

MOTT SAUNA BEACH EXCAVATION AND SITE SURVEY AT
ISLE ROYALE NATIONAL PARK

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ABSTRACT

The 1991 archeological projects on Isle Royale included the final phase of excavation at the Mott Sauna Beach site, a Terminal Woodland Juntunen phase site, which will be disturbed by the continued construction of housing units on Mott Island. In addition, the investigation of a grave-robbing incident on Cemetery Island and a number of small compliance surveys are reported as contributions towards the documentation and interpretation of Isle Royale's archeological record.

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MOTT SAUNA BEACH

Introduction

Archeologists from the Midwest Archeological Center (MWAC) visited Isle Royale National Park from June 18 to June 26, 1991, to complete data recovery at the Mott Sauna Beach site (20IR134) and to examine proposed development areas at Lane Cove campground (20IR128) and Merritt Lane campground (20IR78). Locations of these areas are shown in Figure 1. Results of work conducted at the Mott Sauna Beach site are discussed below in this section, while findings in the campground development areas are presented in the next section.

A number of small sites were visited to assess the extent of erosion or deflation since the area was last visited in 1990. Descriptions of these small sites are presented in the later section entitled "Erosion Monitoring." Finally, a grave-robbing incident which occurred sometime in June 1991 was investigated and is reported here.

The Mott Island Housing Project Sites

Survey of potential sites for housing units on Mott Island was begun in October of 1989 with an examination of several areas on the south-facing shore of the island. Three cultural sites were found in the project areas. A mid-twentieth-century garbage dump was declared not significant and was given no further consideration. The second site consisted of a chert uniface found in a shovel test in an area southwest of the present apartment complex. This site (Mott Island #3, 20IR172) was tested in 1990, one additional chert item was found, and the site was declared not significant. The third site, Mott Sauna Beach (20IR134), was situated in an area of primary impact and received the full attention of MWAC archeologists in its testing and subsequent mitigation.

Mott Sauna Beach (20IR134)

In 1987 a water-rolled copper awl was found on Mott Island on a gravel beach located to the east of the National Park Service (NPS) dorms and sauna, locally referred to as the sauna beach. Its presence on this beach suggested that an undiscovered prehistoric component was located along the eroding shoreline and in the developed area immediately adjacent to the beach.

A survey in October 1989 succeeded in detecting such a site (Figure 2). Surface examination of the eroding soil at the head of the beach in October of 1989 disclosed eight small cord-marked body sherds and a copper bar on the surface of the main access trail between the sauna and the beach. Close-interval (5 m) shovel testing in the area between the beach, sauna, and new dorm facility resulted in the discovery of a copper butterknife and a substantial portion of a Juntunen pot break. Materials were found between 0 and 20 cm

below surface in beach deposits. A large copper bar was collected from the surface between the laundry and new dorm.

Site testing in 1990 confirmed the initial assessment of the site's content. Four test units in the area of the Juntunen pot break disclosed a thin midden deposit with additional sherds from the same vessel, a small quantity of worked waste copper, debitage, and a small amount of calcined bone. Four units located to determine the horizontal extent of the site produced no more midden deposits and contained an average of one artifact per unit.

In 1991 eleven additional excavation units were excavated to remove the core of the occupation area in anticipation of the construction of housing units on the site (Figure 2). This final phase of excavation revealed fragments of two other Terminal Woodland ceramic vessels and a highly localized area of waste copper in association with burned bone. The latter is considered a combination annealing and food processing hearth. Approximately four liters of flotation samples were removed.

Copper artifacts

The collection of copper artifacts is typical of sites to which raw or semiprocessed copper was transported for further processing. Finished items include two bars and a butterknife (Table 1). Bars represent a stage at which copper was fabricated in the most useful shape for trade or transport, with no specific final product anticipated (Clark 1989). The butterknife (Figure 3e) is a typical late prehistoric form, named by Quimby (1939) as a descriptive term for this small hafted blade. A small quadrilateral pin or awl was found in the 1991 excavations. The awl recovered in 1987 is quadrilateral in cross section and measures about 4.5 cm in length. It was not available for study.

Worked waste copper (Table 2) is the detritus from the copper fabrication process. Its classification recapitulates the continuum from a raw, unprocessed state to the by-products of copper fabrication, analogous to a lithic reduction sequence (Clark 1989). Waste copper at Mott Sauna Beach was found in a very small area of black, midden-like soil associated with calcined bone.

Ceramic artifacts

The pot break intersected by a shovel test contained 212 sherds from a single vessel, which is described below as Vessel #1. Subsequent excavation produced an additional 574 sherds, largely from Vessel #1 but including rims from two other vessels.

Vessel #1: The rim is castellated and the neck collared (Figure 3a, b). Exterior decoration is by horizontal and diagonal lines of push-pull; there is a single band of diagonal push-pull decoration on the interior. Vessel construction is laminar with felsitic grit temper less than or equal to 2.6 mm. Temper density is about 10 percent and maximum vessel thickness is 6.8 mm. This vessel is of the Juntunen Drag-Jab type (McPherron 1967). A

clay sample from this vessel was subjected to neutron activation analysis to determine its geological source area (Clark 1991). Its closest geochemical affinity is with a cluster of samples from Thunder Bay to northern Minnesota (Clark et al. 1992), indicating that this particular vessel was brought to Isle Royale from the north shore of Lake Superior.

Vessel #2: This vessel is represented by one rim (Figure 3c) and two neck sherds. The lip is smooth and straight. No surface decorations are present on the smooth exterior; the interior is exfoliated. There is a short collar 1.7 cm below the lip. Temper is fine felsitic grit less than or equal to 1 mm; temper density is about 5 percent. The rim is consistent with a Terminal Woodland context.

Vessel #3: One rim sherd represents this vessel (Figure 3d). It is of limited diagnostic value, owing to its small size, but is consistent with the rest of the materials from the site. The lip is straight and rounded. The exterior surface is smooth with diagonal push-pull impressions originating immediately below the lip. The interior is exfoliated, revealing the laminated interior structure of the sherd. Temper is felsitic grit and mica, less than or equal to 2 mm.

The eight additional sherds from the trail to the beach are heavily encrusted with cooking residue under which a smoothed cord-marked surface is discernible. They are not diagnostic but are likely Terminal Woodland as well.

Finally, one lump of fired clay, apparently squeezed in the hand, suggests that in addition to the importation of finished ceramics to Isle Royale, pots were manufactured from locally obtainable clay. The nearest known clay source is at Moskey Narrows, 6 km from Mott Island.

