

# The Margaretoologist

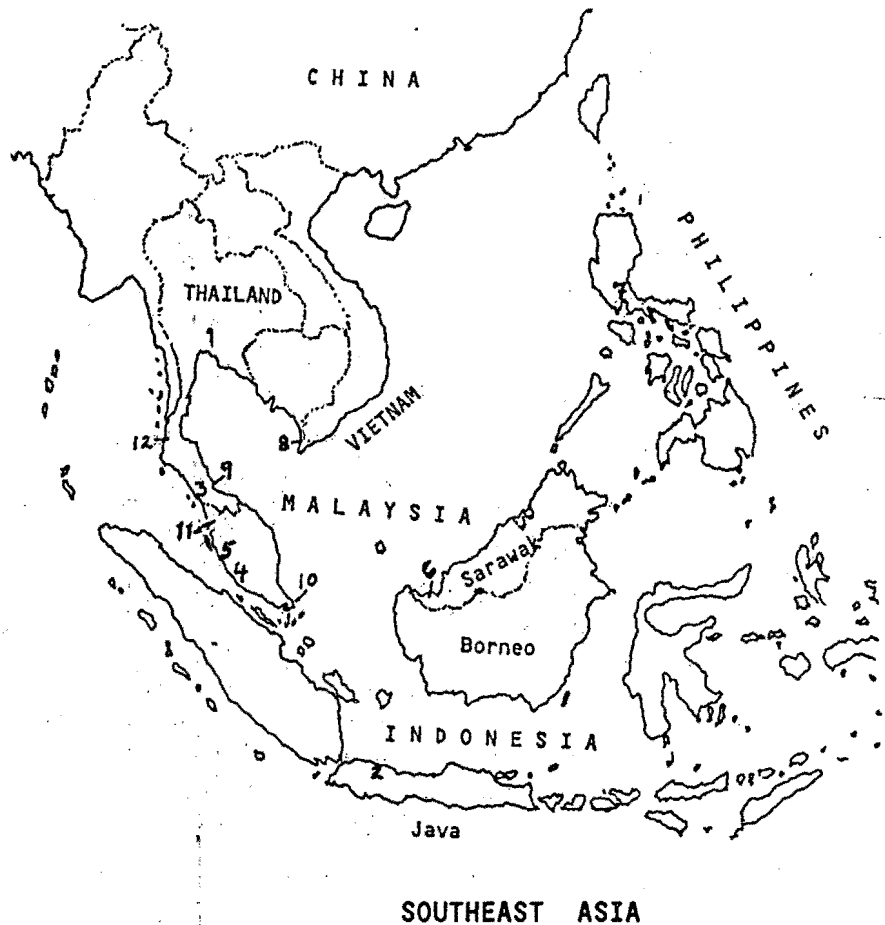
Volume Two, Number Three

1989

## MORE ON THE INDIAN OCEAN BEAD TRADE

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- 2 JAKARTA
- 3 KLONG THOM
- 4 KUALA LUMPUR
- 5 KUALA SELINSING
- 6 KUCHING
- 7 MANILA
- 8 OC-EO
- 9 SATING PRA
- 10 SINGAPORE
- 11 SUNGAI MAS
- 12 TAKUA PA



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ISSN 0892-1989

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

A decade ago our operation began with the most tentative of steps. The Bead Research Bureau had no permanent home, but functioned as the umbrella over Lapis Route Books, our publisher, and Cornerless Cube, our distributor. Our first activities included lectures to the few Bead Societies which existed then and publishing the first four titles in the World of Beads Monograph Series. How far we have come!

A permanent space for operations was acquired in 1984 and rechristened the Center for Bead Research. At press time we have published 19 monographs and papers in the WBMS series, the Occasional Papers Series, and our newest series, Contributions. We have built the world's largest library on beads and maintain the best documented bead collection. The Bead Press, the Bead Roundtable and The Margaretologist have been added to our institutions; the Seedbead and Millefiori have fallen by the wayside. Support from our Members and Patrons is vital to our operations. To all of you who have supported us, we give grateful thanks. Our goal is to do more, to grow and freely share the knowledge we gain about beads. The recognition we now enjoy among universities and museums around the world increasingly enables us to expand.

