

EVIDENCE OF EARLY 17TH-CENTURY GLASS BEADMAKING IN AND AROUND ROUEN, FRANCE

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Material evidence of a drawn glass beadmaking industry during the early part of the 17th century has been recovered from several loci in and around Rouen, France. Housed in the Musée des Antiquités in Rouen, the material is comprised of production tubes and wasters (most of which exhibit evidence of a speo heat rounding), as well as finished beads. It is significant as many of the recorded varieties have correlatives at archaeological sites in eastern North America occupied during the late 16th and early 17th centuries. These include such distinctive types as seven-layer chevrons, a Nueva Cadiz variety, and frit-core beads. It is, therefore, quite possible that some of the American specimens may have originated in northern France and not just Venice or Holland as is commonly believed.

INTRODUCTION

While there is quite a bit of historical documentation regarding the production of glass beads in and around Rouen, France, during the early post medieval period (e.g., Loewen 2019), material evidence for it is rather limited (Cabart 1995; Dussubieux 2009). It was therefore of great interest to learn of a collection of drawn bead production tubes and beadmaking wasters held by the Musée des Antiquités in Rouen (inv. no. 1718.1.2 [D]). Attributed to the beginning of the 17th century, some of the material (ca. 48 items) was recovered in 1869 by Mr. Jacques-Michel Thaurin during street construction at the intersection of rue Jeanne-d'Arc and rue du Gros-Horloge in the old part of Rouen (Musée départemental des Antiquités 2014). Another specific find site noted by Thaurin is “*Hotel de ville ouest, rue étoupée*,” an area about 0.35 km north of the previous site, which apparently yielded a single black tube. The collection also contains material (ca. 436 pieces) from other, unspecified sites in the city and surrounding area, some of which was collected by the Abbé Cochet (1871) in the latter part of the 19th century. In the descriptions that follow, material from the construction site is designated as “Thaurin” while that from other sites is denoted as “regional.”

THE ROUEN BEAD ASSEMBLAGE

The Thaurin material was initially evaluated and cataloged by Karklins based on color images provided by the Musée des Antiquités. Subsequently Bonneau visited the museum and was able to examine the actual specimens and obtain detailed descriptions. The glass varieties are identified using the classification system devised by Kenneth and Martha Kidd (1970) and expanded by Karklins (2012). Varieties not recorded by the Kidds are marked by an asterisk (*). Colors are designated using the names and codes presented in the *Munsell Bead Color Book* (Munsell Color 2012). Diaphaneity is described using the terms transparent (tsp.), translucent (tsl.), and opaque (op.). The frit-core beads are classified using the typology presented by Karklins and Bonneau (2018). All measurements are in millimeters (D: diameter, L: length).

The material in the bead assemblage falls into two major categories: 1) production tubes and 2) finished beads and production rejects.

Production Tubes

A variety of bead production tubes are represented. Since they could be used to produce both tubular (Kidd classes I and III) and rounded (Kidd classes II and IV) varieties, Kidd and Kidd codes for both are provided below.

Ia1 / IIa1-3; op. barn red (10.0R 3/8); D: 4.2-4.6, L: 25.7-41.7; Thaurin n=3 (Figure 1).

Ia2 / IIa6-8; op. black (N 1/); D: 9.9-16.1, L: 14.5-50.3; regional n=120+, rue rue Étoupée n=1 (Figure 2).

Ia3 / IIa9-10; tsp. light gray; D: 4.9, L: 41.6; regional n=1.

Ia* / IIa*; op. oyster white (N 8/); D: 3.8, L: 42.6; Thaurin n=1 (Figure 3, middle).



Figure 1. Red production tubes (all photos © Musée-Métropole-Rouen-Normandie; Cliché Yohann Deslandes).



Figure 2. Black production tubes.



Figure 3. Various production tubes.

Ia7 / IIa17; op. mustard gold (2.5Y 6/8); D: 7.1-31.7, L: 11.6-24.9; regional n=200+ (see cover). At some point, these specimens and the intact and malformed light gold specimens listed below were strung into two necklaces.

Ia* / IIa*; tsp. turquoise green (5.0 BG 4/8); D: 8.1-8.8, L: 9.4-56.0; regional n=3 (Figure 4).



Figure 4. Turquoise green production tubes.

Ia* / IIa*; tsp. bright aqua blue (2.5B 6/7); D: 2.2, L: 12.5-15.9; regional n=2 (Figure 5, row 1, nos. 5-6).

