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SUMMER ISLAND III:

An Early Historic Site in the Upper Great Lakes

DAVID S. BROSE

INTRODUCTION

The Summer Island site lies on a series of meadow-covered sand dunes rising about twenty feet above the level of Summer Harbor on the northwest side of the island. Summer Island is located about three miles south of Point Detour and is northernmost in the island chain between Michigan's Garden Peninsula and Wisconsin's Door Peninsula, separating Green Bay and Bay de Noc from Lake Michigan (Figure 1).

Topographically, the island consists of a two-tiered outcrop of the Silurian dolomites which forms the western edge of the Niagara Escarpment. Pro-glacial lakes have cut a number of terraces above the current lake level in the bedrock and the thin Pleistocene sedimentary mantle (Brose, n.d.a). Above and within these deposits some thin soils have formed sporadically in the interior level areas of the island. But the bedrock outcrops are ubiquitous and with the exception of the Summer Harbor area itself, meadow soils are rare (Brose, 1970a).

Offshore, the lake bottom consists of broken and jumbled bedrock and large blocks of weathered dolomite. The bottoms shoal outward from the island at shallow depths for several hundred feet. The coastline of the island presents a formidable appearance with blocks of dolomite dropping a sheer 10-12 feet onto the more level rock shelves which form the shoals. There are two exceptions to this picture. At the extreme northwestern point of Summer Island is a low, gravelly bar extending to the north and gently dipping to about four feet below the water midway between the Summer Islands. Toward the foot of Summer Harbor, where the bottom is less than eight feet in depth, it is composed of a rather clean sand which extends shoreward to the beach. Nonetheless, scattered blocks of dolomite often lie inches below the surface of the water and along the sand beach. The beach itself runs along the southwestern shore of Summer Harbor for about nine hundred to a thousand feet. To either side the limestone rises directly from the water to heights of from four to seven feet. Behind the sand beach and twenty-six foot wide sand and gravel shingle the land slopes steeply upward in a high sand bank reaching a rather sudden plateau about twenty feet above the lake. This sandy plain forms a clearing, erratically covered with thin vegetation. The clearing runs along the harbor for about 650 feet north and south and is about 250 feet wide at the center. It is crescentic, following the shoreline, each tapered end meeting a limestone ledge, and, immediately beyond, the forest. It is within this clearing that the Summer Island Site (Figure 4) is located.

The island lies in the northern portion of the "lake forest biotome" (Dice 1938) and is characterized by a forest cover of mixed deciduous and coniferous trees such as Hemlock, Balsam Fir, Sugar Maple, Quaking Aspen, and Birch. The fauna is rather Canadian and Black Bear, Moose, and Beaver are the principal mammalian species present, although the offshore shoal waters support a rich and varied fish fauna.

During the months of July and August 1967 I directed a field crew of five at excavations on the Summer Island site (20DE4) for the University of Michigan Museum of Anthropology. The crew consisted of Bert Barnard (Wayne State University), Kenneth Carstens (Central Michigan University), James Driskell (University of Arkansas), Paul Fellows (University of Arizona) and Victor Fitting (Michigan State University).

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a copper strip 1.7 mm to 2.5 mm thick, 2.5 to 3.0 mm wide and about 16.5 mm long. The external diameter of the finished bead was 5.9 mm with an internal diameter of 3.1 mm. Both types of beads are similar to some of the small beads recovered from the Late Woodland Juntunen site (McPherron, 1967: 171; Plate XXXIII). They are also similar to the beads recovered from the burials at Dumaw Creek (Quimby, 1966b: 39-40; Fig. 13, 15). They could also be placed easily within the sample of rolled copper beads from the Middle Woodland component and in fact may actually have been derived from that component.

This may also be the case with the three copper awls (Figure 10, f) only one of which was recovered from a feature. All had been constructed with the fold-and-hammer technique noted for the Middle Woodland copper awls. Two of the protohistoric component awls were broken and resulting lengths were 22.1 mm and 27.8 mm. The intact awl was 41.6 mm long. All appear to have been bi-pointed and rectangular in cross-section. The mean maximum width of these artifacts was 2.7 mm and the mean thickness was 2.1 mm. The two broken awls were somewhat bent and twisted which may have occurred during that operation which broke them. All three awls bore some signs of use as awls and/or reamers (see Brose, 1970a). Copper awls similar to these have been reported for virtually all sites in the upper Great Lakes from Late Archaic through the historic period.

