

The Margaretoologist

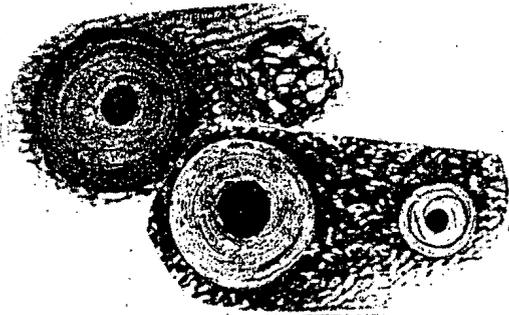
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BEADMAKER,

BEADMAKER



Beads made in Hebron, 17th-19th century. The large ones are Mongur; the small ones Harish, the spotted one a Michahreh.



Blue Sweetheart Bead of England



Austrian imitation of old Czech bead

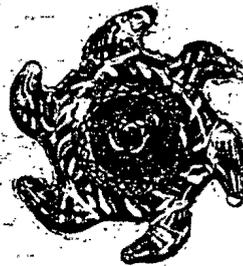
SOME NEW AMERICAN GLASS BEADMAKERS:



Horned eye bead by Pat Franz



Red "pitcher" bead by Will Stokes



Sunburst bead by Sage Powers



11-layer chevron by Art Seymour



Mosaic chips for limited edition beads for 1990 conference by Brian Kerkvliet

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Through the Eye of a Needle: The Editor's Page

As we have done before, this issue (and the next) were prepared ahead of time so that you would receive them while I am gone. Last issue I promised you that there would be a significant new look to the Margaretologist, and here it is. I hope you like it.

This issue concentrates on one aspect of beads: the beadmakers. It is an update of information on several industries in Europe and the Middle East and modern American beadmakers. Beadmaking is only one part of the bead story, however; the next issue will discuss the bead trade.

Just as we went to press we received the Fall 1990 [26(3)] issue of *Gems and Gemology*, with an lead article on Majorica imitation pearls. It is technical, aimed at lapidaries trying to distinguish these from cultured pearls. It says that Eduardo Hugo Huesch was a German who set up a notions business in Barcelona in 1890, making pearls around 1900. The family moved to Mallorca in 1920 and sold their beads as "Spanish pearls" until 1939, when they named them "Majorica." Their current fine pearls were first produced in 1951. "Majorica Pearls" is used by others on Mallorca Island, making lesser quality products.

I am spending this year in Asia. It began with a few days in London wrapping up the Mantai bead catalogue in December 1990, then going to Madras, India to join the UNESCO Silk Roads Project, sailing to Phuket, Thailand for an exhibit at the archaeological site of Takua Pa, then to Melaka (Malaysia), Surabaya (Indonesia), and Bangkok (Thailand), with conferences at each port. When my segment of this trip is through, I shall be working in Southeast Asia, in part with a generous grant from the Bead Society of Los Angeles, which allows me to visit beadmakers and museums I have not previously been to see in Thailand, Indonesia, the Philippines, and Japan. At the end of the year I am invited to join the excavations at Arikamedu, India. I return early in 1992 for the glass trade bead conference in Santa Fe, New Mexico. Many of these places are familiar to our regular readers, not only as ports on ancient trade routes but also important places in the bead story.

The Horace C. Beck Fund for Bead Research is off to an excellent start. Designed to encourage bead research among students in developing countries, some money has already been raised. I shall be informing many people of its opportunities on my travels. Naomi Rubin of the Chicago Midwest Bead Society is in charge of collecting funds. If you know of institutions or students that could take advantage of this fund, write me. If you wish to make a donation, either a general one or one earmarked for a student in a particular country or region (we already have one reserved for a Ghanaian student), write Naomi Rubin, Originals, 1020 Davis, Evanston, IL 60201.