Lithic artifacts

The lithic industry at the Mott Sauna Beach site focused on the reduction of small pebbles of Hudson Bay Lowland chert into small expedient tools. A total of 49 flakes of Hudson Bay Lowland chert, two flakes of Portage Lake quartzite, and one flake of Rossport chert from the north shore of Lake Superior were found. Eleven Hudson Bay Lowland chert flakes were made by the bipolar technique of reduction, typical of an industry utilizing small pebbles as its source. Lithic tools are limited to an endscraper and a sidescraper, both made of Hudson Bay Lowland chert. The only notable aspect of this assemblage is the absence of raw materials common on other Isle Royale Terminal Woodland sites, such as jasper taconite and Gunflint silica.

Conclusions

The site as delineated by the survey represents a Juntunen phase (A.D. 1200-1450) occupation. The areal distribution of the artifacts suggests that the site is confined to the northeastern half of the upper beach area; shovel testing elsewhere failed to disclose any

cultural materials. While it is likely that more artifacts are present in the site area and may be discovered during site disturbance, the site's primary occupation area has been completely excavated. Further construction should be excluded from the area south of the block excavation and east of the buried water line to prevent further impacts to the site.

It is instructive to note the difference between the data obtained at successive stages of site investigation. Initially, 20IR134 was identified as an isolated spot find. Subsequent shovel tests disclosed the presence of buried deposits over a wide area. Test excavation further delineated a small area of intensive occupation, but failed to find the copper annealing feature, resulting in a skewed interpretation of site function relative to other contemporary sites on the island. Complete excavation of the core of the site produced a more typical image of site activities, including domestic tasks involving a minimum of three vessels, stone tool production, copper working, and food processing. The physical layout of the site is also typical in terms of the highly localized nature of the artifacts and deposits; densities may vary widely from one unit to the next contiguous unit, indicating that the site's integrity had been minimally disturbed.

COMPLIANCE IN PROPOSED CAMPGROUND DEVELOPMENT AREAS

Merritt Lane Campground (20IR78)

This site was identified in 1961 with the recovery of a grooved adze and a flake (Bastian 1963:377, Plate 50a). The site's location is "a small shelf along the rocky northwest shore of Merritt Lane north of the channel separating Merritt and Boys islands" (Bastian 1963:36). Test excavations by the University of Michigan Museum of Anthropology (UMMA) survey contained Initial and Terminal Woodland ceramics and a large projectile point "of probable Middle Woodland affinity." A "relatively large amount" of cultural material was found in the campground. Two of the ceramic artifacts are illustrated by Bastian as punctate (1963:355, Plate 11i) and linear punctate (1963:359, Plate 19d) types. The latter is similar to some of the early Blackduck ceramics from Voyageurs National Park (Lynott et al. 1986).

Surface collection of the site in 1987 added 19 pieces of lithic debitage. This campground was visited by Mark Lynott, Tim Cochrane and the author in June 1991. Copper, lithic, and ceramic artifacts were found in front of the single shelter and collected. Cochrane and the author returned to the site in August to shovel test the proposed tent site. Six test units were dug, with negative results. Additional artifacts were found in front of the shelter at this time and collected. While no apparent cultural resources are known to be present in the area of the proposed tent site, the ongoing use of the dock area and existing shelter will continue to expose prehistoric artifacts. Regular monitoring of the site is recommended.

Lane Cove Campground (20IR128)

The Lane Cove site is located within and around the NPS campground on the east end of a sheltered cove (Figure 4). It was discovered through shovel testing by NPS personnel in 1982, when development of the campground was initiated (Maass 1984). The site was tested in 1988 by the MWAC and revisited in 1991 to determine the potential impact from proposed tent site modification of the campground. Previous field work and analysis is reviewed below.

The 1988 survey team surface collected all exposed areas (e.g., trails, tent sites). Two gunflints and debitage were found in Tent Site #2. Two excavation units were subsequently placed here. Test Unit #1 was excavated to a depth of 20 cm below surface and contained six chert flakes. Tent site construction and use has truncated the upper part of the soil. Site stratigraphy begins with a gravel layer, which turns to brown sand and gravel just above 10 cm below surface. The second test unit in Tent Site #2 was located 5 m to the west of the first unit and was excavated to a depth of 10 cm below surface; it was completely sterile and had likely lost all of the upper soils as a consequence of tent site preparation and use.

The third test unit was located at the base of a rock outcrop 20 m east of Tent Site #2, where a few sherds had been found in the 1982 survey. The unit was excavated to a depth of 10 cm below surface and contained a large portion of a crushed Terminal Woodland pot. Most of the sherds were recovered from the northwest corner of the unit.

In 1991, the MWAC team conducted shovel tests along two parallel transects across the entire campground. All tests were negative, but surface finds in Tent Site #2 included a mix of aboriginal and Euroamerican-derived materials, indicating that the site dates to the Contact period (ca. A.D. 1650-1750).

Lithic Artifacts

Sixteen waste flakes were recovered, mostly Hudson Bay Lowland chert (n=14), and one each of jasper taconite and Rosspoint chert. Limited tool maintenance is indicated by the lack of dorsal cortex and the small size of the flakes. No stone tools of any kind were found.

Ceramic Artifacts

Vessel #1: Four rim, 4 neck, 28 body, and 9 indeterminate sherds constitute the sample from this Terminal Woodland vessel. The exterior has smoothed cord marking from below the lip to the shoulder where it becomes cord-marked. Temper is felsitic grit less than or equal to 1.8 mm and the temper density is 30 percent. Maximum sherd thickness is 5.5 mm. The rim is straight and thickened in profile with a pinched "pie crust" lip that is smoothed (Figure 5a, b). This style of pottery extends from the late Terminal Woodland into the historic period. Similar types are found at the Bell site in Wisconsin (cf. Bell site Type II; Wittry 1963). Mason (1986) has attributed Bell site Type II pottery to the historic Potawatomis. It is a common style at the Michipicoten site (Wright 1966), where it is referred to as Peninsular Woodland.

Vessel #2: Two small sherds from a historic brown glazed stoneware vessel were found in Tent Site #2. They are from a crock or jug, and while not particularly diagnostic, they are not inconsistent with the other artifacts found on the site.

Gunflints

P. Martin (personal communication 1989) describes the two gunflints as follows:

Spall gunflints were made on a single Clactonian flake, trimmed to a squarish outline for use in the gunlock. The first of these flints [Figure 5c] is made on a light brown translucent chert and is heavily worn through use. After being exhausted as a gunflint, this specimen was used with a firesteel to strike sparks for firestarting. It has a flat bottom and a slightly rounded heel. The length dimension of the flint is diminished through wear, but measures 26.1 mm. It is 26.6 mm wide and 7.6 mm thick. Gunspalls of this type have been tentatively identified as French in origin by Hamilton and Emery (1988:30). Manufacture in France carries no implication of

use by French nationals, however: these flints were widely marketed, and are found on sites of various cultural affiliations.

