WILLAMETTE MISSION ARCHEOLOGICAL PROJECT:

PHASE III ASSESSMENT

BY

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PHYSICAL SETTING

The Willamette Mission site (35MA5001) is located in the central Willamette Valley, approximately 10 miles north of Salem, Oregon. The site is on the east side of Mission Lake in the W 1/2 of the NW 1/4 of Section 67, Township 6 South, Range 3 West, Marion County (Figure 1).

The Willamette Valley is approximately 125 miles long by 30 miles wide, and is bound by the Cascade Range to the east, Calapooya Mountains to the south, Coast Range to the West, and the Columbia River to the north. The valley is drained by the Willamette River system. The main stem of the Willamette River flows in a northerly direction to the Columbia River. The river grades from an elevation of 422 feet near Eugene to 30 feet at its confluence with the Columbia River. The Willamette Mission site lies at an elevation of 110 feet above sea level. The valley has a modified marine climate with wet winters and warm, dry summers. Daily temperatures range fron an average January minimum of about 55 degrees Fahrenheit on the valley floor to 20 degrees Fahrenheit at the crest of the Cascades, with average July maximums of 80 to 83 degrees Fahrenheit on the valley floor and 75 degrees Fahrenheit on the mountain crest (Willamette Basin Comprehensive Study 1969).

The basal geology of the Willamette Valley is Eocene to Miocene in age, covered by nonmarine sedimentary deposits of Quaternary age. The upper floor consists of silty and clayey lacustrine sediments deposited during Pleistocene inundation of the valley. Middle Pleistocene gravels are overlain by sandy silt, and modern floodplain deposits mantle parts of the valley floor (Balster and Parsons 1968:4; Franklin and Dyrness 1973:16; Oregon State Water Resources Board 1969:14).

Jason Lee engaged Cyrus Shepard as teacher and P.L. Edwards and C.M. Walker as carpenter and farmer. Preparations were made in the spring of 1834 to depart with Captain Nathaniel Wyeth across the continent to the Oregon Country. Provisions, tools, and supplies for the mission were shipped on the brig May Dacre, bound for the Columbia River (Decker 1961: 40-45).

Wyeth's expedition arrived at Fort Vancouver in September 1834. Though the original intention was to establish a mission among the Flatheads in the interior, Dr. John McLoughlin, chief factor of the Hudson's Bay Company at Fort Vancouver, suggested that Lee and his party locate in the Willamette Valley (J. Lee 1916:262; McLoughlin 1880:50). McLoughlin hoped to keep the missionaries south of the Columbia River in anticipation of a boundary dispute between Great Britain and the United States (Hussey 1957).

The missionaries also desired to avoid the interior. The agricultural potential was suspect, and availability of resources would be insufficient in such a "remote" region. In addition, the missionaries were under the assumption that the interior Flathead Indian population was small, thus the interior was not as virtuous an area for "benevolent action" as a centralized Willamette Valley locality would be (D. Lee and Frost 1973:127).

On September 18, 1834, Jason Lee and Daniel Lee began an inspection tour of the lower Willamette Valley. While traveling up the Willamette River the missionaries would have passed between mixed stands of Douglas fir *(Pseudotsuga menziesii)*, Oregon ash *(Fraxinus oregana)*, cottonwood *(Populus trichnocarpa)*, willow *(Salix* sp.*)*, alder *(Alnus rubra)*, and

mission remained at the original Willamette Station to continue work on the farms.

Jason Lee's ability as mission superintendent was questioned during the course of his work by fellow missionaries. A few had written unfavorable reports to the Mission Board in New York City expressing concern over his administration. Lee was prompted to personally reply to these accusations before the Board in 1843.

Before Lee arrived in New York, he learned his superintendency at the mission was superseded by the Reverend George Gary. The reasons for Lee's discharge were as follows: (1) appropriation of mission funds for private speculation; (2) misuse of mission funds; and (3) failure to report matters concerning mission property (Brosnan 1932:246). Lee made a statement to the Board against these charges, and was exonerated. However, the Willamette Mission was dissolved in 1844 for various reasons including internal conflicts within the mission community, financial problems, a low Indian population, and increased Euro-American settlement in the Willamette Valley.

As new superintendent, the Reverend George Gary proceeded to dissolve mission activities and dispose of mission property. [By 1839 the missionaries had claimed approximately eight square miles of land at the old mission station (Brackenridge 1931:58; Gatke 1935:78).] Surveys of land to be sold were completed prior to October 1, 1844. The mission farm, one mile south of the mission compound, was surveyed by Jesse Applegate and sold to Alanson Beers on July 11, 1844 (Gary 1923:96; Secretary of State Land Claim Records 1845). In August of 1844 the "old mission place" was sold to a Mr. Campbell for 700 bushels of wheat (Gary 1844).

