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EIGHTEENTH CENTURY NAVAJO FORTRESSES OF THE GOBERNADOR DISTRICT

The Earl Morris Papers, No. 2

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EUROPEAN TRADE BEADS

A vast number of European trade beads came from Burial 1 at Site 4 and from Burials 1 and 2 at Site 6. Arthur Woodward examined a sample of these beads in 1933 for Morris and again in 1963. All of the beads that were found are expectable in 18th century sites. A few of them have beginnings in the 17th century, but most of them were not made before the 18th century. Dr. Woodward has ventured the opinion that the bulk of the beads indicate that the burials were made near the period of 1750-1769. Drawings of the beads and their approximate frequency are shown in Figure 15 and Table 6.

TYPE I. LARGE CRUDE FACETED BEADS

Average diameter 10.5 mm.; length 9.4 mm.; 2 mm. range in either direction. These are crude with usually eight facets which may vary in number because of irregularity. Traces of gold paint are visible on several examples.

A. Transparent, colorless.
B. Milky white, translucent.
C. Amber, transparent.
D. Blue, transparent.

These beads are quite different from faceted trade beads found with later fur trade sites in western North America. The latter are more regular and the facets are sharp and were made by grinding. The facets on these beads are rounded and were made by moulding. Woodward dates them *ca.* 1650-1690.

TYPE II. CRUDE TRANSPARENT RED GLASS BEADS

Beads of this type generally have crude molded facets, but are occasionally globular to flattened globular. They are uniform in color. Several beads fused together are not uncommon.

A. Faceted. Beads of this subtype have from three to nine facets with rounded edges. A few look like smaller versions of Type I. They average about 4 mm. in length and width, but range from 2 to 8 mm. Length and width are usually nearly the same.

B. Globular to flattened globular. Diameters average 3.8 mm. and lengths, 2.0 mm. These beads are probably simply one extreme of type II-A.

C. Spherical. Length 7 mm.; diameter 4.0 mm.; ends rough.

D. Elongate octagonal. Ends smoothed. Length 6.0 mm.; diameter 3.5 mm.

E. Same as II-A, only dark garnet in color.

Woodward dates them from about 1730 to 1800.

TYPE III. ELONGATE QUADRANGULAR

A. Transparent green glass beads with four molded facets. Their color is a uniform dark bright green. The cross section is an irregular quadrangle. The beads taper from one end to the other. Average length 7.0 mm.; diameter 3.2 mm. The facets are rounded.

B. Same as III-A, only translucent black.

Woodward places these in the early 18th century.

TYPE IV. TRANSLUCENT LIME GREEN TUBULAR BEADS

These beads are circular in outline and the perforated ends are flat. Average diameter 2.9 mm.; length 1.9 mm. They are uniform in color and size. The surfaces are dull. Approximately 800 examples. Woodward places these in the 18th century.

TYPE V. SMALL SEED BEADS

Small beads in many colors which generally have a flattened globular shape, but occasionally are short tubes were very common. Subtypes are based on color.

A. Transparent glass beads in a number of shades of dark blue. About 5,070 have a flattened globular shape and average 3.9 mm. in diameter and 2 mm. in length. Length-diameter ratio varies within the ranges of 2.1 to 4.9 mm. diameter and 1.0 to 2.5 mm. lengths. About 240 short tubes range from 2.1 to 2.9 mm. in diameter and from 2.1 to 3.2 mm. in length, Gold paint is present on some examples.

B. Translucent yellow. Shapes are either short tubes or globular with the perforated ends flattened. Size range: 2.2 to 3.2 mm. diameter; 1.5 to 3.0 mm. in length.

C. Translucent light green. Globular shape flattened on perforated ends. Average size: 2.1 mm. diameter, 1.6 mm. length.

D. Transparent green. Either flattened globular or short tubular. Size range: 2.0 to 3.0 mm. diameter; 1.0 to 2.0 mm. long.

E. Opaque yellow. Flattened globular only. Two sizes: 3.8 mm. diameter by 2.0 mm. thick and 2.0 mm. diameter by 1.0 mm. thick.

F. Opaque white. Many show traces of irridescent gold or white paint. Flattened globular and short tubular shapes. Size average: 3.0 mm. diameter by 1.9 mm. long. These beads have a shiny white core which is exposed on the perforated ends, and an outer coating of dull white glass.

G. Clear colorless glass beads. Flattened globular and short tubular shapes. Size range: 2.9 to 3.2 mm. diameter; 1.8 to 2.9 mm. long.

H. Transparent aquamarine. Flattened globular shape. Size range: 2.7 to 3.8 mm. diameter; 1.9 to 2.0 mm. length.

I. Opaque black. Flattened globular and short tubular shapes. Size range: 2.9 to 4.0 mm. diameter; 2.3 to 2.5 mm. long.

J. Baby blue translucent. Flattened globular and short tubular shapes. Average size: 2.8 mm. diameter and 1.7 mm. long. Fairly uniform size and color.