The second flint [Figure 5d] is also a spall, heavily worn and used with a firesteel. It was made on a mottled grey chert, has a flat base and rather rough retouch around the heel. Its length is worn to 19.9 mm, and its width is also diminished, measuring 24.7 mm. The flake is 7.6 mm thick. Spalls of this general form, with rough retouch, made on grey cherts, have been tentatively identified as British by Hamilton and Emery (1988:30).

Both of the Lane Cove flints are sized for use in sporting or trade arms of the late eighteenth and/or early nineteenth century. They could easily have found their way to Lane Cove via Indian hunters or fishermen who had ready access to such equipment through both the fur trade and their contact with European governments. The earliest European visitors to Isle Royale may have carried weapons with flints like these, as well, so that cultural attribution cannot be certain. The fact that no other European items were collected in the test excavations argues for a Native American context for these particular artifacts, however.

Glass Trade Beads

Consistent with the earlier find of gunflints was the recovery of six glass trade beads described below and shown in Figure 5. Measurements give maximum diameter of each item; parenthetical references refer to the Kidd and Kidd 1970 classification:

Figure 5e: One small, 3 mm, circular (oblate) tumbled bead, white opaque (IIa14).

Figure 5f: One pinkish-white wire-wound bead, 4.2 mm, tapered ends (WIc1).

Figure 5g: One tubular bead, 4.9 mm, white opaque core with clear veneer (Ia4).

Figure 5h, i: Two tubular beads, 3.0 and 3.9 mm, white opaque with clear veneer (Ia4).

Figure 5j: One cylindrical wire-wound bead, 5.3 mm, black with raised yellow appliqué wavy filaments around each end (WIIId*).

Descriptive and classificatory equivalents (Kidd and Kidd 1970; Mason 1986; Stone 1974) date this group of beads from the late eighteenth century to the late nineteenth century. The black bead with yellow appliqué is unusual and potentially an earlier type than the white beads, all of which have a long duration in the Upper Great Lakes. Karklins (personal communication 1992) and Birk (personal communication 1992) place the black appliqué bead in the late 1700s to early 1800s.

Faunal Remains

Three bone fragments were recovered from Test Unit #1. These include one unburned, unidentified large mammal and two small calcined fragments (Martin and Masulis 1989:3).

Conclusions

Site survey and testing since 1982 indicates that a substantial portion of this component has been lost to tent site development and use. The ongoing discovery of artifacts indicates that cultural deposits still exist around the periphery of Tent Site #2. Rather than initiate additional disturbance, it is recommended that Tent Site #2 be closed and allowed to revegetate. The site is of particular importance, given the paucity of sites which reflect the initial contact between native and white cultures on Isle Royale. In addition to the Lane Cove campground, trade items have been found at Pickerel Cove #1 (20IR144), Belle Isle (20IR29), Indian Point (20IR28), Grace Island (20IR17), and Merritt Island (20IR78).

EROSION MONITORING

Duncan Narrows/Grass Point (20IR31)

Now known as Duncan Narrows, the Grass Point site is located on a level point of land on the south side of the entrance to Duncan Bay. It is currently an NPS campground used primarily by boaters. Excavations here in 1989 concentrated on an area of shoreline erosion that had exposed a prehistoric hearth feature northeast of the campground. In August 1991 no traces of cultural features were noted in the eroding profile, but a basalt hammerstone was collected from a slumping surface 3 m northeast of the area where the feature was excavated. Previous investigations at Grass Point are summarized below.

Fred Dustin, acting on the report of the finding of a stone pipe, visited the Grass Point site in 1929-1930. His excavations produced equivocal results pertaining to the prehistoric occupation he believed was here. Some charcoal and a section of rib bone ("probably moose") which was "broken in the customary Indian manner" were found (Dustin 1957:16-17). More convincing evidence in the form of Terminal Woodland ceramics (variety unspecified) was found by an NPS employee in 1960, and the site was tested by the University of Michigan Museum of Anthropology (UMMA) survey team in 1962. Historic materials relating to the nineteenth-century American Fur Company fishery were abundant in the test units. However, one unit contained 34 pieces of stone debitage and one piece of worked copper. Bastian (1963:35) assessed the potential for a more substantial archeological site as unlikely but suggested that further testing would be required.

The 1988 MWAC survey team made surface collections of exposed areas in front of the shelters, in the tent sites, and along the beach. An eroding hearth was noted by Pat Martin of the Michigan Technological University (MTU) and was brought to the attention of the MWAC survey team. The feature, a basin-shaped hearth was found eroding out of the cut bank about 70 cm below surface. The feature matrix extended approximately 28 cm into the wall of the eroding bank. It is estimated that a little more than half of the feature was salvaged. A basalt hammerstone was found on the surface of the trail between the current tent sites and the fire ring at the Grass Point campground. Given the proximity to documented copper mines above Grass Point on Mount Franklin and Point Lookout, the absence of copper here is likely a function of the sampling procedure used at this low density site.

Most of the historic artifacts are attributable to the American Fur Company fishery or the subsequent Duncan's fishery at Grass Point. Cut nails constitute a conspicuous part of the collection and probably mark the site of one of the fishery structures near the location of our first excavation unit on the northeast side of the point.

Daisy Farm (20IR45)

The Daisy Farm site is situated at the mouth of Benson Creek, which has, by draining the upland areas of Lake Benson and surrounding areas, created a broad alluvial fan that is unusually flat, even in comparison with other parts of the Rock Harbor area. Abandoned channels of Benson Creek are present above the 189-m (620-ft) contour, but the lower stream appears to have remained stable in its present course in recent history.

The townsite of Ransom, named for one of the three incorporators of the Ohio and Isle Royale Mining Company, was established in 1846-1847 on what is now the site of the Daisy Farm campground. This habitation, according to Rakestraw (1965:34), was the largest on Isle Royale between 1847 and 1850. The operation was less profitable than had been anticipated and was suspended in 1849. Facilities at the Ransom townsite described by Ives in 1847 included a wharf to the north of Benson Creek, four log houses, a large log storehouse, and a smelter (Ives 1847). Rakestraw (1965:34) did not find any traces of the smelter or of any of the structures in his survey, but Martin did locate the remains of the smelter in his 1986 mapping project of the Daisy Farm site. Behind the townsite are numerous mining features, including adits, shafts, and poor-rock piles (Martin 1988).

The next major episode of occupation at the Daisy Farm site was the CCC camp established in 1936. Remnant features of this occupation are extensive and include trash dumps, concrete footings, a dock footing, and structural features in the broad grassy area between the shore and the campground. Historic photographs of the CCC camp in the Park archives show a combination of permanent and temporary structures with rock-lined roads and pathways; there is even a boxing ring at the northeast end of the camp. This is as desirable a location as can be had anywhere on Isle Royale, and its complex occupational history is reflected in the surface and subsurface deposits distributed over the large area between the shore and first bedrock ridges behind the site.

