

HISTORY AND ARCHAEOLOGY/HISTOIRE ET ARCHEOLOGIE

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GLIMPSES OF SOLDIERING AT COTEAU-DU-LAC, QUEBEC -  
1780 TO 1856

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BEADS FROM THE FORT AT COTEAU-DU-LAC, QUEBEC

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Beads from the Fort  
at Coteau-du-Lac, Quebec  
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## Abstract

One plastic bead and 54 glass beads representing ten types were recovered from the fort at Coteau-du-Lac, Quebec, during archaeological investigations there under the direction of W.J. Folan, then of National Historic Parks and Sites Branch, Parks Canada. Of the total number, 44 specimens form part of a lesser rosary. The remainder are all necklace beads. Two of the latter are attributed to the 17th century. These beads predate the provision forwarding post at the site and indicate the presence of European trade goods in the area at an early date.

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## Abrégé

Les fouilles archéologiques faites au fort de Coteau-du-Lac (Quebec) en 1965, 1966 et 1968 sous la direction de W.J. Folan, alors au service de la Direction des lieux et des parcs historiques nationaux de Parcs Canada, ont livré une petite collection de rassades. La collection compte 55 grains dont un de plastique, quatre de verre étiré et 50 de verre enroulé. Selon la classification de Kenneth et Martha Ann Kidd (1970), ces perles de verre appartiennent à dix types.

Quarante-quatre des 50 pièces de la collection appartiennent à un chapelet de date inconnue, qui pourrait fort bien être une intrusion récente. Les autres pièces sont toutes des perles de collier dont deux remontent au XVII<sup>e</sup> siècle. Ces deux dernières, deux cornalines d'Alep ornées, datent d'avant le comptoir d'approvisionnement à ce site et indiquent la présence de marchandises européennes de troc très tôt dans la région.

## Introduction

Beads were notably scarce at the fort at Coteau-du-Lac, Quebec. The collection of specimens excavated from the site consists of one plastic bead, four drawn glass beads and 50 wound glass beads. The glass beads were classified using the system developed by Kenneth and Martha Kidd (1970) and their identifying code precedes the detailed description of each bead type in this report. Bead types that were encountered which are not listed in the Kidds' type lists are marked by an asterisk (\*) since they do not, as yet, have type numbers.

Colour and size notations used in this report correspond to those employed by the Kidds in their system. Colours were designated using the names and codes in the Color Harmony Manual (Jacobson, et al. 1948). The equivalent colour code in the Munsell colour notation system (Munsell Color Company 1960) was also provided for the benefit of those who may not be familiar with the manual. The size categories used refer to bead diameter and have the following numerical values: very small, under 2 mm; small, 2 mm to 4 mm; medium, 4 mm to 6 mm; large, 6 mm to 10 mm; very large, over 10 mm. Although Kidd uses "clear" in lieu of "transparent," the latter term was used herein since it was felt to be more descriptive.

A brief survey of the methods employed to manufacture glass beads is presented here to indicate the differences between the beads in the two categories mentioned above.

In the manufacture of drawn beads a long tube is drawn

out from a hollow globe of molten glass by two men. After cooling, the tube is broken into short sections to facilitate handling. These are then annealed to strengthen the glass. The tube is subsequently broken into bead lengths by placing it on a sharp broad chisel set in a block of wood and striking it with another chisel-like tool ("On the Manufacture of Glass Beads" 1825: 120).

The beads may be left unaltered or their broken ends may be rounded. The latter process is accomplished by placing the rough beads in an iron drum containing a mixture of plaster and graphite, or clay and charcoal dust (Orchard 1929: 85). The drum is then heated and rotated simultaneously. In another process, the beads are put in a large pan with sand and wood ash, or plaster and graphite. The pan is then heated over a charcoal fire and the contents are stirred continually with a spatula resembling a hatchet with a round end ("On the Manufacture of Glass Beads" 1825: 120). In both processes the heat and agitation round the broken ends while the various "packing" mixtures keep the beads from sticking together and prevent their perforations from collapsing as the glass becomes viscid. Depending on the length of time that the beads are treated in this manner, they may range from practically unaltered tube fragments to almost perfect spheroids.

