

## CRABAPPLE POINT (Je 93): AN HISTORIC WINNEBAGO INDIAN SITE

IN JEFFERSON COUNTY, WISCONSIN

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## ABSTRACT

*During the fall of 1972, archeological excavations were conducted at the Crabapple Point Site (47 Je 93) located along the western shore of Lake Koshkonong in Jefferson County, Wisconsin. The recovery of diagnostic, historic trade goods, including glass beads, gunflints and trade silver, in conjunction with independent, documentary research, permitted the definition of a late 18th century Winnebago Indian occupancy at the site. Analysis of the historic archeological complex is supplemented by ethnohistoric and ethnographic data. On the basis of materials recovered archeologically and documentary evidence, it is suggested that Crabapple Point was the location of specialized activities by Winnebago people, centering on the mining, processing and manufacturing of lead products.*

## INTRODUCTION

The following site report represents one facet of a research project employing an approach which combined archeological, ethnohistoric and ethnographic resources in an effort to clarify various problem areas and questions related to Winnebago culture history (Spector 1974). It was hoped that analysis of archeological remains in conjunction with analysis of documentary and ethnographic information could provide a more comprehensive picture of Winnebago cultural dynamics than would be possible on the basis of any single source of information.

A survey for historic Winnebago sites, guided by historic records and early archeological literature, was initiated in the fall of 1971. The survey was resumed in the summer of 1972 and continued without success until September of that year. (see Spector 1974:258-262 for a report of sites surveyed). Finally, a site was discovered on the western shore of Lake Koshkonong in Jefferson County, Wisconsin, which produced artifacts of European origin indicating the presence of an historic occupation at this location, identified in an early archeological report as being the site of a Winnebago village (Stout and Skavlem 1908:78-82). Independent historic documents persistently refer to the western shore of Lake Koshkonong as being within Winnebago territory, supporting the

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identification of the site.

Analysis of diagnostic trade goods found during excavations at the site indicates that the period of the historic occupation fell in the late 18th century, the early decades of the Late Historic period, using George Quimby's terminology (1966:7). This period of time, based on evidence in the documentary record, was a critical one in Winnebago history, immediately preceding the time of cultural disorganization precipitated by the attempt to remove the tribe from Wisconsin in the 1830's (Spector 1974:38-43). The evidence of Winnebago culture as reflected archeologically, therefore, takes on considerable significance as a record of activities of a portion of the Winnebago tribe, prior to the breakdown of traditional institutions.

In the following pages an analysis of the archeological data recovered at Crabapple Point on Lake Koshkonong is presented. Ethnohistoric and ethnographic data have been used extensively in interpreting the archeological remains. At the same time, the archeological evidence provides a rich body of detailed, chronologically controlled information on Winnebago material culture, subsistence activities and economic pursuits described only superficially in the historic documents, highlighting the potentials of a multi-faceted approach in examining the culture history of the Winnebagos.

## SITE LOCATION AND DESCRIPTION

The site excavated is located in the SE 1/4 of the SE 1/4, Section 19, Sumner Township, Jefferson County, Wisconsin on land presently owned by Mr. R. E. Ladd. Prior to the construction of the Glen Oaks Beach housing development along the lake shore, this portion of Lake Koshkonong was known as Crabapple Point, a name which has been revived in the following report to refer to the historic village site technically designated as 47 Je 93 (Figs. 1 and 2).

When H. L. Skavlem surveyed this area in the early 1900's, he described Crabapple Point as a spur of higher land which gradually slopes down as it approaches the shore line, where it does not exceed twenty feet in height. The terminal face of the point is walled with large boulders, making this a prominent land mark when viewed from the lake. To the northeast of Crabapple Point the high land terminates in an abrupt limestone cliff overlooking a marshy shore (Stout and Skavlem 1908:79).