Again, some business: If you move, please let us know. We do not want to loose track of any member of our extended family. The last two digits on your subscription code (on the mailing label) will tell you when your renewal is due. I am sure you do not want to miss any issues of our journal, so if it reads 4:1, you should be renewing or upgrading.

EUROPEAN GLASS BEADMAKERS: EXPANDING OUR HORIZONS

For many years, the bead literature considered only Venice a glass beadmaker of any importance. Van der Sleen's [1967] enthusiasm for the Dutch bead industry highlighted the fact that during the 17th century (and probably well into the 18th) Holland was a major rival to Venice. Over a decade ago the strength of the Czech bead industry was recognized [Francis 1979].

Now popular and professional works on glass beads repeat "Venice, Bohemia, and Holland" like a mantra, as though only these three European countries ever produced glass beads. However, the more we learn about glass beadmaking, the more we learn that there were other producers in many other countries. Kidd [1979] attempted to lay the groundwork for the study of glass beadmaking in Europe, but found little definite information on the actual beads produced or the beadmakers. A more recent work [Francis 1988] has attempted to identify the beads and beadmakers in Europe. This is by no means complete, but that book and various articles which have appeared in this journal have begun to unravel some of the story.

This article briefly summarizes what had been known about beadmaking in France, Germany, Austria and England. Some new information has been added, and a look at trade figures is offered as an indication of the importance of some European beadmaking countries. The industries now identified are:

1. *French artificial pearls.* Rosary maker M. (possibly Moise) Jaquin, near Paris developed a method in 1656 or 1686 to extract the protein guanine from fish scales. These he had blown into hollow glass balls which were filled with wax and pierced with rolled-up paper, the paper sticking to the wax to prevent the wax from sticking to the string. His heirs continued the business until the 1840s; other pearl makers also developed in the meantime [Francis 1988:48]. In time, methods were formulated to secure the guanine to the outside of a solid glass bead. Louis Rousselet of Paris, Heusch of Spain, and Perrot of England formed a cooperative to become the dominant artificial pearl makers for many years. Today only the Spanish firm Majorica S.A., makes the finest artificial pearls [Francis 1989a:9]. {See page 2 of this issue.}

2. *Prosser beads in France and Germany.* The method of forming glass beads by putting tablets of clay mixed with quartz and other materials into a machine that subjects them to extreme pressure was patented in the U.K. 1840 by Richard Prosser and in the U.S. in 1841 by Thomas Prosser. The English, and certainly the Czechs, have used the technique for making buttons and beads, but a French and a German company seem to have made considerable progress in this technique early in the story.

In France, Jean-Felix Bapterosses of Brair was making Prosser beads as early as 1866. He took out several patents for improvements to the basic machine and may have done more than anyone since the Prosser brothers to develop the system [Francis 1988:7, 49].

Another early maker of Prosser beads was the German firm of Risler & Cie, first reported by Sprague [1983:1971] from information relayed to him by Karklins of a sample card in the van der Sleen collection. A note with the card, perhaps by van der Sleen, says the company was located in Herzogenrath, near the Dutch border and stopped making beads in 1957.

A card of this company's beads were recently donated to the Center by Allen Shore of Elliot, Green of New York. Risler & Cie. was located in "Merkstein uber Herzogenrath, Kreis Aachen." That is, "Merkstein of Herzogenrath, in the Aachen district." The town is now known as Herzogenrath-Merkstein. Friends in Aachen, whom I asked to for more information, came up with nothing, as the company seems to have gone out of business about 30 years ago.

The card says that the company was founded in 1847. If it had been producing beads since its founding, that means 110 years of bead production. The card in the Center's collection has a rubber stamp on back with "6 AUG 1952," but Mr. Shore believes it was made early in this century. It contains 28 colors of Prosser beads, with an additional 11 colors finished as "Ceylon pearls" (pearlized). The sizes range from 3/0 to 3 (European). There are also five sizes of a cloudy yellow ellipsoidal bead. All beads were tumbled to remove nearly all of the tell-tale equatorial zone.

