, a small black bead with white dots. These beads are usually interspersed along a three-row band of red *hounjévé* beads (Pl. VA, right). In daily life, the Sakpata worshiper may be recognized by a small modest collar in which a few centimeters of red *hounjévé* beads alternate with several centimeters of white *hounjévé* beads and are separated from each other by a *honkou* bead (Pl. VA,

right center). During grand ceremonies, the worshipers also wear a long strand of cowries and *honkou* which is similar to that of the Heviesso worshipers (Pl. VA, left).

Egou, god of iron and car accidents, requires metal beads, preferably bronze, and beads of orange carnelian (Pl. VB).

The different strands of beads may be placed around the neck, arm, wrist or waist, or worn below the knee or at the ankle. Each is then a bit different and these differences are not random. The sequence of Dan beads is not the same if they are in a bracelet as opposed to a necklace. A voodoo follower may worship many gods which increases the number of her necklaces and makes it difficult to interpret her adornments in as much as she may add some personal touch.

At the end of their initiation ceremony, the diviners wear a necklace. For those of the Afa Nago brotherhood, it consists of a *toutou-akpan* (Pl. VC) formed of small tubular beads alternating green and yellow. For those of the Afa Dziza brotherhood, it is composed of small, white *akpohé* beads. During divination, the *bokono* utilizes small symbolic objects

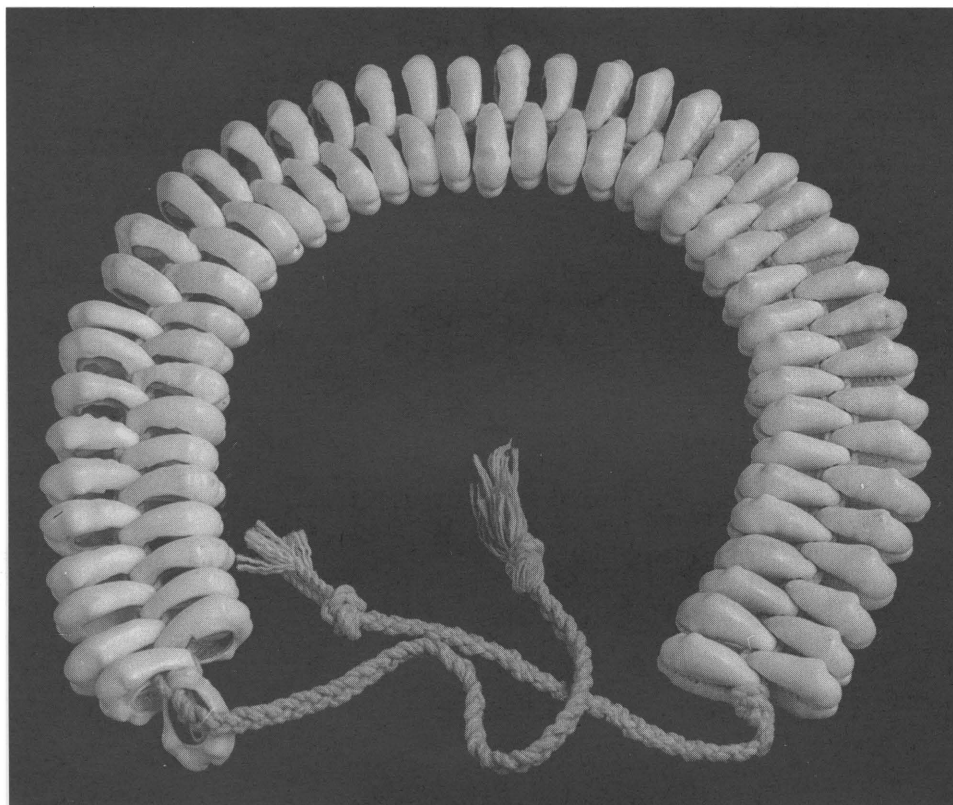


Figure 5. Anklet of cowries for the god Dan Anydohoédo (photo by Philippe Ayrault).

called *vodzis* which Afa uses to give the answers. Beads are often among the objects. A mosaic bead (Fig. 7) symbolizes woman; a bright red bead signifies sorcery, as well as envy and jealousy. Once the problem has been clearly revealed, the solution is given. It entails presenting the gods with offerings which may include beads, but only rarely. Afa may also determine the ancestor who corresponds to the child that has come to consult him. He will sometimes recommend that beads be worn. If the ancestor was a diviner, the child must wear the beads of Afa; if a slave, *azagba* beads.

Beads play an important role in the voodoo cult, even to this day. One need only attend ceremonies where the adepts literally collapse under the weight of their beads. However, old beads of European origin are becoming more scarce and expensive. They are, therefore, being replaced by others made in Ghana from salvaged glass which is crushed, molded and fired. Since the Ghanaians cannot duplicate the technology of the Europeans who made the old beads, the people have readjusted their symbolism to accommodate the new beads which bring change to their adornments and make them tricky to interpret.

CONCLUSION

A thorough study of the beads used by a people allows us to penetrate their culture and understand their system of beliefs. Beads have always been an integral part of the lifeways of the Mina-Guen who inhabit southern Togo. In the past, beads played an important part in the slave trade of this area. Today they serve as ornaments and are signs of wealth, prestige and beauty. However, they are foremost magical and religious objects that are completely integrated in the voodoo rituals of the local population.

REFERENCES

- Agbetiafa, Komlan**
1985 *Les ancêtres et nous. Analyse de la pensée religieuse des Bê de la commune Lomé.* N.E.A., Dakar.
- Augé, Marc**
1988 *Le dieu objet.* Nouvelle Bibliothèque Scientifique Flammarion, Paris.

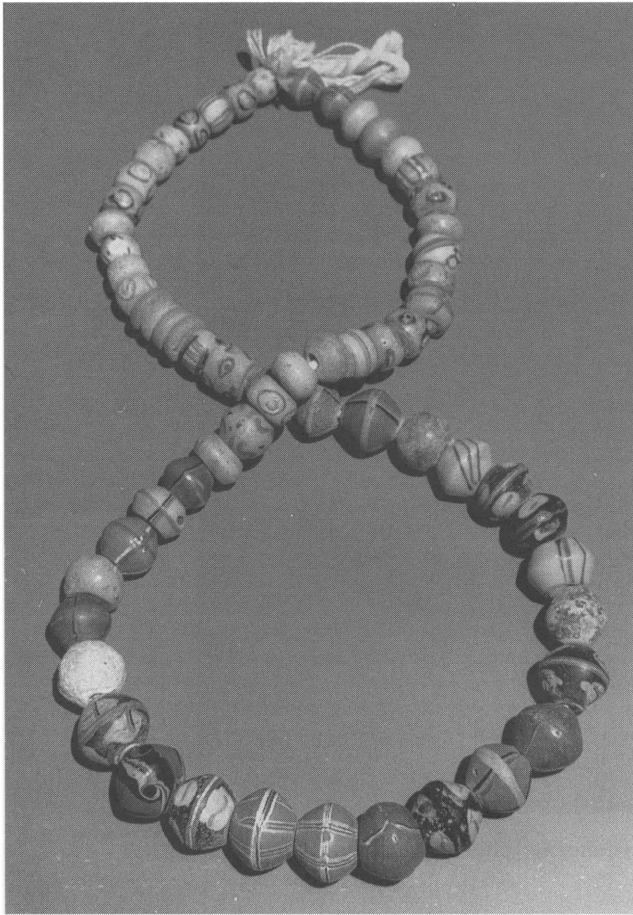


Figure 6. Necklace for the god Mami Wata (photo by Philippe Ayrault).

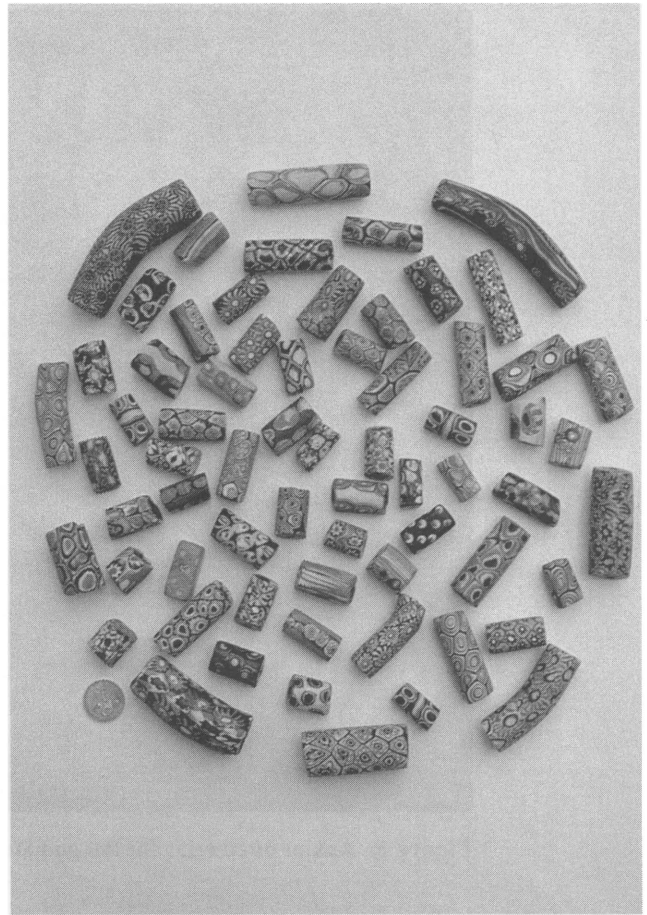


Figure 7. Mosaic beads used in southern Togo (photo by P. Nourisson).

Cornevin, Robert

1962 *Histoire du Togo*. Berger-Levrault, Paris.

Debien, G., M. Delafosse and G. Thilmans

1978 Journal d'un voyage de traite en Guinée, à Cayenne et aux Antilles fait par Jean Barbot en 1678-1679. *Bulletin de l'IFAN*, Tome 40, Série B, No. 2: 236-246.

De la Torre, Ines

1991 *Le Vaudou en Afrique de l'Ouest: Rites et traditions*. Harmattan, Paris.

De Surgy, Albert

1988 *Le système religieux des Evhé*. Harmattan, Paris.

1990 Bo et Vodou protecteurs du Sud-Togo. *Nouvelle Revue d'ethnopsychiatrie* 16:110-113.

Dubin, Lois Sherr

1987 *Histoire des perles*. Nathan images, Paris.

Fourneau, Jean

1954 Les verroteries de l'époque coloniale en Afrique centrale. *Notes Africaines* 64:110-114.

Francis, Peter, Jr.

1988 *The Glass Trade Beads of Europe: Their Manufacture, Their History, and Their Identification*. *World of Beads Monograph Series* 8.

Gert, Ches.

1982 *Vaudou*. Fournier diffusion, Paris.

Gilli, Bruno

1987 *Heviesso et le bon ordre du monde*. Editions Haho, Lomé, Togo.

Harter, Pierre

1981 Les perles de verre au Cameroun. *Arts d'Afrique noire* 40:6-22.

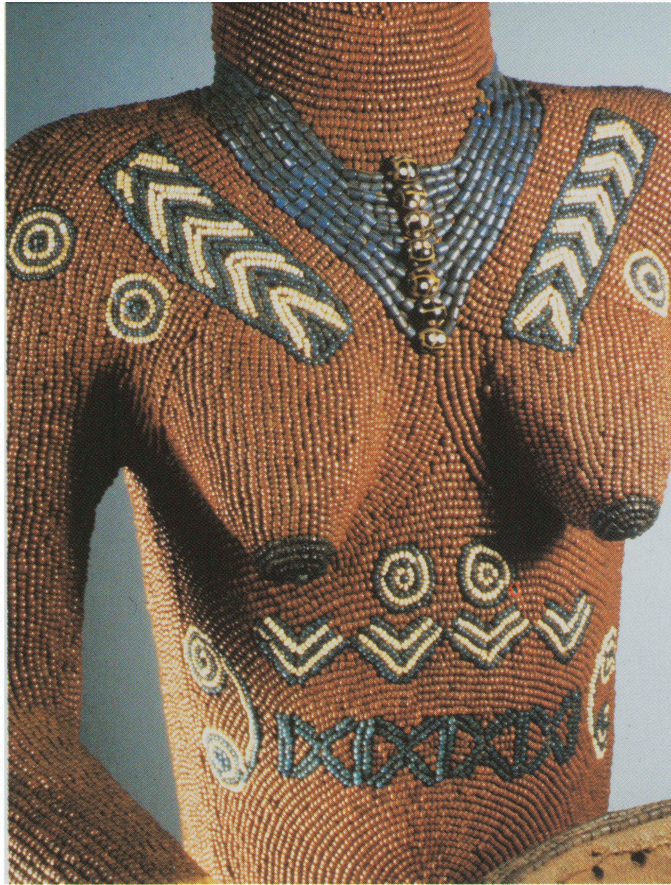


Plate IA. *Cameroon:* Detail of the beadwork on a Bansa bowl stand.

Plate IC. *Cameroon:* *Ngaka* medicinal necklace with chevron and wound beads, and other items.

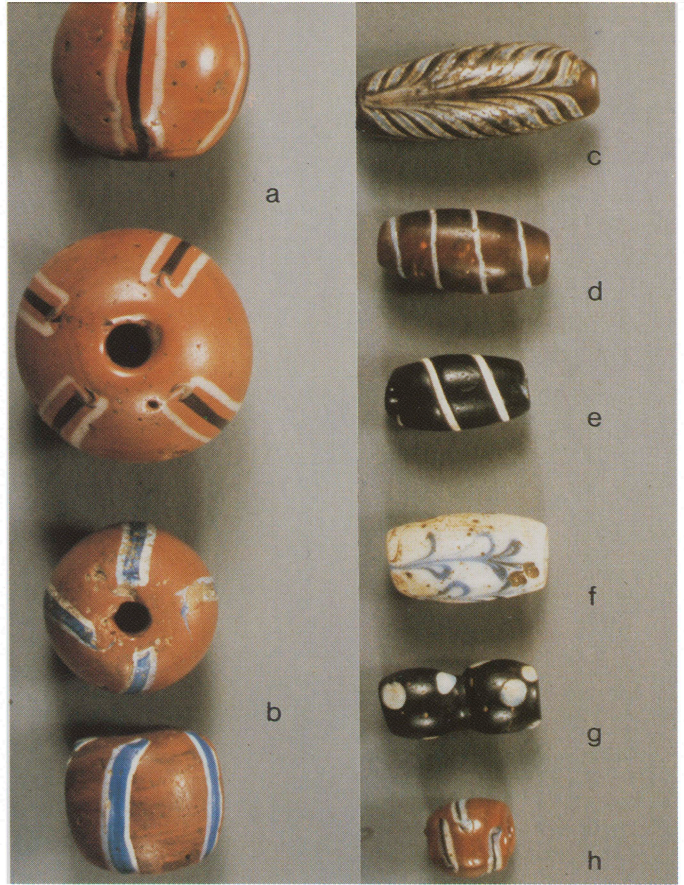


Plate IB. *Cameroon:* Various styles of decorated wound beads.

Plate ID. *Cameroon:* Beaded calabash with double-leopard stopper, 19th century (see page 3).

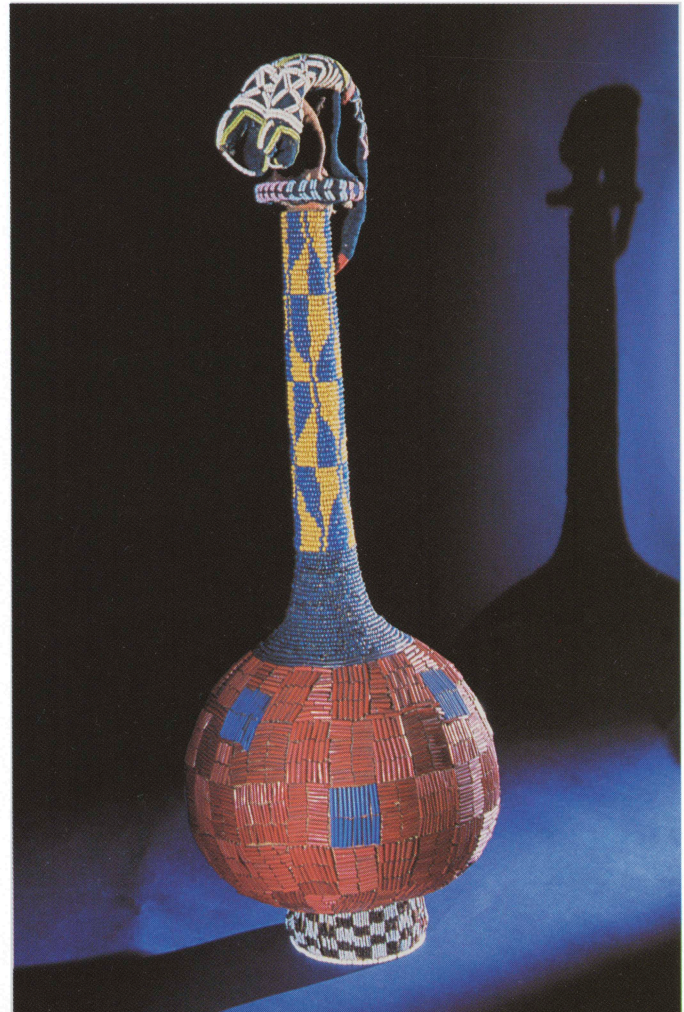




Plate IIA. *Cameroon:* Leopard-crest headdress, 19th century.

(see page 3 for full captions and photo credits)

Plate IIB. *Cameroon:* Elephant mask with leopard crest, 19th century.

Plate IIC. *Cameroon:* Royal stool with leopard caryatid, 19th century.





Plate IIIA. *Togo*: Stall of a bead dealer at the great market in Lomé.



Plate IIIB. *Togo*: Atekan, a display of voodoo objects at the market in Lomé.



Plate IIIC. *Togo*: Beads utilized in the voodoo cult of Togo:

- a, *afl*;
- b, *azagba*;
- c, *gblenti*;
- d, *tomé gblenti*;
- e, *ésoui*;
- f, *agplati*;
- g, *ogba*;
- h, *alen n'kou*;
- i, *hounsokoui*;
- j, *asiakodé*;
- k, *ouékou*;
- l, *aholoukou*;
- m, *honkou*;
- n, *hounjévé*;
- o, *akpohé*;
- p, *akossou*;
- q, *égo*;
- r, *aglobo*;
- s, *végla*;
- t, *abodé*;
- u, *ananou*;
- v, *éfa*;
- w, *panzi*;
- x, unknown;
- y, *kakambé*;
- z, *nouanlivi*



Plate IVA. *Togo:* A beaded box for storing precious objects.

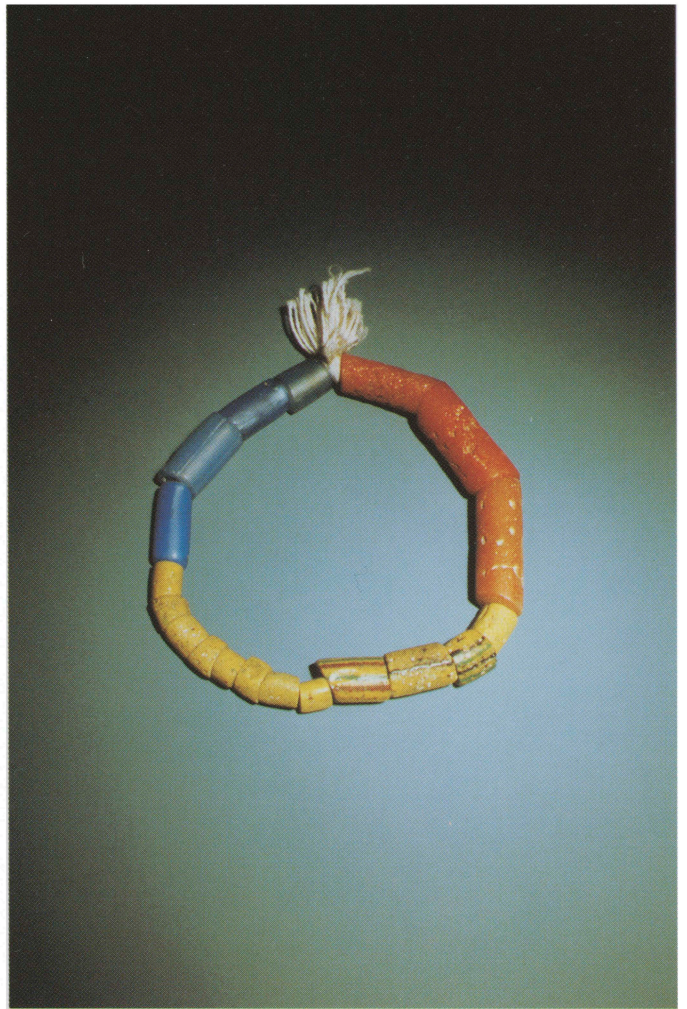


Plate IVC. *Togo:* A bracelet for the god Dan Anydo-hoédo, the rainbow snake.

