

THE GIACOMUZZI BEAD SAMPLE BOOK AND FOLDERS

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The sample book described herein displays the wound glass beads produced during the third quarter of the 19th century by an acclaimed Venetian firm, that of the Giacomuzzi brothers. The book vividly shows what sorts of beads were being marketed by a single firm at this time, and provides much useful information concerning bead sizing systems. Although not marked with the producers name, the folders that accompany the book are of like date and at least one is likely a product of the Giacomuzzis.

INTRODUCTION

Archaeologists, ethnologists, collectors, and others interested in beads often seek to identify the age and place of manufacture of the specimens in their collections. Although much work has been done over the years to facilitate this task, there is still much to be learned. This is especially true of the 19th and early 20th centuries, a time when many bead styles cease to be made, a number of earlier types are revived, and numerous new styles and manufacturing techniques make their debut. As tightly dated bead samples of an identified manufacturer are ideal sources of data for this period, it was of great interest to learn of the Giacomuzzi sample book and two accompanying folders (Fig. 1) which had been found at a garage sale in Scottsdale, Arizona, in the early 1980s by Charles and Gloria Arquette, and are now in the possession of The Bead Museum in Glendale, Arizona (Karklins 1984:5-7).

The Giacomuzzi collection is important for a number of reasons:

1. It is one of only a handful of recorded sample collections that are of 19th-century origin; only the Levin Catalogue (Karklins 1985c), Venetian

Bead Book (Karklins 1985a), and Frost Collection (Johnson 1977; Liu 1983) are comparable.

2. The manufacturer and his place of business are identified; it is not known who produced the Venetian Bead Book, and Levin and the Frosts were bead dealers, not manufacturers.
3. The Giacomuzzi book can be relatively tightly dated; the book's label, coupled with historical documentation, reveals that it was almost certainly produced between 1852 and 1868.
4. The collection reveals how beads were sized by a major Venetian producer in the 19th century; this will be very useful to those attempting to determine size populations in archaeological collections, as discussed by Ross (1990).

The beads displayed in the Giacomuzzi collection are described on the following pages using an expanded version (Karklins 1985b) of the taxonomic system devised by Kenneth and Martha Kidd (1970). Varieties that do not appear in the Kidds' lists are marked by an asterisk (*); two asterisks (**) denote a previously unrecorded type. Complex bead shapes are identified using Beck (1928).

Color names are those provided in the *Color Harmony Manual* (Container Corporation of America 1958). Diaphaneity is described using the terms opaque (op.), translucent (tsl.), and transparent (tsp.). Opaque beads are impenetrable to light except on the thinnest edges. Specimens that are translucent transmit light but diffuse it so that an object (such as a pin in the perforation) viewed through them is indistinct. A pin in the perforation of a transparent bead is clearly visible.

When listing bead sizes, those which are numerical (e.g., Size 2) are those designated and used by the Giacomuzzis. Those denoted by letters (e.g., Size a)

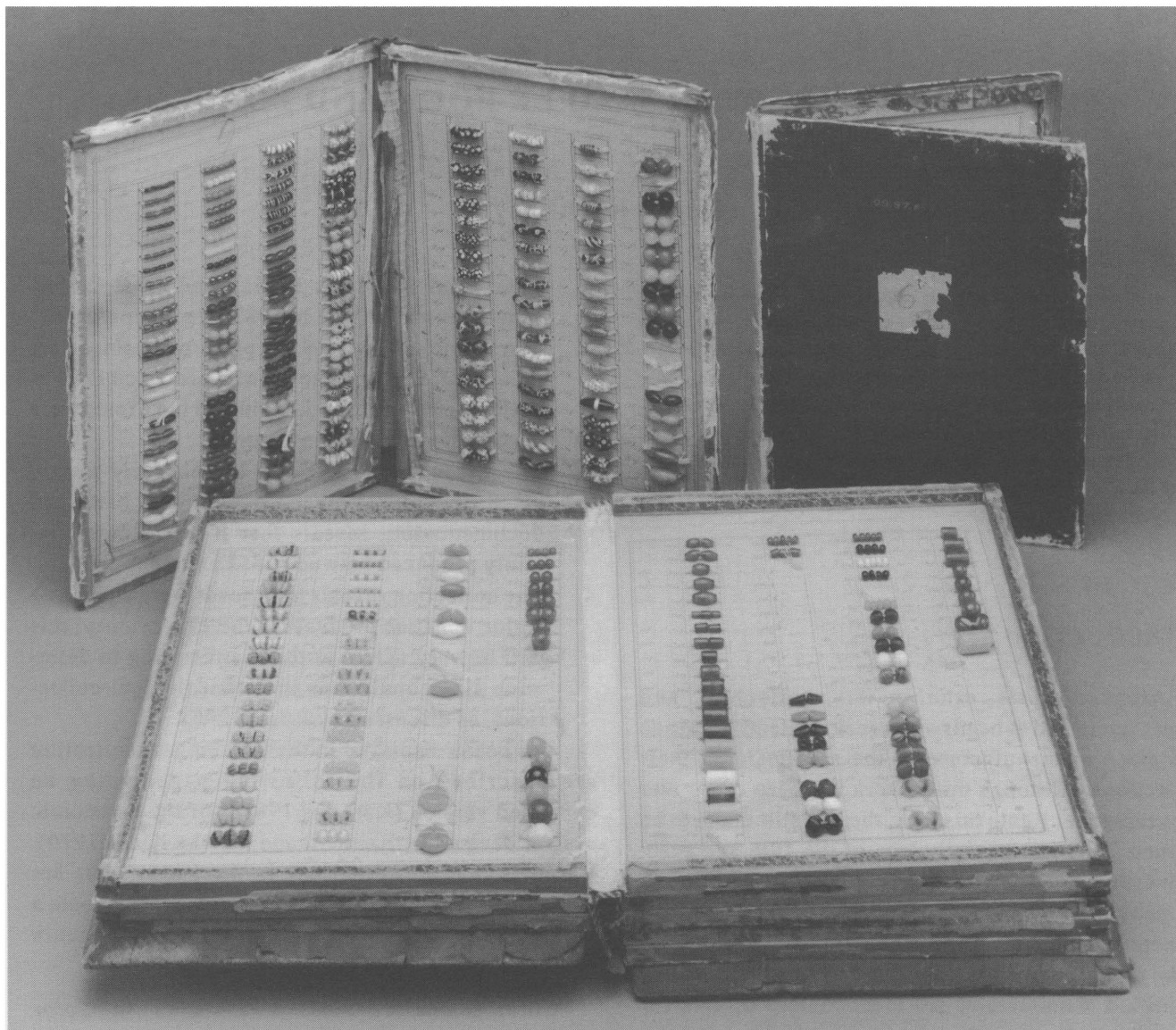


Figure 1. The Giacomuzzi bead book and folders (photo: Christopher Marchetti).

are relative sizes designated by the author. Size ranges for the various varieties are followed by the average values in parentheses.

THE GIACOMUZZIS' MAJOR ACHIEVEMENTS

The Giacomuzzi brothers—Giovanni and Giuseppe—came from a family of glassmakers that specialized in beads. During a visit to Venice by Francis I of Austria, their father, Angelo, produced a bead in the presence of the emperor which bore the inscription *Viva Francesco I* in a laurel wreath

(Morazzoni 1953:67-68). In 1838, Angelo achieved international fame for his decorated beads. When exhibited in New York in 1854, they “delighted the many elegant bourgeois who, with a few dollars, could wear necklaces, bracelets, and diadems in the latest fashion, causing the envy of matronly ladies who were still wearing the old jewels of the Empire and Restoration” (Morazzoni 1953:59).

Giovanni Giacomuzzi was well-known for his achievements as well. Born in 1817, he was the inventor of gold mother-of-pearl which was proclaimed the “jewel and queen of all the other beads” and “shone with a very special light” (Morazzoni

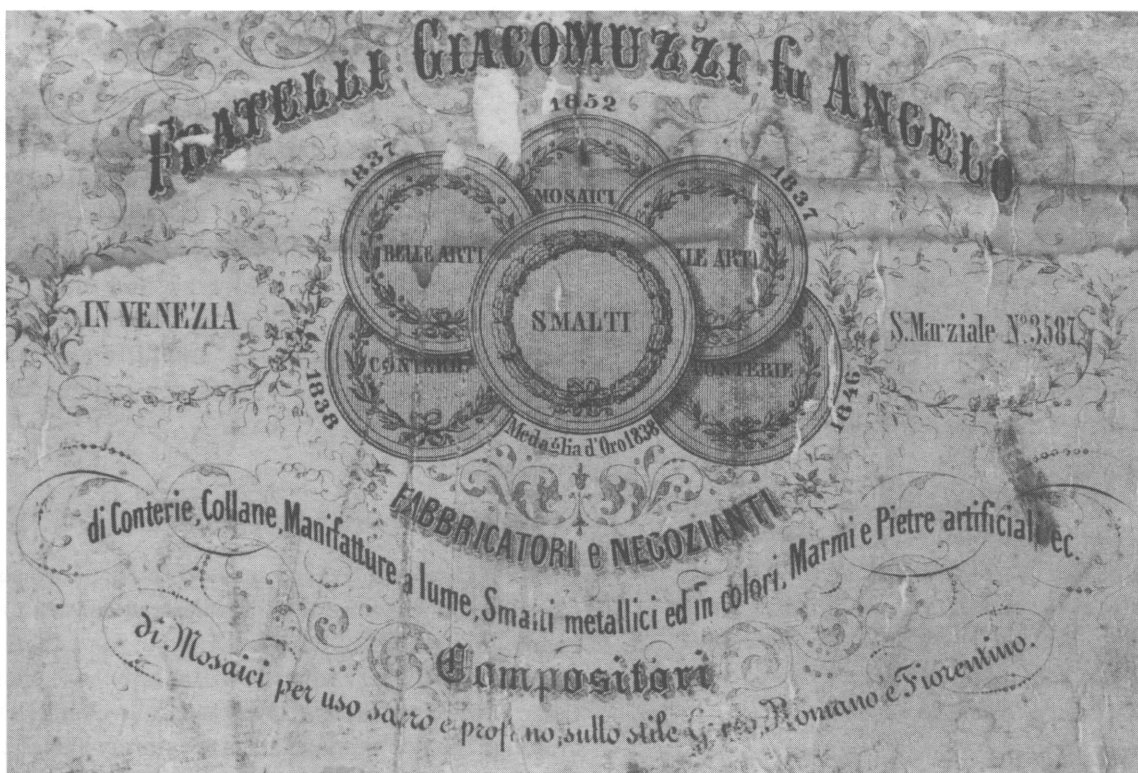


Figure 2. The label on the cover of the Giacomuzzi bead book (photo: Christopher Marchetti).

1953:58-59). This material found a new application in beadwork and received much acclaim in the adornment of altars and churches where it replaced gold embroidery. One of the most memorable examples is the Treviso theater where 2,268 kg (5,000 lbs.) of gold mother-of-pearl beads were sewn onto 70 m² of velvet (Morazzoni 1953:58).

Giovanni subsequently devised a method to mold crushed imitation mother-of-pearl and apply it to fabric with mastic to create tapestries, decorative furnishings, and book covers. This material was shown at the Rome Exposition to great enthusiasm, as well as at the Murano Glass Exhibition of 1869, where it won a badge of honor which was considered superior to a gold medal and was only conferred upon outstanding artists (Morazzoni 1953:58).

Giovanni had also received a silver medal from the Royal Institute of Science, Letters, and Arts of Venice in 1868 for developing a “transparent yellow-gold bead” using an oxide of uranium as the coloring agent.

Surpassing all previous attempts to create a yellow-colored bead, it gave the illusion of a “transmutation from glass to gold” (Morazzoni 1953:58, 74).

Giovanni’s other achievements include *poliemblemata*, a type of mosaic composed of glass “prisms” arranged in various patterns. Developed in 1852, this product was very well received and, sawn into sheets, served as a decorative surface for furniture (Morazzoni 1953:61). Giovanni also produced a ruby glass without the use of gold as the colorant, an imitation carnelian, and a brilliant mother-of-pearl in silver, ruby, green, and blue glass (Morazzoni 1953:58).

It is not known when the Giacomuzzi brothers went out of business, but it seems to have been before June 30, 1898. On this day, 17 Venetian glass-beadmakers united to form the *Società Veneziana per la industria delle Conterie* and the Giacomuzzis were not among them (Pasquato 1953:77).

THE GIACOMUZZI SAMPLE BOOK

The principal component of the Giacomuzzi collection is the sample book which measures 46.0 cm in length, 31.5 cm in width, and 12.2 cm in thickness. The book's wooden covers enclose eight tray-like cardboard pages edged with narrow wooden slats. These prevent the beads from being crushed when the book is closed. The cover is cased in green cloth, while the slats are covered with marbled blue and brown paper.

In the center of the front cover is a fancy paper label (Fig. 2) which reads:

FRATELLI GIACOMUZZI fu ANGELO, in VENEZIA, S. Marziale No. 3587. FABRICATORI e NEGOZIANI di Conterie, Collane, Manifatture alume, Smalti metallici ed in colori, Marmi e Pietre artificiali ec. Compositori di Mosaici per uso sacro e profano, sullo stile Greco, Romano e Fiorentino.

This announces that the Giacomuzzi Brothers, sons of the late Angelo Giacomuzzi, were fabricators and dealers of small glass beads, necklaces, lampworked beads, enamel in colors and metallic hues, artificial marble and stones, etc. They also produced mosaics in the Greek, Roman, and Florentine styles for both sacred and secular use.

The label also depicts several medals awarded to the company for its products: 1837 (for *Belle Arti*: fine arts), 1838 (for *Conterie*: small glass beads), 1838 (a gold medal for enamels), 1846 (for small glass beads), and 1852 (for mosaics).

The number "09.97.B." in red paint appears at the top of the front cover. The top of the first page bears the legend *FABBRICA PREMIATA DEI FRALLI*. The top of the second page has a narrow strip of paper pasted over it but probably originally bore the name *GIACOMUZZI*. Thus the full heading would have read: "The award-winning factory of the Giacomuzzi Brothers."

Each page of the book is divided into four pairs of vertical columns with black-ink lines. The right-hand column exhibits bead samples mounted on cotton string, while the one to the left provides the catalogue number (brown ink) and, for some beads, a numerical size code (red ink), and another number of unknown function (black ink). The latter is provided in brackets

after the appropriate variety description in the inventory that follows.

The book originally contained 638 sequentially numbered samples (Pls. IV-VI), though only 359 remain today. All of these are of wound manufacture; that is, they were produced by winding different colored filaments of viscid glass about a rotating metal mandrel until the desired size and shape were achieved. While still in a plastic state on the mandrel, the bead could be manipulated into different forms by using paddles or tongs, or rolling or clamping the bead in different molds.

The Sample Book's Bead Inventory

1-13. WIIm and WIIp; monochrome short square barrel beads and long square truncated convex bicone beads (Beck's [1928] types IX.B.1.b. and IX.D.1.f., respectively). These square-sectioned beads generally taper toward either end from a slight central ridge, although the two smallest sizes are simply oblate beads that have been pressed while viscid to give them a squared outline. While two shapes are technically present, the catalogue reveals that the WIIm specimens are simply short versions of the WIIp beads. There are five varieties of several sizes:

1-2. WIIm*; short square barrel; tsp. ruby; sizes 1-2 [110].

3-10. WIIp*; long square truncated convex bicone; tsp. ruby; sizes 3-10 [nos. 3-6: 110].

11. WIIp*; long square truncated convex bicone; tsp. teal green; size 4 [114].

12. WIIp*; long square truncated convex bicone; tsp. light gray; size 4 [109].

13. WIIp*; long square truncated convex bicone; op. black; size 4 [112].

Ten size groups are represented:

Size 1)	Diameter:	3.1-3.8 mm	(3.4 mm)
	Length:	1.8-2.7 mm	(2.2 mm)
Size 2)	Diameter:	3.0-3.6 mm	(3.3 mm)
	Length:	2.3-2.6 mm	(2.5 mm)
Size 3)	Diameter:	3.8-4.0 mm	(3.9 mm)
	Length:	4.7-6.2 mm	(5.4 mm)
Size 4)	Diameter:	4.1-5.0 mm	(4.5 mm)
	Length:	6.6-8.2 mm	(7.6 mm)
Size 5)	Diameter:	5.0-6.1 mm	(5.7 mm)

	Length:	6.2-7.4 mm	(6.9 mm)
Size 6)	Diameter:	4.9-5.3 mm	(5.1 mm)
	Length:	8.7-9.5 mm	(9.1 mm)
Size 7)	Diameter:	5.8-6.2 mm	(6.0 mm)
	Length:	9.9-10.5 mm	(10.2 mm)
Size 8)	Diameter:	7.2 mm	(7.2 mm)
	Length:	11.8 mm	(11.8 mm)
Size 9)	Diameter:	8.4 mm	(8.4 mm)
	Length:	13.8 mm	(13.8 mm)
Size 10)	Diameter:	8.8 mm	(8.8 mm)
	Length:	14.9 mm	(14.9 mm)

14-20. Missing, but was available in sizes 0-6 [109].

