

REPORT OF INVESTIGATIONS OF EXCAVATIONS AT KANAKA VILLAGE/VANCOUVER BARRACKS,
WASHINGTON, 1980-1981
VOLUME I

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ABSTRACT

Archaeological excavations associated with the proposed Washington State Department of Transportation's relocation of Interstate 5, SR 14 Interchange and Construction Sites 1 and 2, Vancouver, Clark County, Washington, have identified a significant in situ portion of the pre-1860 Hudson's Bay Company's Kanaka Village and U.S. Army's Quartermaster Depot. The U.S. Army and Washington State properties involved have been determined eligible for the National Register of Historic Places. Data recovery excavations conducted during 1980-1981 have defined 26 significant buildings/activity areas dating to before 1860, and an additional 24 post-1856 quartermaster's depot buildings/activity areas were documented on these properties. Eleven of these features were preserved for future research by modifying the construction plans. Data recovery approved by the Washington State Office of Archaeology and Historic Preservation and the Advisory Council on Historic Preservation was conducted on the remaining building/activity areas. The following goals were accomplished during the course of the excavation: 1) mitigation of the impacts of the proposed highway construction, 2) the assembly and accessment of historic map records and the compilation of a final site settlement map, 3) the addressing of research problems focusing on the pre-1860 occupation of the site and an emphasis on site settlement patterns, ethnic studies, and architectural patterns, and 4) the provision of a research base consistent with previous work, but adaptable to future research.

Table 6-13. (Continued)

Category		Figure	
Clear	434		
Clear, aqua tint	198		
Clear, green tint	6		
Cobalt blue, dark	1		
Green, dark emerald	52		
Green, dark	116		
Olive, dark	135		
Olive, dark amber, black	49		
Reworked bottle glass	1		
Table glass		32	
Tumblers	17		
Stemmed	1		
Unidentifiable fragments	14		
Unidentifiable glassware		62	
Melted glass		32	
<u>Metalware</u>			7
Product container lids		4	
Tableware		2	
Iron knife blade	1		
Silver spoon	1		6-11e
Other, metal foil		1	
<u>Household Furnishings</u>			4
Mirror glass		4	
<u>Apparel</u>			9
Devices		9	
Buttons	7		6-12a-g
Buckle	2		6-13a-b
<u>Ornaments</u>			163
Beads, glass		161	
Tube	153		
Wire-wound	4		
Unidentifiable friable green	3		
Unidentifiable	1		
Finger rings, cupreous		1	
Finger rings, cupreous with glass setting		1	6-13f
<u>Tobacco Pipes</u>			207
White ball clay		206	6-14a-d
Porcelain		1	

Table 14-12. (Continued)

Category		Figure
<u>Ornaments</u>		2600
Beads, ceramic	2	
Beads, glass	2554	
Tube	2469	
Wire-wound	67	
Mandrel-pressed	10	
Unidentifiable friable green	8	
Beads, metal	2	
Finger rings, brass	14	
Finger rings, brass with glass setting	1	
Cranberry glass ring stone	1	14-66b
Broach fragments	2	
Broach fragments with glass setting	1	14-67a
Ceramic necklace clasp	1	14-66f
Copper jewelry setting	1	14-66c
Gold-plated cut garnet pin	1	14-67b
Ground cryptocrystalline setting	1	14-67e
Perforated copper disk	1	14-66g
Perforated thimbles	7	
Unidentified brass jewelry fragments	8	
Unidentified glass ornament	1	
Unidentified ornament	2	14-66d-e
<u>Tobacco Pipes</u>		3737
White ball clay	3719	14-69-73
Common pottery	10	14-74
Porcelain	6	
Stoneware	2	14-74f-g
<u>Miscellaneous Personal Items</u>		107
Bone domino	2	14-75a-b
Bone dice	3	14-75c
Coin	1	14-66a
Crucifix	1	14-67d
Cupreous chain fragments	1	
Cupreous pen holder	1	

covered from Fort Vancouver (cf. Ross 1976:624-627). One partial impressed trademark was found on an inner heel, "--NSON ---RSINK," but could not be interpreted (Figure 14-62a).

C. Glass Beads. A large number of glass beads was recovered from Operation 14. As illustrated in Figure 14-63, spatial distribution indicating deposition prior to 1860 coincided with high frequencies of other artifact types, but was more concentrated within the dwelling proper, particularly within the central area of the building. Following the Ross (1976) nomenclature for Fort Vancouver, the major bead classes recovered were tube beads, wire-wound beads, mandrel pressed beads, and blown beads. Forty-seven varieties were identified and classified (Ross 1976:Table 674) and have been listed in Table 14-22. Ten varieties could not be correlated with previously classified bead varieties from Fort Vancouver and were assigned K81 variety numbers. Six varieties were significant in reconstructing historical relationships at Operation 14 and are discussed below.

FOVA Bead Varieties 1003 and 1040 were the most frequently recovered beads, representing 50.5% and 44.5% of the assemblage, respectively. Both varieties are white, hot-tumbled tube beads of generally small, "seed bead" size. Variety 1040 differs from 1003 in having been manufactured from two layers of white glass.

Bead size range was defined by minimum diameter of the bead versus length, and approximated the range reported previously for Fort Vancouver. However, differences were noted at Operation 14 in that there was a tendency to select beads of certain sizes and previously unreported sizes were found. The distribution of Bead Variety 1003, illustrated in Figure 14-64, conforms with that reported from the Fort Vancouver sample, except that several larger beads were identified in the K81 sample. For the most part, the beads fall into ranges from 1.1-3 mm (minimum diameter) by 0.6-2.3 mm (length). Only six beads, constituting 0.5% of the variety, were found outside of the Fort Vancouver size range. The four populations identified by Ross for Variety 1003 beads (1976:712-713) could not be duplicated with respect to population parameters. The most frequent bead size from Operation 14 correlates with the most frequent bead size at Fort Vancouver, Ross's Population 2, which is 1.5-2.4 mm in diameter by 1-2 mm in length.

Variability of Variety 1040 beads found at Operation 14 is comparable to that found at Fort Vancouver (Ross 1976:Figure 358); however, of the two populations defined at Fort Vancouver (Populations 1 and 2), Population 1 was the most common size recovered at Operation 14, whereas at Fort Vancouver, the more common size was Population 2. Moreover, the distribution of the beads found at Operation 14 suggests that three to four bead sizes were in use. As illustrated in Figure 14-65, the Operation 14 Populations A, B, C, and D are not definable within the Fort Vancouver sample, and the FOVA Population 1/2 boundary is only approximated within the Operation 14 Population B/C boundary. Briefly, the Bead Variety 1040 populations defined from Operation 14 are:

- Population 1040A: 1.1-1.8 mm (D) x 0.6-1.2 mm (L); n = 95 (7.93%)
- Population 1040B: 1.3-2.5 mm (D) x 0.7-2.2 mm (L); n = 1023 (85.39%)
- Population 1040C: 2.4-3.1 mm (D) x 1.5-3.0 mm (L); n = 53 (4.42%)
- Population 1040D: 3.5-4.5 mm (D) x 2.5-4.0 mm (L); n = 27 (2.25%)