The site at Crabapple Point lies approximately 500 feet north of the lake shore on sloping ground rising some 15 feet from south to north. The land has not been in use for many years, but limited farming was formerly done in the southern section of the site and more intensive cultivation undertaken on the northern portion of the site. The disturbance resulting from this activity was evidenced in the excavation of the site by the clear mixture of materials in the plow zone. The

type, and two of the British type. This may suggest multiple occupations during the historic period at Carcajou and certainly indicates the presence of people at the site during the Middle Historic period, or at least prior to 1770, perhaps in the early decades of the Late Historic period. This information might imply either contemporaneity with the people living at Crabapple Point or even occupancy of both sites by the same group of Indians.

## Trade Beads

One of the most common classes of artifacts found at historic Indian sites are glass trade beads (Fig. 14). At Crabapple Point 391 glass, one brass and two shell beads were recovered during excavation of the site and processing of soil samples. The beads were collected in the field by excavating all squares entirely by trowel from a depth of 0.2' - 1.5', recording vertical and horizontal provenience for each specimen. In the laboratory, the sample size was increased when many beads were discovered in the processing of soil samples. Unfortunately, the combined problems of soil texture and moistness, almost continuous rainy weather, and the lack of a readily accessible water supply prevented the use of either wet or dry screening in the field, techniques which would have made excavation more efficient and would have substantially increased the bead sample size. Given the results of bead recovery in the lab while processing soil samples, the field problems were unfortunate. In Feature 10, for example, no dark colored beads (dark red and blue) were found during excavation. Forty-one were discovered while water screening soil samples from the feature. This unexpected finding, that dark colored beads were not being recovered in representative frequencies during excavation of the site, biases the analysis of glass beads somewhat in terms of the ratio of light to dark colored beads. In Feature 10, that ratio is 2:1, a figure which would probably approximate that for the entire excavated area if all areas had been screened. In general, it is felt that the bead sample is representative of the range of types which actually occurred at the site.

A summary of the data on glass trade beads covered at the site, including the frequency of occurrence and description of each bead type, is presented in Table 1. For a more detailed discussion of the classification procedures used in assigning beads to various categories, the reader is referred to Spector (1974:147-159).

## Comparisons and Discussion

The bead assemblage from Crabapple Point was compared to collections from nine other historic sites ranging in time from 1670-1850, in an attempt to establish the temporal boundaries of the site occupation. All of the sites have been



FIGURE 14

Glass Trade Beads

dated through the use of diagnostic materials (artifactual or documentary) other than trade beads. The sites selected for comparative purposes are located within a limited geographic region. While this kind of selectivity reduces the number of sites which can be used in comparisons, it is a necessary control since we know that sites in broadly separated areas may have experienced the introduction of the same bead type at different points in time. The sites used in the comparative study and the bibliographic references are as follows (the two periods follow Quimby 1966):

## Middle Historic Period (1670-1760)

Site	Location	Dates	Reference
Lasanen Site	Mackinac Co., Michigan	1670-1705	Stone 1971
Bell Site	Winnebago Co., Wisconsin	1680-1730	Wittry 1963
Fort Michilimackinac	Emmet Co., Michigan	1715-1781	Stone 1970
Guebert Site	Randolph Co., Illinois	1719-1774	Good 1972

## Late Historic Period (1760-1820, or slightly later)

Site	Location	Dates	Reference
Old Birch Island Cemetery	Georgian Bay, Ontario	1750-1800	Greenman 1951
Crawford Farm Site	Rock Island, Illinois	1790-1810	Bluhm 1951 and McKusick & Slack 1962
Ada Site	Kent Co., Mich.	1820-1850	Herrick 1958
Matthews Site	Clinton, Co., Michigan	1820-1830	Cleland 1972
Kipp's Post	Garrison Reservoir	1825-1835	Woolworth & Wood 1960

In addition to the above-mentioned sites, beads from Carcajou Point, Jefferson County, Wisconsin, were also examined. A small, and clearly unrepresentative sample of 11 beads are housed, along with other materials collected from the surface of the site, in the State Historical Society of Wisconsin museum. Approximately 20 more beads from Carcajou on exhibit at the Hoard Museum in Fort Atkinson were also examined. The site is included because of its close proximity to Crabapple Point and because it has traditionally been identified as the Late Historic Winnebago village of Chief White Crow (Hall 1962:147 and Stout and Skavlem 1908:82-93). This interpretation will be considered below.