Ia* / IIa*; tsl. copen blue (5.0PB 5/7); D: 2.8-5.7; L: 12.4-15.1; regional n=3 (Figure 5, top row, nos. 1, 4, 7).

Ia18 / IIa52-54; tsl. ultramarine (6.25PB 3/12); D: 4.0-10.7, L: 70.0-86.7; Thaurin n=1, regional n=1 (Figure 6, top).

Ia19 / IIa55-57; tsl. bright navy (7.5PB 2/7); D: 10.6-10.8, L: 63.2-140.0; Thaurin n=4 (Figure 6, bottom four).

Ib7 / IIb*; op. oyster white (N 8/) with 3 barn red (10.0R 3/8) and 3 copen blue (5.0PB 5/7) stripes alternating around the bead; D: 7.3, L: 36.5; Thaurin n=1 (Figure 3, top).

Ib*(?) / IIb*(?); op. white (N 9/); linear marks on the surface suggest that this bead may originally have been decorated with stripes; D: 10.9, L: 35.0; regional n=1.

Ib* / IIb56(?); tsp. cerulean blue (7.5B 4/8) with 3 op. white stripes; D: 11.9, L: 18.0; Thaurin n=1 (Figure 7, center).

Ib* / IIb*; tsl. ultramarine (6.25PB 3/12) with 6 white stripes; D: 10.4, L: 75.6; Thaurin n=1 (Figure 3, bottom).

Ibb* / IIbb*; op. black (N 1/) with 4 barn red-on-white stripes; D: 8.3-8.5, L: 100.5-100.9; Thaurin n=2 (Figure 8).

Ibb* / IIbb*; tsl. mist blue (10.0B 6/3) with 3 barn red-on-white stripes; D: 9.4, L: 26.7; Thaurin n=1 (Figure 3, bottom).

IIIk* / IIIm1; chevron with seven layers: tsl. dark blue (7.5PB 2/5) exterior/ op. white/ op. barn red (10.0R 3/8)/ op. white/ tsl. dark blue/ op. white/ tsl. light blue core; D: 10.4-15.2, L: 11.6-12.3; Thaurin n=2 (Figure 9).



Figure 5. Production tubes, malformed beads, and finished beads.

Finished Beads and Production Rejects

There are a number of finished beads, as well as several that were broken during manufacture and quite a few malformed specimens including examples of beads joined side to side and end to end indicating heat rounding using the *a speo* method (Karklins 1993). Non-glass beads are represented by two malformed frit-core specimens.

IIa17; round (includes oblate and barrel shaped); op. mustard gold (2.5Y 6/8); D: 6.3-11.7, L: 5.9-11.8; regional n=52 (Figure 10).

IIa*; oval; op. mustard gold (2.5Y 6/8); D: 7.1-8.8, L: 11.3-31.4; regional n=47 (Figure 10).

IIa*; round; op. jade green (7.5G 5/6); D: 4.0-6.7, L: 3.7-10.3; Thaurin n=3 (Figure 11, center and upper right).

IIa40; round to barrel shaped; op. robin's egg blue (5.0B 6/6); numerous bubbles in glass; D: 3.9-8.7, L: 4.1-8.2;

Thaurin n=11 (Figure 5, row 1, no. 8, row 2, nos. 1-4; Figure 11).

IIa43; round to barrel shaped; tsl./op. bright blue (5.0B 5/7); D: 5.8-7.8, L: 5.2-8.2; Thaurin n=7 (Figure 5, row 2, no. 6; Figure 11).

IIa*; oval/barrel shaped; op. light gray blue (7.5B 6/2); D: 6.5-9.1, L: 9.2-11.4; regional n=2 (Figure 10, lower left & upper center).

IIa*; round; op. copen blue (5.0PB 5/7); D: 5.6; L: 6.9; regional n=1.

IIa52; round; tsp. ultramarine (6.25PB 3/12); D: 6.9, L: 7.7-8.3; regional n=2 (Figure 10, bottom center).

IIa55; round; tsl. bright navy (7.5PB 2/7); D: 6.4, L: ca. 6.6; Thaurin n=7 fused (Figure 11, bottom).

IIa*; oval; op. bright navy (7.5PB 2/7); D: 6.3-6.6, L: 6.9-10.2; regional n=2 (Figure 10, top).