Four rolled copper points (Figure 10, g) from this component were at first thought to be recut and rolled brass kettle fragments. Specific gravity analysis indicated that they were the same material as the awls from the Middle Woodland component, presumably constructed out of the Lake Superior copper. Two of these copper points were wrapped around a single highly oxidized fragment of iron. All four of the copper points appeared to be similar in size and shape having a mean length of 28.5 mm, a mean basal diameter of 4.9 mm and having all been rolled of a single sheet of copper with a mean thickness of 1.6 mm. Quimby (1966b: 42) has reported similar artifacts from Dumaw Creek as tinkling cones; they are not particularly common in the Great Lakes area.

The last aboriginal copper artifact from the protohistoric component (Figure 10, h) is interpreted as an effigy snake. This artifact was composed of a copper sheet folded and hammered into a squared bar at least 63.2 mm

long and 3.5 mm square in cross-section. This bar was pointed on one end where it was also somewhat rounded. There were several striations at this parallel to the long axis of the implement and extending from the tip for about 25 mm. Some time after these wear patterns were made the implement was bent at five alternating 60 degree angles located 7, 16, 27, 43, and 54 mm from the rounded point. The other end of this artifact is broken. While the original implement seems to have been an awl (and could easily fit within the range of Middle Woodland awls from the site), in its final form it resembles the snake effigies reported from Dumaw Creek (Quimby, 1966b: 42, Fig. 16), from the terminal Woodland-Upper Mississippian Anker site in the Chicago area (Bluhm and Liss, 1961: 126; fig. 66, a), and from a late component of the Fort Ancient Aspect at the Madisonville site just northeast of Cincinnati, Ohio (Griffin, 1943: 128). These artifacts are well-represented in northeastern Iowa (Mildred Mott Wedel, 1959: 72) and in Wisconsin at Upper Mississippian sites of late appearance (McKern, 1945).

Only two bone artifacts were recovered from this component. Both seem to represent the broken tips of flat splinter awls (Figure 10, i). Use marks confirm this interpretation. The soil acidity is not significantly different in this stratum than in those pertaining to earlier components and there is some reason to expect that bone artifacts from earlier components would have been incorporated into this protohistoric component. The almost total absence of bone artifacts, then, must be more than a factor of sampling error and should reflect the cultural preferences of the inhabitants of the protohistoric component at Summer Island.

EUROPEAN ARTIFACTS

Trade Beads

From features and excavation units of the protohistoric component forty-nine glass beads and eight shell beads were recovered. Four of the glass beads (Figure 11, a) were long tubular beads of an opaque, brick red glass. One was 3.2 mm in outside diameter with an internal diameter of 1.6 mm. Two were 2.4 mm in outside diameter with an internal diameter of 1.2 mm. All were broken at both ends. Similar beads have been recovered from the excavations at the Site of Sainte Marie I, a Jesuit mission located in what was Huron territory near Midland Ontario. The mission was established in A.D. 1639 and occupied until its deliberate abandonment and destruc-

