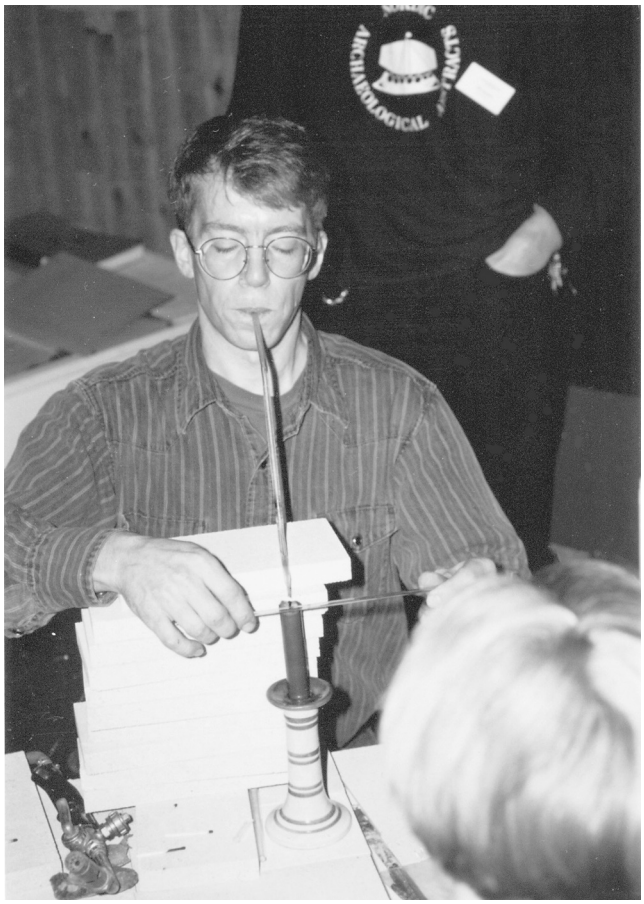

Figure 1. Pete Hunner demonstrating beadmaking using a glass blowpipe and candle (photo: J.D. Allen).

in Canada and America. They were not aware of publications like our journal *Beads* or *Ornament* magazine, nor that organizations such as the Society of Bead Researchers and the various other bead societies existed. They did not know that as many as five separate conferences had been conducted here in the past ten years. Thus, it would certainly be accurate to characterize European bead research, and researchers, as being some twenty years behind the times! This reviewer, having attended all previous American conferences, experienced many moments of frustration, listening to discussions of issues that should be considered dead or already dealt with (to at least some degree). There was much sense of *deja vu*, as participants conversed over the worth and validity of studying beads, and shared opinions about the best and most practical approaches. These, and others, were issues discussed in much the same tone and terms as long ago as 1982, during the Glass Trade Bead Conference held at Rochester, New York (and might have been considered tired old issues even then). The reviewer felt that many glassmaking terms and product names were misused or misunderstood, and that a degree of precision was lacking. Nevertheless, your reviewer held his tongue as much as possible, sat through the frustration, and lobbied for participants to become more familiar with work that has already been done. We may be sure that many European researchers will be joining their American and Canadian colleagues in the near future and will quickly catch up. Apart from this personal issue, the seminar was an outstanding success. The site was beautiful and fascinating, and worthy of a visit by anyone traveling in Denmark in the future. The food served was glorious and delicious–and no one could ask for better company among the enthusiastic participants and presenters. Director Morten Meldgaard and, especially, Seminar Coordinator Bente Draiby are to be congratulated and thanked for making this a fun and educational experience worth remembering. The seminar proceedings will be published in the near future, and will be announced in *The Bead Forum*.

3. VENETIAN GLASS BEAD PRODUCTION IN THE FIRST HALF OF THE 19TH CENTURY: RESEARCH AT THE VENETIAN NATIONAL ARCHIVES, by Alessia Bonannini (1999, 34:9-18)

While investigating the times and ways in which Venetian glass beads made it to the American Northwest, my friend and colleague Silvia Ferrari and I became convinced that it was necessary for us to look for documentary evidence at the very beginning of the trail: Venice and its archives. The first half of the 19th century, of particular interest for our research, appeared very little explored, most of the knowledge for that century being based on later publications, especially Bussolin, Cecchetti, Moschini, and Zanetti, all published from 1847 onward. While our research has proved unsuccessful as far as the trade of Venetian beads in America is concerned, it has revealed some unknown aspects of bead production and work organization in the period under study. This article presents some of the results of this research. The complementary part of the study is still in preparation by Silvia Ferrari who, it is hoped, will publish her results shortly.