3. Wound glass beadmaking in France, Germany, and England. Wound beadmaking is no doubt an old industry in France; the first French beadmakers now on record date to 1477. Paris was home to many of them, some specializing in rosary beads. From this milieu arose Louis Rousselet, who as a boy of six was apprenticed to a man named Rousseau in 1898. Around 1912-15 he set up shop and by the next decade was employing 800 workers, who made glass beads, false pearls, beads of casein plastic, and finished jewelry pieces. The company continued work until 1975; Rousselet himself passed away in 1980. The beads, often distinguished by being paddled into a few facets on the sides, were popular with stage personalities, and widely used for costume jewelry throughout Europe and the U.S. [Francis 1989a:9]

The heart of the German wound glass beadmaking industry was the Royal Forest of the Fichtel Mountains in Bavaria, an area once known as Franconia. Beadmaking began in 1486 when Italians taught the Germans how to make rosary beads. The beads were originally black, but improvements came, and production peaked from the 16th to 18th centuries. The only German beads of this period we can identify are the blue (amber, clear, green) annulars popular in both East and West Africa, sometimes called "Dogon beads." It is not yet known whether these were made at the industry's chief city, Warmensteinach, or elsewhere in Bavaria. Production at Warmensteinach stopped during World War II, but may be revived [Francis 1988:52-3].

The English have not emerged as important makers of beads for export, but a small home industry geared to making beads for lace bobbins flourished. Springett and Springett [1987:11-15] quote an article written about Robert Haskins in 1912 in which he described his grandfather Joseph and father as beadmakers. They melted bottles at tallow lamps and wound beads on copper wires. From their book and discussions with Carol Morris of Spangles in Burwell we can identify two major bead types made by the Haskins and probably other local blacksmiths. These include the "square-cut" and the "sweetheart" bead, both of which were pressed with files which gave them pitted designs. The former are small cubical beads, the latter heart-shaped. There is currently an artist working in England duplicating these and other beads once used on lace bobbins. His products are available through Spangles, but he insists on anonymity.

4. Drawn beadmaking in France. It is not known when drawn beads were first made in France. The industry was firmly established by the end of the last century, based around Lyon. It may have ultimately been derived from Venice, which certainly had a hand in it, as the Venetians reorganized it around 1900. Francis 1988:49]. The Picards [1988:3] quoted Stefano La Rosa of Venice as

suggesting that the formation of the Italian Conterie was designed to raise enough capital to buy the French firm Usine de Bron in order to acquire its tube-drawing machine. This, however, seems unlikely on two counts. For one, the first automatic tube making machine was not patented until 1917 by Edwin Danner of the U.S. [Francis 1989b]. Secondly, though some other French glass-makers use tube-drawing machines, as late as 1954 it was reported that the beadmakers of Bron form their tubes by drawing out a gather of glass manually [Francis 1988:49]. Certainly, the Venetian connection with this industry is strong. As late as 1929 two Venetian beadmakers, Salvadori and Barbini, moved to another suburb of Lyon to set up La Nouvelle Perle, now known as Ets. Salvadori [Francis 1989c].

The beads made by the French companies around Lyon are all drawn. Except for some undated sample cards from La Nouvelle Perle and modern cards, the only information we have on the products of these industries are the sample cards from the J.F. Sick & Co. at the University of Ghana, Legon. The 16 cards with similar fancy red borders and legends in French are mostly dated to 1935. The beads on those cards are all drawn, many with stripes; quite a few are chevrons. The latter have only a few layers and color combinations that might be considered unusual [Francis 1990].