ADORNMENT

GLASS BEADS

In general, beads represent a manifestation of cultural interaction at contact period sites in the Pacific Northwest. Beads were manufactured in seemingly infinite varieties, with those made from glass being by far the most prevalent and in demand. Beginning in the last quarter of the eighteenth century, beads became a common Northwest Coast trade item. Beads were also a favored decorative commodity used by Euro-American women in the nineteenth century.

The 23 complete glass beads excavated at the mission site were grouped into manufacturing categories (Type), subdivided into an intrasite archeological classification scheme based on specific method of manufacture (Class), specific morphological attributes (Variety), and size of population (N Sample) (Table 2). Generally, in the Pacific Northwest, archeological bead sizing systems cannot be accurately correlated with historical definitions or specific bead manufacturing centers.

Two discrete bead manufacturing types, tube and wire wound, are present in the mission sample (Figure 18 a-b). To illustrate these bead types and to explain attribute terminology, the two manufacturing techniques are briefly explained. This information was derived primarily from Kidd and Kidd (1970).

In the early nineteenth century, glass tube beads were manufactured by a simple technique of stretching a glass bubble into a tubular shape. The layered color effect was achieved by adding molten glass of different colors to the bubble before drawing it out. The rigid tube of glass was then laid on slabs of wood to dry. Once cooled, the tubes were snapped

Table 2. Glass Beads.

TYPE	CLASS	VARIETY		N SAMPLE
Tube Beads	Class 1			
	Faceted, short, unmodified double-layered bugle; six to seven facets	Length: Diameter: Color:	6.0-8.0 mm 8.0-9.0 mm Clear over semi-opaque white (N 9/)	6
	Faceted, short, unmodified double-layered bugle, six to seven facets	Length: Diameter: Color:	6.0 mm 6.0 mm Translucent blue over semi-opaque white (7.5 PB 3/10)	1
Tube Beads	Class 2			
	Faceted, short, single-layered with ground facets (six to seven) and ends	Length: Diameter: Color:	7.0 mm 8.0 mm Translucent blue (7.5 PB 2/4)	1
	Faceted, short, single-layered with ground facets (six to seven) and ends	Length: Diameter: Color:	5.0-5.5 mm 6.0-7.0 mm Translucent blue (7.5 PB 2/4) Opaque black (N 0.5/)	2
Tube Beads	Class 3			
	Hot tumbled, undecorated, short, single layered	Length: Diameter: Color:	3.0 mm 4.5 mm Opaque blue (5 B 4/6)	1
	Hot tumbled, undecorated, short, single layered	Length: Diameter: Color:	1.0-2.0 mm 2.0-3.0 mm Opaque white (N 9/)	9
Wire Wound Beads	Class 4			
	Undecorated, spherical single layered	Length: Diameter: Color:	9.0 mm 9.6 mm Translucent yellow (5 Y 7/10)	1
	Undecorated, spherical single layered	Length: Diameter: Color:	5.0-6.0 mm 6.0-7.00 mm Translucent blue (5.0 B 4/6) Translucent opaque blue (5.0 B 3/6)	2

