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ARCHAEOLOGICAL INVESTIGATIONS AT AN EARLY NINETEENTH CENTURY FUR TRADING FORT, ROCKY MOUNTAIN HOUSE NATIONAL HISTORIC PARK, 1975-77 by Donald N. Steer and Harvey J. Rosers

Abstract

Archaeological investigations were conducted by the Archaeological Research Division, Parks Canada, National Historic Parks and Sites Branch, Ottawa, at an early 19th century fur trade fort site in Rocky Mountain House National Historic Park during the summers of 1975, 1976 and 1977. The site designated 16R is tentatively identified as the North West Company Rocky Mountain House, 1799-1821. Almost all the site was excavated allowing for a comprehensive and detailed study of the structures, features and artifacts. Descriptions of bastion, palisade and building construction are presented, in addition to a discussion of late 18th century and early 19th century constructions methods used in the fur trade. A formal classification of the artifact assemblage is also given. The classification includes type descriptions and analytical data geared towards structural and site interpretation.

Adornment

Beads

19. 41.2047

Beads are the single most common artifact in the assemblage. They include both European-made glass trade beads, and native-made beads produced locally. The glass beads were classified according to the typology established by Kidd and Kidd (1970). In the case of bone and antler beads, varieties were determined according to surface attributes. Varieties of shell beads were determined according to the species of shell.

Type 1: Glass Beads. Glass beads are the most numerous of all artifacts found at site 16R. A total of 6512 specimens were recovered, representing 48 types. To be consistent with recent bead studies, the site 16R beads have been classified according to the Kidds' (1970) classification system founded on processes of manufacture and upon physical attributes, including shape, size, diaphaneity and colour. Two principal methods of bead manufacture are noted: (1) The drawn method, which involves "drawing out a bubble of molten and viscid glass into a long, slender tube", and (2) the wound method, which involves "winding threads of molten glass around a wire which is later withdrawn" (Kidd and Kidd 1970: 48). Both types of Beads were represented at the site.

The description of each bead type includes the Kidds' identifying code, followed by shape, size, diaphaneity, colour, number of specimens and condition of the ends. A short definition of each of these attributes follows.

Examples of the identifying code are Ia (drawn, tubular, monochrome) beads and WIb (wound, round) beads. A second numerical digit following the code, e.g., WIbl, indicates the bead type number already assigned by the Kidds. An asterisk (*) replaces the number in the cases of those bead types not recorded by the Kidds.

Included under shape are tubular beads (round cross-section), circular beads (round cross-section, ring- or barrel-shaped bead), round beads, oval beads and faceted, circular beads. Tubular beads are separated from circular beads by the criterion that length of the former is greater than the diameter.

The diaphaneity of the glass is described employing the terms opaque, translucent and transparent (clear). Opaque glass is impervious to direct light except on the thinnest edges. Translucent beads allow light to pass through, yet diffuse light so that objects observed through them are indistinct. Objects observed through transparent beads are distinctly visible.

The following size categories are provided by the Kidds: very small, under 2 mm; small, 2-4 mm; medium, 4-6 mm; large, 6-10 mm; very large, over 10 mm. These size groupings refer to the diameter of the bead. The diameter and length ranges are given for each bead type.

Colours are designated using the names and codes in the Color Harmony Manual (Jacobsen, et al. 1948). Also included are colour code equivalencies found in the Munsell Book of Color (Munsell Color Company 1960). An example would read: bright navy (13 pg; 7.5PB 3/4). The colours were determined using transmitted fluorescent light.

In the case of drawn beads, their ends may be broken or rounded. The latter are formed by subsequent reheating and agitation of the beads in a metal drum or pan (Karklins n.d.).

Variety a: Drawn Beads. Ia4 (Fig. 144a) tubular; small size; translucent; oyster white (b; N 9/0); 287 specimens; ends range from broken to well-rounded. Diameter Range - 2.1 mm to 4 mm. Length Range - 2 mm to 5.6 mm.

Ia5 (Fig. 144b) tubular; small size; opaque; white (a; N 10/0); 30 specimens; ends range from broken to well-rounded.

Diameter Range - 2.1 mm to 3.0 mm.

Length Range - 2.4 mm to 3.3 mm.