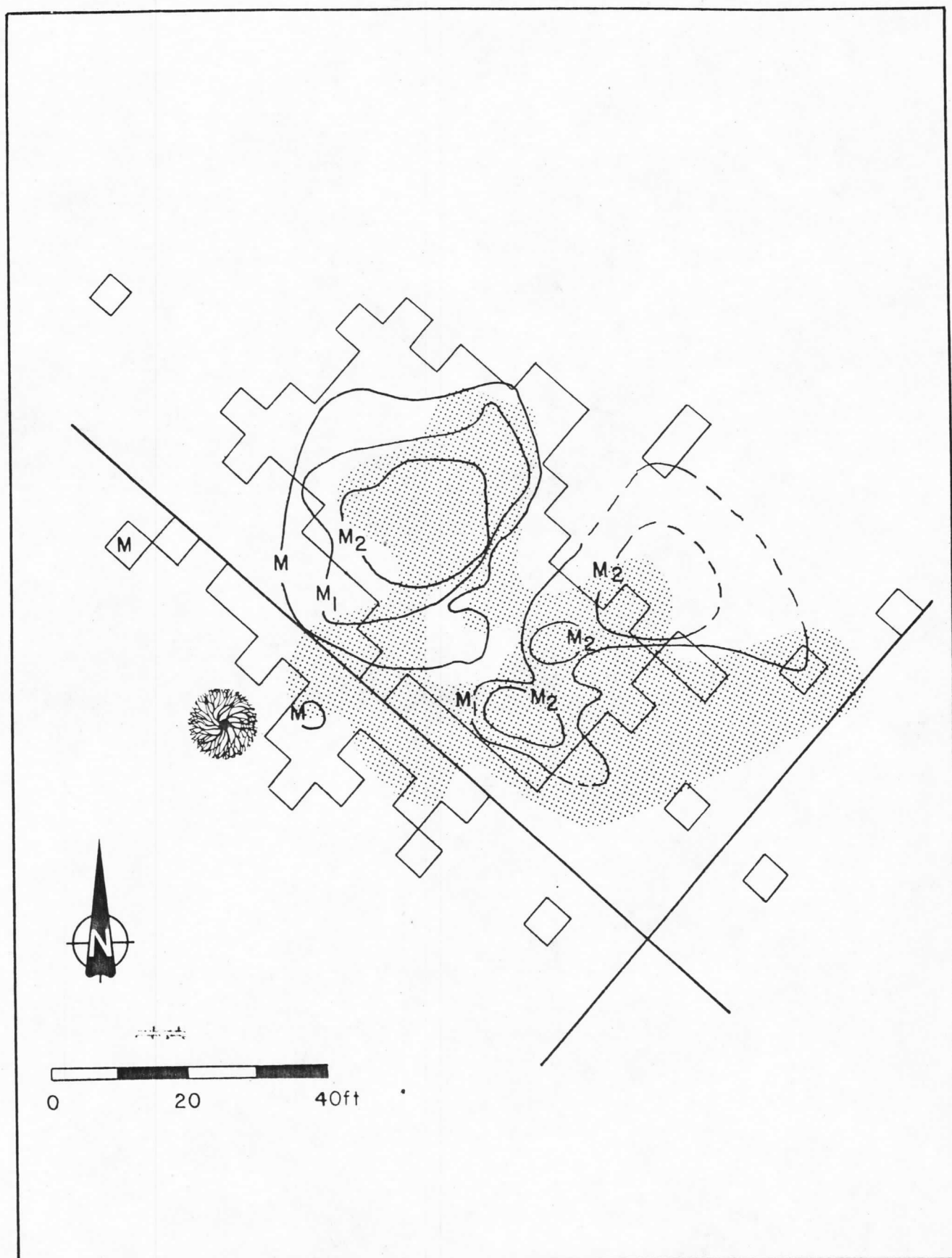


Figure 14-63. Distribution of glass beads (corrected for intrusive disturbance), pre-1860 strata, Operation 14, as defined by relative frequency isopleths M, M₁, and M₂. Frequencies represent items per square foot. Shaded area represents all artifacts distribution. ($M \geq 0.2$, $M_1 \geq 0.5$, $M_2 \geq 2.0$, High ≥ 25)

By comparison with the Fort Vancouver Variety 1040 range, in which 85% of the beads are greater than 2.5 mm in diameter, approximately 93% are less than that size. The data suggest greater preference for the smaller white beads by Operation 14 occupants than would have been dictated by available bead sizes at Fort Vancouver.

FOVA Bead Variety 1002 is a transparent, dark purple, single-layered, faceted tube bead having ground corner facets on a six- or seven-sided tube. This bead was the most common faceted bead at Operation 14 and was probably used in conjunction with, or was replaced by, double-layer, faceted beads of similar color (cf. FOVA Bead Varieties 1034, 1035, and others). Although this bead variety was the second most common single-layer faceted tube bead recovered at Fort Vancouver, the quantity recovered from Operation 14 alone exceeded that recovered from the 1971-1975 Fort Vancouver excavations (53 versus 42) (Ross 1976:693). Historically, these beads probably were retailed as "purple cut glass bunche beads" at Fort Vancouver (Ross 1976:Table 41) and probably were strung on necklaces.

FOVA Bead Varieties 1035, 1077, and 1078 are transparent dark purple on translucent light purple, double-layer, faceted tube beads manufactured from six- or seven-sided tubes. Superficially this bead is similar to Variety 1002 and was probably used in conjunction with, or in replacement of, that variety. In measurements and faceting variability, the Operation 14 sample is comparable to that recovered from Fort Vancouver (Ross 1976:695). Like the purple, single-layer, faceted beads, these were probably retailed as "purple" or "fine purple cut glass bunche beads" at Fort Vancouver, and were used in necklaces or as similar stringed adornments.

FOVA Bead Variety 1034 is an opaque dark purple on opaque light purple, double-layer, faceted bead manufactured from seven-sided tubes. This variety was relatively rare at Fort Vancouver ($n = 8$). The 24 beads recovered from Operation 14 indicate that this bead was in greater demand relative to other varieties than the Fort Vancouver data suggest. As with the previously mentioned faceted beads, the variety was probably used in necklaces.

FOVA Bead Variety 2005 was the most common large, spherical, stringed bead recovered at Kanaka Village, including Operation 14. This variety comprises transparent blue, spherical, wire-wound beads which characteristically have suspended air bubbles within the bead. At Operation 14, 29 beads were recovered from the cellar (Feature 54) which, having residual ferrous stringing, probably were part or all of a rosary. The size range of Variety 2005 beads was consistent with that reported from Fort Vancouver, but relative frequencies were higher in the size range 6.8-7.9 mm in diameter (Ross 1976:743, Figures 366, 367), whereas at Fort Vancouver, the range 5.5-6.9 mm in diameter was most common. Although specific populations could not be defined for the Fort Vancouver sample, the Operation 14 data suggest that at least two bead sizes were used and were probably supplied from the Fort. These were:

Population 2005A: 5.8-6.5 mm (D) x 5.0-6.8 mm (L); $n = 12$ (23.1%)

Population 2005B: 6.7-7.9 mm (D) x 5.9-8.2 mm (L); $n = 40$ (76.9%)