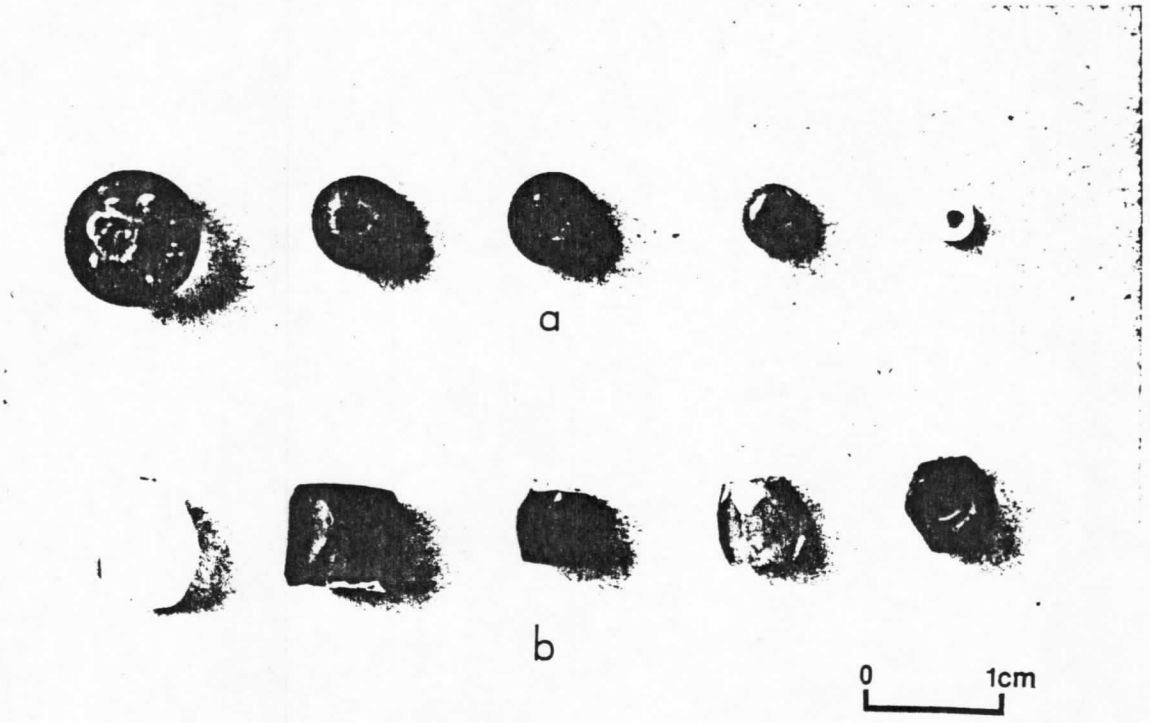

Figure 18. Glass beads.

a. Wire wound beads
b. Tube beads

or cut into prescribed bead lengths. Tube beads were then refined by "hot tumbling" and/or faceting. Generally, faceted beads are those which are cut or ground around each end, leaving the central section untouched. Beads subjected to "hot tumbling" are reduced to oval or rounded shapes by reheating and agitating the beads in a mixture of fine sand and charcoal.

Whereas tube beads were mass produced, wire wound beads were individually fabricated by wrapping a heated wire with a rod of molten glass until a bead of the desired size and shape was built up. Different colors of glass rods were often introduced to achieve polychrome effects. Throughout both tube and wire wound manufacturing processes, beads could

be treated with infinite variation in color, form, texture, and size. Nineteenth century glass beads commonly were manufactured in Italy, France, the continental North Sea lowlands, central Europe, and China (Ross 1976:669).

Beads are extremely difficult to date in terms of assigning precise periods of manufacture. Noël Hume (1978:54-55) provides general information to this end, stating that glass tube beads averaging seven facets were most common in the first half of the nineteenth century. Glass wire wound beads generally date to the second half of the eighteenth century and into the early nineteenth century.

Archeological statistics and known historical data substantiate the fact that blue beads and, to a lesser extent, white beads were preferred by Northwest Coast Native Americans as items of trade from Euro-Americans (Ross 1976:674; Woodward 1965:14). Comparatively, data from the mission bead sample shows a predominance of white beads (15), followed with six blue beads, one yellow bead, and one black bead. The fact must be stressed, however, that the gross bead population recovered from the mission site is relatively small.

Two opaque to translucent blue single-layer spherical wire wound beads found at the site are notable (Table 2 Class 4). Data from Fort Vancouver indicate that specimens such as these represent the most significant historical archeological bead variety in the Pacific Northwest for early historic contact sites (Ross 1976:746). Ross hypothesized this bead variety as representing one style of the "large blue China or Canton beads" imported by Lewis and Clark, and by the Pacific Fur, Northwest, and Hudson's Bay fur companies. Archeologically, this bead variety was the most common in Pacific Northwest sites of the early nineteenth century (Ross 1976:746:747).

Historical bead groupings are not readily apparent in the mission sample because the majority of beads were recovered from individual, random localities in Block A. However, bead varieties do reflect cultural selectiveness. The popular faceted bugle bead (seven examples) is documented as having been used by Euro-American women in making mats, table covers, and pendants. Native Americans worked beads into necklaces, sewed them individually on dresses, and made fringes of beads for cloth and skin garments (Woodward 1965:10). Small, white, hot tumbled, tube beads (nine examples) are commonly referred to as "seed" beads and were used historically for ornamentation. Seed beads were the single most popular variety found at Fort Vancouver, with high frequencies recovered within Native American trading areas (as opposed to larger beads associated primarily with Euro-American sales areas) (Ross 1976:671, 709). Seed beads were favored extensively at the beginning of the nineteenth century (Woodward 1965:11).

Beads possibly were used by Native American women boarders at the mission who were given instruction on sewing techniques to produce necessary clothing articles. Clothing accounts for the boarders' consistently listed deerskin "gowns," pants, and "moggasons," in addition to Euro-American articles (Mission Record Book 1834-1839).

A lack of known historical documentary sources listing beads supports a belief that the specimens were not utilized as trade items within the mission economic system. This is not surprising since the purpose of the mission was to supply local Native Americans with necessary means of sustenance in an equal monetary return for manual labor. Glass beads, then, were possibly used solely as decorative commodities by both Native American boarders and mission personnel.