The Venetian National Archives basically contain historical, political, economical, and statistical information about the glass beadmaking industry during the first half of the 19th century. Unfortunately, there is little or no information about the beads themselves. This inquiry into bead production, therefore, has resulted more in a picture of the glass beadmaking industry, its productive mechanism, and its social and economical implications rather than in the identification of the actual products, although mention of specific bead types is occasionally made.[1]

Fig. 1 provides an overview of the Venetian glass bead industry during the years 1800-1850, where I've synthesized an heterogeneous series of documents and data collected from different documentary sources at the Venetian archives.[2] It represents a systematic transcription of all the mentions made in the documents about the number of active bead producers over time, which becomes relevant and interesting only when compared with the major historical and political facts identified at the bottom of Fig. 1. During the early years, the documents register four categories of bead workers: *perleri* (makers of wound beads), *margheriteri* (makers of drawn beads), *fabbricanti di smalti* (enamel makers), and *fabbricanti di canne* (cane makers). This segmentation into four distinct competencies, established by the ancient Guild rules, continues, at least nominally, beyond the abolition of the rules in 1806, apparently until 1815. The number of active beadmakers (*margheriteri* and *perleri*) drops continuously from the beginning of the century (except for a sudden, unexplained increase around 1810), and then they totally disappear in 1815, leaving only cane and enamel makers to be mentioned in the documents from 1815 to 1818. Following a gap in the documentation from 1820 to 1830,[3] two new categories of bead workers appear: enamel and cane producers on the one hand, and beadmakers on the other.

The evidence suggests that these two groups incorporated and reorganized the former four, with the merging of capital and competencies and the creation of large-scale factories that characterize this century's production. Such a reorganization appears to have been necessary to avoid the legal and economic impediments that the Austrian government repeatedly imposed over time, starting in 1815. One of their first actions was to impose heavy duties on the import of such raw materials as wood, niter, lithargir, allumen–mitigated only in part by some later derogation[4]– and on the export of finished goods. By 1819, the export duty on beads had risen,[5] and despite the abolition of the duty on goods circulating within the Austrian Empire in 1822, formal complaints filed with the Chamber of Commerce keep expressing deep frustration.[6] In 1830, the port of Venice was declared duty-free, thus becoming "external" to the other Austrian territories and, as it appears, was subjected once