The prehistoric component at the Daisy Farm campground was discovered in 1957 by Albert Spaulding of the University of Michigan. Excavations at that time consisted of one five-foot-square unit and "a few small test pits" in the flat open area south of the campground (Bastian 1963:37). Twenty-two pieces of debitage and one unifacial tool were recovered from these excavations. In the years following, a number of lithic artifacts have been exposed by shoreline erosion in the vicinity of the NPS dock and the outlet of Benson Creek, including two small expanding-stem projectile points, and debitage (Clark 1987:22-23).

In the 1987 season the shoreline was again examined. Lithic artifacts were found in three areas: in shallow water just west of the NPS dock, from an exposed erosional surface immediately below the ranger's quarters, and from another eroding surface 18 m east of the outlet of Benson Creek.

Shovel testing at 10-m intervals established the areal extent of a prehistoric occupation at the Daisy Farm, and also clarified the temporal context of the site. Prehistoric materials appear to be concentrated on both sides of Benson Creek, extending approximately 20 m west of the NPS dock to Shelter #12 on the east, and from the present shoreline of the Rock Harbor channel 30 m to the north. Backdirt from postholes at the message board, which at the time of survey was being reset, was screened and resulted in the first prehistoric ceramics recovered from this site. Additional ceramics were found in a shovel test on the opposite (east) side of Benson Creek.

As a follow-up to the discovery of prehistoric ceramics in 1987, the Daisy Farm site was test excavated during the 1988 survey. Two 1-x-1-m units were established in the vicinity of the 1987 finds on the east side of the mouth of Benson Creek. This effort was rewarded by the discovery of Initial Woodland (Laurel) ceramics in one unit, and in the other by a dense Terminal Woodland midden containing ceramics, copper, lithics, bone, and botanical remains.

The Daisy Farm campground is one of the busiest in the Rock Harbor area and the trail across Benson Creek sees a great deal of foot traffic. As a consequence, the path has become deeply incised, which resulted in the exposure of prehistoric artifacts. In 1990 two sherds of Initial Woodland pottery and a large projectile point were found on the surface of the trail near the ranger's residence on the west side of Benson Creek. A few pieces of fire-cracked rock were also noticed further down the trail towards the creek. Three weeks later a second visit resulted in the recovery of two additional sherds. Given the paucity of data on the Initial Woodland substage on Isle Royale and the fact that this appeared to be an eroding deposit, the decision was made to open some test units during the final week of the survey.

A total of four 1-m-square units were excavated in the trail. The excavation units revealed a minimally disturbed hearth feature. This feature consisted of a roughly ovate area of fire-cracked rock with the remains of two Laurel vessels, a large copper awl, one projectile point base, and a small amount of debitage. Charcoal was diffuse throughout the feature but sufficient for a radiocarbon sample, which yielded a date of 2080 ± 60 B.P. (Beta-41640; wood charcoal; $\delta^{13}\text{C}$ undetermined). The calibrated age range for this sample is 202 cal B.C. to cal A.D. 67, calibrated at two sigma using bidecadal data sets with the program CALIB 3.0 (Stuiver and Reimer 1993). The intercept is 60 cal B.C. The date range is consistent with the accepted age of Laurel culture in the upper Great Lakes.

In 1991 a check on the shoreline of the Daisy Farm site indicated that erosion in the vicinity of the dock head continued to threaten a portion of the site. The area near the message board where four excavation units were dug in 1990 appeared to be stable, but should be monitored on a continual basis so that no further attrition of this part of the site takes place.

Rock Harbor (20IR56)

The Rock Harbor site was originally identified by Spaulding, who collected a sherd from the beach here in 1957. The site is located on a small sandy point about one-half mile southwest of Daisy Farm. Subsequent tests by the UMMA survey were negative, with the exception of "one large unit" that contained Terminal Woodland (Bastian's large punctate and linear punctate categories) and recent historic artifacts (Bastian 1963:37-38).

In May 1987 the site was relocated by the presence of lithic and ceramic artifacts on the beach and in the shallow water off the sandy point upon which the site is situated. Shovel tests above the beach produced no materials; the soils here are particularly heavy and wet. The site was again checked in September 1987 and additional collections of ceramics, lithic tools, and debitage were made.

In a brief visit to the site in 1988 one waterworn rim sherd, one unifacial scraper, and three flakes were collected from the beach and shallow water on the point. Although it is difficult to determine, the rim appears to have been decorated with a series of oblique cord-wrapped stick impressions below the lip, which shows a sharp eversion. It is Terminal Woodland but cannot be assigned to anything more specific, due to its weathered condition.

The Rock Harbor site was again visited in 1991 to check on the amount of artifacts exposed by wave action since the previous year. One waterworn body sherd and one uniface were collected from the southwestern beach. It is possible that the occupation of the site took place at a time when the water levels were slightly lower than at present.

Threemile Campground (20IR116)

Woodland stage artifacts were found in the exposed areas in front of Shelters #2 and #3, and immediately above the northeastern dock at the Threemile campground. Cultural materials were found up to 30 m away from the modern shoreline on an elevated rocky slope. This is a departure from the expectation that sites tend to be located on level areas of "softer" soils. Surface collections were made from three general proveniences corresponding to the areas of maximum disturbance and exposure: Shelter #2, Shelter #3, and the dock area. Collections were made in 1987 and 1990, and limited testing was also undertaken in 1990.

The site sits above and to the northeast of a small cove with a good beach. An intermittent stream and a marsh occupy the lowest part of the swale behind the cove, rendering much of the more even ground too wet for occupation. However, no artifacts were found at Shelters #4 or #5, which are neither as wet as the swale nor as steep and rocky as the ground in front of Shelters #2 and #3, where the site is located.

The lithic artifacts from the Threemile #1 site include 46 waste flakes, one bipolar core/wedge, one projectile point, a pebble core, and two small distal biface fragments. The projectile point is very small, probably a true arrow point of the Terminal Woodland substage, and is made of Hudson Bay Lowland chert. Both biface fragments are the working ends of tools, one a graver or awl, the other likely a projectile point or knife. Both are made of Hudson Bay Lowland chert. The bipolar object is of the opposed ridge morphology and is made of red jasper taconite.

A total of 80 pieces of waste copper, six bars, and three finished items (one butterknife, one awl, and one projectile point) were recovered from the 1987 surface collections in the campground. Only one piece of unmodified copper in the assemblage attests to the intensity of the copper fabrication activities undertaken at this site.

Five of the six bars are homogeneous; the sixth and smallest is rolled and hammered. The awl is in a poor state of preservation but appears to have a single point. There is one rolled sheet that is probably a fragmentary rolled tubular bead fragment. The projectile point is a small piece of laminated copper.

