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THE SMITHSONIAN INSTITUTION 1934 BONNEVILLE RESERVOIR  
SALVAGE ARCHAEOLOGY PROJECTGeorge E. Phebus  
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## ABSTRACT

In June of 1934 the Secretary of the Smithsonian Institution in co-operation with the Bureau of Indian Affairs, Department of the Interior, dispatched Herbert W. Krieger, Curator of Ethnology, U. S. National Museum, to survey and investigate archaeological sites endangered by the construction of the U. S. Army Corps of Engineers Bonneville Dam.

During the following months Mr. Krieger examined and tested archaeological sites throughout the area of the Columbia River gorge, particularly those burial islands and occupation sites located within the boundaries of the projected Bonneville Reservoir. The Smithsonian Salvage Project was completed on 18 December 1934.

This report provides an account of Krieger's activity in the Bonneville area and a description of the nature of the archaeological materials he collected and subsequently, deposited in the U. S. National Museum. Although long overdue and essentially inconclusive, this report is offered as an introductory reference to a substantial quantity of important Columbia River archaeological specimens previously unreported in the literature.

## BACKGROUND

Federal funds for the 1934 archaeological reconnaissance of the Bonneville Reservoir were granted through the Works Project Administration, Project 418. The original allotment of funds, \$4000, later increased to \$6000, was made to the Bureau of Indian Affairs, Department of the Interior. Having no trained archaeologist, the Bureau of Indian Affairs proceeded to solicit the assistance of the Smithsonian Institution and was successful in doing so. Because of his previous archaeological experience in the Columbia River area in the late 1920s, the Smithsonian selected Herbert W. Krieger, Curator of Ethnology, to undertake the

of heavily rooted, blackened sandy soil mixed with fire-cracked rock, flaked-tool debris, and artifacts. The second zone was equally compact but lighter in color with much less evidence of human occupation and a marked concentration of small gravel throughout. The third zone resembled the first but with features such as fire hearths relatively intact, unlike zone one which was partly subjected to agricultural disturbance. The fourth zone was composed of brown sandy soil grading into a yellow clay-sand at 48 to 54 in. (1.22 m-1.37 m). This zone is less compact due to considerable moisture at this level, and may be interpreted as leached. Evidence of human occupation is present throughout but the generally darkened appearance of the matrix present in zones one through three is absent.

Bone preservation was poor throughout, even in zone one. The only features encountered consisted of fire hearths, concentrations of fire-cracked stone, and occasional small lenses, of fresh water mussel, much deteriorated. No trade goods were found but flaked-tool debris was present in great quantity including substantial chunks of raw material. It was my impression that the source for this material may not have been far from the village site.

### Conclusions

Artifactual evidence suggests that despite the size of the Caples Site it may not have been a permanent village. The relative absence of many late prehistoric lower Columbia River artifact types and the seemingly temporary nature of the house structures argue for a seasonal site utilized by a large but lightly traveling population. The taking of salmon at the rapids was very likely the primary purpose in the location of the Caples Site, but the availability and acquisition of suitable lithic materials may have been of nearly equal consideration.

The total absence of trade goods plus the small incidence of triangular side-tri notched projectile points (Phebus found none) would seem to suggest that the site had not been occupied for a period prior to the passing of the Lewis and Clark party in 1805-06. The duration of the Caples Site occupation may not have been great, several hundred years or so, but the temporal context was wholly prehistoric reflecting an aspect of native culture in the Columbia River gorge prior to European contact.

### *Sullivan's Island*

Located on the north side of the Columbia River just above the entrance to the rapids, Sullivan's Island was a "memaloose island" utilized by the natives in the Columbia River gorge. Strong (1959:1966) suggests that the island was not used for burial purposes until after the mainland burial vaults east of North Bonneville were abandoned beginning about 1851 with the construction of the portage railroad. Seaman (1946:147) explains that the mainland vaults were still in use some ten years later:

This was an outstanding vault burial place, but little sign is left now. The old portage road, the S. P. & S. Railroad and the Evergreen highway all pass through the site. Burials may have

been made here as late as 1860. Mr. Anton Labbe . . . told Seaman that in about 1861, he was working as a cook in a construction camp on the portage road and that the smell from the cemetery was not as fragrant as a rose. One day when the wind was right, some of the workmen set fire to the woods and burned the whole place out. . .

The observations of Lewis and Clark in 1805-06 as well as those of other travelers of the period 1805-1820 do not include a description of a memaloose island at the head of the Cascades. Strong (1966) suggests that Lewis and Clark actually camped on Sullivan's Island on 31 October 1805. Lewis and Clark only mention the mainland burial vault which they describe in some detail (Thwaites 1905[3]:178-79) and go on to speculate that some of these vaults were quite old: "I also observed the remains of vaults rotted entirely into the ground and covered with moss."

From the historical accounts it would seem that the major usage of the mainland vaults predated any vault burials on Sullivan's Island by several decades if not considerably longer. It may have been well into the 1830s and 1840s before Sullivan's Island was regularly used as a memaloose island. Strong (1959:82) quotes an informant who states:

Don Gallagher of Stevenson told me that "The Captain of one of the tug boats here said his grandmother visited the island about 1850: she said there were three shacks built of split cedar blanks, with bodies laying on shelves and on the floor. The whites burned the place about 1855 because it smelled so bad.

George Iman (1929:265), an early resident of the Columbia River gorge, also describes Sullivan's Island in the 1850s.

On one of the small islands, known as the Sullivan Islands, also called "Lower Memaloose Island", was once a burying ground for the Indians. Their mode of putting away the dead was to take them out on the island and put them in what was known as "dead houses". I well remember just how this dead house looked as I have visited this island many times. A hole dug in the ground, 4 or 5 feet deep and the size on the ground they wished it to be. They then put some pieces on the ground around the top of the basement, afterwards building a house with walls and roof. They would take the "Memaloosed" party down in the basement and put it next to the wall; then stacked them as they died, on top of the other, till the house was filled. The boxes used for burial were of most any length; it mattered not what the size of the person might be. The boxes were covered with most any kind of calico so long as it had red in the color. All of their belongings were put in with them.

Krieger devoted several paragraphs in his notes to an explanation of the circumstances surrounding his work on Sullivan's Island. In summary, he decided that the forest growth prohibited any attempt to excavate in

an orderly fashion and that the nature of the artifacts was sufficiently recent to be recorded as "surface".

Strong (1966:personal communication) provides a more recent commentary on Sullivan's Island:

. . .The nature of the burials on Sullivan Island may have been in vaults but if so they were sunk beneath the ground as the excavations I made showed clean cut walls two or three feet high. They had been excavated by the Army Engineers and refilled. There was no skeletal material in them. There were places, long ago excavated, containing calcined bones. These would have been burial vaults, later burned either intentionally or accidentally. . .A friend of mine once told me that he had found a canoe. . .We uncovered it and found it to be the lid of a coffin. . . There were two half dollars on the coffin lid, and two more just beneath it, all dating in the 1870s.

#### Artifacts

The Krieger Collection from Sullivan's Island includes many thousands of artifacts ranging from items usually associated with prehistoric occupation or burial sites to a considerable quantity of trade materials of the period 1780-1890.

