

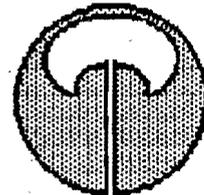
The

# MARGARETOLOGIST

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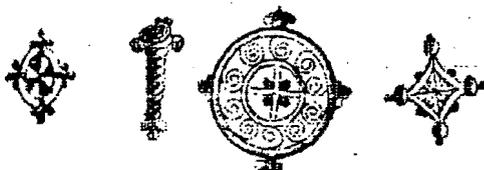
Feature Story (starts on page 3)

## SWAROVSKI AND AUSTRIAN CUT CRYSTAL BEADS



The swan was adopted in 1988 by the board of directors of the Swarovski company. "This elegant and powerful creature was elected as the most appropriate symbol for the vigorous style of business management techniques practiced at Swarovski today." [Crowden 1990]

## BEADS AND CRAFTS ADVENTURE TOUR OF WEST AFRICA



Join us for a unique tour of the Ivory Coast and Ghana. Explore markets big and small. Watch powder-glass and lost-wax beadmaking. Experience the swirling colors, delicious aromas and captivating sounds of West Africa. Details on page 12.

## OUR NEW LOGO (above)

We have adapted this as the logo of the Center for Bead Research. It is called a bung or lingling-o and is made of bronze, silver or gold by the Ifugao of northern Luzon, the Philippines. The Ifugao wear it as a pendant, though most of their neighbors wear a pair of them as earrings. The design is of great antiquity, echoing jade earrings brought to the archipelago in the first millennium B.C. by the Sa Huynh peoples, a sea faring group based in southern Vietnam, who traveled all over Southeast Asia. When the Spanish arrived in Luzon they noticed the people wearing golden earrings in the shape.

## GRANTS

The Center has been the recipient of several grants recently, which have allowed us to expand our research and training programs. Details are on page 9, but we wish to thank once again the Asian Art Council of New York, the Bead Society of Greater Washington and the Northwest Bead Society for their support.

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The MARGARETOLOGIST is published twice a year with only the most current information on bead research, primarily our own. Members: \$25/2 years; Patrons \$75/2 years; Supporters: \$200/2 years. Patrons and Supports receive our new books as published. Entire contents © 1993 Peter Francis, Jr. Reproduction forbidden without written permission. Center for Bead Research, Four Essex Street, Lake Placid, N.Y. 12946 USA. Fon/Fax (518) 523-1794. ISSN 08921 989

## Through the Eye of a Needle

The response to our new format has been overwhelmingly favorable. The fears of those who thought that "jazzing up" the journal would mean it would be less informative have evaporated. We remain what we always were. The "new look" is not only appreciated by our old friends, but winning us new friends as well.



There has also been good response to the questions posed in the last two issues. There was near unanimity in approving a rate increase. We have not increased our rate since we began in 1985, though all elements of production have become more expensive.

Beginning with the next issue we will ask \$30/two years for Members and \$80/two years for Patrons. Patrons receive bonuses, but mostly pay the higher rate to support our work; it does not seem fair to increase their rate the same percentage as Members.

You can avoid the increase by renewing now. The numbers on your mailing label tell you when your subscription is done. The first three numbers are your category (636 for Members, 728 for Patrons, etc.). The next three are assigned as you join. The last numbers are Volume: Number of the last issue on your subscription. If it is 6:1, your subscription ends now. You can still renew at the lower rate. If it is 6:2 or higher you can take advantage of the old rate by extending for one term (2 years) now.

Reactions were mixed about us taking advertising. Several were opposed. Some approved and said they would advertise. A particularly thoughtful letter said that ads would break up the text and make it easier on the eyes, but we think the new format has done this. One suggestion was a classified section for locating or selling unusual items.

The only decision made is that advertising will not detract from the main business of the MARGARETOLOGIST. We would add extra pages if necessary. It would increase revenues, but also add to our duties. We still need input from you; especially a note to say whether you might advertise with us. Although our subscription base is smaller than some other newsletters, the MARGARETOLOGIST is read avidly by a substantial and growing group of dedicated bead people.

As a final note, it is interesting that despite the graphics, headlines, boxes and inter-text notes, the actual editorial content of the MARGARETOLOGIST is about 20% larger in this new format than in the old. Yet another example of our striving to bring you value.

Again, many thanks for your support. Help us out by recruiting new Members and Patrons and having your organization become a Patron or Supporter.

### Calendar 1993-1994

- 3-4 April 1993 Lecture /Bead Identification Seminar, Asian Art Museum, San Francisco
- 7 April Lecture, Bead Society, Los Angeles
- 21-31 May Bead Bazaar, Workshops, Chicago Midwest Bead Society; research Oriental Institute
- 7-13 June. Cataloguing private collection of Middle Eastern beads in Ireland.
- 13 June-14 September Research on rock crystal and amethyst beads in southern India.
- 15 September. Various meetings in New York City.
- 27 September Lecture, New Mexico Bead Society
- 29 September - 3 October Lecture, Young Presidents Organization, Santa Fe
- Late September Bead Museum, Prescott, AZ
- October lectures/workshops Central Ohio, Portland and Northwest Bead Societies
- 3-13 November Bead and Crafts Adventure Tour of West Africa
- November 1993 - February 1994 research in West Africa
- 25-27 March 1994 Bead Expo '94, Santa Fe
- 1994-1995 Setting up display of the type collection of beads in the Philippine National Museum, Manila.
- Extended research in Central and South America.