Thirteen sherds, all probably from one vessel, were found at the Threemile #1 site in 1987. In 1990 additional sherds were noted near the base of Shelter #2 near where previous finds had been made. An excavation unit was opened at the southeastern corner of the shelter, revealing a pot break. A sample of 82 body sherds and two rims belong to a Huron style vessel with a smooth exterior. The rim is castellated and collared with five horizontal trailed lines between the lip and collar. Temper is felsitic grit, less than or equal to 4.2 mm with an estimated density of 30 percent. Cooking residue is preserved.

Other excavation units were sited to explore the possibility of intact deposits between Shelters #2 and #3, in front of which deflation by continued use had initially exposed prehistoric artifacts. Test Unit #1 contained only one burned chert uniface. Test Unit #2, located on the same contour as the two shelters, contained a shallow annealing hearth with 16 pieces of waste copper, one rolled copper bead, one gunflint silica and two Hudson Bay Lowland chert flakes, one sand-tempered and one grit-tempered body sherd, and one hammerflake. The characteristics of the hearth, a mix of black and ashen grey soils, is similar to other features interpreted as annealing hearths on Isle Royale; for example, those at Belle Isle #3 (20IR143) and Indian Point (20IR28) described by Bastian (1963).

Faunal remains collected in 1987 from the surface were identified as, “. . . three fragments of slender, polished mammal bone that are most similar in morphology to a fibula shaft of a large wolf, . . . Densmore . . . observed that ribs from small mammals were modified into needles by the Ojibway, and that the implements were used to make nets and snowshoes and to weave cattail mats” (T. Martin and Masulis 1989:42).

A visit was made to the Threemile campground where the 1991 Student Conservation Association (SCA) project was in progress. Examination of the disturbed areas in the group

campsites and individual sites near Rock Harbor revealed no cultural items. One copper bead, one piece of waste copper, and one flake were collected from the front of Shelter #2 and the dockhead.

The attrition of the prehistoric site at the Threemile campground is a continuing concern. Regular monitoring of the deflated areas in front of the shelters and the dockhead since 1987 has revealed that these portions of the site, while still producing artifacts, are essentially destroyed. Excavation units in the area of Shelters #2 and #3 contained undisturbed prehistoric deposits. Management of the area, it appears, has resulted in heavy impacts to some portions of the site and few impacts, if any, to other portions. Future relocation of shelters, trails, and privies will require close scrutiny if the remaining portions of the site are to be protected.

2½ MILE (20IR118)

This site was recorded as a spot find at the time of its discovery in 1988, but during a reexamination of the site in the fall of 1989 hammerstones, hammerflakes, and chert flakes pointed to a much more complex deposit. The site is located about 400 m from the Threemile campground in a broad area of exposed bedrock and jack pine within 20 m of the Rock Harbor channel.

Artifacts were collected from the main trail and its branches over a distance of about 70 m. Major concentrations of hammers and hammerflakes occur immediately above two vegetation-filled depressions designated Mine Pits #1 and #2. Additional pits are located nearby: a total of five pits were mapped as probable mines. A small number of chert flakes was collected from one area adjacent to Pit #3—an unusual association for a mining site. Hammerflakes were collected from a bedrock exposure at the northeast end of the site (where the spring spot find was found), some distance apart from the pits and major concentrations of artifacts, suggesting an ancillary area of testing or initial processing.

In 1991 hammerstones, hammerflakes, and chipped stone were again observed eroding out of the trail at the prehistoric copper mine northeast of the Threemile campground. One chert flake was collected. This site should be monitored to assess the extent of ongoing attrition, with an eye to eventual excavation of the trail or rerouting the trail up-slope to a position which does not affect the site.

Duncan Bay Campground (20IR141)

A large linear lithic scatter was found at the Duncan Bay campground. Lithic flakes were found in the exposed areas in front of both shelters and in the trail to the dock. The flakes were particularly abundant in the deflated area immediately above the dock on the north side of the point. A surface collection of all materials exposed in deflated surfaces

was made at this time. In 1990 shovel testing on the shelf between the rock ridge upon which the lithic scatter was found and the small bay to the north was negative.

The bedrock point projects out into the southwest end of Duncan Bay where it is exposed to wind. The point is level only along its crest, becoming wider from northeast to southwest. The high density of debitage, most of it jasper taconite, Rossport chert, and gunflint silica, and the absence of ceramics and worked copper, is typical of flintknapping episodes undertaken away from occupation areas. The exposed aspect of the site location provides relief from insects and also affords a view of the length of Duncan Bay.

The campground at the head of Duncan Bay was discovered in 1989, at which time it was already in an advanced state of destabilization and erosion. The area above the dock, the trail to the shelters, and trails from the shelters to the water have all yielded large quantities of lithic waste and tools.

A revisit to the site in 1990 recapitulated the earlier findings of extensive deflation of devegetated areas which had exposed a large number of lithic artifacts. The 1990 collection also includes a fragment of a human molar, but it could have come from an unfortunate camper from any era.

A visit in August 1991 found the situation unchanged, and in the area in front of Shelter #1 leading down to the water, the degree of erosion had increased since spring of 1990 when a compliance survey was conducted there. It is likely that most of this site has already been lost to erosion and deflation through visitor use. Water-bars could be constructed to arrest the erosional process in some areas. Areas not currently exposed between the dock area and the shelters should be preserved and every effort made to avoid devegetation. There may yet be some small pockets of undisturbed site remaining here.

Lane Cove Trail (20IR199)

One flake made of Portage Lake quartzite was found by Wolf/Moose Biologist Joanne Thurber on the trail west of the Lane Cove campground. Both the raw material and the elevation of the find at about 198 m (650 ft) strongly suggest that the discovery indicates the presence of an Archaic site. The 1991 MWAC crew surveyed the site area while at Lane Cove but were unable to find any other artifacts with which to confirm the site location.

ARPA VIOLATION INVESTIGATION AT CEMETERY ISLAND (20IR42)

Cemetery Island is situated on the Rock Harbor Channel near Middle Islands Passage and the West Caribou Island campground. The historic mid-nineteenth-century cemetery was visited by the MWAC crew on June 22, 1991, at which time the site appeared as it had for years. Then in August of that year, following an apparent grave-robbing incident that occurred in the weeks following the June visit, the site was revisited by the author. The purpose of this trip was to document the nature and extent of damage caused by the looters. The looting constitutes a violation of the Archeological Resources Protection Act of 1979 (ARPA), which protects prehistoric and historic cultural resources on federal lands.