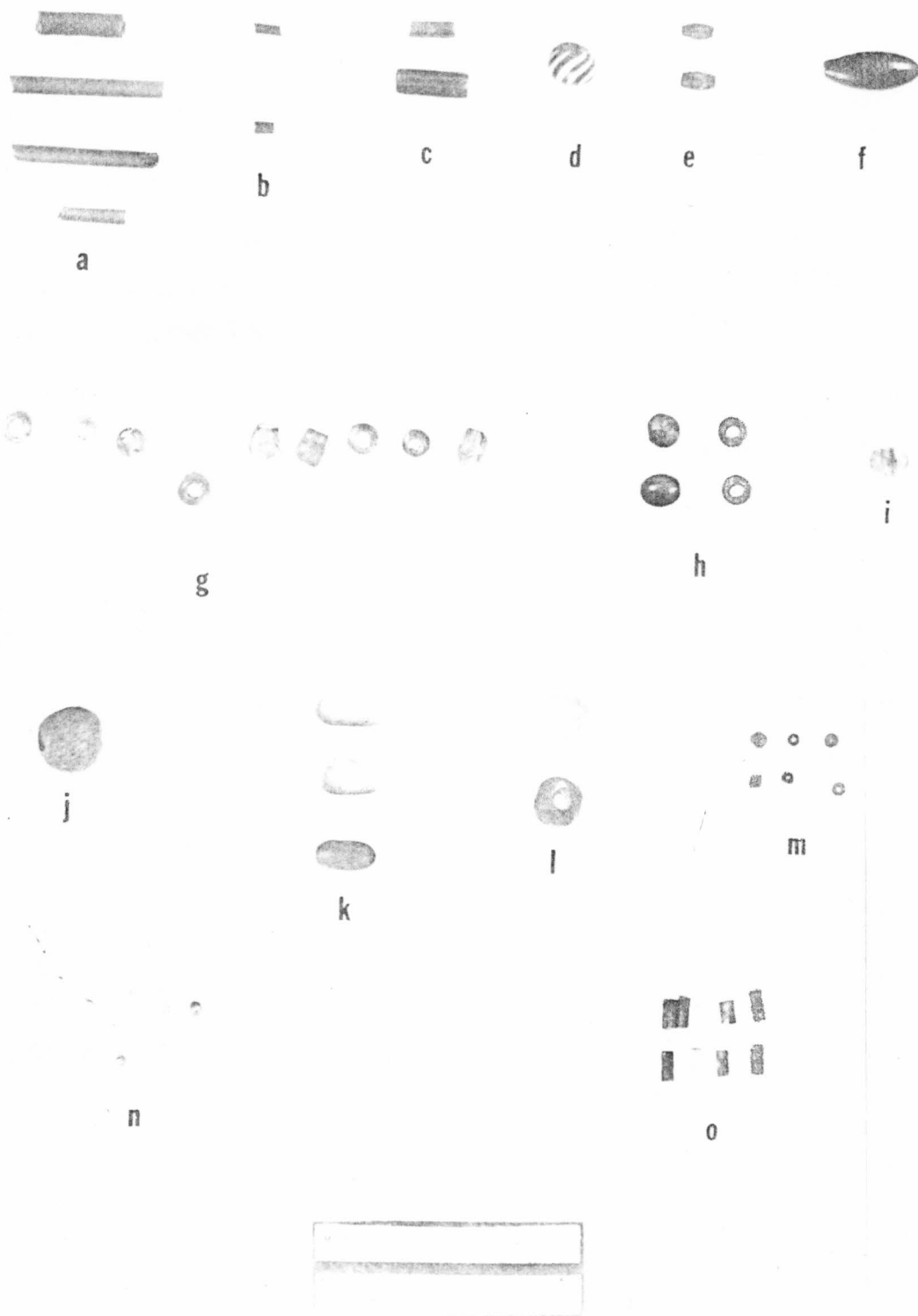


FIGURE 11. *European glass beads from the protohistoric component at Summer Island*

tion in late A.D. 1650 (Kidd, 1949: 3, 5, 142). Similar beads have been reported from the Neutral ossuary at Beverly, near Sundas, Ontario. These burials should antedate A.D. 1650 (Quimby, 1966a: 188). On Oneida Iroquois sites in New York these beads are assigned to the A.D. 1625 to A.D. 1710 period (Pratt, 1961: 10-14, figure 52). In western New York similar beads were reported from the Seneca Dutch Hollow site estimated to date around A.D. 1630 (Ritchie, 1954: 43, 69-70) and the Erie/Wenro/Neutral Kleis site in the Niagara region (White, 1967: 21) of about the same period.

Two dark blue opaque and one white opaque glass bead (Figure 11, b) having the same dimensions as the smaller red bead described above, were recovered from the component. Blue tubular or stick beads are reported from the Beverly ossuary (Quimby,

Two dark blue opaque and one white opaque glass bead (Figure 11, b) having the same dimensions as the smaller red bead described above, were recovered from the component. Blue tubular or stick beads are reported from the Beverly ossuary (Quimby, *loc. cit.*) the Dutch Hollow site (Ritchie, *loc. cit.*), the Kleis site (White, *loc. cit.*), and Oneida sites of the A.D. 1640-A.D. 1710 period (Pratt, *op. cit.*, figure 70). They are also reported from the Bell site (Wittry, 1963: 31) and the Zimmerman site (Brown, 1961: 60-62) where they indicate a late seventeenth or early eighteenth century period. The white opaque tubular bead is reported from the Beverly ossuary (Quimby, *loc. cit.*). Such beads were recovered from the earliest levels of Fort Michilimackinac dated at 1715 (Maxwell and Binford, 1961: 60), and from the late seventeenth century Lassanen site in St. Ignace, Michigan (Charles Cleland: personal communication). On the Oneida Iroquois sites this type is assigned only to the period A.D. 1660-A.D. 1677 (Pratt, 1961: 12, figure 74) which seems somewhat too restricted a time span.

