Chapter 6, *Creating Conterie Beads*, is the technical meat of the book, as it describes bead production by the SVC. Glass cane was transformed into seed beads in an eight-step process, followed by stringing and packaging. The author obtained and reprinted photographs of the factory workers and equipment thereby very dramatically bringing the entire process to life.



Chapter 7, *Children in the Workforce*, is a poignant description, with historical records, of the conditions that forced children from as young as 8-years-old to start apprenticeships or to seek day work in the glass factories. Children were illegally employed through the 1960s, often having to hide from inspectors to avoid losing their jobs.

Chapter 8, *The Venetian Impiraressa*, is a gripping chronicle of the life and work of the women who strung seed beads for the SVC. The women performed the critical last step in preparing seed beads for sale but lived and worked in grinding poverty. The story of the *impiraressa* is one of both exploitation by the glass industry and personal devotion; their wages often supported an entire extended family.

Chapter 9, *The Eye of the Needles*, expands the cast of seed bead characters with the life story of Aldo Bullo, who produced the hair-thin needles used by the *impiraressa*. Bullo invented his own process for making needles and developed a profitable side business, run by his wife, all the while working full time as an engineer for a Venetian firm.

Chapter 10, *The Gems of Giovanni Giacomuzzi*, is a short chapter detailing his invention of golden-yellow glass based on uranium salts. The glass was used to make seed beads that decorated specialized ecclesiastic and other cloth

(usually velvet) items, mimicking the appearance of gold encrustation.

Chapter 11, *The Rise and Fall of the Società Veneziana per l'Industria delle Conterie (1898-1992)*, is the longest and last chapter of the book. The reader, equipped with the details from the previous chapters, is treated to the specific history of the SVC which was a merger of 17 separate companies hoping to insure their survival after the global depressions of the late 1800s. Like the preceding chapters, this one is supplemented with period photos and translated excerpts. The SVC built an immense new factory and warehouse structure for manufacturing beads, as well as beaded items like flowers for funeral wreaths, for customers on six continents. The company suffered many ups and downs and was finally put out of business by lower-cost competitors in the early 1990s.

In sum, this book is an informative, if bittersweet, window into the lives and times of the Muranese and Venetian glass beadmakers, together with the technical and historical development of glass and seed bead production. The book is certain to greatly enhance one's appreciation of Venetian glass seed beads and the items that were decorated with them.

> Rosanna Falabella Independent Researcher Hayward, CA imustbead@gmail.com

La cartelle veneziane del Museo di Storia Naturale di Milano.

Giorgio Teruzzi, Chiara Colombo, and Irene Mineo. Società Italiana di Scienze Naturali and Museo di Storia Naturale di Milano, Milan. *Natura* 108(2). 2018. 172 pp., 174 color figs. \notin 20.00 (paper cover).

Volume 108(2) of the journal *Natura* provides a substantial introduction to the topic of glass bead production and trade overseas with copious full-size images of a wonderful assortment of historic sample cards of Venetian glass beads from the ethnic collection of the Museo di Storia Naturale di Milano, which were accessioned within the last 20 years. Mostly produced on Murano as goods for trade and barter, the earliest card shown possibly dates back to 1898.

The front cover depicts the classic method of making a glass bead by hand on a mandrel, glowing in the lampwork flame, in front of a hood-shaped baffle or screen to contain the heat, with a selection of millefiori cane slices on the work surface ready to be placed around the sides of the bead.



The first dozen or so pages explain the whole industry and provide an introduction to the illustrated collection of the sample cards themselves. For enthusiasts, just enjoying such a feast of styles and designs is always exciting and inspiring though the information may not include date and place of manufacture and whether the designs are new or repeats of beads in already popular patterns. So it still involves detective work for research purposes.

Study of the beads, and in particular determining their original site of manufacture, is often not easy to carry out: in fact, despite the beads being shipped over enormous distances, they were not stamped with trademarks or given identificatory punches similar to those often present on objects made out of ceramic or silver (p. 5).