The looted grave (Grave #4) is one of nine marked or partially marked graves, all believed to date to the 1850s, where persons associated with the copper mining operations at the Siskowit Mine were interred (Figure 6). This grave was marked with a reconstructed wooden cross and a rock border. At the time of this investigation the grave was partially backfilled and cut spruce saplings had been placed in an attempt to conceal the looting episode.

The saplings were removed and all loose fill at the grave was troweled out by hand and examined for materials. Abundant surface vegetation was mixed with loose fill, indicating the extent of the disturbance. Large, lichen-covered rocks that had formerly marked the border of the grave and some rocks from Grave #7 were used by the looters for backfill. The reconstructed cross was found buried in the upper 15 cm of the backfill.

Cut nails with adhering wood (Figure 7) were distributed throughout the backfill matrix. Additional cut nails were found at the bottom of the looter's pit and in fill left around the pit orifice. Some small and badly decomposed wood pieces believed to be coffin fragments were also found in the backfill. The 32 nails recovered fall into two groups, based on length. Sixteen nails are 2 3/8 inches (62 mm) and sixteen are 1 1/2 inches (39 mm).

The looter's pit was excavated to a depth of 110 cm below surface and measured 80 cm by 220 cm at the orifice. The pit was straight-sided except at the south end where it sloped to permit access to the bottom. Between 50 cm and 68 cm below surface there was a discontinuous lens of black loam soil which probably indicates the original level of the coffin.

The only skeletal material recovered consisted of a fragmentary occipital bone (posterior skull) of an infant, identified by Dr. Norm Sauer, Michigan State University. It was found at a depth of 65 cm below surface in a matrix of black loam heavily invaded by rootlets.

The existence of the coffin is inferred from the numerous cut nails with adhering wood. That the coffin contained a child's skeleton is indicated by the single skull fragment recovered during the excavation of the looter's pit, and by the length of the pit, which would not admit a normal adult in a primary extended interment. Other than documenting the

sequence of backfilling and attempts at concealment, no evidence suggesting the identity of the looters or their motives was obtained. It is likely that major portions of the coffin and virtually the entire skeleton were removed by the looters.

Subsequent to this investigation the grave was backfilled and large stones placed to replicate the original condition and appearance of the grave. Artifacts and the occipital fragment were removed to the MWAC in Lincoln for analysis. The cranial fragment has since been reburied at the site of its original interment.

CONCLUSIONS

Eleven sites were examined at Isle Royale National Park in the 1991 season. The excavation of the Mott Sauna Beach site completes the mitigation of this late prehistoric component in advance of the construction of new housing on Mott Island. The site was found to be the result of an occupation of short duration, involving a combination of domestic and copperworking activities by persons sharing cultural affinities with the Juntunen phase of the Lake Superior basin.

The Lane Cove campground investigation produced significant artifacts in the form of glass trade beads datable to the seventeenth and eighteenth centuries, a poorly documented time in Isle Royale's past and one which warrants careful scrutiny. The situation at Lane Cove, that of campsite deflation and potential modifications, is duplicated at many other locations on the island. At all campgrounds that intersect a cultural site we face the chronic problem of preserving the resource while at the same time maintaining the quality of the facility for visitor use. Long-term planning should seek to identify alternative locations for sensitive sites or mitigative measures to insure the preservation of cultural properties in extant facilities of the park, rather than a yearly program that continues the attrition of existing ones.

The investigation of the looting incident on Cemetery Island was unsuccessful in terms of disclosing the intent or identity of the vandals. Benefits obtained from this incident include the opportunity for increased public awareness and involvement in cultural resource protection. The recovery of the infant skeletal fragment also increased the meager knowledge of the identity of those interred in the cemetery there.

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Table 1. Finished copper artifacts from Mott Sauna Beach.

Item	Dimensions (L x W x TH mm)	Weight (g)
Bar	86.0 x 18.3 x 14.5	90.0
Bar	37.1 x 13.4 x 7.5	17.6
Butterknife	45.8 x 12.6 x 2.1	3.5
Pin or awl		1.0

Table 2. Waste copper from Mott Sauna Beach.

Category	Number	Weight (g)
Raw, with matrix	1	0.3
Hammered nugget	3	3.8
Flat, vesicular	7	30.6
Flat, homogeneous	7	17.7
Flat, laminated	24	39.0
Rolled, laminated	1	0.9