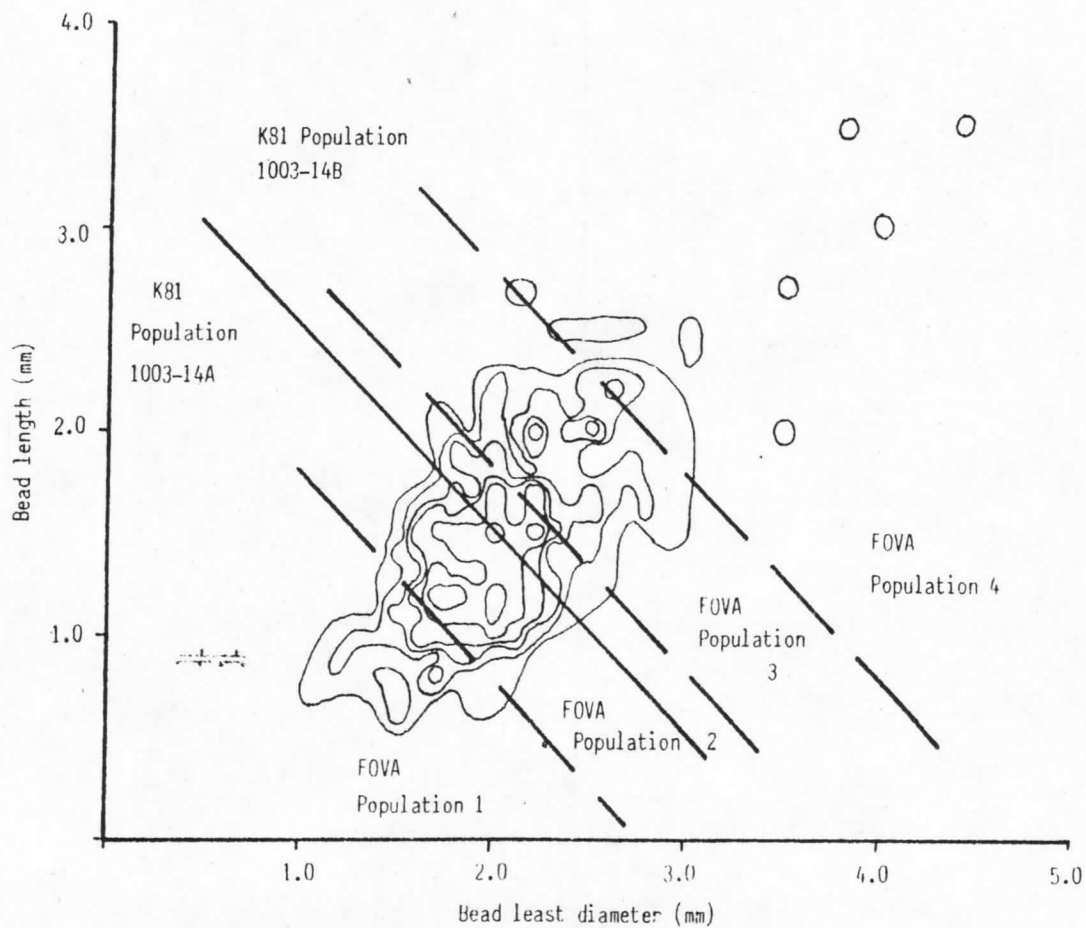
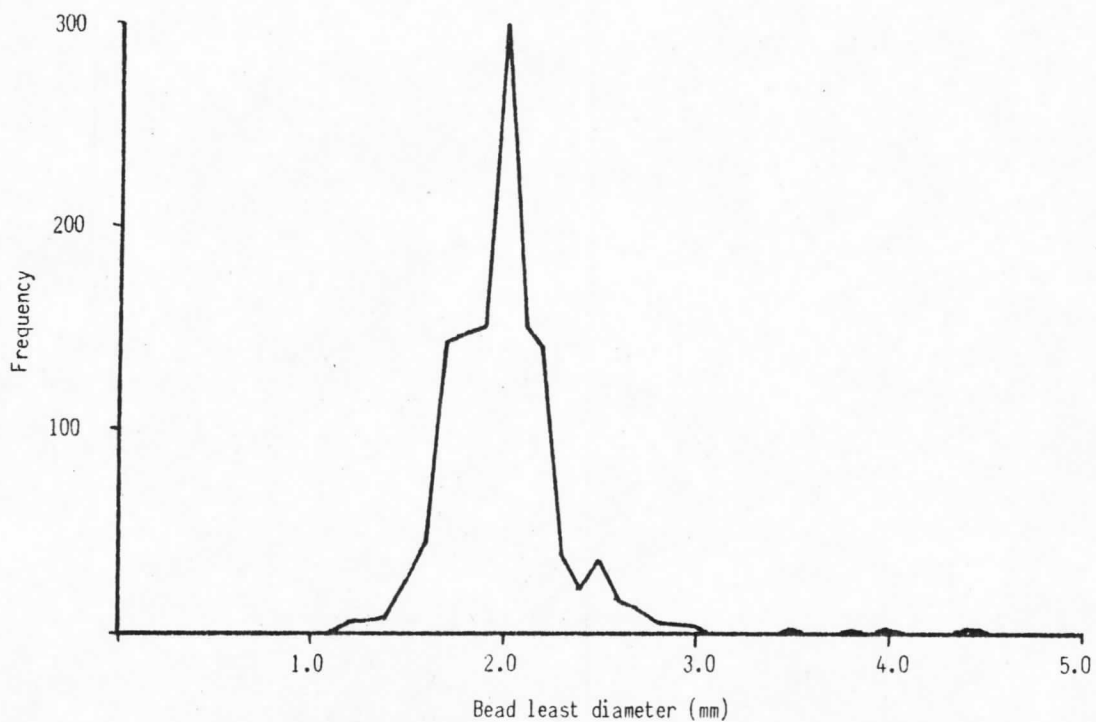


Figure 14-64. Isorhythmic metric distribution of bead variety FOVA 1003. Operation 14 bead population is compared to FOVA populations defined by Ross (1976).

