

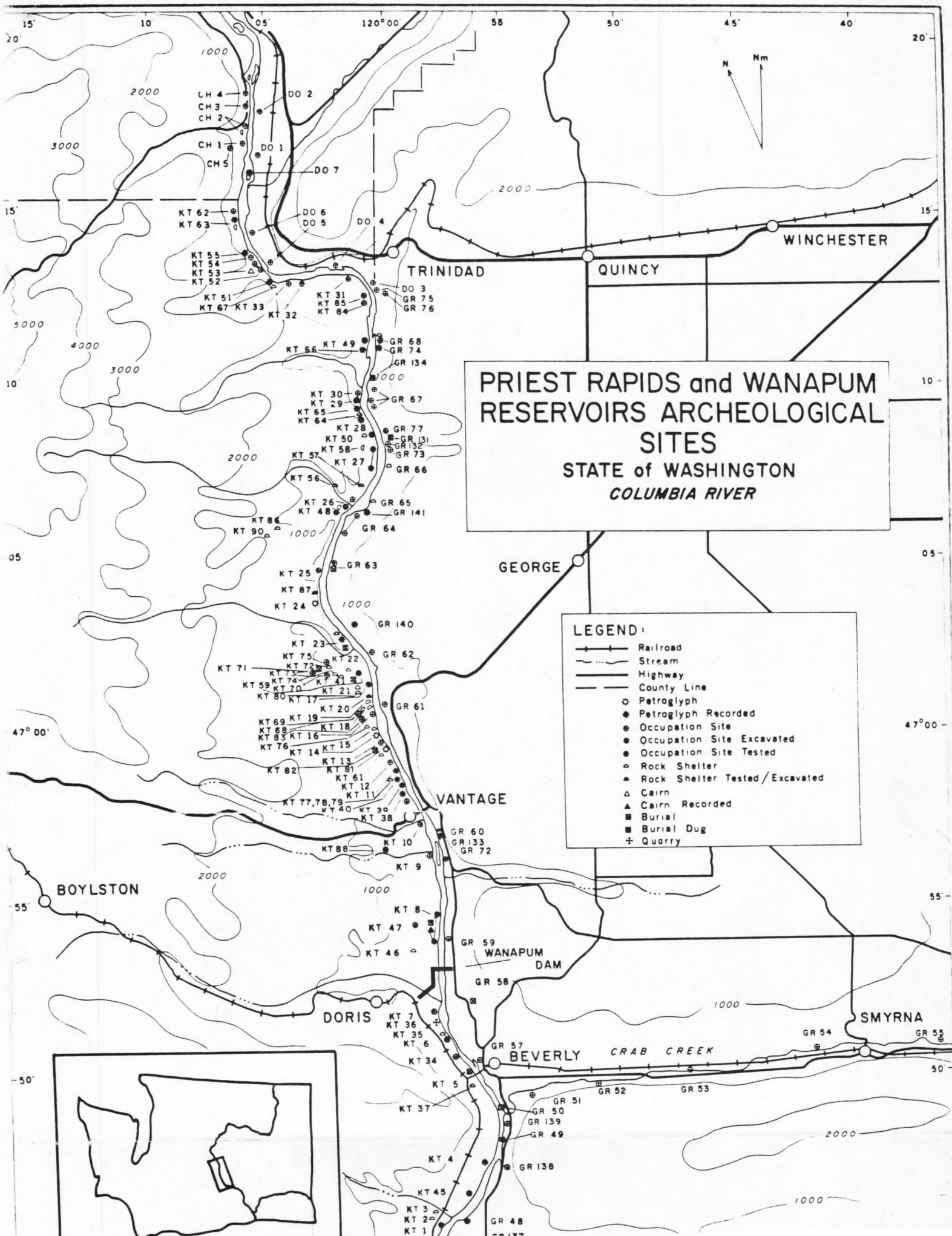
STUDIES IN PREHISTORY
PRIEST RAPIDS and WANAPUM
Reservoir Areas
Columbia River
Washington

A Final Report to
the United States Department of Interior
National Park Service
Interagency Archeological Services
San Francisco, California
and to
Public Utility District No. 2 of Grant County
Ephrata, Washington

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Shell Artifacts

Three shell artifacts were identified from YK-5. Specimen #841 is a shell disc bead from the slumped riverbank deposits of Cut X-10. It is made of a salt-water species, and thus was probably traded in. It measures 4.4 mm in diameter and has a thickness of 1.5 mm, with a bi-conical perforation in the center of the major surfaces of 1.4 mm. Another possible bead fragment is #1206 an Olivella biplicata shell with the spire broken off so that it is not possible to determine whether it was ground down to form a bead. It is a rather large specimen, the fragment measuring 24.4 mm long and with a maximum diameter of 14.1 mm. It derives from W-19 where, at 80-90 cm depth, it comes from Component B. This species also comes from the coast. Specimen #1988 is the "beak" of the left valve of the freshwater mussel Margaritifera falcata. The fragment measures 40.9 mm long by 18.0 mm wide. An irregular perforation was made from the outer surface, measuring 6.3 mm by 7.8 mm, and the piece may have served as a pendant. It derives from Cut W-11 at 60 cm and belongs to Component C. Shell ornaments are quite rare in all subregions, perhaps not because they were so infrequent prehistorically, but rather because the shells become quite friable under the usual conditions of preservation.

Euro-american Artifacts

Although we do not believe that YK-5 was intensively occupied in the latter part of the Late Period, and therefore there was little or no transition from prehistoric to historic occupation of the site, there were a number of Euro-american artifacts at the site, most of which we believe may be attributed to the Wanapum people. This occupation dates from the late 19th and early 20th centuries, and in effect it is interpreted as a re-occupation of an "old" site. Many of these "historic" artifacts came from the surface, and the others were either from Strata I or II or from material slumped along the riverbank where the context could not be trusted. Thus in the following presentation we give provenience, but with the qualification that occurrence in strata below surface is relatively meaningless and that the horizontal locations (by Cut) were heavily skewed toward the north side of the site.

Trade Beads

Glass trade beads are presented in more detail on pp. 107 - 112 and 175 - 177, and reference to those passages will clarify observations made below on the four specimens from YK-5.

TABLE 2.11

YK-5--GLASS TRADE BEADS

Type	Catalogue Number	Figure	Size	Glass	Color	Cut	Stratum	Remarks
If(6)	3043	2.33f	L	tr	Blue		Surface	Provisional type not covered by Kidd and Kidd 1970
If(7)	1771	2.33g	VL	tr	Pink	X-10	II	Prov. type, appears to have been mold-made
IIa13	99	-	S	op	White	X/Y-17	Slump	
WIIIf(6)	1172	2.331	S	tr	Blue	W-10	Surface	Very thin walls, thus relatively large hole

There is nothing particularly remarkable about these few beads, except that they are within the range of variation of those traded to the Plateau people in the late 19th century.

Bottle Fragments

Only two bottle fragments were found at YK-5, both curved in a manner to indicate that they were from cylindrical bottles. Specimen #696 measures 51.4 mm by 21.9 mm by 3.8 mm and is of clear glass, but slightly weathered. The other piece, #992, measures 32.0 mm by 21.4 mm by 2.7 mm, and the surfaces of the clear glass are weathered to translucency. The former was found unstratified, while the latter came from Stratum I of Cut W-18.

Ceramics

Two small pieces of pottery came from YK-5. Specimen #281 is of earthenware, glazed emerald green on both surfaces. It was found in the slumped portions of Cuts X/Y-17 and measures 25.5 mm long, 19.9 mm wide and 3.4 mm thick. Specimen #869 is an earthenware rim fragment with a white glaze on both surfaces. Under the glaze the rim edge is painted with a pale purple line 3.1 mm wide, and this is separated by an interval of 2.1 mm from a line of the same color parallel to the rim but only .6 mm wide. The piece measures 11.1 mm by 10.3 mm (thickness incomplete) and was found on the surface.