K. Dark transparent amber. Globular shape. Diameter 2.2 mm.; length 2.0 mm.

L. Opaque blue. Flattened globu-

lar shape. Size range: 2.5 to 4.0 mm.; length 1.0 to 2.7 mm.

M. Translucent medium blue. Globular shape. Diameter 3.0 mm.; length 2.0 mm.

N. Translucent white. Globular shape. Diameter 3.7 mm.; length 3.2 mm.

Woodward places these types as beginning in the 18th century.

TYPE VI. LARGE FACETED TRANSLUCENT BLUE BEADS

These beads are crude and have five or six molded facets. They are a slightly different blue than Type I-D and are not double-faceted. Size range: 9 mm. in diameter by 1.3 mm. long to 9 mm. in diameter by 8 mm. long. These resemble fur trade beads from the west coast, but are cruder.

TYPE VII. LARGE GLOBULAR TRANSLUCENT BLUE GLASS BEADS

The one bead is 9.0 mm. in diameter and 7.1 mm. long. It is the same color as Type VI.

TYPE VIII. OPAQUE TURQUOISE-COLORED BEADS

Beads are placed in this category on the basis of material. The composition resembles turquoise, but bubbles in the paste, the shapes, and edges indicate that the substance is an opaque glass. The colors are green to blue. The blue is the blue of good turquoise and the green is that of cheap turquoise. The latter may actually have been blue to begin with, but altered through chemicals in the soil. Three subtypes are based on shapes.

A. Bi-conical. Beads with this outline average 3.0 mm. in diameter and 5.5 mm. in length. There is slight range in size except for one example 5.0 mm. in diameter and 9.0 mm. long.

B. Irregular faceted. These average 3.0 mm. in diameter and 3.7 mm. in length. They are either single faceted with 4 facets, or double faceted with four facets at each end of the bead.

C. Globular. Size range: 2.9 to 4.0 mm. diameter; length 2.0 to 3.9 mm.

Woodward dates these from *ca.* 1730 to 1800.

TYPE IX. TUBULAR TRANSPARENT AMBER BEADS

A. This subtype has two applied squiggled bands of opaque yellow glass encircling the tube. Diameter 3.0 mm.; length 4.1 mm. Two examples, but on one the opaque yellow glass has scaled off leaving only the impression.

B. Same only no applied design.

Woodward dates subtype A to the 18th century.

TYPE X. BI-CONICAL TRANSLUCENT DARK BLUE BEADS

These beads average 3.0 mm. in diameter and 5.0 mm. in length. Woodward places them *ca.* 1650-1690. Pratt (1961, no. 40) places them from 1625-1637 in northeastern North America.

TYPE XI. TRANSLUCENT WHITE BEAD WITH DIAGONAL GROOVES

This bead is 7.0 mm. long and 9.0 mm. in diameter. The surface is decorated with grooves which curve diagonally from top to bottom. Traces of gold paint remain in these grooves. Woodward places it *ca.* 1650-1690.

TABLE 6. European Trade Beads by Site and Burial.*

Type		Site 4 Burial 1	Site 6 Burial 1	Site 6 Burial 2
I.	A	35		
	B	25		1
	C	22		
	D	37		1
II.	A	5,800	200	100
	B	200		
	C	1		
	D	1		1
	E		20	
III.	A	315	17	
	B		1	
IV.			800	
V.	A	4,800	500	
	B	700	250	
	C	23		
	D		28	
	E	60		
	F	7		
	G	9		
	H	5		
	I	150		
	J	1		
	K	4		
	L	1		
	M	2		
	N	4		
VI.		3		
VII.		1		
VIII.	A		100	
	B	1	38	
	C		80	
IX.	A	1	1	
	B		2	
X.		5		
XI.		1		
XII.		1		
XIII.		1		
XIV.		1		
XV.		1		
XVI.	A	2		
	B		1	
	C		1	
	D		1	
	E		2	
XVII.		20	1	

*Quantities of over 200 are estimates based on volume rather than actual counts.