- Ial5 (Fig. 144c) tubular; small size; translucent; bright blue (16
 lc; 5B 5/7); 155 specimens; ends range from broken to wellrounded.
 - Ial9 (Fig. 144d) tubular; small and large size; transparent; bright
 navy (13 pg; 7.5PB 3/4); 2 specimens; ends are broken.
 Diameter Range 2 mm to 6.5 mm.
 Length Range 2.8 mm to 22.5 mm.
 - Ia* (Fig. 144e) tubular; small size; translucent; pale blue (15 ca;
 10B 9/3); 1 specimen; ends are broken.
 Diameter 2.1 mm.
 Length 2.6 mm.
 - Ia* (Fig. 144f) tubular; small size; translucent; rose wine (8 le;
 10RP 4/6); 3 specimens; ends are broken but smooth.
 Diameter Range 2.6 mm to 3.9 mm.
 Length Range 2.7 mm to 6.8 mm.
 - IIal2 (Fig. 144g) circular; small to medium size; translucent; oyster
 white (b; N 9/0); 2234 specimens; ends range from broken to
 well-rounded.
 Diameter Range 2.1 mm to 4.6 mm.
 Length Range 1.8 mm to 3.6 mm.
 - IIal4 (Fig. 144h) circular; small size; opaque; white (a; N 10/0);
 217 specimens; ends range from broken to well-rounded.
 Diameter Range 2 mm to 3.1 mm.
 Length Range 1.5 mm to 3 mm.
 - IIa56 (Fig. 144i) circular; small to medium size; transparent; bright
 navy (13 pg; 7.5PB 3/4); 5 specimens; ends are rounded.
 Diameter Range 3.1 mm to 4.3 mm.
 Length Range 2 mm to 3.1 mm.

- IIa* (Fig. 144j) circular; small size; transparent; scarlet (7 pa; 5R 4/14); 10 specimens; ends are rounded.

 Diameter Range 2.2 mm to 3.3 mm...

 Length Range 1.7 mm to 2.8 mm.
- IIa* (Fig. 144k) circular; small size; opaque; mustard gold (2 ne; 10YR 7/8); 11 specimens; ends are rounded.

 Diameter Range 2.7 mm to 3.5 mm.

 Length Range 1.6 mm to 3 mm.
- IIa* (Fig. 144L) circular; small size; transparent; bright green
 (22nc; 2.5G 5/9); 6 specimens; ends are rounded.
 Diameter Range 3 mm to 3.3 mm.

Length Range - 1.7 mm to 2.5 mm.

Length Range - 2.1 mm to 2.6 mm.

- •IIa* (Fig. 144m) circular; small size; opaque; dark palm green (23 ni; 10GY 4/4); 1 specimen; ends are rounded.

 Diameter 2.8 mm.

 Length 2.3 mm.
 - IIa* (Fig. 144n) circular; small size, translucent; pale blue (15
 ca; 10B 9/3); 3 specimens; ends are rounded,
 Diameter Range 2.6 mm to 2.7 mm.
- IIa* (Fig. 144o) circular; small size; opaque; powder blue (15 ec; 5PB 6/4); 1 specimen; ends are broken.

 Diameter 3.2 mm.

 Length 3.1 mm.
- IIa* (Fig. 144p) circular; small to medium size; translucent; bright blue (16 lc; 5B 5/7); 3230 specimens; ends range from broken to well-rounded.

Diameter Range - 2.2 mm to 4.7 mm. Length Range - 1.5 mm to 3.9 mm.

Length - 4.7 mm.

IIa* (Fig. 144q) circular; medium size; translucent; light cerulean
blue (15 la; 7.58 5/8); 1 specimen; ends are rounded.
Diameter - 5.4 mm.

IIa* (Fig. 144r) circular; small size; translucent; vivid cerulean blue (15 pa; 7.58 4/8); 1 specimen; ends are rounded.

Diameter - 2.9 mm.

Length - 1.9 mm.

IIa* (Fig. 144s) circular; small size; opaque; copen blue (14 lc; 5PB 4/6); 2 specimens; ends are rounded.

Diameter Range - 3.1 mm to 3.2 mm.

Length Range - 2.5 mm to 2.8 mm.