[Underlined dates are firm]

Now Available: Where Beads Are Loved (Ghana, West Africa). Four full color plates. \$15.00

*Feature Story...***SWAROVSKI AND AUSTRIAN CUT CRYSTALS**

The beads most Americans know as Austrian cut crystals are among the most expensive and beautiful mass-produced beads on the market. The perfection of their material and workmanship create exceptionally attractive ornaments. Their production is closely associated with that of artificial "stones" for jewelry, commonly known as rhinestones.

The story of these Austrian cut crystal beads is intertwined with the history of European beads in general. It begins centuries ago with European glassmakers attempting to duplicate the brilliance of diamonds or rock crystal in glass, and climaxes with the success of a family-run business that is one of the largest private enterprises in Austria and perhaps the largest single bead company in the world.

**BACKGROUND**

The leading Venetian glassmaker of his day, Angelo Barovier (1405-60) developed the clearest glass of its time, called *cristallo*. It was decolorized with manganese, and required purified alkalis and special care to make [Mariacher 1966:79; Mentaste 1980:XLVI]. Still, it was slightly grayish and bubbly, and could only be considered of good quality in comparison to what else was available [Haynes 1959:68]. It was mostly used on thin blown vessels, which helped make it as clear as possible. In 1683 Michael Müller at St. Anton in south Bohemia introduced "chalk glass," which came to be known as Bohemian crystal. This was widely used by his countrymen, but its brilliance was

difficult to maintain [Turner 1956:46T; Weiss 1971:334].

The first fine crystal to be developed was by George Ravenscroft, an Englishman. By 1676 he had largely overcome the common problem of the crizzling of clear glass (a form of surface decomposition) by adding lead to his formula to make his "flint glass" [Haynes 1959:119]. Following Ravenscroft, other glassmakers successfully introduced lead to their batches. Among these was Joseph Strasser of Vienna, whose artificial gems were the best on the market in the mid-nineteenth century.

Another user of lead glass was the company of garnet cutters in Turnov, Bohemia. Disturbed by the success of Venetian imitations, they sent the Fiser brothers to Venice to learn the secrets of making imitation stones. By 1715 they had developed a formula for "composition," a lead-rich glass. This they colored red with gold to make a successful garnet simulation (the garnets of Bohemia are the red pyrope type). At first these imitation garnets were crudely pressed and then cut into artificial stones, work done secretly by the garnet cutters. In time, it grew into the thriving Czech glass bead industry [see Francis 1988:32-8].

The Czech bead industry, while centered at Jablonec nad Nisou, was scattered into the countryside throughout the Jizera or Iser Mountains in Bohemia and neighboring Silesia. Much of the work was done in small factories and private homes, each specializing in certain types of beads.

Glass is not a substance but a state of matter. It is made when a metal or metalloid is melted by being heated above its point of crystallization and allowed to cool without crystallizing. Nearly any metal/metalloid can be made into glass, but the most common one is silica. Next most common is lead, usually with silica. Lead glass was made in Europe for a long time, but only on a limited scale for certain brightly colored enamels. The primary users of through history have been the Chinese, who have been making it for 3000 years.

The amount of lead in glass is crucial. Small traces of lead may be in almost any glass, but it is not considered to have been purposely added until about 5% of the glass is lead. Larger amounts are usually needed to make what is commonly thought of as lead glass or crystal. Swarovski uses a 30% lead proportion, calling this "full lead." Remember, these percentages are by weight and lead is heavy; the percentage of lead by volume is much less.

Lead does several things to glass which the glassmaker can exploit. It makes it easier to melt. It makes it softer and thus easier to cut. Particularly when potassium is used as the alkali, it produces a brilliant glass. It also helps dissolve certain other metals which are destined to impart various colors to the glass.

To one such beadmaking family, Daniel Swarovski was born in 1862 in Georgenthal, near Jablonec nad Nisou. His father was a glass cutter, and it was in this profession that Daniel was trained.

### DANIEL SWAROVSKI'S DREAM

Young Daniel was a tinkerer, and at a young age began to try to automate the cutting of glass. At the age of 21 he attended the "First Electrical Exhibition" at Vienna and was impressed by the potential of this new source of power. By the age of 30 he had applied for a patent on a machine which allowed the precise cutting of glass jewelry stones (e.g. rhinestones). The invention gave him an advantage over the other glass stone cutters of the Jablonec region, and he felt the need for increased secrecy to develop his ideas.

#### FACETING AND CUTTING BEADS

The term "cut bead" does not always mean the same thing. While we may think of it as the mechanical wasting of glass to produce facets, the facets are the only thing in common with all cut beads.

Among seed, beads, for example hex-cut and two-cut are most often drawn out with facets along the tube. Three-cut and sometimes two-cut beads are hand made by running the tube along a rotating wheel. The term "English cut" refers to beads made by tinkers for use on lace bobbins. They are cubes, paddled into shape while still hot, often with a "waffle" surface.

It is not uncommon, particularly in Bohemia, to combine molded facets with cutting. The cornerless hexagonal, so popular world-wide, is a combination of a drawn hexagonal tube which has been cut at the twelve corners. The "Vaseline" beads and several other faceted beads were molded into shape, then facets cut into them. During the course of the last century, fewer and fewer facets were cut on these beads, being replaced by more molded facets over the years.