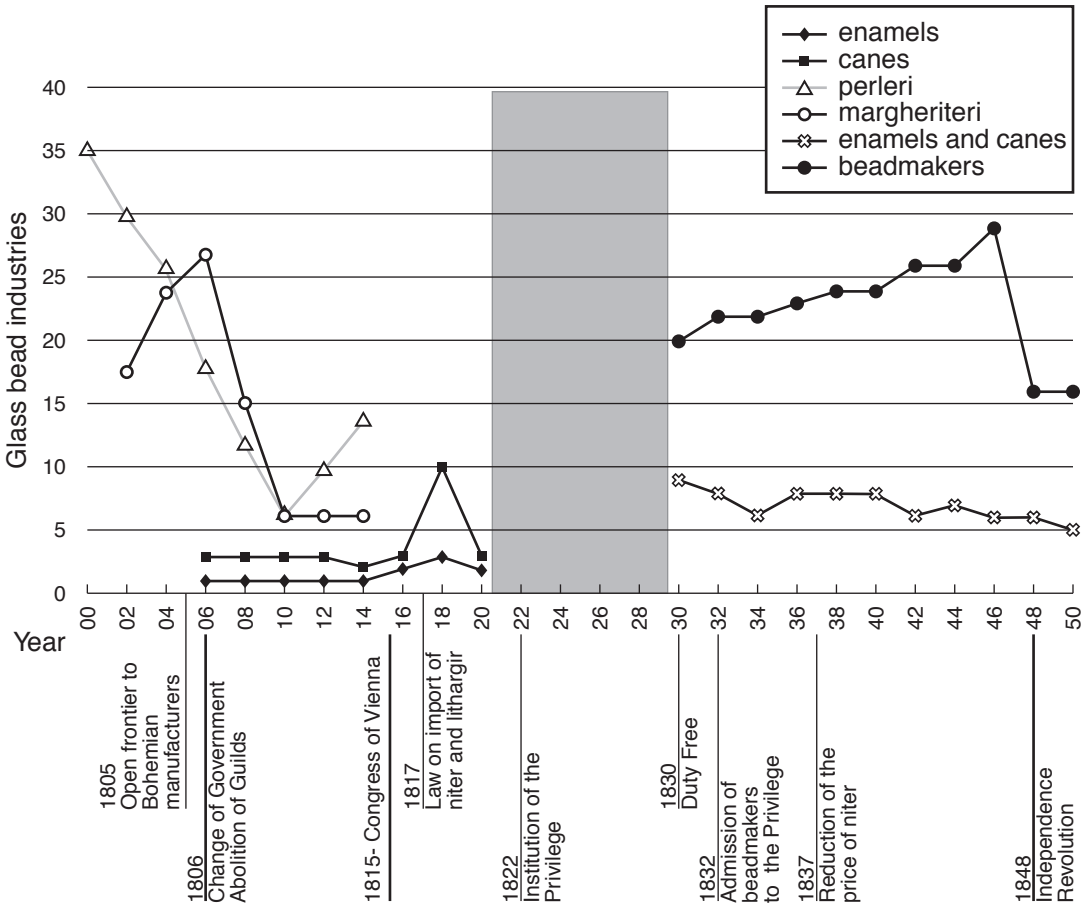

Figure 1. The Venetian glass bead industry, 1800-1850. Correlating archival documentation with historical events.

again to a duty for export to the countries of the empire.[7] The institution of the Privilege the same year gave Venetian bead factories the right to have a privileged fee on this duty, but the Privilege itself could only be obtained if the concern met a minimum factory standard and production quota, and had a specified number of associates, all regularly judged by a special inspection committee.[8] It is likely that all these factors provided impetus to the consolidation of economic forces and working skills. It is probably not by chance that the first real beadmaking enterprise was founded by Dal Mistro & Moravia in 1817, the year heavy duties were imposed on the import of niter and lithargir. Other successful associations of the 1820s include the names of the principal associates, like Barbini & Ferrari (until 1829), and Bellaudis & Santi (since 1828).

This new situation engendered two main working models of bead factories. On the one hand, the enterprises that covered the totality of production: enamels, canes, and beads. On the other, the factories devoted to bead fabrication only, either of wound or drawn beads, or both. In the first instance, beads were produced from A to Z, sometimes on the same site. Some factories were restructured and extended so that they could perform all the phases of the production process. In 1828, Pietro Bigaglia's factory on Murano, facing the Venetian lagoon, was huge and luxurious, with exceptionally long corridors devoted to cane drawing, with modern machinery for bead rounding (tube tumblers) as well as the old (*ferrazze*) and reverberatory ovens, and wheels activated by animal power. Finished drawn beads and canes for making wound beads were transferred to Venice, to Bigaglia's palace at S. Giovanni e Paolo, where wound bead makers would come to get their canes, while finished drawn beads were picked up by women and taken home for stringing.[9] Some other producers kept the fabrication of enamels and canes on Murano but maintained the laboratories for bead reduction in Venice, thus taking advantage of the existing structures. This was the case with Giuseppe Bellandis who fabricated enamels and canes at Murano, then had them worked into beads in Venice at San Francesco della Vigna, in the Castello neighborhood.[10] Everybody relied on the bead stringers working at home for the final packaging. In the most flourishing times of the 1840s, the main factories operated 7 to 12 crucibles, produced up to five thousand quintals of beads per year (like Giuseppe Santi did in 1846),[11] and had many hundreds of employees. In 1845, Bigaglia employed 100 workers at Murano, and 150 wound beadmakers and 350 bead stringers in Venice.[12] Overall, such major entrepreneurs were very few, ranging from five to nine in the years 1820-1850, and with very little renewal: those decades are dominated by the names of Bigaglia, Barbaria, Bellandis, Dal Mistro, Santi, later Voizot and Zecchin, as shown in Figs. 2-3.

In the second instance, where the factories produced only beads, the beadmakers bought enamels and canes from the previous factories, then produced wound and/or drawn beads. Depending on the size and organization of the concern, they would operate under their own name or–in parallel or alternately–as sub-contractors for the bigger enterprises. For example, in 1846, Francesco Donà, a producer of wound and drawn beads, appears in documents as working for himself as well as being a sub-contractor to Pietro Bigaglia.[13] In the same year, Giuseppe Lazzari, Antonio Piccoli, and Luigi Mingardi, small-scale bead producers, worked for themselves and also for a more major bead producer, Erardo Riesch.[14] The bead producers could have well-equipped quarters for making drawn beads from canes, with tools for chopping, rounding, and finishing on-site, and/or they could just rely on distributing the various tasks to beadmakers working at home, which was often the case for wound beads.