5. Other beads in Germany and Austria. Following World War II there was an exodus of beadmakers from Czechoslovakia who settled in Germany and Austria. In Germany, some went originally to Gmund, where they made lamp-wound beads. Others went first to Warmensteinach, where they introduced molded beads, and later moved on to Neu Gablonz near Kaufbeuren [Francis 1988:37-8, 52]. Some going to Austria settled at Krimsmunster, making molded beads, while other Austrian beadmaking places are also listed in official handouts [Francis 1988:38, 52-3]. Recent beads donated to the Center by Glenn Vincent of Shipwreck Beads include a number of molded Austrian beads marked "Neu Gablonz." Perhaps there are two such places; Gablonz is the German form of Jablonec, the original home of these immigrants.

The Austrian cut crystal industry has been famed for a century, but little information had been available on it. A recent book, which is not herein recommended, has details about this industry which appear to be genuine. Coles and Budwig [1990:15, 17, 24] state that Daniel Swarovski was born in Bohemia in 1862. In 1895, having moved to Wattens, Austria, he invented a machine for automatically cutting beads, a process so secret that even today workers are not allowed to see it. It is the Swarovski firm that is well known for its brilliant cut crystal (lead) glass beads. The Daniel Swarovski Corporation, based in Zurich is now the controlling entity. It has also a manufacturing unit in Cranston, R.I., and markets the Swarovski and Savvy costume jewelry line in the U.S. [Cuff 1990].

It may be of interest that among beads recently donated to the Center by Valerie Hector of Chicago are a few which imitate older types. This collection was given us because the beads had come from cartons marked with their country of origin. Among some from Germany was a small amber bead with white, pink, and green elements which looks like the wound beads made in Warmensteinach in the 1920s [Francis 1988: color plate N 4-7]. However, the looks are deceiving: the bead was molded. Another imitation was an Austrian bead which resembled black Czech beads with frosted surfaces and circles ground away from the surface made in the last century [Francis 1988:42]. The imitations have iridized glass with circles which had not been ground away but had been spared the iridizing process in some way.

THE TRADE IN THESE BEADS

How large were these industries in terms of world trade? This is often difficult to tell. We lack trade figures from most countries. The figures for one country were often masked by those for another (Czechoslovakia was part of Austria from 1814 to 1914; Austria was part of Germany during World War II). Figures from colonies, which accounted for much of the imports, can be skewed because the mother country was at war or because they represent exporters rather than beadmakers. Except as exporter, Britain is not found in these trade figures. Austria is very difficult to sort out. However, we do have data from three British colonies and can compare French and German bead exports to India, Malaya/Straits Settlements (mostly Singapore and Malaysia) and the Gold Coast (modern Ghana). See Table 1.

TABLE 1: Import Figures (in percent of total value) of Glass Beads

Year, Importer	Exporter:	France	Germany
1888, India		1.5%	-
1901, Gold Coast		2.7	42.6%
1909, Malaya		-	29.0
1912, Gold Coast		1.2	37.4
1915, Malaya		-	-
1916, Gold Coast		10.1	-
1921, Gold Coast		2.2	26.7
1922, Malaya		12.6	33.1
1925, Gold Coast		4.8	17.4
1927, Malaya		2.0	3.7
1928, Malaya		0.1	11.3
1929, Malaya		0.7	4.7
1931, Gold Coast		12.0	13.1
1932, Malaya		-	16.1
1933, Malaya		-	4.6
1934, Malaya		-	6.4
1936, Gold Coast		12.0	6.1

Clearly, the figures in Table 1 are not strictly comparable. The high export from Germany to the Gold Coast may reflect exporters, but similarly elevated figures are found in Malaysia. We certainly need more of this sort of data, and encourage our readers to alert us to other sources. However, it is obvious that the beadmaking and exporting businesses of both France and Germany were substantial and are deserving of more attention.

JABLONEX AND THE CENTER

Jablonex is the exporting arm of the Czech bead and jewelry industry, which is based in Jablonec nad Nisou. As with all Czech institutions, it has now to face the world with a different perspective, since the country has altered its political and social outlook. Jablonex officials have recently contacted the Center to forge closer links between our two organizations. I was pleased to

met several of its representatives at the Second International Bead Conference in Washington, and we have agreed to cooperate on the study of the history of glass beads on a global basis. I have been invited to visit Jablonec again, which I shall do as soon as possible.