Plate IVB. *Togo:* A voodoo followers' procession.



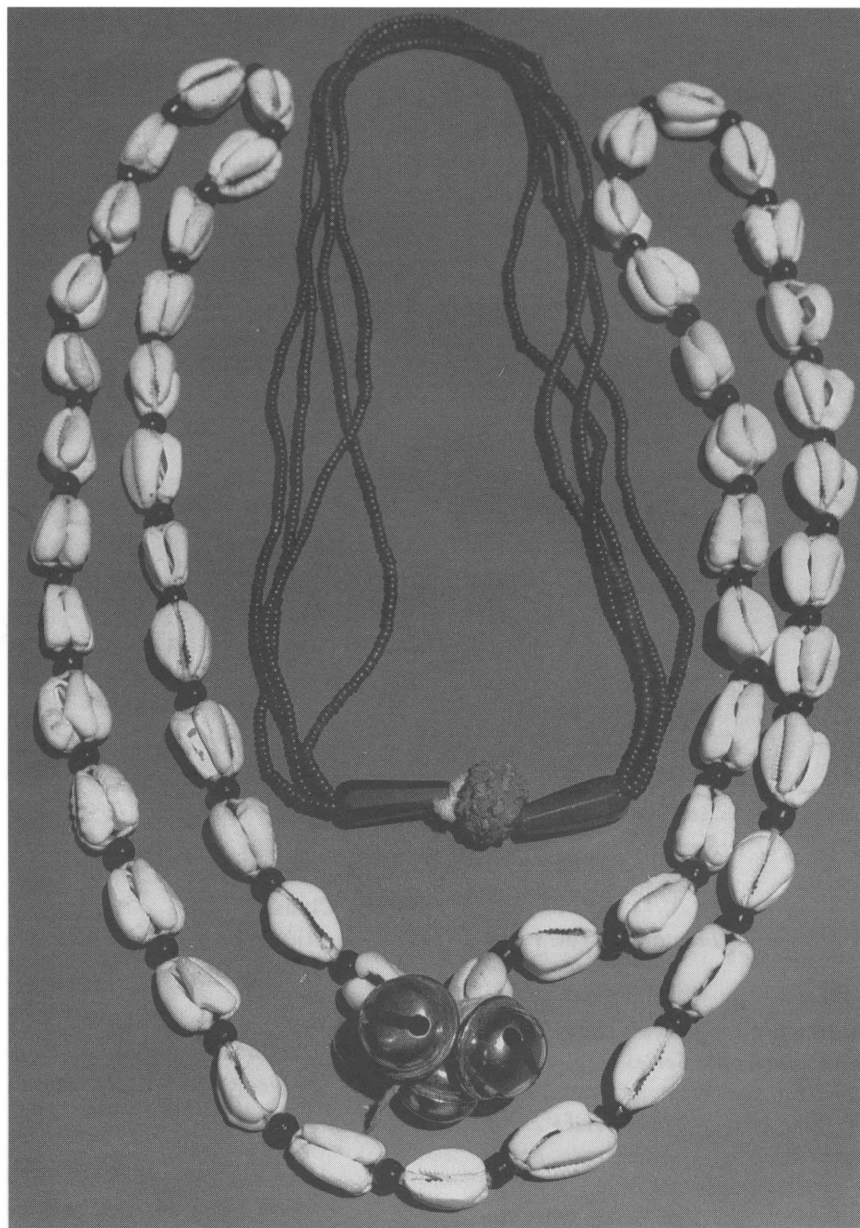


Figure 8. Necklaces for Heviesso, the god of thunder and lightning (photo by Philippe Ayrault).

Holas, B.

1968 *Les dieux d'Afrique noire*. Librairie orientale Genthner SA.

Mauny, Raymond

1967 Le livre de bord du navire Santa Maria Da Comçeira (1522). *Bulletin de l'IFAN*, Tome 29, Série B, Nos. 3-4:512-521.

Merlo, Christian

1977 Ibedji, hohovi, venavi; les statuettes rituelles des jumeaux en civilisation béninoise. *Arts d'Afrique noire* 22:16-31.

Pallau-Marti, Montserrat

1964 *Le roi-dieu au Bénin*. Berger-Levrault, Paris.



Figure 9. Ceremony for the god Heviesso near Lomé (photo by P. Nourisson).

Parrinder, Geoffroy

1950 *La religion en Afrique occidentale.* Payot, Paris.

Picard, John and Ruth Picard

1986a Chevron Beads in the West African Trade. *Beads from the West African Trade Series 1.*

1986b Tubular Beads from the West African Trade. *Beads from the West African Trade Series 2.*

1987 Fancy Beads from the West African Trade. *Beads from the West African Trade Series 3.*

1988 White Hearts, Feather and Eye Beads from the West African Trade. *Beads from the West African Trade Series 4.*

1989 Russian Blues, Faceted and Fancy Beads from the West African Trade. *Beads from the West African Trade Series 5.*

1991 Millefiori Beads from the West Africa Trade. *Beads from the West African Trade Series 6.*

Renauld, F. and S. Daguët

1985 *Les traites négrières en Afrique.* Karthala, Paris.

Rivière, Claude

1981 *Anthropologie religieuse des Evés du Togo.* N.E.A., Dakar.

Verger, Pierre

1982 *Orisha: les dieux Yorouba en Afrique et dans le nouveau monde.* A.M. Métaillé, Paris.

Pascale Nourisson
16, rue Fauvet
75018 Paris
France

Pierre Nadon
Parks Canada
1600 Liverpool Court
Ottawa, Ontario K1A 0H3
Canada

ON THE DATE OF THE COPPER AGE IN THE UNITED STATES

A. Morlot

During the mid-19th century, some scholars believed that the chevron beads found in early Indian graves had been brought to North America by globe-trotting Phoenicians or representatives of some other higher European civilization. A paper on the subject published in 1862 by one of the theory's proponents is reproduced here, along with contemporary descriptions and illustrations of the beads under discussion.

As Morlot's paper is little known and represents an interesting phase in bead research, it is presented here in its entirety, accompanied by relevant excerpts and illustrations from the two Schoolcraft (1819, 1853) reports cited by Morlot (*see* Appendices A and B).

EDITOR'S INTRODUCTION

Bead research was in its infancy in 19th-century America. Very little was known about the chronological position of the glass beads that were occasionally found in early Indian graves, and their origins were often equally problematic. This was especially true of chevron beads whose complex structure and striking end pattern enticed researchers to contemplate exotic origins for them. One such scholar was A. Morlot of Lausanne, Switzerland, who published a classic paper on the subject in 1862. While his ideas now seem far fetched and flighty, they were deemed worthy enough at the time to be presented to the prestigious American Philosophical Society in Philadelphia. Of course, not everyone shared his views. In fact, Henry Schoolcraft (1853: 103-4), who published descriptions and color illustrations of the Canadian beads referred to by Morlot, logically concluded that they dated to the period between the arrival of the French (1608) and the date of the beads' discovery (1837). It is now generally agreed that faceted seven-layered chevrons in northeastern North America are attributable to the period from ca. 1550 to 1680 (Kent 1983; Smith and Graybill 1977: 59). The square-sectioned beads with straight and twisted bodies are similarly dated: ca. 1600-1710 (Kent 1983; Kenyon and Kenyon 1983; Pratt 1961).

THE MORLOT REPORT

The series of the *Smithsonian Contributions to Knowledge* opens with a splendid volume on the "Ancient Monuments of the Mississippi Valley," by Squier and Davis (Washington, 1848). In this work, as glorious a monument of American science, as Bunker's Hill is of American bravery, the authors have revealed the former existence, over a vast extent of the North American continent, of a most singular civilization, characterized chiefly by the use of native copper, derived from the district of Lake Superior, and spread, doubtlessly, by commerce over the whole country. Hence we may call those times the *copper age* of North America. The once prosperous civilization of that age faded away, and left the field to the red man, in the savage state in which he is still known to exist. Messrs Squier and Davis have shown, that the virgin forests, growing on the earthworks of the copper age, must have taken for their full development at least one thousand years, and the Normans who visited America eight centuries ago, evidently only met there with savages.

Some more light seems to be thrown on the date of the copper age, by the fact recorded in Schoolcraft's *Indian Tribes*, Vol. I, page 103. I have gone over the passage carefully, and I think the statement of which I am going to make use, bears inner evidence of being correct. Schoolcraft informs us, that

at Beverly, twelve miles from Dundas, Canada West [to the west of present-day Toronto, Ontario], there were discovered about 1837, extensive ossuaries, which he examined himself, and that among the bones were found amulets of the red pipestone of Coteau des Prairies (Minnesota), copper bracelets like those of the old graves in the West, a *Pyruia spirata* and a *Pyruia perversa*, both from the Gulf of Mexico, four antique pipes used without stems, and corresponding with an antique pipe from an ancient grave at Thunder Bay, Michigan, a worked gorget of sea-shell, with red nacre, and shell-beads of the same kind as those said to have been found in the gigantic mound of Grave Creek, Virginia. All this goes to characterize the ossuaries of Beverly as belonging to the time of the mound-builders, that is, to the copper age. But these ossuaries have also yielded some beads and baldrics of glass and of colored enamel, figured by Schoolcraft on Plate XXIV and XXV. The find is not single of its kind, for according to Schoolcraft, beads agreeing completely with those of Beverly, were found in 1817 in antique Indian graves at Hamburg, Erie County, New York.¹ Schoolcraft distinctly points out the beads of Beverly as being of European origin. This is unquestionable, for we know that the native industry of America had never produced glass or enamel. At Copenhagen, I discovered in the archaeological museum (Altnordisk Museum, Director, Mr. Thomsen), a bead (Fig. 1 [Pl. VD]), identical both in color and in its intricate composition with Figs. 11, 12, and 13 [Pl. VD, Fig. 3] of Plate XXIV, of Schoolcraft, only a little larger, since it measures one and a half inch (English) in length. It bears the number 12,390, and is put down in the catalogue as having been found near Stockholm, in Sweden, and as bought at an auction. A fragment of a second bead (Fig. 2 [Pl. VD]) of the same workmanship, but still larger, exists in the museum at Copenhagen. It bears the number 5211, and is noted as coming from a grave-mound near Skoerpinge, in the Danish province of Jutland, and as having been bought at the sale by auction of Bishop Mynter's collection in 1839. Unfortunately these indications furnish no chronological date.

I bought at Hanover a baldric (Fig. 4 [Pl. VD]), formed of a tube one and a half inch long, of colorless glass, with alternate longitudinal streaks of white and red enamel, quite of the same type as Figs. 13, 14 [Pl.

VD, Fig. 5], 15, 20, and 21 on Plate XXV of Schoolcraft. My specimen has had a beginning of melting, and must be of the time when the dead were burnt. But in parts of Northern Germany that custom prevailed, along with paganism, until after the tenth century, so this does not teach us much as to the age of these baldrics.

The beads mentioned at Copenhagen and the baldric of Hanover are so rare, that I have not noticed any others of the sort in the large museums of Lund, in Sweden, Copenhagen and Flensburg, in Denmark, Schwerin, Hanover, and Mainz, in Germany. They are not Post-Roman. The beads of those times are very different, and of coarser manufacture, nor can I consider them as Roman. In the Museum at Copenhagen, there is one of these glass balls, of very elaborate workmanship, 1-3/4 inch in diameter, called *Millefiori* (in Italy also *Fiori di S. Tennara* and *Vasia Fiori*), with a sort of mosaic or tessellated work, of differently colored enamel inside.² The specimen is put down simply as having been found in Denmark, and I was told that another of the same sort had been found in the south of Sweden. The Danish specimen shows, among the variously colored designs of the mosaic in its inside, one bit exactly of the same type, consequently of the same date, as the two beads mentioned in the same museum. These balls, according to Minutoli's excellent paper on the stained glass of the Ancients (Berlin, 1836), are not of Roman origin, and are found in old Etruscan graves; also in Egypt, where they may have been manufactured at Alexandria, before the Christian era, perhaps as far back as the golden times of the Phoenicians, who were celebrated for their glassware, as well as for their commerce, and for their extensive navigation. That they sailed on the Atlantic is known, and it is probable that this was the route by which their glass reached the Baltic countries, since it appears to be missing in a general manner in Southern Germany and in Switzerland. We know besides, that the Phoenicians carried on a regular trade with Gades (Cadiz), where they met with the traders from the North.

It follows, that those glass beads and baldrics from the ossuaries at Beverly are anterior to the Christian era, and that America appears to have been visited already at that remote period by Europeans, most likely by those skilful navigators, the Phoenicians.

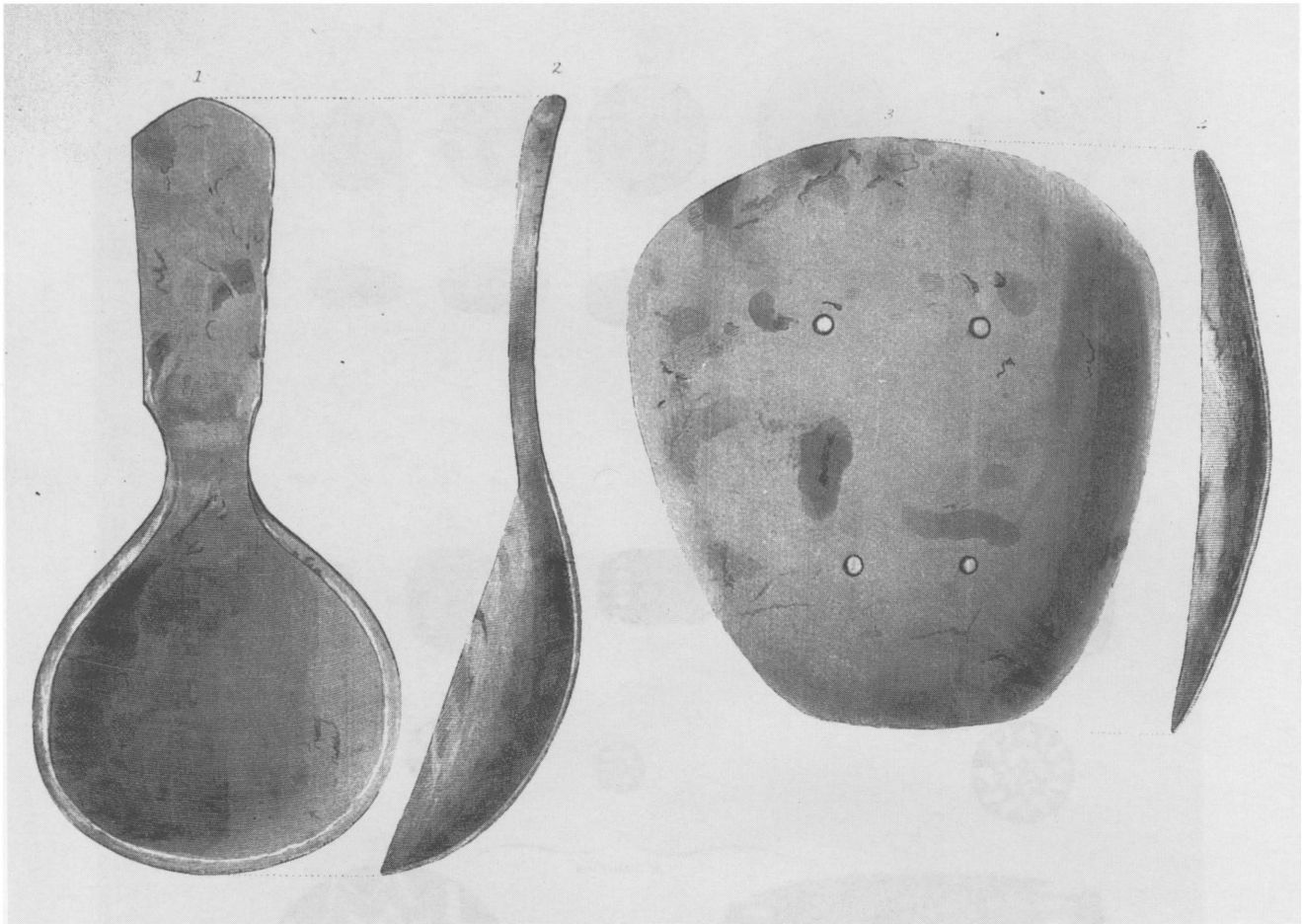


Figure 1. Schoolcraft Plate 19. "Indian spoon and gorget" from the Beverly ossuaries, southwestern Ontario: 1-2, spoon of "mineralized wood;" and 3-4, shell gorget 7.6 cm in width.

The discovery of America by the Phoenicians has been strongly suspected by many, and it would account in a very natural manner for the tradition of the Atlantis. The fact in itself is far from appearing improbable, when we reflect that long before the Christian era, the Alexandrian astronomers knew the earth to be round, and that one of them, Eratosthenes (third century before Christ), calculated the circumference of the earth with a surprising degree of accuracy. The celebrated French antiquarian, Letronne, examining this question with his usual penetration, even comes to the conclusion, that Eratosthenes only applied to his own imperfect data the measurement of a degree of the meridian, carried out long before his time.³ There are also other circumstances, indicating a remarkable degree of civilization and of scientific pursuit in those remote times of the Phoenician prosperity.

The find at Beverly goes to show, that a given moment of the American copper age coincided with a given moment of that European civilization, to which the enamelled beads mentioned belong, and which can hardly reach lower down than the Christian era, while it appears to go as far back as five, or even ten centuries earlier. Of course it is not to be understood, that the American copper age was wholly parallel with the Phoenician period. It may have begun sooner, and may have lasted later.

We have thus obtained by indirect means, a chronological determination for the North American copper age. It is far from precise, but further discoveries will correct and improve it. May the interesting subject be taken up with that spirit of true scientific research, so justly to be admired in Squier and Davis's invaluable volume!