Evidence of the fire of 1855 or 1856 (the latter would seem more logical in lieu of the Cascade Indian War of 1856) is apparent throughout the trade material assemblage causing minimal to almost complete destruction of many of the artifacts. As a time marker the fire is only partly meaningful, since individual items untouched by the fire may have escaped the fires, been on the island substantially before the fire, or were deposited on the island in the years following the fire.

Non-European artifacts include some 25 pipe and pipe fragments, several of unusual form, a fragment of a stone club, a finely worked blade of andesite 23.3 cm by 4.3 cm, a small quantity of projectile points and blades, about 375 stone beads and pendants, 1500 dentalium beads, 4700 clam shell disc beads, and other artifacts of stone, bone, and shell.

The quantity of dentalium is significant since several early travelers note its popularity among the lower Columbia natives despite its comparatively rare occurrence in archaeological deposits, particularly from west of the Cascades (Strong 1959:197-98).

Following their descent of the rapids of the Columbia River gorge, Lewis and Clark commented on the natives they had witnessed (Thwaites 1905[3]:186-87):

The noses are all pierced and when they are dressed they have a long tapered piece of white shell or wampum put through the nose, those shells are about 2 inches in length. . . .

Items of personal adornment were abundant on Sullivan's Island the natives possessing considerable amounts of rings and bracelets of both commercial manufacture and their own handi-craft. Objects such as thimbles, drawer pulls, and handles were used as is or slightly modified. Some 250 sheet metal gorgets and pendants exhibit a variety of form and surface treatment. Comparatively few of these show the effects of the fire.

Thousands of copper and brass tube beads are present, many still possessing cordage preserved by association with the metal. Sheet copper and brass were highly prized throughout the early years of the Pacific Northwest fur trade, some examples possibly dating from the 1780s and 1790s (Howay 1941).

Those examples of ceramics and glass from Sullivan's Island include materials mostly attributable to the middle or second half of the nineteenth century. One particular specimen is marked, "Prize Medal 1851, T. J. & J. Taylor, Dale Hall Pottery. Longport. Improved Berlin Ironstone."

#### Trade Beads

The quantity of glass trade beads from Sullivan's Island is difficult to estimate - a great many have been burned and melted into slag-like masses. For example, some two thousand drawn, "faceted" beads are classifiable, but these may represent no more than half of the original number and possibly as little as 10% of all the glass beads. Wound, spherical blue beads are present in the thousands as are many colors of seed beads and somewhat larger varieties of drawn, white beads. Polychrome beads are present, but not plentiful.

Appendix <sup>4</sup> provides a statistical analysis of the 53,040 classifiable glass trade beads from Sullivan's Island. The system of classification employed relies on accurate identification of the method of manufacture (i.e. drawn, wound, etc.) and a stylistic separation.

During the preparation of this manuscript, a significant recovery of glass beads resulted from the new excavations at Fort Vancouver, Washington, conducted by the U. S. National Park Service. Accordingly, Lester Ross of the Fort Vancouver archaeological staff generously exchanged ideas and samples - greatly expanding the general knowledge of glass trade bead distribution on the lower Columbia and stimulating thoughts concerning the origins and popularity of particular bead types.

Significant differences in the percentages of wound and drawn beads at Fort Vancouver and Sullivan's Island are thought to result from temporal factors: the Sullivan's Island Collection is clearly earlier than Fort Vancouver. More than 5000 of the wound type of blue bead commonly referred to as "Canton" and principally associated with the "early" Fur Trade came from Sullivan's Island. Possibly three times that many were "burned" during the mid-1850s fire that swept the island.

Some 175 brass beads are included.

Historical references to the popularity of glass beads along the Columbia are numerous and detailed:

1791 The ornaments most common are beads of various sorts particularly the blue glass bead, of which they appear to be fond [Howay 1941:205];

At the Cascades - 1805

. . . They are nearly naked preferring beads to anything. . . particularly blue and white beads [Thwaites 1905(3):182-83];

At Fort Clatsop - 1805-6

I attempted to purchase a small sea otter skin for red beads. . . They would not trade for these beads not prizing any color than blue or white [Thwaites 1905(3):227];

The natives are extravagantly fond of the most common cheap blue and white beads, of moderate size, or such that from 50 to 70 will weight one pennyweight. The blue is usually preferred to the white. . . [Thwaites 1905(3):328];

At Fort Vancouver - 1827

The aqua marine colors do not suit the fancy of the natives, they complain of their being brittle, the bead sent as a sample to England (and as a substitute for which these colors have been sent) was imported from China and cost only \$28.00 p (133 1/3 lbs.) [Rich 1941:41].

Fragmentary textiles were recovered from Sullivan's Island a few examples with buttons, coins, pins, etc., still adhering. A large section of a blue blanket, possibly with red trim, still has a native crafted metal pin in situ. Similar copper blanket pins with twin spiral heads were recovered from Sullivan's Island in later years by Frank Wilke (1955).

### Conclusions

The bulk of the Sullivan's Island artifact assemblage was associated with Indian burials (mostly in vaults) that date from the second and third quarters of the nineteenth century. Certain non-European artifacts would seem to imply previous use of the island but this cannot be confirmed with data presently available.

tool types and a bone artifact inventory suggest a sense of permanency about the site, possibly as a winter village (?).

Most of the projectile point types closely resemble types associated with the cultural sequence at The Dalles and are attributed to the successive periods prior to contact such as Butler's (1964) Late Middle Period, 1500 BC-AD 500. It is quite conceivable that the 13th and Oak Street site in Hood River was or is one of the major archaeological sites in the Columbia River gorge.

#### *Hood River - White Salmon - Bingen Area*

This collection of 300 to 400 specimens may include some of the materials excavated by Krieger on the Washington shore opposite Hood River and referred to in Wilke's (1955) discussion of sites in the Bingen area. The unusual harpoon described by Wilke is present but little else can be clearly attributed to this area. Aside from a small number of mortars, pestles, and grooved net weights, the bulk of this collection consists of flaked tool forms. Several fine examples of "Cascade" type projectile points are noteworthy but other types and materials seem to be sufficiently foreign to the area to imply that this collection as a whole cannot be accepted at face.

#### *Lower Memaloose Island*

Even less is known of Krieger's excavations on Lower Memaloose Island, near Lyle, Washington, than of his work on Sullivan's Island. A memorandum dated 5 October 1958 essentially contributes nothing except to note that disturbance was minimal and that the quantity of cultural remains were not as extensive as on Sullivan's Island. Curiously, skeletal remains are not mentioned.

Lower Memaloose Island was called "Sepulcher Island" by Lewis and Clark, and on their trip down the Columbia they noted "several square vaults" (Thwaites 1905[3]:170). Later, on the return trip, 15 April 1806, they write (Thwaites 1905[4]:283):

We halted a few minutes at the sepulcher rock, and examined the deposits of the dead at that place. These were constructed in the same manner of those described below the rapids. Some of these were more than half filled with dead bodies. There were thirteen sepulchers on this rock which stands near the center of the river and has a surface of about two acres above high water mark.

Excellent photographs of Lower Memaloose Island are shown in Seaman (1946:145-56) and it would appear that as an archaeological site it did remain relatively intact well into the twentieth century.



Emory Strong (1966:personal communication) has provided additional data concerning conditions on the island probably similar to Krieger's experiences:

It was a vault burial site used by the Indians of The Dalles area, apparently in quite recent times for there are practically no stone objects found there.