Beads actually hand faceted are sometimes called "tin cut," indicating the plate on which the faceting was done. Such facets will be very sharp at the edges, unless the bead was subsequently fire polished, placed in heat just enough to let the surface run and give a sparkling finish. Swarovski beads are cut to perfection by the use of machines, which give very precise facets, essential to the sparkling diffusion of the light through the glass.

Bohemia was then part of the Austro-Hungarian Empire, and in the Tyrolian mountains of Austria he found the place he was looking for. In 1895 he leased a small factory with a water power plant in tiny (population then 744) Wattens. Wattens was well suited. It has abundant water, which Swarovski first used directly for power and then to generate electricity. It was also near an important railway link and only 15 miles from Innsbruck. He began a production technique which ground and polished hundreds of glass stones in a single process, much as used today. The details of the process remain secret, even to Swarovski employees.

In the next few years the "Tyrolean cut stones," as they were known, came into great demand in the fashion centers of Europe and America. The factory was purchased and was employing 100 workers, electric lights were installed, and soon a new factory and power plant had to be built.

Up to this point, the cut crystal was all made from glass supplied from Jablonec. Swarovski, desiring independence and better control over his product, began experimenting with his sons in a small laboratory next to their house. In 1911 they introduced their own glass, both clear and colored. It was produced in furnaces they invented and by processes they had pioneered. The burgeoning business has always been a patriarchal family affair. By 1925 sons Wilhelm, Fredrich and Alfred had begun to control different parts of the company's affairs, ensuring a smooth transition of leadership.

The company expanded until the outbreak of World War I, when many of the workers were conscripted. Swarovski managed to save it by producing military equipment, which also protected the livelihood of the families of his workers. One outcome of the war was Swarovski perfecting a better type of grinding wheel, due to the shortage of abrasives during the conflict. By 1919 these were made commercially, and the Tyrolit wheels became the foundation of a program of corporate diversification; they are today marketed in 80 countries.

### THE SWAROVSKI EMPIRE

The twenties were profitable, but the thirties saw production curtailed. In 1931 the company introduced the first of many fashion accessories in the form of pre-sewn trimmings. World War II forced the company to accept military commissions again. By this time, Wilhelm has succeeded in establishing an

optical unit, which along with abrasives and some other technical products, kept Swarovski going.

After the war Swarovski emerged as the largest foreign currency earner in Austria, a bright spot in the otherwise depressed national economy. It expanded quickly, moving branches to new factories in nearby towns, establishing an independent sales office, and founding new subsidiaries.

The coming of Communism to Czechoslovakia caused an exodus of many skilled workers, including those in the bead business. They settled in several

### COLORING AND COATING BEADS AND CRYSTAL

Glass beads can be colored any number of ways. The glass itself may be colored by introducing metal oxides to the batch. Clear glass beads can be coated inside to give them a particular appearance. Blown beads are often coated with silver ammonia nitrate, which leaves a silver lining; depending upon the color of the glass, the result will be silver, gold (with amber glass) or other metallic effects. Small drawn "seed" beads are commonly lined with paint to color them, but this fades and wears out in time.

The external coating of beads became popular in the 1860s with Bohemia the leading developer. These coatings break up and scatter light to produce various iridescent effects. There are a number of methods used, terms for them differ from beadmaker to beadmaker and information on them is scanty, but they fall into two broad categories.

In one, a varnish is applied to the glass consisting of a mixed metallic and organic compound. Upon firing, the organic material burns off, leaving a thin layer of the metal [Greene 1975:337-8]. This luster is commonly called "iris" (gunmetal, bronze and other dark colors) and "ceylons" (generally of pastel colors, sometimes on lined glass beads).

The other method is more sophisticated, exposing the glass to fumes of various inorganic halides (especially chloride). This deposits a very thin metal film on the glass, on the order of the size of the wavelength of light. Ferric (iron) chloride will produce a deep amber coat, while the chlorides of silica, tin and titanium produce colorless coatings, leaving only the iridescent effect [Greene 1975:340-1]. Aurora Borealis is the most famous of this type; the Japanese version is called "rainbow." Swarovski's "Glacier Blue" which is even more spectacular than Aurora Borealis, is essentially similar, but with an even thinner layer of coating.

places, especially in (West) Germany and Austria. The largest group of these skilled craftsmen finally chose to establish themselves near the Bavarian town of Kaufbeuren in a suburb named Neu Gablonz (or New Jablonec). Daniel Swarovski was sympathetic to the plight of his countrymen, and helped them resettle. By 1960 the Swarovski company opened its first foreign sales office in Kaufbeuren.

A technical development within the Swarovski laboratories produced a sophisticated method of coating their glass stones and beads. They were not the first to develop this, but their products were great successes, especially the "Aurora Borealis" effect, which was introduced in the early 1950s.

The grand patriarch, Daniel Swarovski, died in 1956 at the age of 94, active to the end. By chance, his three sons all passed away within 15 months of each other from late 1960 to early 1962. Since then, third and fourth generation (male) descendants have run the company.

Always keeping within the broad framework of jewelry production, Swarovski continued to expand. In 1957 they introduced a gem cutting division and soon were making synthetic stones as well. By 1965 they were producing artificial pearls. In the same year they began making pendants especially for chandeliers (their beads had been used for years) under the trade name Strass. Gift and souvenir items and the first crystal collector's society were introduced in the 1970s and 1980s. Costume jewelry, glass reflecting elements, ECG electrodes and electronic control systems are also part of the conglomerate. In 1987 they became a major force in the American jewelry business, buying the American Zale Corporation (and People's Jewellery Ltd. of Canada). With 1250 stores, Zale is the largest jewelry retail chain in the world.