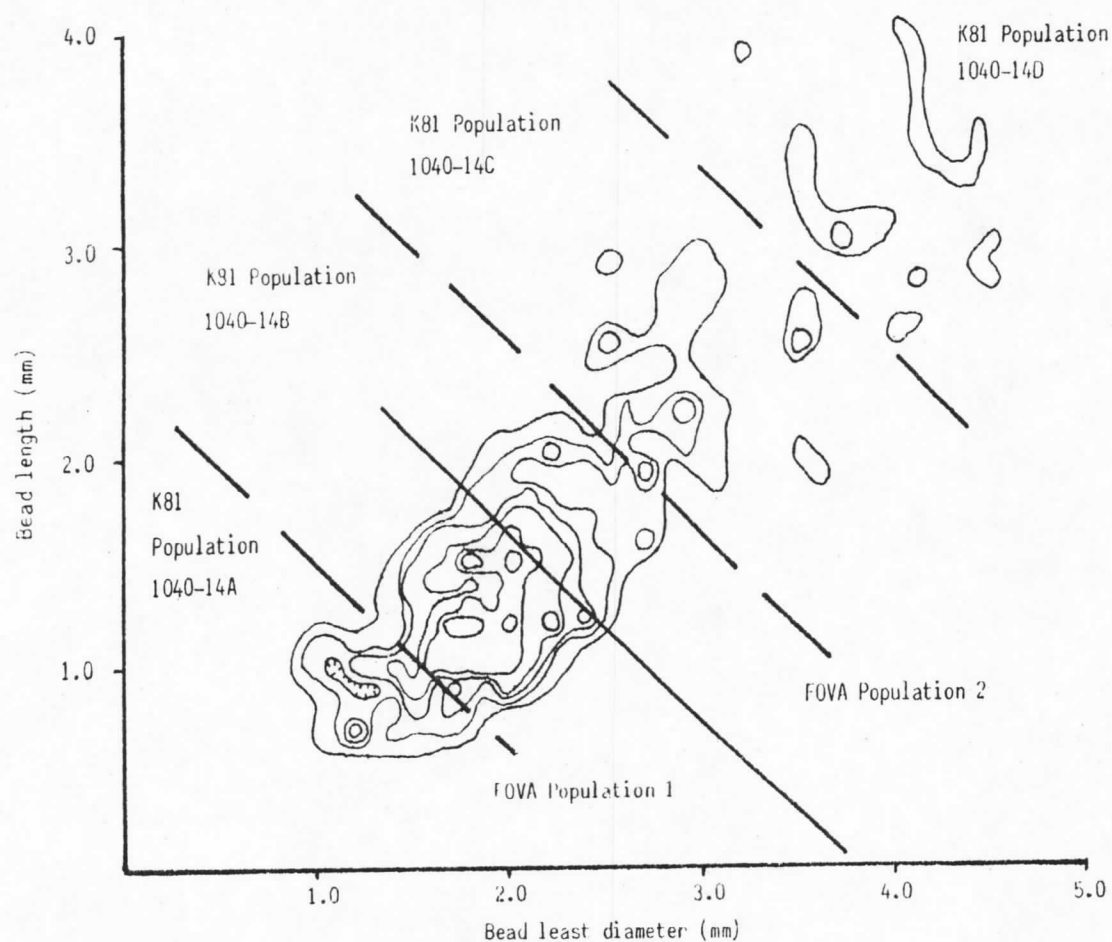
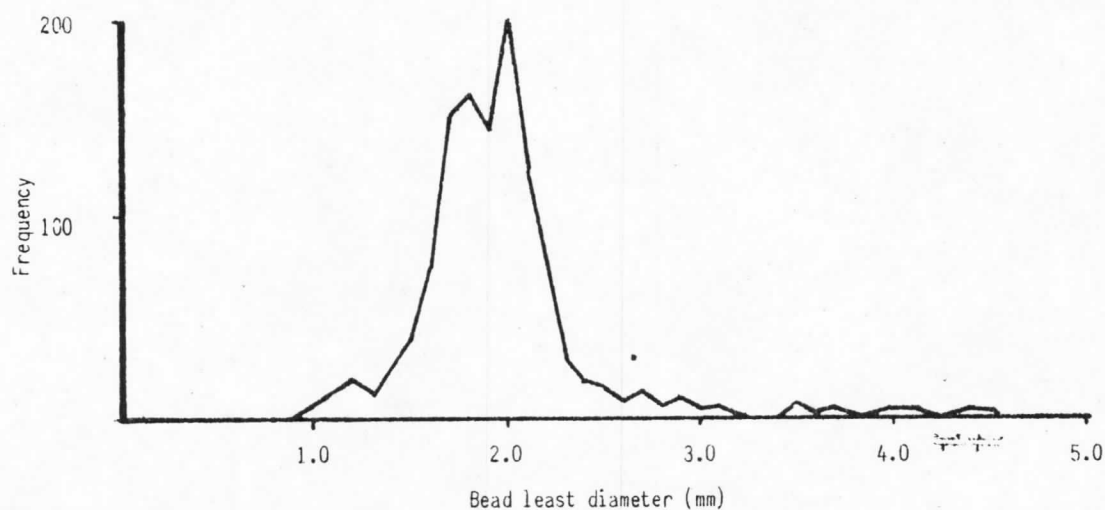


Figure 14-65. Isorhythmic metric distribution of bead variety FOVA 1040. Operation 14 bead size population is compared to FOVA populations defined by Ross (1976).

Table 14-22. (Continued)

Bead Description	Variety Number	No.	Range of Least Diameter x Length (mm)	Comments
Plain, single-faceted				
Single layer				
Transparent amber	FOVA 1043	2	7.6 x 6.8	Six-sided
Transparent yellowish-green	FOVA 1045	2	5.5 x 6.4	Six-sided (n = 1)
			8.4 x 7.0	Seven-sided (n = 1)
Transparent dark purple	FOVA 1002	53	3.8-8.7 x 4.1-7.7	Six-sided (n = 52)
			9.4 x 7.9	Seven-sided (n = 1)
Opaque black	FOVA 1057	2	4.5-5.4 x 4.5	Six-sided
Transparent colorless	FOVA 1067	1	10 x 10	Seven-sided
Double layer				
Transparent colorless on translucent white	FOVA 1036	3	4.5-5.2 x 5.1-5.3	Six-sided
Transparent dark purple on translucent light purple	FOVA 1035, 1077, 1078	23	3.8-6.7 x 4.4-7.2	Six-sided (n = 19)
Opaque dark purple on opaque light purple	FOVA 1034	24	8.1-8.2 x 6.4-7.7	Seven-sided (n = 2)
			7.1-9.1 x 6.0-7.7	Seven-sided
<u>Wire-Wound Beads</u>				
Plain, single-layer				
Spherical				
Transparent blue	FOVA 2005	56	5.8-7.8 x 5.0-8.2	With ferrous stringer (rosary?)
Opaque blue	FOVA 2002, 2018	5	8.5-11.2 x 7.5-9.9	"Canton" blue beads
Barrel				
Transparent light amber	FOVA 2011	1	7.6 x 7.5	
Transparent purplish-blue	FOVA 2052	1	6.0 x 5.0	
Oblate				
Opaque black	K81 B-1	4	6.2-7.1 x 4.0-5.2	
Ellipsoidal				
Transparent dark red	FOVA 2032	1	5.2 x 5.2	
Transparent dark bluish-green	K81 B-3	1	5.4 x 7.7	
Translucent white	K81 B-2	1	5.5 x 11.5	
Opaque white	FOVA 2009	4	5.1-6.2 x 8.6-9.2	

Table 14-22. (Continued)

Bead Description	Variety Number	No.	Range of Least Diameter x Length (mm)	Comments
Plain, double-layer, spherical Translucent red on opaque white	FOVA 2049	1	10.5 x 11.1	
<u>Mandrel Pressed Beads</u>				
Faceted, single-layer, spherical				
Transparent green	FOVA 3008	1	6.1 x 5.5	
Transparent purplish-blue	FOVA 3010	1	8.9 x 7.4	
Transparent purple	K81 C-1	1	9.8 x 8.2	
Opaque black	FOVA 3001	1	9.0 x 7.7	
Opaque light greenish-blue	FOVA 3002	2	8.2-8.4 x 6.5-6.7	
Opaque purplish-blue	FOVA 3003, 3004, 3005	5	8.6-9.5 x 7.0-8.9	
<u>Blown Beads</u>				
Grooved, single-layer, double upset, long Translucent purple	FOVA 4002	1	Unmeasureable	
<u>Unidentifiable Bead Fragments</u>		1	Unmeasureable	
Total				

FOVA Bead Variety 2002, 2018, and others comprise opaque blue, spherical, wire-wound beads. Ross has hypothesized that these represent "one variety of Canton Bead," the trade bead most sought after by early historic contact Northwest Coast natives. At Fort Vancouver, this was the most common spherical necklace bead recovered, while at Operation 14, only five beads were found, suggesting that this bead variety was not in great demand between 1830-1857. This situation was observed at all other K81 Kanaka Village operations also.

Other bead varieties include ten varieties not reported from Fort Vancouver. None occurred in sufficient frequencies to suggest significant use at the Operation 14 locality.

Other Personal Adornment. Jewelry and other personal ornaments were found at Operation 14. Jewelry appears to be limited to that used by the Hudson's Bay Company occupants.

Finger ring and ring fragments included plain copper bands and bands with glass settings: 1) five plain undecorated cupreous bands in two sizes, those having an interior diameter of 15 mm ($n = 2$) and those with an interior diameter of 18-20 mm ($n = 3$); 2) two decorated cupreous bands having a single circular bezel for an adhered glass or stone setting (setting missing), and 3) a three-bezel cupreous ring with five prongs for a glass or stone setting (settings missing) (Figure 14-66c). The last specimen originally had an interior diameter of 15-17 mm and was possibly a wedding ring.

The first two varieties probably were retailed at the Hudson's Bay Company Fort Vancouver European Sales Shop and Indian Trade Store as "plain brass finger rings" and "ornad. [ornamented]" or "stoned brass finger rings" (Hussey 1972:273, 1976:96). Both have been reported from previous Fort Vancouver and Kanaka Village excavations. The three-bezel ring has not been previously reported from the locale.