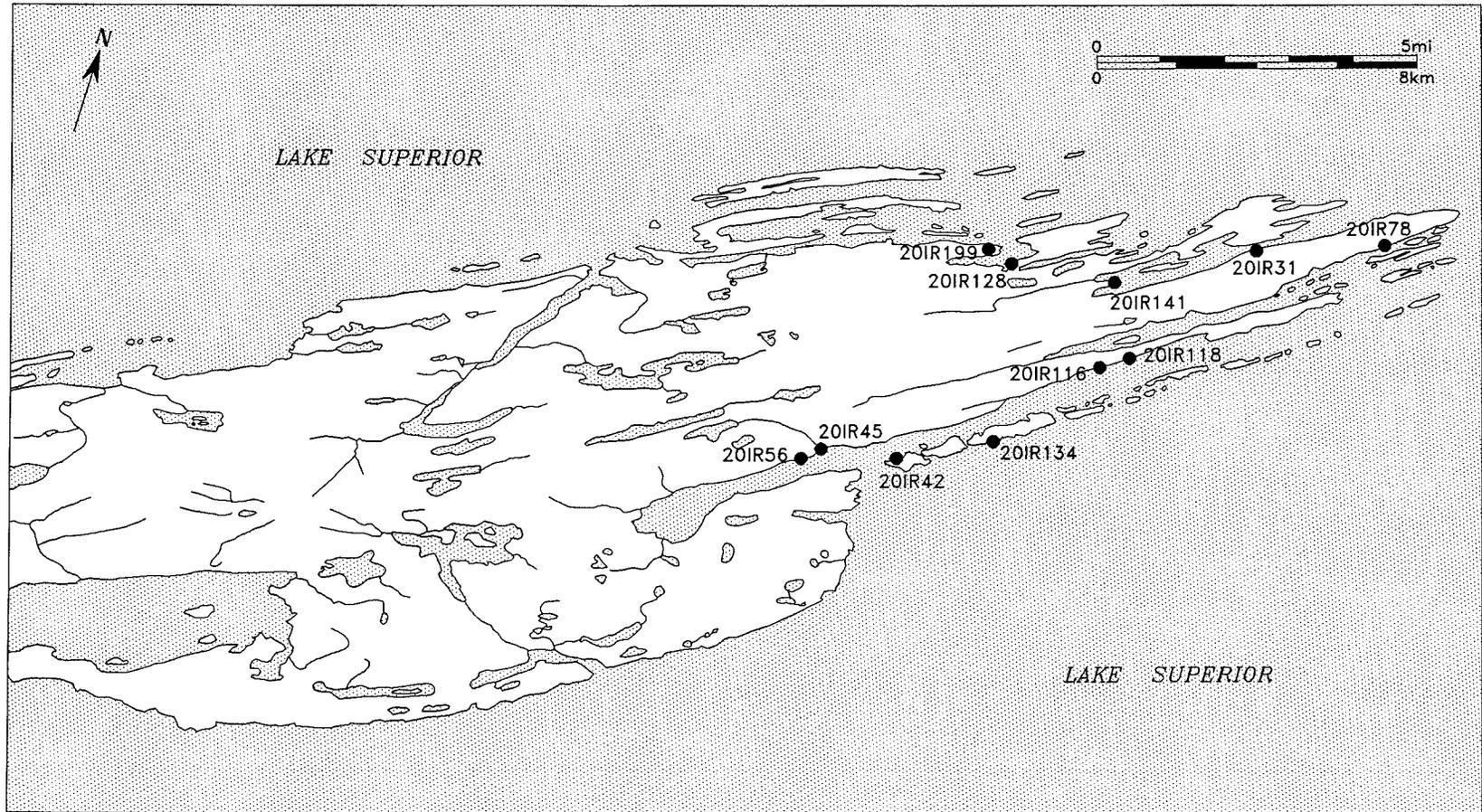


Figure 1. East end of Isle Royale and location of 1991 archeological sites.

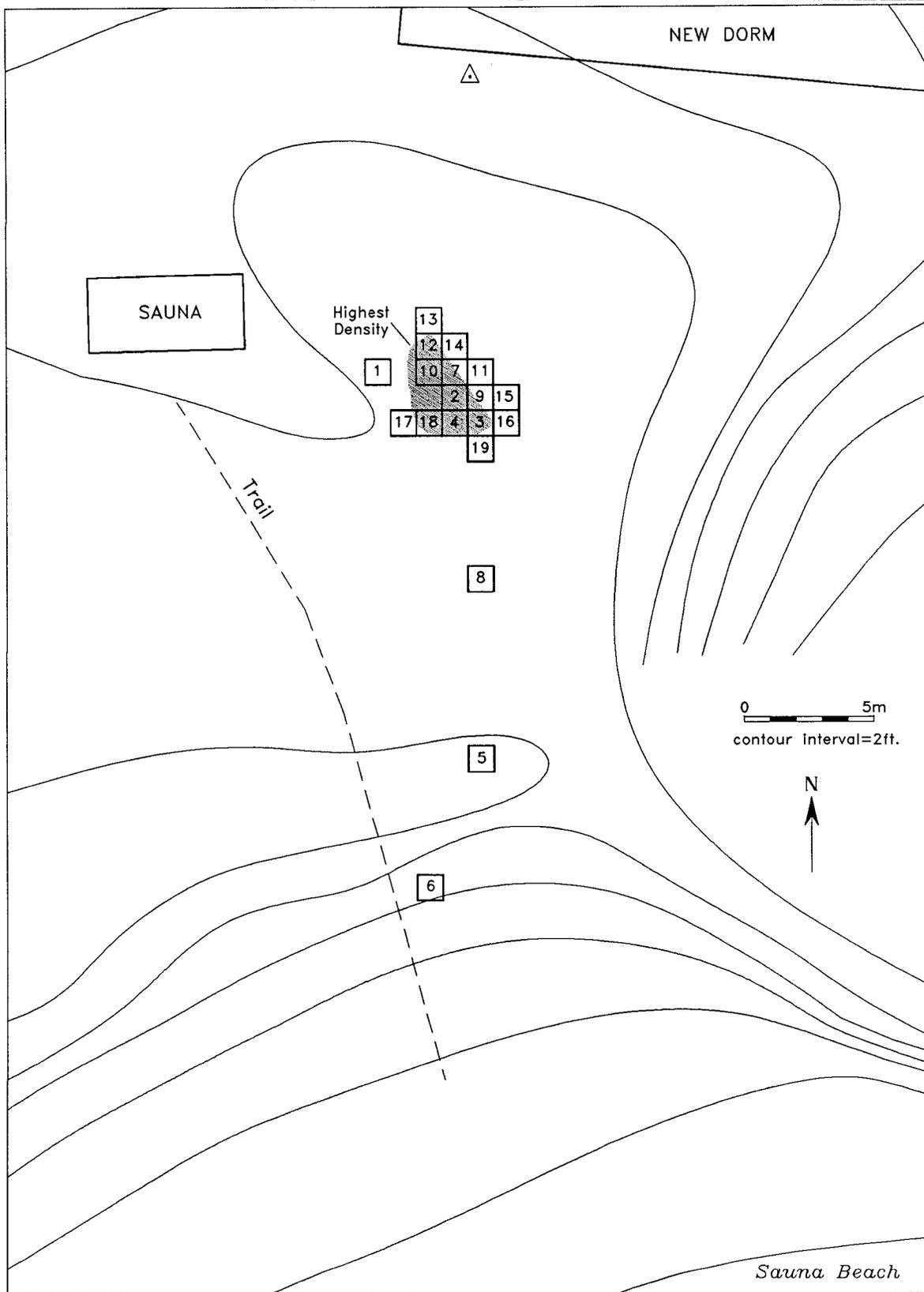


Figure 2. Mott Sauna Beach site showing location of excavation units.