Drawn beads have certain characteristics due to their method of manufacture. Beads may consist of unaltered tube sections with uneven, broken ends, commonly referred to as "bugle" beads. Bubbles in the glass and striations on the surface, if present, are oriented parallel to the axis, an imaginary line passing through the centre of the perforation. The perforation is parallel-sided and usually has a smooth surface.

Wound beads are produced in a totally different manner. In this process, a thin filament of glass is drawn from a

molten rod and repeatedly wound around a rotating metal mandrel until the desired size and shape is achieved (Murray 1964: 16). The remainder of the filament is then cut from the bead which is heated and turned to further fuse the glass and create a smoother surface. This procedure is continued until several beads have been formed. After cooling, they are removed from the mandrel which is sometimes tapered to facilitate this step.

The surfaces of wound beads usually exhibit swirl marks that are at right angles to the axis. Bubbles in the glass are either round, or elongate and perpendicular to the axis. The perforation may taper and have an uneven surface.

## Drawn Beads

Ia\*. Tubular; small; translucent, ice blue (19 ba; 5BG 9/2); one specimen (Fig. 1a). The ends are rounded.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
12 mm	3.8 mm	2.1 mm

Provenience: 9G42A1.

IIIIf\*. Tubular, cornerless heptagonal; large; transparent, ultramarine (13 pa; 7.5PB 4/14) outer layer; translucent light aqua blue (16 ea; 7.5B 8/4) middle layer; very thin, transparent, ultramarine core; one specimen (Fig. 1b). This bead consists of a short section of heptagonal tubing with a pentagonal facet cut on each corner. The body facets are roughly diamond-shaped unaltered tube faces. The bead has a total of 21 facets. The ends are heptagonal in outline and are unfinished (broken); the perforation is large.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
8.5 mm	8.5 mm	3 mm

Provenience: 9G1B5.

IVbb7. Round; large; transparent, apple green (23 ic; 10GY 6/6) core; thin, opaque, redwood (6 ne; 7.5R 4/6) outer layer decorated with three broad, straight, compound stripes of bright navy (13 pg; 7.5PB 3/4) on white (a; N 10/0); two specimens (Fig. 1c-d). One specimen is globular; the other is barrel-shaped. Beads of this style are often referred to

as "Cornaline d'Aleppo."

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
7 mm - 10 mm	8.5 mm - 9 mm	2 mm

Provenience: 9G5N1, 9G51A1.

## Wound Beads

WIb5. Round; very large; translucent, pale blue (15 ca; 10B 9/3); one specimen (Fig. le). The glass has a slightly golden cast when held up to a strong light. The surface is smooth.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
10 mm	11 mm	2.5 mm

Provenience: 9G4D7.

WIb7. Round; large; transparent, amber (3 lc; 7.5YR 7/8); one specimen (Fig. lf). Swirl marks are visible on the surface.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
5.8 mm	7.3 mm	2.5 mm

Provenience: 9G39B1.

WIb16. Round; large; transparent. bright navy (13 pg; 7.5PB 3/4); one specimen (Fig. lg). The surface exhibits swirl marks. Numerous tiny, round bubbles are present in the glass.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
8 mm	10 mm	2 mm

Provenience: 9G15E3.

W1b\*. Round; large; opaque, black (p; N 1/0); one specimen (Fig. 1h). No swirl marks are visible. The perforation tapers very slightly toward one end.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
9.5 mm	10 mm	1.8 mm - 2 mm

Provenience: 9G12A2.

W1b\*. Round; medium and large; translucent, light gray (c; N 8/0); 44 specimens. Many specimens are covered with a heavy, white patina and several others are discoloured by a rust-brown stain. Swirl marks are clearly visible on the surface.