21-40. WIb and WIIa; round beads with undecorated single and double-layered bodies; 7 varieties remain:

21-31. WIb*; tsl. oyster white (cracked); sizes 0-10 [nos. 21-27: 55].

32. Missing; size 6 [55].

33. WIb*; op. bright navy and bright Dutch blue swirled together; size 5 [55].

34. Missing; size 5 [55].

35. WIb*; op. black; size 4 [58].

36. Missing; size 4 [57].

37. WIb16; tsp. bright navy; size 5 [60].

38. WIb2; op. white; size 4 [57].

39. WIIa*; tsp. ruby on op. white; size 6 [62].

40. WIb*; op. mustard gold; size 6 [55].

The eleven sizes have the following metric values:

Size 0)	Diameter:	3.6-3.8 mm	(3.7 mm)
	Length:	3.6-4.2 mm	(3.9 mm)
Size 1)	Diameter:	4.0-4.2 mm	(4.0)
	Length:	4.3-4.8 mm	(4.6 mm)
Size 2)	Diameter:	4.4-4.7 mm	(4.5 mm)
	Length:	5.1-6.0 mm	(5.5 mm)
Size 3)	Diameter:	5.6-5.8 mm	(5.7 mm)
	Length:	6.1-6.8 mm	(6.5 mm)
Size 4)	Diameter:	6.6-7.1 mm	(6.8 mm)
	Length:	7.0-7.5 mm	(7.2 mm)
Size 5)	Diameter:	7.0-7.7 mm	(7.3 mm)
	Length:	7.1-7.8 mm	(7.4 mm)
Size 6)	Diameter:	7.1-7.8 mm	(7.4 mm)
	Length:	7.4-9.4 mm	(8.0 mm)
Size 7)	Diameter:	8.6 mm	(8.6 mm)
	Length:	10.2 mm	(10.2 mm)

Size 8)	Diameter:	10.7 mm	(10.7 mm)
	Length:	10.0 mm	(10.0 mm)
Size 9)	Diameter:	10.9 mm	(10.9 mm)
	Length:	11.6 mm	(11.6 mm)
Size 10)	Diameter:	11.9 mm	(11.9 mm)
	Length:	11.6 mm	(11.6 mm)

41-51. Missing, but was available in sizes 0-10 [nos. 41-47: 55].

52-60. WII*; round ribbed beads with monochrome bodies. These were apparently rolled in a ribbed trough mold while still on the mandrel to impart a series of ribs or rounded ridges that encircle the bead perpendicular to the perforation. There were 9 varieties:

52. WII*; op. mustard gold; size 4 [55].

53. Missing; size 5 [55].

54. WII*; tsl. citron; size 4 [57].

55. WII*; op. black; size 5 [58].

56. WII*; tsp. ruby; size 5 [56].

57. WII*; tsp. teal green; size 5 [60].

58. WII*; op. white; size 5 [57].

59. Missing; size 5 [57].

60. WII*; op. bright navy and op. bright Dutch blue swirled together; size 5 [55].

The two sizes have the following measurements:

Size 4)	Diameter:	6.8-7.6 mm	(7.2 mm)
	Length:	6.3-7.3 mm	(6.8 mm)
Size 5)	Diameter:	6.8-8.3 mm	(7.7 mm)
	Length:	6.3-8.1 mm	(7.4 mm)

61-80. WIc and WIIa; oval (olive-pit shaped) beads with undecorated single and double-layered bodies; 8 varieties:

61-71. WIc*; tsl. oyster white (cracked glass); sizes 0-10 [nos. 61-67: 109].

72. WIc*; op. cerulean blue; size 6 [55].

73. WIc*; tsp. very pale bright navy; size 6 [55].

74. WIIa*; tsp. ruby on op. white; size 6 [56].

75-76. Missing; size 6 [57].

77. WIc1; op. white; size 6 [57].

78. WIc*; tsp. teal green; size 6 [60].

79. WIc*; op. sunlight yellow; size 6 [5?].

80. WIc*; op. black; size 6 [60].

The 11 size groups have the following measurements:

Size 0)	Diameter:	3.3-3.6 mm	(3.5 mm)
	Length:	4.6-5.0 mm	(4.8 mm)
Size 1)	Diameter:	3.4-3.6 mm	(3.6 mm)
	Length:	4.5-5.5 mm	(5.1 mm)
Size 2)	Diameter:	4.0-4.2 mm	(4.1 mm)
	Length:	5.9-6.4 mm	(6.1 mm)
Size 3)	Diameter:	4.6-4.8 mm	(4.7 mm)
	Length:	7.9-8.6 mm	(8.2 mm)
Size 4)	Diameter:	4.7-5.0 mm	(4.8 mm)
	Length:	7.9-8.7 mm	(8.3 mm)
Size 5)	Diameter:	5.6 mm	(5.6 mm)
	Length:	9.6 mm	(9.6 mm)
Size 6)	Diameter:	5.4-6.0 mm	(5.7 mm)
	Length:	9.4-11.6 mm	(10.5 mm)
Size 7)	Diameter:	6.0-6.1 mm	(6.1 mm)
	Length:	11.6-12.5 mm	(12.0 mm)
Size 8)	Diameter:	6.8 mm	(6.8 mm)
	Length:	13.4 mm	(13.4 mm)
Size 9)	Diameter:	7.5 mm	(7.5 mm)
	Length:	14.0 mm	(14.0 mm)
Size 10)	Diameter:	7.9 mm	(7.9 mm)
	Length:	15.0 mm	(15.0 mm)

81-92. WIIfa; glass beads of simple shapes that are covered with a layer of copper-colored enamel; 2 varieties of several sizes:

81-87. WIIfa*; round; sizes 0-6 [59].

The 7 size groups have the following measurements:

Size 0)	Diameter:	3.5-4.0 mm	(3.7 mm)
	Length:	2.8-3.4 mm	(3.0 mm)
Size 1)	Diameter:	4.0-4.8 mm	(4.3 mm)
	Length:	2.8-3.6 mm	(3.2 mm)
Size 2)	Diameter:	4.5-4.9 mm	(4.7 mm)
	Length:	4.2-4.5 mm	(4.4 mm)
Size 3)	Diameter:	5.0-5.1 mm	(5.0 mm)
	Length:	4.8-5.6 mm	(5.1 mm)
Size 4)	Diameter:	5.5-6.1 mm	(5.8 mm)
	Length:	5.4-5.5 mm	(5.5 mm)
Size 5)	Diameter:	6.2-7.0 mm	(6.6 mm)
	Length:	6.2-6.6 mm	(6.4 mm)
Size 6)	Diameter:	6.7-6.9 mm	(6.8 mm)
	Length:	6.6-7.4 mm	(7.0 mm)

88-92. WIIfa*; oval (olive-pit shaped); sizes 1-5 [113].

The 5 size groups have the following measurements:

Size 1)	Diameter:	3.4-3.8 mm	(3.6 mm)
	Length:	5.5-5.8 mm	(5.6 mm)
Size 2)	Diameter:	3.6-4.0 mm	(3.8 mm)
	Length:	5.4-6.1 mm	(5.8 mm)
Size 3)	Diameter:	4.5-5.0 mm	(4.8 mm)
	Length:	7.8-8.3 mm	(8.0 mm)
Size 4)	Diameter:	5.2-5.6 mm	(5.4 mm)
	Length:	7.6-8.1 mm	(7.8 mm)
Size 5)	Diameter:	5.7-6.0 mm	(5.8 mm)
	Length:	10.1-10.3 mm	(10.2 mm)

93-100. WIIfe; glass beads of complex shapes that are covered with a layer of copper-colored enamel; 3 varieties of several sizes:

93-98. WIIfe*; round ribbed; sizes 1-6 [59].

The various sizes have the following metric values:

Size 1)	Diameter:	4.1-4.8 mm	(4.6 mm)
	Length:	4.2 mm	(4.2 mm)
Size 2)	Diameter:	4.8-5.1 mm	(4.9 mm)
	Length:	4.7-4.9 mm	(4.8 mm)
Size 3)	Diameter:	5.8-6.0 mm	(5.8 mm)
	Length:	5.6-5.8 mm	(5.7 mm)
Size 4)	Diameter:	6.4-6.8 mm	(6.6 mm)
	Length:	6.3-6.6 mm	(6.4 mm)
Size 5)	Diameter:	6.8-7.7 mm	(7.2 mm)
	Length:	7.3-7.7 mm	(7.5 mm)
Size 6)	Diameter:	7.8-8.4 mm	(8.2 mm)
	Length:	8.6-8.7 mm	(8.6 mm)

99. WIIfe*; standard square barrel bead (Beck's type IX.C.1.b.); size 5.

Size 5)	Diameter:	5.9-6.6 mm	(6.2 mm)
	Length:	8.8 mm	(8.8 mm)

100. WIIfe*; oval spiral-ribbed (these exhibit rounded ribs that spiral around the bead); size 4.

Size 4)	Diameter:	5.1-5.5 mm	(5.3 mm)
	Length:	6.9-7.7 mm	(7.3 mm)

101-105. WIb; round beads with monochrome bodies; one variety of five sizes:

101-105. WIb*; tsp. ruby; sizes 1-5 [119].

Size 1)	Diameter:	3.4-3.7 mm	(3.5 mm)
	Length:	3.2-4.0 mm	(3.6 mm)
Size 2)	Diameter:	3.8-4.0 mm	(4.0 mm)
	Length:	4.0-4.7 mm	(4.4 mm)
Size 3)	Diameter:	4.2-4.3 mm	(4.2 mm)
	Length:	4.8-5.0 mm	(4.9 mm)
Size 4)	Diameter:	5.2-5.6 mm	(5.4 mm)
	Length:	6.5 mm	(6.5 mm)
Size 5)	Diameter:	5.7-6.1 mm	(6.0 mm)
	Length:	6.4-6.6 mm	(6.6 mm)

106-109. WIc; oval beads with monochrome bodies; 4 varieties:

106. WIb*; op. cerulean blue; no size listed.

107. Missing; no size listed.

108. WIb*; tsp. teal green; two of the specimens are conjoined, their ends having touched during manufacture; no size listed.

109. WIb*; tsp. ruby; no size listed.

One size group is represented:

Size a)	Diameter:	4.1-4.7 mm	(4.4 mm)
	Length:	5.2-6.1 mm	(5.6 mm)

110-115. Missing, but available in sizes 1-6 [57].

116-125. WId and WIIfa; doughnut-shaped beads with single and double-layered bodies; 5 varieties:

116. WId*; op. cerulean blue; size 1 [55].

117-118. Missing; sizes 3 and 4 [55].

119. WId*; op. light gold; size 4 [57].

120. WId*; tsp. teal green; size 4 [60].

121. WId*; tsp. light gray (clear); size 4 [55].

122-124. Missing; sizes 1, 3 and 5 [57].

125. WIIfa*; tsp. ruby on op. white; size 6 [63].

The three existing sizes have the following measurements:

Size 1)	Diameter:	4.0-4.8 mm	(4.4 mm)
	Length:	1.5-2.2 mm	(1.8 mm)
Size 4)	Diameter:	5.2-7.4 mm	(6.4 mm)
	Length:	2.2-3.6 mm	(3.4 mm)
Size 6)	Diameter:	7.5-7.8 mm	(7.6 mm)
	Length:	3.8-3.9 mm	(3.8 mm)

126-133. WIc; oval beads with polychrome bodies; 8 varieties:

126. WIc*; tsl. oyster white center; tsp. ruby ends; size 6 [72].

127. WIc*; tsp. turquoise green center; tsl. oyster white ends; size 6 [71].

128. WIc*; one end is tsl. oyster white; the other is op. cerulean blue; size 5 [64].

129. WIc*; tsl. oyster white center; one end is op. cerulean blue; the other is tsp. ruby; size 6.

130. WIc*; tsl. oyster white and tsp. ruby swirled together; size 6 [65].

131. WIc*; center composed of tsl. oyster white and op. apple green swirled together; the ends are tsp. ruby; size 5 [68].

132. WIc*; op. cerulean blue center bordered by tsl. oyster white; the ends are tsp. ruby; size 6 [73].

133. WIc*; center composed of op. black, op. cerulean blue, and op. apple green swirled together; the ends are tsl. oyster white; size 5 [67].

The two sizes have the following values:

Size 5)	Diameter:	4.8-5.2 mm	(5.0 mm)
	Length:	8.4-10.1 mm	(9.3 mm)
Size 6)	Diameter:	5.0-5.6 mm	(5.3 mm)
	Length:	8.2-9.4 mm	(8.9 mm)

134-136. WII*; standard square truncated convex bicone beads (Beck's type IX.C.1.f.) with monochrome and polychrome bodies. The surfaces of the pressed facets are slightly concave parallel to the perforation. There are 3 varieties:

134. WII*; tsp. ruby; no size listed.

135. WII*; tsp. light gray (clear) center; tsp. ruby at one end and op. dark palm green at the other; no size listed [314].

136. WII*; center composed of tsl. oyster white and op. apple green swirled together; the ends are tsp. ruby; no size listed.

The beads represent a single size group:

Size a)	Diameter:	5.5-7.6 mm	(6.3 mm)
	Length:	6.4-7.6 mm	(6.8 mm)

137. WI*; short barrel bead (Beck's type I.B.1.b.) with a monochrome body and flat ends; 1 variety:

137. WI*; op. light gold; size 5 [76].

Size 5)	Diameter:	5.6-6.0 mm	(5.8 mm)
	Length:	2.7-2.8 mm	(2.8 mm)

138-150. Missing [no. 138: 78; nos. 141-146: 57].

151-160. Wlb*; round beads with polychrome bodies; 9 varieties:

151. Wlb*; one end is tsl. oyster white; the other is tsp. ruby; size 5 [64].

152. Wlb*; tsl. oyster white and op. cerulean blue swirled together; size 5 [65].

153. Missing; size 5 [71].

154. Wlb*; tsl. oyster white center; tsp. ruby ends; size 5 [72].

155. Wlb*; the center is tsl. oyster white; one end is op. black; the other is op. cerulean blue; size 5.

156. Wlb*; tsp. ruby swirled on tsl. oyster white, with an op. black band around the middle; size 5 [67].

157. Wlb*; tsp. turquoise green center bordered by tsl. oyster white; the ends are tsp. ruby; size 5 [73].

158. Wlb*; tsp. turquoise green, tsl. oyster white and tsp. ruby swirled together; size 5 [66].

159. Wlb*; tsp. turquoise green, tsl. oyster white, tsp. ruby and op. black swirled together; size 6.

160. Wlb*; tsl. oyster white exhibiting tsp. bright navy and tsp. ruby blotches; size 5 [75].

The two represented sizes have the following metric values:

Size 5)	Diameter:	6.6-8.8 mm	(7.6 mm)
	Length:	6.6-8.5 mm	(7.6 mm)
Size 6)	Diameter:	7.4-8.0 mm	(7.8 mm)
	Length:	7.6 mm	(7.6 mm)

161-169. WII*; round ribbed beads with decorated bodies. These were apparently rolled in a ribbed mold while still on the mandrel to impart a series of ribs or rounded ridges that encircle the bead perpendicular to the perforation. There are 9 varieties:

161. WII*; op. white and op. black swirled together; size 5 [65].

162. WII*; tsl. oyster white center and op. cerulean blue ends; size 5 [74].

163. WII*; op. black, op. light gold and op. cerulean blue swirled together at the center; tsp. ruby ends; size 5.

164. WII*; tsp. ruby and tsl. oyster white swirled together, with an op. cerulean blue band around the middle; size 5 [?].