The following notes are taken from two beautifully produced pamphlets from Jablonex donated to the Center. Though not dated, they were apparently published shortly before the recent revolution. They give us a glimpse of the industry in the mid-1980s and update what we had known earlier [Francis 1988:35-7].

BEALMAKING

One pamphlet describes the making of "seed" beads, including, "rocailles, tumbled or two-cut beads, three cut beads, macco beads, bugles, pipes, and tubes. The "macco" beads were said to be the cheapest; they are usually called "macca beads," drawn beads with six sides left as long tubes.

For finishing beads we are told, "The semi-product obtained after cutting [tubes] is rotated in wooden barrels, by which the sharp edges are rounded off. By rotating the cut pieces of glass in barrels with a sandstone disc inside and filled with water, a process called tumbling, the edges are fully rounded off and the resulting product are two-cut beads. To achieve lustre the tumbled beads are treated by fire." It is not explained why tumbled beads are called "two-cut," but the process as described appears not to have been recorded previously.

The text continues, "Three-cut beads are made by effective cutting of the semi-products made from glass sticks [tubes]. These are threaded on wires and cut several times at various angles on sandstone grinding wheels. After that the beads are subjected to fire treatment for a nice lustre." It is of interest to note that sandstone wheels are still in use.

Next the text discusses the most popular bead, with a French-derived name: "Rocailles are completely rounded-off beads that look nearly like small balls or seeds. Their shape is obtained by slow rotation of the semi-product [tube segments] mixed with a special powder in heated cylinders. These beads are also polished by fire, and if required, they can be subsequently treated by tinting on the surface, or, for beads made of transparent glass, by colouring the inside of the holes, which are either round or square. The latter process is called 'lining' in the trade."

Lustering and iridizing were briefly mentioned. "Bugles" were defined as long tubes, and "pipes" and "tubes" as short, thick-walled monochromes.

THE INDUSTRY

The other pamphlet begins with a (well deserved) paean to the loveliness of Jablonec nad Nisou. It says that soon after the destruction of the Second World War the new Communist government began to revive the industry in 1948. This contradicts the historian Urban [n.d.:22], who maintains that the industry was allowed to languish for years, being revived only in 1955. In any case, our new information says that a branch of the state firm Glassexport was set up in Jablonec in 1949, with the independent Jablonex beginning operations on 1 January 1952, exporting glass beads, jewelry, buttons, Christmas tree ornaments, and metal jewelry, with artificial (cloth) flowers added later.

The state corporation in charge was Jablonecka Bizuterie State Enterprise. Under its control was Jablonecke sklarny; Desna Zeleznobrodske sklo at Zelezný

Brod (an old glassmaking center); Centroflor (which must make the flowers) at Dolni Poustevna; Zeleznobrodske sklo at Pencin; Preciosa, Bizuterie, and Bizuterie 2, all at Jablonec; and Lustry at Kamenicky Senov (another old glassmaking center) and Bizuterie 6 at Jablonec. The products of the last two factories are not exported by Jablonex, but apparently by Glassexport.

There were 28,000 workers employed in these industries, two thirds of whom were women. They were trained at the Secondary School in Jablonec and Secondary Schools of Industrial Arts at Jablonec, Zelezny Brod, and Turnov (where the whole industry began in the early 1700s). In addition to the exporting firms and factories, there are the Research Institute of Glass and Jewelry, which is a development center for new processes, and the Institute of Computerization and Rationalization, a management school.

Jablonex moved into its present headquarters in 1961. Its sales were divided into four territories: the Socialist block, which accounted for a third of all sales; Western Europe; the Americas, Australia, and some Far Eastern countries; and Africa and Asia.