These beads are strung on a brass chain which forms the loop-like portion of a lesser rosary (Fig. 2) which has 54 beads when complete: five groups of ten medium-size Ave beads separated from each other in all but one instance by a large Gloria bead. Although ten beads are missing from the specimen, the links which bore them are present. Several of the links have been modified into loops, indicating that the rosary was repaired on several occasions before it was discarded or lost.

Each set of Ave beads is strung on a chain of elongated S-shaped links which are about 8 mm long. The beads are situated in the centres of these links and are held in place by the looped ends of the links which interlock to form the chain. The beads are 3 mm to 3.5 mm apart. Each section of Ave beads is about 67 mm long.

Each Gloria bead is also centred on an S-shaped link which is separated from the adjacent Ave beads by a short section of braided wire on either side of it. The braided wire/Gloria bead components are 25 mm long.

A brass heart-shaped device was used to separate the two remaining sets of Ave beads and to connect the ends of

the chain. This device is also separated from the adjacent beads by braided wire; one short section on either side of it. Each section of wire is attached to a loop located at the tip of each of the two upper lobes of the heart by an S-shaped link. Another loop is present at the base of the heart, but nothing is attached to it. A short series of beads on a chain terminated by a crucifix was probably suspended from it, as is usually the case.

The brass device is composed of two thin embossed heart-shaped pieces fastened together by folding the edge of one over the edge of the other. The edges are beaded. In the centre of each piece is a raised heart which also has a beaded edge. The letter M is stamped in the centre of one heart and is representative of the Virgin Mary. In the centre of the other is the letter J which probably signifies Jesus. The device is 15 mm long, 12.5 mm wide and 4 mm thick.

Bead measurements are as follows:

Ave Beads (41 specimens)

	<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
Range:	3 mm - 4.75 mm	4.5 mm - 6 mm	2 mm - 2.6 mm
Average:	3.75 mm	5.3 mm	2.2 mm

Gloria Beads (three specimens)

	<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
Range:	5 mm - 6 mm	6 mm - 6.5 mm	2 mm - 2.3 mm
Average:	5.4 mm	6.2 mm	2.1 mm

Provenience: 9G14A1.

WId\*. Donut; large; transparent, light gold (2 ic; 2.5Y 7/7); one specimen (Fig. li). The surface exhibits swirl marks.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
4.5 mm	7.4 mm	2.7 mm

Provenience: 9G39B1.

WIIIb\*. Oval; large; opaque, white (a; N 10/0) body decorated with coloured glass appliqué; one specimen (Fig. 1j). The white glass has the appearance of porcelain and its surface is pitted and dull. An undulating apple green (23 ic; 10GY 6/6) line encircles each end of the specimen. A leaf-like wreath girds the middle. Although the latter appliqué has almost completely disappeared, leaving only an impression in the surrounding glass, tiny remnants indicate that it was pink (10RP to 2.5R). A portion of one end of the bead is missing.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
12 mm (existing)	8 mm	2 mm

Provenience: 9G4A10.

## Non-Glass Beads

Plastic Bead. Round; large; transparent, light gray (c; N 8/0) plastic core covered with a thin, very shiny layer of opaque light melon yellow (3 ea; 10YR 8/6) enamel paint; one specimen (Fig. 1k). The core of this specimen was probably mould pressed and then the outer layer was applied; however, the surface is smooth and no mould marks are evident.

<u>Length</u>	<u>Diameter</u>	<u>Perforation</u>
7.7 mm	7.8 mm	1.3 mm

Provenience: 9G39B1.

## Discussion and Conclusions

Beads were recovered from nine archaeological operations at the fort at Coteau-du-Lac. With the exception of those forming the rosary, all are from necklaces. No embroidery beads were encountered. Five bead types are distinctive enough to be dated.