TABLE 1  
BEADS FROM Je 93 — SUMMARY OF DATA

Hollow Cane	Class	Type-Variety	Description	No. of Specimens
I	a-1		Color: Dark Red - translucent	39
			Form: tubular	
			Size: Length: 4.0 mm. - 5.0 mm.	
			Width: 2.0 mm. - 3.5 mm.	
I	a-2		Color: Dark Red - translucent	39
			Form: tubular	
			Size: Length: 2.5 mm. - 3.5 mm.	
			Width: 2.0 mm. - 3.5 mm.	
I	a-3		Color: Medium Blue - translucent	13
			Form: tubular	
			Size: Length: 2.5 mm. - 5.5 mm.	
			Width: 2.5 mm. - 3.5 mm.	
I	b-1		Color: Medium Blue Opaque with white/red/white	1
			Form: tubular	
			Size: Length: 15.5 mm.	
			Width: 5.0 mm.	

## Hollow Cane

Class	Type-Variety	Description	No. of Specimens
I	aa-1	Color: Dark red - translucent Form: tubular with two facets Size: Length: 4.0 mm. Width: 3.0 mm.	1
II	a-1	Color: Dark Red - translucent Form: donut Size: Length: 2.0 mm. - 3.0 mm. Width: 2.5 mm. - 4.0 mm.	8
II	a-2	Color: Medium Blue - translucent Form: donut Size: Length: 2.0 mm. Width: 3.0 mm.	1
II	a-3	Color: Medium Blue - translucent Form: barrel Size: Length: 2.0 mm. Width: 3.0 mm.	1
II	a-4	Color: Blue-green Opaque Form: barrel Size: Length: 2.5 mm. Width: 2.5 mm.	1

## Hollow Cane

Class	Type-Variety	Description	No. of Specimens
III	a-1	Color: Clear/Opaque White Form: tubular Size: Length: 2.0 mm. - 3.5 mm. Width: 2.0 mm. - 3.5 mm.	87
III	a-2	Color: Clear/Opaque White Form: tubular Size: Length: 3.5 mm. - 5.5 mm. Width: 2.5 mm. - 4.5 mm.	79
III	b-1	Color: Opaque Red/Light Green-translucent Form: tubular Size: Length: 2.5 mm. - 3.0 mm. Width: 3.0 mm.	3
IV	a-1	Color: Clear/White Opaque Form: donut Size: Length: 1.5 mm. - 3.0 mm. Width: 2.5 mm. - 4.0 mm.	36
IV	a-2	Color: Clear/Opaque White Form: barrel Size: Length: 3.0 mm. - 3.5 mm. Width: 3.0 mm. - 4.0 mm.	37

Hollow Cane	Class	Type-Variety	Description	No. of Specimens
	IV	a-3	Color: Clear/White Opaque Form: circular Size: Length: 1.5 mm. - 2.0 mm. Width: 2.5 mm. - 3.0 mm.	2
	IV	a-4	Color: Clear/White Opaque Form: round Size: Length: 3.0 mm. Width: 3.5 mm.	1
	IV	a-5	Color: Clear/White Opaque Form: irregular donut - circular Size: Length: 2.0 mm. Width: 3.0 mm.	1
	IV	b-1	Color: Red Opaque/Light Green Transparent Form: Barrel Size: Length: 2.5 mm. - 3.0 mm. Width: 3.0 mm. - 4.0 mm.	3
	IV	bb-1	Color: Clear/Opaque Red/Transparent light green Form: barrel Size: Length: 2.5 mm. Width: 3.5 mm.	1

Hollow Cane	Class	Type-Variety	Description	No. of Specimens
	IV	bb-2	Color: Clear/Opaque Red/Transparent Light Green Form: donut Size: Length: 2.5 mm. Width: 4.0 mm. - 4.5 mm.	2
	WI	a-1	Color: Opaque White Form: oval Size: Length: 4.5 mm. - 9.0 mm. Width: 2.5 mm. - 5.0 mm.	18
	WI	a-2	Color: Opaque White Form: round-asymmetrical Size: Length: 3.5 mm. - 5.00mm. Width: 3.5 mm. - 5.0 mm.	4
Wire-Wound	WI	a-3	Color: Mulberry Opaque Form: oval Size: Length: 6.0 mm. - 7.0 mm. Width: 3.5 mm. - 4.0 mm.	4
	WI	a-4	Color: Mulberry Opaque Form: round-asymmetrical Size: Length: 4.0 mm. - 4.5 mm. Width: 1.4 mm. - 2.0 mm.	2