IIa* (Fig. 144t) circular; small size; opaque; deep blue (13 1/2 pc; 5PB 3/6); 1 specimen; ends are rounded.

diameter - 3.1 mm.

Length - 2.5 mm.

IIa* (Fig. 144y) circular; small size; translucent; rose wine (8 le; 10RP 4/6); 6 specimens; ends are rounded.

Diameter Range - 3 mm to 4 mm.

Length Range - 1.8 mm to 2.6 mm.

If* (Fig. 144w) faceted; medium size; translucent; rose wine (18
le; 10RP 4/6); 1 specimen; 6 sided.
Diameter - 5.4 mm.
Length - 4.8 mm.

IIf* (Fig. 144x) circular-faceted; small size; translucent; rose wine (8 le; 10RP 4/6); 3 specimens; ends are rounded.

Diameter Range - 3.2 mm to 3.5 mm.

Length Range - 2.2 mm to 2.5 mm.

IIIa3 (Fig. 144y) tubular; small to medium size; opaque redwood (6 le; 7.5R 5/6) outer layer; transparent apple green (23 ic; 10GY 6/6) core; 27 specimens; ends range from broken to well-rounded.

Diameter Range - 2.4 mm to 4.4 mm. Length Range - 2.5 mm to 20.8 mm.

Length Range - ,5.6 mm to 5.9 mm.

IIIa* (Fig. 144z) tubular; medium size; opaque red mahogany (6 1/2
pi; 10R 3/6) outer layer; transparent apple green (23 ic; 10GY
6/6) core; 4 specimens; ends are broken.
Diameter Range - 20.3 mm to 21.8 mm.

IVa6 (Fig. 144aa) circular; small to medium size; opaque redwood (6' le; 7.5R 5/6) outer layer; transparent apple green (23 ic; 10GY 6/6) core; 230 specimens; ends are well-rounded.

Diameter Range - 2.6 mm to 4.6 mm.

Length Range - 1.7 mm to 3.8 mm.

Variety b: Wire Wound Beads. WIbl6 (Fig. 145a) round; small size; transparent; bright navy (13 pg; 7.5PB 3/4); 5 specimens.

Diameter Range - 3.3 mm to 3.6 mm. Length Range - 3.1 mm to 4 mm.

WID* (Fig. 145b) round; very large size; opaque; light grey (c; N 8/0); 2 specimens.

Diameter Range - 12.8 mm to 14 mm.

Length Range - 10.6 mm to 11.5 mm.

WIb* (Fig. 145c) round; medium size; translucent; light grey (c; N 8/0); 3 specimens.

Diameter Range - 5 mm to 5.5 mm.

Length Range - 4.8 mm.

WID* (Fig. 145d) round; large size; transparent; light cerulean blue (15 la; 7.5B 5/8); 3 specimens.

Diameter Range - 6.4 mm to 6.8 mm.

Length Range - 4.7 mm to 5.7 mm.

WIb* (Fig. 145e) round; large size; translucent; cerulean blue (15
lc; 7.58 4/6); l specimen.
Diameter - 6.4 mm.
Length - 5.1 mm.

WIb* (Fig. 145f) round; large size; translucent; medium blue (16 le;
7.58 5/6); l specimen.
Diameter - 9.7 mm.
Length - 7.7 mm.

WID* (Fig. 145g) round; large size; transparent; purple (10 ne; 7.5P
3/10); 1 specimen.
Diameter - 8.2 mm

Length - 6 mm. 7

- WICL (Fig. 145h) oval; medium to very large size; opaque; white (a; N 10/0); 68 specimens.
 - Diameter Range 3.5 mm to 20 mm.
 Length Range 4.1 mm to 11.4 mm.
- WIC3 (Fig. 145i) oval; very large size; translucent; pale blue (15
 ca; 10B 9/3); 1 specimen.
 Diameter 19 mm.
 Length 27.5 mm.
- WIC* (Fig. 145j) oval; medium to large size; transparent; scarlet (7
 pa; 5R 4/14); 7 specimens.
 Diameter Range 4.3 mm to 7.2 mm.
 Length Range 4.3 mm to 11.4 mm.
- WIC* (Fig. 145h) oval; medium to large size; opaque; black (p; N 1/0); 25 specimens.