The island caused an obstruction in the river that formed a large sand bank. Prior to the building of the Bonneville Dam the high thermal winds that blow up the river in the summer deposited large amounts of sand on the island, with the result that the early vaults were deeply buried, and new ones built over the old. The sand is at least 15 feet deep in places. Recent wet years have established vegetation and some of it is being held. The floods of 1894 and 1948 washed over the island, removing the sand to bedrock in some areas, and uncovering a great many artifacts. There has been some digging on the island, but relatively little in recent years. There are signs that some of the old vaults were excavated but at least 30 or 40 years ago [Krieger ?].

The deeper layers, when eroded by the wind, uncover more ancient artifacts. There have been found antler digging stick handles, carved bone ornaments, carved wood, old iron chisels, etc. The beads in the lower portion run strongly to rolled copper and the faceted translucent blue glass, the type sometimes referred to as "Russian" beads. Above them the opaque robin's-egg blue beads, in several sizes, become more common. These I think are the ones called "Canton" in the early traders journals. Still higher up, the beads tend to become numerous in types, round brass beads are found, along with more modern types of buttons. Tokens of various types, army, "Phoenix", "Colonial" and gild buttons are found.

There were some interred burials on the island, apparently post-dating the vault burials. I found a coin in the sand dated 1865. I have seen coffin handles and bits of wooden, manufactured coffins blown out.

### Artifacts

The Krieger Collection from Lower Memaloose Island consists almost entirely of contact or trade materials. Several thousand dentalium and shell disc beads are a major exception within the total.

Articles of ornamentation are most abundant including glass trade beads, rolled copper tube beads, spherical brass beads, sheet copper pendants, buttons, including the "Phoenix" type, bells, coinage, bracelets, rings, pins, and other items.

To a great degree, these items closely resemble the like-collection from Sullivan's Island. Subtle differences may surface following a more detailed analysis of both collections.



Some of the glass trade bead types poorly represented in the Sullivan's Island collection occur in greater quantity and in a better state of preservation among the Lower Memaloose Island artifacts. Discounting the Sullivan's Island beads that were burned, the Lower Memaloose Island glass bead assemblage is larger by 24,000 but of that figure 20,000 are classified as one type.

A possible more significant comparison finds that four times more wound beads occurred at Sullivan's Island than at Lower Memaloose (17% to 4%). Excavators at Fort Vancouver recovered only 3% wound beads which may be interpreted to support the contention that based on glass trade bead types, Lower Memaloose Island and Fort Vancouver generally fall within the same temporal range while Sullivan's Island with 17% wound glass beads and other diagnostic materials is likely the earlier of the three sites.

Two U. S. coins are present: one an 1860 dime; the other, a five-cent piece dated 1868.

Thirty or so Chinese coins are in most cases eroded or barely legible. Their origins would be identical to that postulated for the Sullivan's Island specimens.

Other items include thimbles, perforated bear claws, elk tooth pendants, brass picture frame, knife fragments, spoons, metal banding, tacks, nails, screws, lamp parts, gong-like object, metal containers, clock parts, jews harp, gun parts, buckles, hinges, hasps, percussion cap, door knob, drawer pulls, textiles, leather, and other items.

Among several unusual items is a silver-gilt metallic, bird-shaped object compositely designed for mechanical movement. The bird measures 9.5 cm in length and 2.3 cm in height, and the exterior is marked, "Patented Feb. 15, 1865". Such an item may have function as a Christmas tree ornament or some whistling novelty.

The most unique artifact in the Lower Memaloose assemblage is a heavy cast brass emblem of Russian origin (Fig. 10). This massive Russian "Double-eagle" Imperial emblem is one of several dozen like specimens which were distributed throughout the Pacific Northwest and into California during the period 1790-1810 (Pierce and Doll 1970).

The Lower Memaloose Island specimen has suffered some damage at several points but generally, is in good condition. It measures 23.0 cm in height and 19.0 cm across, and may have brazed prongs on the underside.

Also of interest is a complete trap, a comparatively rare survivor of the fur-trade period despite their obvious abundance during that period. This example is identified as an English "rattrap" (Russell 1967) a type common up to 1850 and apparently utilized by the Hudson's Bay Company and others for trapping small fur bearers including beaver. No doubt traps of this type were easily obtainable along the Columbia River particularly at Fort Vancouver.

that the examples his group recovered were originally associated with burials. It is possible Krieger's specimens are from the same location.

The three complete specimens range in length from 13.2 to 15.5 cm and from 2.4 to 3.2 cm in width. Each of the figurines exhibits breasts (?) as do some of the fragments. Their cultural relationship with figurines (clay) from the Portland-Vancouver area (Slocum and Matsen 1968) and figurines (lithic) from the McNary Reservoir area (Osborne 1957) as well as the bone examples common in The Dalles area is suggested but requires further analysis and comparisons than are offered here. Temporally, the use of figurines along the Columbia River appears to be a late phenomenon.

The Miller's Island figurines appear to have been covered with red ochre in addition to variable cross hatching and feather-like incised decoration. It is also possible that these figurines have been subjected to fire (Fig. 15 a-g).

#### *Buck Hollow*

Krieger describes this site in his notes as follows:

Buck Hollow, Sherman County, Oregon, near Sherar's Bridge, Oregon. This Indian village site, a traditional winter encampment, is located about 25 miles south of the mouth of the Deschutes River, and is now, in part, a cultivated field. Buck Creek, a dry stream, emptying nearby into the Deschutes River, at Sherar's Bridge, an old immigrant route across the Deschutes River.

Krieger collected about 55 large pecked and ground lithic tools from this site including mauls, pestles, mortars, net weights, and other items. A flaked tool assemblage consists of about 250-300 projectile points, and 50-100 blades, scrapers, and drills. The preponderance of projectile points are small, triangular types generally associated with the late prehistoric and the early historic periods. Earlier forms are present but in much lesser quantity. Nevertheless, the extended range of point types does suggest the possibility of a multi-component aspect to the site.

Nothing is known of the site's present condition or status.

#### SUMMARY

The efforts of Mr. Herbert Krieger to salvage cultural remains in the Columbia River gorge prior to the completion of the Bonneville Dam were successful. More than 150,000 artifacts were recovered and these have become part of the collections of the U. S. National Museum.

The bulk of these artifacts were associated with cultural deposits that date from the historic trade period, ca. 1775-1875. Despite an absence of exact provenience, these artifacts are diagnostic of the trade

and early settlement era of the Pacific Northwest and as such, constitute an important inventory of the types and the variety of articles that were crucial to the economic relationship established between the Chinookan population of the lower Columbia River and the explorers, traders, and eventual settlers who initiated the development of the Oregon Territory.

Near North Bonneville, Washington, and at Hood River, Oregon, Krieger excavated a substantial quantity of prehistoric artifacts some of which may be assigned to the late prehistoric and others, possibly to Butler's Middle Period (Butler 1964), 1500 BC-AD 500. Again lack of stratigraphic provenience is involved and thus will not permit a more authoritative discussion of a cultural sequence based on Krieger's field work. However, there is good reason to expect occupation dating from the Middle Period did occur in the Columbia River gorge and possibly is represented in the lower levels of the Hood River 13th and Oak Street site. The radiocarbon age determinations from the site (AD 1500; AD 1620) are considered late at the site and more applicable to the period of occupation at the Caples Site near North Bonneville, excavated by Krieger in 1934 and later, by the author.