165. WII*; op. white center encircled by an op. black band; op. light gold ends; size 5 [75?].

166. WII*; one end is tsl. oyster white; the other is tsp. pale bright navy; size 5 [64].

167. WII*; tsl. oyster white center; one end is tsp. ruby while the other is op. light gold; size 5.

168. WII*; tsl. oyster white body encircled by a tsp. teal green band; size 5 [75?].

169. WII*; op. black body decorated with op. white splotches; size 5 [75].

Size 5)	Diameter:	7.1-8.6 mm	(8.0 mm)
	Length:	7.0-8.7 mm	(7.9 mm)

170-180. WIIe; melon beads with eight ribs and polychrome bodies; 11 varieties:

170. WIIe*; one end is tsl. oyster white, the other is tsp. ruby; size 4 [64].

171. WIIe*; swirled op. light gold and tsp. ruby body encircled by an op. cerulean blue band; size 4 [67].

172. WIIe*; op. white and op. ruby swirled together; size 4 [65].

173. WIIe*; tsl. oyster white body encircled by an op. cerulean blue band; size 4 [?].

174. WIIe*; swirled op. cerulean blue and op. white body; op. black ends; size 4 [68].

175. WIIe*; op. cerulean blue center bordered by tsl. oyster white; tsp. ruby ends; size 5 [7?].

176. WIIe*; op. dark palm green body; one end is op. light gold, the other is op. copen blue; size 4.

177. WIIe*; tsl. oyster white body with op. light gold ends; size 5 [72].

178. WIIe*; tsl. oyster white body decorated with tsp. ruby and tsp. bright navy splotches; size 5 [75].

179. WIIe*; tsl. oyster white with a tsp. ruby band about the middle; size 6 [71].

180. WIIe*; swirled tsl. oyster white and tsp. deep ruby body with an op. ruby band about the middle; one end is op. cerulean blue, the other is op. copen blue; size 6.

The three sizes have the following metric values:

Size 4)	Diameter:	6.0-7.8 mm	(7.2 mm)
	Length:	5.6-7.6 mm	(6.6 mm)

Size 5)	Diameter:	6.8-8.3 mm	(7.4 mm)
	Length:	6.6-7.4 mm	(7.1 mm)
Size 6)	Diameter:	9.1-9.6 mm	(9.3 mm)
	Length:	8.2-9.0 mm	(8.5 mm)

181-185. WId and WII*; doughnut-shaped and round ribbed monochrome beads strung in patterns; 5 groups:

181(a). WId*; doughnut-shaped; tsp. light gray (colorless) [size b][338].

181(b). WId*; doughnut-shaped; tsp. ruby [size b][338].

182(a). WId*; doughnut-shaped; tsp. light gray (colorless) [size a][337].

182(b). WII**; round ribbed; tsp. ruby [size a][337].

183(a). WId*; doughnut-shaped; tsl. oyster white [size b][338].

183(b). WId*; doughnut-shaped; op. cerulean blue [size b][338].

184(a). WId*; doughnut-shaped; tsp. teal green [size a][337].

184(b). WII**; round ribbed; tsl. citron [size a][337].

185(a). WId*; doughnut-shaped; tsp. ruby [size a][337].

185(b). WII**; round ribbed; tsl. oyster white [size a][337].

The different shapes have the following sizes:

Doughnut-shaped

Size a)	Diameter:	3.1-3.5 mm	(3.3 mm)
	Length:	1.1-1.6 mm	(1.4 mm)
Size b)	Diameter:	3.7-4.2 mm	(3.9 mm)
	Length:	1.4-2.2 mm	(1.8 mm)

Round ribbed

Size a)	Diameter:	3.7-4.1 mm	(3.9 mm)
	Length:	3.6-4.2 mm	(3.9 mm)

186-188. WIIIf and WIIIg; colorless beads of various forms that are decorated internally with a colored band at the core; 2 varieties:

186. WIIIf*; round; tsp. teal green band; size 5 [69].

187. Missing; size 5 [57].

188. WIIIg*; round spiral-ribbed; tsp. ruby; size 6.

Round

Size 5)	Diameter:	7.1-7.2 mm	(7.2 mm)
	Length:	7.2-7.6 mm	(7.4 mm)

Round spiral-ribbed

Size 6)	Diameter:	6.6-6.8 mm	(6.6 mm)
	Length:	6.8 mm	(6.8 mm)

189-192. WIIe and WII*; beads of several forms having tsp. light gray (colorless) bodies with colored ends; 4 varieties:

189. WIIe*; melon; op. light gold ends; size 6.

190. WIIe*; melon; tsp. turquoise green ends; size 6.

191. WII**; round knobbed; tsp. ruby ends; size 6.

192. WIIe*; melon; op. white ends; size 5.

Melon

Size 5)	Diameter:	7.0-7.4 mm	(7.2 mm)
	Length:	5.8-6.6 mm	(6.2 mm)
Size 6)	Diameter:	7.1-8.0 mm	(7.6 mm)
	Length:	6.7-7.2 mm	(6.9 mm)

Round knobbed

Size 6)	Diameter:	6.7-7.5 mm	(7.1 mm)
	Length:	7.5-7.6 mm	(7.6 mm)

193-200. WIIIg; colorless beads of several forms that are decorated internally with a colored band at the core; 6 varieties:

193. WIIIg*; round knobbed; tsp. turquoise green band; size 5.

194. WIIIg*; round knobbed; op. light gold band; size 5(?).

195. Missing; size 5 [74].

196. WIIIg*; round knobbed; op. light gold band; size 4 [74].

197. WIIIg*; round knobbed; tsp. ruby band; size 4 [74].

198. Missing; size 4 [74].

199. WIIIg*; round faceted (these have square-sectioned bodies with four pentagonal facets about either end and four diamond-shaped facets encircling the middle); tsp. ruby band.

200. WIIIg*; round facettèd; op. white band.

Round knobbed

Size 4)	Diameter:	6.2-6.8 mm	(6.5 mm)
	Length:	7.0-7.6 mm	(7.3 mm)
Size 5)	Diameter:	6.8-8.6 mm	(7.7 mm)
	Length:	7.5-8.2 mm	(7.9 mm)

Round facettèd

Size a)	Diameter:	7.1-7.9 mm	(7.4 mm)
	Length:	6.5-7.1 mm	(6.8 mm)

201-211. WIc; oval (olive-pit shaped) beads with monochrome bodies and flat ends; 7 varieties remain:

201. WIc*; op. cerulean blue [size a][32].

202. WIc*; op. amber [size a][324?].

203. WIc1; op. white [size a].

204. WIc*; op. dark palm green [size b][324].

205. Missing [324].

206. WIc*; op. cerulean blue [size b][91].

207. WIc1; op. white [size c][92].

208-210. Missing [nos. 208-209: 93; no. 210: 91].

211. WIc*; op. mustard gold [size c][93].

Three sizes appear to be represented:

Size a)	Diameter:	8.4-8.8 mm	(8.6 mm)
	Length:	17.6-18.2 mm	(18.0 mm)
Size b)	Diameter:	9.4-9.5 mm	(9.4 mm)
	Length:	19.4-20.4 mm	(19.9 mm)
Size c)	Diameter:	10.5 mm	(10.5 mm)
	Length:	21.2-22.1 mm	(21.6 mm)

212-216. Missing [nos. 212-214, 216: 92; no. 215: 94].

217-220. WI*; short barrel beads (Beck's type I.B.1.b.) with monochrome bodies; 2 varieties remain:

217. Missing.

218. WI**; op. mustard gold.

219. Missing.

220. WI**; op. dark mustard gold

One size group is represented:

Size a)	Diameter:	19.6-20.5 mm	(20.0 mm)
	Length:	8.5 mm	(8.5 mm)

221-228. WIIIIa; round beads with double-layered bodies; 1 variety:

221-228. WIIIIa*; tsp. ruby on op. white [12?, 127, 135, 136, 137, 138, 142, 143, respectively].

Eight size groups are represented:

Size a)	Diameter:	5.2-5.7 mm	(5.5 mm)
	Length:	5.5-5.8 mm	(5.6 mm)
Size b)	Diameter:	6.9-7.0 mm	(7.0 mm)
	Length:	6.8-7.2 mm	(7.0 mm)
Size c)	Diameter:	8.1-8.3 mm	(8.2 mm)
	Length:	8.6-8.8 mm	(8.7 mm)
Size d)	Diameter:	9.4-9.6 mm	(9.5 mm)
	Length:	8.9-9.2 mm	(9.0 mm)
Size e)	Diameter:	10.5-10.6 mm	(10.6 mm)
	Length:	10.2-11.2 mm	(10.7 mm)
Size f)	Diameter:	11.6-11.7 mm	(11.6 mm)
	Length:	10.6-11.0 mm	(10.8 mm)
Size g)	Diameter:	13.0 mm	(13.0 mm)
	Length:	12.7 mm	(12.7 mm)
Size h)	Diameter:	14.0 mm	(14.0 mm)
	Length:	13.8 mm	(13.8 mm)

229-234. Missing [no. 229: 143; nos. 230-234: 94].

235-240. WIIb; round beads with monochrome bodies and flat ends; 7 varieties:

235. WIIb*; op. mustard gold [size a][96].

236. WIIb*; op. cerulean blue [size a][94].

237. WIIb*; op. black [size b][96].

238. WIIb*; op. amber [size b][99].

239. WIIb*; op. dark palm green [size b][99].

240. WIIb2; op. white [size b][97].

Two sizes seem to be represented:

Size a)	Diameter:	13.0-13.8 mm	(13.4 mm)
	Length:	13.5-14.7 mm	(14.1 mm)
Size b)	Diameter:	15.0-17.0 mm	(16.0 mm)
	Length:	15.2-16.8 mm	(16.0 mm)

241-245. WIIIIa; oval (olive-pit shaped) beads with double-layered bodies; 1 variety:

241-245. WIIIIa*; tsp. ruby on op. white [no. 241: 127; no. 243: 136; no. 244: 137; no. 245: 138].

There are five size groups:

Size a)	Diameter:	6.5-6.8 mm	(6.7 mm)
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	Length:	10.7-11.4 mm	(11.0 mm)
Size b)	Diameter:	7.5-7.6 mm	(7.6 mm)
	Length:	13.0-13.6 mm	(13.3 mm)
Size c)	Diameter:	8.2 mm	(8.2 mm)
	Length:	13.8 mm	(13.8 mm)
Size d)	Diameter:	8.8 mm	(8.8 mm)
	Length:	16.1 mm	(16.1 mm)
Size e)	Diameter:	9.4 mm	(9.4 mm)
	Length:	18.8 mm	(18.8 mm)

246-254. WIIa; cylindrical beads with double-layered bodies and unaltered (unflattened) ends; 1 variety:

246-254. WIIa*; tsp. ruby on op. white [no. 247: 127; no. 248: 135; no. 249: 137; no. 250: 138; no. 251: 140; no. 252: 143; no. 253: 144; no. 254: 145].

The nine size groups have the following metric values:

Size a)	Diameter:	4.7-5.5 mm	(5.0 mm)
	Length:	6.9-7.6 mm	(7.2 mm)
Size b)	Diameter:	6.2 mm	(6.2 mm)
	Length:	9.5-9.6 mm	(9.5 mm)
Size c)	Diameter:	6.8-7.2 mm	(7.0 mm)
	Length:	10.8-11.5 mm	(11.2 mm)
Size d)	Diameter:	7.8 mm	(7.8 mm)
	Length:	12.7 mm	(12.7 mm)
Size e)	Diameter:	9.1 mm	(9.1 mm)
	Length:	15.0 mm	(15.0 mm)
Size f)	Diameter:	9.4 mm	(9.4 mm)
	Length:	17.0 mm	(17.0 mm)
Size g)	Diameter:	10.8 mm	(10.8 mm)
	Length:	18.9 mm	(18.9 mm)
Size h)	Diameter:	12.2 mm	(12.2 mm)
	Length:	18.0 mm	(18.0 mm)
Size i)	Diameter:	12.5 mm	(12.5 mm)
	Length:	20.0 mm	(20.0 mm)

255-260. WIa; cylindrical beads with monochrome and polychrome bodies, and unaltered (unflattened) ends; 5 varieties:

255. WIa*; op. olive yellow [316].

256. WIa*; op. mustard gold [316].

257. WIa3; op. white.

258. WIa*; op. bright navy and op. cerulean blue swirled together.

259. WIa*; op. light gold.

260. Missing [316].

One size group is represented:

Size a)	Diameter:	9.5-10.8 mm	(10.1 mm)
	Length:	19.0-19.9 mm	(19.6 mm)

261-262. WIIa; beads with simple shapes and double-layered bodies; 2 varieties:

261. WIIa*; oblate; tsp. ruby on op. white [131].

Size a)	Diameter:	6.4-7.4 mm	(6.8 mm)
	Length:	4.0-5.0 mm	(4.5 mm)

262. WIIa*; cylindrical; tsp. ruby on op. white [131].

Size a)	Diameter:	5.6-6.0 mm	(5.8 mm)
	Length:	7.3-8.5 mm	(7.9 mm)

263-271. Missing.

272-280. WIIh, WII*, and WIIe; beads with complex forms, and monochrome or polychrome bodies; 8 varieties:

272. WIIh*; flattened teardrop (teardrop-shaped bead pressed flat); tsp. ruby [369].

273. WIIh*; flattened teardrop; op. cerulean blue [369].

274. WIIh*; flattened teardrop; tsp. teal green [369].

Size a)	Width:	7.7-8.8 mm	(8.3 mm)
	Thickness:	5.3-6.4 mm	(5.8 mm)
	Length:	10.2-12.5 mm	(11.9 mm)

275. WII**; round spiral ribbed; op. black.

276. WII**; round spiral ribbed; op. mustard gold.

Size a)	Diameter:	9.5-11.1 mm	(10.5 mm)
	Length:	8.8-9.7 mm	(9.4 mm)

277. Missing.

278. WIIe*; round faceted (these have square-sectioned bodies with four pentagonal facets about either end and four diamond-shaped facets encircling the middle); tsp. ruby on op. white.

279. WII*; round faceted; op. white.

280. WII*; round faceted; op. black.

Size a)	Diameter:	9.7-11.0 mm	(10.5 mm)
	Length:	10.6-12.0 mm	(11.2 mm)

281-286. WIb; oblate beads with monochrome bodies; 5 varieties:

281. WIb*; tsp. ruby.

282. W1b*; tsp. teal green.

283. W1b2; op. white.

284. W1b*; op. black.

285. Missing.

286. W1b*; op. mustard gold.

Size a)	Diameter:	6.0-7.5 mm	(6.7 mm)
	Length:	4.0-6.0 mm	(4.8 mm)

287-300. WII*, WIIe, and WIIg; round ribbed beads with monochrome and polychrome bodies (WII*), double-layered bodies (WIIe), and internal decorative bands (WIIg); 13 varieties:

287. WII*; tsp. ruby [94].

288. WII*; op. apple green [94].

289. WII*; tsp. rose wine.

290. WII*; op. white [94].

291. WII*; op. bright navy and op. cerulean blue swirled together [94].

292. WII*; tsl. oyster white [94].

293. WII*; op. light gold [94].

294. WII*; op. bright blue [94].

295. WIIe*; op. copper enamel.

296. WII*; tsp. very pale bright navy [94].

297. WIIe*; tsp. ruby on op. white [94].

298. WIIg*; tsp. light gray (colorless) body with an op. bright navy band at the core.

299. Missing.

300. WIIg*; tsp. light gray (colorless) body with a tsp. ruby band at the core.

One size group appears to be represented:

Size a)	Diameter:	8.8-11.8 mm	(10.4 mm)
	Length:	9.2-11.5 mm	(10.4 mm)

301-308. WIIa; beads with simple shapes and double-layered bodies; 3 varieties:

301-303. WIIa*; cylindrical; tsp. ruby on op. light gold [137, 140, 143, respectively].

Three size groups are represented:

Size a)	Diameter:	8.6 mm	(8.6 mm)
	Length:	12.5 mm	(12.5 mm)
Size b)	Diameter:	10.0 mm	(10.0 mm)
	Length:	16.5 mm	(16.5 mm)

Size c)	Diameter:	10.6 mm	(10.6 mm)
	Length:	18.8 mm	(18.8 mm)

304-307. WIIa*; round; tsp. ruby on op. light gold [138, 148, 143, 145, respectively].