This issue covers work done during the last year when I was "on the road," a few weeks in London, Paris, and Cairo, six months in India, two in Hong Kong and three in Southeast Asia. Since the last issue was printed (beforehand so you would receive it while I was gone) I have examined 28 institutional and 18 private collections, interviewed 13 bead authorities, visited 8 bead/jewelry makers, been on 4 excavations or field trips, delivered 10 lectures, and read in 15 libraries. It's hard work, but it is also fun. More than that, it is rewarding. Bead research is like detective work, patiently looking for clues to get at the facts. Major results of this year's research are summarized in this issue, as ever, bringing you the news first.

You will note changes in our format. We strive hard to make this the most informative of bead newsletters and work our best at making it attractive. A major contributor to the new look is Jacqui Steinberg of Paul Smiths, N.Y. (yes, that's the name of the town) a Friends of the Center Volunteer. She has been producing graphics for us, and the result of her keen eye and steady hand are evident in the drawings in this issue, most of which are to be credited to her. Many thanks, Jacqui!

Life has many pleasures. One is the creamy feel of ivory in your hand or on your neck. Another is watching a family of elephants placidly making their way through the jungle. Sometimes our pleasures conflict. Earlier drafts of this issue included an article urging members to stop buying ivory because of the mindless slaughter of elephants. Fortunately, Canada, Europe, and the U.S.A. have all recently instituted bans on importing.

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The Margaretologist, the official journal of the Center for Bead Research, is published twice a year for Members and Patrons of the Center. Members (\$25 for two years) and Patrons (\$75 for two years) also receive other benefits [overseas subscribers add \$5]. Patrons are sent new books as we publish them. The contents of the Margaretologist are copyright © 1989 by Peter Francis, Jr. Permission for reproduction must be obtained in writing.

## BEADS IN SOUTHEAST ASIA

Our work in Southeast Asia, aided by a Bead Society (Los Angeles) grant, has been most fruitful. Aside from the beauty of the land, the warmth of the people, and tremendous interest in beads in the region, this research has tied together work done by the Center for a decade. To the crossroads of Asia, beads came from Rome, India, China, and the Muslim world. Perhaps the biggest surprise was the extent of local beadmaking. Local manufacture and wide trading make the area one of the world's richest in ancient beads.

## The Indo-Pacific Beads

We begin with the most important trade bead of all time, perhaps the most common of all trade objects. Indo-Pacific beads are small (usually under 5 mm diameter) drawn beads (cut from glass tubes) in limited colors. If they were not so ubiquitous they could easily be ignored.

For a decade we have been tracing their story (see last issue). They were first made in Arikamedu, India, in the 3rd century B.C.; a remnant survives in Papanaidupet, India. Now much more of the story has been revealed.

In the 2nd century A.D. beadmakers moved to Mantai (Sri Lanka), Klong Thom (Thailand), and Oc-eo (Vietnam). Klong Thom and Oc-eo were abandoned in the 6th-7th century and beadmakers went to Kuala Selinsing (Malaysia) and Sating Pra (Thailand). Kuala Selinsing was not a port, but shipped beads through Kedah, up the coast. In the 10th century Mantai was sacked by the Cholas of south India. The literature hinted that the industry went to Nagapattinam, India, but a 10 man-hour survey of the old city there found no evidence of glass- or beadmaking. At the same time Sating Pra was abandoned, beadmakers moving across the peninsula to Takua Pa, as was Kuala Selinsing, with the industry going to Sungai Mas in Kedah. The Indian branch survived, but the Southeast Asian branch ceased production around A.D. 1200.

