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In Memoriam

Lloyd H. Varney

July 25, 1924 -- May 31, 1993

THE EVERGREENS: ARCHAEOLOGY AND AN ALLUVIAL LANDFORM ON THE KENNEBEC, PART I

Arthur Spiess and Mark Hedden

FOREWORD

This article, the first of two on The Evergreens, presents a description of the site and results of excavations from 1969 through 1982. Although originally reported by Spiess et al. (1983), this article adds substantive new data about the Perry collection, vessel lot analyses of the 1969 and 1971 State Museum excavation, and new radiocarbon dates on 1982 Feature 3 which date pseudo-scallop-shell impressed vessel manufacture. The subsequent article will report the results of 1983 MHPC excavations on the site.

INTRODUCTION

The Evergreens site (ME 69.6) is located on a silty, alluvial terrace on a bend of the Kennebec River in the municipality of Solon, Maine. Casual finds by the property owners and archaeological tests since 1969 have established evidence of prehistoric occupations extending from the early Late Archaic through the Ceramic Period (Spiess et al. 1983, and this report). The site is large, extending along the shore of the river for a distance of 500 meters, southward from at least 100 meters northward of the abutment of the Route 201A bridge. Inland limits extend at least 130 meters from the riverbank.

The site is located on a major canoe route into northwestern Maine, ultimately connecting with the St. Lawrence valley (e.g., Cook 1985). It is the southernmost of four known prehistoric sites, including sites 69.4, 69.5, and 69.22 in addition to 69.6 (see also Petersen 1991a) in the immediate vicinity of Caratunk Falls (Williams Dam and its downstream tailrace). These sites as a group, combined with excavation results from sites just above

Caratunk Falls (Petersen 1991b) contribute information to several major research questions. In terms of understanding evolution of the landscape, archaeological sites often provide precise chronological control concerning the emplacement and habitability of landforms. The sites around Caratunk Falls record settlement in shallowly buried soils developed on terminal Pleistocene landforms, on the once active margin of fossil Holocene erosional features, and within stratified Holocene alluvium. Archaeological precision in dating these landforms increases our understanding of Quaternary geological processes, and conversely helps archaeologists predict what other landforms in the region might contain sites. The Evergreens and nearby sites should also provide insight into interior, riverine usage throughout most of Maine's prehistory. Caratunk Falls was one of the highest falls on the Kennebec River (before it was dammed), and presumably was both a major collecting point for anadromous fish and an enforced rest stop for canoe-based travelers. Could this geographic feature have been a seasonal focus for a resident band of people at any time during the Holocene? If not, was it used more by travelers from the coast or from the interior lakes? And how has use of the region changed in the last 11,000 years?

ENVIRONMENTAL SETTING

The Evergreens site is situated about 150 river kilometers from the coast at the point of a distinct change in the character of the Kennebec River Valley (Figure 1). Upstream from the site with the exception of the lower banks near Bingham, high banks of glacial till and eskers confine the river to a steep, narrow valley. Just below the site, the

river divides and winds around gravel bars and low, alluvial islands as a braided stream.

The bedrock underlying the Solon area consists of metasedimentary Devonian-Silurian rocks within the Merrimack Synclinorium, a series of geologic fault lines extending southwest to northeast into Central Maine from New Hampshire (Pankiwskyj 1979). The principal bedrock group underlying the site area is the Carabasset Formation, composed of rhythmically bedded, laminated, light grey metasilstone and dark, silvery-gray metapelite in layers ranging from 5mm to 2cm thick. This bedrock outcrops on the Embden side of the river opposite The Evergreens and deflects the river channel to the east, creating the river meander on which The Evergreens is situated. One bedrock exposure opposite the southern end of site 69.6 has a number of prehistoric petroglyphs pecked into its surface (site 69.4 cf. Hedden 1988, Lahti, et al. 1984, for detailed description). The local bedrock, however, was probably of no use for tool manufacture to prehistoric inhabitants.

The landform upon and in which site 69.6 occurs has been formed by a complex series of erosional and alluvial-deposition events of mid- to late-Holocene age. Generally underlying silty fine sand at depths of between 1 and 2.5 meters are sharp sands and channel-fill clays in places, testifying to variations in sediment-bearing capacity caused by water flow speed during the formation of this complex landform.