Bead producers were admitted to the Privilege (which enabled them to export their own merchandise) only in 1832, later than the other group. This could be the reason why in the late 1830s, some of them, probably enriched by the trade, were encouraged to start their own cane and enamel factory, or take over existing ones. This is the case, for example, with Giuseppe Zecchin who took over Barbaria's factory in 1835;[15] the Coen brothers, bead producers for decades, who formed a society for cane and enamel production with Bellandis in 1838;[16] and Edme Voizot, a former bead producer who became a cane and enamels producer in 1843.[17]

The ever-changing configuration of the active Venetian beadmaking industry is difficult to summarize. The disparity in the size and productive possibilities of the active factories elicited a different capacity of response to market fluctuations. During crisis times, market demands were filled by the "giants" of bead production, while smaller producers could either disappear, lose their Privilege, decide to form societies in their turn, or just work as sub-contractors in someone else's name. In good times, beadmakers could work under their own name, start an enterprise, ask to be admitted to the Privilege, and so on. This mechanism might partly explain why the number of industries is not necessarily in direct relationship to the quantity of beads produced, and why the recurring complaints to the Austrian government about the crisis of the bead industry don't always correspond to a real decrease in the total amount of beads produced.[18]

Market fluctuations had more impact on the number of active factories than on production itself, for which there are good figures at least until the late 1840s (the sudden decrease in the years 1848-1850 is due to the Venetian War of Independence against Austria). The mass of the population working in the bead business also shrank or increased