The industry is identified by its use of a unique system to draw the tubes from which the beads were cut. It requires a team of a dozen trained men, who work through the night with up to 50 kgs (110 lbs) of glass at a special furnace with a unique set of tools. The system is so complex that it would have been difficult for anyone to copy it. It is most likely that all Indo-Pacific beads were made by the descendants of the original Tamil (southeast Indian) beadmakers from Arikamedu.

The evidence for these industries is the glass wasters found, indicating specific beadmaking steps: glassmaking (slag, uncolored glass, remelted scrap for making new glass); glassworking (small melted drips and splatters, chunks of colored glass); tube drawing by the Lada method, the heart of this industry (various twisted tubes and other wasters unique to this process); tube cutting into bead-sized segments (segments that did not get reheated, short tube ends); smoothing the sharp edges by reheating (clumps of beads, beads sticking to the clay pan), and bead stringing (beads discarded because they cannot be strung).

The most carefully studied sites have the most complete evidence, but all those mentioned have enough evidence to link them to the industry. A few other sites in central Thailand and Indonesia are also possible candidates. There may have been beadmakers in the Khymer Kingdom after the fall of Oc-eo and there must be one in south India (Site X) to fill the gap between Mantai and Papanaidupet, the only survivor of this 2300 year old craft.

Suddenly the Indo-Pacific bead story is much more complex and interesting. Samples of each bead color from the beadmaking sites and a dozen importing sites have been given to us by the excavators. A grant proposal to analyze them has been submitted (not through the Smithsonian, as earlier announced). We hope to "fingerprint" beadmakers to establish dates and trade relations with the importing sites. These beads have been at the center of research by many scholars for over 60 years; we are now much closer to unraveling the history of the most important trade bead of all times.

T A B L E 1  
Evidence for Indo-Pacific Beadmaking

Material	Site:	ARK	MAN	PAP	O-E	KT	SP	KKK	KS	SM
	Date:	-3/+3	1-10	19-20	2-7	2-6	7-10	9-10	6-10	9-13
Glassmaking:										
Slag		x		x			x		x	
Green glass chunks		x	x	x	x	x		x	x	
Remelted Pieces			x	x		x		x	x	
Glassworking:										
Colored Glass Chunks		x	x	x	x	x	x		x	x
Drips & Splatters		x	x	x	x	x				x
Drawing by the Lada:										
Gedda Paru Flakes		x		x						
Twisted, etc. Tubes		x	x	x	x	x			x	
Flares		x	x	x						
Collapsed Tubes		x		x						
From Tubes to Beads:										
Knots in Tubes		x	x	x				x	x	
Cut Segments		x	x	x	x	x	x	x	x	x
Tube Ends		x	x	x	x	x	x			x
Bead Clumps		x	x	x	x	x		x	x	x
Beads on Clay Tray		x				x				
Discarded Beads		x	x	x	x			x	x	x

All dates given in centuries A.D., except ARK, 3rd c. B.C. to 3rd c. A.D. Abbreviations: ARK = Arikamedu, India; MAN = Mantai, Sri Lanka; PAP = Papanaidupet, India; O-E = Oc-ao, Vietnam; KT = Klong Thom, Thailand; SP = Sating Pra, Thailand; KKK = Takua Pa (Ko Kakao, Kakao Island), Thailand; KS = Kuala Selinsing, Malaysia; SM = Sungai Mas, Malaysia.

#### Other Glass Beads in Southeast Asia

To study other glass beads in the area, we selected 25 types. They were classified by manufacturing type, origin (ranging from specific sites to general regions), date, and distribution. The study of this group has given us an outline of beads in this pivotal region. [\* is illustrated on page 6.]

The first glass beads in the region are from Arikamedu, India: collar beads\* (with an extra bit of material around their apertures), false beryl beads (drawn clear green glass tubes paddled into hexagonal prisms), and

Indo-Pacific beads. Arikamedu passed on the Indo-Pacific industry to Klong Thom and Oc-eo, the earliest cities in the region. These three cities and Mantai had Roman ties (and beads), traded beads with each other, and shared goods and techniques. They may have formed a "trading league."