Lausanne, Switzerland, 26th June, 1862

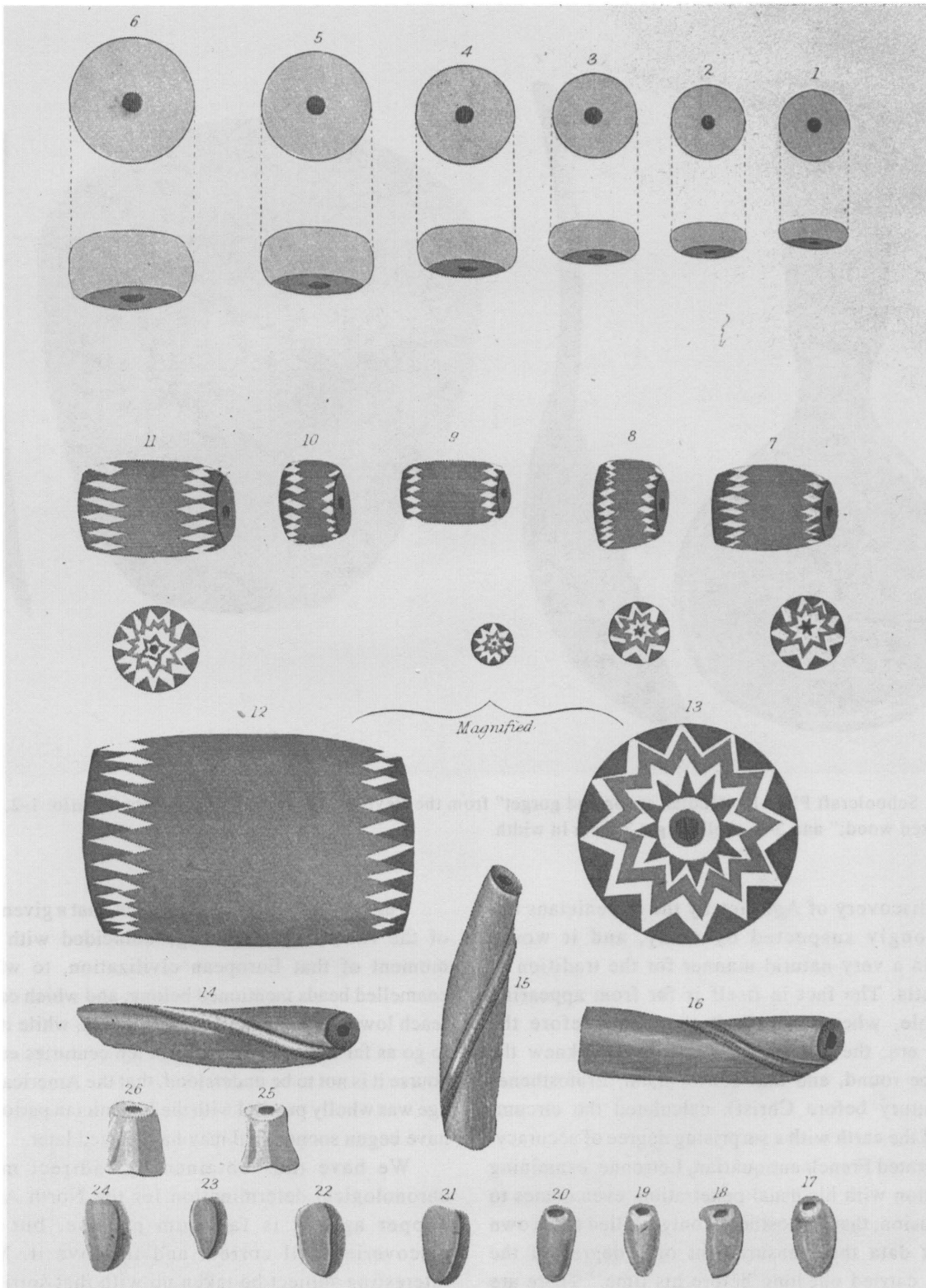


Figure 2. Schoolcraft Plate 24. Glass, shell and tooth beads from the ossuaries at Beverly: 1-6, shell beads from an unrelated site; 7-13, chevron beads; 14-16, columella beads; 17-24, eight different sizes of shell beads; and 25-26, human teeth used as ornaments. No. 11 is 2.2 cm long.

MORLOT'S ENDNOTES

1. Second Part of Lead Mines of Missouri, New York, 1819.
2. Mentioned at page 57 in my paper translated by P. Harry in the Smithsonian Report, 1861.
3. Pytheas und die Geographie seiner Zeit, von T. Lelewel. Hoffman, Leipzig, 1838. A capital little book, containing also Letronne's paper.

APPENDIX A: BEADS AND OTHER ARTIFACTS FROM THE BEVERLY OSSUARIES, CANADA WEST, BY H. SCHOOLCRAFT (1853)

[In 1843,]... I visited a very celebrated discovery of Indian ossuaries at Beverly, twelve miles from Dundas, in Canada West. This discovery had been made about 1837, and had produced much speculation in the local papers, and many visits from antiquaries and curiosity hunters. The site is an elevated beech-tree ridge, running from north to south. The trees appear to be of the usual age and mature growth, but standing at considerable distances apart. The ossuaries are formed invariably across this ridge, and consequently extend from east to west. I examined a deposit which measured eight feet by forty, and six feet deep. It was an entire mass of human crania, leg, thigh bones, &c., in the utmost confusion. All ages and sexes appeared to have been interred together. It appeared to have been laid bare, and dug over for the purpose of obtaining the pipes, shells, and other relics with which it abounded. Ten or eleven deposits of various sizes existed on the same ridge of land, but preserving the same direction. These were not, however, all equally disturbed by the spirit of finding relics, but this spirit had been carried to a very blamable extent, without eliciting, so far as I learned, any accurate or scientific description of these interments.

Among the articles obtained in the before-mentioned excavations, I insert drawings, (Plate 35, Figures 1 and 2,) of the full size of two species of sea-shells, the *P. spirata* and *P. perversa*; four species of antique clay-pipes, (Figures 5 and 6, Plate 8, and Figures 1 and 3, Plate 9); a worked gorget (Figure 3, Plate 19) of sea-shell, of which the original nacre of red is not entirely gone; five specimens of

curious opaque-colored enamel beads, (Figures 7, 8, 9, 10, and 11, Plate 24); three baldrics of bone [ed.: actually the columella or spire of a marine whelk], (Figures 14, 15, and 16, Plate 24); four of opaque glass twisted, (Figures 12, 13, 14, and 20, Plate 25); eight different sized shell beads, (Figures 17, 18, 19, 20, 21, 22, 23, and 24, Plate 24) and eight amulets of red pipe-stone, (Figures 1, 2, 3, 4, 5, 6, 9, and 11, Plate 25); three of shell or bone, (Figures 7, 23, and 25, Plate 25); three of bears' teeth, (Figures 26, 27, and 28, Plate 25.)

Figures 8, 10, 15, 16, 17, 18, 19, 21, 22, and 24, Plate 25, are minor specimens of glass or enamel.

Figures 25 and 26, Plate 24, are human teeth, used as ornaments.

There is abundant evidence that the practice of forming public ossuaries had been continued after the arrival of the French in 1608. The shells are such as must have been derived from traffic with the southern or western Indians. The pipes are of an antique and peculiar pattern, and were employed without stems: in this respect they correspond with the antique pipe from an ancient grave at Thunder Bay, Michigan, and also, it is thought, with certain pipes mentioned by Professor Dewy as found at Fort Hill, Genesee Co., N.Y.¹ The shell beads are of the same kind, precisely, as those which were discovered in the Grave Creek Mound, Virginia, as described in the first volume of the Transactions of the American Ethnological Society.² By the decay of the surface of the shell, which constituted their inner substance, they appear to be of the same age.

The amulets of red pipe-stone consist of bored square tubes, of the peculiar sedimentary rock existing at the Coteau des Prairie, in the territory of Minnesota; and are identical, in material, with the cuneiform pieces of this mineral, which were dug at the foot of the flag-staff of old Fort Oswego, N.Y.³

The colored enamel beads are a curious article. No manufacture of this kind is now known. They are believed to be of European origin, and agree completely with the beads found in 1817, in antique Indian graves, at Hamburg, Erie Co., N.Y.⁴

The ancient Indians, before the introduction of European manufactures, formed baldrics for the body from the hollow bones of the swan and other large birds, or deers' bones, in links of two or three inches long. These were strung on a belt or string of sinews

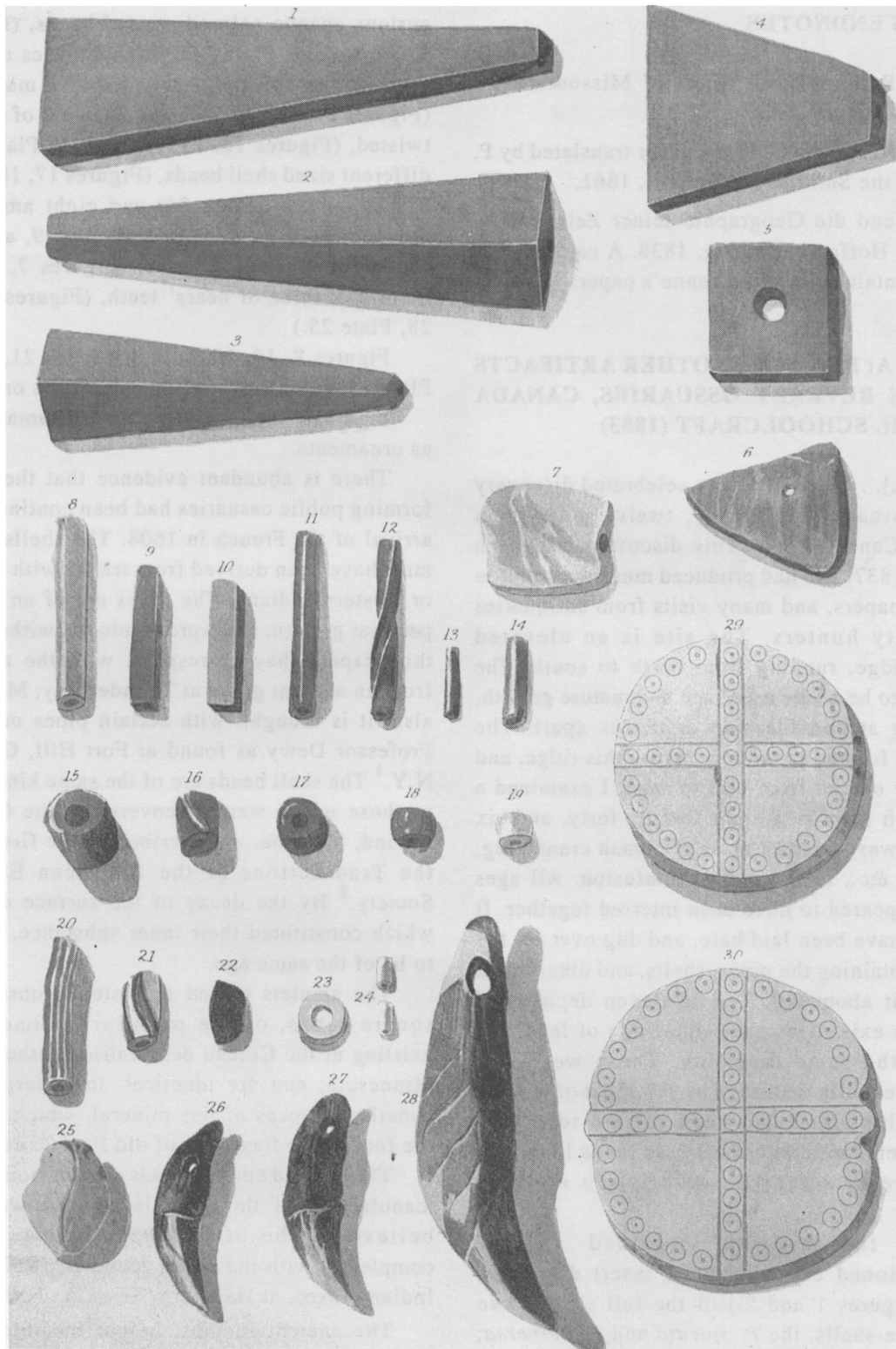


Figure 3. Schoolcraft Plate 25. "Amulets and beads" from Beverly: 1-6, 9, 11, catlinite beads; 7, 23, 25, shell beads; 8, 10, 12-22, 24, glass beads (8, 10, 13-15, light blue; 12, 18, Indian red; 16, dark blue with three spiral white-on-red stripes; 17, 22, dark blue; 19, grayish white; 20, light blue with fine white stripes; 21, white with three spiral white-on-red stripes; 24, white); 26-28, perforated bear teeth; and 29-30, shell runtees from another site. No. 8 is 3 cm long.

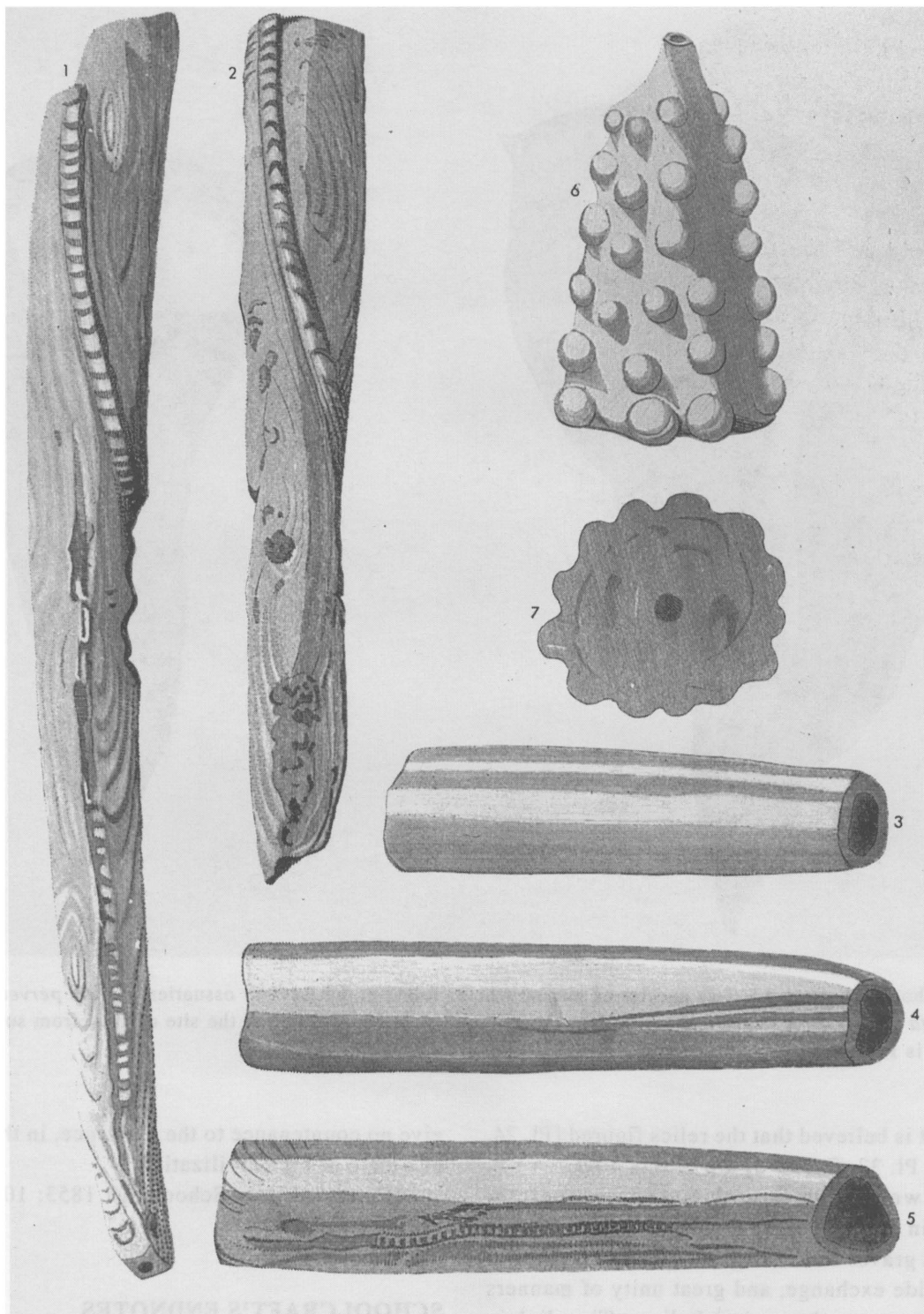


Figure 4. Schoolcraft Plate 33. Shell and bone artifacts from the Beverly ossuaries: 1-2, identified by Schoolcraft as possible walking-cane remnants, these are most likely the collumelae of marine whelks; 3-5, large bird-bone beads; and 6-7, pottery object from another site. No. 5 is 11 cm long.

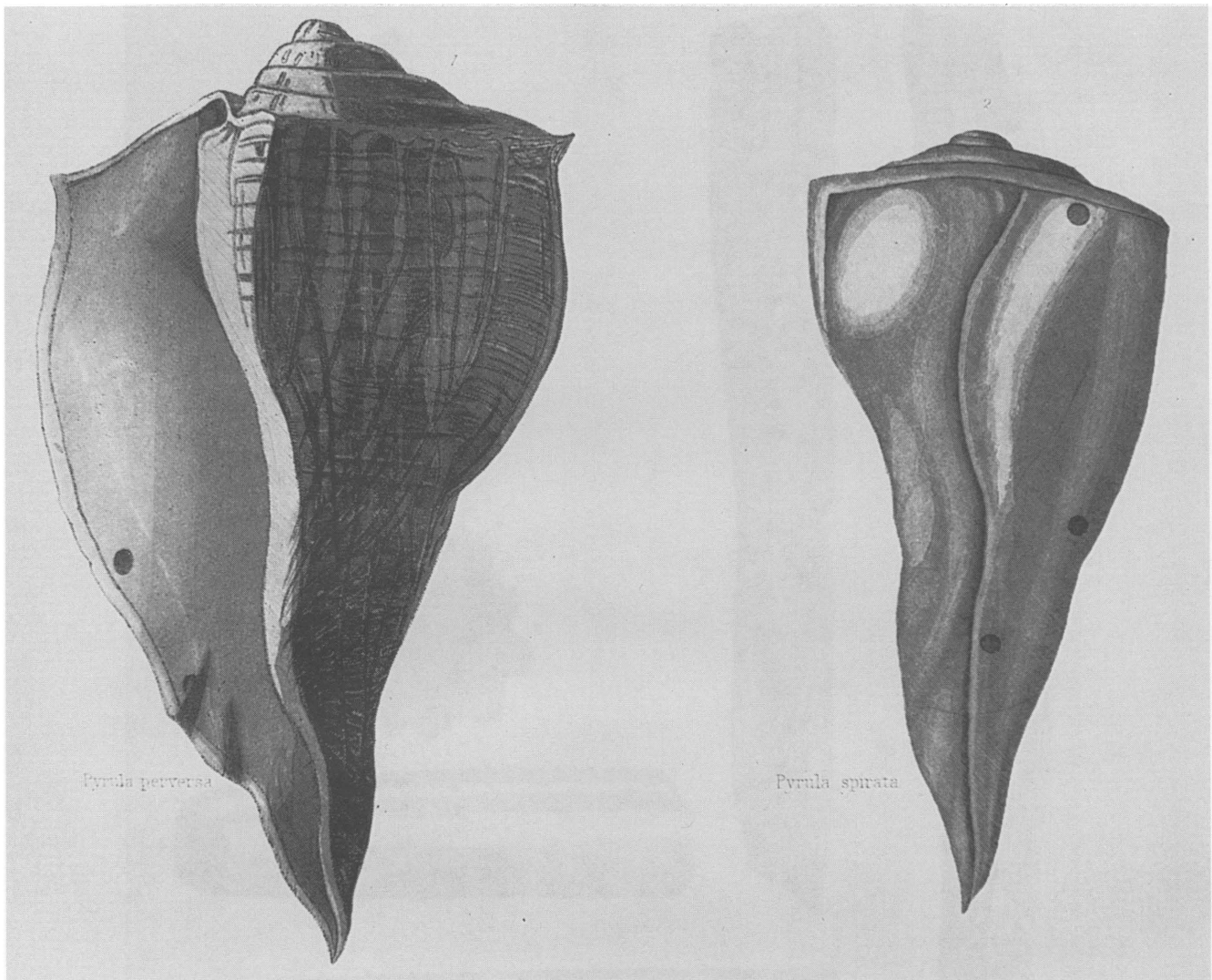


Figure 5. Shoolcraft Plate 35. Two species of marine whelks found at the Beverly ossuaries: *Pyruha perversa* (left) and *Pyruha spirata* (right). It is likely that the collumelae and collumela beads found at the site derived from such or similar shells. No. 1 is 15 cm long.

or leather. It is believed that the relics figured [Pl. 24, figs. 14-16; Pl. 33, figs. 3-5] are of this kind.

There were also found copper bracelets, analogous, in every respect, to those disclosed by the mounds and graves of the West. These relics denote a period of wide exchange, and great unity of manners and customs, among the ancient Indians. They link in unison the tribes of Canada, Western New York, the Mississippi Valley, and the Great Lakes. They indicate no art or degree of civilization superior to that possessed by the present race of Indians. They

give no countenance to the existence, in these regions of a state of high civilization.

[Extracted from Schoolcraft 1853: 103-5; Pl. 19, 24, 25, 33 and 35.]

SCHOOLCRAFT'S ENDNOTES

1. Notes on the Iroquois, p. 205, 2d Edition. E. Pease & Co., Albany, 1847.
2. New York, Bartlett & Welford, 1835.

3. Notes on the Iroquois, p. 237, 2d Edition. E. Pease & Co., Albany, 1847.
4. Second Part of Lead Mines of Missouri. N.Y. 1819

APPENDIX B: ANTIQUE GLASSES, DISCOVERED IN HAMBURGH, NIAGARA COUNTY, NEW-YORK, BY H. SCHOOLCRAFT (1819)

“An opinion is entertained by many well informed persons in the United States, that the country has, at some remote period, been inhabited by a civilized people, prior to its settlement or subjugation by the savages: and to the many evidences furnished to strengthen the opinion by the remains of fortifications, tumuli, &c. may be added the discovery of a number of pieces of glass, of singular workmanship, lately made in Hamburgh, Niagara County.