More recent archaeological research in this vicinity reported by the University of Oregon (Cole 1974) and the University of Washington (Dunnell and Lewarch 1974, 1976) also suggests the probability of Middle Period occupation in the area but still without positive confirmation. Little is known of the cultural sequence in the Gorge prior to 1500 BC.

#### ACKNOWLEDGEMENTS

This introduction to the Krieger Bonneville Reservoir collections is in essence a compromise, and as such, many individuals have been associated with its production from the mid-1960s, during which time, it was intended to be presented in a semi-catalog form. Unfortunately, such a presentation became impractical for various reasons and therefore, an introduction to the collections was advanced as a useful compromise.

Certain individuals, particularly Mr. Emory Strong, and Mr. Frank Wilke, contributed important data which helped to clarify many questions related to the nature of archaeological sites in the Columbia River gorge. Various members of the staff of the Smithsonian Institution, Department of Anthropology, others associated with the state universities of Oregon and Washington, and members of the Oregon Archaeological Society all have generously lent of their time and experience.

I am especially indebted to Marcia Bakry for her illustration, Drs. Clifford Evans and Waldo Wedel for their critical reviews, Robert Elder for his assistance with glass trade beads and ceramics, Mrs. Marion Briggs for osteological observations, George Metcalf who encouraged me throughout and finally, NARN for their pleasant association.

## APPENDIX 4

## A STATISTICAL ANALYSIS OF KRIEGER'S SULLIVANS ISLAND GLASS TRADE BEAD COLLECTION

BY ROBERT ELDER

## BEAD CLASSIFICATION

Sullivan's Island, Skamania County, Washington. Summary.

METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
drawn simple (tubular) (uncored)						43,324	81	
wound (included in the wound are: Fancy, inlaid beads:526)						9271	17	
molded						426	0.8	
blown						19		
TOTAL glass beads						53,040		

\*\*many of the beads were fire-distorted and could not be counted.

## Key to abbreviations:

SURFACE: sm.=smooth; pent.=pentagonal; hexag.=hexagonal; facet.=facetted; sept.=septagonal; octag.=octagonal.

SHAPE: cyl.=cylindrical; sph.=spherical; ell.=elliptical; disc.=discoidal.

LIGHT TRANSMISSION: op.=opaque; trl.=translucent; trp.=transparent.

## BEAD CLASSIFICATION

Sullivan's Island, Skamania County, Washington. Catalog nos. 419,971-419,990.

METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
drawn: uncured untumbled (simple)	sm.	l. cyl.	op.	white	sm.	56		1
	sm.	m. cyl.	trl.	l. yellow	m.	1		2
	sm.	s. cyl.	trl.	m. green	m.	14		3
	sm.	s. cyl.	trl.	l. green	sm.	3		4
	sm.	s. cyl.	trl.	l. blue	sm.	32		5
	sm.	l. cyl.	trl.	d. blue	l.	2		6
	sm.	s. cyl.	trl.	d. blue	sm.	4		7
	sm.	s. cyl.	op.	m. blue	sm.	1048	.0202 2 2/10	8
	sm.	s. cyl.	trl.	violet	vsm.	1		9
	sm.	m. cyl.	op.	black	vsm.	22		10
hexag.	s. cyl.	trp.		clear	m.	6		11
hexag.	s. cyl.	trl.		m. blue	m.	33		12
pent.	s. cyl.	op.		black	vsm.	53		13
facet hexag.	s. cyl.	trp.		clear	sm., m.	228	.004 1/2 of 1	14
facet sept.	s. cyl.	trp.		clear	m. <sup>1</sup>	7		15

METHOD OF MANUFACT.	CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KFY NO.
drawn: untumbled	uncored	facet. hexag.	s. cyl.	trl.	amber	sm., m.	70		16
		facet. sept.	s. cyl.	trl.	amber	m.	12		17
		facet. hexag.	s. cyl.	trl.	l. & m. green	m.	145		18
		facet. sept.	s. cyl.	trl.	m. green	m. <sup>1</sup>	9		19
		facet. pent.	s. cyl.	trl.	l. blue	sm.	2		20
		facet. hexag.	s. cyl.	trl.	l. blue	sm., & m.	10		21
		facet. octag.	s. cyl.	trl.	l. blue	l.	1		22
		facet. hexag.	s. cyl.	trl.	d. blue	s., m., l.	475	.0091 9/10.1	23
		facet. sept.	s. cyl.	trl.	d. blue	m., l.	94		24
		facet. pent.	s. cyl.	trl.	l. red	s., m.	4		25
?	?	facet. hexag.	s. cyl.	trl.	violet	s., m.	19		26
		facet. hexag.	s. cyl.	op.	black	s., m.	393	.0075 7.5/10 of 1	27
		sm.	s. cyl.	op.	clear/op. white	sm.	4925	.094 9 1/2	28
		hexag.	s. cyl.	trl.	trl. m./l. blue	s., m.	18		29
		facet. hexag.	s. cyl.	trl.	clear/white	s., m.	63		30
		facet. hexag. & sept.	s. cyl.	op.	white/white	m., l.	2		31
		facet. hexag.	s. cyl.	trl.	aqua/white	m.	1		32
		facet. hexag.	s. cyl.	trl.	l. blue/white	vsm., sm., m.	64		33
		facet. hexag.	s. cyl.	trl.	m. blue/white	vsm.-l.	475	.009 9/10 of 1	34
		facet. sept.	s. cyl.	trl.	m. blue/white	m., l.	47		35
		facet. sept.	s. cyl.	op.	robins-egg blue/ white	m.	7		36
		facet. sept.	s. cyl.	op.	m. blue/white	m.	153		37
		sm.	s. cyl.	trp.	clear	sm.	108		38
		sm.	s. cyl.	op.	white	vsm., sm.	10,325	.199 20	39
		sm.	s. cyl.	op.	br. yellow	vsm., sm.	293		40
		sm.	s. cyl.	op.	du. yellow	vsm., sm.	127		41
		sm.	s. cyl.	trl.	m. & d. green	vsm., sm.	1400	.026 2 1/2	42
		sm.	s. cyl.	op.	m. green	vsm., sm.	122		43
drawn: tumbled	uncored	sm.	s. cyl.	trl.	l. blue	vsm., sm.	234		44
		sm.	s. cyl.	trl.	m. blue	vsm., sm.	394	.0075 7.5/10 of 1	45
		sm.	m. cyl.	op.	m. blue	m., l.	36		46