 Diameter Range 3.8 mm to 7.6 mm.

 Length Range 3.5 mm to 10.9 mm.
- WIC* (Fig. 145k) oval; medium size; opaque; dark palm green (23 ni; 10GY 4/4); 1 specimen.

 Diameter 4.8 mm.

 Length 8.8 mm.
- WIC* (Fig. 1451) oval; large size; translucent tending towards opaque; dark grass green (23 pi; 7.5GY 3/6); 1 specimen.

 Diameter 6.6 mm.

 Length 11.7 mm.
- WIC* (Fig. 145m) oval; medium size; translucent; sunlight yellow; (1 1/2 ga; 5Y 8/8); 1 specimen.

 Diameter 5.8 mm.

 Length 7.6 mm.
- WIC* (Fig. 145n) oval; medium size; opaque; mustard gold (2 ne; 10YR 7/8); 1 specimen.

 Diameter 5 mm.

 Length 8.7 mm.

WIC* (Fig. 145o) oval; medium size; opaque; robin's egg blue (16 ic; 58 6/6); 5 specimens.

Diameter - 5.2 mm. *

Length - 8.1 mm.

WIIIb* (Fig. 145p) round; large size; opaque; turquoise green (19 lc; 2.5B 6/6) body decorated with transparent bright navy (13 pg; 7.5pB 3/4) on opaque white (a; N 10/0) spots; 1 specimen.

Diameter - 8.1 mm.

Length - 8.3 mm.

WIIIb* (Fig. 145q) round; very large size; opaque; redwood (6 le; 7.5R 5/6) body decorated with 3 opaque stripes of dark navy (14 pi; 2.5PB 3/3) and 1 opaque stripe of bright navy (13 pg; 7,5PB 3/4) on opaque white (a; N 10/0); 1 specimen.

Dlameter - 22.8 mm.

Length - 20.4 mm.

WIIIb* (Fig. 145r) oval; large to very large size; colourless body decorated with transparent bright navy (13 pg; 7.5PB 3/4); transparent scarlet (7 pa; 5R 4/14); and opaque light gold (2 ic; 2.5Y 7/7) floral designs on opaque white (a; N 10/0); 8 specimens.

Diameter Range - 8.7 mm to 13.5 mm. (Accurate length range is unobtainable)

WIIIb* (Fig. 145s) oval; large size; opaque white (a; N 10/0) body decorated with translucent scarlet (7 pa; 5R 4/14) and translucent bright navy (13 pg; 7.5PB 3/4); 2 specimens.

Diameter Range 7.6 mm to 7.7 mm.

Length Range - 9 mm to 13.6 mm.

WIIIb* (Fig. 145t) oval; large size; opaque white (a; N 10/0) body decorated with translucent scarlet (7 pa; 5R 4/14) and translucent apple green (23 ic; 10GY 6/6); 1 specimen.

Diameter - 8.1 mm.

Length - 14.1 mm.

Discussion. Included in the above were 14 circular drawn (IIa bright blue) beads which were found in association with a carved antler artifact (16R9H5-1, Fig. 112c). These beads are set into each end of each of a row of nine holes drilled through the antler. A second antler artifact (16R100A1-3, Fig. 112e) has shallow holes drilled into the surface, but there is no indication of inset beads.

The greatest number of beads were located in cellar and pit features. In addition, a large quantity of beads were recovered from the disturbed occupation levels of all buildings. Most were found singly; however, two caches of 998 and 755 small circular and tubular drawn beads were located in a Structure 7 cellar (F.89); 50.3 per cent of these beads were bright blue, the rest were white. Groupings of beads in an early occupation period pit (F.156) and in a Structure 1 cellar (F.4, Fig. 145h) suggested necklaces or similar adormments.

A few general comments can be made regarding the bead collection. Firstly, more beads are associated with early occupation period features than with late occupation period features (Table 28). Moreover, the early occupation is characterized by more bead types, more shades of certain colours and more polychrome beads than in the later occupation period (Tables 29,30). Secondly, circular drawn beads far outnumber tubular drawn and wire wound beads. Blue were the most popular colours (Table 31).