The Evergreens landform (see Figure 2) conforms to the classic pattern of on-going point bar formation associated with lateral river meander migration (i.e., Pitty 1971). This assessment is consistent with the generally silty fine sand sediment composition of the site, the presence of a rounded levee along the riverbank apparent on a topographic profile developed from limited 1969 and 1983 contour mapping, and the presence of flood overflow channels behind the levee as known from modern flood events and channel fill clays.

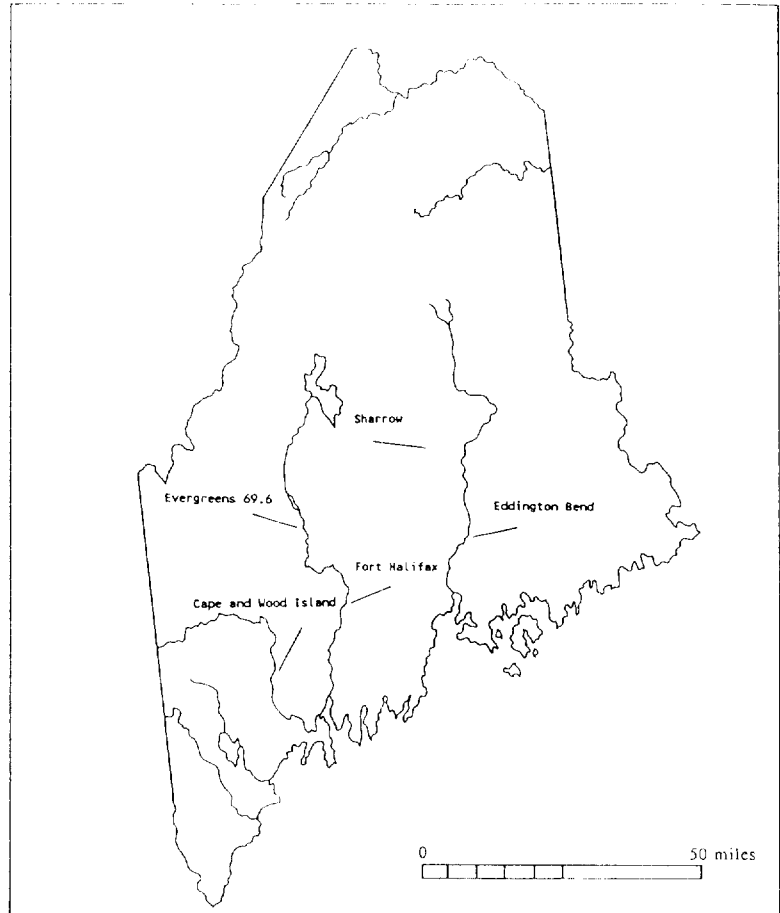


Figure 1. Map of Maine locating the Evergreens and other published sites.

The alluvial landform of The Evergreens has generally been mis-mapped by geologists. The landform is not distinguished from contiguous areas of coarse-grained glaciomarine deposits on the surficial geologic map of Maine (Thompson et al. 1985). This fact may extend to original inaccurate mapping by Borns and Hagar (1965). Borns and Hagar proposed a stratigraphic sequence beginning with emplacement of till followed by esker formation during the terminal stages of Pleistocene ice-sheet disintegration. The steep hill due east of The Evergreens landform is mapped as "ice-contact stratified silt, sand and gravel" (ibid, and see Figure 2), part of an esker system that parallels much of the Kennebec River valley. Subsequent marine inundation emplaced the Presumpscot Formation clayey sandy silt as well as the Embden Formation of Borns and Hagar. The Embden Formation is a



Figure 2. Aerial photograph of site of The Evergreens, taken April 29, 1969. North toward the top. The Evergreens campground extends south from the road and bridge around the bend, and is demarkated along its easterly boundary by a driveway. A large gravel pit sits atop a hill to the east.