By 1992 Swarovski had become a billion dollar company, employing 9200 people, over 600 of them in research and development. They operate 19 manufacturing units in Austria (4), Liechtenstein, Germany, Spain, France, the U.S.A. (3), the Bahamas, Brazil, Argentina (3), Uruguay, China and Thailand. 45 sales components and 12 service companies complete their corporate profile.

### SWAROVSKI BEADS

The heart of the company has always been crystal ornaments. The bulk of production is probably geared toward rhinestones and related products, but

beads are not neglected. Swarovski produces 60,000,000 pieces of crystal stones a day in sizes ranging from 0.9 to 50 mm. Pieces are cut with from 17 to 130 facets and offered in a wide variety of colors and special effects.

The crystal stone line is designated by number. Numbers 1000, 2000 and 4000 are stones meant to be mounted in jewelry, either round, flat backed or fancy in shape. The 3000 series are for stones to be sewn onto clothing. Beads are designated as the 5000 series, with 5800 used for artificial pearls and 6000 for pendants. The chart of their bead and pendant designs is as of 1989 and still current. Some older designs have been discontinued (but could be revived), and new designs are brought into production when they are warranted.

REFERENCES

Crowden, Cherry 1990 Swarovski Milestones. Swarovski Collectors Society.

Francis, Peter, Jr. 1988 The Glass Trade Beads of Europe. Lapis Route, Lake Placid.  
 Greene, Charles H. 1975 Modern Glass Practice (7th ed.). Central Book Co., Taipei.  
 Haynes, E. Barrington 1959 Glass Through the Ages. Penguin, Harmondsworth.  
 Mariacher, Giovanni (trans. M. Cunningham) 1966 Glass from Antiquity to the Renaissance. Hamlyn, London.  
 Mentaste, Rosa Barovier 1980 Introduction to Antonio Neri, L'Arte Vetraria. Polifilo, Milan.  
 Daniel Swarovski Co. 1990-2 Jewellery Stones Box. Swarovski, Wattens.  
 - 1992 Press Kit. Swarovski, Wattens.  
 Turner, W.E.S. 1956 Studies in Ancient Glasses and Glassmaking Processes, Part III: The Chronology of the Glassmaking Constituents. Journal of the Society of Glass Technology XL:39-54T.  
 Weiss, Gustav (trans. Janet Seligman) 1971 The Book of Glass. Praeger, N.Y.

	5000 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20 mm		5302 5.3x4, 8.5x6, 10.7x8 mm		5800 4, 5, 6, 7, 8, 9, 10, 12 mm		6000 11x5.5, 13x6.5, 15x7.5, 18x9, 22x11, 28x14 mm		6140 24x12, 34x20 mm		6212 30 mm
	5003 6, 7, 8, 9, 10, 12, 14, 16, 18, 21 mm		5305 5, 6 mm		5801 6x5, 7x5, 12x9 mm		6002 10x7, 15x11.5, 23x18 mm		6200 6, 8, 10, 12 mm		6215 18 mm
	5015 3, 4 mm		5308 6, 8 mm		5806 12x6, 16x8, 20x12 mm		6005 25x17 mm		6202 10.3x10, 14.4x14, 18x17.5 mm		6221/4/5 10x9.7, 16x15.5 mm
	5100 5, 6, 8, 10, 12 mm		5309/1 4, 5, 6, 7, 8, 9, 10, 12, 14 mm		5807 6, 8, 10, 12, 14, 16 mm		6049 20, 25, 30 mm		6203 17, 27 mm		6225 10, 18, 28 mm
	5200 6x4, 7.5x5, 9x6, 10.5x7, 12x8, 15x10, 18x12 mm		5400 6.6x6, 8x7, 9x8, 10x9, 11x10 mm		5808 4, 5, 6, 7, 8, 9, 10, 12 mm		6050 25, 30 mm		6204 18 mm		6226 18, 24, 28 mm
	5204 7.5x5, 9x6, 10.5x7, 12x8, 13.5x9, 15x10, 18x12 mm		5500 9x6, 10.5x7, 12x8, 13.5x9, 15x10, 18x12 mm				6100 24x12, 34x20 mm		6208 18, 28, 40 mm		6227 18 mm
	5205 12.5x5, 15x6, 17.5x7 mm		5601 6, 8, 10, 12, 14 mm				6105 38x22, 50x29 mm		6209 30 mm		6229 18 mm
	5301 3, 4, 5, 6, 7, 8, 10, 12 mm						6120 18x12, 24x17, 32x22 mm		6210 12, 17, 27 mm		6400 14, 23 mm

## BEAD ALTERING

**W**e first discussed the altering of glass beads in one of our special issues on Ghana [*MARGARETOLOGIST* 3(1):7-8]. My attention had been drawn to this practice when visiting the long-established bead dealers of Tesbie House in Accra. The altering of beads had never been given much attention in the literature, but having been alerted to the custom, I have been collecting more data on this interesting phenomenon. Although some of it has been reported in past issues of this journal, a summary article devoted to this subject is now appropriate.