Buttons

Three of the four buttons from YK-5 were brass military uniform buttons all of one type. Specimens #1644, 1645 and 1647 were all found on the surface of Cut X-10 (Figure 2.19a,b). They are of the hemispherical type with a convex obverse piece clinched around the edge to an almost flat back, in the center of which a wire loop is soldered. Embossed on the

Specimen #1352 is also of .22 caliber, but measures only 10.7 mm long (.22 short) and has a U stamped on the breech (Remington Arms Company). Both were from the surface of Cut V-12

Specimen #1931 again illustrates the disturbed nature of the deposits at the edge of the site, for it is a portion of a cardboard matchbook cover 40-75 cm deep in Cut X-10. The piece is 45.9 mm wide and is printed with a blue colored ink, with no lettering.

In summary of the historic artifacts at YK-5, there is evidence of 19th century occupation as well as occupation in the present century up to perhaps a year or less before our coming to the site. The earlier occupation is indicated by the trade beads, military uniform buttons, glass bottle and square nails. The wire nails (some quite fresh appearing), cartridge shells, Spam can lid and matchbook cover indicate recent visitation to the site. We infer that the nails were used in some sort of wood construction, but no wood boards or other remains were found. The amount and nature of the historic artifacts appear to indicate not very intensive occupation at any time during the historic period.

Summary Interpretation of YK-5

The Sourdough Creek site (YK-5) was an occupation site situated on the south (downstream) side of an alluvial fan that jutted into the river from the west. The fan interfered with flow of the river enough to cause an eddy which we found to be eroding the site at high water. Whether or not this eddy was an important factor in the occupation of the site by humans is not clear, but it, combined with relatively deep water near shore, would have provided a slow-water resting place for salmon migrating upstream. We presume from its location that fishing was an activity carried on at the site, although the only indication of this from our excavations is 26 possible sinkers and limited fish remains. Hunting is suggested by the 211 projectile points recovered and the quantities of stone flake cutting and scraping tools. While it is possible that these points and tools may have been used for catching and processing fish, the possibility runs counter to overwhelming ethnographic evidence from both the Plateau and the Coast. Many of the tools may also have served for processing vegetal resources, just as pounding tools and milling stones which we assume were primarily use on plant materials could also have served for processing dried fish or venison.

To briefly summarize occurrences of the major artifact categories, we found that the most numerous and stylistically revealing class was that of Projectile Point. Among these points we found that the earliest component (A) was dominated by Corner Notched, Triangular and Large Side Notched types, with the presence in relatively low proportions of Basal Notched, Basal to Corner Notched, Small Side Notched, Pentagonal and Lanceolate points. The second component (B) maintained high relative percentages of Corner Notched and Triangular points along with those of Lanceolate form. In the uppermost and latest component (C), Basal Notched, Basal to Corner

Notched and Pentagonal point predominated, with other forms either occurring in lesser proportions or dropping out altogether.

With regard to other flake tool types, we noted that those from Components B and C from YK-5 formed a grouping or "aggregate" associated with a riverine microenvironment as contrasted to several kinds of microenvironments characteristic of the hinterlands. On the other hand, our study of the non-projectile flake tools from Component A of YK-5 revealed a pattern of types distinct from that in the uppermost component of the site and from those in the hinterlands. This might lead to the inference that subsistence practices and possibly the microenvironment at YK-5 were different during Component A times than they were during the periods of Components B and C. If this was indeed the case, a possibility is that the area was still affected by the warmer and drier regime of the Hypsithermal interval during Component A occupation.

A separate study of the Large Cutting Tools from YK-5 revealed that the five types known regionally occur at the site, four of them occurring in Component B, but all of them but one (Cobble Chopper) absent from Component C. Our view of the distribution of this class at the site is quite distorted, however, for over two-thirds of the specimens derive from the beach or beach slump.

Pounding Tools, mostly Battered Cobbles, increase from Component B to C (they were absent in Component A), which is opposite to the trend among Milling Stones with which they supposedly functioned. The most plausible explanation for this apparent discrepancy is that the sample of Milling Stones from YK-5, while the largest from any site in the region is still small and may not be representative.

Bone and antler objects are sparse in the deposits relative to stone artifacts. Over 50% of the bone artifacts are piercing tools, mostly awls, with low frequencies of other types. None of the bone tools appear to be projectile points, nor do any of them appear to have been fish hooks (either gorge or curved).

From the various lines of evidence discussed above, we interpret YK-5 to have been a seasonal camp site probably most intensively occupied during the late summer and early autumn. The projectile points and stone cutting tools indicate land mammal hunting and meat processing activities were carried out at or from the site. The pounding tools and milling stones point to plant and/or dried meat processing, as well. Fishing may have also been an activity of site occupants, but if so, the few possible net sinkers are the only artifactual indication of it. Although the faunal remains will be treated in a separate study, it is possible to state that they are dominated by cervid remains, mostly deer, with some elk. Scattered pockets and a few pieces of river mussel shell suggest the occasional use of mollusks as a supplementary food resource. Component A of the site was, according to the one C-14 date, occupied as early as 5,000 years ago or early in the third millenium B.C. This would have been at the end of the Hypsithermal interval (Hansen 1971; Heusser 1977) in the Northwest, and it is

possible that the warmer, drier climate of that time is reflected in the functional aggregate of stone flake tools found in Component A of the site. In any case following a period of deposition of aeolian sediments, the site was occupied (or re-occupied) by people whose tool kits did not differ functionally for the remaining 3,500 years of prehistory in the region. During that interval there were stylistic changes, particularly reflected in stone projectile points as indicated in the different type proportions in Components B and C. The latter component was apparently not intensively occupied into historic times, for the few "historic" artifacts would seem to represent casual visits in the 19th and 20th centuries.

From the shallow occurrence of the dentalia shell it is apparent that they belong to the later occupation at the site, rather than that associated with the floor of Feature 1 and the underlying deposits.

Also one clamshell disc bead was found (#791). It does not have the nacreous appearance of river mussel shell and therefore is probably of a saltwater species. It measures 7.2 mm in diameter, with a central perforation 2.0 mm across, and has a thickness of 0.9 mm. It was found in the -75 to -95 cm level in Quadrant III of the main excavation, coming from within a few centimeters of the surface.

Euroamerican Artifacts

Glass Trade Beads

We begin our discussion of Euroamerican artifacts with a class of artifact that provides one of the clearest indications of acculturation in the ethnohistoric context. On the one hand, technology was completely alien to Native Americans until the coming of the Europeans. Secondly Europeans found from the time of the very first contact that glass, especially in the form of small beads, was a commodity that was instantly understood, and highly desired by Native people. Thus, beginning in the 16th century the manufacture of beads for trade with non-European peoples, particularly those in the New World, became an important aspect of the European glass industry. The well-spring of this sub-industry, both in quantity and quality, were the many thriving factories in Italy, with those in Venice as pre-eminent. Most western European countries also eventually participated in this activity, and it is known or probable that they too contributed to the New World trade, particularly England, France, the low countries and Germany (Kidd 1979). Glass beads were made in a wide variety of sizes, shapes and color combinations, and a number of classification schemes have arisen in the archaeological literature to deal with them. Perhaps the most fundamental and comprehensive is that of Kidd and Kidd 1970, which although devised on the basis of beads from Northeastern America, is designed to be expansible, and we have adapted the scheme for describing beads in the present report.