The two decorated "Cornaline d'Aleppo" beads (type IVbb7) are assigned to the period from 1625 to 1637 by Pratt (1961: 10); however, this time range seems too restrictive. These beads were possibly used as trade items until about 1670, the approximate terminal date for a type identical to the Coteau-du-Lac specimens except that it lacks the green core (Quimby 1966: 84). If the 1670 cut-off date is correct, then the two "Cornaline d'Aleppo" beads clearly predate the provision forwarding post at Coteau-du-Lac, construction of which began in 1779 (Ingram 1966: Sect. A) and indicate the traffic of European goods in the area during the 17th century.

One of the "Cornaline d'Aleppo" specimens is without definite provenience. The other came from the uppermost level of the fill in the south storehouse built during the American Revolution (Ingram 1966: Sect. 11). In the latter instance, the bead was probably washed into the structure after it was levelled.

The cornerless heptagonal bead (IIIIf\*) is attributable to the period from circa 1780 to circa 1880; Harris and Harris (1967: 151, types 129 and 130; 157-8) record similar types for the period from 1780 to 1836, while Woodward

(1965: 10) states that faceted, tubular beads were popular on the West Coast from the 1830s to around 1880. It was recovered from the canal built in 1780 to bypass the Coteau rapids (Ingram 1966: Sect. C).

The decorated wound bead (WIIb\*) was found in the cellar fill of the commanding officer's quarters which was erected during the War of 1812 and destroyed by fire in 1870 (Ingram 1966: Sect. 18). Quimby (1966: 88) states that this bead type is diagnostic of the Late Historic Period: 1760 to 1820 or slightly later. However, while the earliest date is probably relatively accurate, that this type continued to be manufactured and traded until at least the 1860s is suggested by the presence of similar specimens at Fort Berthold II, North Dakota, which was in operation from 1862 to 1886 (Smith 1972: 150). Thus, the only possible interpretation is that the bead was deposited at some time during the occupation of the structure.

The round pale blue bead (WIb5) was also recovered from the commanding officer's quarters. It appears to be the equivalent of a type (No. 53: large, milk-glass, translucent) described by Harris and Harris (1967: 144, 156-8) which they attribute to the period from 1700 to 1820. If the two types are identical, then the Coteau specimen can be assigned to the early occupation of the building.

The plastic bead, a recent intrusion, was recovered during the excavation of the road that runs east and west from the canal. The two glass beads (WIb7 and WId\*) from the same provenience are older, but cannot be precisely dated at the present time.

The three remaining beads are not distinctive enough to be useful in assigning dates to their archaeological contexts either. The round transparent bright navy (WIb16) and opaque black (WIb\*) beads were recovered from the guardhouse and stone barracks, structures erected during the

period from 1813 to 1815, and sold in 1872 for the materials they contained (Ingram 1966: Sect. 14, 35). The tubular ice blue bead (type Ia\*) was recovered from the southeast gun platform which was erected during the period from 1812 to 1814 and replaced in 1838.

The rosary was found in the upper layer of the fill in the powder magazine which was built about 1815 and sold with the other buildings in 1872 (Ingram 1966: Sect. 16). The date of this artifact is unknown; it may be a recent intrusion.