Perforated thimbles have not previously been recovered at Fort Vancouver, despite having been found in quantity at numerous nineteenth century Indian sites in the region (cf. Weatherford 1971:46-47; Strong 1967:235; Sauter and Johnson 1974:Figure 114). These items are sewing thimbles which were traded or purchased from European traders, probably at the Fort Vancouver Indian Trade Store in this instance, and subsequently perforated at the apex and strung as bangles. At Operation 14, seven perforated thimbles having residual buckskin thongs were recovered from a common provenience within the cellar (Feature 54). Originally, the thimbles were a single decorative string, but the form and association with other elements could not be determined. Thimble sizes range from 1.8 to 2.32 cm long and the diameter of the opening ranges from 1.49 to 1.7 cm. Specimen thimble size populations could not be discriminated.

Other jewelry includes a cupreous brooch or pin with a faceted amethyst glass setting (Figure 14-67a), a garnet pin or brooch with 21 faceted garnets set in a 10-point gold-plated star backing (Figure 14-67b), a cupreous floral brooch (Figure 14-67c), and a faceted cranberry glass setting (Figure 14-66b). A threaded ceramic barrel clasp for a necklace was also found (Figure 14-66f).

The following are descriptions of specific artifacts unique to the assemblage.

Ceramic ware includes an unidentified black transfer-printed ware with a numeral border; "Canova" pattern manufactured by Thomas Mayer, ca. 1826-1838; Spodeware transfer-printed patterns manufactured by Copeland and Garrett, specifically patterns "Blue Italian" and possibly "Seasons," "Fruit and Flowers," and "Blue Rose;" and white Chinese export porcelain in "Canton" pattern.

Beads include translucent dark aqua, spherical, wire-wound beads, found with and without a ferrous stringer--possibly a rosary; translucent dark blue faceted tube beads; possibly opaque black faceted tube beads; and opaque white-on-white hot-tumbled tube beads.

Exotic items include a 1790 Mexican Colonial one reale coin, perforated thimble bangles, and a "Packer London" packaging seal, possibly dated to 1845.

Subsistence items include a domestic sheep bone.

Other artifacts which define the assemblage include window glass and nails. The glass is limited to a thickness mode of 1.0-1.4 mm, which conforms to the time range of 1830-1845 defined by Chance and Chance (1976). The nails found more frequently were the wrought rose nails as opposed to the machine-cut common nails; the ratio of common to rose nails is 1:17-1:54. However, American machine-cut common and reverse-crimped shingling nails were relatively frequent in the assemblage, indicating deposition no earlier than 1840-1846. Noteworthy is the fact that a number of items manufactured at a later time were absent, including Copeland-marked ceramic wares (post-1847), ironstone (post-1850), porcelain Prosser buttons (post-1849), and the thicker modes of window glass. This assemblage is also marked by a very high proportion of beads and perforated thimbles, generally considered aboriginal trade items. Their presence indicates that at least some of the dwelling occupants were Native American and/or Hawaiian. Based on the above discussion, a temporal range of 1835-1846 is suggested.

The Late Feature 54 Assemblage, ca. 1846-1860

The late Feature 54 assemblage was confined to Strata F and D. By comparison with the earlier assemblages, the late assemblage is characterized by the addition of new artifact types to pre-existing assemblages, but there was no interruption in deposition. As a consequence, the component is interpreted to represent a continuation of Hudson's Bay Company occupation, possibly by the same persons, immediately followed by U.S. Army occupation.

As shown in Figure 14-86, domestic artifacts occurred in highest frequencies during this period. Bottle glass appeared in significant quantities for the first time and appeared to coincide with the use of formal glassware (tumblers and stemmed glasses). Artifacts used during construction also peaked within this time period, with the exception of brick, which was limited to the subsequent Stratum C demolition horizon. Stratum D was the most sig-

nificant culture-bearing stratum, but the region of Stratum F, which directly underlay Stratum C, also yielded a significant quantity of artifacts, especially complete glass and ceramic bottles.

Specific artifacts which appear to be unique for the late assemblage are as follows.

Ceramic wares include "Rhone Scenery" manufactured by T.J. & J. Mayer, 1843-1855; Spodeware transfer-printed earthenware (including "Ruins" and "Broseley" patterns) manufactured by W.T. Copeland, 1847-present, and Copeland and Garrett, 1833-1847, or Copeland-manufactured "Camilla," "Warwick," and possibly "Willow" patterns; polychrome-banded earthenware; and semi-opaque (greenish-glazed) Chinese export porcelain with an onion-like pattern.

Buttons include porcelain Prosser-molded and U.S. Army Saunders-type metal buttons, including an R marked regimental officer's button (Rifles Division).

Smoking pipes include yellow-glazed kaolin zoomorphic types, white kaolin types with eagle and stars motives, and common pottery/stoneware reed pipe bowls.

Metal ware is comprised of pewter/Britannia flatware.

Beads include only translucent hot-tumbled tube beads (all colors).

Bottle glass, previously mentioned as being virtually unique for the late assemblage, includes a mixture of earlier one-piece blown-in-mold dark olive and dark amber-olive (black glass) types together with two- and three-piece hinged mold bottles in dark olive, dark amber-olive, dark green, and aqua tints. Clear bottle glass was also present.

Ceramic bottles include a stoneware Rhenish beer/ale bottle and associated fragments.

Window glass includes glass having thickness modes of 1.5-2.0 mm, which conforms to Chance and Chance's (1976) time range of 1840-1860, in addition to the thinner modes seen in Components 14-1 and 14-2.

Subsistence items include oyster shells, pig bones, and possibly cut beef bones and ~~salmon~~ ^{salmon} vertebrae.

Other artifacts which characterize the late assemblage include hand-painted cottage ware, which first appeared in Stratum G and reached maximum densities in Stratum D. Machine-cut nails increased in frequency relative to wrought nails. This especially was apparent in the Stratum C demolition layer, which yielded a machine-cut common/wrought rose ratio of 5:76. A sufficient quantity of artifact types appear in both early and late Feature 54 assemblages to suggest continuity of Hudson's Bay Company occupation. Beads, ceramic wares, and buttons of identical types appeared throughout the sequence. Noteworthy is the low frequency of post-Hudson's Bay Company-era artifacts, including ironstone, china, and wire nails, suggesting that deposition ended prior to 1860.

Table 20-2. (Continued)

Category		Figure
Clear, aqua tint	24	
Clear, green tint	2	
Cobalt blue	1	
Green, emerald	2	
Green, dark	10	
Olive, dark	163	
Olive, dark amber, black	8	
Melted, unidentifiable	2	
Table glass		20
Bottle stopper	1	
Unidentified molded, pressed, decorated	5	
Milk glass	7	
Cased glass	7	
Unidentifiable fragments		125
Melted glass		13
<u>Metalware</u>		31
Product containers		31
Ferrous container fragments	28	
Metal lid fragments	3	
<u>Household Furnishings</u>		3
Stove frame part		1
Porcelain figurine		1
Carbon rod (lighting device)		1
<u>Apparel</u>		7
Devices, buttons		7
<u>Ornaments</u>		33
Beads		29
Tube	27	
Wire-wound	2	
Finger rings, metal		1
Military insignia, metal		1
Tinkler, metal		1
Chain fragments, cupreous		1
<u>Tobacco Pipes</u>		110
White ball clay		110

Table 20-5. Summary of Euro-American Artifacts, Strata 2/3, Operation 20A, Phase 2.