Because YK-13 yielded the largest collection of trade beads from the project, we are presenting the classification of types for the entire project in the form of an abbreviated key to types in the context of reporting the beads from this site, Table 2.22. The key is designed to be as self-explanatory as possible without detailed color illustration, and for better comprehension the reader is referred to Kidd and Kidd 1970.

Table 2.22 Key to Glass Trade Bead Types in the Priest Rapids-Wanapum Region (adapted from Kidd and Kidd 1970)

Size: VS - Very small, ≤ 2 mm
 S - Small, 2-4 mm
 M - Medium, 4-6 mm
 L - Large, 6-10 mm
 VL - Very Large, 10 mm

Shape: C - Circular (Ring)
 DO - Donut
 F - Flat
 FA - Facetted
 O - Oval
 R - Round
 T - Tube

Type of Glass: cl - clear
 op - opaque
 tr - translucent

Color: Kidd and Kidd 1970 use, Taylor, Knoche and Granville (eds.)

Descriptive Color Names Dictionary. Container Corporation of America. Chicago. For the present description, colors were subjectively approximated to the colors in Kidd and Kidd 1970 as determined under a white florescent lamp at an angle of $\pm 45^\circ$. For types with a wide range of closely similar colors, the entire range is given, e.g. IIa31-55 refers to a range of blue for type IIa. () in type designations represent provisional additional type variants. () in attribute columns represent variations not listed in Kidd and Kidd 1970.

Type	Shape	Size	Glass	Name of Color	Remarks, Occur at:
Ia3	T	(VL)	cl	Lt. gray	Many long. striations, gas bubbles? YK-13
Ia5	T	S(VL)	op	White	GR-71, YK-13, CH-4
Ia7	T	(L)	(cl)	Light gold	YK-13
Ic4	(FA)	S	op	Black	4 sides, rest round. YK-13
Ic9	FA	VS	cl	Apple green	5 sides. YK-13

Table 2.22 (Continued)

Type	Shape	Size	Glass	Name of Color	Remarks, Occur at:
Ic13	FA	(VS)	cl	Brite navy	6 sides. YK-13
If5	FA	(S,M)L	cl	Amethyst	6 sided Russian bead, GR-71, YK-13, CH-4
If(6)	FA	L	tr	Blue	Provisional type. 6 sides. YK-5
If(7)	FA,0	VL	tr	Pink	Prov. type, appears to have been mold-made. 6 sides. YK-5
If(8)	FA	M	op	Dark brown	Prov. type. 6 sides. GR-71
If(9)	FA	M	tr	Apple green	Prov. type. 5 sides. YK-13
If(10)	FA	L	cl	Light blue	Prov. type. 5 sides. YK-13
IIa1	R	S	op	Redwood	GR-71
IIa4	R	(S)	cl	(Red)	YK-13
IIa5	(C)	VS	cl	Red	IIa5 except for shape. YK-13
IIa6	R	S	op	Black	GR-71, YK-13, CH-4
IIa9	R	(VS,S,M)	op	Light gray	GR-71, YK-13
IIa11	R	(S)	op	Oyster white	YK-13
IIa12	C	S	tr	Oyster white	YK-6
IIa13	R	VS,S,M	op	White	GR-71, YK-5, YK-6, YK-13, CH-4
IIa14	C	(M)	op	White	YK-13
IIa16	R	(VS)	(tr)	Pale blue	YK-13
IIa17	R	VS	op	(Yellow), Lt. Gold	YK-13
IIa18	R	VS	(cl)	Amber	YK-13
IIa20	R	(VS)	op	Cinnamon	YK-13
IIa21	R	(VS)	op	Citron	YK-13
IIa23-30	R	VS,S	op,cl	Greens	GR-71, YK-13, CH-4
IIa31-55	R,F	VS,S,L	op,cl	Blues	GR-71, YK-13, GR-44
IIa58	R	VS,S(M)	cl(tr,op)	Lt. Cherry rose	YK-6, YK-13
IIa61	R	S	cl	Dark, rose brown	YK-13
IIb18	R	S	cl	Light gray	12 opposed, thin white stripes ("Gooseberry" beads). YK-6
IIb56	R	S	op	Robin's egg blue	3 opposed white stripes. GR-71
IIb'(14)	R	VL	cl,op	Pink, white green	Numerous twisted, irregular stripes. Provisional type. GR-71
IIIa(13)	T	VL	cl,op	White	Outer layer clear, core white. Prov. type. YK-13

Table 2.22 (Continued)

Type	Shape	Size	Glass	Name of Color	Remarks, Occur at:
IVa2	R	VS,S	cl(op)	Redwood	Core, light gray to white GR-71, YK-13, CH-4
IVa9	R	VS	(cl)	Scarlet	White core. YK-13
IVa(20)	R	S	op	Blue	White core. Prov. type. GR-71
IVa(21)	R	S	op	Pink	White core. Prov. type. GR-71
IVa(22)	R	L	op	Robin's egg blue	White core. Prov. type. YK-6
IV(h1)	R	VL	cl	Outer Redwood Inner Oys. wht.	White stripe 2.2 mm wide around middle. Prov. type. CH-4
Wib5	R	M	tr	Very pale blue	YK-13
Wib8	R	VL,L	cl	Maple	YK-6, YK-13
Wib10	R	M	op	Lt. aqua blue	YK-6
Wib15	R	(VL)L	cl	Ultramarine	YK-6, YK-13, CH-4 (mold-made)
Wib(17)	R	L	op	Light green	Prov. type. YK-6
Wib(18)	R	M	tr	Navy	Prov. type. YK-13 (mold-made)
Wib(19)	R	L	tr	Light blue	Prov. type. YK-13 (mold-made)
Wib(20)	R	L	op	Light blue	Prov. type. YK-13 (mold-made)
WId2	DO	(M)	(op)	Maple	YK-13
WId(5)	DO	S	cl	None	Prov. type. YK-13
WI(fl)	Conical	L	op	Robin's egg blue	GR-71/9 is "bell" shaped. Prov. type.
WIIIf(6)	FA	S	tr	Blue	Very thin walls, thus rel. large hole. 6 sid YK-5
WIIId(2)	O	L	op	White	Inlaid stripe of coral color in a spiral around bead. Prov. type. GR-71

Total - 51 Types, 2 Type Clusters.

Table 2.23 YK-13 - Glass Trade Beads -
Types and Distribution

Type	Level	Unit	Catalogue Number, (N) if > 1
Ia3	¹ -91	-X606, -Y634	123 (Fig. 2.33a)
Ia5	Surface	-	572

Table 2.23 (Continued)

Type	Level	Unit	Catalogue Number, (N) if > 1
Ia7	"	-	489
Ic4	"	-	572 (Fig. 2.33b)
Ic9	"	-	32(3), 88, 100 (Fig. 2.33b)
Ic13	"	-	489 (Fig. 2.33d)
If5	"	-	32, 100 (Fig. 2.33e)
If(9)	"	-	100 (Fig. 2.33i)
If(10)	"	-	100 (Fig. 2.33j)
IIa4	"	-	489
IIa5	"	-	413
IIa6	"	-	489
IIa9	"	-	32
IIa11	"	-	88
IIa13	"	-	32, 88(3), 89(2), 412(2), 572(2), 489(6)
"	-113 - -116	-X507, -Y262	244(4)
IIa14	Surface	-	489
IIa16	"	-	32
IIa17	"	-	32, 88, 311, 489, 572(24)
"	-113 - -116	-X507, -Y261	244
IIa18	Surface	-	32, 311
IIa20	"	-	489
IIa21	"	-	489(5)
IIa23-30	"	-	32(2), 311(2), 412(2), 489(3)
"	-113 - -116	-X507, -Y261	244
"	-95 - -115	-	245
IIa31-55	Surface	-	32(14), 61(2), 88(8), 89(3), 311(8), 412(6), 413(2), 489, 572(22), 791
"	-113 - -116	-X507, -Y261	244(3)
IIa58	Surface	-	88(2), 89, 311, 489
IIa61	"	-	413
IIIa(13)	-94	-X507, -Y617	122
IVa2	Surface	-	32(2), 61, 88(2)
IVa9	"	-	412, 489
Wib5	"	-	480
Wib8	-95 - -115	-	245
Wib15	Surface	-	174
Wib(18)	"	-	88
Wib(19)	"	-	88
Wib(20)	"	-	100
Wid2	"	-	489
Wid(5)	"	-	572
Total beads			181

Total Types - 34, plus 2 Type Clusters.