There are four size groups:

Size a)	Diameter:	11.2 mm	(11.2 mm)
	Length:	11.0 mm	(11.0 mm)

Size b)	Diameter:	12.6 mm	(12.6 mm)
	Length:	12.9 mm	(12.9 mm)

Size c)	Diameter:	13.2 mm	(13.2 mm)
	Length:	13.4 mm	(13.4 mm)

Size d)	Diameter:	14.6 mm	(14.6 mm)
	Length:	14.8 mm	(14.8 mm)

308. WIIa*; oblate; tsp. ruby on op. light gold.

Size a)	Diameter:	14.9-15.2 mm	(15.1 mm)
	Length:	7.9-8.3 mm	(8.1 mm)

309. W1a; cylindrical beads with monochrome bodies and unaltered (flattened) ends; 1 variety:

309. W1a*; op. olive yellow [147].

Size a)	Diameter:	14.6 mm	(14.6 mm)
	Length:	23.1 mm	(23.1 mm)

310-318. Missing [nos. 310, 316, 317: 148].

319-321. WIIc; flattened teardrop beads decorated with floral wreaths encircling the middle; 3 varieties:

319. WIIc*; tsp. teal green body; op. white wreath.

320. WIIc*; tsp. ruby body; op. white wreath.

321. WIIc*; op. white body; tsp. ruby wreath.

Size a)	Width:	7.8-8.5 mm	(8.1 mm)
	Thickness:	5.6-6.1 mm	(5.9 mm)
	Length:	10.4-11.4 mm	(10.9 mm)

322-324. WIIb; monochrome cylindrical beads with stripes encircling the middle and the ends; 3 varieties:

322. WIIb*; op. black body; op. light gold stripe around the middle, and op. white stripes around the ends [size a].

323. WIIb*; tsp. ruby body; op. light gold stripe around the middle, and op. white stripes around the ends [size a].

324. WIIb*; op. black body; op. light gold stripe around the middle, and op. white stripes around the ends [size b].

Size a)	Diameter:	5.1-5.5 mm	(5.3 mm)
	Length:	8.4-9.2 mm	(8.8 mm)
Size b)	Diameter:	6.2-6.4 mm	(6.4 mm)
	Length:	9.7-10.7 mm	(10.2 mm)

325-332. WIIb; round monochrome beads with a combed floral wreath about the equator; 8 varieties:

325. WIIb*; tsp. ruby body; op. white wreath.

326. WIIb*; op. white body; tsp. ruby wreath.

327. WIIb*; tsp. bright navy body; op. light gold wreath.

328. WIIb*; op. white body; tsp. bright turquoise wreath.

329. WIIb*; tsp. ruby body; op. light gold wreath.

330. WIIb*; op. black body; op. white wreath.

331. WIIb*; op. white body; op. tsp. bright navy wreath.

332. WIIb*; tsp. bright navy body; op. white wreath.

Size a)	Diameter:	8.8-9.8 mm	(9.3 mm)
	Length:	7.9-9.8 mm	(8.7 mm)

333-338. WIIb; oval (olive-pit shaped) beads decorated with combed feather designs; 6 varieties:

333-338. WIIb*; tsp. ruby body decorated with tsp. bright navy on op. white combed designs; the decoration increases in length from no. 333 where only the middle portion of the bead is adorned to no. 338 on which the entire surface is covered.

Two sizes based on length appear to be represented:

Size a)	Diameter:	8.1-9.0 mm	(8.5 mm)
	Length:	20.2-23.1 mm	(22.4 mm)
Size b)	Diameter:	9.1 mm	(9.1 mm)
	Length:	26.8 mm	(26.8 mm)

339-340. WIIb; oval (olive-pit shaped) beads with monochrome bodies decorated with floral wreaths about the middle; 2 varieties:

339. WIIb*; op. white body; op. bright navy wreath.

340. WIIb*; op. white body; tsp. scarlet wreath.

Size a)	Diameter:	6.1-6.4 mm	(6.2 mm)
	Length:	9.8-10.5 mm	(10.1 mm)

341-346. WIIb; round beads with monochrome bodies decorated with various inlaid designs; 6 varieties:

341, 343. WIIb*; op. black body decorated with a 2x4 grid composed of intersecting op. light gold stripes with a tsp. ruby on op. white eye in the center of each square [sizes a, c].

342. WIIb*; op. dark palm green body decorated with a 2x4 grid composed of intersecting op. light gold stripes with a tsp. ruby on op. white eye in the center of each square [size b].

344. WIIb*; tsl. light gray body decorated with 6 eyes of tsp. ruby on op. white around the equator, and 6 eyes of tsp. bright navy on op. white around either end [size c].

345. WIIb*; op. black body decorated with an op. white ring and 6 dots around either end [size c].

346. WIIb*; op. white body decorated with a spiral tsp. ruby stripe [size c].

Size a)	Diameter:	8.2 mm	(8.2 mm)
	Length:	8.4-8.6 mm	(8.5 mm)
Size b)	Diameter:	8.9-9.3 mm	(9.1 mm)
	Length:	8.7-9.2 mm	(9.0 mm)
Size c)	Diameter:	9.4-10.3 mm	(9.7 mm)
	Length:	8.8-9.9 mm	(9.5 mm)

347-351. WIIb; round black beads decorated with "eyes;" 5 size varieties:

347. WIIb*; 3 tsp. ruby on op. white eyes [size a].

348. WIIb*; 2 tsp. ruby on op. white eyes, and 4 tsp. bright navy on op. white eyes [size a].

349. WIIb*; 3 tsp. ruby on op. white eyes, and 6 tsp. bright navy on op. white eyes [size b].

350. WIIb*; 4 tsp. ruby on op. white eyes, and 8 tsp. bright navy on op. white eyes [size c].

351. WIIb*; 5 tsp. ruby on op. white eyes, and 10 tsp. bright navy on op. white eyes [size d].

Four size groups appear to be represented:

Size a)	Diameter:	8.3-8.6 mm	(8.4 mm)
	Length:	7.1-7.8 mm	(7.6 mm)
Size b)	Diameter:	9.2-9.3 mm	(9.2 mm)
	Length:	8.3-8.8 mm	(8.6 mm)
Size c)	Diameter:	9.7-10.0 mm	(9.8 mm)
	Length:	9.1-9.2 mm	(9.1 mm)

Size d) Diameter: 9.8-10.4 mm (10.1 mm)
Length: 9.5-9.9 mm (9.7 mm)

352-358. Missing.

359-377. WIIb; oval (olive-pit shaped) beads with monochrome bodies decorated with various designs; 20 varieties:

359. WIIb*; op. light gold body decorated with op. black dots and a wavy op. white stripe about the middle, and an aventurine stripe around either end [size a].

360. WIIb*; tsp. ruby body decorated with 3 eyes composed of an op. white dot in an op. mustard gold loop encircling the middle, and an op. mustard gold stripe around either end [size a].

361. WIIb*; op. black body decorated with an op. white band about the middle [size a].

362. WIIb*; tsp. ruby body decorated with a spiral stripe of op. white and tsp. bright navy twisted together [size b].

363. WIIb*; tsl. light gray body decorated with tsp. scarlet, op. cerulean blue, and tsp. bright navy flowers encircling the middle [size b].

364. WIIb*; op. white body decorated with op. black on tsp. bright turquoise eyes [size b].

365. WIIb*; op. black body decorated with an op. robin's egg blue band about the middle, and 3 op. mustard gold dots around either end [size b].

366. WIIb*; op. white body decorated with op. light gold on op. black eyes [size b].

367. WIIb*; op. white body decorated with 4 tsp. bright navy wreaths set parallel to the perforation [size b].

368. WIIb*; tsp. ruby body decorated with 4 op. mustard gold wreaths set parallel to the perforation [size b].

369. WIIb*; op. white body decorated with 4 tsp. ruby wreaths set parallel to the perforation [size b].

370. WIIb*; tsp. teal green body decorated with 4 op. white wreaths set parallel to the perforation [size b].

371. WIIb*; op. white body decorated with 2 tsp. ruby and 2 tsp. bright navy wreaths set parallel to the perforation [size b].

372. WIIb*; op. light gold body decorated with 2 tsp. ruby and 2 tsp. bright navy wreaths set parallel to the perforation [size c].

373. WIIb*; op. white body decorated with 2 tsp. ruby, 1 tsp. dark jade green, and 1 tsp. bright navy wreath set parallel to the perforation [size c].

374. WIIb*; op. black body decorated with a spiral stripe of op. white/op. cerulean blue/op. white/tsp. scarlet/op. white [size c].

375. WIIb*; op. black body decorated with a spiral stripe of tsp. scarlet on op. white, and a spiral stripe of op. white and tsp. bright navy twisted together [size c].

376. WIIb*; op. black body decorated with a spiral stripe of tsp. scarlet on op. white, and a spiral series of op. mustard gold dots [size c].

377. WIIb*; op. white body decorated with a spiral tsp. scarlet stripe, and a spiral stripe of op. white and tsp. bright navy twisted together [size c].

Three size groups appear to be represented:

Size a)	Diameter:	7.1-7.5 mm	(7.3 mm)
	Length:	11.2-11.8 mm	(11.6 mm)
Size b)	Diameter:	7.8-9.7 mm	(8.6 mm)
	Length:	15.8-18.8 mm	(17.1 mm)
Size c)	Diameter:	9.3-10.6 mm	(9.8 mm)
	Length:	19.2-21.5 mm	(20.1 mm)

378-380. WIIb and WIIh; cylindrical single-layered and double-layered beads decorated with various designs; 3 varieties:

378. WIIh*; tsp. ruby on op. white body decorated with op. white dots [size c].

379. WIIb*; tsl. light gray body decorated with 4 op. white, op. light gold, and op. cerulean blue flowers set parallel to the perforation [size a].

380. WIIb*; op. black body decorated with a series of op. white and tsp. ruby flowers encircling the middle [size b].

Two size groups appear to be represented:

Size a)	Diameter:	6.4 mm	(6.4 mm)
	Length:	11.4 mm	(11.4 mm)
Size b)	Diameter:	8.8 mm	(8.8 mm)
	Length:	12.4 mm	(12.4 mm)
Size c)	Diameter:	10.2 mm	(10.2 mm)
	Length:	18.8 mm	(18.8 mm)

381-418. WIIb and WIIh; round beads with monochrome and polychrome bodies decorated with various designs; 37 varieties:

381. WIIb*; tsl. light gray body decorated with an op. white, tsp. ruby, tsp. bright navy, and tsp. bright turquoise wreath about the middle.

382. WIIb*; op. bright navy body decorated with 3 "eye" clusters, each composed of 5 op. light gold on op. white eyes encircling a tsp. ruby on op. white eye.

383. WIIb*; op. white body decorated with 4 wreaths set parallel to the perforation, each of a different color: tsp. ruby, op. mustard gold, tsp. turquoise green, and tsp. bright navy.

384. WIIb*; op. white body decorated with 2 tsp. ruby and 2 tsp. bright navy wreaths set parallel to the perforation.

385. WIIb*; op. white body decorated with 4 tsp. bright navy wreaths set parallel to the perforation.

386. WIIb*; op. cerulean blue body decorated with 15 dots of op. white and tsp. scarlet swirled together.

387. WIIb*; op. black body decorated with 6 op. white bull's-eyes.

388. WIIb*; tsl. light gray body decorated with tsp. ruby on op. cerulean blue on op. white eyes.

389. WIIb*; tsl. light gray body decorated with tsp. ruby on op. white eyes and op. cerulean blue on op. white eyes.

390. WIIb*; tsp. ruby body decorated with op. cerulean blue on op. white eyes.

391. WIIb*; op. white body decorated with swirled op. white and tsp. bright navy dots.

392. WIIb*; op. dark palm green body decorated with swirled op. white and tsp. bright navy dots.

393. WIIb*; tsp. ruby body decorated with swirled op. white dots.

394. WIIb*; op. white body decorated with op. mustard gold on op. black eyes.

395. WIIh*; tsp. ruby on op. white body decorated with 4 tsp. bright navy on op. white wreaths set parallel to the perforation.

396. WIIb*; tsl. light gray body decorated with 3 op. cerulean blue dots and a wavy stripe composed of

op. white and tsp. bright navy filaments twisted together about the equator.

397. WIIb*; op. black body decorated with 4 tsp. ruby on op. white and op. mustard gold "double-stemmed" flowers.

398. WIIb*; op. white body decorated with a tsp. bright navy on tsp. rose wine wreath about the equator.

399. WIIb*; op. black body decorated with 6 op. white and tsp. scarlet swirls.

400. WIIb*; op. light gold body decorated with 3 loops of op. white and op. black filaments twisted together, encircling a tsp. scarlet on op. white loop.

401. WIIb*; tsl. light gray body decorated with 3 tsp. scarlet on op. white and tsp. teal green floral elements.

402. WIIb*; tsl. light gray body decorated with 3 tsp. bright navy loops enclosing tsp. scarlet on op. white squiggles.

403. WIIb*; tsl. light gray body decorated with 4 tsp. scarlet on op. white and tsp. bright navy floral designs.

404. WIIb*; op. dark palm green body decorated with 6 op. white dots encircled by swirled op. white and tsp. scarlet loops.

405. Missing.

406. WIIb*; tsl. light gray body decorated with 3 tsp. scarlet on op. white squiggles and 3 tsp. bright green squiggles.

407. WIIb*; tsl. light gray body decorated with 3 tsp. scarlet on op. white and tsp. bright green floral designs.

408. WIIb*; tsl. light gray body decorated with 2 tsp. scarlet on op. white and 2 tsp. bright green diagonal wavy stripes.

409. WIIb*; tsl. light gray body decorated with 6 op. white and tsp. scarlet loops set within tsp. bright green loops.

410. WIIb*; tsl. light gray body decorated with a tsp. scarlet on op. white and tsp. bright green wreath about the equator.

411. WIIb*; tsp. light gray (clear) body decorated with 3 loops of twisted op. white and tsp. scarlet threads set within twisted op. white and op. bright navy loops.

412. WIIb*; op. bright blue body decorated with 3 straight diagonals composed of thin tsp. scarlet and tsp. bright blue threads on an op. white band, and 3 diagonal wavy stripes of tsp. scarlet on op. white.

413. WIIb*; tsl. light gray body decorated with 3 loops of entwined op. white and tsp. scarlet, and 3 loops of entwined op. white and tsp. bright navy.

414. WIIb*; op. bright blue body decorated with aventurine dashes.

415. WIIb*; tsl. light gray body decorated with a spiral stripe of tsp. scarlet and tsp. bright navy threads on op. white, and another spiral of op. white and tsp. scarlet threads twisted together.

416. WIIb*; op. bright blue body decorated with a spiral stripe of tsp. scarlet and tsp. bright navy threads on op. white, and another spiral of aventurine.

417. WIIb*; tsl. light gray body decorated with 3 aventurine floral designs.

418. WIIb*; tsl. light gray body decorated with 3 pairs of tsp. scarlet on op. white squiggles, and 3 tsp. bright green diagonal stripes.

All but nos. 397-398 represent size group a:

Size a)	Diameter:	9.3-11.7 mm	(10.5 mm)
	Length:	8.6-11.8 mm	(10.6 mm)
Size b)	Diameter:	13.2-13.9 mm	(13.6 mm)
	Length:	12.8-13.6 mm	(13.2 mm)

419-431. WIIb; cylindrical beads with monochrome and polychrome bodies decorated with various designs; 16 varieties were originally present:

419. WIIb*; op. white body decorated with 4 tsp. ruby dots adjacent to 2 op. bright navy "coils" in clear glass around either end, and a wavy op. light gold stripe around the middle.

420. WIIb*; two-tone body (one end is tsl. light gray, the other is op. deep blue) decorated with tsp. scarlet on op. white dashes, and loops of op. white and tsp. bright navy threads twisted together.

421. WIIb*; op. deep blue body decorated with an op. white and op. light gold wreath about the middle, and swirled op. white and tsp. scarlet crescents around the ends.

422. WIIb*; two-tone body (one end is tsl. light gray, the other is op. deep blue) decorated with diagonal dashes of tsp. scarlet on op. white, and

diagonals composed of op. white and tsp. bright navy threads twisted together.

423. WIIb*; op. deep blue body decorated with an op. white wreath around the middle, and 4 tsp. scarlet, op. light gold, and tsp. bright blue on op. white crescents around either end.