Category		Figure
<u>Ceramic Wares</u>		88
Common pottery, red paste	3	
Lustreware	1	
Miscellaneous glazed undecorated	2	
<u>Earthenware</u>		76
White paste	73	
Undecorated clear glaze	21	
Transfer-printed	41	
Banded	4	20-4a
Hand-painted cottage ware	4	
Hand-painted unidentified	3	
Gray paste, clear glaze	1	
Unidentified earthenware	2	
<u>Stoneware</u>		9
Buff paste	9	
Saltware with slip	1	
Saltware with glaze	8	
<u>Glassware</u>		221
Bottle glass	141	
Amber	1	
Amethyst	3	
Clear	13	20-4c
Clear, aqua tint	10	
Clear, green tint	3	
Green, dark	5	
Olive, dark	78	
Olive, dark amber, black	18	
Melted, unidentifiable	10	
<u>Household Furnishings</u>		1
Chimney glass	1	
<u>Apparel</u>		2
Devices, buttons	2	20-4d
<u>Ornaments</u>		102
Beads, glass	102	
Tube	101	
Wire-wound	1	
<u>Tobacco Pipes</u>		26
White ball clay	22	
Blackish clay	4	

Table 50-14. (Continued)

Category		Figure
<u>Apparel</u>		28
Devices, buttons	6	
Shoes	13	
Leather fragments	12	
Tack	1	
Gloves, leather	9	
<u>Ornaments</u>		4
Beads, glass	4	
Tube	3	
Wire-wound	1	
<u>Tobacco Pipes</u>		15
White ball clay	12	
Common pottery	2	
Plastic pipe bit (post-1860)	1	
<u>Miscellaneous Personal Items</u>		2
Military insignia	1	
Pencil lead	1	
<u>Construction Items</u>		2507
Masonry	207	
Brick	99	
Mortar	43	
Concrete (intrusive)	14	
Drainage tile	51	
Fasteners	897	
Nails	862	
Wrought	1	
Machine-cut	438	
Unidentified square	180	
Wire	204	
Unidentified	39	
Unthreaded fasteners	9	
Rivets	3	
Staples	5	
Unidentified	1	
Threaded	26	
Bolts	4	
Screws	22	
Building hardware, butt hinges	2	

solid-shanked button consisting of painted and edge-faceted glass laid on a ferrous backing was also recovered (Figure 53-24c). The type has not been previously reported from the locale.

The most common button recovered is of plain white metal (Figure 53-24b, equivalent to Chance and Chance's Type 1 (1976:123)). Stratigraphic evidence from Operation 53 suggests the button was used by the U.S. Army, ca. 1850-1855, possibly on enlisted men's uniforms.

Hollow buttons were manufactured from laminated sheet metal and had eye-lets or loops attached to the backs (Chance and Chance 1976:120). The button was historically associated with U.S. military uniforms. At Operation 53, two military button varieties were recovered, a U.S. line eagle and an unidentifiable style (face missing) manufactured by Scoville Co., Waterbury (Figure 53-24d-g).

B. Beads. A total of 236 glass beads were recovered and have been classified according to nomenclature developed for Fort Vancouver beads by Ross (1976:670-771). As shown in Table 53-15, two bead varieties were recovered in significant numbers: opaque white, hot-tumbled tube beads (FOVA Var. 1003) and opaque-layered, white-on-white, hot-tumbled tube beads (FOVA Var. 1040). A third variety--translucent blue, hot-tumbled beads (FOVA Var. 1063)--has also contributed to an assessment of the pre-Army occupation in Operation 53.

FOVA Bead Var. 1003 comprises 52.1% of all beads recovered and 53.3% of all tube beads. All are of the small size popularly called "seed beads." This variety was also the most common bead variety recovered at Fort Vancouver (Ross 1976:709). Two size populations, A and B, were defined on the basis of the correlation of least diameter to bead length (see Ross 1976 for discussion of the analysis). Population A, comprising 24.4% of the variety, ranges from 1.5 to 2.1 mm in diameter and 0.9 to 1.6 mm in length, and coincides with Population 2 at Fort Vancouver (Ross 1976:712, Figure 348). Population B, comprising 71.5% of the variety, ranges from 1.9 to 2.7 mm in diameter and 1.2 to 2.4 mm in length. This variety is midway between Population 2 and Population 3 (Ross 1976). At Fort Vancouver, Populations 1, 3, and 4 were absent from the Operation 53 sample. Population 1, an extremely small bead averaging 1.4 mm in diameter, may have been missing due to differences in sampling techniques, i.e., the Fort Vancouver sample was collected mainly by water screening through 1/32-in mesh (see Hoffman and Ross 1974b:57).

FOVA Bead Var. 1040 comprises 31.4% of all beads recovered and 32% of the tube beads. They are generally seed bead size. This variety was also the second most frequent bead variety recovered from Fort Vancouver (Ross 1976:726). Superficially, the bead type is identical in color and shape to Bead Var. 1003, but was manufactured from white-on-white two-layer glass. At Operation 53 three sizes of beads are recognized, Populations A, B, and C clustering at 2 mm, 2.9 mm, and 4.1 mm least diameter, respectively. Although the overall size range conforms with that defined by Ross at Fort Vancouver (1976:726), his suggested Populations 1 and 2 did not conform with the Operation 53 bead type assemblage. The discrepancy may be due to sample size or, in the case of the Fort Vancouver assemblage, may be the result of mixing of a number of different sizes from different time periods, resulting in average populations rather than real sizes used at specific points in time.

Table 53-15. Glass Beads Recovered from Pre-1860 Strata, Operation 53,
(Nomenclature, FOVA Variety, and Metric Dimensions after
Ross 1976).

Bead Description	Variety Number	No.	Range of Least Dia- meter x Length (cm)	Comments
<u>Tube Beads</u>				
Hot-tumbled, single-layer, short				
Transparent green	FOVA 1016	1	1.9 x 1.2	
Translucent bluish-green	FOVA 1006	1	2.8 x 1.7	
Translucent blue	FOVA 1063	15	3.0-3.6 x 2.1-2.7	
Translucent greenish-blue	K81 A-1	1	2.4 x 2.0	
Translucent dark purple	K81 A-2	2	2.7-3.0 x 2.6-2.7	
Opaque white	FOVA 1003	123	a=1.5-2.0 x 0.9-1.6 b=1.9-2.7 x 1.3-2.4	FOVA population 2 FOVA population 3
Opaque green	FOVA 1053	4	4.8 x 4.0	Fragments, friable
Opaque dark purple	FOVA 1012	3	2.4-2.7 x 1.7-1.9	
Hot-tumbled, double-layer, short				
Transparent red on opaque white	FOVA 1072	1	1.9 x 1.1	
Translucent blue on opaque green	K81 A-3	1	2.7 x 2.1	With white-lined hole
Translucent purple on opaque green	K81 A-4	1	2.4 x 1.8	With white-lined hole
Opaque white on opaque white	FOVA 1040	74	a=1.5-2.7 x 1.1-2.1 b=2.5-3.2 x 1.9-2.7 c= 4.1 x 3.7	FOVA population 1-2 FOVA population 2 FOVA population 2
Opaque brownish-red on trans- parent green	FOVA 1038	1	3.0 x 2.6	
Plain, single-faceted, double layer				
Transparent colorless on trans- lucent white	FOVA 1036	2	5.5-7.7 x 5.0-6.9	
Transparent dark purple on translucent light purple	FOVA 1018	1	5.2 x 5.2	

Table 53-15. (Continued)

Bead Description	Variety Number	No.	Range of Least Diameter x Length (cm)	Comments
<u>Wire-Wound Beads</u>				
Plain, single-layer Spherical				
Transparent blue	FOVA 2005	1	6.4 x 5.8	
Ellipsoidal				
Transparent dark red	FOVA 2032	2	5.0 x 5.6	White oxidized surfaces
<u>Mandrel Pressed Beads</u>				
Faceted				
Opaque greenish blue	FOVA 3002	1	8.3 x 7.0	
<u>Unidentifiable</u>		1		
Total		236		

FOVA Bead Var. 1063 is a blue-to-aqua, translucent, hot-tumbled tube bead. At Operation 53, bead color and opacity vary markedly from typically translucent aqua to mottled opaque greenish-gray, undoubtedly caused by heat or chemical alteration.