“I have been favoured with an opportunity to examine one of these glasses, and on the authority of my informant am enabled to remark, that they were taken up about two months ago from an ancient barrow in the town of Hamburgh, where they were found deposited in an earthen pot. Contiguous to this pot were also found a skull, and some other bones of the human frame, of an unusual size. This mound, or supposed repository of the dead, is situated in an uncultivated part of the town, and several trees were growing upon it at the time the excavation was made; some of which were judged to be upwards of two feet in diameter.

“The glass which I had an opportunity to examine, (and I am informed they are all alike,) is in the form of a large barrel-shaped bead; consisting of a tube of transparent green glass, covered with an opaque coarse red enamel. Its length 9 tenths of an inch; its greatest width 6 1-2 tenths of an inch; and the bore of the tube 2 tenths of an inch. Near the circle of the bore of this tube is an aperture of the size of a large needle, perforating the tube from one end to the other. The enamel which covers the tube of transparent glass, appears to have been ornamented with painting, in figures resembling a spindle, or two inverted sections of a circle; but they are now hardly perceptible, as the bead appears to have been considerably worn.

“But the circumstance most indicative of art in the making of this bead, is a species of enamelling which has been performed both on the external and internal surfaces of the tube, previous to its being covered by the coarse red enamel. This second enamel is white, and as the external surface of the tube was not smooth, but in parallel *strie* or veins, exhibits the appearance of a white vine between the green tube and the red enamel. This enamelling appears to me to have been done, not by melting on any vitreous composition, as is practised at the present day, but by the effect of calcination for some time in a low red heat. This, it is known, will deprive glass, especially *green* glass, of its transparency; and render the surface white to a certain depth.

“The composition of the tube of glass, I have judged to be simply a silicious sand and an alkali; probably with a small addition of lime or vegetable ashes. It is hard, and will not receive scratches like the lead glasses, and I conclude from this circumstance that there is no lead in the composition. Its colour seems also owing to the impurity of the materials employed, like the common window and bottle glass; and is probably caused by a minute portion of iron in the state of an *oxyd*, combined with the sand and alkali.

“The red enamel covering the tube, and the pot in which these glasses were found, seem to have been constructed of similar materials, as they differ very little in colour, texture, or other external character. Probably a very fusible brick clay, highly impregnated with the oxyd of iron, and pulverized fragments of green glass, are the principal ingredients of both. The earthen pot is manifestly constructed of different materials from those employed for brown pottery at the present period. It is a more imperishable substance, of a close texture, and vitreous appearance.

“I shall not presume to speculate in opinions which discoveries of this interesting nature are calculated to create; it may, however, here be added, that the fabrication of these glasses would suppose a perfection in the arts which none of the Indian tribes inhabiting this country at the period of its discovery, had arrived to. That if introduced by the French from Canada, in their earliest communications with the Indians inhabiting the western parts of this State, a sufficient time would hardly have elapsed for the growth of trees of such size as were found upon the

mound from which these relics were taken. And that if not introduced by the French at the period alluded to, we must refer their manufacture back to a very remote date, and one on which Indian tradition is wholly silent."

The above was originally printed in the *Utica Patriot* (Sept. 1817,) under a fictitious signature. Since visiting the western country, I have had occasion to notice a similar discovery on Big River, in the Territory of Missouri. On opening an Indian grave (or what is considered such) on the banks of this river, several beads of glass, of a similar nature, were found. They were accompanied by many bones of the human frame, of a most extraordinary size, and which indicated a stature eight feet in height. The person appeared to have been deformed, either by birth or through accident; the right jaw bone running in a straight line from the mouth back, while the left preserved the usual curve.

This excavation was made near the banks of the river, where the soil is a rich alluvion, and covered by a heavy growth of forest trees, such as are peculiar to the richest Ohio and Mississippi bottom lands.

[Extracted from Schoolcraft 1819: 280-3.]

REFERENCES CITED

Kent, Barry C.

- 1983 The Susquehanna Bead Sequence. In "Proceedings of the 1982 Glass Trade Bead Conference,"

edited by Charles F. Hayes III. *Rochester Museum and Science Center, Research Records* 16:75-81.

Kenyon, Ian T. and Thomas Kenyon

- 1983 Comments on 17th Century Glass Trade Beads from Ontario. In "Proceedings of the 1982 Glass Trade Bead Conference," edited by Charles F. Hayes III. *Rochester Museum and Science Center, Research Records* 16:59-74.

Morlot, A.

- 1862 On the Date of the Copper Age in the United States. *Proceedings of the American Philosophical Society* 9(Article 68):111-114.

Pratt, Peter P.

- 1961 *Oneida Iroquois Glass Trade Bead Sequence, 1585-1745*. Fort Stanwix Museum, Rome, New York.

Schoolcraft, Henry R.

- 1819 *A View of the Lead Mines of Missouri*. Charles Wiley and Co., New York. Reprinted in 1972 by Arno Press, New York.
- 1853 *Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States*. Part I. Lippincott, Grambo and Co., Philadelphia.

Smith, Ira F., III and Jeffrey R. Graybill

- 1977 A Report on the Shenks Ferry and Susquehanna Components at the Funk Site, Lancaster County, Pennsylvania. *Man in the Northeast* 13:45-65.

IDENTIFYING BEADS USED IN THE 19TH-CENTURY CENTRAL EAST AFRICA TRADE

Karlis Karklins

A wide variety of glass beads poured into Central East Africa during the second half of the 19th century as explorers, missionaries and others made their way into the uncharted interior. Each kind had a name and value that, much to the chagrin of the travelers and present-day researchers, varied from one region to another. This article synthesizes what historical documentation reveals about some of the more significant beads in the trade with an eye to identifying the actual beads that are represented.

INTRODUCTION

Europeans intent on exploring Central East Africa (Fig. 1) during the second half of the 19th century quickly came to realize that beads would be an indispensable part of the goods they carried inland. Second only to cloth in importance, beads were the “small change” used to purchase provisions along the way. Unfortunately, the variety available was bewildering to the neophyte explorer; Richard F. Burton (1860: 390) noted that “there are about 400 current varieties, of which each has its peculiar name, value, and place of preference.” Just over a decade later, Henry M. Stanley (1913: 24-5) confessed:

My anxiety on this point was most excruciating. Over and over I studied the hard names and measures, conned again and again the polysyllables, hoping to be able to arrive some time at an intelligible definition of the terms. I revolved in my mind the words Mukunguru, Ghulabio, Sungomazzi, Kadunduguru, Mutunda, Sami-sami, Bubu, Merikani, Hafde, Lunghio-Rega, and Lakhio, until I was fairly beside myself.

One can appreciate his consternation when faced with the above terms, especially in light of Burton's (1860: 390) warning that the bead merchants would “seize the opportunity of palming off the waste and refuse of their warehouses,” causing all manner of grief once the expedition was far inland. Fortunately for us, Richard F. Burton, Henry M. Stanley, Horace Waller, C.W. Hobley and J.R. Harding have recorded the local names, descriptions and values of the more important beads available in Central East Africa during the second half of the 19th century. In addition, the History Section of the Royal Museum of Central Africa (RMCA) in Tervuren, Belgium, possesses two wooden trays of beads (cat. nos. 54.72.134 [Pl. VIB; Appendix A] and 135) that form part of the H.M. Stanley collection. Several of the varieties have accompanying paper tags that provide their native names and values. It is not known who provided the identifications or when, and at least one tag was obviously in the wrong compartment, but the identifications generally seem plausible and are set forth here for verification or refutation by other researchers.

BEADS SIGNIFICANT IN THE EAST AFRICA TRADE

Called *kharaz* by the Arabs and *ushanga* by the Swahili, beads were sold in Zanzibar by various weight standards (Burton 1860: 390-1). However, the standard used by our sources to value the different varieties is the *frasilah* (pl. *farasilah*) which was equivalent to about 36 lbs.

Once purchased, the beads (which were bought loose) had to be formed into strands of specific

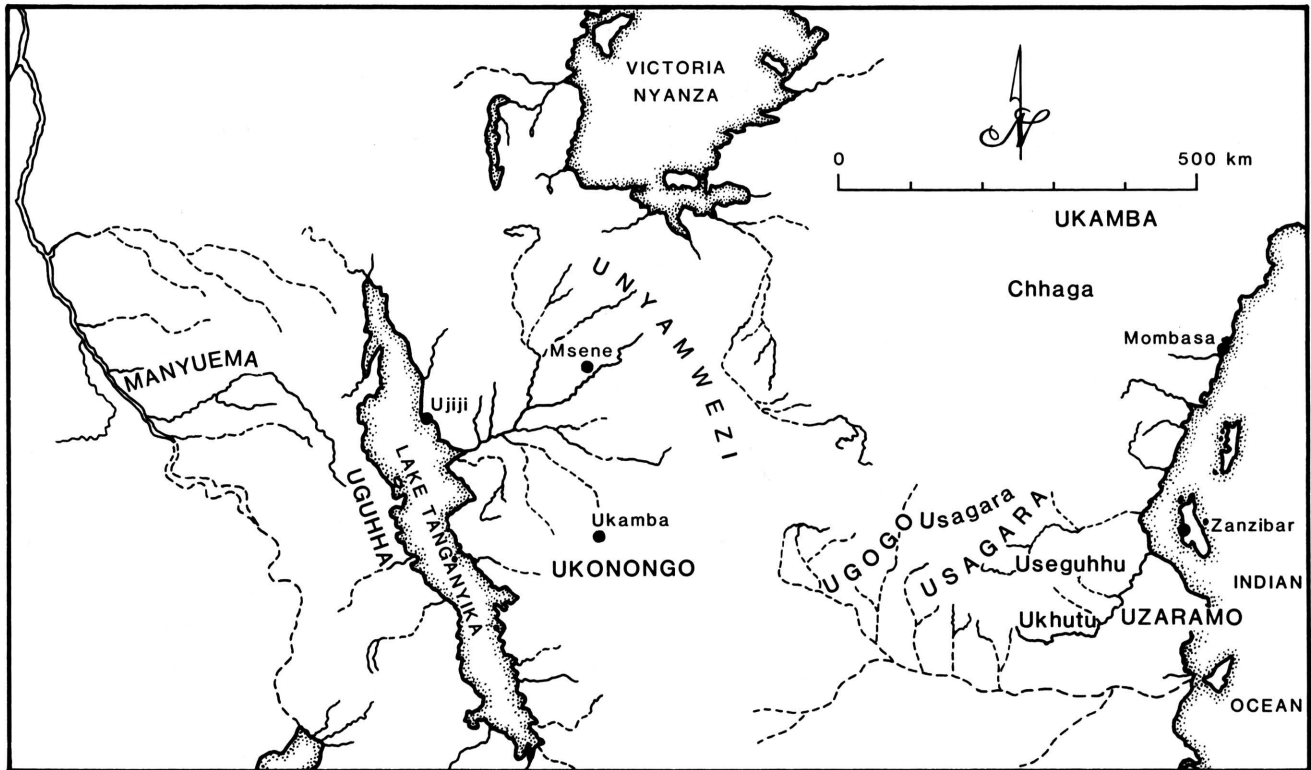


Figure 1. Map of Central East Africa ca. 1872 showing places mentioned by Burton, Stanley and Hopley. Capitalized names designate what Stanley generally terms “countries,” while names in upper and lower case letters are smaller “territories” (after Stanley [1913: end map]; drawing by D. Kappler).

lengths for use inland. The strands were “generally made of palm-fibre, and much depends for successful selling, especially in the larger kinds of beads, upon the regularity and attractiveness of the line” (Burton 1860: 391).

The beads discussed below include those that Richard F. Burton took with him on the East African Expedition of 1857-59, and that Henry M. Stanley utilized during his search for Livingstone (1871-72) and on subsequent journeys in 1874-78. Information regarding “the more valuable beads” also comes from Livingstone’s faithful servants, Susi and Chuma, who visited London shortly after their master’s death in 1873 (Waller 1875: 150-1). C.W. Hopley’s (1970: 245-9) observations on primitive currencies in East Africa during the late 19th century and J.R. Harding’s (1962) notes on beads employed in German East Africa in the 1890s provide additional details.

Beads Utilized By Burton And Stanley

Although several hundred bead varieties were available to them in Zanzibar, Burton found only 18 to be worth mentioning, while Stanley carried just 11 varieties during his early travels. The varieties are listed in alphabetical order for ease of reference.

Asmani. Burton (1860: 394) states that these beads are made of “sky-coloured glass” while (Harding 1962: 104) describes them as “seed” and “pound” beads of dark blue glass.

Bubu. Called *bubu* in Swahili (also spelled *ububu* and *bububu*), this bead is also known as *ukumwi*, *khuni* and *ushanga ya vipande* (Burton 1860: 394; Stanley 1913: 24; Waller 1875: 150-1). Stanley (1913: 24) explains that these beads, “though currency in Ugonogo, were positively worthless with all other tribes.” Burton (1860: 394) adds the following comments:

[These] are black Venetians, dull dark porcelain [i.e., opaque glass], ranging, at Zanzibar, from 5 to 7 dollars. They are of fourteen sizes, large, medium, and small; the latter are the most valued. These beads are taken by the Wazaramo. In East Usagara and Unyamwezi they are called khuni or firewood, nor will they be received in barter except when they excite a temporary caprice.

This bead equates with drawn Kidd (1970) varieties IIa6 (round [globular]) and IIa7 (circular [short barrel]), opaque black (Pl. VIB, R.2, #6).

Choroko. Also called *mágiyo* or *magio*, these are “dull green porcelains” (Burton 1860: 394); i.e., “seed” and “pound” beads of opaque green glass (Harding 1962: 104).

Ghubari. Known as *ghubari* (“dust-coloured”) or *nya kifu*(?), this “is a small dove-coloured bead, costing, in Zanzibar, from 7 to 8 dollars. It is used in Uzaramo, but its dulness [sic] of aspect prevents it being a favourite” (Burton 1860: 394).

Gulabi. Variously spelled *gulabi* (“the rosy” in Swahili), *gulabio*, *ghulabio* and *golabio*, and also known as *máguru lá nzige* (“locust’s feet”), these beads are “pink porcelain” (i.e., opaque pink glass)(Burton 1860: 392; Harding 1962: 104; Hobley 1970: 246; Stanley 1913: 25). Burton (1860: 392) states that these were “next in demand to the sámesáme, throughout the country, except at Ujiji, where they lose half their value.... The price in Zanzibar varies from 12 to 15 dollars per *frasilah*.” Hobley (1970: 246-7) notes that they are “pound” (*ushanga*) beads ca. 1/8 in. (3 mm) in diameter.

In the RMCA collection, this bead is identified as a round to circular drawn bead (Kidd type IVa) with an opaque pink outer layer and a translucent light gray core (Pl. VIB, R.2, #2 and 3a). Its diameter is 3.2-3.8 mm. It was valued at \$8.50 per *frasilah*.

Háfizi. Burton (1860: 393) asserts that “the staple of commerce is a coarse porcelain [opaque glass] bead, of various colours, known in Zanzibar by the generic name of háfizi. There are three [sic] principal kinds:”

Khanyera or **kanyera.** Also called *ushanga waupa* (“white beads”), these were “common throughout the country” (Burton 1860: 393-4; Stanley 1878: 114). Six dollars per *frasilah* was the average

price recorded in Zanzibar by Burton (1860: 394) who was supplied with approximately 20,000 strands of this bead by the Banyans of Zanzibar. As a result, and unfortunately for him, the market was soon glutted and their trade value dropped significantly.

The RMCA collection identifies this bead as drawn Kidd varieties IIa11 (round) and IIa12 (circular), translucent white (Pl. VIB, R.2, #1). Their diameter is about 4.2 mm. The cost per *frasilah* is given as \$4.50. If this identification is correct, the *khanyera* is equivalent to Harding’s *dudio* (q.v.). However, the beads identified as *dudio* in the RMCA collection are opaque white which Harding terms *hafti* (q.v.). Thus, their exact relationship remains uncertain.

Kidunduguru or **kadunduguru.** This “is a dull brick-red bead, worth at Zanzibar from 5 to 7 dollars per *frasilah*, but little prized in the interior, where it is derisively termed *khanyera ya mk’hundu*” (Burton 1860: 394). The beads thus identified in the RMCA collection are drawn Kidd varieties IIa1 (round) and IIa2 (circular), opaque brick red (Pl. VIB, R.1, #1), which average about 4.0 mm in diameter. Their value is given as \$4.50 per *frasilah*. There is the possibility that these varieties may also represent the *lak’hio* beads described below.

Merkani or **merikani.** According to Burton (1860: 394), this is “another red variety” which “is finely made to resemble the sámesáme, and costs from 7 to 11 per *frasilah*. Of this bead there are four several subdivisions.” Stanley (1913: 24, 400, 553), on the other hand, uniformly refers to these as “white beads,” which, “though good in Ufipa, and some parts of Usagara and Ugogo, would certainly be despised in Useguhhu, and Ukonongo.” The white *merikani* beads were commonly thrown into the waters of Lake Tanganyika near the caverns of Kabogo by Arabs and natives alike to appease the god or *malungu* of the lake (Stanley 1913: 400, 553). According to Stanley’s guide, Asmani: “Those who throw beads generally get past without trouble, but those who do not throw beads into the lake get lost, and are drowned.”

Uzanzawírá. Known also as *samuli* (“ghee-coloured”), this “is a bright yellow porcelain worth, at Zanzibar, from 7 to 9 dollars per *frasilah*. It is in demand throughout Chhaga and the Masai country, but is rarely seen on the central line” (Burton 1860: 394).

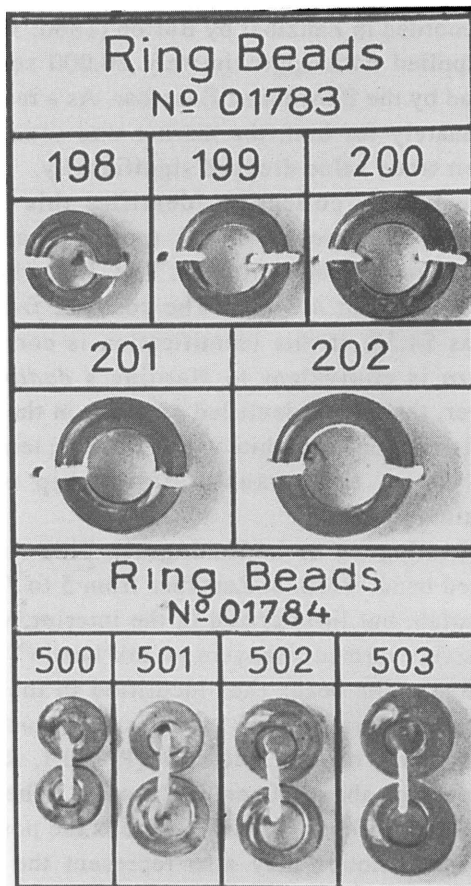


Figure 2. *Mtunda*, *mzizima*, *balghami* or *jelabi* beads: wound annular or “ring” beads of transparent blue and green glass (detail from a catalogue published by J.F. Sick and Co. of Hamburg in the early 1930s).

Lak’hio or **lakhio**. Burton (1860: 394) writes that this bead, also called *lungenya*, “is a coarse red porcelain [i.e., opaque glass], valued at 5 to 6 dollars in Zanzibar, and now principally exported to Uruwua and the innermost regions of Central Africa.” Stanley (1913: 721) describes it as “a pink-colored species of bead,” while Harding (1962: 104) spells its name *lakio* and notes that it is a brown “seed” or “pound” bead.

According to the RMCA collection, this bead may equate with Kidd varieties IIa1 and IIa2 (see *kidunduguru* above). It is certainly impossible to tell any difference between the two on the basis of the descriptions provided by Burton. Based on Stanley’s description, this bead may be equivalent to drawn Kidd type IIa circular beads of opaque pink glass.