Two round tubular polychrome beads (Figure 11 c) both had a number of parallel longitudinal narrow bright red stripes on an opaque dark cobalt blue or black bead. The larger bead was 13.2 mm long, 3.5 mm in outside diameter and 1.8 mm in internal diameter. The smaller bead had a length of 9.3 mm, an exterior diameter of 2.4 mm and an internal diameter of 1.4 mm. Both beads showed evidence of hot-tumbled squaring of the ends. These are apparently quite a rare type in the upper Great Lakes being reported only at the Bell site (Wittry, 1963: 31; fig. 21, J), and at

the lower levels of Michilimackinac (Maxwell and Binford, *loc. cit.*; Pl. I, q). In New York Pratt (*op. cit.*: 13) has assigned this type to the period A.D. 1660-1677.

The only other polychrome glass bead from the protohistoric component at Summer Island (Figure 11, d), was a spheroidal bead 10.2 mm in length with an external diameter of 13.7 mm and an internal diameter of 2.9 mm. This bead has alternating opaque white and very dark opaque blue spiralled stripes of equal width. Similar beads have been reported from the Beverly ossuary (Quimby, 1966a: 189), the Plum Island site (Fenner, *op. cit.*: 89), and from New York Oneida sites dated A.D. 1642-1677 (Pratt, 1961: 11).

Two small "melon" beads (Figure 11, e) of a solid dark opaque blue color have a mean length of 5.3 mm, an external diameter of 3.0 mm and an internal diameter of 1.9 mm. Similar beads have been recovered from Ste. Marie I (Kidd, 1949: 141-142), the Dutch Hollow Site (Ritchie, *loc. cit.*), the Kleis site (White, *loc. cit.*), and from Oneida sites assigned to the period A.D. 1625-1677 (Pratt, 1961: 8-14).

Nine barrel-shaped opaque to translucent blue glass beads had a mean length of 6.3 mm, a mean outside diameter of 5.8 mm, and a mean internal diameter of 1.7 mm (Figure 11, g). Beads of this type had been reported from Ste. Marie I (Kidd, *loc. cit.*), the Bell site (Wittry, 1963: 31, fig. 21, G), the Kleis site (White, *loc. cit.*: Pl. VI, VII), the Dutch Hollow site (Ritchie, 1954: 43), the Old Birch Island Cemetery in Georgian Bay, which is thought to date to the period around A.D. 1700 (Greenman, 1951: 49-56), and from the earliest level at Michilimackinac (Lyle Stone: personal communication). Pratt has assigned these beads to the A.D. 1660-1677 Oneida sites in New York (1961: *loc. cit.*, 68).

Four similar barrel-shaped beads from the Summer Island component were very dark blue and opaque (Figure 11, h). Beads of this type have been reported from Ste. Marie I (Kidd, 1949: *loc. cit.*), Ossossane (Kidd, 1953: *loc. cit.*), the Kleis site (White, *loc. cit.*), the Dutch Hollow site (Ritchie, 1954: *loc. cit.*), the Old Birch Island Cemetery (Greenman, *loc. cit.*), and the Zimmerman site (Brown, 1961: 60-63). They occur on Oneida sites assigned to the period A.D. 1637-1710 (Pratt, *loc. cit.*).

There was a single oblate spheroidal transparent amber bead (Figure 11, i) 4.5 mm in length, 6.8 mm in outside diameter and 1.8 mm in internal diameter. This type of bead

is also quite uncommon in the Great Lakes area, only being reported from the earliest levels of Fort Michilimackinac (Lyle Stone: personal communication; Maxwell and Binford, *loc. cit.*).

Also recovered was a single large translucent amber colored spun glass bead (Figure 11, j), 12.2 mm long, 14.3 mm in external diameter, and 2.8 mm in internal diameter. This bead appeared to have been made of a quickly spun low temperature glass for fusing was not complete and the finished bead is quite grainy, as if it had been weathered wood. A single bead quite similar to this has been reported from the Dutch Hollow site (Ritchie, 1954: *loc. cit.*) and several are noted from the Bell site (Wittry, 1963: *loc. cit.*), as well as the earliest level of Fort Michilimackinac (Maxwell and Binford, *loc. cit.*). In general this style seems most popular in the early eighteenth century.