In Table 32 glass trade beads from site 13R have been arranged for comparison with beads from site 16R. Without being able to study the site 13R beads themselves only limited use of the Kidd's typology was possible. More beads were found at site 13R than at site 16R; however, it should be noted that the majority of site 13R beads were found in a single cache. White is the most common colour in the site 13R sample, and there is only one polychrome bead. Small, circular drawn beads are most common while tubular drawn and larger oval and round beads (probably wire wound) are rare.

preliminary analysis of site 15R glass trade beads shows that blue and white were the most popular colours. A significant difference between site 15R beads and site 16R beads is the almost complete replacement of oyster white beads by opaque white beads in the later site. Site 15R circular drawn beads are very small in size and large faceted beads are a fairly common occurrence at the site.

Type 2: Bone Beads. All bone beads were cut and carved by hand locally. Twenty-nine specimens are represented. They are all cut from either goose or swan long bones, and all show various degrees of polishing. When present, ends are either rounded or slightly bevelled. Two varieties of bone beads are distinguished: undecorated and decorated.

Variety a: Undecorated (Fig. 146c,d,h,i). A total of twenty undecorated specimens appear. Ten beads are complete, six are incomplete and four specimens are joint pieces. The latter are discard fragments from the manufacturing process (Fig. 146e,j). The specimens range from 28 mm to 81 mm in length and 6 mm to 20 mm in diameter.

Variety b: Decorated (Fig. 146 a,b,f,g). A total of nine decorated beads are represented. All but three of the specimens are incomplete. Decoration involves either shallow scoring or grooves mainly running perpendicular to the long axis. In most cases the scoring is simply short cuts. Cross-hatch scoring appears on three specimens (Fig. 146b). In general the decoration is not elaborate and is rather crude. The specimens range from 41 mm to 74 mm in length and 5 mm to 18 mm in diameter.

Discussion. Of the twenty-nine bone beads and discard fragments 15 were recovered from early occupation period features, 9 from late occupation period features, 2 from the fill of the south palisade Type 4: Shell Beads: All shell beads are cut and ground by hand. Fourteen specimens were recovered of which four shell species are represented: dentalium (Dentalium pretiosum), cowrie (Cypraea moneta), purple olive (Olivella biplicata) and hard-clam or quahog (Venus mercenaria). Four varieties are established based on the four shell species which are represented.

Variety a: Dentalium (Fig. 147f-g). Five dentalium shells ranged in length (height) from 12 mm to 27 mm. The longest specimen (16R7H3-1) is 4.2 mm in diameter at the larger end and 2.1 mm in diameter at the smaller end (Fig. 147g). These conical-shaped shells are opaque white in colour, highly polished and have rounded ends.

Variety b: Cowrie. A single cowrie shell bead (16R4F2-4) was found (Fig. 147h). This shell bead has a single hole crudely pierced through the concave dorsal surface. The shell is opaque white in colour, highly polished, and is 14 mm in length and is a maximum of 10 mm width (height).

Variety c: Purple Olive. One purple olive shell bead (16R4F5-33) was recovered (Fig. 147i). This shell has a single hole drilled through the sharp short spire end. The colour is opaque white to lavender-grey with brown markings. The length (height) is 20 mm and maximum diameter, 11.5 mm.

Variety d: Hard-Clam. These shells represent the well known wampum belt beads so often associated with the Iroquois. Seven specimens were recovered. W.C. Orchard describes the beads as follows:

...the wampum in mind is the cylindrical kind which was made in two colors, white and purple. The quahog, or hard-clam (Venus mercenaria), furnished extensively the materials for the manufacture of both colors of wampum, although other shells of a suitable nature, such as the columellae of the conch, were used for the white beads (Orchard 1929: 61).

Both white (2 specimens) and purple (5 specimens) wampum beads were represented (Fig. 147j-1). The shells ranged in length from 5.5 mm to 7 mm.

According to Orchard (1929: 61) the beads were more commonly used "Woven into the form of collars, or in strings as necklaces, earpendants, or wristlets". Both an intact wampum belt and separate strings of beads were found in association with the Red Deer River Grave, Manitoba. This burial was tentatively identified as being linked to the North West Company Fort Riviere la Biche (Meyer 1973: 15-16, 24).