We begin with a definition of bead altering. It refers to the physical changing of the appearance of beads after they have left the manufacturers. It is usually done for aesthetic reasons and most commonly to new beads, though old beads are sometimes involved. It does not include the manufacturing of new beads from old ones, as is done with powder-glass bead-making, but is confined to beads which retain most of their original form. Nor does it involve the altering of single beads so that they may be recycled (for instance, after they had been broken). The examples considered here are all of glass beads; none have yet come to light for beads of other materials.

The altering of beads is not restricted to any one re-

### *Altering beads is both widespread and of considerable age.*

gion, but is done by a number of people. It seems most common in West Africa, but examples from elsewhere are also known.

Altering beads is not a new phenomenon. Two groups of beads from the Power House site of the Seneca region of upstate New York dated to 1635-55 in the Rochester Museum and Science Center show that. One strand (#2429/44) is of catlinite (pipe-stone), procured from its source in Minnesota and traded extensively among Native Americans long before the coming of Europeans. The other (3341/24) is of glass beads. It has a few unaltered blue beads, but most are opaque red drawn tubes or oblates. Many of these had been ground along their sides to give them irregular facets, apparently in an attempt to

make them look more like the catlinite beads, which had been ground to shape.

A historical record of about the same time indicates that altering beads was being practiced in West Africa. We have quoted Peter DeMarees, a Dutch visitor to the Gold Coast around 1605 before, but will do so again in this context: "They use a great store of Venice beads... which they break into four or five pieces, and then grind them upon a stone, as our children grind cherry stones; and then put them upon strings, made of bark of trees, ten or twelve together, and therewith traffic much...." [Purchas 1905:282]

As an aside, I wonder of the "strings, made of bark of trees," were not actually rattan palm leaves, widely used today for stringing beads in this part of the world.

### HOW BEADS ARE ALTERED

Three ways to alter glass beads are now known. One is the breaking of beads into smaller pieces, which sometimes requires them to be redrilled. The second is the grinding of beads. The third is with the application of heat. Let us look at them in more detail.

I. The breaking of beads is done to make smaller beads. This is the process described above by DeMarees, and continues in West Africa, particularly with millefioris. Opper and Opper [1989] report that in Mauritania, West Africa, dealers customarily break up both newly made powder-glass Kiffa beads and older glass beads of the early Arabic trade. These they perforate and sell at prices much higher than the original beads. Such broken beads are apparently very much in fashion.

II. It is more common to grind beads as a process of alteration. The grinding may take several forms, depending upon the effect desired.

A. Beads are shaped to fit onto a strand better. This may be done by grinding the length of a strand so that they are all the same diameter. It is, however, more commonly done to bevel the ends of the beads so they fit snugly on a strand. This has been recorded for new powder-glass beads [Sordinas 1964], for new European beads [*MARGARETOLOGIST* 3(1):7-8], for older beads made in Hebron, the monggur or so-called Kano beads [*MARGARETOLOGIST* 4(1):9-10], and for Indo-Pacific beads used as heirlooms in South Africa, the "Beads of the Water" [*MARGARETOLOGIST* 5(2):5-6].

B. Another motive for grinding beads is to alter their shape. The center has a pair of wound "yellow

hearts" which have been ground into short hexagonal bicones. The beads have come through the African trade, and it appears they were altered there, though exactly where is unknown. In the last issue [*MARGARETOLOGIST* 5(2):11] we reported on the Kalinga of the Philippines grinding all the facets off Czech cornerless hexagonals in order to make them rounded barrel beads. The altered glass beads from

***Beads are altered to better conform to the aesthetic of a given community.***

the Power House site described above could be listed here; the facets were desired to make the glass beads look more like traditional stone ones.

C. Decorations can be removed by grinding glass beads. The one recorded instance of this is the Kelabit of Borneo grinding decorations off beads because their aesthetic calls for monochrome beads [Munan-Oettli 1983:94]. Beads from the African trade in the Center's collection have been similarly-ground to remove traces of their decoration; we are not yet sure who is doing this.

III. Beads can be altered by heat. The application of low heat to glass will melt it slightly, producing different sorts of beads.

A. The rationale given for cooking beads in Ghana, such as the Koli, Numli Koli, So-so and others, is usually that they will become more attractive by gaining in opacity [Sordinas 1964; *MARGARETOLOGIST* 3(1):7-8].

B. The shapes of beads can be altered by heat. This was apparently done in Ifé, Nigeria, between ca. 1100 and 1400 A.D. Imported glass beads were heated and reworked into more rounded shapes [Davison 1972:260-3].

The case which has come to my attention most recently is the so-called "Nila" beads of Mali and neighboring countries. The name "Nila" is derived ultimately from India, where it refers to the color blue, more particularly the color produced by the nila (indigo) plant. It became part of the Arabic wordstock because of the desirability of this rich, permanent dye.

Nila beads sent to the Center by Kirk Stanfield are blue or greenish-blue in color, though other colors are seen occasionally. The beads themselves are old Indo-Pacific beads. They have been altered by being heated, apparently on a flat plate. This makes them

melt slightly and slump into rounded donut shapes. The end resting on the plate becomes pitted, and the perforations become conical, with the widest part at the pitted end.

There may also be cases when one or more effect is achieved by an operation of altering beads. The color of the Nila beads is said to be enhanced through the heating. The grooves along Koli beads (sometimes called "stretch marks" but actually air bubbles breaking out) may also have been desired, reminding some of the "corded" effect seen on some old blue beads related to Aggrey beads.