Wire-Wound	Class	Type-Variety	Description	No. of Specimens
	WI	a-5	Color: Altered to dark grayish-brown Form: oval Size: Length: 4.0 mm. - 9.0 mm. Width: 2.5 mm. - 4.5 mm.	6
	WII	a-1	Color: Opaque White with Gold Band Inlay Form: oval (broken in half longitudinally) Size: Length: 8.5 mm. Width: 8.0 mm. Decoration: gold-yellow glass rod inset around the middle of the bead	1

WIII \* (h)?

In comparing bead assemblages from different sites, even within a limited geographic region, considerable caution must be exercised prior to postulating temporal interpretations. One of the weaknesses of most historic site reports examined is the lack of critical analysis in comparing bead collections. If we are to reach the goal of establishing a bead type chronology, such carelessness must be controlled.

One difficulty encountered in comparing bead samples is the lack of standardization with respect to description and classification. In many site reports beads are poorly described and illustrated. Comparisons based on such material inevitably involve subjective decisions concerning the similarities and differences between assemblages. This problem is eliminated when color photographs of the collections are available. This was the case in the present study for the assemblages from the Guebert and Old Birch Island sites and Fort Michilimackinac (kindly loaned by Lyle Stone).

Another variable to be considered when comparing beads from different collections has to do with the nature of the sites themselves. Bead inventories from contemporary burial sites, military or trading posts, and open Indian village sites may differ because of socio-cultural factors rather than time of occupation. More subtle differences may be evident in contemporaneous Indian villages or burial sites because of the style preferences of different tribal groups. Finally, bead assemblages may vary because of the archeological methods used for recovery. Beads derived from surface collections, salvage operations and carefully controlled excavations may result in very contrasting samples, even if the sites themselves were occupied during the same period of time. All of the above factors indicate the necessity for critical analysis in comparing different bead assemblages. So that the inferences made in the present study can be properly evaluated, the following data concerning the sites used for comparative purposes are presented.

Site	Type of Site	Methods of Recovery and Excavation Control
Lasanen	Algonquin Burial Site	Well controlled salvage excavation
Bell	Fox Indian Village	Limited control salvage excavation—plow zone removed by machine
Michilimackinac	French and British Military Post	Well controlled excavation
Guebert	Kaskaskia Indian Village	Limited excavation—most of the sample from surface collections
Old Birch Island	Algonquin Burial Site	Controlled excavation

Site	Type of Site	Methods of Recovery and Excavation Control
Crawford Farm	Sauk Village and Burials	Controlled excavation, report unpublished; materials examined from surface collection
Ada Site	Ottawa Camp Site and Burial Locality	No information on excavation
Matthews Site	Burial Locality	Excavation and notes by non-professional. Excellent notes
Kipp's Post	Columbia Fur Co. Trading Post	Limited excavation control—plow zone removed by machine

In spite of the limitations presented, it is possible through comparisons with dated sites to suggest the temporal position of a given site on the basis of bead types, at least within the rather broad boundaries of Quimby's divisions of the Historic period. For each temporal unit of the period, Quimby presents the known diagnostic bead types (Quimby 1966: Chap. 6). For the Early Historic period, diagnostic types are larger tubular beads, star or chevron beads and beads with vertical stripes of two colors. In the Middle Historic period polychrome beads with straight or spiral stripes in a single contrasting color; monochrome elongate spheroids; decahedrals with eight faces; raspberry forms; large egg-shaped wire-wound forms; and spheroidal beads with fluting are typical. In the Late Historic period fewer bead types are present due to the introduction of silver ornaments into the trade after 1760 (*Ibid.*:87). Excluding the ubiquitous tiny seed beads, typical forms in the Late Historic period are oval or barrel-shaped wire-wound beads with wreaths of leaves in enamel encircling the bead equator; polka dot or eyed beads; multi-faceted forms of various colors; imitation wampum beads; small spheroidal and oblate-spheroidal beads of various colors.