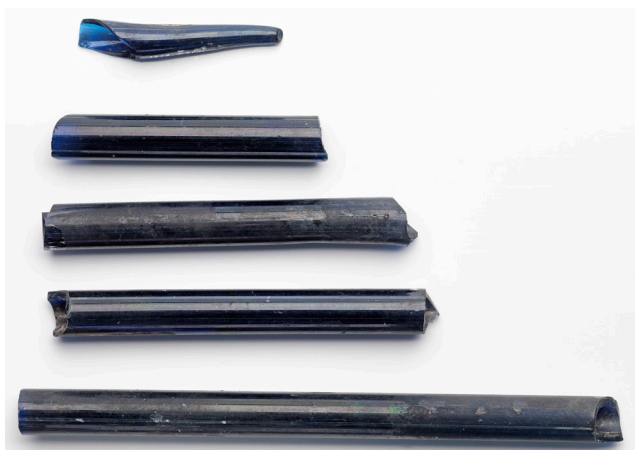


Figure 6. Ultramarine and bright navy production tubes.



Figure 7. A broken Nueva Cadiz bead (left) and production tubes.



Figure 8. Striped production tubes.

IIIc*; tubular; twisted square cross section; tsp. cerulean blue (7.5B 4/8) exterior/ op. white middle layer/ tsp. cerulean blue core; one end exhibits diagonal grinding to show the interior layers, the other is broken; Nueva Cadiz style; D: 7.8-13.3, L: 25.2-29.2; Thaurin n=2 (Figure 7, left).

Type 2 frit-core bead with an oval op. bright navy (7.5PB 2/7) body decorated with four rows of three dots and four



Figure 9. Production tube: blue seven-layer chevron.



Figure 10. Various beads strung into a necklet.

longitudinal stripes in white; D: 10.6, L: 17.4; Thaurin n=1 (Figure 12).

Type 6 frit-core bead having a round op. ultramarine (6.25PB 3/12) body encircled by a wavy white line. In each undulation of the line is a floral design composed of 6 op. light sky blue (7.5B 7/6) dots around an op. light orange (10.0YR 7/10) dot; D: 16.8, L: 13.8; Thaurin n=1 (Figure 13).



Figure 11. Various production rejects.



Figure 12. Type 2 frit-core bead.



Figure 13. Type 6 frit-core bead.

DISCUSSION AND CONCLUSION

The material described above provides incontrovertible proof that drawn glass beads were produced in and around Rouen during the early 17th century. It remains unclear, however, if the material represents a glassworks that both produced the canes and transformed them into beads, or small workshops – likely in beadmakers’ homes as was common practice at the time – that utilized canes obtained from a nearby glassworks (Loewen 2019), or both. The absence of glass-production wasters in the collection seemingly rules out a glassworks but it is not known if wasters were encountered but not collected.

Many of the Rouen bead varieties have counterparts at sites occupied during the late 16th and early 17th centuries in eastern Canada and the northeastern United States. The most distinctive of these are the chevron, Nueva Cadiz, and frit-core beads. Keith J. Little (2015) provides an excellent synthesis of the distribution of the two former types in northeastern North America, the majority of which come from sites attributed to the early 17th century. The two frit-core beads have correlatives as well. Type 2 has been found at six sites in New York state and eastern Pennsylvania dating to 1510-1670, while Type 6 is present at a site in southern Quebec and another in eastern New York state, both attributed to the 1571-1614 period (Karklins 2016, 2019).

The source of these diagnostic beads has long been a point of debate. Some have contended that the chevron and Nueva Cadiz beads – especially those found at more southerly sites in Pennsylvania and Virginia – could have derived from Spanish sources to the south (Smith and Good 1982). Such an origin is far less likely for these beads found at more northerly sites. Given that these bead types have been found in Rouen, the likeliest explanation is that they originated at beadmaking workshops scattered over northern France, possibly even those represented by the collection under discussion.

Coupled with finds of frit-core beads in Paris (Turgeon 2001) and lacking finds elsewhere in Europe, the presence of the two frit-core beads – both of which appear to be production rejects – among the wasters adds credence to the hypothesis that they are a product of France. Along similar lines, the Ila40 robin’s egg blue beads which typically contain abundant tiny bubbles support Peter Francis’ (2009) contention that beads of this type – which he termed “bubble glass beads” – were made in France. While corroborative evidence from other bead production sites in France has yet to be forthcoming, French archaeologists are investigating

glassmaking sites of the 16th-17th centuries and may eventually provide it.

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