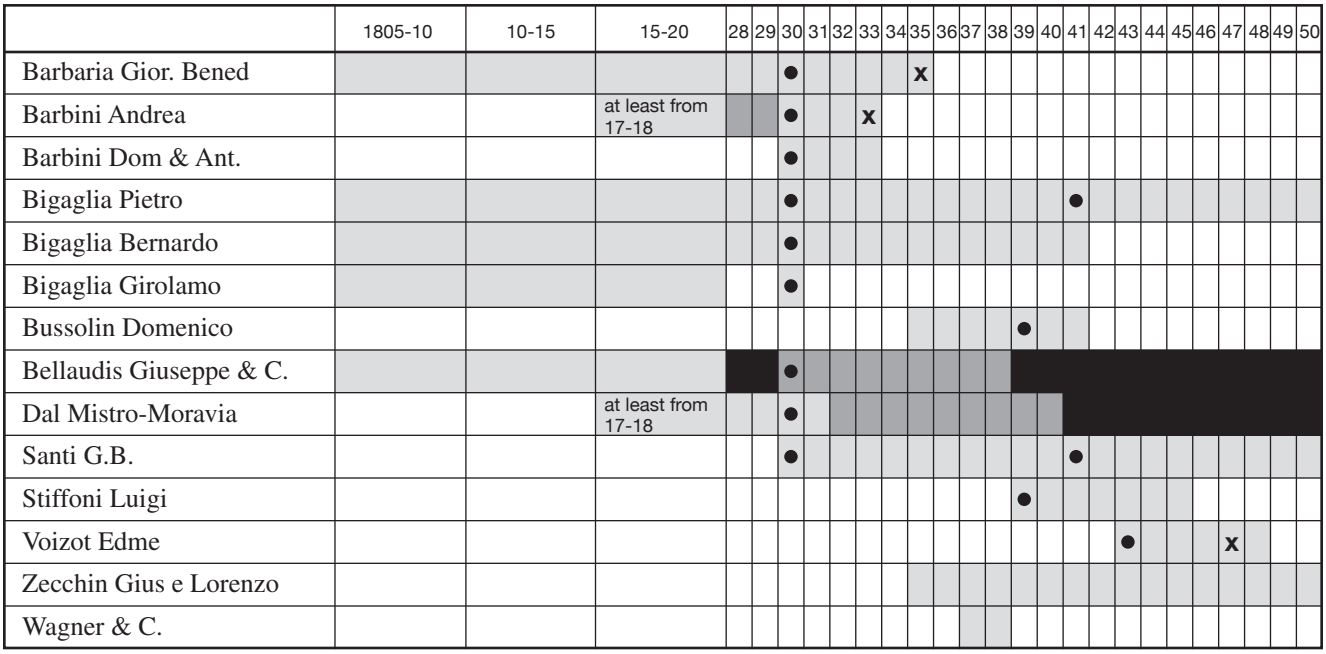

Figure 2. Venetian bead producers, 1805-1850. The shaded areas indicate the years for which documentation exists. A dot (•) indicates the year a factory obtained the Privilege, while an X indicates the year the Privilege was terminated (which sometimes was only temporary). The different shading indicates changes in the ownership of a factory: Barbini was associated with Ferrari only in 1828-29; Giuseppe Bellandis formed a society with Giuseppe Santi in 1828-1830, with Pozzato in 1830-1838, and then with the Coen brothers; Dal Mistro was associated with Moravia until 1830, with Minerbi until 1840, and then with Errera-Cerutti.

"following the need," as Austrian authorities noted at each factory inspection. Working at home became an essential part of the production chain, not only for stringing, but also for wound beadmaking, employing a huge quantity of people that the Austrian systems of control were unable to evaluate.[19]

In terms of professional status, the documentation very clearly reveals the birth of the figure of the "manager" and owner of the factory-men of great experience, expertise, and, sometimes, innovative attitude.[20] The manufacture of beads became in every respect a salaried activity. This was especially true for drawn beadmaking, which relied on a semi-mechanized mode of production alternating between handwork and machine work. Wound beadmakers, though salaried as well, seem to have kept a separate status as craftsmen, retaining their dignity as "artists," as they are often referred to.

Because of the deceptive nature of the documentary sources in the Venetian Archives, and because of the very mechanism upon which the bead industry was based, it is very difficult to establish the real importance–both in quantitative and qualitative terms–of Venetian bead production. The data collected provide an historical and social picture, and are interesting for local history. In the bigger context, they will prove useful only if compared and cross-referenced with other elements, such as sample cards and books that may contain the names of some of the Venetian producers of the time. The development of this research could include additional inquiry at the State Archives, at the archives of the Istituto di Scienze, Lettere ed Arti in Venice, as well as inquiry into the Austrian archives, and private archives and collections worldwide.

Endnotes

1. Particularly in the documents of the Capitanato Provinciale period (1803-1806). A very interesting source is the published *Tariffa de'prezzi di tutti li generi appartenenti all'arte dei perleri di questa citta* (a price list of all the bead types produced in town) by A. Valle (Venice, 1801). Several hundred bead types are mentioned, but despite the descriptive nature of their names, it is very hard to match them with known bead types.

2. Because of the way documents are organized in the archives, being divided by government and administration, data on a specific subject are found in various locations. Other than making the research lengthy and somewhat cumbersome, this has meant devoting much time to integrating all the different

	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
Amadeo Angelo																						
Barbaria Gio. Antonio			●																			
Brocchieri G.																						
Cerri Domenico																						
Cerri Marcantonio			●																			
Coen f.lli di Benedetto				●																		
Dal Medico F.lli										●												
Dezan Giuseppe			●																			
D'Este Giuseppe																						no privilege
Diena Abramo										●												
Donà Francesco			●																			
Flantini Carlo			●																			
Foher L.																						
Franchini Carlo																						
Gaspari Giacomo																						
Gaspari Lorenzo																	x					
Gaspari Francesco			●														x					
Gaspari Vinc. e nipoti			●																			
Giacomuzzi Antonio																						
Giacomuzzi Angelo			●																			active since 1816
Gras Giacomo																						
Lazzari Giuseppe			●																			
Mingardi Luigi			●																			
Padoan Francesco e figli			●														x					at least since 1815
Pitteri Andrea			●																			at least since 1811
Polacco Benedetto			●																			
Pusinich Luigi			●														x					
Riesch &C			●																			
Rizzi Cristoforo			●																			
Rubini G.												●										
Soardi Onorio			●																			
Stiffoni Luigi																	●					
Voizot Edme			●														x					
Zanetti Pietro			●																			
Wolfin & Johr (ex Riesch)																						

Figure 3. Bead producers in Venice, 1830-1850.

components into a consistent whole. The main documentary sources are: *Capitanato Provinciale* (1803-1806); *Camera di Commercio* (1806-1870); *Commissione di Sorveglianza alle fabbriche ed arti privilegiate nel recinto del Portofranco di Venezia* (1830-1873), hereafter Porto Franco.