This survey is not intended to exhaust all examples of altered beads. Readers are invited to alert us to other such cases. However, it should demonstrate that the altering of beads is an important topic. It is of some age; we now have four examples that date to the 17th century or earlier. It is also widespread; we

***The altering of beads is a excellent illustration of just how complex the bead trade really is.***

know of cases in North America, Southeast Asia, East Africa and in several parts of West Africa.

The altering of beads is a good illustration of how complex the bead trade really is. Altering is important to the people who do it because it involves their labor and ingenuity to produce new beads. Finally, it is significant because understanding the processes involved help us to identify the beads, some of which had previously not been understood.

**REFERENCES**

(except for the *MARGARETOLOGIST*)

- Davison, Claire C. 1972 Glass Beads in African Archaeology. Ph.D. Thesis, U. CA, Berkeley.
- Munan-Oettli, Adelheid. 1983 Bead Cap 64/88 in the Sarawak Museum Collection. *Sarawak Museum Journal* 32:89-96.
- Opper, Marie-José and Howard Opper 1989 *Kiffa Beads: Mauritanian Powdered Glass Beads*, private, Washington.
- Purchas, Samuel 1905 *Hakluytus Posthumus or Purchas His Pilgrimes*. Vol. IV. Glasgow University, Glasgow.
- Sordinas, Augustus 1964 Modern Koli Beads in Ghana. *Man* 64:75-6.

## BEAD NEWS FROM SOUTHEAST ASIA

**S**outheast Asia is emerging as one of the most important regions in the world for bead research. It is almost natural that this be so. As a true crossroads of world civilization, the great ancient powers of China and India, and to some extent, Rome and Persia, made themselves felt there, as did the later Islamic Middle East and Modern Europe.

A mosaic of cultures, several of its countries are among the fastest developing nations in the world. From tiny Singapore to sprawling Indonesia the area is vibrant and its dynamism is reflected not only in economic progress with its inevitable traffic jams and environmental problems, it is evident in the cultural and educational performances as well.

My first visit to the region was in 1984. I recall telling an audience afterwards at Deccan College, Poona, India, that India could be proud of its leadership in the field of archaeology. I had compared the situation in a Southeast Asian country I had just visited and found it wanting.

India is still justly proud of its scholastic achievements. But the country I was comparing, as well as most of its neighbors, are no longer inferior. Many Southeast Asia states are quickly developing their infrastructure by educating bright young future scientists; building impressive museums, libraries, laboratories and other facilities; publishing their results in a

*Because of its booming economies, its central historical role and the deep interest in beads by many of its people, Southeast Asia is becoming a leader in bead research.*

timely way; and making use of the latest technology to uncover their own heritage.

Much credit must be given to an organization called SPAFA. SPAFA is an acronym of an acronym. The "S" stands for "SEMEO" or "Southeast Asian Ministers of Education Organization," a subdivision of the trading/mutual defense block of ASEAN (Associa-

tion of Southeast Asian Nations). SPAFA is thus the "SEMEO Project in Archaeology and Fine Arts." Conceived by the then-new member Cambodia in 1971, it began its trial program in 1976, after Cambodia had left ASEAN. Since then, it has become the chief clearinghouse for information on archaeology (and Fine Arts, a separate division) for the ASEAN nations of Indonesia, Malaysia, the Philippines, Thailand, Singapore and Brunei.

Almost from the beginning during SPAFA conferences and workshops participants were calling for a special program on bead research. The importance

### *SPAFA is the central archaeological organization for the six ASEAN nations*

of beads did not escape them: they found them in every excavation and they are still a living tradition among many people in their own nations. Yet, there was no place to turn for information on beads.

In 1988 the Center's long-term undertaking, the Indian Ocean Bead Trade Project, began research in Southeast Asia. Interest in our work was immediately sparked, as there was already a desire for serious research in the area. The Center submitted a formal proposal for a month-long workshop, which was approved in principle in 1990.

As a result, from 1 November to 10 December 1992 the SEMEO-SPAFA Training Course in Archaeological Beads Analysis was held at the National University of Malaysia at Bangi, south of the capital of Kuala Lumpur. The participants were young museum and university personnel from the Philippines, Thailand, Indonesia and Malaysia.

The Workshop included visits to laboratories and computer centers at the university to acquaint the participants with fundamentals of research as it pertained to beads. The two outside presenters were Rey Santiago of the Philippine National Museum, who lectured for three days, and Pete Francis, scheduled for ten days. In addition to lectures, demonstrations, slides and other presentations, the trainees spent weekends touring historic Malacca and Port Dickerson and the archaeological sites of Kuala Selinsing, Pengkalen Bujang and Sungai Mas.

The staff trained in basic bead identification, classification, history, conservation, research, display, photography and display constitute a core of skilled professionals qualified to enrich our understanding of beads in this crucial part of the globe.

The workshop was enthusiastically received by the participants and those working with them. There is already talk of duplicating it to extend it to other members of the archaeological community. Three of the four countries involved in this workshop have expressed interest in hosting another one.

Education and interest are the twin keys to advances in any pursuit. The countries of Southeast Asia have gone far toward making their region a leader in bead research. We expect many more interesting developments in the years ahead.

### PHILIPPINE BEAD SOCIETY

Many urban dwellers in the Philippines have an intense interest in beads, which they recognize as part of their national heritage. Accordingly, the idea of founding a bead society has been discussed for several years.