¹ Depths from Datum A, but in each case the specimen proved to be within 10 cm of surface.

We see in Table 2.23 that YK-13 yielded 181 beads, grouped into 34 bead types and two type clusters. A type for which we have some dating control is that with faceted, amethyst colored examples (If5) known as "Russian" or "Hudson Bay" beads, which are thought to date from about 1830 to 1870 in the Columbia Valley (Strong 1959:227). On the basis of the other historic materials at the site (e.g., see discussion of ceramics below), we interpret the historic occupation of the site to have been in the late 19th and early 20th centuries. Type If5 bead, and for that matter, probably most of the others, are thus interpreted to represent the earlier part of the historic occupation.

Ceramics

Some 299 fragments of table and other domestic use pottery were found at YK-13. Most of it came from the surface, but a few pieces from the housepit came from just under the surface, where they may have been trampled in. All will be regarded as deriving from the surface. Most of the sherds are of earthenware, with a cream colored paste, usually glazed on the interior and exterior vessel surfaces. A small number of pieces have a harder, white interior and glazed surfaces, a type sometimes termed "ironstone." In addition a few pieces have a hard, gray paste with various types of surface treatment, of a type often called "stoneware." The description below is designed to characterize these ceramics in sufficient detail to date them with reasonable precision, and to provide enough information so that the reader may decide whether a piece (or group) is of sufficient interest to pursue knowledge of it further. The sherds are so fragmented that little can be said about form - although from the curvatures most appear to have been plates. No complete handles were found, nor any spouts.

In the late 19th century there were hundreds of earthenware manufacturing works in England the United States, with others in Europe, and in the Orient, especially China and Japan. England was the main supplier of better tableware to the United States, and the high prestige of British ceramics continues today. Often, but not always, the factory, place, and even date of manufacture was indicated by a potter's mark on the exterior of the base of a piece. Sometimes this mark was engraved or incised, but more often in the latter part of the century and into the present one, the mark was transferprinted in ink beneath the glaze. It is these marks that provide the best clues as to the origin and date of vessels. The form and designs of decorated vessels are also very valuable in identifying them, but these features were widely shared and imitated, and are therefore less useful for identification purposes.

In sherds from YK-13, some 15 bear potter's marks, and of these we have been able to identify either fully or tentatively 7 of them.

All of these marked sherds are fragmented, so that none of them bear an entire mark. Probably the most useful work in aid of identification is Godden 1964, but at the time of writing this work is unavailable - however, the following sources have been helpful: Godden 1968, Kovel and Kovel 1958, Ramsay 1939, Sprague 1980.

Organic and Composition Objects

Specimen 161AA is a tightly coiled leather thong, 75 mm long, and 3.7 mm thick, except at one end it comes to a point. It is of a size that could have served as a boot lace.

Specimen #293 is an irregular piece of black rubber, now dried, warped and cracked. One side has a series of molded knobs. The piece is 41 mm long and is 4.4 mm thick. An apparently purposeful hole was made near one edge, and this measures 5.5 by 4 mm. The piece may have been part of a floor or door mat. The piece came from about 16 mm deep in Quadrant III, and thus indicates that disturbance from the surface went at least that deep.

Specimen #250 consists of 4 pieces of what appears to be a thin, linoleum floor covering. It has traces of a white, black and green design on one side, while the other side is a solid dusky orange color, with a surface texture that has a coarse fabric impression. This too comes from about 15 cm deep in Quadrant III deposits, and again is interpreted as intrusive to that depth.

Summary Interpretation of YK-13

To summarize the findings mentioned above, there appear to have been two intervals of occupation at YK13. The first was sometime in the Late Prehistoric Period (see Table 7.3) when the locale was the site of a hunting and gathering encampment. Among the resources gathered were river mussels, the shells of which were found in pockets or lenses, and distributed throughout Stratum III. The site was at least seasonally occupied, and activities involving cutting, scraping and pounding took place there. After a time of relatively intense use the portion of the site excavated was visited only intermittently, if at all, as indicated by the few artifacts in Strata I and II. It is suggested that occupation of the site was consequent on a shoal of mussels nearby in the river, and that exhaustion or extinction of this resource rendered this location was no longer particularly attractive.

With regard to the occurrence of Native American artifacts at YK-13 in comparison with those at other Priest Rapids sites, we have already mentioned Projectile Points briefly above, and treated them in more detail in Chapter 3:191-5. Another fairly numerous artifact class is that of Small Flake Tools. Comparing those from YK-13 (Table 2 above) with those from YK-5 (Table YK 5.4) we find that both similarities and difference may be noted. Perhaps the most striking difference between the two collections is that almost 1/3 of the Small Flake Tools from YK-13 came from the surface, whereas only 11% of those from YK-5 were so derived. These disparities are significant ($\chi^2 = 45.3$; $df = 2$; $p < .001$; $\text{Tau} = .108$), but in spite of them the total (bottom rows) proportions are similar, and do not differ statistically. The leveling factor is in the similarity of the dominant proportions in the subsurface samples from the two sites, which do not differ significantly by χ^2 . The differences between the surface samples may be largely attributed to disturbance of the relatively shallow deposits of YK-13 by both horses and humans.

Large Cutting Tools at YK-13 were many fewer than at YK-5 (p. 68-69 above, Table 2.5), but it is of some interest to note that Cobble Choppers were the only tools of this class in Component C (Strata I-II), the component with which YK-13 most closely compares. Although Cobble Choppers are predominant at YK-13, two other types appear (on only 1 object each), suggesting that the sampling of this class from YK13 might be more representative than that at YK-5C.

In the late 19th to early 20th centuries the level floodplain just north of the alluvial fan at the mouth of Sourdough Creek provided a good area for the pasturing of horses of the Wanapum people (Frank Buck and family). A small corral was built near the river on and over the pre-historic midden of YK-13. The corral may have been placed in a pithouse depression in the gently undulating surface - at any rate the concentrating of horses would have caused or enhanced a depression that appeared to be not unlike that of a pithouse sometime after it was abandoned. It is quite possible that summer encampments in mat lodges as shown in photographs taken in the 1950s may have been at YK-13 (Fig. 2.60). By this time the people had given up most of their aboriginal material culture, and were using a variety of goods acquired from the Euroamericans. One class of material clearly indicating that the inhabitants were Native American on the one hand, but in an acculturation situation on the other, is that of glass beads, which were present in both quantity and variety. The slight overlap in types with site GR-71, just a few miles downstream on the other side of the river, and the relative lack of ceramics there, together with the presence of pithouses leads to the inference that the historic occupation of GR-71 was probably earlier than that of YK-13.