424. WIIb*; two-tone body (one end is tsl. light gray, the other is op. deep blue) decorated with several dots of op. white and op. bright navy swirled together, and tsp. scarlet on op. white squiggles.

425. WIIb*; op. grass green body decorated with 5 loops of entwined op. white and tsp. scarlet threads enclosing dots of the same colors about the middle, and tsp. scarlet on op. white crescents around the ends.

426. Missing.

427. WIIb*; two-tone body (one end is tsl. light gray, the other is op. deep blue) decorated with op. white and op. bright navy swirls, tsp. scarlet on op. white bands, and wavy and straight bands of entwined op. white and op. bright navy threads.

428. WIIb*; op. grass green body decorated with 4 diagonal wavy lines of entwined op. white and tsp. scarlet threads, and 4 diagonal rows of op. white dots.

429. Missing.

430. WIIb*; tsl. light gray body decorated with dots of tsl. light gray and tsl. dark rose brown swirled together, and wavy stripes of entwined op. white and tsp. scarlet threads around the ends.

431. WIIb*; op. black body decorated with a spiral stripe of op. light gold, and another of 2 thin tsp. bright navy lines on op. white.

One size appears to be represented:

Size a)	Diameter:	8.6-9.8 mm	(9.0 mm)
	Length:	15.2-17.5 mm	(16.1 mm)

432-438. WIIb; oval (olive-pit-shaped) beads with monochrome bodies decorated with various designs; 7 varieties:

432. WIIb*; tsl. light gray body decorated with 2 tsp. scarlet on op. white and 2 tsp. bright green wavy diagonals.

433. WIIb*; tsl. light gray body decorated with 2 tsp. scarlet on op. white and 2 op. bright navy wavy diagonals.

434. WIIb*; tsl. light gray body decorated with a wavy spiral stripe of tsp. scarlet on op. white, and a broad undulating spiral of op. bright green.

435. WIIb*; tsl. light gray body decorated with a tsp. scarlet and tsp. bright navy wreath about either end.

436. WIIb*; tsl. light gray body decorated with 2 tsp. scarlet on op. white and 2 tsp. bright green wreaths set parallel to the perforation.

437. WIIb*; tsl. light gray body decorated about the middle with 4 tsp. scarlet on op. white squiggles inside op. bright navy loops, and 4 tsp. bright navy squiggles around either end.

438. WIIb*; op. bright blue body decorated with tsp. scarlet on op. white loops with an op. light gold dot in the center of each.

One size group is represented:

Size a) Diameter: 8.0-8.8 mm (8.5 mm)
Length: 16.2-19.2 mm (17.6 mm)

439-452. WIIId and WIIi; monochrome and polychrome-bodied beads of various shapes decorated with overlaid designs; 14 varieties were originally present:

439. WIIId*; oval (olive-pit-shaped); op. white body decorated with a raised tsl. rose wine wreath about the middle.

440. WIIId*; oval (olive-pit-shaped); tsl. light gray body decorated with a raised tsp. ruby wreath about the middle.

Size a) Diameter: 9.4-10.0 mm (9.7 mm)
Length: 19.3-19.6 mm (19.5 mm)

441. WIIId*; oval knobbed; op. white body decorated with raised tsl. rose wine knobs.

442. WIIId*; oval knobbed; op. white body decorated with raised tsl. light blue (opalescent) knobs.

Size a) Diameter: 9.1-9.3 mm (9.2 mm)
Length: 15.8-16.0 mm (15.9 mm)

443-448. Missing.

449. WIIId*; round; tsl. light gray body decorated with a raised tsp. light gold wreath about the equator, and 5-6 op. bright blue dots about either end.

450. WIIId*; round; op. cerulean blue body decorated with raised op. white, tsp. scarlet, and tsp. turquoise green wreaths, and op. mustard gold knobs.

451. WIIId*; round; tsp. light gray (clear) body decorated with raised op. white, tsp. scarlet, and tsp. turquoise green wreaths, and tsp. scarlet on op. white knobs.

452. WIIi*; round; tsp. ruby on op. white body decorated with a raised wreath of op. light gold, tsp. scarlet, and tsp. turquoise green about the equator, and op. cerulean blue knobs around either end.

Size a) Diameter: 11.3-12.6 mm (12.0 mm)
Length: 11.2-12.4 mm (11.7 mm)

453-456. WIIb; round monochrome-bodied beads decorated with various designs; 4 varieties:

453. WIIb*; op. black body decorated with 3 tsp. scarlet on op. white and op. cerulean blue floral designs, and 3 double aventurine stripes set parallel to the perforation [size a].

454. WIIb*; op. black body decorated with a spiral op. white lattice [size b].

455. WIIb*; tsp. light gray (clear) body decorated with op. light gold and tsp. scarlet on op. white blossoms about the middle, and op. light gold and op. cerulean blue on op. white blossoms around either end [size b].

456. WIIb*; tsp. light gray (clear) body decorated with 3 blossoms composed of 6 op. bright navy on op. white eyes encircling a tsp. scarlet on op. white eye [size b].

Size a) Diameter: 11.6-12.6 mm (12.1 mm)
Length: 10.8-11.2 mm (11.0 mm)

Size b) Diameter: 13.5-14.7 mm (14.2 mm)
Length: 13.6-13.7 mm (13.6 mm)

457-458. Missing.

459-463. WIIb; cylindrical monochrome-bodied beads decorated with floral wreaths and end bands; 5 varieties:

459. WIIb*; tsl. light gray body decorated with an aventurine, and tsp. scarlet and op. dark palm green on op. white floral wreath about the middle, and an op. amber band with adjoining dots about either end [size a].

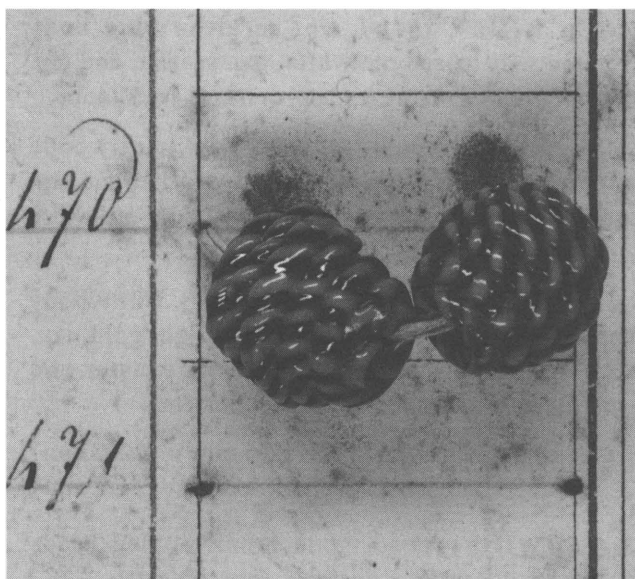


Figure 3. Round “raised spiral” beads (no. 470) in the Giacomuzzi bead book (photo: Christopher Marchetti).

460. WIIb*; tsl. light gray body decorated with a tsp. bright navy wreath about the middle, and a band of entwined op. white and tsp. scarlet threads about either end [size b].

461. WIIb*; tsl. light gray body decorated with a tsp. scarlet and tsp. bright navy on op. white and op. amber floral wreath about the middle, and an aventurine band about either end [size b].

462. WIIb*; tsl. light gray body decorated with a tsp. scarlet on op. white and tsp. bright navy on op. white floral wreath encircling the middle, and a band of entwined op. white and op. bright navy threads about either end [size b].

463. WIIb*; tsl. light gray body decorated with a tsp. bright green and swirled op. white/tsp. scarlet floral wreath about the middle, and end bands of entwined tsp. scarlet and tsp. bright green threads [size b].

Size a)	Diameter:	7.9 mm	(7.9 mm)
	Length:	13.9 mm	(13.9 mm)
Size b)	Diameter:	8.8-9.6 mm	(9.1 mm)
	Length:	14.7-16.8 mm	(15.6 mm)

464-469. Missing.

470. WIIId; round “raised spiral” beads made by spirally winding a multi-colored glass cane or rod around a plain core; 1 variety: (Fig. 3).

470. WIIId*; a rod of entwined op. black and op. light gold threads wound around an op. black core (Fig. 3).

Size a)	Diameter:	11.4-12.3 mm	(11.8 mm)
	Length:	12.0-12.3 mm	(12.2 mm)

471-473. Missing.

474-475. WIIa; round multi-layered beads made by spirally winding a polychrome cane or rod about a glass core and then smoothing the surface; 2 varieties:

474. WIIa*; the rod consists of entwined tsp. scarlet and tsp. turquoise green threads in tsp. light gray (clear) glass with a fine aventurine line running down the center; tsl. oyster white core.

475. WIIa*; the rod consists of entwined tsp. bright navy threads in tsp. light gray (clear) glass with a fine aventurine line running down the center; tsl. oyster white core.

Size a)	Diameter:	11.2-12.4 mm	(12.0 mm)
	Length:	10.0-12.0 mm	(11.0 mm)

476-578. Missing.

579-582. WI*; oval “raised spiral” beads made by spirally winding a solid polychrome cane or rod composed of spiral glass fibers into an oval form; the interior is hollow (no core); 4 varieties remain (Fig. 4):

579. WI**; op. satin-sheen ruby and op. white rod [size a].

580. WI**; op. satin-sheen white wrapped with a spiral thread of tsp. turquoise green [size a].

581. WI**; op. satin-sheen white wrapped with a spiral thread of op. bright navy [size b].

582. WI**; op. satin-sheen white, op. ruby, and op. copen blue twisted together [size b].

Size a)	Diameter:	5.6-6.3 mm	(6.0 mm)
	Length:	11.2-12.3 mm	(11.9 mm)
Size b)	Diameter:	7.8-8.2 mm	(8.0 mm)
	Length:	16.2-17.4 mm	(16.8 mm)

583-638. Missing.

BEAD FOLDER “F”

Like the pages in the sample book, Folder F consists of a large sheet of cardboard bent in the

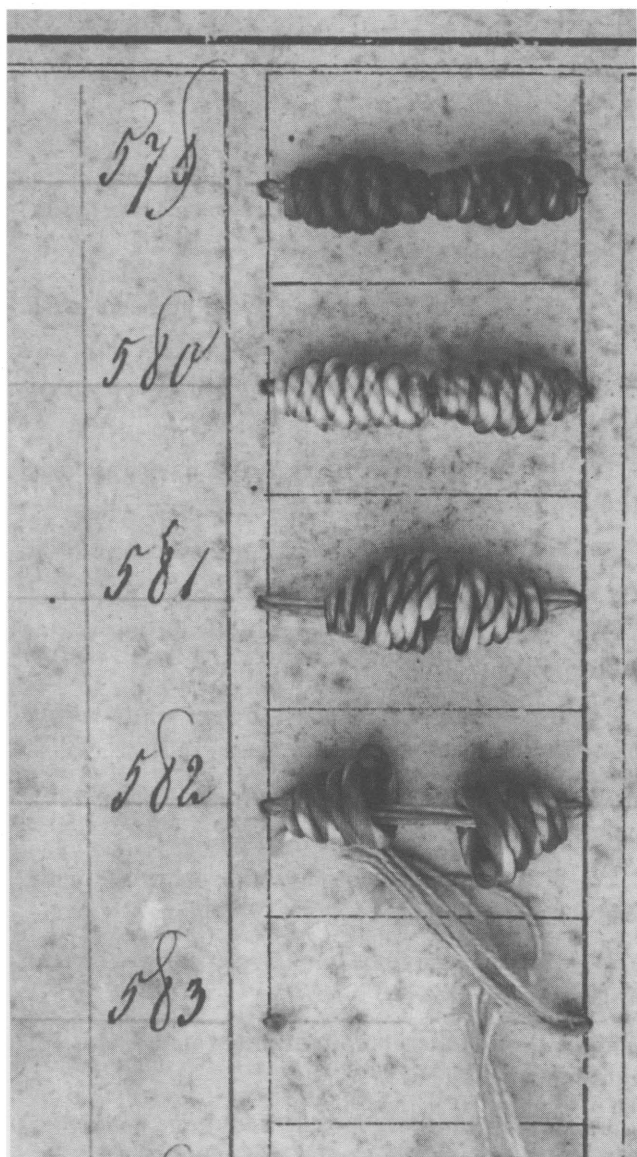


Figure 4. Oval “raised spiral” beads (nos. 579-582) in the Giacomuzzi bead book (photo: Christopher Marchetti).

middle to form two tray-like pages edged on three sides with narrow wooden slats. The latter are covered with marbled blue and brown paper. When closed, the folder measures 35.5 cm in length, 26.5 cm in width, and 2.6 cm in thickness. The covers, formed by the back of the cardboard sheet, are clad in textured blue paper. The number “09.97.F.” is painted in red at the top of the front cover, the number “6” is pencilled in blue on a paper label in the cover’s center, and the number “7/2” appears on an oval yellow sticker at the bottom.

Each page is divided into three pairs of columns with black-ink lines. The right-hand column in each pair displays the beads mounted on cotton string, while the one to the left provides catalogue numbers in brown ink and numbers of an unknown nature in black ink (the latter are provided in brackets in the descriptions that follow). In addition, numerals in red ink indicate the relative price per ounce (*Oncie*) for bead nos. 1-15, and the size categories for nos. 91-102.

The bead samples are sequentially numbered from 1 to 108 (Pl. VII). Of the 88 that remain, most are of wound glass. However, nos. 91-102 are composed of a light to dark brown substance that is probably a hard resin. Except for no. 10, each variety is shown in two sizes.

Folder “F” Bead Inventory

1-9. WII*; round-ribbed monochrome beads (these exhibit a series of contiguous rounded ribs set perpendicular to the perforation); 9 varieties, each of two sizes:

1. WII**; tsp. bright turquoise; *Oncie* 3.
2. WII**; tsp. ruby; *Oncie* 6.
3. WII**; op. copen blue and op. bright navy swirled together; *Oncie* 9.
4. WII**; op. bright blue; *Oncie* 12.
5. WII**; tsp. teal green; *Oncie* 18.
6. WII**; op. light gold; *Oncie* 24.
7. Missing; *Oncie* 30.
8. WII**; tsl. oyster white; *Oncie* 36.
9. WII**; op. grass green; *Oncie* 48.

There are 9 groups, each containing two sizes:

Size a)	Diameter:	3.8-3.9 mm	(3.9 mm)
	Length:	3.2-3.4 mm	(3.3 mm)
Size aa)	Diameter:	5.4 mm	(5.4 mm)
	Length:	5.4 mm	(5.4 mm)
Size b)	Diameter:	4.6-4.9 mm	(4.8 mm)
	Length:	4.8 mm	(4.8 mm)
Size bb)	Diameter:	6.7 mm	(6.7 mm)
	Length:	7.0 mm	(7.0 mm)
Size c)	Diameter:	5.4-5.5 mm	(5.4 mm)
	Length:	5.7 mm	(5.7 mm)
Size cc)	Diameter:	7.9 mm	(7.9 mm)

	Length:	7.5 mm	(7.5 mm)
Size d)	Diameter:	6.4 mm	(6.4 mm)
	Length:	7.1-7.6 mm	(7.4 mm)
Size dd)	Diameter:	—	—
	Length:	—	—
Size e)	Diameter:	7.6 mm	(7.6 mm)
	Length:	6.9 mm	(6.9 mm)
Size ee)	Diameter:	11.0 mm	(11.0 mm)
	Length:	10.0 mm	(10.0 mm)
Size f)	Diameter:	7.5-7.6 mm	(7.6 mm)
	Length:	7.2 mm	(7.2 mm)
Size ff)	Diameter:	11.5 mm	(11.5 mm)
	Length:	11.0 mm	(11.0 mm)
Size g)	Diameter:	—	—
	Length:	—	—
Size gg)	Diameter:	—	—
	Length:	—	—
Size h)	Diameter:	9.5 mm	(9.5 mm)
	Length:	8.4 mm	(8.4 mm)
Size hh)	Diameter:	13.0 mm	(13.0 mm)
	Length:	11.5 mm	(11.5mm)
Size I)	Diameter:	9.8 mm	(9.8 mm)
	Length:	9.9 mm	(9.9 mm)
Size ii)	Diameter:	13.4 mm	(13.4 mm)
	Length:	12.2 mm	(12.2 mm)

10-12. WIIa; beads of simple shapes coated with copper-colored enamel; 3 varieties.