Figure 3. Aerial photograph of the Kennebec River valley from the Evergreens southward, taken December 2, 1938. The Evergreens landform lies just underneath the 7" mark on the ruler across the top of the photograph.

coarser (sand) upper fascies deposited by the marine transgression. Subsequently, during post-glacial rebound the Kennebec River cut down through up to 150 feet of these sediments (ibid: 1243). Borns and Hagar (1965: 1244-1246) define the North Anson Formation as a coarse gravel formation emplaced after the deep incision of the Embden and Presumpscot Formations, at places up to 70 feet thick. Subsequently, terracing of the North Anson Formation indicates continuing river downcutting (ibid: 1246). Borns and Hagar map The Evergreens site parent material as North Anson Formation. We show in this paper that at least the top 1 to 2 meters of The Evergreens landform is mantled with a complex sequence of mid-to late-Holocene alluvium, reworked gravels of the North Anson Formation, and erosional terrace landforms.

The Evergreens lies near the northern limit of the Transition Hardwoods-White Pine-Hemlock vegetation zone (Westvald et al. 1956:335). Beech, birch and poplars are the dominant hardwoods in associations to the north. Maple and oak are the dominant hardwoods in associations to the south. Both to the north and south, white pine, fir and hemlock are variable to dominant components of the forest.

The Evergreens site is shown as an open field on a vertical aerial photograph of December 5, 1938 (Figure 3). It is unclear whether the field was cultivated at the time or covered with a crop of hay. The site was supposedly last plowed in 1946 (personal communication, William Perry to Spiess August 21, 1981). An aerial photo of April 29, 1969 (Figure 2) shows the site partially covered with patches of small evergreens (presumably pine) and small deciduous trees. Today The Evergreens is covered by grassy open areas, well spaced white pine inland, and large red oaks along the immediate river bank (Figure 4).

The site lies within a region of foothills and isolated valleys, with microclimates that vary widely according to height. Elevations range from ca. 270 feet above msl at river level to 1,350 feet (Black Hill), with most of the surrounding hills at about 900 feet. Snowfall is generally less in the valleys than on the hills, for example. However, frost free seasons are shorter in the valleys (ranging from 41 to 63 days) (Fobes 1946), too short for aboriginal agriculture. Annual precipitation averages 46" with a range of 32" to 56" in this area.



Figure 4. View of The Evergreens (site 69.5) from the opposite shore of the Kennebec River in the vicinity of the petroglyph ledge (site 69.4).

Spring snowmelt floods are common. The nature of the run-off from isolated valleys during periods of heavy rain may cause occasional floods in summer as well.

The Evergreens site occupies a classic alluvial point-bar (Pitty 1971: Fig. IV. 15C-D) where the Kennebec River makes a wide bend southeastward as it is deflected by the bedrock outcrops from the opposite shore. As such we expect corroborative evidence that the landform "built" toward the southwestward. Moreover, probable flood overflow channels are visible on the December 1938 aerial photograph (Figure 3), and can be perceived on the ground as shallow topographic lows nearly paralleling the river. The 1969 Maine State Museum excavation in the same area east of the levee made test borings to determine underlying stratigraphy and encountered a deep, wide (1.5m x 5m) depression bordered by channel clays and filled by fine silty sands (following section).

Spring high water in 1983 encroached 2 to 3 meters inland from the riverbank horizontally.

Conversations with William Perry, former owner of The Evergreens indicated that several floods in the last decade have been high enough to wet the overflow channels. The current owners, Mr. and Mrs. Kimmey, state that the record flood of 1987 also wet the overflow channel but did not create much current or erosion.

The current riverbank in front of the W200 portion of the site is characterized at seasonal low water by a 5 meter wide, poorly vegetated "armored" cobble lag surface which overlies a gravelly, coarse sand adjacent to the water (Figure 5). More variable surface conditions characterize a gentle upslope over the next 10 meters away from the water. Gravel/cobble lag characterizes non-vegetated areas while low shrubs, clover and sparse grasses cover medium to coarse sands with varying inclusions of silt or pea gravel. Silty fine sand becomes more common upslope.

The base of a near vertical erosion scarp fronts the low slope of the river bottom. From the top of the erosion escarpment inland, the site matrix is



Figure 5. Modern cobble lag deposit along the river shore in front of site 69.6.

composed of fine silty sands. These begin with a low levee formation near the shore, continuing more or less level to slightly descending in gently rolling swales (overflow channels) across about 120

meters to the base of a higher upper terrace. The land slopes up to this upper terrace about 3 meters over a distance of 16 meters, with a profile similar to the present riverbank.