The Indo-Pacific beadmakers dominated the scene for 1000 years with their various products: small beads, pinched beads (large beads pinched off a tube), square section drawn beads, and striped drawn beads.

By the 10th century Muslim traders reached Malaya in force, bringing fancy folded\* or fused mosaic beads and segmented beads\* (made by constricting a glass tube along its length and cutting between the bulges to make multiple or single beads). These reached Borneo through local trade, where some are still heirlooms. Java was making spectacular beads (mosaic eyes\*, plain eyes\*, combed beads, large yellow beads) but by clumsy methods, always on poorly fused cores, attesting to their lack of a glassmaking tradition. These beads were not exported, but enjoyed locally.

By 1200 there is a major change. The Indo-Pacific beadmakers are gone, and Borneo and the Philippines, which had almost nothing else before, now have Chinese beads. The most important of these were coil beads\* (tiny wound ones that resemble a section of a spring). One coil beadmaker was in 14th century Singapore. These are the "mutisalah" so prized in east Indonesia. Strangely, wherever they are found one color dominates in that place; we cannot explain this yet. They were made from ca. 1000, become most popular by 1200, and are gone by about 1500. Many other Chinese beads can now be identified from ca. 1200 to 1650, and grouped into major classes. The bulk went to the former hinterlands, the Philippines and Borneo. We have also identified two Chinese beadmaking groups outside of China, making coils in Singapore and blue barrel beads in Java (see *Margaretologist* 1:1).

Then come the Europeans. As in Florida, Mexico, and Peru, the earliest beads brought by the Spaniards were chevrons and Nueva Cadiz beads. Two shipwrecks, a Chinese junk and a Spanish Galleon, show that Chinese beads were still important and being exported to Mexico. Most heirloom beads in the Philippines are European; before Islam and Christianity these people were buried with their beads, unlike the Borneans, who saved them.

Where does this lead us? A summary of bead history parallels the known history of Southeast Asia, confirming the accuracy of our research and of historical narrative. But, we want to go beyond that.

The ties between Arikamedu, Mantai, Klong Thom, and Oc-eo are interesting. They all made Indo-Pacific and stone beads (Mantai only after the fall of Oc-eo and Klong Thom). They traded with each other. They all probably had small colonies of Roman traders. They were each the first cities in their regions. Are we seeing an early trading confederation, something like the European Hanseatic League? Did this lead to the birth of the state of Srivijaya, which so vexes Asian historians? These questions cannot yet be answered, but then they had ever been asked before.

Other strands are also visible: the early cultural influence of India, coupled with local genius; the wealth of Java, kept primarily to itself; the lateness of the Chinese in the area, but when they came, settling, running trade, and making products locally. Thus, the bead story fits perfectly what was known from history, but also opens new avenues for exploration. The archaeologists I met were happy to learn the origin of imported beads, but delighted to learn how much of the bead story is a purely local one.

Beads from Southeast Asia (see preceding story):



Collar bead, glass, India



Muslim folded mosaic bead



Muslim segmented bead



Java mosaic bead



Java plain eye bead



Actual  
Size



Chinese coil bead

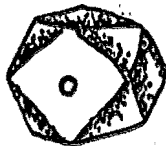
Beads from the Muslim World (see following story):



Fustat fused rod bead



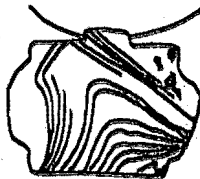
Conus shell top disc



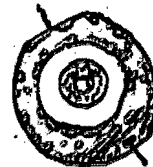
Green jasper cornerless cube



Torus folded bead



Muslim pendant of Babaghoria agate



Stratified eye bead

## BEADS IN THE ISLAMIC WORLD

The Islamic heartland, stretching from Morocco to Pakistan, Turkey to Yemen, has been beadmater, trader and user for 1400 years. The early centuries were crucial to the world's bead trade, as Muslims were major traders and makers of beads. Our work has concentrated on this early period and links between modern beadmater. [\* is illustrated on page 6.]