Langiyo or **lunghio**. This bead of “blue porcelain” is called *ajerino* in Venice, and *langiyo* and *murtutu* (“blue vitriol”) in East Africa (Burton 1860: 392). Burton (1860: 392-3) goes on to say that:

[It] is of three several sizes, and the best is of the lightest colour. The larger variety, called *langiyo mkuba*, fetches, at Zanzibar, from 6 to 12 dollars per *frasilah*, and the *p’heke*, or smaller, from 7 to 9 dollars. In Usagara and Unyamwezi... it is used for minor purchases, where the *sámesáme* would be too valuable. It is little prized in other parts, and between Unyamwezi and Ujiji it falls to the low level of the white porcelain.

Stanley (1913: 721) describes *lunghio* as “blue beads,” adding that *lunghio mbamba* are “small blue beads” and *lunghio rega* are “large.” Specimens identified as *lunghio rega* in the RMCA collection are drawn Kidd type IIa circular beads of translucent/opaque bright blue glass (Pl. VIB, R.1, #2), and 2.8 mm in diameter. The value per *frasilah* is \$6.25.

Mtunda. Known also as *mzizima*, *jelabi* and *balghami*, Burton (1860: 393) describes this as “the ringel perle of Germany.... a large flat bead of glass.... of two varieties; the more common is a dark blue, the other is of a whitish and opaline tint” (Fig. 2). Burton (1860: 393) goes on to say that this is “a local variety, current from Msene to the Tanganyika Lake, where, in the heavier dealings, as the purchase of slaves and ivory, a few strings are always required to cap the bargain.... At Zanzibar the *frasilah* costs from 7 to 9 dollars.” Harding (1962: 105) adds that these beads, called *boelgum* by the Swahili, had fallen out of fashion by 1897.

These are identified as wound annular beads (Kidd class WI*) of transparent bright navy blue glass in the RMCA collection (Pl. VIB, R.1, #5). They measure about 13.5 mm in diameter and 5.0 mm in length, with a value of \$3.25 per *frasilah*.

Stanley (1878, I: 169, II: 4) also mentions *mutunda* or *mutanda* beads but describes them as “small blue, brown, and white,” which does not mesh with Burton’s or the RMCA description and appears to be in error.

Nili. Burton (1860: 394) relates the following about this bead:

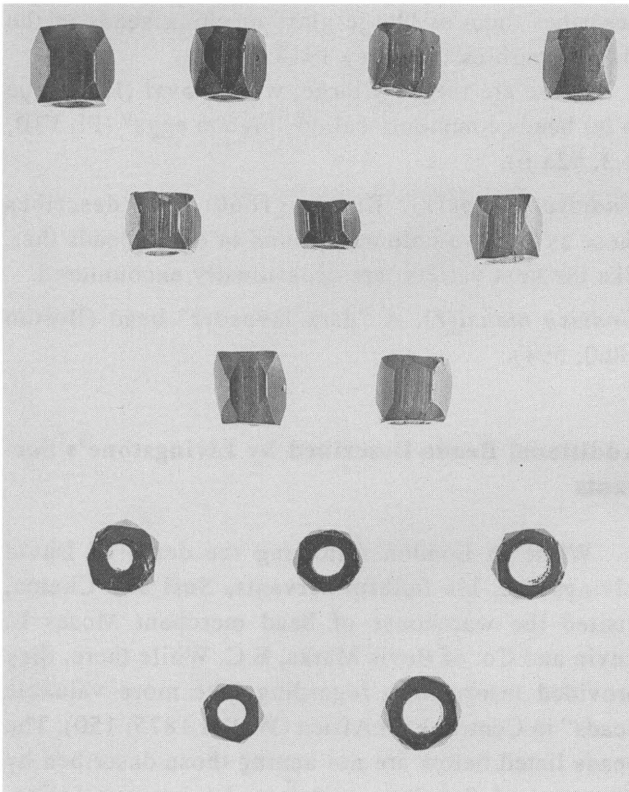


Figure 3. Blue cornerless hexagonal beads believed to be those called *pusange* by Burton (photo by G. Vandervlugt).

The *nílí* (green), or *ukutí wa mnazi* (coco-leaves), are little beads of transparent green glass; they are of three sizes, the smallest of which is called *kíkítí*. The Zanzibar price is from 6 to 11 dollars. In Ujiji they are highly valued, and are readily taken in small quantities throughout the central line.

Pusange. These “blue Bohemian glass beads, cut into facets” (Burton 1860: 394) are probably Kidd type If or IIIIf which consist of hexagonal to octagonal-sectioned tube segments with their corners ground off (Fig. 3). However, there is also the possibility that they are the multi-faceted mold-pressed beads (Karklins type MPIIa) called “mandrel pressed” by Ross (Karklins 1985: 101).

Sami-sami. Most commonly referred to by its Swahili name, *sami-sami*, *sámesáme* or *simsim*, this “red bead, of various sizes, which has a white centre, [and] is always valuable in every part of Africa,” was called *samsam* by the Arabs, *chitakaraka* by the Waiyau,

mangazi (“blood”) by the Nyassa, and *masokantussi* (“bird’s eyes”) by the Manyúema (Burton 1860: 392; Harding 1962: 104; Hobley 1970: 246; Waller 1875: 151). According to Burton (1860: 392), this variety was also termed *kimara-p’hamba* (“food-finishers”), *joho* (“scarlet cloth”), and *kifungá-mgi* (“town-breakers”), so-called “because the women are mad for them.” Burton (1860: 392) also commented:

They are known at Zanzibar as *kharaz-kartasi* — paper beads — because they are sent into the country ready strung, and packed in paper parcels, which ought to weigh 4 pounds each, but are generally found to vary.... Of this bead there are 15 several sizes, and the value of the *frasilah* is from 13 to 16 dollars at Zanzibar.

Their value was such that, in Unyamwezi, these “beads would readily be taken, where all other kinds would be refused” (Stanley 1913: 24). Stanley (1878,II: 380), having had over 5 lbs. of these beads temporarily stolen from him, noted that this quantity was “sufficient for nearly two days’ provisions for the whole Expedition!”

This variety definitely equates with Kidd varieties IVa9 (round) and IVa* (circular) which have a transparent scarlet or ruby outer layer and an opaque white core. This identification is verified in the RMCA collection which contains two sizes: one around 3.0 mm in diameter (Pl. VIB, R.2, #3b); the other ca. 3.8 mm (Pl. VIB, R.1, #4). The value is given as \$10.50 per *frasilah*.

Sereketi. According to Burton (1860: 394), this is a white or garnet-red oval bead prized in Khutu.

Sofi. Known as *cannettone* in Italian, these are tubular or cylindrical beads of drawn manufacture between 1/2 in. (13 mm) and 1/3 in. (8 mm) in length which come in brick red (Kidd variety Ia1), black (Ia2), and white (Ia4 or Ia5) (Burton 1860: 393; Stanley 1878,II: 4, 1913: 473). According to Stanley (1878,II: 4), at Ujiji on Lake Tanganyika:

One piece is called a *Masaro*, and is the lowest piece of currency that will purchase anything. The *Sofi* beads are strung in strings of twenty *Masaro*, which is then called a *Kheté*, and is sufficient to purchase rations for two days for a slave, but suffices the freeman or *Mgwana* but

one day. The... established and universal currency with all classes of natives attending the market is the Sofi.

Burton (1860: 393) provides additional details:

The price varies, at Zanzibar, from 2 to 3 dollars per frasilah; in the interior, however, the value greatly increases, on account of insufficient importation. This bead, in 1858, was in great demand throughout Usagara, Unyamwezi, and the western regions, where it was as valuable as the *sámesáme*. Having neglected to lay in a store at Zanzibar, the East African Expedition was compelled to exchange cloth for it at Msene and Ujiji.... In Ujiji, however, many of the purchases were rejected because the bits had become small by wear, or had been chipped off by use.

A contemporary of Burton, John Speke, describes a “white porcelain bead resembling a little piece of tobacco pipe” which he calls *infi* (Harding 1962: 105). It is clearly the white *sofi* described above.

Sukoli. These beads “are orange-coloured or rhubarb-tinted porcelain [opaque glass], which average, at Zanzibar, from 7 to 9 dollars. They are prized in Usagara and Ugogo, but are little worn in other places” (Burton 1860: 394).

Sungomaji. Another local bead variety described by Burton (1860: 393) is the *balghami mkuba*, popularly known by its Swahili name *sungomaji*, *sungomazzi* or *sugumaji* (Harding 1962: 105), which he thought might have been made in Nürnberg:

It is a porcelain [i.e., opaque glass] about the size of a pigeon’s egg, and of two colours, white and light blue. The *sungomaji*, attached to a thin cord or twine, is worn singly or in numbers as an ornament round the neck, and the people complain that the polish soon wears off. At Zanzibar the price per 1000 is from 15 to 20 dollars, but it is expected to decline to 10 dollars. This bead is useful in purchasing ivory in Ugogo and Unyamwezi, and in hiring boats at Ujiji....

Stanley (1913: 24) adds that “the egg (*sungomazzi*) beads, though valuable in Ujiji and Uguhha, would be refused in all other countries.” He

describes them as “large glass or china beads of the size of marbles” (Stanley 1913: 722).

These are the very large, wound oval (Kidd type W1c) beads commonly called “pigeon eggs” (Pl. VIB, R.3, #2a-b).

Undriyo maupe(?). Burton (1860: 394) describes these as “mauve-coloured, round or oval” beads that, like the next variety, are occasionally encountered.

Undriyo mausi(?). A “dark lavender” bead (Burton 1860: 394).

Additional Beads Described by Livingstone’s Servants

While in London following the death of David Livingstone, his faithful servants, Susi and Chuma, visited the warehouse of bead merchant Moses L. Levin and Co. of Bevis Marks, E.C. While there, they provided information regarding “the more valuable beads” in Central East Africa (Waller 1875: 150). The beads listed below are not among those described by Burton and Stanley, and may be new varieties. However, it is possible that some of the names are simply regional designations for some of those described above.

Catchokolo. According to Susi and Chuma, “the Waiyau prefer exceedingly small beads, the size of mustard-seed, and of various colors, but they must be opaque: among them dull white chalk varieties, called ‘catchokolo,’ are valuable...” (Waller 1875: 150). These equate with Kidd varieties IIA13 (round) and IIA14 (circular), opaque white, and may be equivalent to Harding’s *hafti* (q.v.) beads.

Machua kanga. Waller (1875: 151) does not describe these but simply says that they are “another popular variety,” and that their name means “guinea-fowl’s eyes.”

Moiompio. This is “a large pale blue bead, [which] is a favorite among the Wabisa.” Its name means “new heart” (Waller 1875: 151).

Salani. Of this bead Waller (1875: 151) writes:

...but by far the most valuable of all [beads] is a small white oblong bead, which, when strung, looks like the joints of the cane root, from which it takes its name, “salani,” = “cane.” Susi says that one pound weight of these beads

would buy a tusk of ivory, at the south end of Tanganyika, so big that a strong man could not carry it more than two hours.

This description is reminiscent of the white *sofi* beads described above and *salani* may simply be a regional name for these beads.

Sekundereché. Of the same size as the *catchokolo* beads, these are opaque pink. Their name translates as the “dregs of pombe” (Waller 1875: 151).

Beads Traded Into British East Africa

In an account of his experiences in pre-1929 British East Africa, Hobley (1970) provides descriptions of a number of glass beads used in what is now southern and western Kenya during the second half of the 19th century and very early 20th century. As this is to the north of the areas visited by Burton, Livingstone and Stanley, it is quite possible that some of the names listed below are simply regional designations for beads described previously.

Bora. Decorated oval beads approximately 3/4 in. (19 mm) long which were expensive and rarely traded (Hobley 1970: 247). These would be the large wound beads ornamented with various designs (Kidd class WIII) that Venice is so famous for (e.g., Pl. VIB, R.3, #2c).

Kikete. A turquoise-blue bead around 1/4 in. (6 mm) in diameter that was much prized in the Ukamba region of southern Kenya (Hobley 1970: 247).

Maji bahari. A small “pound” bead (*ushanga*) of dark blue glass whose name translates as “sea-water” (Hobley 1970: 246).

They were done up in bundles of about a pound each, called a “*shadda*.” Each complete string of these beads was called a “*koja*,” and its length, according to convention, must be such that it would comfortably encircle a man’s neck. Each bead was about an eighth of an inch in diameter (Hobley 1970: 246-7).

Maziwa. A small white (the name means “milk”) “pound” bead of the same size as the former variety (Hobley 1970: 246). It may be equivalent to Burton’s *khanyera* (q.v.) and Harding’s *dudio* (q.v.).

Mtinorok. “A small ring of blue or green transparent glass, often used in Ukamba and Kavirondo [western Kenya], the unit of trade being a string long enough to encircle a man’s waist” (Hobley 1970: 247).

Nsambia. Oval white beads that never became very popular (Hobley 1970: 247).

Punda milia. Translating as “zebra,” these are striped beads, usually of alternating blue or red and white stripes. Colorful but not much sought after (Hobley 1970: 247).

Ukuta. These were relatively expensive beads made in Austria and Italy that ranged in hue from blue to straw. They served as presents and to purchase sheep (Hobley 1970: 247).

Beads Traded Into German East Africa

J.R. Harding (1962) provides information concerning the kinds of glass beads that were imported into German East Africa (this was the region traversed by Burton and Stanley, and later became Tanzania, Rwanda and Burundi) during the 1890s. The material was apparently extracted from the *Deutschen Kolonialblatt* for 1896. Only beads not discussed above are included here. All the names are in Swahili.

Dudio. These are “seed” (*ushanga wa cartassi*) and “pound” (*ushanga wa pipa*) beads of “milk white” glass. Originating in Venice, they were worth 9-10 Indian rupees per *frasilah* (Harding 1962: 104). On the basis of their description, they are equivalent to Kidd varieties IIa11 (round) and IIa12 (circular), translucent white. However, in the RMCA collection, the name *dudio* is applied to opaque white specimens leaving their exact identity in doubt. See also Burton’s *khanyera* and Hobley’s *maziwa*.

Felfel. Oblong or oval Venetian beads which were “blue and white striped.” They were valued at 13-14 rupees per *frasilah* (Harding 1962: 105).

Hafti. Harding (1962: 104) describes these as Venetian seed and pound beads of “chalk white” glass which are worth 9-10 rupees per *frasilah*. They are equivalent to the *catchokolo* (q.v.) beads described by Waller.

Noekshi. “Large red beads with a white core and large multi-coloured beads” were grouped together as *noekshi*. They were relatively expensive, costing 15-16

Oriental Beads № 01779		Colours			
Sizes					
4/0		W		WI	
3/0		A		Bf	
2/0		S		Bb	
0		Oc		B	
1		Of		H	
2		Od		Ac	
3		R		Ad	
4		Lm		Sl	
5		La		Oa	
		Lb		Ob	
		J		O	
		Y		Jl	
		Yb		C	
		Yc		Cd	
		Ua		Cf	
		U		Cg	
		P		Rk	
		V		Rd	
		Ul		Rv	
		Pl		F	

Figure 4. *Ushanga maka* or “Oriental beads:” globular Prosser-Molded beads of various colors (detail from a catalogue published by J.F. Sick and Co. of Rotterdam in the early 1930s).

rupees per *frasilah* (Harding 1962: 105). Of wound manufacture, the former are of the so-called “coral d’Aleppo” style (Kidd type WIIIa), while the latter encompass various “fancy” varieties (Kidd class WIII).

Sineguse. These are “hollow” beads obtained from Bohemia which were diamond-shaped, “underlaid in gold” and approximately the size of “a grain of millet.” Only a single variety in “gold and silver colours”

was valued following the turn of the century, costing 1-1.5 rupees for a package of about 1000 beads (Harding 1962: 105). They are mold-blown beads (Karklins class BI) colored internally with a gilt wash.

Tinde. Oblong or oval beads of “blue underlain with white” that came from Venice and were worth 13-14 rupees per *frasilah* (Harding 1962: 105).

Ushanga maka. Made in Austria, Germany and France, *ushanga maka* (“Oriental” beads) came in white, blue-black, red and golden yellow. They were “solid” with a “strong shine” (Harding 1962: 105). An illustrated catalogue published in the 1930s by J.F. Sick and Co. of Rotterdam reveals that “Oriental” beads are globular Prosser-Molded beads distinguished by a broad equatorial mold mark, a compact ceramic body and a clear or colored glaze (Fig. 4).

Wadrio. Cheap “light blue” seed and pound beads (Kidd type IIa) of Venetian origin worth only 2-3 rupees per *frasilah* (Harding 1962: 104).

DISCUSSION

Of the 400 or so bead varieties that were available in Central East Africa during the second half of the 19th century, the local names and brief descriptions of approximately 43 are presented above. Unfortunately, the bulk of the beads are so poorly described that it is impossible to even determine what manufacturing group some of them fall into, much less what Kidd variety is represented. The problem is compounded by the fact that there are not only regional names for the beads, but also names for different sizes of a specific variety. Coupled with the different spellings provided by the various sources (the recorded names and their various spellings are listed in Table 1), it does not help that the descriptions of certain beads (e.g., *mtunda* and *dudio*) presented in the various sources do not correspond. Thus, only a few beads — such as the *mtunda*, *sami-sami*, *sungomaji* and *sofi* — can be identified with any certainty.

From the writings of explorers like Stanley and Burton, it becomes obvious that preferences in beads varied not just across vast areas but from village to village; this much to the consternation of travelers when they discovered that the bags of beads they had marched inland for several weeks turned out to be absolutely worthless (both Burton and John Speke had

Table 1. Index of Recorded East African Bead Names.

Asmani [B]	Masokantussi [W] (<i>see sami-sami</i>)
Balghami [B] (<i>see mtunda</i>)	Maziwa [H]
Balghami mkuba [B] (<i>see sungomaji</i>)	Merkani, merikani [B,S] (<i>see háfizi</i>)
Boelgum [HA] (<i>see mtunda</i>)	Moiompio [W]
Bora [H]	Mtinorok [H]
Bubu, bububu [B,S,W]	Mtunda, mutanda, mutunda [B,S]
Catchokolo [W]	Murtutu [B] (<i>see langiyo</i>)
Chitakaraka [W]	Mzizima [B] (<i>see mtunda</i>)
Choroko [B]	Nílí [B]
Dudio [HA]	Noekshi [HA]
Felfel [HA]	Nya kifu(?) [B] (<i>see ghubari</i>)
Ghubari [B]	Nsambia [H]
Gulabi, gulabio, ghulabio, golabio [B,HA,H,S]	Punda milia [H]
Háfizi [B]	Pusange [B]
Hafti [HA]	Salani [W] (<i>see also sofi</i>)
Infi [SP] (<i>see sofi</i>)	Sami-sami, sámesáme, samsam, simsim [B,H,S,W]
Jelabi [B] (<i>see mtunda</i>)	Samuli [B] (<i>see uzanzawírá</i>)
Joho [B] (<i>see sami-sami</i>)	Sekundereché [W]
Khanyera, kanyera [B] (<i>see hafizi</i>)	Sereketi [B]
Khanyera ya mk'hundu [B] (<i>see kidunduguru</i>)	Sineguse [HA]
Kharaz-kartasi [B] (<i>see sami-sami</i>)	Sofi [B,S]
Khuni [B] (<i>see bubu</i>)	Sukoli [B]
Kidunduguru, kadunduguru [B] (<i>see háfizi</i>)	Sungomaji [B], sungomazzi [S], sugumadji [HA]
Kifungá-mgi [B] (<i>see sami-sami</i>)	Tinde [HA]
Kikete [H]	Ububu(?) [B] (<i>see bubu</i>)
Kíkítí [B] (<i>see Nílí</i>)	Ukumwi [B] (<i>see bubu</i>)
Kimara-p'hamba [B] (<i>see sami-sami</i>)	Ukuta [H]
Lak'hio, lakhio, lakio [B,HA]	Ukutí wa mnazi [B] (<i>see nílí</i>)
Langiyo (mkuba, p'heke) [B]	Undriyo maupe(?) [B]
Lungenya [B] (<i>see Lak'hio</i>)	Undriyo mausi(?) [B]
Lunghio (mbamba, rega) [S] (<i>see langiyo</i>)	Ushanga maka [HA]
Machua kanga [W]	Ushanga waupa [B] (<i>see khanyera</i>)
Mágiyo, magio [B,HA] (<i>see choroko</i>)	Ushanga ya vipande [B] (<i>see bubu</i>)
Máguru lá nzige [B] (<i>see gulabi</i>)	Uzanzawírá [B] (<i>see hafizi</i>)
Maji bahari [H]	Wadrio [HA]
Mangazi [W] (<i>see sami-sami</i>)	

B=Burton, HA=Harding, H=Hobley, SP=Speke, S=Stanley, W=Waller

to discard many pounds of beads for this reason [Stanley 1913: 24]).