While in the Philippines in 1991 Pete Francis met with several groups to discuss the possibility of a bead society. He was able to explain how they worked in other places and encouraged devoted collectors to organize themselves. This has now been done. The Philippine Bead Society has been chartered and has begun operations. The first president is the well-known collector of long standing, Arturo de Santos.

Incidentally, this is the fifth bead society which Pete Francis has helped form. The other three that have survived are the Bead Society of Greater Washington, the Northwest Bead Society and the Central Ohio Bead Society.

### ALERT!

#### THEFT OF MAJOR COLLECTION

A spectacular collection of ancient gold, glass and stone beads from the Philippines has been stolen. The collection was in Europe to show to an organization which was considering exhibiting it, but was stolen in an airport in Spain.

I was privileged to view this collection when last in the Philippines. I have written the owner for more details and to ask if we might help by trying to identify stolen pieces. I have not yet received a reply.

If any member or friend of the Center has word of a large collection of ancient Philippine beads and gold jewelry offered for sale, please contact us. The chances are not great, to be sure, but the thought of all those magnificent pieces being destroyed, especially of the ancient Philippine gold being melted down for its bullion value is enough to sicken anyone.

### SWAROVSKI EXHIBITS

Swarovski is currently sponsoring three exhibits in the United States which readers may want to attend.

Jewels of Fantasy is the first comprehensive exhibition devoted to costume jewelry. It will be at the Fashion Institute of Technology in New York from 1 April through 8 May 1993.

Imperial Austria, displaying art, arms and armor from the state of Styria, will be held simultaneously with The Cutting Edge: 200 Years of Crystal, documenting the development of cut crystal over the last two centuries. Both are at the Museum of Fine Arts, Houston from 14 March to 27 June 1993.

### NEWS OF THE CENTER

#### THANKS

The donation of beads to our study collection and books and other references to our library are always most welcome. Beads representing specimens we do not have are invaluable, books especially with their ever rising costs and photos of beads are all most helpful. We are especially thankful, since a donation cannot be parlayed into a tax deduction (though we are working on that). Recent donations include:

Beads: Sumarah Adhyatman of Jakarta; Peter Brisbois of Mackinac Is, MI; Kirk Stanfield of Paoli, PA; Lori Wood of Bigfork, MT.; and Joyce Whittaker of Cambridge, MA.

Books: Dr. Wayne Armstrong of Palomar College; Dr. George Boon of the National Museum of Wales; Lorenz Bruchert of Vancouver; Vladislav Chvalina of Jablonec nad Nisou; Rosemarie Devine of Lockport, IL; Penny Diamanti of Washington, D.C.; Kay Doherty of Kettle Falls, WA; Vincenza Escobar of Manila; Margaret Haldeman of San Francisco; Karlis Karklins of Ottawa; Mr. and Mrs. Gerry Kingma of Amsterdam; Dr. David Reese of the Field Museum; Lois Rose of Los Angeles; Alice Scherer of Portland; Dr. Michael Schiffer of Arizona State University; and Dr. Adi Haji Taha of the National Museum, Malaysia.

Photos: Linda Arnold of Kneeland, CA; Lourdes M. Labrador of Manila; and Lees Stephens and Christine Starr of El Portal, CA.

Multiple gifts: Dr. Vimala Begley of the University of Pennsylvania; Alison Diem of Manila; Professor Kamaruzaman of the National University of Malaysia; and W. Pfeifer and Ch. Winzberger of Wattens.

There have been others; kisses to all.

A special thanks goes to Robert Dunnigan of Minneapolis, the premier lapis lazuli trader. Bob is deeply interested in all aspects of mineralogy and during his sales trips always keeps his eyes open for related literature. He often buys books in bulk to give anyone interested in the subject. He is also a great contact person, striving to connect people with similar interests. Over the last few years he has donated at least 15 volumes to our library, most recently three on the archaeology of the Middle East and India. They have significantly filled out our library in several areas. We can hardly thank him enough.

### CORRECTIONS

Alas, there are ever mistakes in the MARGARETOLOGIST. I have always been a notorious speller, and despite proofreadings by at least two people and computer spell-check programs, errors creep in. A bouquet this issue to Carol Lubbers of Honolulu, who spotted the following goofs in the last issue (page number followed by R or L for right/left column and line number):

1R2 flouresces to fluoresces

2L10 thoughtful to thoughtful

2L13 loose to lose

2L14 that to than

2R6 calander to calendar

12L title of paragraph 3 Privatization to Privitization

We appreciate keeping the record straight. Carol warns in a nice way, "There may be others but as I read I get caught up in the information and stop looking for errors." Don't stop. We are grateful.

### BOOK ON BEAD COLLECTING

Pete Francis has signed a contract with Schiffer Books, the nation's largest publisher of antiques and collectible books. Tentatively entitled BEAD COLLECTING, it is aimed at beginners and those who want to collect but do not know where to start.

It will be similar to other Schiffer books, with the lavish use of color photography. The text discusses collecting and identifying beads with brief histories of the world's major and many minor beadmaking industries. A price guide will be included, but beads from looted archaeological sites will not be priced nor emphasized, since the Center feels strongly that this only encourages cultural destruction.

Publication is tentatively scheduled for early 1994. Stay tuned.

### GRANTS TO THE CENTER

Over the years we have received several grants from organizations and individuals. In some cases, the grantor has specified it be used for a particular project in which they have an interest. At other times, they have come as a result of our identifying a need and making a formal application.