Discussion. All the shells from site 16R were either used as beads or garment ornaments, either strung in necklace style or attached to clothing.

The marine shells, olivella, cowrie and dentalium originate on the west coast of North America. The presence of these shells suggests contact or trading activity between white traders or native groups frequenting the Rocky Mountain House area and Indians west of the Rocky Mountains. Historically, it is documented that the Rocky Mountain House forts were established to draw on trade with the intermontane or transmountain region Indians (Kootenay) and that little of this trade materialized (Smyth 1976: 5-11). David Thompson used the North West Company's Rocky Mountain House as a base of operation while he was exploring and trading in the regions west of the Rocky Mountains. The presence of the marine shells at site 16R probably indicates that the Kootenay Indians were at least casual visitors to the site or that the shells were brought to the site by traders or trading parties returning from intermountain regions, or both. The shells may have been used for trading purposes, but more likely were the personal possessions of some of the fort's occupants. .

The presence of wampum at site 16R is easily explained because of the continuous link between eastern North America and the west by fur trading operations.

Table 29. Glass Bead Types from Early Occupation Period Features

Drawn Beads			Wire Wound Beads			
Туре	Colour	Quantity	CO A SERVICE OF THE S	Type	Colour	Quantity
IIa	bright blue	1853		WIb16	bright navy	4
· Ial5	bright blue	99		WIC.	robin's egg blue	4
IIa	deep blue	1		WID	cerulean blue	1
IIa	pale blue	3 .		WID	light cerulean blue	1
IIa56	bright navy	4				
Ial9	bright navy	1				
IIa	copen blue	1	į			
IIa	light cerulean blue	1	, p			
Ia	pale blue	1				
IIa12	oyster white	1685	,	WICL	white	9
Ia4	oyster white	208		MTD	light grey	
IIal4	opaque white	81				
Ia5	opaque white	9				
IVa6	redwood & green	130			x 5	

Table 29 Continued

Drawn Bea	ds		Wire Wo	und Beads	
Туре	Colour Quan	tity	Type	Colour .	Quantity
IIIa3	redwood & green	8			
IIIa	mahogany & green	2			
	3		WIC	black	11
IIa .	scarlet	3	WIC	scarlet	- 4
IIa	mustard gold	7	WIC	mustard gold	1
	72		WIIIb	floral	. 7 L
		`	WIIIb	red, white & blue	2
IIa	rose	6		- 0	
Ia	rose' wine	1			
IIa59	rose wine	1			
IIa	bright green	3	WIC	dark palm green	1
			WIC	dark grass green	1 .

Note: Table includes only beads from undisturbed contexts.

Table 30. Glass Bead Types from Late Occupation Period Structures .

30					* .	
Drawn B	eads			Wire W	bund Beads	
Type	Colour	Quantity		Type	Colour	Quantity
IIa	bright blue	617		WIb16	bright navy	1
Ial5	bright blue	18		WIÉ	light cerulean	2
IIa	powder blue	1	•		bl ue	
Ial9	bright navy	, 1				
IIal2	oyster white	338		Wicl	white	45
Ia4	oyster 'white	66		Wib	light	2
IIal4	opaque white	,71				
Ia5	opaque white	18				•
IVa6	redwood & green	66 •				
IIIa3	redwood & green	11				
IIIa · •	mahogany & green	1				
				WIC	black	13
IIa	scarlet	. 1		WIC	scarlet	2
IIa	mustard	1		WIC	sunlight yellow	1
IIa56 IIa59	bright na			WIIIb		
11459	. Lose wine				floral	1 .
				WIIIb	spotted	·1 +
Ja	rose wine	1		WIb .	purple	. 1
IIa	dark palm green,	2		,		*

Table 31. Glass Trade Bead Colours

			/		
Colours	Circular	Tubular	Wire Wound	Per-	Totals
	Drawn	Drawn		Cent	,
				· · · · · · · · · · · · · · · · · · ·	
Blues	3145	158	16	50.89	3319
Whites	2452	321	73	43.64	2846 .
Red/Green	233	. 31		4.05	264
Black			25	.38	25
Reds,					
Scarlets	10		7	.26	17
Purples	11	3	1	23	15
Yellows	11		2	.20	13
Polychrome			13	.20	13
Greens	8 .		2	.15	10
	-				-
Totals	5870	513	139 .	100 %	6522