METHOD OF MANUFACT.	CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.	
drawn: tumbled	uncored	sm.	s. cyl.	op.	m. blue	m.	1370	.026 2 1/2	47	
		sm.	s. cyl	op.	m. blue	vsm., sm.	5655	.109 11	48	
		sm.	s. cyl.	op.	m./d. blue	vsm., sm.	785	.015 1 1/2	49	
		sm.	s. cyl.	op.	m./d. blue	m.	50		50	
		sm.	s. cyl.	op.	robin's egg blue	m.	6		51	
		sm.	s. cyl.	op.	robin's egg blue	vsm.	57		52	
		sm.	s. cyl.	trl.	red	vsm., sm.	1170	.0225	53	
		sm.	s. cyl.	op.	red	sm.	1	2 1/4	53A	
		sm.	s. cyl.	op.	pink	vsm., sm.	56		54	
		sm.	s. cyl.	trl.	violet	sm.	60		55	
		sm.	s. cyl.	op.	black	vsm., sm.	1850	.0356 3 1/2	56	
		facet.	s. cyl.	trl.	red	sm.	4		57	
		facet.	s. cyl.	trl.	violet	sm.	161		58	
	cored	sm.	s. cyl.	op.	white/white	sm., m.	77		60	
		sm.	s. cyl.	op.	clear/white	sm.	8725	.168 16 1/2	59	
		sm.	s. cyl.	op.	op. red/cl. green	sm., m.	266		61	
		sm.	m. cyl.	op.	trl. red/white	m.	72		62	
		sm.	s. cyl.	op.	trl. red/white	sm., m.	53		63	
		sm.	s. cyl.	op.	trl. red/white	vsm., sm.	882	.017 1 1/2	64	
		sm.	s. cyl.	op.	trl. red/yellow	vsm., sm.	32		65	
		sm.	s. cyl.	trl.	White st./clear	m.	3		66	
		sm.	s. cyl.	op.	red st./white	m.	1		67	
		sm.	s. cyl.	op.	white st./black	sm.	31		68	
		sm.	m. cyl.	op.	th. white st./black	l.	1		69	
		sm.	s. cyl.	op.	l. green st./white	sm.	126		70	
		inlaid: uncored	sm.	s. cyl.	op.	l. blue st./white	sm.	36		71
	sm.		s. cyl.	trl.	white st./blue	sm.	3		72	
	sm.		s. cyl.	op.	black st./red	sm.	1		73	
	sm.		s. cyl.	trl.	red, white st./blue	sm.	1		74	
	sm.		s. cyl.	op.	red, white st./black	sm.	28		75	
	cored		sm.	s. cyl.	op.	m. blue st./white/ white	vsm.	42		76
			sm.	s. cyl.	op.	white st./trl. red/ white	sm.	105		77
			sm.	s. cyl.	op.	white st./red/clear	sm.	24		78
			sm.	s. cyl.	op.	red & grey st./white/sm. grey		52		79
TOTAL Drawn beads:							43,324			
wound	uncored		sm.	m. cyl.	op.	m. green	l.	4		80
			sm.	s. cyl.	trl.	m. blue	sm.	14		81
			sm.	s. cyl.	trl.	m. blue	l.	7		82
		sm.	m. cyl.	trl.	d. blue	m., l.	8		83	
		sm.	m. cyl.	op.	m. blue	m.	215		84	
		sm.	m. cyl.	op.	m. blue	l.	204		85	

METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
wound	uncored	sm.	spher.	trp.	clear	m.	110	86
		sm.	spher.	op.	white	sm., m.	8	87
		sm.	spher.	op.	chalky white	sm., m.	30	88
		sm.	spher.	op.	white	l.	23	89
		sm.	spher.	trl.	amber	m.	100	90
		sm.	spher.	trl.	amber	vl.	2	91
		sm.	spher.	op.	du. yellow	l.	1	92
		sm.	spher.	trl.	grass green	m.	10	93
		sm.	spher.	trl.	green	sm., m.	36	94
		sm.	spher.	trp.	green	m., l.	20	95
		sm.	spher.	trl.	m. green	m.	9	95A
		sm.	spher.	op.	d. green	sm., m.	23	96
?	wound	sm.	spher.	op.	milky green	sm.	40	97
one only		sm.	spher.	trl.	m. blue	m.	1383	.026 2 1/2 98
		sm.	spher.	trl.	d. blue	sm., m.	239	99
		sm.	spher.	trl.	d. blue	l.	100	100
		sm.	spher.	op.	robin's egg blue	sm., m.	32	101
		sm.	spher.	op.	m. blue	sm.	3886	.072 7 1/2 102
		sm.	spher.	op.	m. blue	m.	640	.012 1 2/10 103
		sm.	spher.	op.	m. blue	l.	380	.0074 7.5/10 of 1 104
		sm.	spher.	op.	d. blue	sm.	18	105
		sm.	spher.	trl.	pink	sm., m.	14	106
		sm.	spher.	trl.	m. red	m.	7	107
		sm.	spher.	trl.	violet	sm.	15	108
		sm.	spher.	op.	black	sm., l.	60	109
		sm.	ell.	op.	grey-white	m.	45	110
		sm.	ell.	op.	chalky-white	sm., m.	221	111
		sm.	ell.	trl.	yellow	sm.	11	112
		sm.	ell.	op.	m. green	sm., m.	26	113
		sm.	ell.	trl.	d. blue	sm.	24	114
		sm.	ell.	trl.	d. blue	m., vl.	28	115
		sm.	ell.	op.	l. blue	vl.	1	116
		sm.	ell.	op.	m. blue	sm.	111	117
		sm.	ell.	op.	m. blue	m.	384	.0074 7.5/10 of 1 118
		sm.	ell.	trl.	pink	m.	6	119
		sm.	ell.	trl.	red	sm., m.	107	120
		sm.	ell.	trl.	violet	sm.	3	121
		sm.	ell.	op.	black	sm. vl.	8	122
		sm.	concial	op.	white	m.	1	123
		sm.	conical	trl.	red	m.	4	124
		sm.	conical	op.	black	m.	11	125
		sm.	discoidal	op.	white	m.	10	126
		sm.	discoidal	op.	m. green	m.	12	127
		sm.	discoidal	trl.	l. red	m.	13	128



METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
wound	uncored	molded	pent.	op.	d. blue	1.	1	129
		molded	double quad.	trl.	red	m.	11	130
		facet	spher.	trl.	purple	m., 1.	5	131
		horz. grooved	spher.	op.	white	m.	3	132
		horz. grooved	spher.	trl.	m. green	m.	12	133
		horz. grooved	spher.	trl.	d. blue	sm.	1	134
		horz. grooved	spher.	op.	m. blue	m.	8	135
		horz. grooved	spher.	trl.	red	m.	26	136
		horz. grooved	spher.	trl.	clear/red	1.	2	137
		horz. grooved	spher.		trl. red/op. white	m.	1	137A
		inlaid sm.	spher.	op.	horz. red band white	m.	2	138
		inlaid sm.	spher.		horz. red spir. op. m. blue	m.	2	139
		inlaid sm.	spher.	trl.	white horz. leaves trl. d. blue	m.	1	140
		inlaid sm.	spher.		alt. red, blue lines/op. white	1.	2	141
		inlaid sm.	spher.		gold horz. band, white spir. sp./ white	1.	1	142
		inlaid sm.	spher.		white sp., trl. red. vl. spir, blue sp./white		1	143
		inlaid sm.	spher.		white bord, pink & blue spir./black	m.	34	144
		inlaid sm.	spher.		white horz. leaves trl. d. green	m., 1.	9	145
		inlaid sm.	spher.		white horz. leaves trl. m. blue	m., vl.	3	146
		inlaid sm.	spher.		pink combed op. white	m.	1	147
		inlaid sm.	spher.		blue & pink, white horz. leaves, periph. yellow sp. clear	1.	1	148
		inlaid sm.	spher.		blue bord. white lines, pink & white leaves/op. white	1.	1	149
		horz. grooved	spher.		trl. pink horz. leaves/op. white	1.	1	150
		horz. grooved	spher.		black sp., op. white	m.	49	151
		inlaid sm.	ellip.		pink horz. sp. op. white	m.	18	152
		inlaid sm.	ellip.		red horz. sp. trl. red	1.	5	153
		inlaid sm.	ellip.		pink wavy spir. alt. 1. white spir. pink, white, blue sp. op. white		2	154