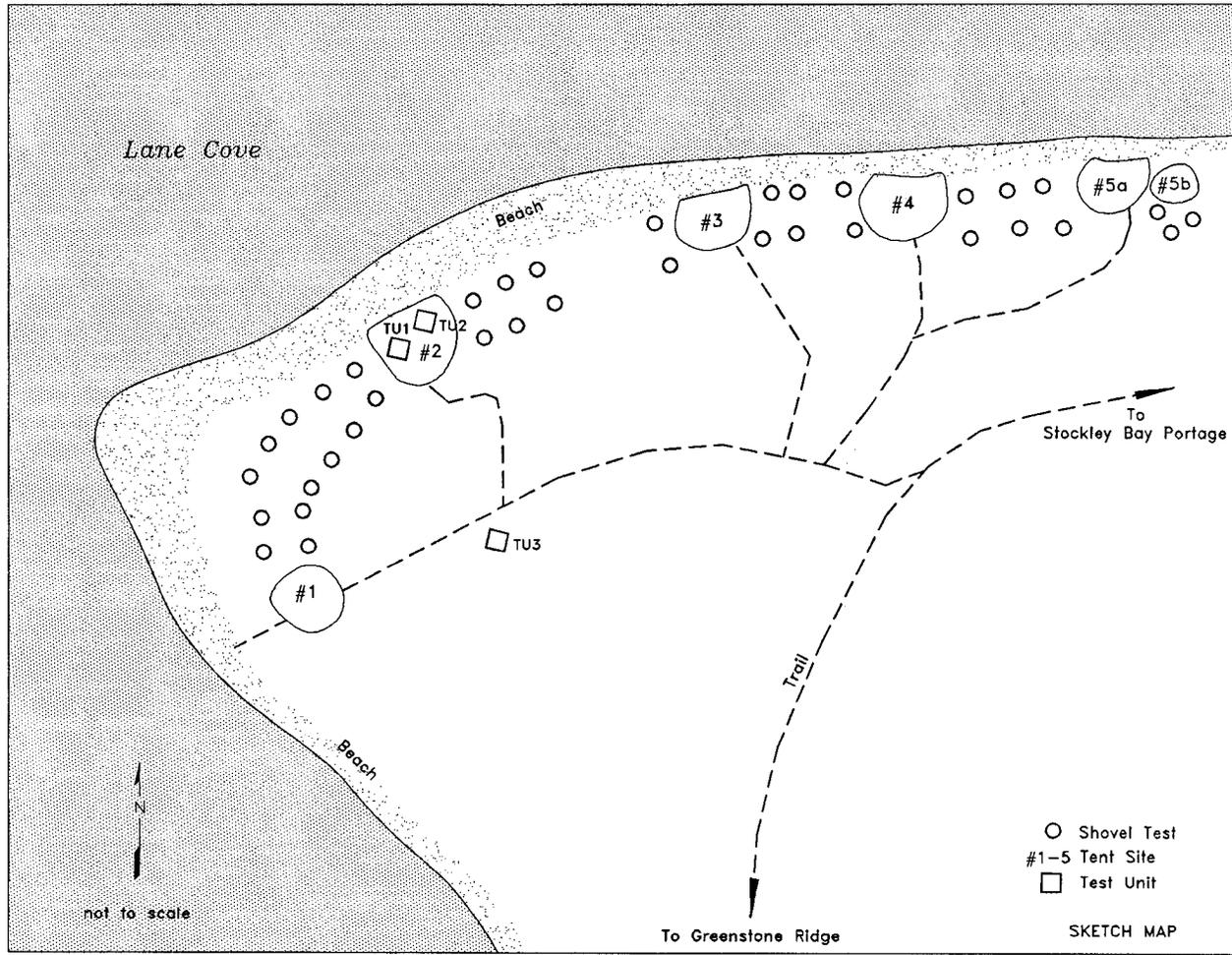


Figure 4. Plan of Lane Cove Campground.

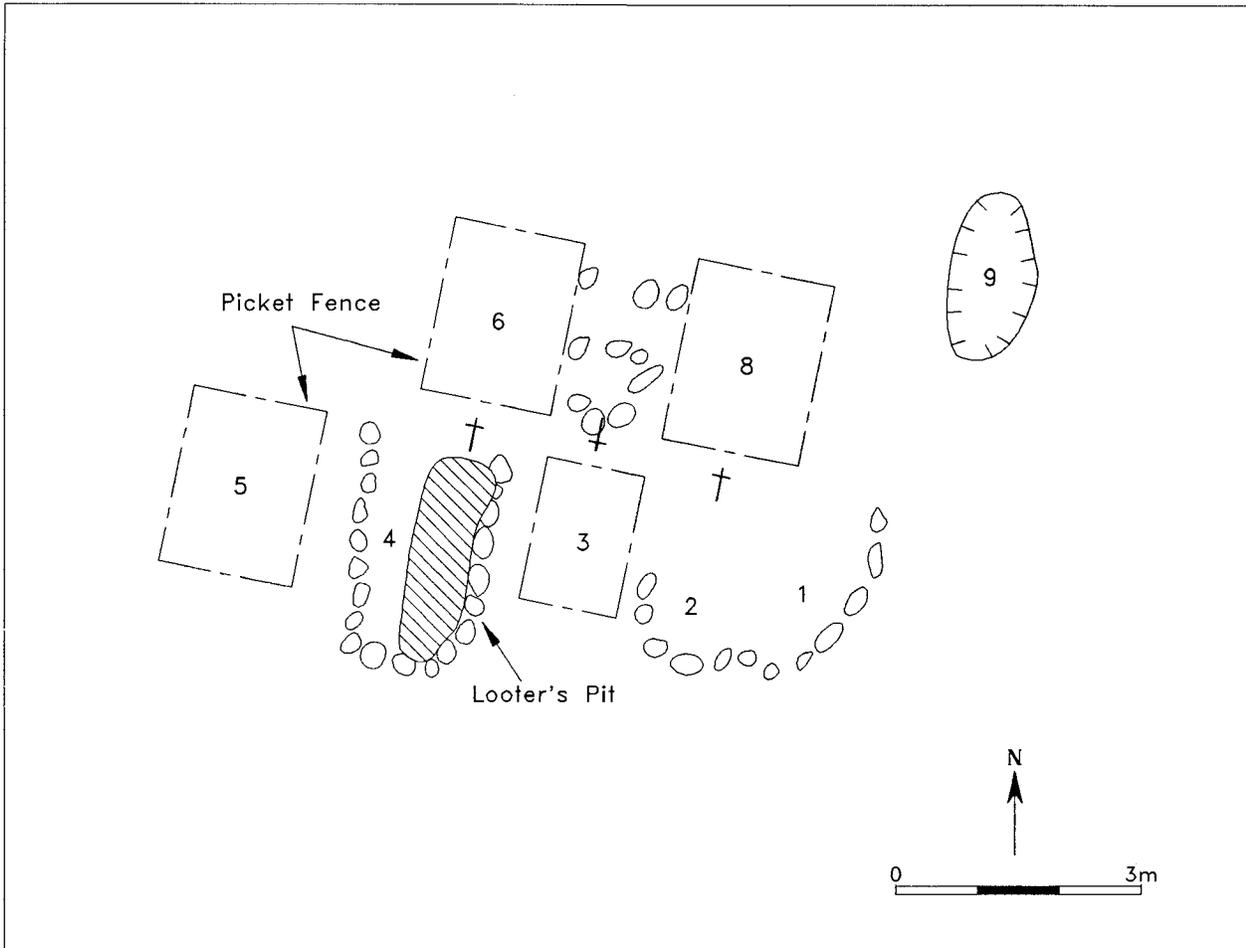


Figure 6. Plan of historic cemetery, Cemetery Island.



REPORT CERTIFICATION

I certify that "Mott Sauna Beach Excavation and Site Survey at Isle Royale National Park" by Caven P. Clark

has been reviewed against the criteria contained in 43CFR Part 7 (a)(1) and upon recommendation of the Regional Archeologist has been classified as available.


Regional Director

6/14/93
Date

Classification Key Words:

"Available" – Making the report available to the public meets the criteria of 43CFR 7.18 (a) (1).

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