Based on Quimby's work alone, the bead assemblage from Je 93 would most readily fit into the Late Historic Period. Specific comparisons with dated sites support this interpretation and, furthermore, suggest that the site was occupied during the early decades of the Late Historic period. Comparative data are presented in Table 2. Included in this table is the sample size from each site, when this information is given in the original report; the percentages of each sample represented by individual types present at Je 93; the percentage of the total assemblage from each site which corresponds to the sample from Je 93.

One bead type which was not included in Table 2 is white shell wampum. Only one specimen of this type was found at Je 93. Such beads were common at the Lasanen Site (14,000

TABLE 2

## TRADE BEADS — COMPARATIVE DATA

Taxonomic Designation	Je 93	Bell	Lasanen	Guebert	Michilimackinac	Old Birch Island	Crawford Farm	Ada	Matthews	Kipp's Post
Ia1-2*	18.4%	--	-.1%	--	--	37.2%	--	1 e.g.	--	--
Ia3	3.2%	--	--	--	--	1.7%	X	--	--	--
Ib1	.3%	--	--	--	-.1%	--	--	--	--	-.1%
IIa1*	1.1%	--	42.1%	--	--	-.1%	--	--	--	--
IIa2-3	.5%	--	25.0%	.2%	1.9%	3.7%	X	freq.	few	87.7%
IIa4	.3%	--	--	-.1%	--	--	--	--	--	-.1%
IIIa1-2	44.0%	--	--	.5%	2.1%	1.3%	X	1 e.g.	few	8.1%
IVa1-5	20.5%	--	5.3%	37.0%	49.5%	49.2%	X	freq.	--	--
IVb1, bb1, bb2	1.6%	--	3.6%	1.1%	3.5%	--	--	--	--	--
W1a1	4.8%	--	--	9.8%	.4%	-.1%	X	236	3 e.g.	2.0%
W1a3	1.1%	--	--	.1%	-.1%	--	--	3	--	--
W1a5	1.3%	--	--	--	.7%	--	X	--	--	--
W11a1	.3%	--	--	--	-.1%	--	--	--	--	--
Percentage of Total-Comparable	97.7%	0	76.1	54.2	59.9	93.3	--	--	less than 5%	98.0
Sample Size	375	112	7213	2408	6800	12,569	Unknown	ca.250	350	6700

\* Includes those listed as black

specimens) and the Ada site. They represented 5.4% of the sample for the Guebert site and 1.5% of the Fort Michilimackinac assemblages. Shell wampum was not reported from any of the other sites investigated.

In examining Table 2, it should be noted that 97.7% of the sample from Crabapple Point was directly comparable to types found at other sites in the Great Lakes region. The only beads from Je 93 which were not present in the comparative sample are minor variants of types which are represented in other collections. Type Ia1 (one specimen) is a dark red tubular bead identical to Ia1 except for the presence on this one specimen of two facets which may have been an accidental rather than an intentional result of manufacturing. Similarly, types IIb1 (three specimens), W1a2 (four specimens) and W1a4 (one specimen) are distinguishable from related varieties present in other assemblages only on the basis of shape. These bead types, apparently unique to Je 93, do not seem to be of great significance, but rather are examples of the lack of precision typical of the glass bead manufacturing industry.

Comparisons of the bead assemblage from Je 93 to other sites of both the Middle and Late Historic periods confirm the impression based on Quimby's definitions, that the site fits most readily into the Late period. There is a conspicuous absence of certain diagnostic Middle Historic bead types at the site, specifically polychrome and striped beads; large wire-wound forms; large spheroid and tubular monochrome beads; melon, raspberry, fluted and large faceted types; and flat, disc-shaped beads. All of these types were present in the Middle Historic sites investigated. At both the Bell site and Carcajou Point, sites geographically closest to Je 93, the beads were exclusively of the above-mentioned types, and neither assemblage had forms present at Crabapple Point. Although the bead sample from Carcajou is clearly unrepresentative, it does seem significant that the only diagnostic types present in both collections (e.g. polychrome beads with spiral stripes; monochrome, elongate spheroids, and large, egg-shaped wire-wound) are those characteristic of the period 1670-1760. These same types are reported from the Middle Historic Bell site. This casts some doubt on the generally accepted conclusion that Carcajou was the location of the 1828 Winnebago village of White Crow, unless the interpretation is amended to include either an earlier, Middle Historic component, or continuous occupation from the Middle Historic period into the 1820's, the time at which White Crow supposedly lived at the site.