METHOD OF MANUFACT.	CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
wound	uncored	inlaid sm.	ellip.		blue & white spir. trl. red	l.	18		155
		inlaid sm.	ellip.		pink & white spir. alt. spir. blue & white, op. white	l.	1		156
		inlaid sm.	ellip.		white wavy horz. op. m. blue	m.	13		157
		inlaid sm.	ellip.		white diag. lines, black	m.	11		158
		inlaid sm.	ellip.		white dots florals black	l., vl.	3		159
		inlaid sm.	ellip.		pink on white sp. op. m. blue	m.	20		160
		inlaid sm.	ellip.		white bord. pink leaf op. m. blue	m.	25		161
		inlaid sm.	ellip.		white long. leaves trl. red	m.	1		162
		inlaid sm.	ellip.		white bord. red. horz. spir., alt. green leaf, op. white	l.	7		163
		inlaid sm.	ellip.		polych. flor. sp. op. white	vl.	1		164
		inlaid sm.	ellip.		3 gold horz. alt. pink and white comb. black & white spir. sp. black	vl.	1		165
		inlaid sm.	ellip.		cross-horz. m. green l. lines, w/yellow dots op. white	l.	1		166
		inlaid sm.	ellip.		white bord. pink & blue sp./ op. white	m.	42		167
		inlaid sm.	conical		white bord. pink & blue sp./op. white	m.	3		168
& molded		inlaid	squared		pink & white, plus yellow dots, grey- white	l.	1		169
	cored	sm.	cyl.		trl. red/yellow	m., l.	32		170
			spher.		trl. red/op. white	sm. l.	76		171
			spher.		trl. red/op. yellow	m., l.	10		172
			ellip.		trl. red/op. yellow	m., l.	13		173
			disc.		trl. red/op. yellow	m.	119		174
		inlaid	cyl.		white bord. l. blue & red/yellow dots op. white	l.	2		175
			spher.		white h.l.:trl.red op. yellow	l.	1		176
			spher.		com. white & yellow in trl. red/op. white	l.	2		177
			ellip.		white leaf in trl. red/op.white	l.	1		178
TOTAL Wound beads							9271	17	
molded (? prosser-periph. ridged)		sm.	spher.	op.	white	sm., m.	47		179
		sm.	spher.	op.	yellow	sm., m.	27		180
		sm.	spher.	op.	pearly "orange"	sm.	8		181
		sm.	spher.	op.	pink orange	m.	1		182
		sm.	spher.	op.	m. blue	sm.	46		183

METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
molded (? prosser-periph ridged)	sm.	spher.	op.	d. blue	sm.	12		184
	sm.	spher.	op.	d. blue	m.	1		185
	sm.	spher.	op.	black	sm.	27		186
	mold- facet.	spher.	trl.	white	m.	94		187
	mold- facet.	spher.	op.	white	sm., m.	51		188
	mold- facet.	spher.	op.	m. blue	m.	12		189
molded      uncored	mold. facet.	spher.	op.	black	m.	1		190
	long. & horz. grooved	ellip.	trl.	l. green	m.	2		191
	long. & horz. grooved	ellip.	op.	black	m.	2 <sub>1</sub>		192
	long. grooved	spher.	trl.	yellow	l.	1		193
	? molded      long. grooved	spher.	trl.	red	sm., m.	4		194
	??      uncured conical hole (bore)	facet.	spher.	trp.	white	sm., m.	16	195
? molded	facet.	spher.	trp.	yellow	sm.	2		196
	facet.	spher.	trp.	amber	sm., m., vl.	3		197
	facet.	spher.	trl.	amber	sm. & vl.	4		198
	facet.	spher.	trl.	var. blue	sm., m., l.	8		199
	facet.	spher.	op.	robin's egg blue	m.	17		200
	facet.	spher.	op.	m. blue	m.	31		201
	facet.	spher.	trl.	var. blue	sm., l.	8		202
	reg. str. hole	relief dashes	triang.	lavender	l. (4 cm)	1		203
TOTAL Molded beads						426	.008 8/10 of 1	
blown      uncured	sm.	cyl.	trl.	clear, lined w/red paint	m.	10		204
	part. facet.	? ellip.	trl.	clear, lined w/red paint	m.	3 frag.		205
	long. facet.	ellip.	trl.	green	sm.	2		206
	sm.	spher.	op.	black	m.	1		207
	long. grooved	cyl.	op.	3 l. blue st. in white	m.	3		208
	inlaid 4 mold. leaves	ellip.	trl.	m. blue		1		
TOTAL Blown beads						19		
Grand TOTAL of glass beads from Sullivan's Island						53,040		

BEAD CLASSIFICATION  
Lower Memaloose Island, Wasco County, Oregon. Summary

METHOD OF MANUFACT.	CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
drawn (tubular)	simple (uncored)						60,047		
	cored						11,350		
	inlaid						357		
							<u>74,230</u>	95.5	
wound	uncored	sm.					2,103		
	uncored	molded					59		
	uncored & inlaid (some are molded)						328		
	cored	sm.					339		
							<u>2,829</u>	4	
molded							430	.6	
blown							5		
TOTAL glass beads							77,494		

## Key to abbreviations:

SURFACE: sm.=smooth; pent.=pentagonal; hexag.=hexagonal; sept.=septagonal; facet.=facetted; octag.=octagonal

SHAPE: cyl.=cylindrical (short, medium &amp; long); sph.=spherical; ellip.=ellipsoidal

LIGHT TRANSMISSION: op.=opaque; trl.=translucent; trp.=transparent

BEAD CLASSIFICATION  
Lower Memaloose Island, Wasco County, Oregon. Catalog nos. 420,206-420,220

METHOD OF MANUFACT.	CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
drawn: untumbled	uncored	sm.	s. cyl.	trl.	m. green	m.	6		3
		sm.	l. cyl.	trl.	d. blue	m.	1		6A
		sm.	s. cyl.	trl.	d. blue	sm.	1		7
		sm.	s. cyl.	op.	l. blue	sm.	1		7A
		sm.	s. cyl.	op.	m. blue	sm.	437	.006	8
		sm.	s. cyl.	op.	pink	sm.	1		8A
		sm.	m. cyl.	op.	black	sm.	124	.002	10
		hexag.	s. cyl.	trp.	clear	m.	2		11
		hexag.	s. cyl.	trl.	amber	sm.	57		11A
		octag.	m. cyl.	trl.	m. green	l.	1 frag.		11B
		hexag.	s. cyl.	trl.	m. blue	m.	14		12
		pent.	s. cyl.	op.	black	vsm.	245	.003	13
		facet. hexag.	s. cyl.	trp.	clear	sm., m.	95		14
		facet. sept.	s. cyl.	trp.	clear	m. +	11		15
		facet. hexag.	s. cyl.	trl.	amber	sm., m.	79		16