In sum, the pamphlets give us a rare glimpse into some of the facts and figures of this important bead industry. However, they often contradict what earlier, similarly scanty information we have tells us. Now that things have dramatically changed in Czechoslovakia, there will no doubt be much more information forthcoming. My own eagerly anticipated trip there could help solve some of the mysteries of this great bead industry.

BEADS MADE IN CZECH PRISONS?

While on the subject of Czech beads, an examination of this question is overdue. It is likely, at least it is hoped, that what is described here has gone into the scrap heap of history, but that has not yet been confirmed. Although this is written in the present tense, the sweeping changes in the country may well have changed the situation dramatically.

A couple of years ago a newspaper article appeared in London, which shook many in the bead world [Sweeney 1988]. It stated that the former Cathusian monastery at Valdice, since converted to a 2800 inmate prison for political and criminal detainees, was one of the most severe jails in the country. The inmates were forced to work, each producing 30 to 40 kilograms of glass beads a day, or making them into necklaces.

The story emerged with a visitor to Stefany Tomalin's bead shop on Portobello Road, London. Tomalin told him that he was looking at Czech beads. Jaroslav Javorsky, replied that he knew, because he had been forced to make them in prison for years.

The question then arose: how could Czech prison-made beads be imported to the United States? For a century there has been a law in the U.S. that forbids the importation of goods produced by convict, forced, or indentured labor. It is currently covered by section 307 of the Tariff Act of 1930, as amended by 19 U.S.C. 1307. Czech glass beads are pouring into this country nearly as fast as they can be made. What gives?

One explanation is that it is quite difficult to confirm that a particular good was produced by prison labor. Once such information is obtained it must be filed on the proper forms with the Customs Department. Since such information is especially difficult to obtain in countries which are likely to engage in these practices, filings and the subsequent halting of trade are rare.

Another explanation has been advanced by people I have communicated with on this subject. One is an importer of Czech beads into the U.S. and the other is well-placed in Czechoslovakia. Both prefer to remain anonymous. They contend that a rather tiny percentage of the total production of Czech beads are made by prison labor. Only one prison in the region is involved (though other prisons produce other goods), and the output is small. Moreover, Jablonex is not (officially) aware of the practice, and does not knowingly export beads from this source. The beads are slipped into lots coming from other producers, and thus enter the market surreptitiously.

Where does the truth of all of this lie? The new openness of Czech society should furnish us an answer in the near future.

HEBRON AS BEADMAKER

Hebron, one of the world's oldest cities, located in the West Bank region, had been identified earlier as an important center of glass beadmaking, with roots going back to at least the 14th century, and spreading the craft to other areas in the Middle East [Francis 1989d]. The beadmakers of Cairo and, we believe those of Western Turkey, have their roots in this city.

An article recently submitted to BEADS (the Journal of the Society of Bead Researchers) explores the later Islamic bead industries in more depth, and work is continuing on discerning the possible origins of Hebron glass and glass beadmaking. This short article is a mere summary of that work, designed to illustrate the changes in glass beadmaking styles at Hebron over the last few centuries.

In 1600, Castella [1974:129] observed Hebron glass products being brought into Cairo. In 1792 Browne [1799:75], also in Cairo, noted the import of glass from Syria, and a bit later in Darfur (now in western Sudan) said that the women wore, "Coarse glass beads made at Jerusalem, called Hersh and Munjir." [1799:303]. These beads were also discussed by El-Tounsey (El Tunisi) in Darfur a few years later [1845:209-10] and in neighboring Wadai, now eastern Chad, in 1811 [El-Tounsey 1851:334-5]. He said the Harish and Mongur came from Syria and Galilee. In 1814 John Burkhardt [1822:269] at the great market of Shendi in Sudan remarked on the glass beads, "The better sort are of Venetian manufacturer, but the greater part are made in El-Khalil (or Hebron, near Jerusalem), which furnishes the whole of southern Syria, and the greater part of Egypt, and of Arabia, with glass-ware."