Table 32. Glass Trade Bead Colours, Site 13R

Colour	s (Noble Type)	Seed-Subcylindrical		Barrel	Globular	Per-	Total	
	(Kidds' Type)	IIa-circular	Ia-tubular	WIC-oval	WIb-round	cent		
White		7405	18			68.60	7423	
Blue		3255	6	2	. 4	30.20	3267	
Red	1	82	1			.77	83	4
Purple		15	2	8	1	.24	26	
Green		. 19	1	2		.20	22	
Black		. 5		3		.07	8	
Yellow		3				.03	3	
		· ·			-			

144 Drawn glass trade beads

- a Tubular oyster white (Ia4) (16R3C5-24)
- b Tubular opaque white (Ia5) (16R4F5-40)
- c ·Tubular bright blue (Ial5) (16R18F1-3)
- d Tubular bright navy (Ia19) (16R3C5-29)
- e Tubular pale blue (Ia*) (16R4G5-24)
- f Tubular rose wine (Ia*) (16R7C1-1)
- g Circular oyster white (IIal2) (16R3B4-1)
- h Circular opaque white (IIal4) (16R3G4-2)
- i Circular bright navy (IIa56) (16R4G2-2)
- j Circular scarlet (IIa*) (16R11B2-4)
- k Circular mustard gold (IIa*) (16R12C3-3)
- 1 Circular bright green (IIa*) (16R4E4-53)
- m Circular dark palm green (IIa*) (16R3C5-25)
- n Circular pale blue (IIa*) (16R3B3-31)
- o Circular powder blue (IIa*) (16R8H3-6)
- p Circular bright blue (IIa*) (16R100A1-9)
- q Circular light cerulean blue (IIa*) (16R10M3-18)
- r Circular vivid cerulean blue (IIa*) (16R5B2-3)
- s Circular copen blue (IIa*) (16R5C4-12)
- t Circular deep blue (IIa*) (16R3B3-32)
- u Circular rose wine (IIa59) (16R4G5-25)
- v Circular rose wine (IIa*) (16R4F3-4)
- w Faceted rose wine (If*) (16R19F1-1)
- x Circular-faceted rose wine (IIf*) (16R12C3-4)
- y Tubular redwood over apple green (IIIa3) (16R11C9-8)
- z Tubular red mahogany over apple green (IIIa*) (16R10M3-19)
- aa circular redwood over apple green (IVa6) (16R11C8-38) (RA-3663B).

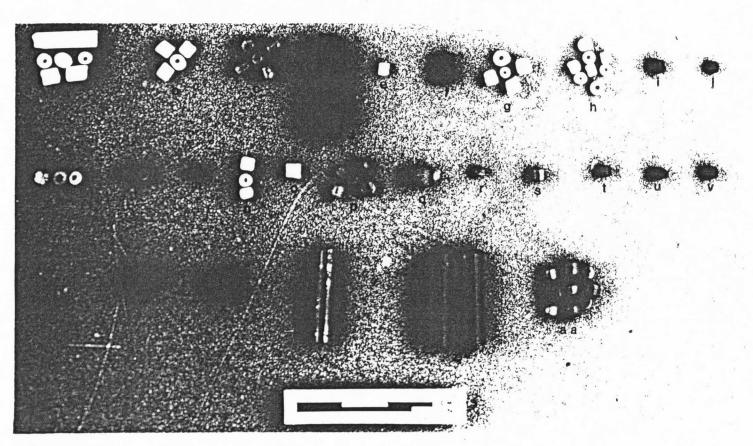
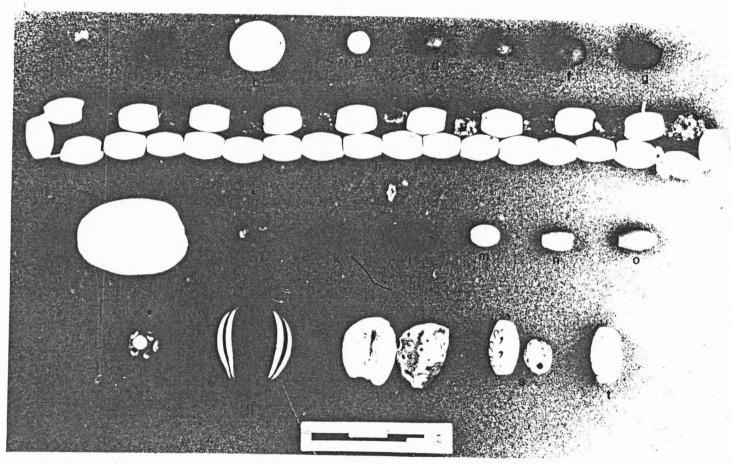