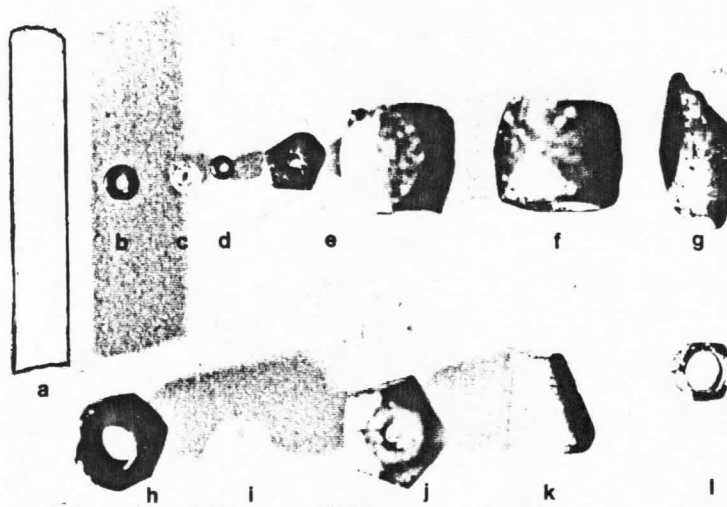


Figure 2.33 Glass Trade Beads
from YK-13, YK-5, GR-71

- a. Type Ia3, YK-13/123 (outlined)
- b. Type Ic4, YK-13/572
- c. Type Ic9, YK-13/100
- d. Type Ic13, YK-13/489
- e. Type If5, YK-13/32M, YK-13/100L
- f. Type If(6), YK-5/3043
- g. Type If(7), YK-5/1771
- h. Type If(8), GR-71/22
- i. Type If(9), YK-13/100
- j. Type If(10), YK-13/100
- k. Type WI(f1), GR-71/9
- l. Type WIIf(6), YK-5/1172

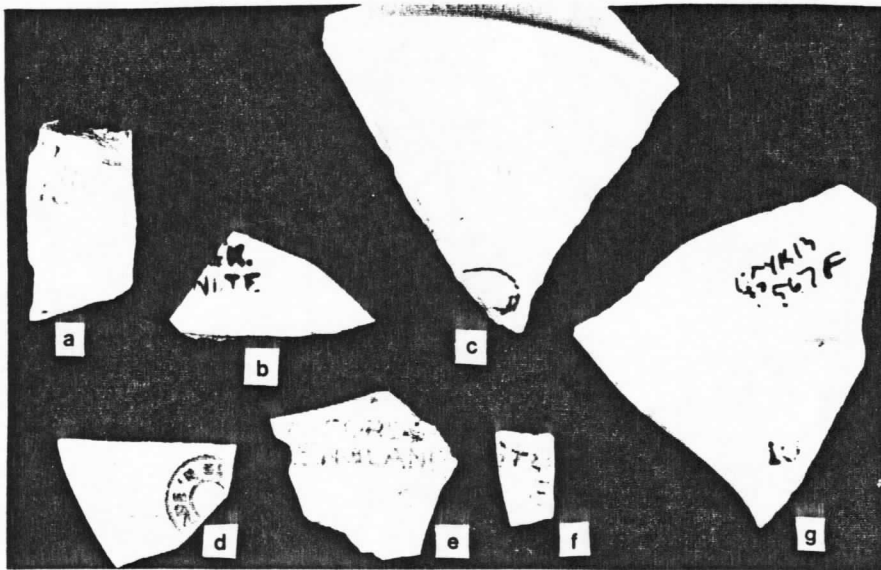


Figure 2.34 Earthenware with Potters' Marks,
or Decoration



- a. YK-13/567C, black underglaze
- b. YK-13/567D, black underglaze (--granite)
- c. YK-13/567E, black underglaze
- d. YK-13/567G, black unglazed, ("Made in Germany")
- e. YK-13/567H, back underglaze, ("--Staffordshire England")
- f. YK-13/297A, black underglaze
- g. YK-13/567F, style or lot number in green
- h. YK-13/567J, jar fragment with black, orange and green design, letters (T)AC

Table 2.36 YK-6 - Shell Beads

Cat. No.	Stratum	Max Diam. Bead mm.	Diam. Hole mm	Maximum Thickness mm	Remarks
156	I	19.3	1.5	3.6	Possibly <u>Saxidomus</u> . Disc.
393	I	8.2	1.4	1.5	4 incised straight lines from center hole to edge, on each side. Disc.
754	I	6.1	-	-	Spire-lopped <u>Olivella</u> , 13.1 mm long. fig. 2.53b
382	III	8.8	2.0	1.3	Broken, about 1/2 remains. Disc.
128	V	11.2	1.4	1.6	Disc.
441	VI	9.1	2.2	1.6	Disc.
381	Surf.	-	1.2	0.25	Rectangular fragm. of nacreous layer of mollusk, 8.0 mm long x 6.8 mm wide, possibly <u>Margaritifera</u> .

These beads are well scattered stratigraphically, and all fall within the range of variation of shell beads in late Plateau prehistory.

Remaining artifacts of aboriginal derivation are few. Specimens #409 from the surface and #753 from Stratum I are fragments of red ochre.

Specimen #423 is a rolled and folded piece of birch bark, measuring 50 mm wide, and derives from Stratum III.

Euro-american Artifacts

A variety of Euro-american trade goods appeared at YK-6 and they indicate quite clearly that the site was occupied by native people well into the 19th century. The most ubiquitous category was that of glass trade beads of which there were 38+ specimens occurring over a range of 18 types. (Note that the key to types is given in Table 2.22).

Table 2.37 YK-6 Glass Trade Beads, Distribution by Type and Stratum

	Catalogue Number	Stratum	Stratum Total	%
IIa12s ¹	354,570	Surface		
IIa36 M	489	"		
IVa9 L	394	"		
WIb16 VL	768	"	5	13
IIa13 M	392	I		
WIb10 M	389	"	2	5
Ia4 S	353	III		
If5 L	37	"		
"	38	"		
"	732	"		
"	735	"		
IIa12 S	437	"		
IIa33 L	384	"		
IIa45 S	386	"		
IVa2 L	480	"		
WIb8 VL	115	"		
WIb15 VL	385	"		
WIb(17) L ²	445	"	13	34
If5 L	442	IV		
IIa12 S	461 (6)	"		
IIa23 S	461 (3+)	"		
IIa25 S	461 (4)	"		
IIa31 S	461	"		
IIa58 VS	461	"		
WIb8 L	461	"		
IIb18 S	526	"	18	48
Total			38	100

¹Capital letters following type designation (after Kidd and Kidd 1970) indicate size variant.

²Variant not covered in Kidd and Kidd 1970 - this is a provisional type.

Most of the trade beads found at YK-6 came from Stratum III, the housepit floor and Stratum IV, the deposit just below, and it is not unlikely that many or most of those from Stratum IV may have worked down from the floor level. None of the bead types were particularly abundant, and the most so was a small, white circular (ring-like) type of translucent glass, (type IIa12 - 9 specimens). Next in frequency were the so-called "Russian" beads, faceted and amethyst in color (If 5-5

specimens), and the other types occurred in frequencies of less than 5, with most only one of a kind. In comparison to the beads found at GR-71, a short distance across and down the river, those from YK-6 represent a 50% overlap in types (both had 18 types, and shared 9). The most abundant beads at GR-71 were also small white ones (IIa13), but were round instead of circular, and opaque instead of translucent. GR-71 had only three "Russian" beads as against the 5 from YK-6. Thus, there apparently was some differential bead acquisition at the two sites (if the samples are representative), but whether this means a somewhat different time increment, or different trade episodes, or some other factors is difficult to tell. Presumably if the two places were occupied at the same time, the people were known to each other and probably interrelated. More complete excavation might have answered questions of this nature.