Based on Burton's (1860: 392-4) valuations, the most valuable beads in the late 1850s were the red-on-white *sami-sami* (\$13-\$16 per *frasilah*) and pink *gulabi* (\$12-\$15), followed closely by the large blue *langiyo* (\$6-\$12). The annular *mtunda* (\$7-\$9), pigeon-egg *sungomaji* (\$15-20/1000) and tubular *sofi* (\$2-3) were cheap on the coast but valuable in the interior. The rest of the beads mentioned by Burton "are the more ordinary sorts," and of about the same value: \$5-11 per *frasilah*. In this latter group, the red *merikani* and green *nilti* were at the higher end of the scale (\$6-11), while the brick-red *kidunduguru*, white *khanyera*, red *lakhio* and black *bubu* were the cheapest at \$5-7.

By the end of the century, red-on-white *sami-sami* and green *mágiyo* (*choroko*) beads were among the costliest at 18-20 Indian rupees per *frasilah*. The wound *noekshi* were also expensive (15-16 rupees), as were blue-on-white *tinde* and striped *felfel* beads (13-14 rupees). Most seed and pound beads cost between 7 and 12 rupees, with pink *gulabio* being among the priciest (11-12 rupees) and black *bubu* among the least expensive (7-8 rupees). However, the cheapest appears to have been the light blue *wadrio* at 2-3 rupees per *frasilah* (Harding 1962: 104-5).

The information provided by Burton, Stanley, Waller, Hobley and Harding helps us to better understand how the various tribes of Central East Africa perceived the beads that were made available to them by traders, explorers and missionaries. When supplemented by that gleaned from different sources by other researchers, it will enable archaeologists, ethnologists and collectors to identify historic bead types in their collections, as well as to better understand the socio-economic value of the beads that flowed into East Africa by the ton. Comments on the above and supplements to the list of bead names and descriptions are welcomed.

ACKNOWLEDGEMENTS

My thanks to the History Section of the Royal Museum of Central Africa, Tervuren, Belgium, for allowing me to examine the two trays of beads (cat. nos. 54.72.134 and 135) in the Stanley Collection, and for providing a photograph of some of the specimens.

Gratitude is expressed to Christopher DeCorse and, especially, Margret Carey for their useful comments regarding the content and format of this report. I am also indebted to the Bead Society of Los Angeles for their generous grant which allowed me to study beads in various European centers in 1987.

APPENDIX A: INVENTORY OF BEADS IN TRAY 54.72.134 OF THE H.M. STANLEY COLLECTION, ROYAL MUSEUM OF CENTRAL AFRICA

The Henry M. Stanley collection contains two wooden trays (nos. 54.72.134 and 135) which contain similar assemblages of glass beads. Little is known about them beyond that they apparently belonged to Stanley and were donated to the Royal Museum of Central Africa in 1954 by Stanley's adopted son Denzil M. Stanley. They were part of the exhibition at the museum that year which marked the 50th anniversary of the death of Henry M. Stanley.

The wooden trays measure 54 cm by 28 cm by 5 cm, and contain 18 square compartments which are 8.3 cm wide. As the contents of the two trays are so similar, only the contents of tray no. 54.72.134 will be itemized here [see Pl. VIB]. Several compartments contain paper tags which identify the native name and value of the contents.

In the following text, R. = row in tray (Pl. VIB) and # = position (compartment) in row. Letters are appended to the position number when a compartment contains more than one bead variety.

R.1, #1: IIa1/2; circular/round; op. Indian red; 4.0 mm diameter; hank; "Kdunduguru or Lakyo \$4..50 per Frasilah."

R.1, #2: IIa*; circular; tsl./op. bright blue; 2.8 mm diameter; hank; "Lungio Rega blue small \$6..25 per Frasilah."

R.1, #3: IIa14; circular; op. white; 2.5 mm diameter; hank; "Dudyo small white \$6..00 per Frasilah."

R.1, #4: IVa9; circular/round; tsp. scarlet on op. white; 3.8 mm diameter; hank; "Sami Sami \$10..50 per Frasilah."

R.1, #5: WI**; annular; tsp. bright navy blue; 13.5 mm diameter; 5.0 mm length; on string; "Mutonda blue \$3..25 per Frasilah."

R.1, #6: WI**; annular; tsp. yellowish green; 13.1 mm diameter; 4.3 mm length; on string.

R.2, #1: IIA11/12; circular/round; tsl. grayish white; 4.2 mm diameter; hank; "Kanyera large white \$4..50 per Frasilah."

R.2, #2: IVA*; circular/round; op. strong pink on tsl. light gray; 3.8 mm diameter; hank; "Gulabio pink \$8..50 per Frasilah."

R.2, #3a: IVA*; circular/round; op. strong pink on tsl. light gray; 3.2 mm diameter; on string.

#3b: IVA9; circular/round; tsp. scarlet on op. white; 3.0 mm diameter; on raffia fiber.

R.2, #4a: Prosser Molded; PM**; globular with equatorial bulge; golden glaze (tsl. light gray core); pitted at one end; 6.6 mm diameter; on string.

#4b: Prosser Molded; PM**; globular with equatorial bulge; clear glaze (tsl. light gray core); pitted at one end; 6.6 mm diameter; on string.

R.2, #5: IIA14; circular; op. white; 3.2 mm diameter; on string.

R.2, #6: IIA7; circular; op. black; 3.5 mm diameter; strung on fiber.

R.3, #1: Cowries.

R.3, #2a: WIc1; oval; op. white; loose; many shattered; 18.8 mm diameter.

#2b: WIc*; oval; op. strong purplish blue (color intensity varies); 20.0 mm diameter; on string.

#2c: WIIIb*; oval; tsl. light gray body decorated with a spiral floral spray composed of tsp. scarlet, op. turquoise, op. light gold and tsl. bright blue components, and a spiral of diagonal dashes in a turquoise/white/bright navy blue/white/scarlet/white sequence; 11.3 mm diameter; on fiber cord.

R.3, #3a: As R.2, #3b.

#3b: WIc*; oval; op. bright yellow; 4.0 mm diameter; on string.

R.3, #4a: Ia*; tubular; tsp. ruby; 3.2 mm diameter; loose.

#4b: IIA18 ; circular/round; op. amber; 3.8 mm diameter; hank.

#4c: WIc*; oval; op. royal blue; 8.4 mm diameter (irregular shape).

R.3, #5: IIA*; circular/round; op. copen blue; 4.1 mm diameter; several hanks.

R.3, #6: IIA56; circular; tsp. bright navy blue; 3.8 mm diameter; on fiber.

REFERENCES CITED

Burton, Richard F.

1860 *The Lake Regions of Central Africa*. Vol. 2. Longman, Green, Longman, and Roberts, London.

Harding, J.R.

1962 *Nineteenth-Century Trade Beads in Tanganyika*. *Man* 62(July):104-105.

Hobley, C.W.

1970 *Kenya: From Chartered Company to Crown Colony*. Frank Cass, London. Originally published in 1929.

Karklins, Karlis

1985 *Guide to the Description and Classification of Glass Beads*. In *Glass Beads*, 2nd ed., pp. 85-118. Parks Canada, Studies in Archaeology, Architecture and History, Ottawa.

Kidd, Kenneth E. and Martha A. Kidd

1970 *A Classification System for Glass Beads for the Use of Field Archaeologists*. *Canadian Historic Sites: Occasional Papers in Archaeology and History* 1:45-89.

Stanley, Henry M.

1878 *Through the Dark Continent*. 2 vols. John B. Magurn, Toronto.

1913 *How I Found Livingstone*. Charles Scribner's Sons, New York.

Waller, Horace

1875 *The Last Journals of David Livingstone, in Central Africa*. Jansen, McClurg, Chicago.

Karlis Karklins
Parks Canada
1600 Liverpool Court
Ottawa, Ontario K1A 0H3
Canada



By Marcus Amerman.
*Trailing-the-Enemy and
His Wife*, 1988.

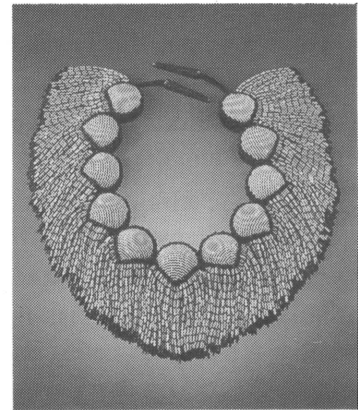
**Available for
\$29.95 plus \$2
shipping from:**

The New Beadwork

by Kathlyn Moss and Alice Scherer

Published by Harry N. Abrams, Inc.

127 full-color photographs of the work of 80+ artists from the United States, Europe and Africa. Foreword by Lois Sherr Dubin, essay by Kathlyn Moss on contemporary beadwork, appendices on beadmaking technology and beadworking techniques, a glossary of terms used in the book, and selected lists of exhibitions, resources and publications.



By Valerie Hector.
*Anemone Necklace #4:
Lavender and Mint*, 1989.

Center for the Study of Beadwork • PO Box 13719 • Portland, OR 97213
503-249-1848 • Fax 503-281-8990

THE BEAD MUSEUM

A nonprofit, incorporated museum.
Hours 9-5, Mon.-Sat.

**BEADS AND PERSONAL ADORNMENT FROM
ANCIENT, ETHNIC AND CONTEMPORARY
CULTURES.**

Send long SASE for list of available publications.

Our Publications

A BEAD PRIMER by Elizabeth Harris
\$7.85 postpaid

*THE WORK OF CONTEMPORARY
GLASS BEADMAKERS*
\$6.75 postpaid

**140 S. MONTEZUMA / PRESCOTT, AZ 86303
(602) 445-2431**

bead expo '94

International Symposium & Bazaar

March 25-27, 1994 — Santa Fe, New Mexico

"Glass Beadmaking and Trade"

Peter Francis, Jr.
Symposium Director

FACULTY

Jamey D. Allen	Elaine Lewis
Frederick Birkhill	Howard Opper
Vladislav Chvalina	Marie-José Opper
Diane Dittmore	Peter Pratt
Brian Kerkvliet	Kirk Stanfield

Pre-registration before Feb. 15, 1994: \$200

Information: Recursos de Santa Fe,
826 Camino del Monte Rey #A3,
Santa Fe, NM 87501 505-982-9301

Bead Expo is a biennial event sponsored by the
Center for Bead Research and Recursos de Santa Fe,
nonprofit, educational organizations.

BOOK REVIEWS

The New Beadwork.

Kathlyn Moss and Alice Scherer. Harry N. Abrams, Inc., New York, 1992. 112 pp., 16 b&w figs., 127 color figs., glossary, bibliography, index. \$24.95 (cloth).

It's hard to think of a better way to spend \$24.95. To open this book, to browse through the pictures of the new beadwork, is to open a door into a magical new world. The familiar is transformed, mysterious, dangerous, breathtaking, whimsical. To see "in the flesh" Jeanne Leffingwell's *Sky Curtain* sweeping and shimmering across a huge architectural space is a compelling reason to visit Anchorage, Alaska. Her immense, complex beaded curtains banish forever the tawdry image of the bead curtain guarding the doorway to the back room. Through ornamentation and encrustation, Sherry Markovitz transforms animal heads into powerful totems, symbols of life beyond death. Jacqueline Lillie makes beads from beads, turning tiny beads into cool elegant jewelry while Pam Saporta makes her beaded beads in vibrant colors, recreating familiar bead designs. There are beaded paintings: Jimoh Buraimoh and his *Bata Drummers*, Susan Anniskett's *Tidal Pool Bag: A Tribute to Prince William Sound*, and Marcus Amerman's *Trailing-the-Enemy and His Wife*. There is whimsy in Sylvia Pomeroy's *Frogs' OXO Tic-Tac-Toe Game Set* and Setsu Ueno's wonderful miniature hats. There is anger and violence in Joyce J. Scott's *The Sneek*. These are just a few of the visual treasures that await you in this book. Can we see them for ourselves? In the discussions on beadwork in the context of modern art, the introductory essay provides some hope that we can. Several gallery and museum exhibitions held in the 1980s on the east and west coasts suggest that beadwork is beginning to move into mainstream art, in the way that quilts and other needle arts have done in the past 25 years. Jacqueline Lillie, for example, received a 1992 Rakow Commission from the Corning Museum of Glass.

What appeal lies in bits of glass, wood, stone, bone and plastic with holes in them? What do beads have to offer an artist or a craftsperson? The introduction by Kathlyn Moss and the brief notes accompanying the color illustrations provide some hints from the artists on the appeal beadwork has for them. On the surface, the beads are uncompromising, their shape, size and color are unchangeable and almost always determined by someone else. And that someone else is often halfway around the world and may even be from another century. The artist must conform to the bead. The artist can also be inhibited by traditionalists accustomed to ethnographic and fashionable beadworking techniques and designs. In spite of these constraints, as the works illustrated in this book show, in the hands of an artist beads offer a versatility and richness that no other medium offers. Suspended on thread they hang in the air, moving with the breeze. Resting against a body they follow the body's motions, like Flora Book's *Birds I* or Margot Marcotte's *Power Vision Shirt*, or the fringed jewelry. Beads can be sewn onto a backing, to carry or wear whenever you want. They can be woven into a solid self-supporting mass, they can be stitch around objects. Gretchen Newmark's *Snake* — beads wrapped around a stick of wood — has changed my view of driftwood bits forever. One of the few traditional techniques missing from the book is wirework. It would be fun to see what some of these artists would do with beaded bouquets or beaded baskets.

The best beads work together en masse and the ones chosen by most of the artists whose works appear in this book are glass seed beads. Mass produced, they come in a wide range of colors and sizes and are relatively controlled in size. Older beads can be reused, adding to the repertoire available from modern manufacturers. As a material, glass offers a complex relationship with light, from transparency to translucency to opacity. Juxtaposing these qualities against one another, as in Collaboration's *Blue Sky Kimono* or Carlos Cobos' embroideries, gives richness and depth to the beadwork. These light relationships change as the bead or the viewer moves.

Straight on the beads glow, taking the eye into the object. On a sharp angle the same beads take on a mass glitter, like sunlight on water.

Beadwork is not fast; it is the slow and patient building of many small objects to make a large object. Some of the artists compare it to meditating. Beadwork is also time-consuming because it is so hard to get materials. Finding the right color and the right size in the quantities needed can be as difficult as making the finished piece. Beadworkers do not have the service they need from bead manufacturers. Modern colors are strident and seldom come in the shade variations we need. Where in the local craft stores are hanks of beads in the subtle colors offered by DMC embroidery floss? Instead we are offered pricey little packages of beads in miserly quantities in too large sizes and nasty colors. As some of the artists commented, the collecting of beads was a long-standing personal passion. Acquiring beads is itself a quest: the secret supplier, the bead cards from the mail order company, the furtive guilty robbing of older pieces, the happy accident. Where, for example, did Sherry Hart find the subtle shadings she needed for the snakes in *In Light and Mint* or Virginia Blakelock the beads for her incredible *Daphnis Nerii*? Certainly not overnight or on one shopping trip to New York.

The New Beadwork offers more than pictures of artists' work. It challenges anyone working with beads to stretch their imagination and their traditional ways of working and thinking. The book offers inspiration for the simple and the complex, for elegant and chaotic, for inspired traditional and excitingly innovative bead art. The appendices comment on the modern bead industry and provide clear illustrations of basic beadwork techniques. There is a glossary, a bibliography and a list of addresses of bead societies and bead suppliers. My own personal challenge is to attempt a bowl, like Jeannine Goreski's *Red Bowl*, and to try my own version of Connie Wyatt's *Winter Dreams: A Trilogy*, small curtain-fringes hanging in a three-part screen. After looking through this book, all other bead books currently on the market are banal and stultifying.

Olive R. Jones
Parks Canada
1600 Liverpool Court
Ottawa, Ontario K1A 0H3
Canada

Trade Ornament Usage Among the Native Peoples of Canada: A Source Book.

Karlis Karklins. National Historic Sites, Parks Service, Studies in Archaeology, Architecture and History, Ottawa, Ontario, Canada, 1992. 244 pp., 135 b&w figs., 20 color plates, 7 tables. \$15.25 Canada/\$19.80 U.S. (paper).

The use of trade ornaments among Native Peoples is a well-established fact. However, the extent, ingenuity, cultural preferences, popularity, and social and ceremonial uses of such ornaments are less well known. Karklins attempts to remedy this situation by extensively studying journal accounts, photographs, paintings, ethnographic reports, ethnographical specimens and archaeological information, and evaluating and compiling these data into one source book. The result constitutes a work both informative and readable, thereby extending its prospective audience beyond the academic or interested researcher.

The book begins with an introduction discussing the sources, their biases, and the arrangement of the material chronologically by tribe as defined by Diamond Jenness. Each of the seven identified cultural regions merits a chapter, beginning with the Eastern Woodlands and progressing west and north. Chapter eight acts as a summary with no formal analysis or interpretation.

Each chapter follows a similar format. First the cultural area is defined geographically along with a brief discussion of the cultural and linguistic groups within the area. Depending on the information available and the similarity in trade ornament usage among a number of the tribes, a few are discussed further in detail. For each group, Karklins begins with the earliest known contact or access to European trade goods and chronologically documents the uses, preferences and changes in trade ornament usage into the early 20th century. While the firsthand descriptive accounts provide accuracy and historical flavor, the inclusion of numerous illustrations of people and objects helps depict practices which are difficult to visualize or create by words alone. A table at the end of each chapter provides a quick reference by listing the various ornaments employed by individual tribes on gender and age criteria.

In this study, trade ornaments include not only items directly or indirectly obtained from white

traders, but also gifts from explorers and missionaries, government annuities, items sold in stores, and native-made ornaments fashioned from non-indigenous materials (e.g., bracelets fashioned from brass kettles) and unique items of non-native origin (e.g., pocket watches). As Karklins notes, all these items played an important part in Native adornment. It becomes readily apparent that three groups of trade ornaments — shells, metal items, and glass beads — were favored to varying degrees through time by the Indians to adorn themselves and their belongings.

Shell usage as a decorative item continued from precontact times. Three types of shells — wampum primarily in the east, dentalia west of the Great Lakes, and *Haliotis* (abalone) on the West Coast — were sought after for necklaces, collars, bracelets, belts, ear and hair ornaments, garment decoration and, in the case of *Haliotis*, for inlay work in wood, ivory and horn. In the first half of the 19th century, the Pacific Coast and Cordillera-Plateau Indians employed commercially produced mother-of-pearl buttons to elaborately decorate blankets used as capes or cloaks.

Copper/brass ornaments had the greatest appeal, even though silver became popular around 1750. However, around 1830, the trading companies withdrew silver ornaments from the market because they were too expensive. The standard metal items included finger rings, buttons, bells, thimbles, tinkling cones and variously shaped pendants. Except for the finger rings, these served multiple purposes, being affixed to ears, hair, clothing and sundry items. Based on personal preference or restricted availability of other ornaments, metal items such as awls, nails, bottle labels, fishhooks, and musket side plates also served as personal adornments. One advantage of metal ornaments was that the Native Peoples could produce their own from broken hardware, kettles, wire and sheet metal.

Despite the popularity of shell and metal ornaments, glass beads had not only the broadest appeal and impact, but also the greatest number of decorative applications. Large beads were fashioned into necklaces, pendants or lip ornaments (labrets), while small “embroidery” or “seed” beads served a variety of decorative needs. The latter beads were formed into earbobs, necklaces, bracelets, hair garnitures, or were sewn, wrapped around or suspended from garments or other articles, or were woven into

sashes and decorative bands. All groups incorporated these beads into their material culture — some more so than others. The popularity of “seed” beads, the intricate embroidery designs, and the aesthetic impressions of the different cultural groups becomes clearly evident in the book’s accounts and many illustrations.

Beyond decorating garments or individuals, beads were also used for inlay work in wood and pottery, for eyes in ceremonial or human effigy dolls and zoomorphic fishing lures, and as decorative fill in birchbark bitings.