METHOD OF MANUFACT.	CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
drawn: untumbled	uncored	facet. sept.	s. cyl.	trl.	amber	m., l.	18		17
		facet. hexag.	s. cyl.	trl.	greens	m.	221	.003	18
		facet. sept.	s. cyl.	trl.	greens	m.	5		19
		facet. hexag.	s. cyl.	trl.	l. blue	m.	4		21
		facet. hexag. & sept.	s. & m cyl.	trl.	l. blue	m.	frag.		
		facet. sept.	s. cyl.	trl.	l. blue	m.	1		21A
		facet. hexag.	s. cyl.	trl.	d. blue	sm., m., l.	202	.003	23
		facet. sept.	s. cyl.	trl.	d. blue	m., l.	28		24
		facet. hexag.	s. cyl.	trl.	violet	sm. & m.	22		26
		facet. sept.	s. cyl.	trl.	violet	m.	4		26A
		facet. hexag.	l. cyl.	op.	black	sm.	1		26B
		facet. hexag.	s. cyl.	op.	black	sm., m.	64		27
	cored	sm.	s. cyl.	op.	clear/op. white	sm.	3336	.043	28
		facet. hexag.	m. cyl.	trl.	trl. l. blue/ white	m.	1		29A
		facet. hexag.	s. cyl.	trl.	clear/white	sm., m.	9		30
		facet. hexag.	s. cyl.	trl.	l. & m. blue/white	vsm., l.	225	.003	33 & 34
		facet. sept.	s. cyl.	trl..	m. blue/white	m., l.	30		35
		facet. sept.	s. cyl.	op.	robin's egg blue/ white	m.	2		36
		facet. sept.	s. cyl.	op.	m. blue/white	m.	49		37
drawn: tumbled	uncored	sm.	s. cyl.	trp.	clear	sm.	210	.003	38
		sm.	m. cyl.	op.	white	m.	6		38A
		sm.	s. cyl.	op.	white	vsm., sm.	30,000	.387	39
		sm.	s. cyl.	trl.	yellow	sm.	30		39A
		sm.	s. cyl.	op.	b. yellow	vsm., sm.	845	.010	40
		sm.	s. cyl.	op.	d. yellow	vsm., sm.	315	.004	41
		sm.	s. cyl.	trl.	greens	vsm., sm.	1556	.020	42
		sm.	s. cyl.	op.	"chalky" l. green (deteriorating)	sm., m.	43		42A
		sm.	s. cyl.	op.	m. green	vsm., sm.	331	.004	43
		sm.	s. cyl.	trl.	blues	vsm.	60		44 & 45
		sm.	s. cyl.	trl.	l. blues	sm., m.	328	.004	44
		sm.	s. cyl.	trl.	m. blues	vsm., sm.	1840	.024	45
		sm.	m. cyl.	op.	m. blue	l.	8		46
		sm.	s. cyl.	op.	m. blue	m.	348	.004	47

METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.	
drawn: tumbled	uncored	sm.	s. cyl.	op.	m. blue	vsm., sm.	8840	.114	48
		sm.	s. cyl.	op.	m./d. blue	sm., m.	1752	.023	49 & 50
		sm.	s. cyl.	trl.	red	vsm., sm.	4000	.051	53
		sm.	s. cyl.	op.	red	sm.	13		53A
		sm.	s. cyl.	op.	pink	vsm., sm.	433	.006	54
		sm.	s. cyl.	op.	pink (deteriorated)	m.	9		54A
		sm.	s. cyl.	trl.	violet	sm.	129	.002	55
		sm.	s. cyl.	op.	black	vsm., sm.	5711	.074	56
		facet.	s. cyl.	trl.	l. blue	sm.	1		56A
		facet.	s. cyl.	trl.	red	sm.	7		57
		facet.	s. cyl.	trl.	violet	sm.	411 <sup>1</sup>	.005	58
	cored	sm.	s. cyl.	op.	clear/white	sm.	7040	.091	59
		sm.	s. cyl.	op.	white/white	sm., m.	1		60
		sm.	s. cyl.	op.	op. red/cl. green	sm., m.	645	.008	61
		sm.	s. cyl.	op.	op. red/black	m.	1		61A
		sm.	m. cyl.	op.	trl. red/white	m.	141	.002	62
		sm.	s. cyl.	op.	trl. red/white	sm., m., l.	45		63
		sm.	s. cyl.	op.	trl. red/white	vsm., sm.	3290	.042	64
					fragments				64
					fragments				61-65
		sm.	s. cyl.	op.	trl. red/yellow	vsm., sm.	187	.002	65
drawn: untumbled	inlaid: uncored	sm.	m. cyl.	trl.	white st./trl. blue	sm.	1		65A
		sm.	s. cyl.	trl.	white st./trl. blue	sm.	1		65B
drawn: tumbled	inlaid: uncored	sm.	s. cyl.	trl.	white st./clear	m.	3		66
		sm.	s. cyl.	op.	red st./white	m.	3		67
		sm.	s. cyl.	op.	white st./black	sm.	6		68
		sm.	s. cyl.	op.	l. green st./ white	sm.	136	.002	70
		sm.	s. cyl.	op.	l. blue st./white	sm.	16		71
		sm.	s. cyl.	trl.	white st./blue	sm.	2		72
		sm.	s. cyl.	trl.	red, white st./blue	sm.	1		74
		sm.	s. cyl.	op.	red, white st./ black	sm.	6		75
	cored	sm.	s. cyl.	op.	m. blue st./white/ white	vsm. +	9		76
		sm.	s. cyl.	op.	white st./red/white	sm.	118	.002	77
		sm.	s. cyl.	op.	white st./red/clear	sm.	3		78
		sm.	s. cyl.	op.	red & grey st./ white/grey	sm.	52		79
TOTAL Drawn beads									
wound	uncored	sm.	m. cyl.	op.	m. green	l.	2		80
		sm.	s. cyl.	trl.	m. blue	sm., m., l.	22		81 & 82
		sm.	m. cyl.	trl.	d. blue	m.	1		83
		sm.	m. cyl.	op.	m. blue	sm., m., l.	80		84 & 85