10. WIIa*; oblate; *Oncie* 9 [size].

11. WIIa*; oblate/round; *Oncie* 12 [sizes b, bb].

12. WIIa*; round; *Oncie* 15 [sizes c, cc].

The five size groups have the following measurements:

Size a)	Diameter:	4.3-4.6 mm	(4.5 mm)
	Length:	2.4-2.8 mm	(2.6 mm)
Size b)	Diameter:	3.8-4.3 mm	(4.0 mm)
	Length:	2.8-3.3 mm	(3.1 mm)
Size bb)	Diameter:	6.4 mm	(6.4 mm)
	Length:	6.0 mm	(6.0 mm)
Size c)	Diameter:	5.1-5.2 mm	(5.2 mm)
	Length:	4.7-4.9 mm	(4.8 mm)
Size cc)	Diameter:	6.6 mm	(6.6mm)
	Length:	6.6 mm	(6.6 mm)

13-15. Missing; *Oncie* 24, 30, 36, respectively.

16-45. WIIb, WII*, and WIIe; round, round-ribbed, and melon beads of monochrome and polychrome glass; 30 varieties, each of two sizes:

16. WIIb*; round; op. grass green.

17. WII**; round ribbed; tsl. oyster white.

18. Missing.

19. WIIb*; round; two-tone body: one end is op. light gold; the other is op. dark palm green green [162].

20. Missing [162].

21. WIIe*; melon; two-tone body: one end is tsl. oyster white; the other is tsp. ruby [162].

22. WIIb*; round; op. black trailed on op. grass green [163].

23. WII**; round ribbed; tsp. bright navy trailed on tsl. oyster white [163].

24. WIIe*; melon; tsp. scarlet trailed on op. light gold [163].

25. WIIb*; round; op. black with an op. white equatorial band [160].

26. WII**; round ribbed; tsl. oyster white with a tsp. turquoise green equatorial band [160].

27. WIIe*; melon; tsl. oyster white with a tsp. ruby equatorial band [160].

28. WIIb*; round; tsp. ruby with op. white ends [161].

29. WII**; round ribbed; tsl. oyster white with tsp. teal green ends [161].

30. WIIe*; melon; tsp. light gray (clear) with op. bright navy ends [161].

31. WIIb*; round; three-tone body: one end is op. white, the other is op. dark palm green; the center is op. black.

32. WII**; round ribbed; tsl. oyster white with one tsp. teal green end and one op. light gold end.

33. WIIe*; melon; tsl. oyster white with one tsp. ruby and one op. bright blue end (the largest specimen has no blue end).

34. WIIb*; round; op. light gold with op. dark palm green ends and a tsp. ruby equatorial band.

35. WII**; round ribbed; tsl. oyster white with op. light gold ends and a tsp. teal green equatorial band.

36. Missing.

37. WIIb*; round; threads of op. white, tsp. scarlet, and tsp. turquoise green.

38. WII**; round ribbed; spiral threads of op. white, op. light gold, and op. dark rose brown.

39. WIIe*; melon; op. black and tsp. scarlet trailed on op. light gold.

40. WIIb*; round; swirled tsl. oyster white and tsp. scarlet body with op. bright blue ends.

41. WII**; round ribbed; swirled tsl. oyster white and op. bright blue body with op. light gold ends.

42. Missing.

43. WIIb*; round; swirled tsl. oyster white and tsp. ruby body with an op. bright blue equatorial band.

44. WII**; round ribbed; op. dark palm green body trailed with op. white and op. black threads.

45. WIIe*; melon; op. bright blue swirled on op. white, with an op. black equatorial band.

Each shape is represented by two size groups:

Round

Size a)	Diameter:	6.2-8.4 mm	(7.0 mm)
	Length:	6.2-8.4 mm	(7.0 mm)
Size b)	Diameter:	8.0-11.3 mm	(10.2 mm)
	Length:	8.5-11.8 mm	(9.6 mm)

Round ribbed

Size a)	Diameter:	5.8-7.8 mm	(7.0 mm)
	Length:	6.0-8.2 mm	(7.0 mm)
Size b)	Diameter:	9.5-10.8 mm	(10.4 mm)
	Length:	9.5-10.1 mm	(9.7 mm)

Melon

Size a)	Diameter:	7.0-8.0 mm	(7.5 mm)
	Length:	6.1-8.0 mm	(6.8 mm)
Size b)	Diameter:	10.2-12.8 mm	(10.8 mm)
	Length:	8.7-9.9 mm	(9.2 mm)

46-52. WIIIf and WIIIg; tsp. light gray (clear) beads of simple and complex shapes decorated internally with a colored element encircling the perforation; 7 varieties:

46. WIIIf*; round; tsp. turquoise green element.

47. Missing.

48. WIIIg*; melon; op. light gold element.

49. WIIIg*; round knobbed; tsp. ruby element.

50. WIIIg*; square decorated (each face exhibits a raised five-petal flower); tsp. turquoise green element.

51. WIIIg*; square ribbed; op. white element.

52. WIIIg*; round faceted (pressed pentagonal facets encircle the ends, while diamond-shaped facets encircle the middle); tsp. turquoise green element.

Despite the different shapes, all the beads in this section have approximately the same dimensions and represent two size groups:

Size a)	Diameter:	6.0-7.6 mm	(6.9 mm)
	Length:	6.2-7.3 mm	(6.8 mm)
Size b)	Diameter:	8.8-10.5 mm	(9.8 mm)
	Length:	8.7-9.9 mm	(9.2 mm)

53. WII*; round spiral-ribbed beads with polychrome bodies; 1 variety of two sizes:

53. WII**; tsl. oyster white body encircled by a tsp. ruby and a tsp. turquoise green band.

Size a)	Diameter:	6.8 mm	(6.8 mm)
	Length:	6.8 mm	(6.8 mm)
Size b)	Diameter:	9.8 mm	(9.8 mm)
	Length:	9.1 mm	(9.1 mm)

54. Missing.

55-69. WIIIf; round beads decorated with various designs; 15 varieties:

55. WIIIf*; tsl. oyster white body decorated with op. copen blue splotches [168].

56. Missing [168].

57. WIIIf*; op. white body decorated with tsp. scarlet, op. light gold, and tsl. rose wine splotches [168].

58. WIIIf*; tsp. ruby body decorated with an op. white trailed wreath about the middle.

59. WIIIf*; op. black body decorated with 3-4 tsp. ruby on op. white eyes around the middle, and 3-4 op. bright blue on op. white eyes around either end.

60. WIIIf*; op. black body decorated with 6-8 tsp. ruby on op. white eyes around the middle, and 6-8 op. bright blue on op. white eyes around either end.

61. Missing.

62. WIIIf*; tsp. light gray (clear) body decorated with tsp. scarlet on op. white squiggles around the middle, and 2-3 op. bright blue dots around either end.

63. WIIIf*; tsl. oyster white body decorated with a wavy floral spray of tsp. scarlet on op. white and tsp. turquoise green.

64. WIIb*; tsl. oyster white body decorated with 2-3 wavy tsp. scarlet diagonals and 2-3 diagonals of op. white and tsp. bright navy threads twisted together.

65. WIIb*; op. black body decorated with a spiral aventurine stripe and a spiral series of op. white dots.

66. Missing.

67. WIIb*; tsl. oyster white body decorated with 3-4 flowers having op. dark palm green stems and op. light gold on tsp. ruby blossoms.

68. WIIb*; op. dark palm green body decorated with a spiral stripe of tsp. ruby on op. white, and a wavy spiral stripe of op. black.

69. WIIb*; tsl. oyster white body decorated with an op. white, tsp. scarlet, tsp. turquoise green, and op. dark rose brown floral wreath about the middle.

Nos. 55-59 represent two size groups:

Size a)	Diameter:	6.6-7.1 mm	(6.8 mm)
	Length:	5.9-7.2 mm	(6.5 mm)
Size b)	Diameter:	8.6-9.4 mm	(9.0 mm)
	Length:	8.2-9.0 mm	(8.5 mm)

Nos. 60-69 represent another two size groups:

Size a)	Diameter:	7.0-9.0 mm	(8.4 mm)
	Length:	6.8-9.7 mm	(8.6 mm)
Size b)	Diameter:	10.2-11.8 mm	(10.7 mm)
	Length:	9.7-12.0 mm	(11.2 mm)

70. Missing.

71-75. WIIb and WIIId; round beads decorated with various raised and flush designs; 5 varieties, each of two sizes:

71. WIIId*; tsl. oyster white body decorated with a raised tsl. bright blue wreath about the equator.

72. WIIId*; tsl. oyster white body decorated with a raised op. black, tsp. scarlet, tsp. teal green, and tsp. bright blue wreath about the equator, and op. light gold dots around either end.

73. WIIb*; op. white body decorated with 2-3 flush op. grass green/op. white/tsp. ruby/op. white/op. bright navy diagonal stripes, and 2-3 diagonal series of tsp. ruby dots.

74. WIIId*; tsl. oyster white body decorated with raised tsp. ruby teardrops, and flush op. light gold dots.

75. WIIId*; tsl. oyster white body decorated with a raised wavy tsp. scarlet on op. white stripe about the

middle, and 4-5 tsp. bright navy teardrops around either end.

The two size groups have the following metric values:

Size a)	Diameter:	8.2-9.8 mm	(9.1 mm)
	Length:	8.6-9.4 mm	(9.0 mm)
Size b)	Diameter:	11.0-13.1 mm	(11.9 mm)
	Length:	11.6-12.4 mm	(11.9 mm)

76-90. WIIb; round beads decorated with various designs; 15 varieties:

76. WIIb*; op. copen blue body decorated with tsp. ruby and aventurine squiggles.

77-78. Missing.

79. WIIb*; op. black body decorated with tsp. ruby and aventurine squiggles.

80. Missing.

81. WIIb*; op. dark palm green body decorated with tsp. ruby and aventurine squiggles.

82-83. Missing.

84. WIIb*; op. copen blue body decorated with aventurine squiggles.

85. WIIb*; op. dark palm green body decorated with op. black squiggles.

86. WIIb*; op. bright blue body decorated with aventurine floral designs set parallel to the perforation.

87. WIIb*; op. bright navy body decorated with aventurine floral designs set parallel to the perforation.

88. WIIb*; op. dark palm green body decorated with aventurine floral designs set parallel to the perforation.

89. WIIb*; op. white body covered with swirls of op. white, tsp. scarlet, tsp. dark jade green, op. bright navy, and aventurine.

90. Missing.

The two size groups have the following dimensions:

Size a)	Diameter:	8.6-10.5 mm	(9.5 mm)
	Length:	7.9-10.4 mm	(9.2 mm)
Size b)	Diameter:	11.0-13.4 mm	(12.2 mm)
	Length:	11.5-12.9 mm	(12.1 mm)



Figure 5. Detail of the non-glass (resin) beads in Folder F (photo: Jamey D. Allen).

91-102. Non-glass (resin) beads; light to dark brown in color, these are of two forms (Fig. 5):

Facetted: these exhibit 8 pressed, roughly pentagonal facets; the ends range from flattish to rounded; 12 sizes:

Size 1)	Diameter:	3.6 mm	(3.6 mm)
	Length:	2.2-2.8 mm	(2.5 mm)
Size 2)	Diameter:	4.1-4.2 mm	(4.2 mm)
	Length:	3.6-4.1 mm	(3.9 mm)

Size 3)	Diameter:	4.3-4.7 mm	(4.5 mm)
	Length:	3.8-4.1 mm	(4.0 mm)
Size 4)	Diameter:	4.6-5.2 mm	(4.9 mm)
	Length:	4.1-4.5 mm	(4.3 mm)
Size 5)	Diameter:	4.7-5.5 mm	(5.1 mm)
	Length:	5.6-6.5 mm	(6.0 mm)
Size 6)	Diameter:	4.8-5.4 mm	(5.0 mm)
	Length:	6.1 mm	(6.1 mm)
Size 7)	Diameter:	5.6-6.2 mm	(5.9 mm)
	Length:	6.4 mm	(6.4 mm)
Size 8)	Diameter:	6.2-6.4 mm	(6.3 mm)
	Length:	5.7-6.6 mm	(6.2 mm)
Size 10)	Diameter:	7.1-7.7 mm	(7.4 mm)
	Length:	8.0-8.3 mm	(8.2 mm)
Size 12)	Diameter:	7.8 mm	(7.8 mm)
	Length:	7.0 mm	(7.0 mm)
Size 16)	Diameter:	8.2-8.5 mm	(8.4 mm)
	Length:	8.9-9.1 mm	(9.0 mm)
Size 20)	Diameter:	8.7 mm	(8.7 mm)
	Length:	10.4 mm	(10.4 mm)

Grooved: these roughly barrel-shaped beads exhibit 2 (on the smaller specimens) to 3 cut grooves which encircle the body perpendicular to the perforation (on the larger specimens, the grooves generally occupy one half of the bead); the ends are flattish to rounded; 12 sizes:

Size 1)	Diameter:	4.4 mm	(4.4 mm)
	Length:	4.6 mm	(4.6 mm)
Size 2)	Diameter:	5.4 mm	(5.4 mm)
	Length:	4.7 mm	(4.7 mm)
Size 3)	Diameter:	5.6 mm	(5.6 mm)
	Length:	5.6 mm	(5.6 mm)
Size 4)	Diameter:	5.6 mm	(5.6 mm)
	Length:	6.4 mm	(6.4 mm)
Size 5)	Diameter:	6.4 mm	(6.4 mm)
	Length:	6.6 mm	(6.6 mm)
Size 6)	Diameter:	6.2 mm	(6.2 mm)
	Length:	7.0 mm	(7.0 mm)
Size 7)	Diameter:	7.3 mm	(7.3 mm)
	Length:	8.9 mm	(8.9 mm)
Size 8)	Diameter:	7.0 mm	(7.0 mm)
	Length:	7.6 mm	(7.6 mm)
Size 10)	Diameter:	7.9 mm	(7.9 mm)
	Length:	8.1 mm	(8.1 mm)
Size 12)	Diameter:	10.4 mm	(10.4 mm)
	Length:	10.0 mm	(10.0 mm)
Size 16)	Diameter:	10.4 mm	(10.4 mm)

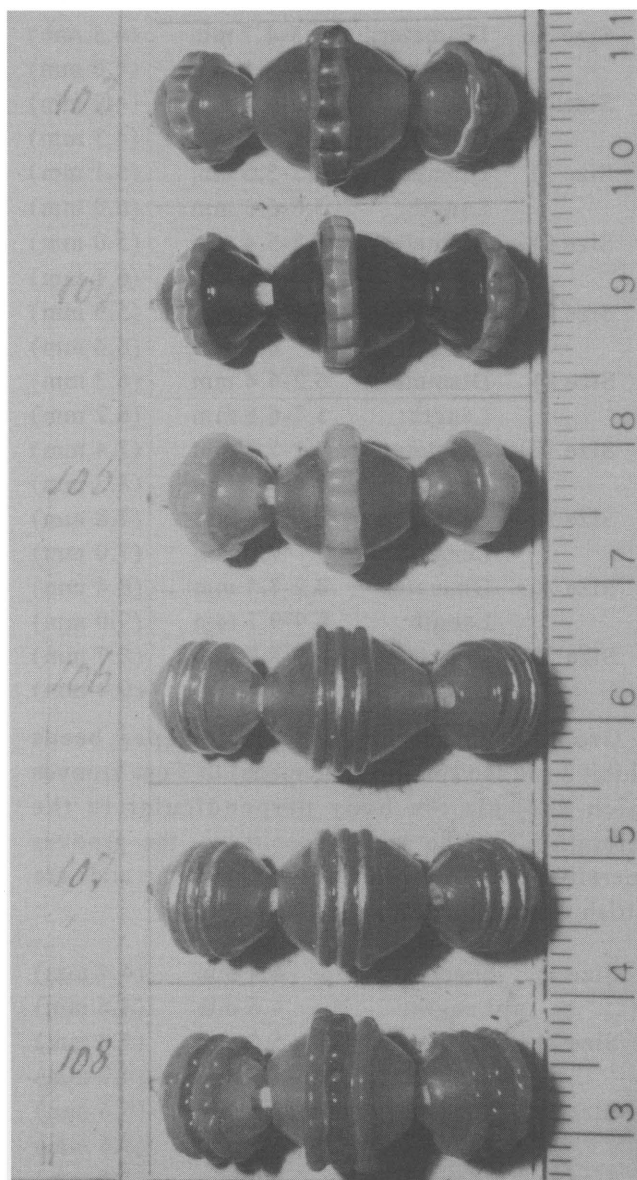


Figure 6. Detail of the round beads with raised equatorial rings in Folder F (photo: Jamey D. Allen).