3. This documentary void is partly due to our limiting the research to the so-called "Privileged factories." A possible development of this research will include recognition of licences assigned by the mayor (through the Chamber of Commerce) to all the active craftsmen, as explained in L. Alberti, *Quadro del sistema di commercio e d'industria vigente nelle provincie venete*, Venice, 1823.

4. ASV, Camera di Commercio, b. 23 (1818), t. III, fasc. 10. In 1826, only the duty on the soda coming from Pola (Dalmatia) was abolished (ASV, Camera di Commercio, b. 52 [1826], t. III, fasc. 2).

5. ASV, Camera di Commercio, b. 29 (1820), t. III, fasc. 9.

6. ASV, Camera di Commercio, b. 52 (1826).

7. This mechanism is not very clear and will require further research to be fully understood.

8. A form of Privilege certainly existed at least since 1822, as Dal Mistro is reported as a "national privileged factory" in that year (ASV, Camera di Commercio, b. 82 (1826), t. III, fasc. 4). However, it is not clear whether this first Privilege system applied to exports abroad or not.

9. ASV, Camera di Commercio, b. 59 (1828), t. III, fasc. 4.

10. ASV, Porto Franco, b. 12 (1833-47), t. X, fasc. 13.

11. ASV, Porto Franco, b. 54 (1845-73), t. VIII, fasc. 3.

12. ASV, Porto Franco, b. 54 (1845-73), t. VIII, fasc. 4.

13. ASV, Porto Franco, b. 12 (1830-44), t. X, fasc. 5. See also ASV, Porto Franco b. 75 (1845-73), t. LI, fasc. 1.

14. ASV, Porto Franco b. 75 (1845-73), t. LI, fasc. 10.

15. ASV, Porto Franco b. 12 (1830-44), t. X, fasc. 4.

16. ASV, Porto Franco b. 12, (1830-44), t. X, fasc. 18.

17. ASV, Porto Franco b. 54 (1845-73), t. VIII, fasc. 4.

18. Data concerning production quantities were gathered by Silvia Ferrari and will be available soon.

19. In the bead industry, the existence of a mass of working people who were escaping the official system and ways of control is evident since the 18th century, as noted by F. Trivellato, "Echi della periferia. Note sulla circolazione e la produzione delle perle di vetro veneziane nei secoli XVII-XVIII," *La ricerca folklorica*, 1996, (34):25-34.

20. This is particularly true for the invention of new enamels, the introduction of new textures and colors, and the like. The most famous case is Bigaglia's *aventurina*, but many others were awarded prizes during these years for their innovative work. *See* V. Mutinelli, *Annali delle Provincie Venete (1816-40)*, Venice, 1843, and the *Atti dell'Istituto Veneto di Scienze, Lettere ed Arti*. As to the process of mechanization, on the contrary, Venetians appear to have been slow and not very innovative.

4. COMMENTS ON "RARE" MELON-SHAPED CHEVRONS, by Jürgen Busch (1997, 31:8-11)

Marie-José Opper's note in *Bead Forum* #30 on a melon-shaped Italian chevron bead found in the northern Mauritanian holy city of Chinguetti requires some corrections and additions. Locally called *sria*, the antique, small, seven-layered, melon-shaped chevrons are said to be "rare" by Mrs. Opper. This is somewhat misleading. Among the 2,000 chevron beads depicted by John and Ruth Picard (1986, 1993), one is a melon-shaped type. Three specimens of this kind (including one in a "rare" blue-green color), against 200 in "traditional" shape, are in the author's collection (Fig. 1); one is in Mrs. Opper's hands. Five "melons" in relation to approximately 2,400 pieces in traditional shape result in a percentage of ca. 0.2%. This percentage would be significantly higher (4.5%) if only the author's collection is considered, revealing that melon-shaped chevrons are not as "rare" as Mrs. Opper believes. Since no records exist of Italy's total chevron-bead production (some hundred million pieces may be just a pessimistic assumption) it is hard to estimate how many melon-shaped chevrons are represented by 0.2% in absolute numbers.

A knowledge of Mauritanian bead prices and local women's bead preferences leads me to disagree with Opper's statement that such *sria* are "highly prized" in Mauritania. In my experience, chevron beads are neither particularly highly valued nor expensive. "Highly prized" is a relative and confusing term (in the Mauritanian bead