METHOD OF MANUFACT.	CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS	COLOR	SIZE	NO.	PERCENT	KEY NO.
wound	uncored	sm.	spher.	trp.	clear	m.	26		86
		sm.	spher.	trl.	white	l.	1		86A
		sm.	spher.	op.	white	sm., m.	7		87
		sm.	spher.	op.	chalky white	sm., m.	8		88
		sm.	spher.	trl.	amber	m.	54		90
		sm.	spher.	op.	d. yellow	l.	1		92
		sm.	spher.	trl.	grass green	m.	20		93
		sm.	spher.	trl.	green	sm., m.	15		94
					fragments				95??
		sm.	spher.	trl.	green	m., l.	6		95
		sm.	spher.	trl.	m. green	m.	1		95A
		sm.	spher.	op.	d. green	sm., m.	34		96
		sm.	spher.	trl.	l. blue	sm.	20		97A
		sm.	spher.	trl.	m. blue	m.	800	.010	98
		sm.	spher.	trl.	d. blue	sm., m., l.	169	.002	99 & 100
		sm.	spher.	op.	m. blue	sm.	4		102
		sm.	spher.	op.	m. blue	m., l.	57		103 & 104
		sm.	spher.	op.	d. blue	sm., l.	11		105
		sm.	spher.	trl.	ping	sm., m.	27		106
		sm.	spher.	trl.	m. red	m.	43		107
		sm.	spher.	trl.	violet	sm.	3		108
		sm.	spher.	op.	black	sm., m., l.	32		109
		sm.	ellip.	op.	grey-white	m.	74		110
		sm.	ellip.	op.	chalky white	sm., m.	156	.002	111
		sm.	ellip.	trl.	yellow	sm.	16		112
		sm.	ellip.	trl.	m. green	vl.	frag.		112A
		sm.	ellip.	trl.	d. green	s.	1		112B
		sm.	ellip.	op.	m. green	sm., m.	30		113
		sm.	ellip.	trl.	d. blue	sm., vl.	31		114 & 115
					fragments		of		114 & 115
		sm.	ellip.	op.	m. blue	sm.	95		117
					fragments		of		117 & 118
		sm.	ellip.	op.	m. blue	m.	22		118
		sm.	ellip.	trl.	pink	m.	7		119
		sm.	ellip.	trl.	red	sm., m.	48		120
		sm.	ellip.	op.	black	sm., m.	6		122
		sm.	ellip.	op.	white	m.	3		123
		sm.	conical	op.	m. blue	m.	frag.		123A
		sm.	conical	op.	d. blue	m.	1		123B
		sm.	conical	op.	black	m.	5		125
		sm.	discoidal	op.	white	m.	8		126
		sm.	discoidal	op.	m. green	m.	43		127
		sm.	discoidal	trl.	l. red	m.	12		128
	molded		triang.	op.	m. blue	sm.	1		128A
	molded		double quad.	trl.	red	m.	12		130
	horz. grooved		shper.	trl.	m. green	m.	21		133



METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
wound	uncored	horz. grooved	spher.	op.	m. blue	m.	4	135
		horz. grooved	spher.	trl.	red	m.	17	136
		horz. grooved	spher.	trl.	clear/red	l.	2	137
		horz. grooved	ellip.	trl.	red	l.	2	137A
		inlaid sm.	spher.	op.	alt. red & blue lines /op. white		frag.	141
		inlaid sm.	spher.	op.	gold horz. bans white spir.sp/white	l.	1	142
		inlaid sm.	spher.	op.	red & black sp./ white	l.	1	142A
		inlaid sm.	spher.	op.	white bord. pink & blue spir/black	m.	app. 30	144
		inlaid sm.	spher.	op.	white horz. leaves trl. d. green	m., l.	7	145
		inlaid sm.	spher.	op.	white horz. leaves filled with green & yellow/black	l.	2	146A
		inlaid sm.	spher.	op.	green solid long. leaves with pink buds/ op. white	l.	1	147A
		inlaid sm.	spher.	op.	white bord. gord horz. spir. alt with white leaf & pink bud/ trl. blue?	l.	1	149A
		horz. grooved	spher.	op.	black spots op. white	m.	app. 63	151
		inlaid horz. grooved	spher	op.	green with red & white designs/op. yellow (deteriorated)	l.	1	151A
		inlaid sm.	ellip.	op.	pink horz. sp. op. white	m.	6	152
		inlaid sm.	ellip.	op.	blue? wavy horz. spir. alt. with red sp./op. white	l.	2	153A
		inlaid sm.	ellip.	op.	yellow? wavy line on green horz. band & red sp./op. white	l.	1	153B
		inlaid sm.	ellip.		blue & white spir. trl. red	l.	3	155
		inlaid sm.	ellip.	op.	white wavy horz. op. m. blue	m.	frag.	157
		inlaid sm.	ellip.	op.	white diag. lines	m.	app. 17	158
		inlaid sm.	ellip.	op.	pink on white sp. op. m. blue	m.	1 & frag.	160
		inlaid sm.	ellip.	op.	white bord pink leaf op. m. blue	m.	5 & frag.	161
		inlaid sm.	ellip.	op.	d. blue long leaves/op. white	m. <sup>1</sup>	2	162A
		inlaid sm.	ellip.	op.	white spir. solid leaves/black	l.	1	162B
		inlaid sm.	ellip.	op.	white bord. red horz. sp. alt. green leaf/op. white	l.	2	163

METHOD OF MANUFACT. CONSTRUCTION	SURFACE	SHAPE	LIGHT TRANS.	COLOR	SIZE	NO.	PERCENT	KEY NO.
wound	uncored	inlaid sm.	ellip.	op.	3 gold horz. alt. pink & white comb. with blue & white spir. sp./black	vl.	1	165
		inlaid sm.	ellip.	op.	white bord. pink & blue sp./op. white	m.	42 & frag.	167
	cored	sm.	cyl.	op.	trl. red/yellow	m., l.	31	170
		sm.	spher.	op.	trl. red/op. white	sm., l.	59	171
		sm.	ellip.	op.	trl. red/op. yellow	m., l.	3	173
		sm.	discoidal	op.	trl. red/op. white	m.	7	173A
		sm.	discoidal	op.	trl. red/op. yellow	m.	239	174
molded (?prosser) (periph. ridged)	uncored	sm.	spher.	op.	white	sm., m.	8	179
		sm.	spher.	op.	yellow	sm., m.	34	180
		sm.	spher.	op.	"pearly" orange	sm.	18	181
		sm.	spher.	op.	m. blue	sm.	148	.002 183
		sm.	spher.	op.	black	sm.	173	.002 186
		mold. facet.	spher.	op.	white	sm., m.	8	188
molded????		long. grooved	spher.	trl.	yellow	l.	1	193
?		long. grooved	spher.	op.	d. amber (deteriorated)	l.	1	193A
?		long. grooved	spher.	op.	pink	l.	1	193B
molded????	conical bore	sm.	spher.	trp.	yellow	sm.	2	195
		sm.	spher.	trl.	red	sm.	1	195A
		facet.	spher.	trp.	white		6	196
		facet.	spher.	trp.	amber	sm.	4	197
		facet.	spher.	trl.	amber	sm., m.	8	198
		facet.	spher.	trl.	l. green	l.	1	198A
		facet.	spher.	trl.	m. blue	m.	1	199
		facet.	spher.	op.	robin's egg blue	m.	2	200
		facet.	spher.	op.	m. blue	m.	3	201
		facet.	spher.	trl.	var. reds	sm., l.	9	202
		facet.	spher.	trl.	violet	l.	1	202A
blown	uncored	sm.	cyl.	trl.	clear, lined w/red pigment	m.	2	204
		facet.	ellip.	trl.	clear, lined w/red pigment	m.	6 frag.	205
		long. facet.	ellip.	trl.	green	sm.	1	206
		sm.	spher.	op.	black	m.	1 & frag.	207

## TOTALS:

## LOWER MEMALOOSE ISLAND

## SULLIVANS ISLAND

Types

No.

No.

drawn  
(tubular)simple  
(uncored)

60,047

27,008

(cored)

11,350

15,862

inlaid

(cored &amp; uncured)

357

454

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74,230

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43,324

wound

uncored &amp; smooth

2,103

8,664

uncored &amp; molded

59

70

uncored & inlaid  
(some are molded  
and inlaid)

328

283

cored &amp; smooth

339

256

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2,829

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9,273

molded

430

427

blown

5

19

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77,494

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53,043