Glass

Specimen #449 (Fig. 2.56) is the bottom of a heavy, clear glass bottle, with octagonal sides. The basal edges are beveled and the facets slope outward and upward from the base. Maximum diameter is 43.8 mm. In the center of the base is a circular depression, 29.0 mm diameter and 4.3 mm deep. Specimen #436 is a fragment that fits #449, and another fragment #447 appears to be of the same bottle but does not fit the other fragments. One edge of #449 appears to have been retouched artificially. Fig. 2.56a. These fragments have a purplish discoloration on the surface from weathering.

Perishable Euro-American Materials

Fragments of organic materials acquired from the Euro-Americans included those of leather, cloth and rubber. Specimen #425 consists of several fragments of a shoe, with hook and eye portions of lacing parts, and possibly a tongue piece (Fig. 2.59a). The pieces are not very robust and appear to have more likely been from a child's or a woman's shoe than a man's. They come from Stratum III. Specimen #443 is a trapezoidal piece of leather, now quite black, 65.0 mm long and 35 mm wide, and 1.5 mm thick. It is from Stratum V. Specimen #375 has no depth recorded, and is a piece of hard, black leather 72 mm long by 27 mm wide and 1.8 mm thick. The thickness is very even and it may have been some sort of a strap, such as a harness part.

Specimens #455, 456 are fragments of a simple weave wool cloth, the largest piece of which measures 60 mm long by 51.0 mm wide (Fig. 2.59b). The pieces are now a dirty brown color, but from their thickness, and what appears to be some evidence of a knap, the pieces are interpreted to have been from a blanket. They derive from Stratum III.

Specimen #47 consists of two parts, the left sole of a heel-less rubber boot, and its rubber impregnated cloth insole (Fig. 2.59c). The maximum length of the sole is about 255 mm and its maximum width is about 77 mm. Since the length of the sole approaches a man's size 10, the foot gear was probably that of a male. It too is from Stratum III.

Summary Interpretation of YK-6

The site at the mouth of Cow Canyon proved to be interesting from several aspects. On the one hand, it represents a camp site on an alluvial fan forming an eddy, much like the situation at nearby YK-5. As shown by its projectile points, YK-6 appears to have had a later prehistoric occupation than other sites in the Priest Rapids subregion. Activities functioning through flaked and ground stone tools are fairly well represented in the midden, but tools of bone or antler were rare, probably due more to sampling error than to preservation factors.

After an interval of occupation during the Late (prehistoric) Period, an excavation into the midden of at least 1 m deep and 20 m in diameter was made for a house. This concave depression was lined with a thin layer of sand, and on it there accumulated a thin, compact stratum containing both aboriginal and ethnohistoric artifacts. Because there was no apparent transition layer between the underlying midden and the house floor, except for the artificial sand layer, we interpret the total occupation of the site to represent a possible continuum from prehistoric into historic times. Indeed, members of the Frank Buck family had informed us that the family had occupied YK-6 until quite recently. Our brief sampling of the site seemed to confirm this, and to show that the recent occupation must have been in aboriginal style houses, probably resembling more the summer mat lodge type, than the deep, winter pithouse (see Fig. 2.60).

From the perspective of the prehistoric occupation of YK-6 we have already noted the temporal placing of some of the projectile points (pp. 143-44) and have also discussed this class in a regional perspective in Chapter 3. With regard to other classes of tools we might also mention Small Flake Tools and Larger Cutting tools. In comparing Dancey's subsurface samples of the former from YK-6 with those similarly derived from YK-13 (i.e., Table 2.15 above Table 2.31), as well as with those from YK-5 (Table 2.4), we found that YK-6 differed from YK-13 by χ^2 ($\chi^2=19.7$; $df=3$; $p < .001$), but not by Tau which had a value of only .037. However, YK-6 and YK-5 did not differ from each other (χ^2 $p < .100$). Again, these more detailed data tend to confirm the tentative placing by Dancey of YK-6 with the other two sites in the same "functional class of aggregate," (Dancey 1973:24). As for Larger Cutting Tools, both tools and objects from YK-6 (Table 2.32 above) were compared to those from YK-5C (the uppermost component) (Table 2.5) and to YK-13 p. 103 by these tests, and no significant differences were found.

Other Stone Specimens

An ovoid, flattened water-worn andesite cobble measures 80.7 mm long by 65.8 mm wide by 17.0 mm thick, and an old chip on one end forms a flake scar which is water-worn to the same degree as the main body (Fig. 2.64). Three whitish streaks on one surface, and another on the other surface are straight, and in positions that suggest that they may be marks left by lashing materials such as cherry bark. One of the streaks depends from the notch formed by the flake scar, and if the piece was lashed it probably served as a net sinker.

Perhaps the most interesting native artifact is a steatite pipe broken at both the bowl and stem ends (#45 Fig. 2.63). The piece is 45.3 mm long, with the remaining stem portion 17.5 mm in outside diameter and a straight bore of 5.3 mm diameter. The sides of the bore are relatively smooth, and do not exhibit the ridged appearance of drilling by native methods therefore the perforation must have been made with a metal drill or ream. On the other hand the bowl is quite rough on the interior, having been gouged out. The bowl may have broken before the piece was finished, for it shows no evidence of having been smoked. The exterior is reasonably well-shaped with short abrasion marks in various directions.

Neither the hammerstone nor the bits of red ochre are particularly distinctive. There are six shell beads of the disc type (#36a,b, 48-51) probably formed from saltwater species of clam (Fig. 2.65). Measurements on them are as follows:

Table 2.43 GR-71 - Shell Disc Beads

	Min	Max	X	SD
Outer diameter	9.4	11.0	10.5	.640
Hole diameter	2.3	3.5	3.0	.456
Thickness	1.5	4.0	2.4	.900

It may be noted that these beads are about the same size and diameter as the shell button (#34), but the latter is of a different type of shell with a nacreous surface, probably from a tropical species.

The single dentalium shell fragment #46d, is 7 mm long with end diameters of 4.4 and 4.1 mm. Of course this specimen shows contact with the coast, from which the disc beads were probably also traded.

Euro-American Artifacts

Trade Beads

The most numerous class of artifact at GR-71 was that of glass trade beads of various types, sizes and colors. A key to these types is given in Table 2.22, and their distribution at GR-71 is as follows:

Table 2.44 GR-71 - Types and Distribution of Glass Trade Beads¹

Type	I	HP 1 Level II	III	Un- str.	Sub- Totl	HP 2 Levl I	HP 3 Levl I	Sub- Totl	Totl	%
Ia5	8a,b	-	-	-	2	-	-	-	2	1.4
If5 M	13	26	-	-	2	-	-	-	2	1.4
If5 L	-	-	-	-	-	-	36(2)	3	3	2.1
							47			
If(8)	-	-	-	22	1	-	-	-	1	0.7
IIa1	-	-	-	-	-	-	47	1	1	0.7
IIa6	-	-	-	-	-	-	36,47	2	2	1.4
IIa9 S	-	-	-	-	-	-	36	1	1	0.7
IIa9 M	-	-	-	-	-	-	36	1	1	0.7
IIa13 VS	-	10,14(2)	-	20a	6	-	36(3)	3	9	6.2
		15,18								
IIa13(S)	-	10(4)	19	12(2)	29	-	36(35)	42	71	49.3
		14(13)					46(3)			
		15(7)					47(4)			
		23,26								
IIa25	-	10	-	-	1	-	-	-	1	0.7
IIa23-30	-	-	-	-	-	-	36(4)	5	5	3.5
							47			
IIa33-57 VS	-	10	-	-	1	-	36(4)	6	7	4.9
							46,47			
IIa33-57 S	7a,15	-	-	-	2	53	36(10)	14	17	11.7
							47(4)			
IIa55 L	-	-	-	-	-	-	36	1	1	0.7
IIb56	-	-	-	-	-	-	36	1	1	0.7
IIb'(14)	-	-	-	-	-	-	46	1	1	0.7
IVa2 VS	-	14,26(2)	-	-	3	-	-	-	3	2.1
IVA2 S	7b,15	14(2)	-	20b	8	-	36(3)	3	11	7.6
		18,24,26								
IVa(20)	15	-	-	-	1	-	-	-	1	0.7
IVa(21)	-	-	-	-	-	-	36	1	1	0.7
WI(f1)	-	-	9	-	1	-	-	-	1	0.7
WIIId(2)	5	-	-	-	1	-	-	-	1	0.7
Total	9	42	2	5	58	1	85	85	144	100.0
%	6.2	29.1	1.4	3.5	40.6	1.4	59.0	59.0	99.6	

¹By catalogue number. Note that more than one specimen may be entered under one number, and if so the frequency is given in ().