It is all but certain that the references to Syria, Jerusalem, and Galilee producing glass beads refer to Hebron. Jerusalem was the city which marketed its products, Syria was the power in the region, and Galilee seems to have been a slip of the pen, as Hebron is in Judea. Armenaz, Syria, however, is known to have made beads as well during this period, but little is known of its output [Francis 1981].

What beads were being made at this time? Arkell [1937] reported on the Mongur and Harish in Darfur. The Mongur are furnace-wound beads, short oblates in opaque colors, mostly yellow and green, and less often blue and white; the greens were sometimes paddled into cornerless cubes. The Harish are but smaller versions of the Mongur. There was also a Michahreh, a black spotted bead. Arkell traced these beads to Hebron through discussions with Cairo beadmakers and by having friends visit Hebron. In Darfur these beads had gone out of fashion by the 1930s and Arkell reported that Hausa traders from Nigeria were buying them. We now recognize these beads as "Kano" beads,

named after the great market of northern Nigeria. "Kano" beads have no real connection with Kano, except that there or nearby their ends were ground down to make the fit nicely together.

Mongur and Harish bead production must have ceased toward the end of the last century. Nachtigal [Fisher, Fisher, and O'Fahey 1971], who traveled through Wadai, Darfur, and Nubia (the Sudan) in 1873-4, never mentioned them. Though this is negative evidence, his keen eye and constant comments on beads used in trade strongly suggest that they were not then on the market. About the same time, Perrot [Perrot and Chipiez 1885: 328-9] found different sorts of beads being made in Hebron, including stratified eye and hand pendants. Apparently by this time the Hebron beadmakers had stopped making their own glass and were recycling bottles, and the like, as today.

The tabular stratified eye beads were still being made in the 1920s, as collections of that date show [Francis 1989d]. They are no longer being produced in Hebron, but are the basic product of western Turkey. In the 1920s swirled glass beads were also made; they are now produced in Cairo.

Thus, we can document three stages of Hebron beadmaking over the last 200 years. From ca. 1750 to 1850 the glass was locally made, using the alkali from the Dead Sea. It was opaque, in a limited range of colors, and used for Mongur and Harish beads. From ca. 1850 the glass was obtained by melting broken bottles. Eye beads, hand pendants, and swirled glass beads were produced until ca. 1930. Large monochrome translucent beads in several colors, often pressed square or made into melons, but otherwise undecorated, are current products. The relative chronology is secure, but we need to refine our dates more closely. Nonetheless, we now have much more information on the products of this important Middle Eastern glass beadmaker over the last two centuries than we had only a short time ago.

MODERN GLASS BEADMAKING IN THE U. S. A.

For anyone with a love of glass and glass beads, we are living in exciting times. A host of new beadmaking artists have emerged recently, producing some of the most exquisite and interesting glass beads found anywhere. They work in both the drawn and lamp-winding techniques, producing wonderful beads. The Center, mindful of how quickly forgotten the ceramic beadmakers of the 1960s and 1970s became, has begun to identify, meet, visit, photograph, collect samples of work, and document the backgrounds and the techniques used by these artisans. The following notes on a dozen such beadmakers is a sampling of those currently at work. These are described because I have met all of them, have samples from all of them, and have been honored to watch several of them at work. We shall keep you informed as this program of documenting current glass beadmakers continues.

Tom Andre, Lake Clear, WA.

Tom is an old hand at beadmaking, having worked glass since 1970. He trained at Central Washington State College (now University), drew his first tubes in 1972, made his first beads in 1975, and has not looked back since. In 1977-78 he and David Stone formed Tomato Tree Studio. Tom moved to Clear Lake in 1980. He makes and draws his own glass, which is remarkable for its interesting varieties of colors.