This book clearly demonstrates the importance of various trade ornaments among the different Native groups across Canada, and the speed with which European goods were incorporated into their existing culture. In certain instances these goods entered tribes prone to ornamenting their person whereas other groups possessed little personal adornment — a situation soon modified by the arrival and availability of trade ornaments. The use of these ornaments often reflected status, gender or age differences, and at times served as currency. However, material culture is not static and Karklins’ chronological presentation shows the development of unique cultural expressions based on the combination of Native and European elements.

Although the book is confined to Native groups in Canada, the homelands of many extended into the United States. This book should appeal to anyone interested in inter-cultural contact or the cultural expression of people through their material culture.

Olga Klimko
Western Heritage Services Inc.
563 5th Ave. North
Saskatoon, Sask. S7K 2R1
Canada

Bijoux berbères d’Algérie.

Henriette Camps-Fabrer. Édisud, La Calade, 13090 Aix-en-Provence, France, 1990. 145 pages, 233 b&w and color figs., lexicon of Berber terms. 350 French Francs.

H. Camps-Fabrer, Research Director at the National Center for Scientific Research (CNRS) in

France, is a specialist in North African adornment from prehistoric times to the present. In this, her newest publication, the author presents a comparative study of ethnic jewelry from two distinct regions of Algeria: Aurès and Grande Kabylie. Both are rural, isolated, mountainous and inhabited by Berber-speaking people.

Camps-Fabrer begins by situating these two areas geographically. She goes on to describe the jewelry makers, the different techniques, how the jewelry is assembled, and how it is worn. She then describes the evolution of enameled jewelry in the Maghreb. Throughout, the text is clear, understandable and accurate.

Despite the fact that this jewelry is well known and easily recognized, its provenience and fabrication methods are not. The pieces from the Aurès are either molded or cut and styled with fretwork and embellished with a profusion of silver chains. Cabochons are almost always composed of colored glass; rarely red coral.

Jewelry from the Grande Kabylie is more sumptuous, made up of decorated and enameled silver pieces. Filigree work frames the blue, yellow and green enameled areas at the center of which are set red coral cabochons. The Grande Kabylie is one of the most important centers of enameled jewelry in the Maghreb. However, contrary to Tunisia and Morocco where Jewish artisans traditionally controlled the trade, the jewelry makers of the Grande Kabylie are Muslims. In fact, it was in the 19th century that the principal Kabyle tribes involved in jewelry making inexorably forbade access to their territory in order to preserve the secrets of their techniques from Jewish jewelry makers.

Following an explanation of traditional tools used in the jewelry trade, Camps-Fabrer offers a series of photographs (pp. 32-38) which precisely illustrate the fabrication of a Kabyle earring made of enameled silver with a red coral cabochon.

The excellent color photographs, the remarkable illustrations that complement them with greater detail and the historical photographs that appear throughout the book amply demonstrate how the jewelry was worn. Spectacular examples of diadems, *jugulaires* (silver chains attached to the hair on either side of the head and hanging just under the chin), earrings,

necklaces, belts, bracelets, fibulae and anklets illustrate Camps-Fabrer's work.

Kabyle necklaces (pp. 93-100) are particularly interesting because of the diverse ways in which they are assembled using numerous enameled pendants based on different traditional forms (p. 45) attached to silver chainwork often accompanied by red coral and silver beads. Enameled silver amulet boxes also occasionally appear in these assemblages, as do perforated silver coins.

Very long necklaces also exist, made up of perfumed paste beads, red coral beads and enameled silver elements and beads (p. 100). Silver beads, whether they are enameled or not, are also used as interposing elements on chains joined to fibulae. Red coral, once having been found in profusion along the Algerian coast, is formed into tubular beads, some of them quite massive. Perfumed paste beads are pyramidal in form and made by women from crushed odoriferous seeds, clove spikes, saffron, musk and gum benzoin (p. 99). Scented paste necklaces are reputed to have aphrodisiac properties and were worn only by certain women. Today, Kabyle women no longer wear them, as they have fallen out of style. In the Aurès, where there are no enameled elements, multi-stranded necklaces using scented, coral and silver beads are still worn.

Camps-Fabrer ends with the origins and evolution of the jewelry made in the two Algerian regions. In the Grande Kabylie, the old, traditional, massive silver elements have become extremely rare. Many of these pieces have been melted down in order to recuperate the silver and make new elements that are currently popular. Kabyle jewelry production now focuses on miniaturized versions of the traditional models and is thus oriented toward the creation of small elements and jewelry. Only necklaces made up of small, round, enameled silver beads are reminiscent of those that served to interpose fibulae suspended on silver chains in the past. Besides the fact that the older traditional jewelry is no longer in style, jewelry makers are also restricted by the limitation imposed on them by the Algerian government of being able to acquire a maximum of only one kilogram of silver per month.

It is clear from this comparative study that the origins of jewelry-making methods are distinctly different between the two regions. Those in the Aurès derive from antique and protohistoric techniques, whereas those from the Grande Kabylie are supposed to be of Andalusian origin, brought to North Africa by Jewish and Moorish artisans expelled from Spain after the fall of the Kingdom of Granada in the 15th century.

H. Camps-Fabrer's book demonstrates how well grounded she is in her subject. Nothing is left to chance, and her information is precise and clearly presented. The bibliography is complete, and all photographs and illustrations are informative and impressive at the same time. This book truly represents the work of a professional researcher. Its contents are such that they merit the interest not only of researchers, but also of collectors and of those who enjoy quality art books. Written in French, the text finally corrects a certain amount of error and confusion previously written about the subject, especially the notion that this jewelry is of Moroccan origin. Lois Sherr Dubin, in *The History of Beads* (1987: 149, no. 146), does not hesitate to locate the "town of Kabylia" in southern Morocco, where Jewish artisans make enameled jewelry. In fact, there is not now and never has been a town called Kabylia in this or any other region of the Maghreb. Kabyle enamel work, as we have already seen, is made by Muslim and not Jewish craftsmen. Dubin is probably referring to the town of Tiznit in southeastern Morocco.

Robert K. Liu, in his short critique of Camps-Fabrer's book in *Ornament* (1992, Vol. 15, No. 4, p. 84), is ambiguous and leads one to believe that the massive enameled Kabyle jewelry is also made in the Aurès. Enameling techniques are unknown there. Liu also infers that this type of jewelry is made "in a very similar form by the Berbers of adjoining Morocco," which is inaccurate. The production of traditional enameled jewelry in Morocco is practically non-existent since the departure of Jewish silversmiths earlier in this century. Also, even though the technique of cloisonné enameling may be similar, the forms, colors (yellow and green from Tiznit) and assemblages are quite different. Red coral is not used in Moroccan enamel work, being replaced by variously colored glass.

One interesting aspect not mentioned by Camps-Fabrer concerns the current existence of an enormous production of imitation Kabyle-style enameled jewelry in Morocco. White metal is used instead of silver, making these pieces relatively inexpensive. Red coral is replaced by cheap porcelain beads. These imitations are mass produced with an emphasis on quantity rather than quality. The relatively poor craftsmanship and use of poor quality materials distinguish them from real Kabyle jewelry. This extensive production is centered in Marrakech, and is destined for the tourist trade. The Moroccan imitations are often sold erroneously as real Kabyle jewelry to an unsuspecting foreign clientele.

Marie-José Opper
1023 Cross Drive
Alexandria, Virginia 22302

The Glassmakers: An Odyssey of the Jews, The First Three Thousand Years.

Samuel Kurinsky. Hippocrene Press, New York, 1991. xxiii + 434 pp., 102 figs., bibliography, index. \$29.50 (cloth).

Glass has long been the most important material for making beads. This book, while discussing beads only casually, has a wealth of information on the early history of glass, which is essential to an understanding of the history of glass beads.

The book can be read on at least two levels. For those not familiar with research into glass history, it is an instructive introduction to this subject. For those already acquainted with the basics of glass history, the focus of interest will be the case that Kurinsky makes concerning the nature of glassmakers in the formative period.

Kurinsky alerts his readers from the outset to his major tenets. He begins by saying that glassmaking is an extremely complex operation and as such was invented only once, unlike many other human innovations (p. xiii). For glassmaking and the production of glass objects to spread, therefore, he postulates that the inventors of this admirable material kept the secrets of their art to themselves and passed it down only to their descendants. The people

he identifies as having done this are the Jews, and he makes no apology for this book being a frank protagonist of that position (p. xiv).

His Introduction sets up the cultural climate of Judaism. He rightly asserts that there is considerable intellectual freedom within the religion, widespread literacy among its practitioners, and no doctrinal fear of or repulsion from hard work or artistic achievement. God is seen as the principal artificer, and, as the stewards of God, humans also create from the raw materials at hand.

In Chapter 1 Kurinsky argues that the origin of glass is to be found in Mesopotamia (modern Iraq). To do this, he expends considerable energy disputing the now-discredited theory that glass was an Egyptian invention. Although no glass historian today defends this hypothesis, it is still with us in much of the popular literature. Moreover, the persistence of academic certitude which the debate reveals is instructive.

Chapter 2 discusses the complex steps needed to make glass and the relationship between glass and glaze. Readers not familiar with this technology may be surprised to learn that several steps are usually required to form glass. The raw ingredients do not immediately produce it upon heating, but only make frit which must be broken up and reheated with some preexisting glass in order to make new glass.

The next three chapters are concerned with glassmaking in Egypt and Canaan/Israel. The Hyksos of Canaan are identified as the carriers of glassmaking to Egypt. The valid point is made that glassmaking requires considerable fuel in the form of wood, and Egypt had rather little wood. Canaan/Israel is seen as an exporter of raw glass, Kurinsky citing the cargo of a ship sunk during the 13th-14th century B.C. The emergence of the Israeli state is traced, with ample indication that the Israelites had iron technology. This is relevant because glassmakers and iron smelters have similar needs in the form of the furnaces used.

Chapter 6 is largely based on historical documentation, with a discussion of the Jews' role within the Roman Empire. The Romans and Greeks did not take well to heavy work, leaving that in the hands of slaves, including Jews. An edict of Diocletian mentioned the glass of Judea and of Alexandria. Kurinsky contends that glassmaking in both centers was in the hands of Jews.

Chapter 7 is one of the more interesting parts of the book. Kurinsky relates his experiences during a tour of Israel, particularly visiting the inland mountainous region. There he surveyed many sites which have evidence of glassmaking in the form of frit and other imperfect glass, as well as evidence of glassworking. The author makes the valuable distinction between the making of glass and the making of objects from glass, though the standard term "glassworking" is better than his "glassware-making," as the latter only refers to certain end products.

The sites he discusses are impressive, and they demand more scientific archaeological work. His thesis is that glass was produced inland in the forested mountains by Jews and exported (and perhaps worked) by the coastal dwellers, the Canaanites. Kurinsky prefers the term Canaanite to Phoenician, with which we are perhaps more familiar as the name of the people long considered the great ancient glassmakers.

The remaining chapters are devoted to the spread of glassmaking elsewhere. Chapter 8 covers Asia, particularly China and India. The vector that Kurinsky identifies for spreading glassmaking is again the Jews, this time following mercantile routes. Chapter 9 covers the introduction of glassmaking to Persia by the same means, and presents further remarks on India.

Chapter 10 sees the spread of glassmaking into the Caucasus, Russia and Eastern Europe. This is identified with the conversion of the court of the Khazars to Judaism. The Khazars, a fairly peaceful people who flourished on trade, migrated from Central Asia to settle the region between the Black and Caspian seas. They were socially tolerant, and considered important allies by Byzantium.

The final chapter is concerned with glassmaking in Byzantium, the eastern remnant of the Roman Empire. Following the fall of its capital, Constantinople, Jewish glassmakers are traced into Europe and, of special interest to us, into Venice.

Kurinsky has amassed a great deal of data to demonstrate his contention that glassmaking was a Semitic invention and virtually always in the hands of the group that gave rise to the nation of Israel. His purview is truly global, covering nearly the whole world. He draws upon several lines of evidence:

history, archaeology, glass technology and linguistics.

But, is his central thesis correct? Since it is virtually impossible to attach ethnic origins to archaeological materials, and since historical materials are scanty — suppressed or otherwise — we must look at the arguments that Kurinsky puts forward.

He begins by asserting that glass was invented only once in Mesopotamia. This may or may not have been so. There is at least as good a case to be made for glass having been invented and developed by the non-Semitic Hurrians to the north in the Caucasus region. Kurinsky mentions them in conjunction with the advanced furnaces they built, but regards the invention as taking place to the south. However, others disagree. Engle (1973) has long been a proponent of the Hurrian origin of glass, though she equates later developments with the Jews. Recent excavations in the old Hurrian homeland (McGovern, Fleming and Swann 1991) have strengthened this idea. The importance of glass at the ancient city of Nuzi, which Kurinsky (pp. 18-23, etc.) stresses, also lends weight, for Nuzi was a Mitanni; i.e., a Hurrian city, not a Semitic one.

The idea that glass was invented only once is a statement of belief, not of fact. Independent glass production, using local raw materials and producing glass which differs from other types, apparently happened several times. Glass was made in Europe, perhaps first in the region of Switzerland or northern Italy, as early as the 13th century B.C. (Henderson 1988a, b). This glass differs from that of the Middle East, and though its production may have been inspired by imported beads, nothing suggests Jewish glassmakers in that area at the time. Glass production is also much older in Asia than Kurinsky indicates. The earliest glass in China, of the distinctive lead-barium type, dates to the 11th century B.C. (Yang 1985: 16). In India, the origins of glass are now dated to at least as early as 1000 B.C. (Francis 1984).

While glassmaking is not especially easy, it is not quite as difficult as Kurinsky would have us believe. Experiments have shown that glass could be made in furnaces similar to Roman pottery kilns, even without forced drafts (Brill 1963: 127-8). The raw materials of glass will melt over a wide range of temperatures, depending upon the precise mixture used (Morey

1936). The mastering of pottery making, glazing and/or metallurgy could have lead to glassmaking.

One other important element in the process of the invention of glass is overlooked by Kurinsky: faience production. Faience is similar to glass, with the same ingredients of silica (sand) and an alkali and coloring matter. It is unlike glass in that the sand particles do not completely melt with the help of the alkali, but only at their surfaces, where they touch (this is called sintering). The alkali on the surface of a faience bead or other object does melt the silica and a glaze or thin layer of true glass is formed. Faience production was widespread in the ancient world, and has been documented at places like Scotland and Hungary, Crete and India, as well as Egypt and Mesopotamia. Faience production very likely lead to glassmaking in some cases; Henderson (1988a: 436-8) suggests that happened in Bronze Age Europe. I believe that such a development took place in northern India as well.

Even so, what of Kurinsky's evidence for the spread of glassmaking through Europe and the Middle East? Could he be correct about the Jewish role in these cases? In some, he certainly is. In others, perhaps not. Much of his documentation is circumstantial. He can point to scraps of evidence, but they do not necessarily add up to the conclusions he draws. Just by showing that some glassmakers were Jews or that there were Jews living in a place where glass was made is not enough to establish conclusively that all glassmakers were Jews.

In some particulars, his assertions do not bear scrutiny. Glassmaking in China and India has already been mentioned; the evidence that Kurinsky cites is outdated. The claim of the newly converted Jewish Khazars bringing glassmaking to the Caucasus, Russia and Eastern Europe is undermined by the existence of glassmaking houses in these areas prior to the conversion of the Khazars around A.D. 740. Glassmaking existed in Armenia, Georgia and the Ukraine before this time (Bezborodov and Zadneprovsky 1965: 128, 133).

One may also take exception to some other lines of Kurinsky's arguments. On several occasions he asserts that because a given language has no special word for glass, the people who spoke the language did not make glass. This is spurious. For one thing, the histories of some of the languages he cites are not well known. For another, we do not always know what

words may have been used for glass. The Chinese, for example, were making glass for a thousand years before the first record of their name for glass appears. Moreover, a special word is not necessary. There are languages spoken by many people with no special word for "bead" ("pearl" being the most common substitution), but there are beadmakers among them, some producing beads for centuries (the Italians, for example) and some for millennia (such as Indians).

There are also minor points which are not fatal, but throw doubt on various arguments. Glaze and glazed pots are said to date to 6000 and 4000 B.C. in Mesopotamia (pp. 42-3), some 1500 years too early. Claiming that socketed tool heads (those with a hole to insert the handle) were "virtually unknown outside of Canaan and Mesopotamia" in the 14th century B.C. (p. 86) ignores the earliest such tool recorded, from Non Nok Tha in Thailand which dates to before 3000 B.C. (Solheim 1972: 8). I also find the high estimate of 8,000,000 Jews in the Roman Empire hard to believe (p. 150), nor is a reference cited. In 1800, they were estimated at only about 2.5 million in the whole world (Loewe 1942: 62).

Finally, though this is a handsome volume, it lacks many editorial and scholarly refinements. Illustrations are not numbered, nor is a list of them provided. The index is long but don't bother looking for "bead," though they are mentioned all through the book; there is not even a cross reference to "eye bead." The index would have been made much more useful by having subentries to major entries that have many page references.

In some cases, material is discussed but not referenced. For example, the documents of the Cairo Geniza are noted twice and conclusions drawn from them (pp. 272, 279), but no footnotes are used in the text. The pioneering work of S.D. Goitein on this material, consisting of numerous articles and several volumes, is never mentioned, even in the bibliography. Though these documents, many of which deal with glassmaking and trade, concern a period somewhat later than the scope of the book, their use to bolster arguments calls for citations.

The worst offender is the slipshod bibliography. The translations or editions of classical works are not cited. Some titles have languages inappropriately

mixed. Journal articles are never furnished with page numbers. Often no publishers are listed, sometimes no dates, sometimes both are omitted, and in a few cases even titles are absent. Whole journals, encyclopedias or collected works are cited without any further indication of more precise sources.

Given these misgivings and correctives, does this mean the book under review has no worth? Not at all. It is, in fact, a valuable and important addition to our understanding of the history of glass and glass beads. Bead research does not stop with the beads. A bead can be admired on the aesthetic level, it can be superficially valued for its presumed age or intrinsic price, but bead research goes beyond these concerns.

Bead research is humanistic. It seeks to understand the motives, lives and actions of the people who made, moved and used beads. This is precisely what this book is all about. It attempts to uncover the social history of the most important bead material, though it is admittedly prejudiced in favor of a particular point of view.

Certainly, the children of Israel have been glassmakers for a long time in many places. Even if it can never be proved that they invented glass, and even if it is demonstrated that not all glassmaking traditions can be traced to them, their contribution has been tremendous. This was clear even before Kurinsky's book from the work of various scholars and documents well known to specialists, such as those of the Cairo Geniza. But to Kurinsky goes the prize for stating the case most forcefully and eloquently.

Hence, even if the book is not correct in all details, there is much to be gained from it. It should serve as a treasure house of information for a long time to come. More importantly, it is provocative. It will confirm its worth if it inspires further investigation into the questions it asks. Even though it may not be provable that all glassmakers descended from Mesopotamian Semites who eventually became part of the House of David, it certainly serves as a reminder that Jews have played a central role in the development of this wondrous material.

A second work has already been promised and will explore the development of glass from more recent centuries. It is eagerly awaited.

REFERENCES CITED

Bezborodov, M.A. and J.A. Zadneprovsky
1965 Early Stages of Glassmaking in the USSR. *Slava Antiqua* 12:127-42.

Brill, Robert H.
1963 Ancient Glass. *Scientific American* 209(5):120-30.

Engle, Anita
1973 Who Were the Early Glassmakers? *Readings in Glass History* 1:27-34.

Francis, Peter, Jr.
1984 A Note. *Journal of Glass Studies* 26:152-3.

Henderson, Julian
1988a Glass Production and Bronze Age Europe. *Antiquity* 62:435-81.
1988b Electron Probe Microanalysis of Mixed-Alkali Glasses. *Archaeometry* 30(1):77-91.

Loewe, H.M.J.
1942 Jews. *Encyclopaedia Britannica* 13:42-64.

McGovern, Patrick E., S.J. Fleming and C.P. Swann
1991 The Beads from Tomb B10a B27 at Dinkha Tee and the Beginning of Glassmaking in the Ancient Near East. *American Journal of Archaeology* 95(3):395-402.

Morey, George W.
1936 The Composition of Glass. Carnegie Institute, *Supplemental Publication* 23.