In spite of the almost bewildering variation in beads that occur at GR-71 (Fig. 2.66), a very few simple types are dominant with most of the variants being represented by only one or a few specimens. The most ubiquitous beads are the small to very small round white ones which together account for well over one-half of those recovered (IIa13). Next in frequency are some of the same size range and form, but of various shades of blue in color (IIa33-57). The white beads occurred in similar frequencies in both Housepits 1 and 3 (although the amount excavated in each was different), but only 3 blue beads were found in Housepit 1, while 24 were counted from Housepit 3. Those occurring next in frequency were round, small red beads with a white or light gray core (IVa2), and they appeared in about equal number in both housepits.

Since the trading of glass beads to native people of the New World began with the earliest exploration and continued into the present century (indeed it goes on today as an aspect of nativism movements), the presence of beads in a site are a prime indication of Euro-and Native American contact. Many if not most of the types usually occurring were made in Europe for hundreds of years and are not particularly diagnostic of fine time ranges within the general historic period (Kidd 1979). One type that may have some value in this regard however is that of the medium to large, faceted, amethyst colored beads which occurred in both Housepits 1 and 3 (2 in the former, 3 in the latter). These are classified as type If5 (specimen #13,26,36,47)* and are very similar to, or examples of what have been called "Russian" or "Hudson's Bay" beads (Quimby 1978). This type probably dates from the late 18th to the late 19th Century in the Northwest, and according to Emory Strong they have been found in archaeological sites dating between 1830 and 1870, during which period they were quite popular and widely dispersed (Strong 1959:227). Further research on bead types occurring at GR-71 may provide additional indications of exchange and chronological relationships. * (Figure 2.66d, 2.151a)

Glass Object

In addition to beads of glass, one other object of this material appeared in Level I of HP 3 (#36). It is a small piece of clear glass, semi-circular in longitudinal and transverse section, except that in the latter the base is slightly concave. It measures 7.9 mm long, 5.2 mm wide and 6.1 mm high. It is determined to be glass rather than quartz crystal because of slight discoloration of the surface. The piece was apparently ground into shape, and may have an inset portion of an ornament.

Summary Interpretation of GR-71

It is apparent that GR-71 was neither long nor intensively occupied. This inference is based upon the lack of midden accumulation, and the general sparsity of artifacts. It is further inferred that the most probable period during which occupation occurred was between about 1850 and 1870. This inference is based on the assumption that all of the artifacts found were relatively contemporaneous as to date of manufacture and period of use - that is that few if any of them were heirlooms with any great time depth. Thus the site would probably not have been occupied much before 1850, the date of the military button. As to the terminal date, Emory Strong's observation that faceted beads tend to occur in sites between about 1830 and 1870 might apply here, for none of the historic artifacts would necessarily date after that time. Also the lard can and the general congeries of aboriginal and historic artifacts suggests a mid-19th Century period rather than a later one. In the context of the 1850s and 1860s contact might have been with U.S. American military parties in the area to "pacify" the Native Americans. In any case, whether the trade items were acquired before or during their short stay on the site, the people left, and there is little or no evidence that the site was ever occupied again.



Figure 2.66 Glass Trade Beads

- a. Type WIIId(2), GR-71/5
- b. Type IIB'(14), GR-71/46
- c. Type WI(fl), GR-71/9
- d. Type If5, GR-71/13
- e. Type If(8), GR-71/22
- f. Type IIa35, GR-71/37
- g. Type IIa36, GR-71/7
- h. Type IVa2, GR-71/7
- i. Type If(8), GR-71/22



Figure 2.68 Brass Button,
GR-71/35 Reverse

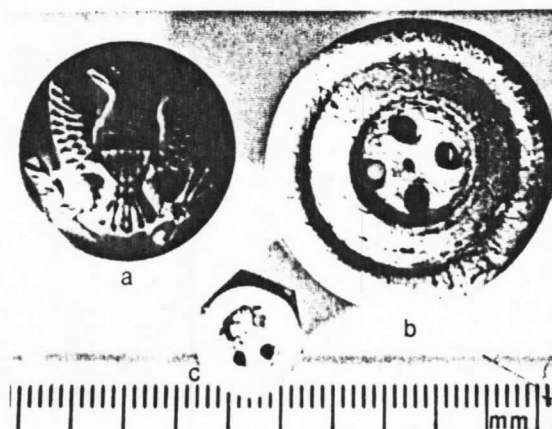


Figure 2.67 Buttons

- a. Brass, GR-71/35 Obverse
- b. Bone, GR-71/21a
- c. Shell, GR-71/34



Figure 2.69 Tinklers, iron, GR-71/4a-i, 14a-b

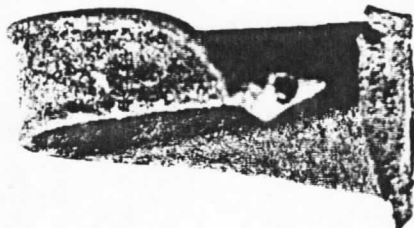


Figure 2.70 Pot Handle, iron,
Max W = 41.8 mm, GR-71/4j

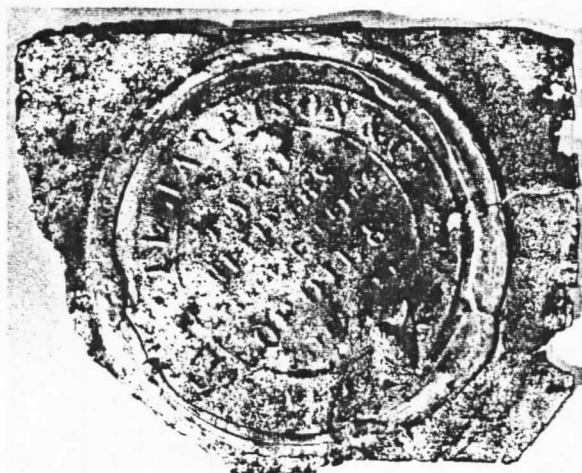


Figure 2.71 Vessel Lid, iron and lead solder
Max L = 150 mm, GR-71/21

that GR-73 was the most recent Upper Wanapum dated site p.859 and the projectile points seriated in their expected place at the top of the scale (Fig. 3.22). However, GR-77 was at the other end of the scale by date and projectile point seriation (Fig. 3.22), and the small flake tools from CH-4 compared with those from GR-77 (Table 2.137) as follows: $\chi^2 = 5.19$, $df = 2$, $p < .10$, $\text{Tau} = .019$. Thus as far as the small flake tools are concerned CH-4 at the early historic time level would seem to show less difference from an early first millenium site (GR-77) than it does from GR-73, late in the first millenium. As is often the case, any observation of this sort must be qualified by the small sample from CH-4, (for example the two GR sites differ from each other in this regard with a Tau value of .214).