	Length:	10.9 mm	(10.9 mm)
Size 20)	Diameter:	9.0 mm	(9.0 mm)
	Length:	11.6 mm	(11.6 mm)

103-108. WIIId*; round monochrome beads decorated with raised equatorial bands or rings (Fig. 6); 6 varieties:

103. WIIId*; tsl. bright blue body decorated with a raised rippled equatorial band of tsp. scarlet on op. white.

104. WIIId*; tsp. ruby body decorated with a raised rippled equatorial band of op. light gold on op. bright blue.

105. WIIId*; tsl. rose body decorated with a raised rippled equatorial band of tsl. oyster white.

106. WIIId*; tsl. surf green body decorated with 3 raised, gilded equatorial rings.

107. WIIId*; tsl. rose body decorated with 3 raised, gilded equatorial rings.

108. WIIId*; tsl. citron body decorated with 3 raised, rippled equatorial rings: the one in the middle is tsp. ruby; those on either side are tsl. turquoise green.

Size a)	Diameter:	8.2-9.5 mm	(8.8 mm)
	Length:	7.4-8.8 mm	(8.1 mm)
Size b)	Diameter:	10.2-11.8 mm	(11.0 mm)
	Length:	10.0-12.5 mm	(11.0 mm)

BEAD FOLDER "E"

Measuring 39.5 cm in length, 28.0 cm in width, and 3.2 cm in thickness when closed, this folder consists of two tray-like cardboard pages connected by a cloth hinge. Unlike the sample book and Folder F, all four edges of each page are edged with narrow wooden slats. The folder's covers, which consist of the backs of the cardboard pages, are encased in marbled yellow, green, blue, ruby, and black paper; the wooden slats are covered with textured, glossy, orange paper. The front cover has "09.97.E." in red paint at the top and a blue "5" pencilled on a square white label in the center. The pages are sectioned into four pairs of columns with brown-ink lines. One column displays the beads while that to the left of it provides the catalogue number. *Cartela 9* (card 9) is written at the top of the first page in black ink, as is the number "9" in blue pencil.

The beads, numbered sequentially from 181 to 360, are all of wound manufacture (Pl. VIII). All but 11 remain.

Folder "E" Bead Inventory

181-183, 189, 200-201. WIIm and WIIp; short square barrel beads and long square truncated convex bicone beads (Beck's types IX.B.1.b. and IX.D.1.f.,

respectively) with monochrome bodies. These square-sectioned beads generally taper toward either end from a slight central ridge, although the two smallest sizes are simply oblate beads that have been pressed while viscid to give them a squared outline. While two shapes are technically present, the catalogue reveals that the WIIIm specimens are simply short versions of the WIIP beads. There are 6 varieties:

181. WIIIm*; short square barrel; op. black [size a].

182. WIIIm*; short square barrel; tsp. ruby [size a].

183. WIIP*; long square truncated convex bicone; tsp. ruby [size b].

189. WIIP*; long square truncated convex bicone; tsp. light gray (clear) [size b].

200. WIIP*; long square truncated convex bicone; tsp. ruby [size c].

201. WIIP*; long square truncated convex bicone; op. white [size c].

Size a) Diameter: 3.2-3.6 mm (3.5 mm)

Length: 1.6-3.0 mm (2.4 mm)

Size b) Diameter: 3.7-4.4 mm (4.0 mm)

Length: 6.2-7.0 mm (6.5 mm)

Size c) Diameter: 5.2-6.2 mm (5.8 mm)

Length: 9.2-10.2 mm (9.7 mm)

184-188. WIC; monochrome oval (olive-pit- shaped) beads; 5 varieties:

184. WIC*; op. black [size a].

185. WIC*; op. bright blue [size b].

186. WIC*; tsp. turquoise green [size b].

187. WIC*; op. black [size b].

188. WIC*; tsp. terra cotta [size c].

Size a) Diameter: 3.2-3.3 mm (3.2 mm)

Length: 4.4-4.6 mm (4.5 mm)

Size b) Diameter: 3.4-3.8 mm (3.6 mm)

Length: 5.7-6.8 mm (6.2 mm)

Size c) Diameter: 4.2-4.3 mm (4.2 mm)

Length: 7.5 mm (7.5 mm)

190-191. WIIIE; beads of complex shapes covered with a copper-colored enamel; 2 varieties:

190. WIIIE*; long square barrel (Beck type IX.D.1.b.); these have square-sectioned bodies that taper toward either end.

Size a) Diameter: 4.9-5.2 mm (5.0 mm)

Length: 7.4-8.0 mm (7.7 mm)

191. WIIIE*; square diagonal-ribbed; these are square beads covered with diagonal ribs.

Size a) Diameter: 4.6-5.6 mm (5.1 mm)

Length: 6.5-7.1 mm (6.8 mm)

192-199, 202-203, 205. WIC and WIIIB; oval (olive-pit-shaped) beads with monochrome and polychrome bodies; 10 varieties:

192. WIIIB*; op. white body decorated with a spiral tsp. ruby stripe [size a].

193. WIC*; tsp. teal green [size a].

194. WIC*; op. amber [size a].

195. WIC1; op. white [size b].

196-197. Missing.

198. WIC*; op. black [size b].

199. WIC*; tsp. bright navy [size b].

202. WIC*; op. light gold [size c].

203. WIC*; op. bright blue [size c].

205. WIC*; tsl. oyster white [size d].

Two sizes appear to be represented:

Size a) Diameter: 5.4-6.0 mm (5.7 mm)

Length: 8.4-9.8 mm (9.2 mm)

Size b) Diameter: 5.6-6.1 mm (5.9 mm)

Length: 10.7-11.5 mm (11.0 mm)

Size c) Diameter: 6.7-7.6 mm (7.1 mm)

Length: 12.2-13.1 mm (12.7 mm)

Size d) Diameter: 7.2 mm (7.2 mm)

Length: 14.2-15.0 mm (14.6 mm)

204. WII*; oval ribbed beads with monochrome bodies. These were apparently rolled in a ribbed mold while still on the mandrel to impart a series of ribs or rounded ridges that encircle the bead perpendicular to the perforation; 1 variety:

204. WII**; op. black.

Size a) Diameter: 6.6-7.0 mm (6.8 mm)

Length: 11.7-12.0 mm (11.8 mm)

206. Missing.

207-214. WIB; round monochrome beads; 8 varieties:

207. WIB*; op. redwood.

208. W1b*; tsl. oyster white.

209. W1b*; op. cerulean blue.

210. W1b*; tsp. ruby.

211. W1b*; tsp. dark jade green.

212. W1b*; tsl. citron.

213. Missing.

214. W1b*; op. black.

Size a)	Diameter:	4.6-6.0 mm	(5.4 mm)
	Length:	4.3-6.6 mm	(5.3 mm)

215-216. W111a and W111e; beads of simple and complex shapes covered with a copper-colored enamel; 2 varieties:

215. W111a*; round.

Size a)	Diameter:	6.0-6.2 mm	(6.1 mm)
	Length:	5.6-6.2 mm	(5.9 mm)

216. W111e*; melon.

Size a)	Diameter:	5.3-5.5 mm	(5.4 mm)
	Length:	5.8-6.1 mm	(6.0 mm)

217-219, 223-227. W1b; round monochrome beads; 6 varieties:

217. W1b*; tsp. dark jade green [size a].

218. W1b*; op. cerulean blue [size a].

219. W1b12; op. bright blue [size a].

223. W1b1; tsp. light gray (clear) [size b].

224-226. W1b*; op. black [sizes a,b,c].

227. W1b*; op. teal green [size c].

Size a)	Diameter:	7.2-8.5 mm	(7.9 mm)
	Length:	8.1-9.5 mm	(8.9 mm)

Size b)	Diameter:	9.0-9.8 mm	(9.3 mm)
	Length:	9.1-10.4 mm	(9.8 mm)

Size c)	Diameter:	9.7-10.6 mm	(10.1 mm)
	Length:	10.6-11.3 mm	(10.8 mm)

220-222. W11*; round-ribbed beads with monochrome bodies; 3 varieties:

220. W11**; op. grass green.

221. W11**; tsl. citron.

222. W11**; op. white.

Size a)	Diameter:	7.4-8.4 mm	(8.0 mm)
	Length:	7.9-8.3 mm	(8.2 mm)

228-232. W111a; round double-layered beads; 1 variety:

228-232. W111a*; tsp. ruby on op. white (one of the no. 230 specimens has an op. light gold core).

Five size groups are represented:

Size a)	Diameter:	6.5-6.8 mm	(6.6 mm)
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	Length:	6.2-6.8 mm	(6.5 mm)
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Size b)	Diameter:	7.6-7.8 mm	(7.7 mm)
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	Length:	7.6-8.2 mm	(7.9 mm)
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Size c)	Diameter:	9.8-10.2 mm	(10.0 mm)
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	Length:	10.4-11.1 mm	(10.8 mm)
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Size d)	Diameter:	11.6-12.8 mm	(12.2 mm)
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	Length:	11.1-12.4 mm	(11.7 mm)
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Size e)	Diameter:	14.6 mm	(14.6 mm)
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	Length:	13.6 mm	(13.6 mm)
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233. W1c; oval polychrome beads; 1 variety:

233. W1c*; op. white with tsp. ruby ends and a tsl. bright navy equatorial band.

Size a)	Diameter:	6.6 mm	(6.6 mm)
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	Length:	8.6-9.7 mm	(9.2 mm)
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234-239. W111b and W111d; cylindrical beads decorated with flush and raised designs; 6 varieties:

234. W111d*; op. black body decorated with a gilded central band, and a raised, wavy, op. light gold filament about either end [size a].

235. W111d*; op. black body decorated with a gilded central band, and a raised, wavy, op. white filament about either end [size a].

236. W111b*; tsp. ruby body decorated with an op. light gold ring about the middle, and an op. white ring about either end [size b].

237. W111b*; op. black body decorated with an op. light gold ring about the middle, and an op. white ring about either end [size b].

238. W111b*; op. black body decorated with a wavy op. light gold ring about the middle, and a wavy op. white ring about either end [size b].

239. W111d*; op. black body decorated with a gilded central band, and a raised, wavy, op. light gold filament about either end [size c].

Three size groups appear to be represented:

Size a)	Diameter:	4.4-5.0 mm	(4.8 mm)
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	Length:	7.2-10.4 mm	(9.0 mm)
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Size b)	Diameter:	6.0-6.7 mm	(6.3 mm)
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	Length:	7.7-9.1 mm	(8.4 mm)
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Size c)	Diameter:	6.1-6.2 mm	(6.2 mm)
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Length: 11.8-13.0 mm (12.4 mm)

240-244. WIIa; beads of simple shapes with tsp. ruby on op. light gold bodies; 2 varieties:

240. WIIa*; cylindrical [size a].

241. WIIa*; oval [size a].

242-243. WIIa*; cylindrical [sizes b,c].

244. WIIa*; oval [size b].

Cylindrical

Size a)	Diameter:	4.6-5.2 mm	(4.9 mm)
	Length:	6.4-6.6 mm	(6.5 mm)
Size b)	Diameter:	7.6-7.8 mm	(7.7 mm)
	Length:	11.2-11.8 mm	(11.5 mm)
Size c)	Diameter:	8.3-8.5 mm	(8.4 mm)
	Length:	12.0-12.2 mm	(12.1 mm)

Oval

Size a)	Diameter:	6.8-7.2 mm	(7.0 mm)
	Length:	9.8-10.4 mm	(10.1 mm)
Size b)	Diameter:	8.3-8.4 mm	(8.4 mm)
	Length:	12.2-12.3 mm	(12.2 mm)

245-258. WIb, WIIc, and WII*; monochrome and polychrome beads of simple and complex shapes; 14 varieties:

245. WIIc*; oval; op. amber.

246. WIIc*; oval; tsp. ruby.

247. WII**; flattened oval; tsp. dark jade green.

248. WII**; flattened oval; tsp. redwood.

249. WII**; short square truncated convex bicone (Beck type IX.B.1.f.); op. black.

250. WII**; short square truncated convex bicone (Beck type IX.B.1.f.); tsp. ruby.

251. WII**; round ribbed; tsp. dark jade green.

252. WIb*; round; op. amber.

253-254. Missing.

255. WII**; round ribbed; op. black.

256. WIb*; round; op. dark palm green with op. black inclusions.

257. WIb*; round; op. dark palm green.

258. WIb*; round; op. light gold.

Round

Size a)	Diameter:	9.0-9.4 mm	(9.2 mm)
	Length:	9.4-10.2 mm	(9.8 mm)

Size b)	Diameter:	10.5-11.6 mm	(11.0 mm)
	Length:	9.9-12.0 mm	(11.1 mm)

Oval

Size a)	Diameter:	8.4-9.0 mm	(8.6 mm)
	Length:	13.7-14.2 mm	(14.0 mm)

Flattened oval

Size a)	Width:	7.0-7.8 mm	(7.3 mm)
	Thickness:	4.8-6.0 mm	(5.4 mm)
	Length:	10.1-10.8 mm	(10.5 mm)

Round ribbed

Size a)	Diameter:	7.1-7.8 mm	(7.4 mm)
	Length:	8.0-8.4 mm	(8.2 mm)
Size b)	Diameter:	9.5-9.8 mm	(9.6 mm)
	Length:	10.2-10.5 mm	(10.4 mm)

Short square truncated convex bicone

Size a)	Diameter:	6.4-7.5 mm	(6.9 mm)
	Length:	5.1-6.1 mm	(5.7 mm)

259-273, 275-284. WIIb and WIIId; round beads decorated with flush and raised designs; 26 varieties:

259. WIIb*; threads of op. white, tsp. ruby, and tsp. turquoise green [size a].

260. WIIb*; op. cerulean blue body decorated with op. white dots [size b].

261. WIIb*; tsp. turquoise body decorated with 3 diagonal op. light gold "coils," and 3 diagonal series of swirled op. white and tsp. scarlet dots [size b].

262. WIIb*; tsl. oyster white body decorated with an op. light gold equatorial band studded with 5 tsp. scarlet dots [size b].

263. WIIb*; op. black body decorated with 2 wavy op. light gold stripes, and op. white dots [size b].

264. WIIb*; tsp. bright navy body decorated with an op. white lattice around the equator [size b].

265. WIIb*; op. black body decorated with an op. light gold grid with a tsp. scarlet on op. white eye in each of the 8 grid squares [size b].

266. WIIb*; tsl. light gray body decorated with 4 tsp. turquoise green and op. dark rose brown wreaths set parallel to the perforation and which alternate direction around the bead [size c].

267. WIIb*; op. light gold body decorated with a combed design of tsp. scarlet on op. white, and aventurine [size c].

268. WIIId*; tsl. oyster white body decorated with a raised tsp. bright blue and tsp. light gold wreath about the equator, and a tsp. bright blue ring around either end [size c].

269. WIIIB*; op. black body decorated with a spiral stripe of amber and another of entwined filaments of op. white, tsp. scarlet, and tsp. bright blue [size c].

270. WIIIB*; op. white body decorated with a spiral tsp. ruby stripe [size c].

271. WIIIB*; op. black body decorated with a spiral stripe of tsp. scarlet on op. light gold, and 3 tsp. bright navy on op. white diagonals [size c].

272. WIIIB*; tsl. light gray body decorated with 3 diagonal tsp. scarlet "coils" and 3 diagonal tsp. turquoise green "coils" [size c].

273. WIIIB*; op. dark palm green body decorated with 3 op. white and op. light gold wreaths set parallel to the perforation, and 3 dots of swirled op. white and op. bright navy [size c].

275. WIIIB*; tsl. oyster white body decorated with 5 tsp. ruby on op. white eyes around the middle, and 5 op. bright navy on op. white eyes around either end [size c].

276. WIIIB*; op. sunlight yellow body decorated with a tsp. ruby and tsp. turquoise green wreath encircling the bead [size c].

277. WIIIB*; op. dark palm green body decorated with a "wreath" of op. white, tsp. scarlet, and op. light gold, and 4 op. light gold dots [size c].

278. WIIIB*; tsl. light gray body decorated with tsp. scarlet on op. white eyes, and op. black on op. bright blue eyes [size c].