Whatever the situation, grants are seeds, allowing us to undertake research or educational projects that would otherwise not be done. The Center cannot alone sponsor all research projects needed to understand the role beads have played in human culture.

Grants have been received since our last issue. We want to extend a very hearty thanks to all grantors and express our deepest appreciation.

From the Asian Cultural Council of New York a grant covering the travel expenses of Pete Francis to teach in the bead workshop for Southeast Asian archaeologists in Malaysia (see p. 9). SPAFA paid living expenses; travel was met by this grant.

From the Northwest Bead Society, equal grants were given to the Center, the Society of Bead Researchers, the Bead Museum and the Center for the Study of Beadwork. These may be used for any purpose the recipient deems worthy. We shall use it to fund a project to be identified later.

From the Bead Society of Greater Washington, a grant to allow research in south India on the quartz (rock) crystal and amethyst bead industry. It has long been known that western India was the major producer of agate and carnelian beads for millennia; a focus of some of our earliest work. However, the Arikamedu excavations, evaluation is continuing, suggest that crystalline quartz minerals were found and worked mostly in south India. Archaeological records confirmed this; quartz beads are common in southern sites, but rare in northern ones. Two villages have been identified which made crystal beads at the turn of the century. The project begins later this year; the results, of course, will be recorded here first.

### FRANCIS HONORED

The Greater Washington Bead Society awarded Pete Francis an honorary lifetime membership for his role in starting the group. Other first year speakers were similarly honored. Beadesigners members voted him their favorite speaker/workshop giver. The Adirondack Enterprise of nearby Saranac Lake, NY featured the Center in a cover story in their Weekender magazine.

## EVENTS TO MARK ON YOUR CALENDARS

### BEAD EXPO '94



This is a mock-up of the logo that the Center and Recursos de Santa Fe plan to use for our biannual bead conferences and bazaars. The 1994 conference will be held in the Sweeney Center in Santa Fe, NM from 25 to 27 March. The theme is Glass Bead-

making and Trade.

The Conference will feature many events. An auction will be held during the first evening. Demonstrations of glass beadmaking will be live through the day by Fred Burkhill and Brian Kerkvliet. The seminars will be kept strictly apart from the bazaar so that everyone, including dealers, can participate in all aspects of the Conference. Other events being planned will be announced when finalized.

The speakers include: Jamey Allen on the Venetian bead industry; Fred Burkhill on wound glass beadmaking; Vladislav Chvalina of Jablonex on the Czech bead industry; Christopher DeCorse on beads in Ghana; Brian Kerkvliet on fancy canes and drawn glass beadmaking; Elaine Lewis on beads among Thai hilltribes; Howard and Marie-José Opper on beads in Senegambia; Peter Pratt on beads in the American colonial period; Kirk Stanfield on powder-glass beadmaking in Kroboland. Pete Francis, the conference director, will present short talks on Indo-Pacific beadmaking, bead altering and another topic.

The Proceedings of the 1992 Bead Trade in the Americas Conference have not been finished, as the papers of several speakers have been delayed. They will be published along with the 1994 papers.

Bead Expo '96 is being planned to focus on stone beads, while Bead Expo '98 will deal with beads of organic materials (amber, anyone?).

Information on the conference is available from Bead Expo '94, c/o Suzanne Jamison, Recursos de Santa Fe, 826 Camino de Monte Rey A-3, Santa Fe, NM 87501. 1-800-732-6881.

### BEAD AND CRAFTS ADVENTURE TOUR OF WEST AFRICA

Get ready for a real adventure. Join Pete Francis on a true expedition seeking out bead markets, bead makers, textiles and other crafts, history and the modern scene in the Ivory Coast and Ghana. There is no tour like it. (The beads on page 1 are "Gold Trinkets Worn as Spells (in the Gold Coast)" by John Barbot 1732: plate 22)

A partial itinerary: 3 November: New York to Abidjan. 4 Nov.: Morning acclimatizing, afternoon Cocody Market, dinner and traditional African show. 5 Nov.: The great Treichville Market, Plateau and Senegal Markets, National Museum. 6 Nov.: To Grand Bassam, Costume Museum, Crafts Center (lost-wax brass and others), enjoy the beach. 7 Nov.: Dugout canoe ride on Kossan River, lunch in typical village, on to Elmina, Ghana. 8 Nov.: Elmina slave castle, Ghana Art Center, on to Accra. 9 Nov.: Crafts Center, National Museum, University Museum, an evening with friends in suburban Medina. 10-11 Nov.: Kumasi, the Asante capital; powder beadmaking; Cultural Center, Museum, textile villages, fertility doll village. 12 Nov.: return to Accra, Kroboland for powder-glass beadmaking and markets. 13 Nov.: Departure (if you can carry everything).

If you come, and we hope you do, keep in mind that it will be an adventure. Due to the nature of things, some things are bound to be delayed or worse. Patience and a sense of humor are requirements. But you will be aptly rewarded for bringing them along.

Air and land \$4100, single supplement \$250. Hurry! Reserve your space now with a \$500 deposit. Last payment 3 September.

For more information: West Africa Tour, c/o Giesele Happe, Recursos de Santa Fe, Camino de Monte Rey A-3, Santa Fe, NM 87501. 1-800-732-6881.

**The Center is the exclusive importer of Biser: Seed Beads in the Culture of Nations. catalogue of the 1990 Czech-Soviet exhibit of beadwork from around the world, with 99 color plates. A supplement is included. \$35.00. Ask for special wholesale rates.**