One population was defined as having a mean minimum diameter of 3.33 ± 0.21 mm and a mean length of 2.30 ± 0.19 mm, which conforms to the Fort Vancouver Population 2 (Ross 1976:709, Figure 710-711). On the basis of a comparison with beads recovered from the pre-1834 and post-1836 Indian trade stores at Fort Vancouver, this variety appears to have been more prevalent in the early period; for instance, at the pre-1834 Indian Trade Store, Var. 1063 represented 28.3% of all tube beads recovered and was the second most frequently found variety from that area. At the post-1836 Trade Store, it represented 13.69% of all tube beads. At Operation 53, this variety was clustered in the extreme southern portion of the operation (see component distributions).

C. Other Personal Items. Several other personal items of interest were found in Operation 53. A fragment of a gold finger ring was recovered; this ring was crudely shaped by hammer and probably served as a wedding ring. The 1848 United States dime, Liberty seated type, in very fine/extremely fine condition, was probably imported to the site ca. 1849-1852 by the Army. The ceramic marble (Figure 53-25d) is of clear-glazed porcelain with an overglaze hand-painted polychrome decoration not previously reported from the Fort Vancouver locale. The decoration consists of two multiple ring "target" motifs executed in reddish-purple at opposite sides and a circumferential teardrop band executed in yellowish-green. The diameter of the marble is 2.13 cm.

The thimble, illustrated in Figure 53-26c, has a flared base and adjoining geometric band decoration, and is unlike those reported from Fort Vancouver (Ross 1976:1187, Figure 627). The specimen is 2.18 cm long x 1.75 cm base diameter and is of yellow metal, probably brass.

D. Tobacco Pipes. A total of 295 pipe fragments were recovered and all represent portions of ceramic pipes (Table 53-16). Unglazed white ball clay pipes (or kaolin pipes) comprise nearly 98% of the assemblage and are comparable to pre-1860 pipe styles and manufactures previously reported from the Fort Vancouver locale (cf. Ross 1976; Chance and Chance 1976). At least six types are represented. Fragments of undecorated pipes manufactured by John, Jesse, and Thomas Ford, London, England, 1830-1870 (Oswald 1975:136) were recovered most often and were designated K81 Type A-1001. The Ford Company apparently was sole supplier of tobacco pipes to the Hudson's Bay Company in 1833 and between 1843-1853 (Ross 1976:804-805, Table 9). Three varieties were defined: 1) an undecorated, unmarked bowl with a raised "T" and "F" on the spur, identical to the Fort Vancouver Ford Style 3 pipes (Ross 1976:809); 2) an undecorated pipe with "FORD STEPNEY" and the impressed figure of a bee within a solid impressed circle on the bowl and a spur marked with a raised "I" and "F"; and 3) an impressed bowl with "FORD" and the impressed figure of an insect within a solid impressed circle.

"TD" - decorated pipes (K81 Type A-1101) were also recovered. Two styles were identified, one having a plain bowl with raised TD, and the other having a raised TD within a star circle (Figure 53-25b). No manufacturing marks were observed but styles probably date from the 1850s.

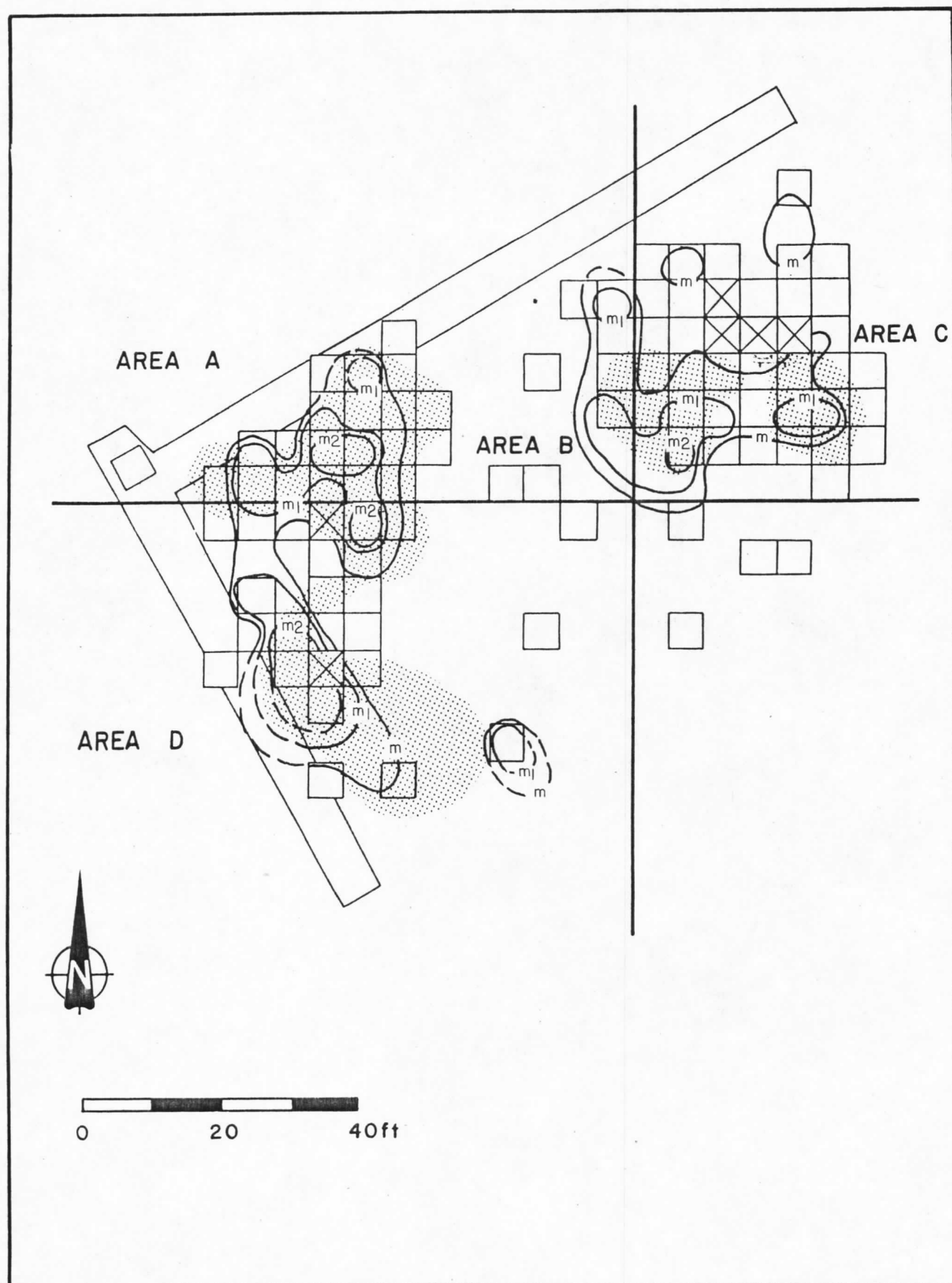


Figure 53-50. Distribution of glass beads, pre-1860 strata, Operation 53, as defined by relative frequency isopleths M , M_1 , and M_2 . "All artifacts" distribution shaded for comparison. Frequencies represent items per square foot. $M \geq 0.04$, $M_1 \geq 0.1$, $M_2 \geq 0.18$.