Three opaque white glass elliptical beads were also recovered from this Summer Island component (Figure 11, k). These were somewhat ragged-edged as if they had been broken at the tapered extruded ends. In length these beads averaged 13.1 mm and had an average outside diameter of 7.3 mm and an internal diameter averaging 1.9 mm. Similar beads have been reported from the Ossossane ossuary (Kidd, 1953: Fig. 123), the Frank Bay site on Lake Nipissing, Ontario (Ridley, 1954: 49), the Bell site (Wittry, 1953: *loc. cit.*), the Old Birch Island Cemetery (Greenman, 1951: *loc. cit.*), and the lowest level of Fort Michilimackinac (Maxwell and Binford, 1961: Pl. I, i). This type of bead is not reported for any of the New York sites which may indicate a distribution via French sources.

Two faceted octahedral beads, one white and one blue, were recovered from the protohistoric component at Summer Island (Figure 11, l). Both were rather opaque. Both white and blue faceted beads of this type have also been reported from the Old Birch Island Cemetery (Greenman, *loc. cit.*), the Bell site (Wittry, 1963: 31, fig. 21f) and the lowest levels at Michilimackinac (Maxwell and Binford, 1961: Pl. I, d). They occur in Oneida territory and are assigned to the period around A.D. 1710 although no good provenience data exists for them (Pratt, 1961: 16).

Of the sixteen small seed beads six were dark opaque blue (Figure 11, m) while ten were opaque white (Figure 11, n). Both colors of this type bead were squared by hot-tumbling. These beads were about 2.0 mm in length and external diameter. This was probably the

most popular type of glass trade bead in North America and is thus almost useless for dating purposes. It has been reported from Ste. Marie I (Kidd, *loc. cit.*), Ossossane (Kidd, *loc. cit.*), the Beverly ossuary (Quimby, *loc. cit.*), the Dutch Hollow site (Ritchie, 1954: 43-44), the Kleis site (White, *loc. cit.*), the Zimmerman site (Brown, 1961: Fig. 20, d), the Old Birch Island Cemetery (Greenman, *loc. cit.*), the Lassanen site (Charles Cleland: personal communication) from all levels of Fort Michilimackinac (Maxwell and Binford, 1961: Pl. I, r) and from numerous late historic sites in Michigan (Quimby, 1966a; Brose, 1966). In New York Pratt has reported this type on Oneida sites dated from A.D. 1625 through A.D. 1745 (1961: 9-17, 34, 65, 110).

Ten wampum beads (Figure 11, o) were also recovered from this level of Summer Island. These were made of Quahog (*Venus mercenaria*) or "hard clam" shell. The uniform outside diameter of 2.8 mm and the even, centered drilling of the internal hole (diameter = 1.5 mm) probably indicates that these beads are of European manufacture. Wampum of this type was being manufactured in large amounts in North America at least as early as 1650 (Orchard, 1929: 61-70). It is reported from every site previously mentioned with the exception of the Bell site, Plum Island and the Zimmerman site. Like the small cane or seed beads the drilled wampum is too widespread in space and time to be of much value for dating the components in which it occurs.

Iron Artifacts

The nine iron artifacts of European manufacture recovered from the protohistoric component at Summer Island consisted of two rectangular and one rounded awl (Figure 12, a-c), one barbed fish hook (Figure 12, d), two clasp-knives blades (Figure 12, g), a needle (Figure 12, h), and a hinge fragment (Figure 12, i). Awls similar to those recovered from Summer Island are also reported from the Bell site (Wittry, 1963: 34, Fig. 24, M-Z), the Frank Bay site (Ridley, 1954: 43), the Ossossane ossuary (Kidd, 1953: 369), the Kleis site (White, 1967: 17) the Dutch Hollow site (Ritchie, 1954: 25-26), the Old Birch Island Cemetery (Greenman, 1951: Pl. XIX, Fig. 1e), the Zimmerman site (Brown, 1961: Fig. 20, n), and from all levels of Fort Michilimackinac (Maxwell and Binford, 1961: 88, Pl. XIII, h).

Eyeless, barbed fish hooks similar to the Summer Island specimen are reported from Ste. Marie I (Kidd, 1949: 125-126; Plate XLIX, g), the Frank Bay site (Ridley, 1954: 43), and