## The Early Islamic Period (7th to 12th century)

We have catalogued beads from three Early Islamic cities: Nishapur, Iran, on the Silk Road (see last issue); Siraf, Iran, the major Persian Gulf port; and Fustat (Old Cairo), Egypt. With their eastern trading partners, Mantai, Sri Lanka (see last issue) until ca. A.D. 1000, and Kedah, Malaysia, (see last story) thereafter, we have a well-rounded picture of this trade.

The most striking fact is its self-sufficiency. Five bead types were the staples of the trade: coral from the Mediterranean; gold-glass beads, made in Egypt and perhaps elsewhere; lapis lazuli from Afghanistan; and carnelian and onyx, chiefly from western India. Each have long histories, and each originated in or at the fringes of the Muslim world. By the 15th century the carnelian/onyx mines were in Muslim hands. The world's great coral marts were Alexandria and Fustat; the best customer was India. Egypt made many, if not all, gold-glass beads. We do not know where the lapis lazuli was cut; Jenkins and Keene [1982:26-32] suggested Nishapur, but that seems not correct. Indian agate beads were cut around Ujjain, then later at Limodra, near the mines. Cambay, an early Muslim stronghold, exported them in the 15th century and cut them in the 16th century, as Baba Ghor's cult replaced the goddess of the mining region to become the patron saint of the industry, still in Muslim hands today [Francis 1982; 1986].

By the 10th century Muslim beads were common in Malaya and Scandinavia [Callmer 1977]. The Fustat Fused Rod bead\*, made ca. A.D. 900 by fusing six spirally decorated glass canes into a bead that looks like a combed barrel, has been found in Birka, Sweden, and in China [Seligman collection, British Museum]. The Muslims took Indian carnelians and Indo-Pacific beads to East Africa. Conus shell top disc beads\* and beads cut from the columella of large conchs made at Siraf may also have been exported to Africa.

Muslims were the key bead traders from Africa to Ceylon and later to Malaya. Their segmented and mosaic eye beads (folded or fused mosaic canes) went east and they took eastern beads to Africa. They imported few beads themselves: no west European beads have been noted, nor any from Southeast or East Asia, only Indian glass and stone beads.

We can now classify some beads which had been difficult to date or place. Green jasper cornerless cubes\* and torus folded beads\* (made by folding a glass ring onto a core to form a wavy line), are Early Islamic products. The flat pendant of Babaghoria agate\*, which had been dated to the Moghul period, was at Nishapur by the 8th century. Soda-etched carnelians, glazed quartz, and probably faience continued older beadmater traditions.

## Links Between Modern Middle Eastern Beadmater: A Possible Reconstruction

In Cairo at the small Al-Daour glass factory outside Bab Foutah beads are made only on order, so I was lucky that there was work the day of my visit.

world's ability to produce it; 80% of it is poached, especially in East Africa. The World Wildlife Foundation estimates that the U.S. alone bought 4,500,000 pieces of ivory in 1986, about 285 tons, representing 32,000 male elephants. Now young males and females are being killed as the older bulls disappear, thus depleting the breeding stock. The U.S., Canada and Europe have banned the import of new ivory, to their credits; the C.B.R. supports this ban completely. The statistics are grim. Table 2 shows the loss of elephants in African countries with 1979 populations of 50,000 or more in the last decade [Shabecoff 1989:A9].