Large Cutting Tools

Four Coarse Flake cutting tools were found at CH-4, but only one of them occurred in situ, #73, from the -20 to -40 cm level. Two, #s 46, 118 were picked up on the surface of the site, and #119 was found on the beach.

Other Stone Tools

A Pestle fragment, #45 came from the surface, as well as two notched pebbles (sinkers). Of the latter #121 has one notch, and #122 has two notches. Also from the surface, was an edge-ground cobble, 170 mm long, 110 mm wide and 31 mm thick.

Euro-American Artifacts

Materials of Euro-American manufacture acquired by the Native Americans who lived at the site were intermixed with those of native manufacture from the surface to a depth of 60 cm.

Glass Trade Beads

One of the more ubiquitous classes of non-native artifacts was that of glass beads. Following the classification discussed with relation to those at YK-13 (pp.111-116), we present information on those from CH-4 in two parts of Table 2.141.

Table 2.141 CH-4 - Glass Trade Beads

A. List of Types, Catalogue Numbers, and Occurrence at other Sites

Type	Catalogue Number, (N) if > 1	Occur at other sites	Figure
Ia5	51	GR-71, YK-13	2.151a
If5	9, 42, 55(2), 66(3), 72(5), 75, 109	GR-71, YK-13	-
IIa6	114	GR-71, YK-13	-
IIa13	51	GR-71, YK-5, YK-6, YK-13	-
IIa28	51	GR-71, YK-13	-
IVa2	51, 113, 114	GR-71, YK-13	2.151d
IVhl	72	None	2.151c
Wib15	38, 72	YK-6, YK-13	2.151b
Total	24		

B. Provenience by Type and Catalogue Number

Unit	Level(cm)	Type and Catalogue Number, (N) if > 1
6S2.5W	40 - 60	If5 - 66(3), 109
9S2.5W	0 - 20	Ia5 - 51; If5 - 55(2); IIa13 - 51; IIa28 - 51; IVa2 - 51, 113; Wib15 - 38
9S2.5W	20 - 40	If5 - 72(5), 75; IVb(38) - 72; Wib15 - 72
12S2.5W	0 - 20	If5 - 9
12S2.5W	20 - 40	If5 - 42
Surface		IIa6 - 114; IVa2 - 114

As shown in Table 2.141 only eight types of beads occurred at CH-4, but their occurrence is interesting. In the first place 15 (60%) of the beads are of the If5 type of "Russian," or "Hudson Bay" bead. This is the highest frequency of occurrence of this type at any of the sites in the region. Also in spite of the small number of beads, one is of a type not occurring elsewhere in the region, (i.e. one of those catalogued under #72, provisional type IV(hl). Except for that specimen the beads at CH-4 are of types shared by at least two other sites in the study, usually sites GR-71 and YK-13, where beads are most frequent. By this measure CH-4 stands somewhat closer to the latter than the former, by sharing 7 and 6 types respectively.

Ceramics - Thirty-two sherds of earthenware appear to constitute only two types. One has a light gray underglaze, overlaid by a darker gray-blue pattern (not enough of the pattern is present to determine its form). The second type has a cobalt blue design over a light blue background. None of the sherds reveals a potter's mark. Also of ceramic were 3 white buttons found near each other in the -40 to -60 cm level.

Glass - There are six glass bottle fragments. Five are thin, greenish-tinted pieces, possibly from the same container. The other is a thick, brownish-tinted fragment.

Metal - There are forty-five whole or fragmented pieces of iron nails from CH-4. All are of the machine-cut, square head variety. One four-hole metal button was found, 14 mm in diameter, and two round, thin metal pieces, 17 mm in diameter, possibly parts of button assemblies. Two small sheet iron fragments, and one-half of a lead .22 calibre bullet also occurred. The latter is no doubt intrusive.

The historic artifacts from CH-4 would indicate a period of occupation well back into the 19th Century and, in view of the beads which were probably traded-in, most likely in the early one-half of the century.

Summary Interpretation of CH-4

On the basis of an extremely limited sample, particularly of projectile points, we interpret this small pithouse settlement to have been occupied toward the end of the Late Prehistoric period, and into the Early Historic period. The presence of Euro-American artifacts in juxtaposition with those of native manufacture associated with a housepit floor demonstrates that the pit house type of dwelling survived in the area until contact times. This is in spite of the fact that none of the early historical accounts mention this type of house in the region. The locale may have been occupied intermittently before pit houses were built there, but there is little evidence of midden beneath the house floor. If so, camping occupation there was not as extensive or intensive as it was at the housepit sites excavated by our project farther south (e.g. GR-77, GR-73, KT-28, KT-17). Although the food remains have not yet been analyzed, it is pertinent to mention that mammal bones were present, mostly deer, and possibly elk, but not in great quantity. Fish bones appear to have been very rare or absent, although some mussel shell is mentioned.



Figure 2.148

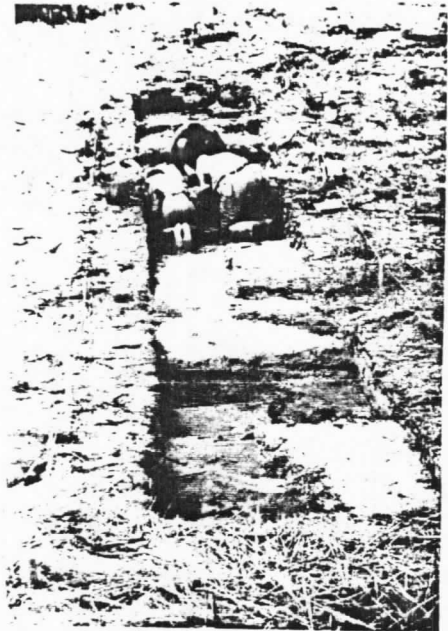


Figure 2.149

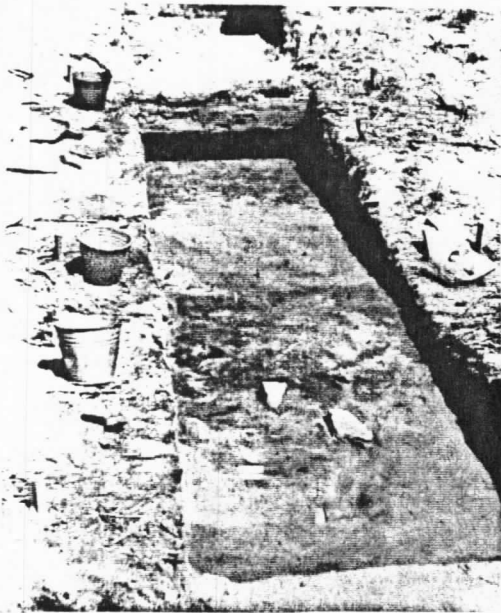


Figure 2.150

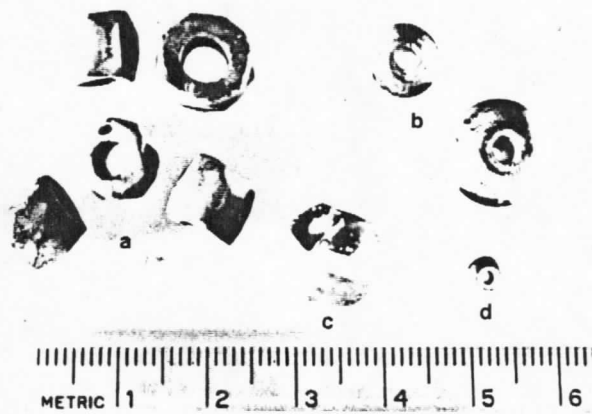


Figure 2.151