The text is presented in Italian in the left hand column with text paralleled in English to the right. Generally this works even though there are a few images that need captions in both languages.

In some cases I made use of an old pocket Italian/ English dictionary to try to check exact vocabulary; for example *Cartelle Campionario* translates as "sample cards" and *magazzino* means "warehouse." In a few instances "pearl" is still used to designate a glass bead, which might be confusing for a curious member of the public if they are not already familiar with beads. On page 7 there is mention of "Polish beads" which is new to me; I suspect that "fire polished" may have been intended. On page 9, lampwork is described as forming a bead round a copper tube rather than a solid mandrel. Has this always been the Venetian method?



A listing and description of the plates depicting the cards appears on pages 14-29. Each entry (in Italian) provides the museum inventory number, dimensions, date, trade destination, notes (describing any trademarks, wording, numbers for the samples, etc.), and figure number. The 174 sample cards are shown on the pages that follow. They seem to have been ordered by museum catalog number but not necessarily chronologically or numerically.

Page 30, also not translated, provides a listing of the cards sorted into categories, giving the year dates that are stamped or written on them, and the museum inventory number. The categories are: sample cards of production or warehousing; cards with the trademark of J.W. Jaeckel & Co.; cards indicating names of general destinations;

cards with names of specific destinations within Africa, Asia, Oceania, Central America, South America, Europe; cards without any specific destination; multiple cards; and manufactured goods.

Consequently when you start to look at the illustrations it may be confusing to try to find the matching description for a particular bead sample card. Nevertheless gradually we begin to get a better picture of the Venetian beads that were made by hand in such quantities and loved and traded around the globe.

As the largest publicly owned collection in Italy, the cards depicted in this book represent "a unique testimony of the copious output of a once great industry – namely glass-bead making – that produced artefacts linked to the traditions of peoples on every continent" (p. 5).

For all those who love, collect, and research Venetian beads, this book is most recommended for its images, the industry it celebrates, the history it records, and the connections it demonstrates.

> Stefany Tomalin Independent Researcher London United Kingdom srt@beadata.com

Glass Bead Trade in Northeast Africa: The Evidence from Meroitic and Post-Meroitic Nubia.

Joanna Then-Obłuska, with Barbara Wagner. Polish Centre of Mediterranean Archaeology, University of Warsaw, PAM Monograph Series 10. 2019. 316 pp., 32 color plates, 65 color figs., 11 B&W figs., 31 tables. ISBN-13 978-83-235-3899-8. 180 zł (paper cover) & 160 zł (PDF).

As the title proclaims, this book undertakes to determine the routes by which glass beads found at archaeological sites in the Nubian region of Sudan arrived there during the Meroitic and Post-Meroitic periods. This is accomplished by comparing the types of beads recovered with those from other sites ranging from the eastern Mediterranean to South Asia. In addition, information is provided concerning the techniques used to produce the beads, the chemical composition of the glasses used in their production, and how they were utilized as ornaments. The author is well suited to the task, having studied the beads recovered from numerous sites in Nubia.



Following a brief Introduction, Chapter 1 discusses Nubia and its history during the pre-Islamic period. Centered at Meroë, at the confluence of several trade routes, the Meroitic Kingdom existed from around the 3rd century BC to the 3rd century AD. Its early phase corresponds to the Ptolomaic period in Egypt while the later part equates to Roman times. It was conquered by the Kingdom of Aksum in the early 4th century, marking the beginning of the Post-Meroitic period which lasted until the middle of the 6th century.

Chapter 2 provides examples of the various ways beaded ornaments are depicted in works of art in the region such as statues and bas-reliefs followed by an enumeration of the uses of actual beads found in burial contexts. While most beads and pendants comprised personal ornaments such as necklaces, bracelets, and earrings, others adorned garments and accessories, wooden boxes, and, on occasion, animals and their trappings.

The beads discussed in this book come from four major museum collections. These, as well as the sites involved, are discussed in detail in Chapter 3. The next chapter describes the various morphological categories of the beads under