Comparison of the beads from Crabapple Point to other Late Historic sites suggests that the period of occupation was probably in the earlier, rather than the later decades of the Late Historic period. Although the bead collections from the Ada and Matthews sites and Kipp's Post are somewhat less extensive than those from the Middle Historic sites, it is clear that certain types present in those sites are not found in the assemblage from Je 93. Small multi-faceted beads, tiny

seed beads of various colors; small polka dot and fancy inlaid wire-wound beads, all diagnostic of the Late Historic period, are relatively common in these sites, but do not occur at Crabapple Point. Similarly, they do not occur at Old Birch Island Cemetery or Crawford Farm, sites dated to the earlier decades of the Late Historic period, roughly 1750-1800. It is with these two sites that the beads from Crabapple Point are most comparable.

The beads from the Crawford site illustrated in McKusick and Slack (1962:Pl. 2) appear to be identical to types found at Crabapple Point. Unfortunately, the final analysis of this important site has not been published yet. Nonetheless, all of the beads pictured are reproduced in the Je 93 assemblage. More significant are the parallels between Old Birch Island Cemetery in Georgian Bay, Ontario, and Je 93. Both collections reflect the lack of variety of bead types characteristic of the Late Historic period, when silver ornaments had begun to replace beads, particularly necklace beads, as favored trade items. Thus, in both samples the preponderance of types are the smaller beads used in embroidering articles of clothing. Secondly, in both collections, the most frequently occurring bead types are imitation wampum beads, i.e. small tubular varieties. At both sites these are present in white, blue and black (dark red when subjected to intense light) varieties. Next in frequency at both sites are small, white beads which had been shaped by tumbling. This kind of bead, however, has a long history of use in the Indian trade and forms the bulk of the sample at the Guebert site and at Fort Michilimackinac.

In addition to the similarities between the two sites, it is interesting to note the differences between Old Birch Island and Crabapple Point. Four bead types represented by 19 beads found at Old Birch Island do not occur at Crabapple Point: 14 "Man-in-the-moon" or crescent beads (blue disc-shaped beads); three blue ovoid beads with red stripes; one large elliptical white bead; and one large blue faceted bead. Each of these types is found at sites dating to the Middle Historic period. The six types found at Je 93 which do not occur at Old Birch Island are: one red and white striped blue bead; one small blue-green barrel-shaped bead; six small "cornaline d'Aleppo" beads; four mulberry, oval wire-wound and five brown, patinated wire-wound beads; and one oval, white wire-wound bead with a circumferential gold inset band. These types, like the ones at Old Birch Island, are also found primarily in Middle Historic contexts.

There are two different interpretations which might explain the apparent mixture of the Middle and Late Historic bead types at both Crabapple Point and Old Birch Island Cemetery. First, there may simply have been two or more occupations at each site spanning the Middle to Late time periods. At Je 93 the random distribution of bead types argues against this interpretation. A second hypothesis is that the sites



may represent an early phase of the Late Historic period, when beads typical of the Middle Historic period were still in use. Based on the bead assemblages alone, there would really be no reason to choose one interpretation over the other. However, when the trade silver and gunflints are also considered, the second hypothesis seems most tenable. At both sites, the Dutch spall-type gunflints are the only identifiable forms present. At the later Ada, Matthews and Kipp sites British prismatic, blade gunflints are the most common. At both Old Birch Island and Crabapple Point, trade silver is present but rare, again a contrast to the later sites of the Historic period. Therefore, it seems reasonable to suggest that the sites date no earlier than 1760, the time when trade silver entered the Great Lakes region (Quimby 1966:91). The terminal date is more difficult to establish. It is known that Dutch gunflints were no longer popular after 1770. If the sites dated much later than this, we would expect to find a much higher occurrence of trade silver and the presence of British gunflints. In addition, one would expect to find more Late Historic bead types and fewer Middle Historic types than are represented at these sites.