Fig. 144

- 145 Wire wound glass trade beads.
 - a Round bright navy (WIbl6) (16R3B3-84)
 - b Round light grey (WIb*) (16R5J5-4)
 - c Round light grey (WIb*) (16R12A5-5)
 - d Round light cerulean blue (WIb*) (16R4D4-74)
 - e Round cerulean blue (WIb*) (16R3F5-16)
 - f Round medium blue (WIb*) (16R3E2-1)
 - g Round purple (WIb*) (16R10E5-5)
 - h Oval opaque white (WIc1); oval black (WIc*) (16R12E4-12)
 - i Oval pale blue (WIc3) (16R5J2-1)
 - j Oval scarlet (WIC*) (16R100A1-10)
 - k Oval dark palm greeen (WIC*) (16R4F5-41)
 - 1 Oval dark grass green (WIC*) (16R4D4-75)
 - m Oval sunlight yellow (WIC*) (16R12D9-4)
 - n Oval mustard gold (WIc*) (16R12M4-2)
 - o Oval robin's egg blue (WIC*) (16R4D4-76)
 - p Round turquoise body with bright navy on apaque white spots (WIIIb*) (16R3C5-26)
 - q Round redwood body with dark navy and bright navy on opaque white stripes (WIIIb*) (16R4D2-2)
 - r Oval colourless body with bright navy, scarlet and light gold on opaque white floral designs (WIIIb*) (16R4G5-26,27)
 - s Oval opaque white body with scarlet and bright navy designs (WIIIb*) (16R10M3-21,22)
 - t Oval opaque white body with scarlet and apple green designs (WIIIb*) (16R100Al-11)

(RA-3665B).



147 Antler and shell beads

- a (Vb) Decorated antler bead (16R9C2-1)
- b (Va) Undecorated antler bead (16R4E4-20)
- c (Va) Undecorated antler bead (16R4D4-35)
- d (Va) Undecorated antler bead (16R7B4-4)
- e (Va) Undecorated antler bead (16R1B1-1)
- f (Va) Dentalium shell bead (16R3C5-20)
- g (Va) Dentalium shell bead (16R7H3-1)
- h (Vb) Cowrie shell bead (16R4F2-4)
- i (Vc) Olivella shell bead (16R4F5-33)
- j (Vd) White wampum (16R3B3-73)
- k (Vd) Purple wampum (16R3C5-22)
- 1 (Vd) Purple wampun (16R4E4-48) (RA-3664B).

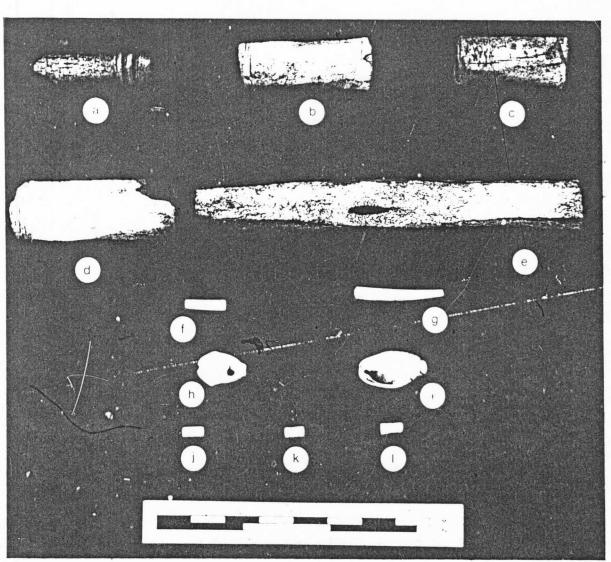


Fig. 147