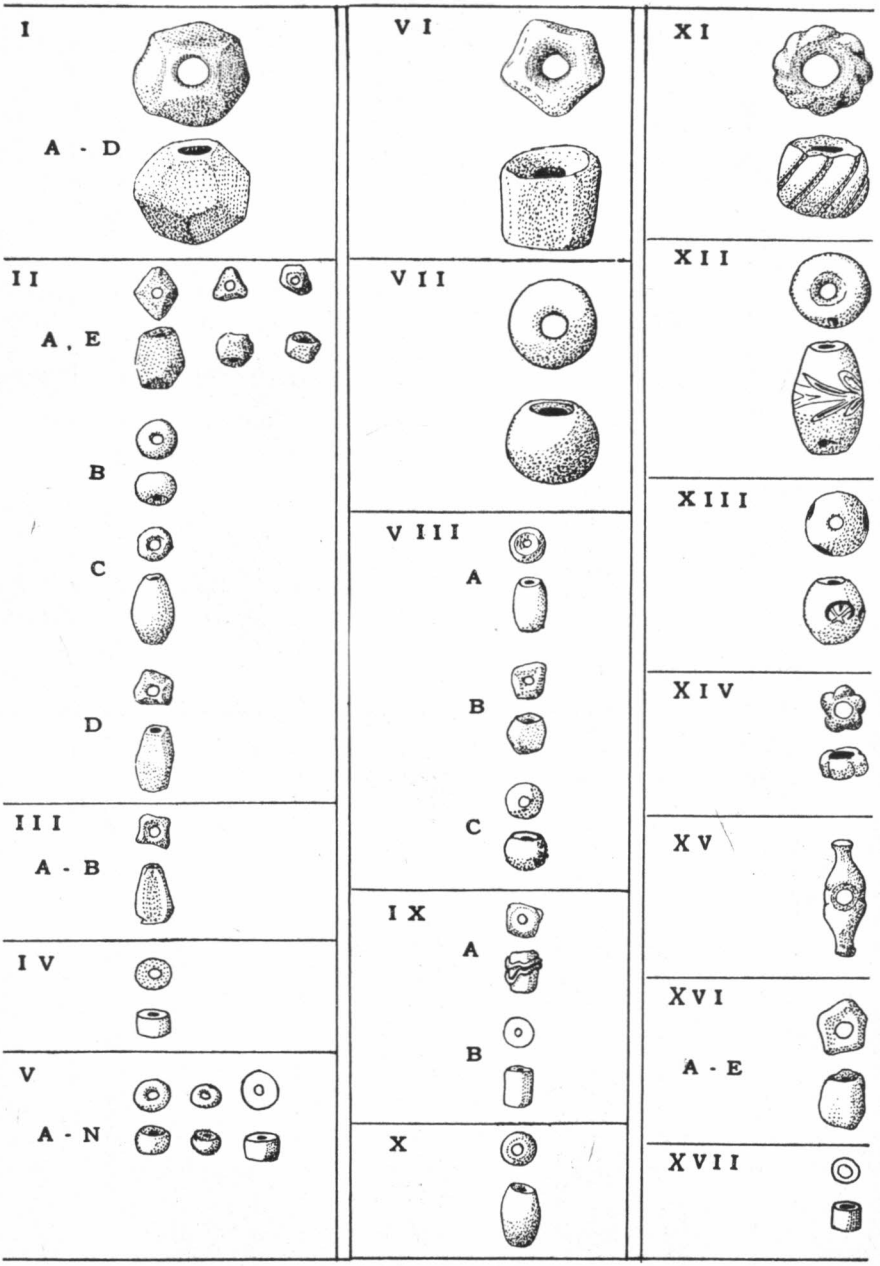

FIGURE 15. Sizes and shapes of European trade beads. Actual size.

TYPE XII. INLAID BI-CONICAL RED BEAD

This bead is 11.0 mm. long and 7.0 mm. in diameter. It is red with an inlaid floral pattern in opaque yellow. Woodward dates it to the 17th century.

TYPE XIII. OPAQUE WHITE BEAD WITH INLAID DESIGN

This bead is globular and is 6.0 mm. in diameter and length. The inlaid design consists of three dots. Each dot has a blue outline, and red central area on which is inlaid a five-armed white swirl. A five-pointed star in red forms the center of the swirl. Woodward places this bead in the 17th century.

TYPE XIV. TRANSPARENT GREEN BEAD WITH PETALOID OUTLINE

This bead is 4.0 mm. in diameter and 3.0 mm. in length. The outline is like a six-petaled flower. Woodward places it in the 18th century. Pratt (1961, No. 91) illustrates a similar blue one dated at 1710-1745.

TYPE XV. KNOBBED RED BEAD

This bead is thick at the center and tapers to knobbed ends. Two grooves encircle the central area. The perforation is transverse rather than longitudinal. Diameter 4.1 mm.; length 10.6 mm. Woodward places it in the 18th century.

TYPE XVI. IRREGULARLY FACETED BEADS OF MEDIUM SIZE

These beads range in size from 3.0 to 5.5 mm. in diameter, and from 2.0 to 6.0 mm. in length. They have from three to eight rounded facets.

A. Deep transparent aquamarine.
B. Translucent yellowish-white.
C. Transparent dark blue.
D. Opaque white.
E. Light translucent blue.

TYPE XVII. BEADS OF MEDITERRANEAN CORAL

These trade beads made of pink coral are short tubes and average 2.4 mm. in diameter and 2.6 mm. in length.

In general, the beads are 18th century types with a smattering of types originating in the 17th century. This fits with the historical and tree-ring evidence.