T A B L E 2: The Slaughter of the Elephant

Country	1979 pop.	1989 pop.	% lost
Central African Rep.	63,000	19,000	69.8
Kenya	65,000	19,000	70.8
Mozambique	54,800	18,600	66.1
Sudan	134,000	40,000	70.1
Tanzania	316,300	80,000	74.7
Zaire	377,700	85,000	77.5
Zambia	150,000	41,000	72.7
Total (7 nations)	1,160,800	302,600	73.9

#### C E N T E R   A C T I V I T I E S

##### CONTRIBUTIONS --- A New Publications Series

When we work on a special project we write a report for the institution with which we research. Since the interest in these technical reports may well go beyond the particular institution, we shall begin publishing them on a demand basis. The Contributions Series will soon be available. If a title intrigues you, let us know. To date, six titles are prepared:

##### CONTRIBUTIONS OF THE CENTER FOR BEAD RESEARCH

1. Report on the Beads from Reese Bay, Unalaska Island, Alaska.
2. Report on the Beads from Nishapur, Iran, in the Metropolitan Museum.
3. Report on the Beads from Siraf, Iran, in the British Museum.
4. Beads and the Bead Trade in Southeast Asia.
5. The Type Collection of Beads in the Philippine National Museum.
6. Heirloom and Ethnographically Collected Beads in Southeast Asia.

##### Open House

We are planning an open house at the Center in late August. It is designed particularly to inform local residents of our research. A display of seals dating back 7500 years, mostly from the ancient Middle East, will be the featured exhibit. Other displays, activities, and refreshments are being planned. Members in the area around that time should inform us so that we may keep you posted on the particulars.



### The Library Corner

It has become impossible to continue listing all new library acquisitions. I hauled 20 kgs (44 lbs) of printed material back from Southeast Asia, after mailing 6 from Singapore and 20 more from India, much of it complements of the authors, and we thank all of them. Also, thanks to Bob Dunnigan for his donation of books on Asia, gemology and Mesoamerica. We thank John and Ruth Picard for sending their luxuriantly printed trade bead books.

I have been asked to list my papers published in sources that our readers do not often see (excluding Ornament, and various newsletters):

1988 (with G.L. Badam) "Molluscan Shell Beads from Inamgaon" in M.K.

Dhavalikar, H.D. Sankalia, and Z.D. Ansari, Excavations at Inamgaon, Vol. I, part ii, Deccan College, Poona, India, pp. 665-669.

"Beads and the Bead Trade in the North Pacific Region," in William Fitzhugh and Aron Crowell, Crossroads of Continents, Smithsonian Institution Press, Washington, D.C., p. 341.

"Simojovel, Mexico: Village of Amber," Lapidary Journal 42(8):55-62.

"The Beads of India," Arts of Asia 18(2):102-110.

1989 "Trade Beads in America," Antique Trader Weekly 33(9):64-67.

### Bead Study Collection/Photographic Collection

The most significant recent additions have been excavated material from 20 Southeast Asian sites, given by the excavators to serve as a comparative collection of Indo-Pacific beads, Java beads, and Chinese beads in SE Asia.

I bought beads made by the Al-Daour family in Cairo (see story) and beads made early in the century at Purdalpur, north India, illustrating stylistic development in this ancient beadmaking village. In Southeast Asia I bought only two necklaces. One of fine false trade beads made of plastic by the T'boli of Mindanao, Philippines. The other (among the ugliest beads in our collection) are made of some sort of sawdust? composition covered with a thin layer of plastic in Kalimantan (Borneo) and hawked as "ancient stone beads" in Jakarta (I had to buy them; the young man followed me around for hours until I paid less than a fifth his initial asking price).

Thanks go to Sumarah Adhyatman and Zainoel Arifin (Jakarta) and Heidi Munan (Kuching, Sarawak) for beads from their areas, Bob Dunnigan for mineral specimens, Sara Young (Providence) for her hand-made glass beads, and Mrs. G.J. McCormack for two lace bobbins and literature on bobbin spangles.

When one travels for a year, taking pictures and dragging film and camera through harsh environments, one can only hope that all will be well when they get back for development. It was. We have important pictorial additions of Cairo beadmaking and holdings in nine major museum collections.