279. WIIIB*; tsp. ruby body decorated with an op. white combed design [size c].

280. WIIIB*; op. white body decorated with 3 large op. black on tsp. bright blue eyes about the middle, and 3 tsp. ruby dots about either end [size c].

281. WIIIB*; op. white body decorated with a band of entwined tsp. scarlet, tsp. turquoise green and op. bright navy filaments about the middle, and a wavy tsp. scarlet on op. white stripe around the ends [size c].

282. WIIIB*; tsp. ruby body decorated with a "wreath" of thin op. light gold stripes, and op. white dots [size c].

283. WIIIB*; op. sunlight yellow body decorated with tsp. scarlet and tsp. bright navy wreaths [size d].

284. WIIIB*; op. white body decorated with a spiral tsp. scarlet stripe, and a spiral series of swirled tsp. scarlet and tsp. bright blue dots [size d].

Size a)	Diameter:	7.2-8.0 mm	(7.6mm)
	Length:	6.8-7.1 mm	(7.0 mm)
Size b)	Diameter:	8.6-9.4 mm	(9.0 mm)
	Length:	8.6-9.9 mm	(9.3 mm)
Size c)	Diameter:	10.2-11.4 mm	(10.7 mm)
	Length:	9.8-11.8 mm	(11.0 mm)
Size d)	Diameter:	12.0-12.1 mm	(12.0 mm)
	Length:	12.2-12.6 mm	(12.4 mm)

274. WIIIC; round-ribbed beads decorated with eyes; 1 variety:

274. WIIIC*; tsl. oyster white body decorated with 5 op. black on op. bright blue eyes about the middle.

Size a)	Diameter:	10.3 mm	(10.3 mm)
	Length:	9.8-10.2 mm	(10.0 mm)

285-294. WIIIB; round beads decorated with dots and eyes; 10 varieties:

285. WIIIB*; op. black body decorated with 2 eyes of tsp. scarlet on op. white, and 4 of op. bright blue on op. white [size a].

286. WIIIB*; op. black body decorated with 3 eyes of tsp. scarlet on op. white, and 6 of op. bright blue on op. white [size a].

287. WIIIB*; op. black body decorated with 4 eyes of tsp. scarlet on op. white, and 8 of op. bright blue on op. white [size a].

288. WIIIB*; op. black body decorated with 8 eyes of tsp. scarlet on op. white, and 12 of op. bright blue on op. white [size a].

289. WIIIB*; op. black body decorated with 8 eyes of tsp. scarlet on op. white, and 12 of op. bright blue on op. white [size b].

290. WIIIB*; op. black body decorated with 20 eyes of tsp. scarlet on op. white, and 26 of op. bright blue on op. white [size b].

291. WIIIB*; op. black body decorated with 30 tsp. scarlet on op. white [size b].

292. WIIIB*; tsp. ruby body decorated with 12 op. white dots [size b].

293. WIIb*; op. black body decorated with ca. 26 op. white dots [size b].

294. WIIb*; op. bright blue body decorated with 12 eyes of tsp. scarlet on op. white, and 18 of op. bright blue on op. white [size b].

Size a)	Diameter:	8.4-9.5 mm	(8.9 mm)
	Length:	8.3-10.3 mm	(9.0 mm)
Size b)	Diameter:	9.6-11.0 mm	(10.6 mm)
	Length:	10.0-11.3 mm	(10.8 mm)

295-303. WIIb; round beads with monochrome bodies decorated with various designs; 9 varieties:

295. WIIb*; op. bright blue body decorated with 6 blossoms of tsp. scarlet on op. white and op. bright navy set parallel to the perforation and which alternate direction around the bead.

296. WIIb*; op. deep red brown body decorated with an op. white wreath about the middle.

297. WIIb*; tsp. ruby body decorated with an op. light gold wreath about the middle.

298. WIIb*; tsl. oyster white body decorated with a spiral tsp. scarlet "coil," and a spiral series of op. bright navy dots.

299. WIIb*; op. black body decorated with an op. light gold grid with a tsp. scarlet on op. white eye in each of the 8 grid squares.

300. WIIb*; op. white body decorated with an op. bright navy grid with a tsp. scarlet dot in each of the 12 grid squares.

301. WIIb*; tsl. oyster white body decorated with 4 double-stemmed flowers of op. dark palm green and tsp. scarlet on op. white set parallel to the perforation.

302. WIIb*; tsl. light gray body decorated with 14 eyes of tsp. scarlet on op. white, and 18 of op. bright blue on op. white.

303. WIIb*; op. black body decorated with op. light gold splotches, tsp. scarlet on op. white dashes, and op. light gold splotches adorned with 1 tsp. scarlet and 4 op. white dots.

Size a)	Diameter:	11.1-13.8 mm	(12.1 mm)
	Length:	10.6-12.6 mm	(11.7 mm)

304-307. WII*; flattened cones with decorated bodies; 4 varieties:

304. WII*; op. white body decorated with an op. bright navy wreath about the bead [size a].

305. WII*; tsp. ruby body decorated with an op. white wreath about the bead [size b].

306. WII*; op. black body decorated with an op. white wreath about the bead [size b].

307. WII*; op. white body decorated with a combed design of tsp. scarlet and op. dark palm green [size b].

Size a)	Width:	7.3-8.3 mm	(7.8 mm)
	Thickness:	7.8 mm	(7.8 mm)
	Length:	9.1-10.2 mm	(9.6 mm)
Size b)	Width:	8.0-9.6 mm	(8.8 mm)
	Thickness:	6.0-8.0 mm	(6.6 mm)
	Length:	10.5-12.8 mm	(11.3 mm)

308-336. WIIb; oval beads with monochrome bodies decorated with various designs; 29 varieties:

308. WIIb*; op. white body decorated with a crude tsp. scarlet wreath about the middle [size a].

309. WIIb*; op. black body decorated with 2 eyes of tsp. scarlet on op. white, and 4 of op. bright navy on op. white [size b].

310. WIIb*; op. black body decorated with an op. light gold grid with a tsp. scarlet on op. white eye in each of the 8 grid squares [size b].

311. WIIb*; op. amber body with a tsp. scarlet on op. white thread wrapped repeatedly around the middle [size b].

312. WIIb*; tsp. ruby body decorated with a wavy op. light gold stripe about the middle, and a wavy op. white stripe around the ends [size b].

313. WIIb*; tsp. ruby body partially decorated with a combed feather design of op. bright blue on op. white [size b].

314. WIIb*; tsl. citron body decorated with a combed design of tsp. scarlet on op. white around the middle [size b].

315. WIIb*; tsp. ruby body decorated with meandering stripes of tsp. scarlet on op. white around the middle [size b].

316. WIIb*; op. white body decorated with 4 crude tsp. bright navy wreaths set parallel to the perforation [size b].

317. WIIb*; op. bright blue body decorated with a spiral stripe of entwined filaments of op. white and tsp. scarlet, and a spiral series of op. light gold dots [size b].

318. WIIb*; tsp. teal green body decorated with 4 op. white wreaths set parallel to the perforation [size b].

319. WIIb*; op. black body decorated with 4 op. white wreaths set parallel to the perforation [size b].

320. WIIb*; tsl. deep blue body decorated with 4 op. white wreaths set parallel to the perforation [size b].

321. WIIb*; tsl. oyster white body decorated with 3 sets of 3 spiral op. bright navy stripes [size b].

322. WIIb*; tsp. ruby body decorated with meandering op. light gold lines [size b].

323. WIIb*; tsp. ruby body decorated with a spiral stripe of op. light gold, and another of entwined op. white and op. bright navy filaments [size b].

324. WIIb*; tsl. oyster white body decorated with a spiral stripe of op. bright blue, and a spiral series of op. black on op. light gold eyes [size b].

325. WIIb*; op. white body decorated with a spiral stripe of entwined op. white and tsp. scarlet filaments [size b].

326. WIIb*; tsp. ruby body decorated with a combed feather design of tsp. scarlet on op. white [size b].

327. WIIb*; op. deep blue body decorated with a combed feather design of tsp. scarlet on op. white [size b].

328. WIIb*; op. black body decorated with 2 diagonal stripes of tsp. scarlet on op. white and 2 of op. bright blue on op. white [size b].

329. WIIb*; op. black body decorated with 3 tsp. redwood and op. bright blue design elements around the middle, and op. bright navy and op. bright blue on op. white crescents on either side [size c].

330. WIIb*; tsl. oyster white body decorated with a spiral band of op. sunlight yellow bordered by op. bright blue, and a spiral series of tsp. scarlet "coils" [size c].

331. WIIb*; tsl. light gold body decorated with a combed feather design of tsp. bright navy on op. white [size c].

332. WIIb*; tsl. deep blue body decorated with a combed feather design of tsp. bright navy on op. white [size c].

333. WIIb*; tsp. ruby body decorated with a combed feather design of tsp. bright navy on op. white [size c].

334. WIIb*; op. bright blue body decorated with a combed feather design of tsp. scarlet on op. white [size c].

335. WIIb*; tsp. light gray (clear) body decorated with a combed feather design of entwined filaments of op. white and tsp. scarlet [size c].

336. WIIb*; op. white body decorated with 24 large tsp. scarlet dots [size c].

Three poorly defined size categories appear to be represented:

Size a)	Diameter:	7.5-7.8 mm	(7.6 mm)
	Length:	10.0-10.1 mm	(10.1 mm)
Size b)	Diameter:	7.1-9.3 mm	(8.3 mm)
	Length:	11.8-18.0 mm	(15.4 mm)
Size c)	Diameter:	8.8-10.0 mm	(9.3 mm)
	Length:	19.4-22.4 mm	(20.7 mm)

337-341. WIIb, WIIc, and WIId; monochrome-bodied beads of simple and complex shapes decorated with various flush and raised designs; 5 varieties:

337. WIIb*; long bicone (Beck's type I.D.2.e.); op. black body decorated with an op. white equatorial band.

Size a)	Diameter:	8.8 mm	(8.8 mm)
	Length:	28.7 mm	(28.7 mm)

338. WIIc*; standard square truncated convex bicone (Beck type IX.C.1.f.); tsp. ruby body decorated with 4 tsp. scarlet on op. white eyes about the middle, and 4 op. light gold on op. white eyes on either side.

339. WIIc*; standard square truncated convex bicone (Beck type IX.C.1.f.); tsp. ruby body decorated with 4 tsp. scarlet on op. white eyes about the middle, and 4 op. bright blue on op. white eyes on either side.

Size a)	Diameter:	11.0-11.6 mm	(11.2 mm)
	Length:	12.0-12.2 mm	(12.1 mm)

340. WIId*; round; op. black body decorated with a raised op. white wreath about the middle, and 5 op. light gold dots on either side.

341. WIIb*; round; tsl. oyster white body decorated with a swirled design of tsp. scarlet on op. white and tsl. bright navy.

Size a) Diameter: 11.2-12.1 mm (11.5 mm)
Length: 10.2-11.6 mm (11.1 mm)

342-344. WII* and WIIIe; monochrome beads exhibiting pressed facets; 2 varieties remain:

342. WIIIe*; square faceted (these are square-sectioned specimens with 4 diamond-shaped pressed facets about the middle and 4 roughly triangular facets about either end); tsp. ruby on op. white.

Size a) Diameter: 10.4-10.6 mm (10.5 mm)
Length: 11.2-11.4 mm (11.3 mm)

343. Missing.

344. WII**; irregular faceted (irregular in shape, this variety exhibits ca. 12 irregular pressed facets); op. black

Size a) Diameter: 13.1-13.3 mm (13.2 mm)
Length: 11.8-12.3 mm (12.0 mm)

345-351. WIb and WII*; round and round-ribbed beads with monochrome bodies; 7 varieties:

345. WIb12; round; op. bright blue.

346. WIb*; round; tsl. light gray.

347. WIb*; round; op. deep blue.

348. WIb*; round; op. light gold.

349. WII**; round ribbed; op. black.

350. WIb*; round; op. dark palm green.

351. WIb*; round; op. black.

Size a) Diameter: 11.5-13.8 mm (12.8 mm)
Length: 11.6-13.8 mm (12.8 mm)

352-354. Missing.

355, 358-359. WIc and WIIIIa; oval beads with monochrome and polychrome bodies; 3 varieties:

355. WIc*; oval; op. black [size a].

358. WIIIIa*; oval; tsp. ruby on op. white [size b].

359. WIc*; oval; op. cerulean blue [size b].

Size a) Diameter: 8.6-8.8 mm (8.7 mm)
Length: 15.4-15.9 mm (15.7 mm)

Size b) Diameter: 11.8-13.0 mm (12.4 mm)
Length: 23.0-26.4 mm (24.7 mm)

356-357. WII*; oval ribbed beads with monochrome bodies; 2 varieties:

356. WII**; oval ribbed with a flat raised medial band; op. cerulean blue [size a].

357. WII**; oval ribbed; tsl. citron [size b].

Size a) Diameter: 10.2-10.3 mm (10.2 mm)
Length: 14.7 mm (14.7 mm)

Size b) Diameter: 10.6 mm (10.6 mm)
Length: 17.2 mm (17.2 mm)

360. Missing.

DISCUSSION

The Giacomuzzi sample book is clearly a product of the Giacomuzzi brothers, as revealed by its label. Although Folder F does not have a label, it has a very similar page layout and the flourishes at the top of certain numerals (i.e., 5 and 0) are common to both. It is, therefore, likely that Folder F is also from the Giacomuzzi company. Folder E has a different page layout (identical in some aspects to the Venetian Bead Book) and the handwritten numerals on its pages are of a different style from that on the Giacomuzzi book and the other folder. While the red serial numbers (09.97.B., 09.97.E., and 09.97.F.) painted on all three items suggest that they originally formed part of a set containing at least six components (09.97.A., C., and D. are missing), it is possible that the numbers are museum or archive accession numbers assigned to a collection of unrelated bead sample books and folders accumulated after the Giacomuzzis were no longer in business. Thus, it is presently impossible to state with any certainty whether Folder E is a product of the Giacomuzzi company or of a competing Venetian firm.

Regarding the age of the book and folders, the date of the most recent medal on the book's label is 1852 which provides it a solid *terminus post quem*. As the Giacomuzzi brothers also received a silver medal in 1868 and a badge of honor the following year, it is probable that these awards would have been added to the company's labels shortly thereafter (Francis 1988: 10). It is, therefore, postulated that the Giacomuzzi sample book was produced sometime between 1852 and 1869. Being of similar size, construction, and content, the two folders are believed to date to the same period.

Wound glass beads with applied flush decoration and undecorated glass beads of various forms

dominate the Giacomuzzi sample book. Distinctive styles found in minor quantities include the copper-enamelled varieties, as well as those with zoned bodies, colored internal elements and raised designs, and those formed by spirally wrapping a glass rod into the form of a round or oval bead.

Folder E exhibits a similar frequency of styles, but lacks those with internal elements and spiral-wrapped bodies. Folder F is very similar in content to the book but lacks the spiral-wrapped beads. It is the only component of the Giacomuzzi collection which displays non-glass beads. It is not clear whether the latter—apparently made of a hard resin—were produced in Venice/Murano or imported from elsewhere.

The Giacomuzzi book and folders contain a wealth of information concerning wound bead sizes of the mid-19th century. They also reveal the complexity of the sizing systems in use. A comparison of the various dimensions reveals that just about every shape has a different set of size categories. Furthermore, in that the beads are handmade and thus not perfectly even throughout, there is considerable overlap in dimensions from one size group to the next. The fact that the difference from one size to the next is frequently only a millimeter or a fraction thereof further complicates matters. Nevertheless, if one keeps all this in mind, it is possible to postulate historical size groups for wound beads from 19th- and 20th-century contexts if the sample is large enough (at least 100 specimens of one variety, though the results become statistically more valid as the quantity increases). The data provided by the Giacomuzzi book and folders reveal that to accurately determine size categories, it is important to correlate bead length with bead diameter for each bead, something which Lester Ross (1976, 1990) has recommended for years. To keep measurement variations to a minimum, he also urged researchers to record a bead's least diameter (Ross 1990:42).

Despite the missing beads, the Giacomuzzi bead book and associated Folder F vividly reveal the products of this famous glass- and beadmaking family. It is hoped that other identified mid-19th-century sample books and cards will eventually be found so that we may learn more about the products of the individual beadmaking companies that together made Venice and Murano famous throughout the world.

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