Julie Clinton and Will Stokes, Salamander Selections, Bellingham, WA.

Julie and Will began making lamp-wound beads with Italian canes in 1988. They aim to produce beads which will become "unique, quality heirloom pieces." My favorites include a mouse head bead and a tiny red pitcher bead.

Cay Dickey, Creative Glass, Oceanside, CA.

Cay began as sculptor, then worked with stained glass. As her love for glass grew, she taught herself the hard way how to make beads. She works a wide variety of glass, including window glass and Pyrex, at the lamp. Her beads are often small and understated, but when examined they reveal subtle variations in color, foil enclosures, and marvelous tricks with bubbles.

Patricia and Michael Franz, Franz Art Glass, Shelton, WA.

Patricia is the primary beadmaker, working in her studio, which is reminiscent of an old Murano home where the women made beads. The Franz's began by making slumped glass plates and bowls, but fell under the spell of beadmaking and have become quite successful. Her work is often a lyrical tribute to the finest Venetian lamp-winding, with forays into beads that recall the eye beads of China's Warring States Period.

Dudley Giberson, Joppa Glassworks, Warner, N.H.

Gib studied glass sculpture with Norm Schulman at the Rhode Island School of Design, graduating in 1967, the same year he got married and bought a farm. By the next spring he was working hot glass. In time, he felt the need to make his own glass, and eventually his own equipment, which he has patented and sells. In 1976 some ancient beads caught his eye and for the next few years he perfected ways of drawing beads without a blowpipe. He is now one of the longest established beadmakers (and marble makers) in the country, combining his own glasses into beads of dazzling complexity.

Tom Holland of Mt. View, AK.

Tom has no formal training in beadmaking, but worked as a potter for several years. After a visit to the Center and other institutions about three years ago he was inspired to make beads on his own. He took some to the Conference in Washington and sold enough to pay for his trip. Elated, he headed home to make more. We may well be hearing more from him soon.

Brian Kerkvliet, Gossamer Glass, Bellingham, WA.

Brian began working with glass in 1977 and strives to expand the medium to its limits. He has influenced others, including the Franz's, Clinton and Stokes, and the Powers, all of whom belong to the Ring of Fire Bead Guild of local beadmakers. Brian's speciality is picture cane beads, one of which was offered as a commemorative in a limited edition for the Washington Conference with faces, the Conference logo (a dZi bead) and the date. At the conference he showed me his latest beads, which are nothing less than tiny fishbowls, complete with goldfish, coral, and seaweed.

Sage and Steven Powers, The Sacred Eye, Bellingham, WA.

Another Ring of Fire member, their trademark is their trailed eyes. Sage also makes unusual sunburst beads. A very special bead donated to the Center by Stephen is a unique "bead in a bead," consisting of a four-horned eye bead completely encased in an eight-horned eye bead in black and white.

Art Seymour, B2 Beads, Doyle, CA.

Art made his first beads of horn and ivory in 1976, moving to glass in 1978. From 1979-83 he was at Nourot Glass Studios. He runs the Creativity Foundation to teach glassmaking and other creative thought processes. He began making drawn beads in 1986 and chevrons in 1989, for which he makes his own glass and tubes (with help from his son) and does his own grinding, which he considers the heart of the process. He does not replicate old chevrons, but makes completely new ones. Among his latest tours-de-force is probably the largest chevron ever made, and chevrons with no less than eleven layers. Art intends to begin an American Glass Beadmaker's Guild, for which there has been good response.

Sara Young, Providence, RI.

Sara graduated from the Rhode Island School of Design in 1982, beginning her bead business in 1984. She drew with Dale Chikuly, founder of the Pilchuck Glass School in Seattle. Sara uses Kubler glass, and draws 24 or 25 tubes 30 to 40 foot (9.23 to 12.30 meters) long once a month, using a pipe. Most of her beads have colored centers and are tumbled to a matte finish.

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