### Recent Activities

In April I lectured at the Haffenreffer Museum of Anthropology at Brown University on "Beadmaking in Mexico: Then and Now" and to the Beadesigners on "Beads and the Bead Trade in Southeast Asia." In Providence I visited contemporary beadmaker Sara Young and the Samuel Moore Co, where they still make bead chain and beading on machines Moore himself built a century ago. Several days at Harvard's Peabody Museum renewed old friendships, and made new ones. I return in October to lecture there and at Wellesley College. Francis/Beadmaker, etc.

Recent visitors include the generous Bob Dunnigan (see above), a lapis lazuli authority from Minneapolis, and Sharma Saitowitz, Cape Town (South Africa) University student. She is working on 19th century sites, finding glass "seed" beads, many with heavy lead content, similar to some in Texas and Oklahoma from about the same time.

#### Want List

We try this occasionally in hopes that some Member/Patron has something we lack or would be willing to give a gift to purchase it. We are increasingly aware of the need for a small analytical-cum-experimental laboratory. We have already been given a small kiln, but we also need: a good laboratory scale, a much better microscope than we now have, a blow torch and oxygen regulator (we have glassworking tools), and a variety of chemicals. We are still hoping someone is tired of squinting at the Oxford English Dictionary micro edition or has an old first edition now that the second is released.

#### REFERENCES FOR THE ISSUE

- Callmer, Johan (1977) *Trade Beads and Bead Trade in Scandinavia ca. 800 - 1000 A.D.*, R. Habelt, Bonn/C.W.K. Gleerup, Lund.
- Clerget, Marcel 1934 *Le Caire, Étude de Géographie Urbaine et D'Histoire Économique*, E. & R. Schendler, Cairo (2 vols.).
- Engle, Anita (1973) "3,000 Years of Glassmaking on the Phoenician Coast," *Readings in Glass History* 1:1-26.
- (1974) "The Craftsmen's Guild of the Kings of Judah," *Readings in Glass History* 3:73-85.
- Francis, Peter, Jr. 1979 *Third World Beadmakers*, World of Beads Monograph Series 3, Lapis Route Books, Lake Placid, N.Y.
- 1981 "Bead Report V: Beads in Turkey, Part I," *Ornament* 5(2):38-39, 58.
- 1982 *Indian Agate Beads*, WBMS 6, Lapis Route, Lake Placid.
- 1986 "Baba Ghor and the Ratanpur Rakshisha," *Journal of the Economic and Social History of the Orient* 29:198-205.
- Gumpert, Anita (1988) "Fifty-Three Years of Paris Beadmaking," *Bead Society of Greater Washington Newsletter* 5(1):5-6.
- Henein, Nessim Henry and Jean-Francois Gout (1974) *Le Verre Soufflé en Égypte*, Institute Français d'Archéologie Orientales, Paris.
- Hughes, Richard W. and William J. Sersen (1989) "Bangkok Gem Market Review," *Gemological Digest* 2(4):43-44.
- Jenkins, Marilyn and Manuel Keene (1982) *Islamic Jewelry in the Metropolitan Museum of Art*, Metropolitan Museum of Art, New York.
- McWhirter, Norris and Ross McWhirter (1977) *The Guinness Book of World Records*, Bantam Books, New York. [later editions report the same].
- Meistermann, P. Barnabé 1923 *Guide du Terra Sancta*, Auguste Picard, Paris.
- Poinar, George O. (1988) "The Amber Ark," *Natural History* 95(12):43-47.
- Purchas, Samuel (1625) *Hakluytus Posthumus or Purchas His Pilgrimes*, (1905 ed.) Vol. VIII, James MacLehose and Sons, Glasgow.
- Shabecoff, Philip (1989) "Seeing Disaster, Groups Ask Ban on Ivory Imports," *New York Times* 2 June:A9.
- Weiner, Jonathan (1989) "Glacier bubbles are telling us what was in ice age air," *Smithsonian* 20(2):78-87.