Table 54-5. (Continued)

Category		Figure
<u>Household Furnishings</u>		12
Mirror glass	1	
Scissors	1	54-5i
Stove frame part	2	
Stove lid	8	
<u>Apparel</u>		4
Devices, buttons	4	54-5b-e
<u>Ornaments</u>		73
Beads, glass tube	72	
Finger ring	1	54-5f
<u>Tobacco Pipes</u>		107
White ball clay	107	
<u>Construction Items</u>		653
Masonry	38	
Brick	23	
Mortar	13	
Concrete, intrusive	1	
Drainage tile	1	
Fasteners	412	
Nails	402	
Wrought	86	
Machine-cut	98	
Unidentified square	110	
Cast	2	
Wire	60	
Unidentified	46	
Unthreaded fasteners	7	
Rivets	2	
Roves	1	
Staples	4	
Threaded fasteners	3	
Bolts	1	
Nuts	1	
Screws	1	
Building hardware, door lock part	1	
Other construction items	202	
Window glass	191	
Glazing putty	2	
Saw-cut wood	2	
Roofing slate	7	

Table 55-10. (Continued)

Category		Figure
<u>Metalware</u>		6
Tableware, iron spoon	1	55-4g
Metal foil	5	
<u>Household Furnishings</u>		4
Stove frame parts	4	
<u>Apparel</u>		5
Devices	5	
Buttons	4	55-4c-d
Snap, cupreous	1	55-4e
<u>Ornaments</u>		100
Beads, glass	100	
Tube	99	
Wire-wound	1	
<u>Tobacco Pipes</u>		103
White ball clay	103	
<u>Miscellaneous Personal Items</u>		8
Coin	1	
Bandage clip	1	
Colored lens	2	
Slate pencil	2	
Slate tablet	2	
<u>Construction Items</u>		522
Masonry	14	
Brick	10	
Mortar	1	
Concrete	2	
Drainage tile	1	
Fasteners	397	
Nails	392	
Wrought	138	
Machine-cut	153	
Unidentified square	69	
Wire, ferrous	28	
Unidentified, ferrous	4	
Unthreaded fasteners, wire staple	1	

Table 55-11. (Continued)

Category		Figure
<u>Household Furnishings</u>		3
Porcelain figurine	1	
Mirror glass	1	
Carved bone tableware handle	1	
<u>Apparel</u>		1
Device, button	1	
<u>Ornaments</u>		46
Beads, glass	46	
Tube	45	
Wire-wound	1	
<u>Tobacco Pipes</u>		173
White ball clay	172	55-7b
Blackish clay	1	
<u>Construction Items</u>		593
Masonry	12	
Brick	6	
Mortar	3	
Concrete	3	
Fasteners	393	
Nails	389	
Wrought	58	
Machine-cut	128	
Unidentified square	152	
Wire, ferrous	7	
Unidentified, ferrous	44	
Threaded fasteners	4	
Screw, machined	2	
Screw, wood/metal	2	
Building hardware	1	
Key, ferrous	1	55-7c
Other construction items	187	
Window glass	185	
Roofing slate	2	
<u>Weaponry</u>		4
Ammunition, ball and shot, lead	4	
<u>Livery</u>		1
Harness buckle	1	

Table 55-12. (Continued)

Category		Figure
<u>Apparel</u>		2
Devices, buttons	2	
Buttons	1	
Iron heel cleat	1	
<u>Ornaments</u>		11
Beads, glass tube	11	
<u>Tobacco Pipes</u>		49
White ball clay	49	55-8b
<u>Construction Items</u>		253
Masonry, brick	1	
Fasteners	205	
Nails	200	
Wrought	102	
Machine-cut	85	
Unidentified square	7	
Cast	1	
Iron wire	2	
Iron, unidentified	3	
Unthreaded fasteners, wire staple	3	
Threaded fasteners	2	
Wood/sheet metal screw	1	
Washer	1	
Building hardware	2	
Door lock plate	1	55-8d
Iron stock lock	1	55-8c
Other construction items, window glass	45	
<u>Weaponry</u>		1
Ammunition, lead bullet	1	
<u>Tools and Implements</u>		1
Knife, crooked backed	1	55-8e
<u>Livery</u>		1
Farrier's nail	1	
<u>Hardware</u>		8
Bands, iron	5	
Pulley channel, iron	1	
Eyelet hook, iron	1	
Iron detritus	1	55-9b

Table 58-3. Summary of Euro-American Artifacts, Strata 2/3, Operation 58.

Category		Figure
<u>Ceramic Wares</u>		72
Common pottery, red paste, lustreware	2	
Earthenware	61	
White paste	61	
Clear glaze, undecorated	21	
Transfer-printed	30	
Banded	2	
Hand-painted	7	
Colored glaze, decorated	1	
Porcelain	5	
White paste	5	
Hand-painted vitreous china	3	58-3c
Clear glaze, undecorated	1	
Transfer-printed, clear glaze	1	
Ironstone, undecorated	4	
<u>Glassware</u>		37
Bottle glass	29	
Amber	1	
Aqua	1	
Clear, aqua tint	3	
Clear, green tint	2	
Green, dark	2	
Olive, dark	20	
Unidentifiable glassware	8	
<u>Metalware</u>		1
Product container handle, iron	1	
<u>Household Furnishings</u>		2
Mirror glass	2	
<u>Apparel</u>		3
Devices, buttons	3	
<u>Ornaments</u>		365
Beads, glass	363	
Tube	362	
Wire-wound	1	
Finger rings	2	
<u>Tobacco Pipes</u>		83
White ball clay	83	58-4a

Table 60- 16. (Continued)

Category		Figure
<u>Metalware</u>		20
Product containers	19	
Ferrous container fragments	17	
Product container lid	1	
Bottle cap	1	
Metal foil	1	
<u>Household Furnishings</u>		29
Chimney glass	16	
Mica, shaped	3	
Mirror glass	6	
Glass container lid	2	
Porcelain figurine	1	
Fire poker handle	1	
<u>Apparel</u>		29
Devices	27	
Belt buckle	1	
Buttons	26	60-12d-g
Shoe leather fragments	2	
<u>Ornaments</u>		193
Beads, glass	193	
Tube	190	
Wire-wound	3	
<u>Tobacco Pipes</u>		96
White ball clay fragments	94	60-13a-g
Plastic pipe bits	2	
<u>Miscellaneous Personal Items</u>		10
Coin	1	
Watch part	1	
Combs	6	60-14b
Chalk	1	
Pencil	1	

Table 62-2. (Continued)

Category		Figure
<u>Household Furnishings</u>		44
Chimney glass	30	
Hurricane lamp fragments	2	
Mirror glass	1	
Figurine, porcelain	7	
Stove frame parts	4	
<u>Apparel</u>		9
Devices	7	
Buttons	3	
Garter buckle	3	
Suspender stay	1	
Shoes, leather fragments	2	
<u>Ornaments</u>		9
Beads, glass	9	
Tube	7	
Wire-wound	2	
<u>Tobacco Pipes</u>		1
White ball clay	1	
<u>Miscellaneous Personal Items</u>		4
Ceramic marbles	3	
Toy wagon wheel	1	
<u>Construction Items</u>		101
Masonry	30	
Brick	29	
Concrete, intrusive	1	
Fasteners	49	
Nails	43	
Wrought	1	
Machine-cut	11	
Unidentified square	3	
Wire	26	
Unidentified	2	
Threaded fasteners	6	
Bolt with nut	1	
Screws	2	
Nuts	3	
Building hardware	3	
Iron hasp	1	
Lock plate	2	