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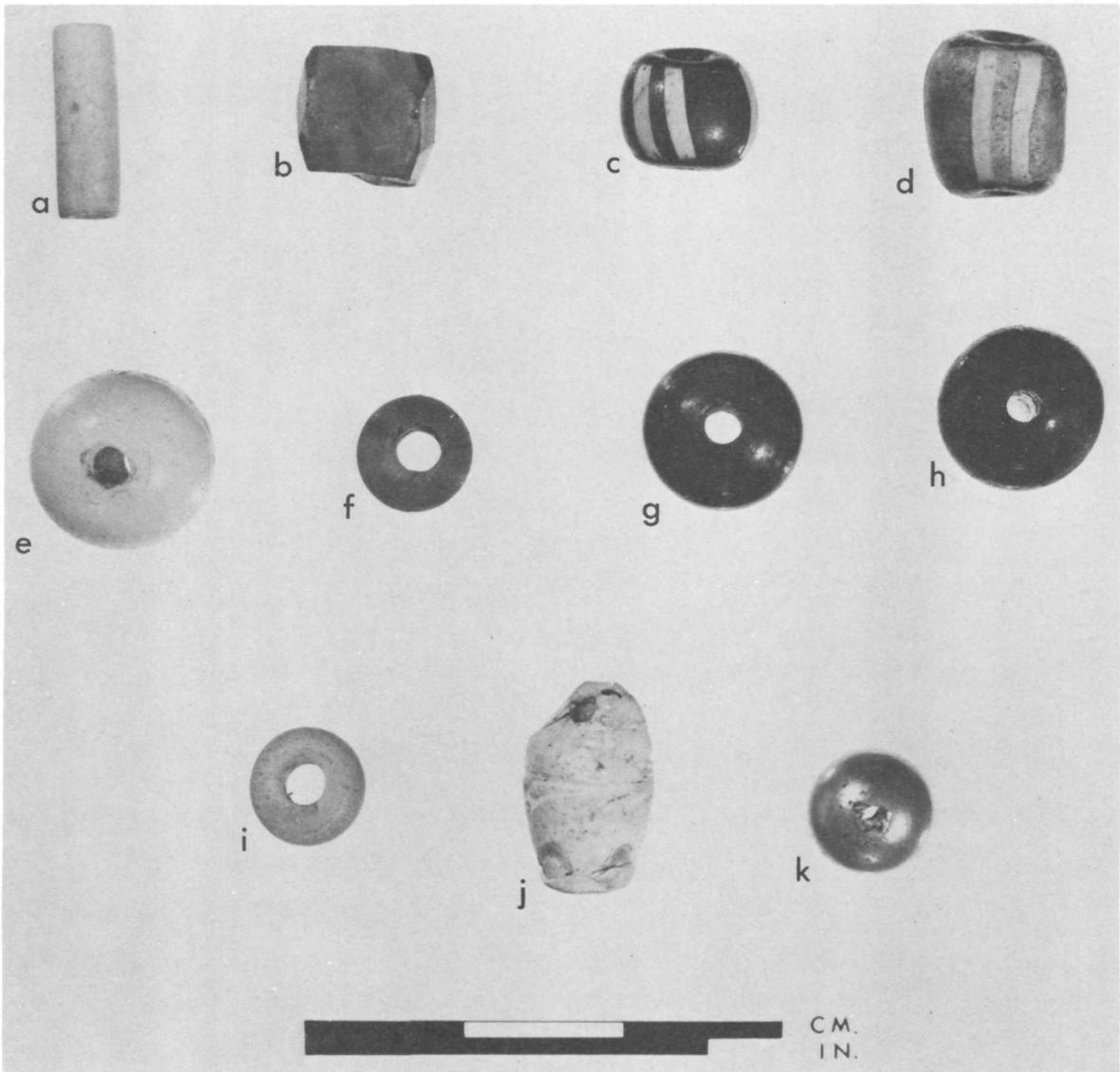
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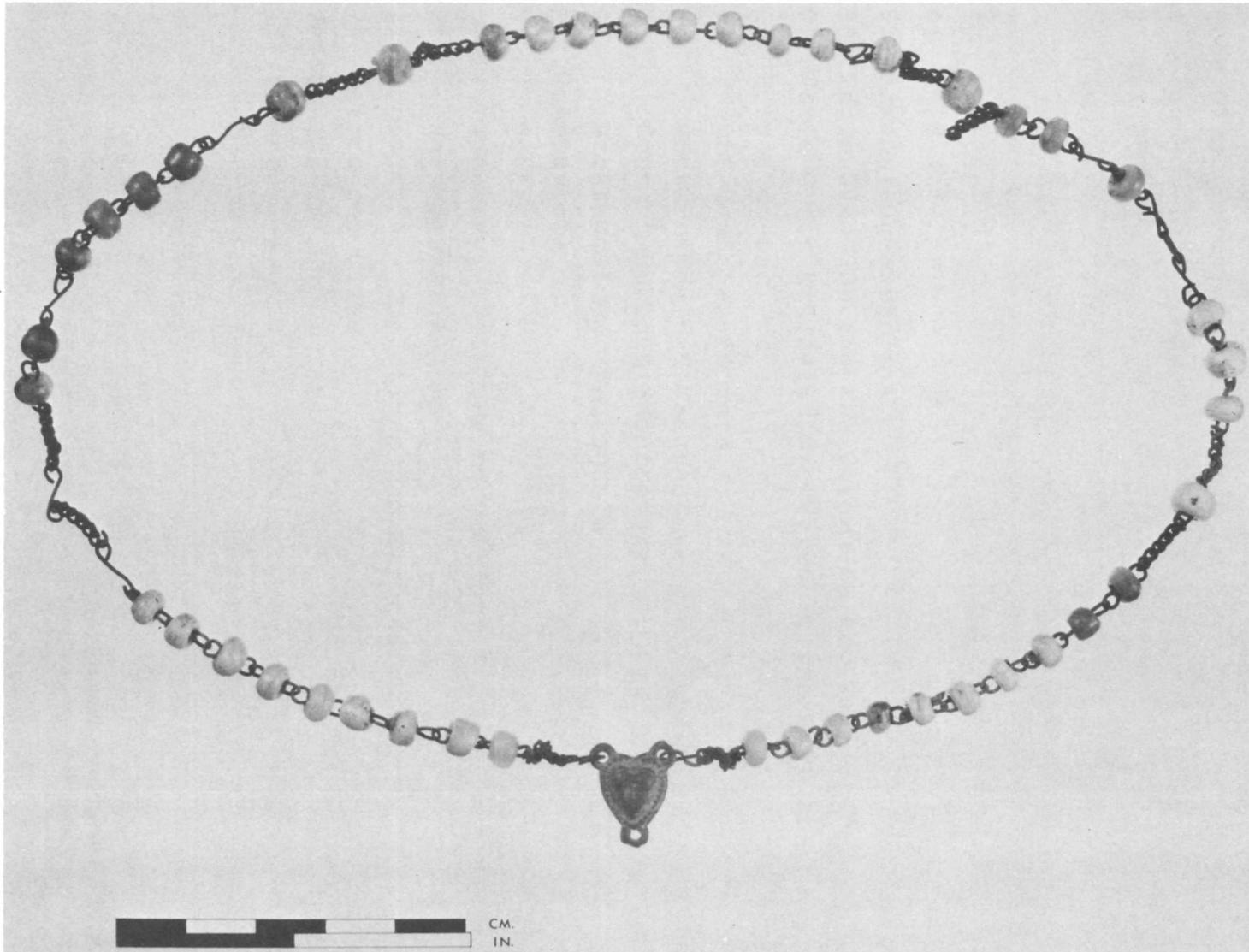
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ILLUSTRATIONS



- 1 The glass beads from the fort at Coteau-du-Lac are: a, Ia\*, tubular, translucent, ice blue; b, IIIIf\*, tubular, cornerless heptagonal, three layers; c, IVbb7, round, decorated "Cornaline d'Aleppo"; d, IVbb7, round (barrel-shaped), decorated "Cornaline d'Aleppo"; e, WIb5, round, translucent, pale blue; f, WIb7, round, transparent, amber; g, WIb16, round, transparent, bright navy; h, WIb\*, round, opaque, black; i, WId\*, donut, transparent, light gold, and j, WIIIb\*, oval, opaque, white, decorated. A plastic bead (k) was also recovered. (Photo by G. Lupien.)



2 The lesser rosary from the fort at Coteau-du-Lac. (Photo by G. Lupien.)