The period 1760-1780 can be tentatively offered as the time of occupation at Crabapple Point although this conclusion may be premature given the rather limited area of the site excavated. Nonetheless, on the basis of the evidence which is available, a late 18th century date does seem justified.

#### Trade Silver

The presence of trade silver ornaments and ornament fragments at Crabapple Point was of considerable significance in attempting to ascertain the date of occupation at the site. According to Quimby (1966:91): "The best single criterion for dating archaeological sites of the Late Historic Period, 1760-1820, is the presence of silver ornaments of kinds made for use in the fur trade by silversmiths in Canada, England, and the United States. Such ornaments were not used in the western Great Lakes fur trade before 1760, but became very popular soon after that date." At Je 93 none of the small silver specimens recovered during excavation of the site bore the "touchmarks" often stamped on silver ornaments by silversmiths that in many cases permit precise dating of the objects. Instead, the presence of these trade goods serve only to define the earliest date of occupation of the site, 1760.

Of the four silver artifacts found at the site, two can be identified with some confidence as portions of silver brooches. One misshapen piece (broken into two parts after discovery—Fig. 15, second and fourth from left) was found in Post 43, associated with seven glass trade beads. It is clearly the ring section of a plain silver brooch. The tongue was missing from the brooch and the piece had broken at the thin point at which the tongue would have been attached. The brooch

was subsequently bent out of shape. In Feature 10, another portion of a brooch was found, this time consisting of the tongue only (Fig. 15, third from left). Both of these items were tested to determine if they were made of German silver. This alloy, consisting of silver and a high percentage of nickel, was a late development in the history of trade silver, appearing around 1825 (Baerreis 1950:82). The chemical test for German silver proved negative. Instead, the rather dull metal was identified as an impure silver with traces of both nickel and copper (David Mack, personal communication 5/3/73).

Robert Alberts reports that brooches were indubitably the most numerous ornament used by the Indians. They were used "to fasten and decorate the clothing of both men and women, to enhance sashes, ribbons and headdresses, to secure infants' swaddling bands—and, indeed, anywhere that they could be fastened" (Alberts 1953:51). The most common type of brooch consisted of a plain metal ring, varying in diameter from one-half inch to an inch or more with attached tongue (*Ibid.*:52). The size of the two specimens from Je 93 can only be estimated due to their fragmentary or distorted condition. Nonetheless, based on the tongue of the second specimen, the diameter of the brooch to which it was attached would have measured at least one half an inch, and probably more, as the tongue itself was incomplete. The other brooch is slightly less than an inch in diameter. Brooches of this kind were often worn in groups to produce a massed effect, reminiscent, according to Quimby, of chain mail or flexible armor (Quimby 1966:93). One of the reasons for the popularity of these brooches was undoubtedly their cheap cost. American Fur Company records of the 1820's indicate that 100 plain silver brooches sold for \$2.57 (Alberts 1953:52).

A third silver ornament found at the site cannot be specifically identified (Fig. 15, left). The small circular piece (S50E80-11) measures 8 mm. in diameter. It has two small perforations which indicate that the piece was probably suspended and combined with other silver pieces on a pendant, cross or earring. An interesting feature of this ornament is the presence of a portion of an engraved floral motif. This suggests that the piece was cut from a larger ornament, perhaps a silver armband or gorget, which were frequently engraved. Whether this reworking of a larger piece was done by an Indian or by European, Canadian or American silversmiths, is indeterminate.

A fourth specimen (not illustrated), again of a dull, impure silver, is too fragmentary to be identified. This piece was found while processing soil samples from Post Hole 11. It is a very thin, fragile piece of silver which appears to have been engraved although the design is not definable. This was presumably a portion of a rather small, delicate ornament of some kind.

It has already been mentioned in the discussion of trade beads, that by the Late Historic period, silver ornaments had