Solheim, Wilhelm
1972 The "New Look" of Southeast Asian Prehistory. *Journal of the Siam Society* 41:1-20.

Yang Boda
1984 Several Questions Concerning the History of Glass in China. In "Chinese Archaeological Abstracts," Vol. 2, edited by A.E. Dien, J.K. Riegel and N.T. Price. *Monumenta Archaeologica* 9.

Peter Francis, Jr.
Center for Bead Research
4 Essex Street
Lake Placid, New York 12946

Scientific Research in Early Chinese Glass.

Robert H. Brill and John H. Martin, editors.
The Corning Museum of Glass, One Museum

Way, Corning, New York 14830-2253; 1991. ix + 212 pp., 187 figs., 32 tables. \$55.00 (cloth).

This attractive and well-constructed book fills a niche in glass studies that has been empty since before Liberation. Brill and Martin and The Corning Museum are to be congratulated for obtaining funds from the Woodcock Foundation and the National Science Foundation for the publication of this "Symposium sponsored by TC17: The Archaeometry of Glass, a Technical Committee of the International Commission on Glass." Officially this work represents and is subtitled the "Proceedings of The Archaeometry of Glass Sessions of the 1984 International Symposium on Glass, September 7, 1984 with Supplementary Papers." It is also A Publication of The Corning Museum of Glass.

The original symposium had seven papers listed, two of which were not delivered, yet eleven papers were presented. The two papers not read are included in Part I. Part II contains seven Supplementary Papers.

In their Introduction, the editors present an impressive list of sixteen research questions, a list worthy of further discussion and research. As they point out, the symposium has resulted in the emergence of some answers but also new questions. When this research is applied to modern bead research, even more questions come to mind. They also explain that the delay in publication is the result of the success of the meeting. Too many papers resulted in the need for a new source of publication funds.

In the Introduction to the Symposium Papers, Gan Fuxi sets the tone of the symposium in his major interest, the chemistry of Chinese glass. He also presents a brief but well-done summary of the major arguments on the origins of Chinese glass.

Gan sets up four major dated periods for the production of Chinese glass:

1. From the Western Zhou Dynasty (ca. 1100-771 B.C.) to the Spring and Autumn Period (770-476 B.C.).
2. From the Warring States Period (475-227 B.C.) to the Sui Dynasty (A.D. 581-618).
3. From the Tang Dynasty (A.D. 618-907) to the Yuan Dynasty (A.D. 1271-1368).
4. From the Ming Dynasty (A.D. 1368-1644) to the Qing Dynasty (A.D. 1644-1911) [p. 2].

These dates are followed by a description of the typical glass products and the major chemical formulas used in glass manufacture. For the readership of *Beads*, it should be noted that both during the earliest period of glass or faience production in the Western Zhou and the earliest true-glass production in the Warring States Period, beads were a major part of that production.

An Jiayao, the author of Chapter 1, is a second-generation archaeologist with the Institute of Archaeology of the Chinese Academy of Social Sciences. She is one of the first, if not the first, Chinese glass researchers to appreciate the value of observing modern glass production for an understanding of ancient glass. Since the symposium, she has done research at The Corning Museum of Glass and other museums in North America. Her excellent article is a summary of the early periods of Chinese-produced and imported wares. The value of the chapter is enhanced by numerous illustrations, a listing of glass vessels excavated since Liberation, and a listing of chemical analyses of selected specimens.

The brief chapter by Cheng Zhuhai and Zhou Changyuan on a garment made of glass pieces is of interest to bead researchers because of the early date (late Western Han: 206 B.C.-A.D.24) for what are essentially "mold-pressed" (p. 21) beads, some of which contained gold foil. Included are a table of shapes, sizes, and number of perforations (3 or 4); chemical analysis; and illustrations of the pieces.

"Investigations of Some Ancient Chinese Lead Glasses" is the brief Chapter 3. It mentions beads, lists two cases of bright green beads in the inventory, and shows a cross-section of a badly weathered bead but says nothing more about the manufacturing technique of specific beads.

Chapter 4, "Chemical Analyses of Some Early Chinese Glasses," by Robert H. Brill, Stephen S.C. Tong and Doris Dohrenwend, is the longest and a major contribution to this volume. Some of the questions listed in the Introduction are again posed. One of the more interesting interpretations is the suggestion that barium is high in Chinese glass in contrast to Western glass because it gives the glass a turbidity that is jade-like in appearance. Most of the conclusions are based on chemical analysis and a real effort to begin a chronology of Chinese glass based on

chemical content. The illustrations, which include several beads, are excellent and are keyed to the Catalogue of Glass Samples.

An Appendix by Brandt A. Rising and Stephen S.C. Tong lists the analytical methods with a full table of sample results. An Addendum to Chapter 4 by Philip M. Fenn, Robert H. Brill and Shi Meiguang is of interest because one of the additional samples is illustrated and described thus: "3344 Medium-sized, flattened ellipsoid bead; date uncertain, poss. 'Peking glass.' Dk. blue transparent glass, unweathered, but with wear. Purchased by R.H.B. in Lhasa, 9/30/90" (p. 62).

Chapter 5, the second-longest chapter, like Chapter 3, is concerned with lead in early Chinese glass. Brill is again the lead author with J. Lyns Barnes and Emile C. Joel. The first sentence tells it all: "Isotope analyses of lead extracted from ancient objects can be used to determine from which mining regions the leads could or could not have come" (p. 65). The usefulness of such information is obvious to any archaeologist. Several of the samples, both in the main chapter and in the Addendum by Brill, Shi, Joel and Robert D. Vocke, were beads but little more is said about them specifically. The basic conclusions are that the leads found in China are very different from leads found in other parts of the world, and there are two very distinct districts represented in the Chinese material.

One bead illustrated in the Addendum is interesting because it comes from "Botago Tobago Island or nearby in the Philippines" and "is said to be similar to those worn by 'Formosan mountain aborigines'" (pp. 85, 89). This is the kind of cultural statement that bead researchers appreciate. The data on the history of studies of this kind of bead with silver foil are also interesting because familiar names like Beck and van der Sleen are mentioned. To fully grasp the meaning of Chapter 5, samples that are found in both must be compared to the results in Chapter 4.

Chapter 6 by Kazuo Yamasaki and Masayo Murozumi has a strong bead emphasis simply because beads are one of the more common artifacts recovered from tombs of the Tumulus Period (ca. A.D. 200-600). A map and a time chart comparing Chinese and Japanese cultural periods is a nice addition, although the chart will be difficult to use by those culture-

bound archaeologists who expect time charts to go from the bottom to the top in age. As with the preceding chapters, the bead-oriented cultural data quickly become overwhelmed by chemical data.

The chapter on "Chinese Glass Technology in Boshan around the 14th Century" by Yi Jialiang and Tu Shujin describes the results of excavations in 1982 at the site of a glass factory dating between the late Yuan and early Ming dynasties. Boshan, now incorporated into the modern city of Zibo, is even today known as a place of glass and ceramic manufacture. It was in Zibo, in 1987, that I was royally shown the sites of the city with a driver and interpreter, but was never able to obtain a straight answer concerning the modern manufacture of glass beads.

While no beads are mentioned, the technology suggested includes "tube-drawing, molding, and various types of off-hand processing" (p. 101). This chapter is also helped by the use of footnotes and references.

Chapter 8 is concerned with the chemical analysis of glass vessels from the Qing period. As is typical of this volume, the black and white photographs are all of excellent quality. In contrast to the preceding chapters, Chapter 9 is not concerned with the chemical composition but the Physical Properties of Early Chinese Glasses. Among the properties discussed are density, refractive index, viscosity-temperature curve and several lesser-known properties.

Chapter 10 is a discussion of glass sword decorations and *bi*, a flat ring placed with the dead. The objects date from the Warring State Period and were excavated in Hunan Province. While they are never described as beads in function, a *bi* could be classified as a large disk-shaped bead. Again the discussion leaves the area of cultural function and enters the chemical arena.

Chapter 11 is a three-paragraph summary that only whets the bead researcher's appetite by reciting historical sources concerning the fabrication of beads by the Marquis of Zeng. Chapter 12 is also just a summary concerning lead-barium glass from India. Again, the glass objects are beads which author H.C. Bhardwaj suggests are imported from China based on their chemical composition.

Part II, Supplementary Papers, contains seven papers not presented at the original symposium but

germane to the subject. Chapter 13, by Yang Boda, is a well-written and illustrated paper on Qing glassmaking. This chapter alone is well worth the price of the volume. While not mentioning beads, it presents a clear outline of the modern development of the Chinese glass industry. Four major centers of manufacture are described in detail: Boshan (Poshan), Guangzhou (Canton), Beijing (Peking) and Suzhou (Suchou). This is followed by a detailed chronological account, reign by reign, and finally "Some Closing Thoughts" (p. 149). This chapter, like several others, is well illustrated. However, the illustrations would have been much more useful if they had been coded to the very valuable and detailed explanation of the Chinese glass terms.

Chapter 14, on Zhou Dynasty tombs by Wang Shixiong, is the only one to be devoted largely to glass beads. The beads from the Western Zhou (ca. 1000 B.C.) are described as "tubular, spherical, rhombic, and ellipsoidal" (p. 151). It was a pleasure to see these accurate geometric terms being utilized instead of the more typical and inaccurate terms currently in use. But the pleasure was short lived as the term round, often used for spherical, is used in the next sentence to describe a tubular bead. Some of the spherical beads are decorated with spherical "drops" and some of the ellipsoidal beads (truncated biconical might be closer) are decorated with knobs. Excellent illustrations and cross-section drawings clarify these terms. Bead colors are light green and light blue with the diaphaneity being clear (transparent?) at one of the two sites and opaque at the other. The use of the beads is well stated: "All of the beads were found on the neck, breast, and arms of the deceased. They were located side-by-side with carnelians and gems, so their decorative nature is clear" (p. 151).

Following the usual chemical analysis, Wang concludes that these beads are very irregular because the workers did not have the skill to work with high-temperature molten glass. She suggests that the techniques used were closely related to the smelting of copper and that these beads were made in China and are "a precursor of Chinese glass" (p. 155).

In Chapter 15, Zhang Fukang summarizes much of the history of glass research in China. The emphasis on beads, especially eye-beads, and the use of good illustrations will make this chapter more useful to the readers of *Beads*. Also adding value to this chapter is

the use of notes, a defect in many of the previous chapters.

Chapter 16, a translation of a Chinese work, contains one page of text, two maps, and ten pages of tables on lead isotope ratios in mostly galena ores in China. As such it will be of great value to future researchers involved in the chemistry of glass but will not excite the average bead enthusiast.

Chapter 17, by Xiong Zhuanxin, concerns "A Han Dynasty Glass Spearhead from Changsha." Based on both the style of the spearhead and the composition of the glass, it is suggested that it represents a trade item from the West. The caption for Fig. 2 appears to be in error as no coin is shown.

"A Preliminary Study of Han Dynasty Glass in Guangxi" by Huang Qishan (Chapter 18) is presented in much the same way as several previous chapters. However, Huang has taken a very specific time and space limit and attempted to list the major finds with tables and good illustrations, as well as presenting much of the pertinent documentation. All of this is also footnoted. He has also drawn valid and well-described conclusions from his research. Because of the importance of this part of China to the later importation of glass beads into the New World, this early work is of special interest to North American researchers.

The final chapter is by Fan Shimin and Zhou Baozhong on "Some Glass in the Museum of Chinese History." Specific items in the museum in Beijing that date to several different periods have been analyzed. The conclusions are well summarized and tend to differ (especially in regard to item number 3 below) from many of the views expressed in this volume:

1. Typical Chinese lead-barium-silicate glass technology was already in use during the Warring States Period.
2. Glass objects made in western countries have been imported into China since the Western Han Dynasty. Chinese glass manufacture was influenced by advanced Western production technology.
3. The beginning of glass manufacture in China was later than its beginning in the West. However, the use of lead and barium as fluxes was a forerunner of the modern manufacture of lead glass [p. 199].

This difference of opinion among several glass researchers in China is one of the major points of interest in this volume. Only a few years ago, any scientific work coming out of China would have presented a monolithic point of view with no room for intellectual disagreement. Let us hope that the trend seen in this volume will continue.

At the end of the volume is a photo album of participants in the seminar, other authors, and historical figures in glass research. Perhaps this was done for purely historical reasons but it is also of immeasurable help to western researchers who are invariably mistaken about the gender (in the real meaning of that currently misused word) of Chinese names.

While there was a fair amount of history at the beginning of each section, as a behavioral scientist, I would like to see future work on Chinese glass tackle such subjects as the cultural meaning of the objects, the social system that resulted in one group of innovators and craftsmen making objects for another group, or the reasons for the trade systems that developed.

Typographical errors are rare and, in spite of a claim that the editors did not change the various authors rendition of Chinese, the use of Pinyin appears to be universal. The lack of footnotes and references for some of the chapters is understandable but nonetheless detracted from their usefulness. In this age of computers and public-domain software, an index would have added a lot for very little extra cost.

In summary, Brill and Martin are to be congratulated for bringing together an invaluable set of works in a pleasing format and with excellent editing under difficult conditions. Anyone with an interest in Far Eastern glass or beads must have and use this volume. It is not only a classic in a specialized field where more work is needed but will become a road map of where that work needs to be done.

Roderick Sprague
 Laboratory of Anthropology
 University of Idaho
 Moscow, Idaho 83844-1111



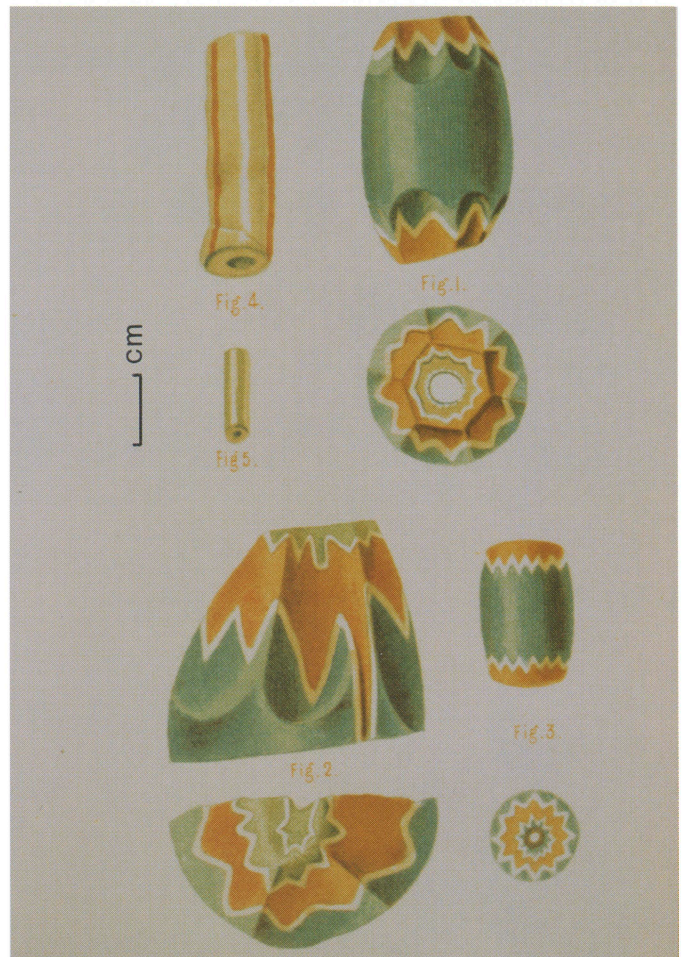
Plate VA. *Togo*: Necklaces for Sakpata, god of small-pox (photo by P. Nourisson).

Plate VC. *Togo*: *Toutou-akpan* — a diviner's necklaces (photo by Philippe Ayrault).



Plate VB. *Togo*: A bracelet for Egou, god of iron and car accidents (photo by Philippe Ayrault).

Plate VD. *Morlot*: Tubular and chevron beads from Europe and North America (see page 3).



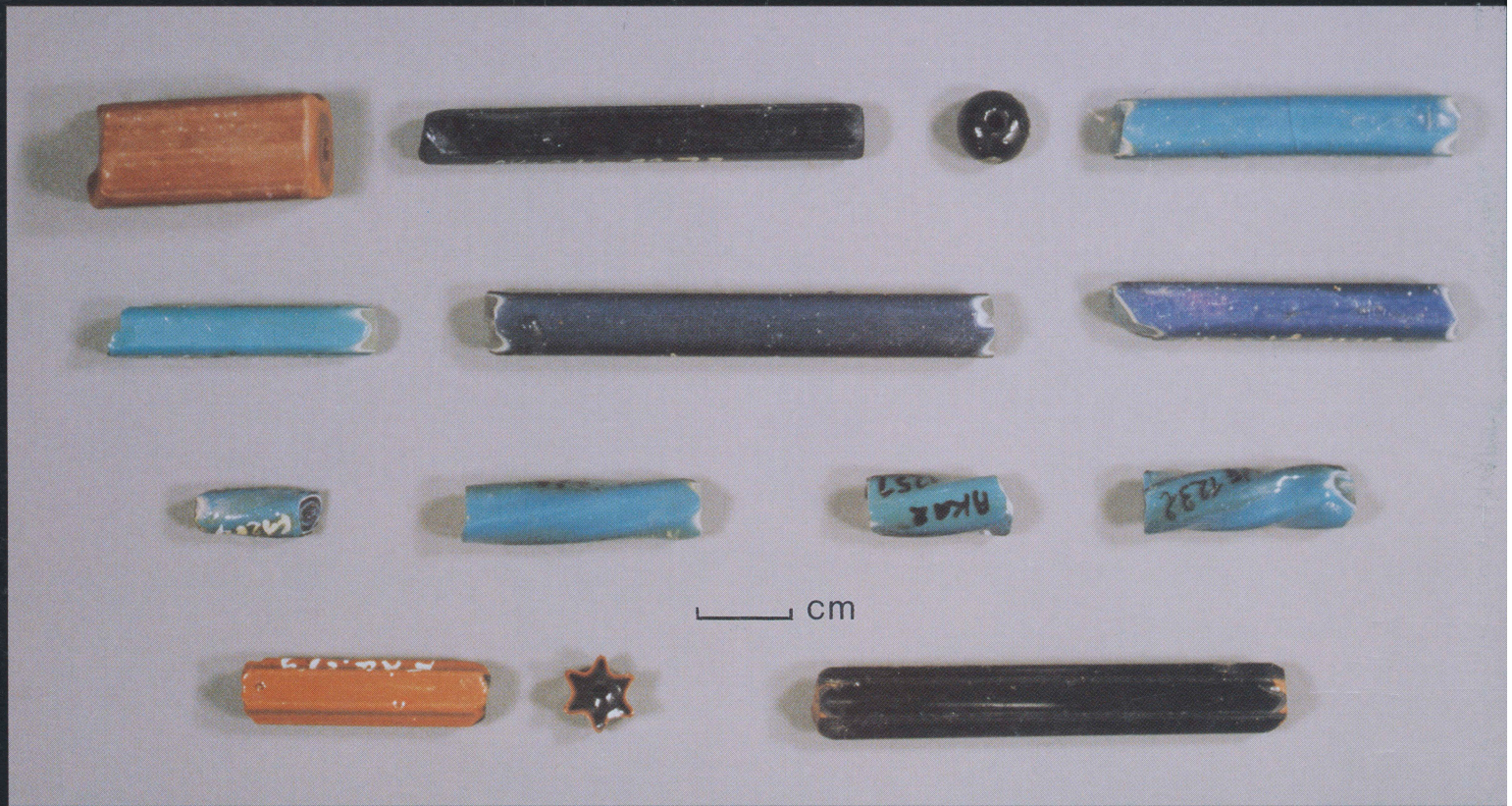


Plate VIA. Antwerpen Beads: Kaasstraat site. **R.1:** 1, Ic1; 2, Ic*(a); 3, IIa6; 4, IIIc*(a). **R.2:** 1, IIIc1; 2, IIIc3; 3, IIIc*(b). **R.3:** 1, IIIc'*(a); 2, IIIc'*(b); 3, IIIc'*(c); 4, IIIc'4. **R.4:** 1-2, IIIe*(a); 3, IIIe*(b) (photo by K. Karklins).

Plate VIB. East African Trade: Tray of European trade beads in the Henry M. Stanley collection (© Africa-Museum, 3080 Tervuren, Belgium).