HISTORY OF INVESTIGATIONS TO 1983

The Evergreens site had been part of a cleared field until World War II, as demonstrated by a 1938 aerial photograph (Figure 3). A "plowzone" capping the stratigraphic sequence at many places on the site indicated that the upper 25-30 cm had been subjected to probably multiple tillage episodes. Although evidence of prehistoric habitation, in the form of debitage, stone tools, ceramic fragments, and fire-cracked rock would have been visible on the surface when the field was plowed, dense concentrations of such material would have been unlikely. William and Ruth Perry, who owned the site for roughly 20 years (circa 1965-1987) and developed it as a commercial campground, recovered a variety of lithic and ceramic artifacts during the course of gardening, minor excavating associated with the campground development, and examination of the eroding river terrace.

The Perry's prehistoric artifact collection was initially reported (Spiess et al. 1983) as all coming from The Evergreens, with the exception of a few pieces that had been donated (William Perry, personal communication). Subsequent to preparation of the 1983 report, we learned of the activities of a local artifact collector (John Dolan, personal communication with William Perry) who maintained a post office box in Solon for the purpose of buying artifacts through the mail. We now suspect that most of the pieces in the Perry collection (Spiess et al 1983: Figure 3, page 13) which are "exotic" to Maine in morphology or raw material were acquired by purchase or trading from out-of-state sources through Mr. Dolan.

The first archaeological excavation at The Evergreens, a ten by ten foot square, was directed by Mrs. Helen Camp for the Maine Archaeological Society in August, 1969. There are no fieldnotes extant from Mrs. Camp's excavation, and no records beside the location of the test marked on a file card (Maine State Museum files). The whereabouts of any artifacts recovered by Mrs. Camp's crew is unknown, although we suspect some may have been incorporated into the Perry collection.

The approximate location of Mrs. Camp's excavation and subsequent excavations is shown on Figure 6. For the purposes of this report, we have transposed pre-1983 excavation locations where possible into the sitewide metric grid established by

the Maine Historic Preservation Commission in 1983. This grid transposition was aided by the existence of Maine State Museum excavation maps showing the locations of the cabins and lodge at the campgrounds, aerial photographs, and location of the buildings on the 1983 grid system. We expect an accuracy of ± 1 meter for conversion of pre-1983 excavation locations to the 1983 grid. During the discussion that follows, the 1983 grid locations are often given followed by the original measurement system employed at the time.

Records from the 1969-1971 Museum excavations consisted of 1) provenience and survey data on 3" x 5" index cards, 2) notebooks kept by the individual excavators, and 3) full scale (1:1) horizontal plots of artifact locations done on construction paper. As of a September 7, 1983 search of the Museum, only the 3"X5" index cards and a few summary tabulations on notepaper could be located.

A test trench running perpendicular (north) from the riverbank ca. 100 feet (MSM Trench #1, Figure 6) (from about N12 W241 to about N48 W241 on the 1983 grid system) was excavated under the direction of Mr. Ron Kley of the Maine State Museum in August, 1969 (Figure 7). The trench is reported to have been 2 feet wide and excavated in one foot levels to a depth of 2 feet. Artifact cards indicate that an additional small testpit ca. 2 feet square was excavated 24 feet west of the trench (at about N29 W249 in the 1983 grid, or parallel to station "00+50 to 00+55 on the Main Trench"). In the summer of 1971 the Maine State Museum returned to excavate three more test trenches (T2-T4) under the direction of Ron Kley. These trenches "branched off" from Trench 1. Provenience information was taken in feet along the trench (horizontally) and in inches below surface (vertically).

The excavation of Trench 1 established the presence of ceramic and lithic concentrations associated with 3 fire hearths between ca. N24 and N30 on the W241 line ("0+80" to "0+50" in the MSM scale) at 0 to 12" below surface (bs). Two more hearths were encountered to the north at depths between 12" and 24" at N38 to N41 (MSM "0+20 to 0+30") and between N44 and N47 (MSM "0+00" to "0+10") and two to the south at similar depths between N14 and N20 (MSM "0+90" to "1+10"). No potsherds were found with these deeper features. Minimal amounts of cultural

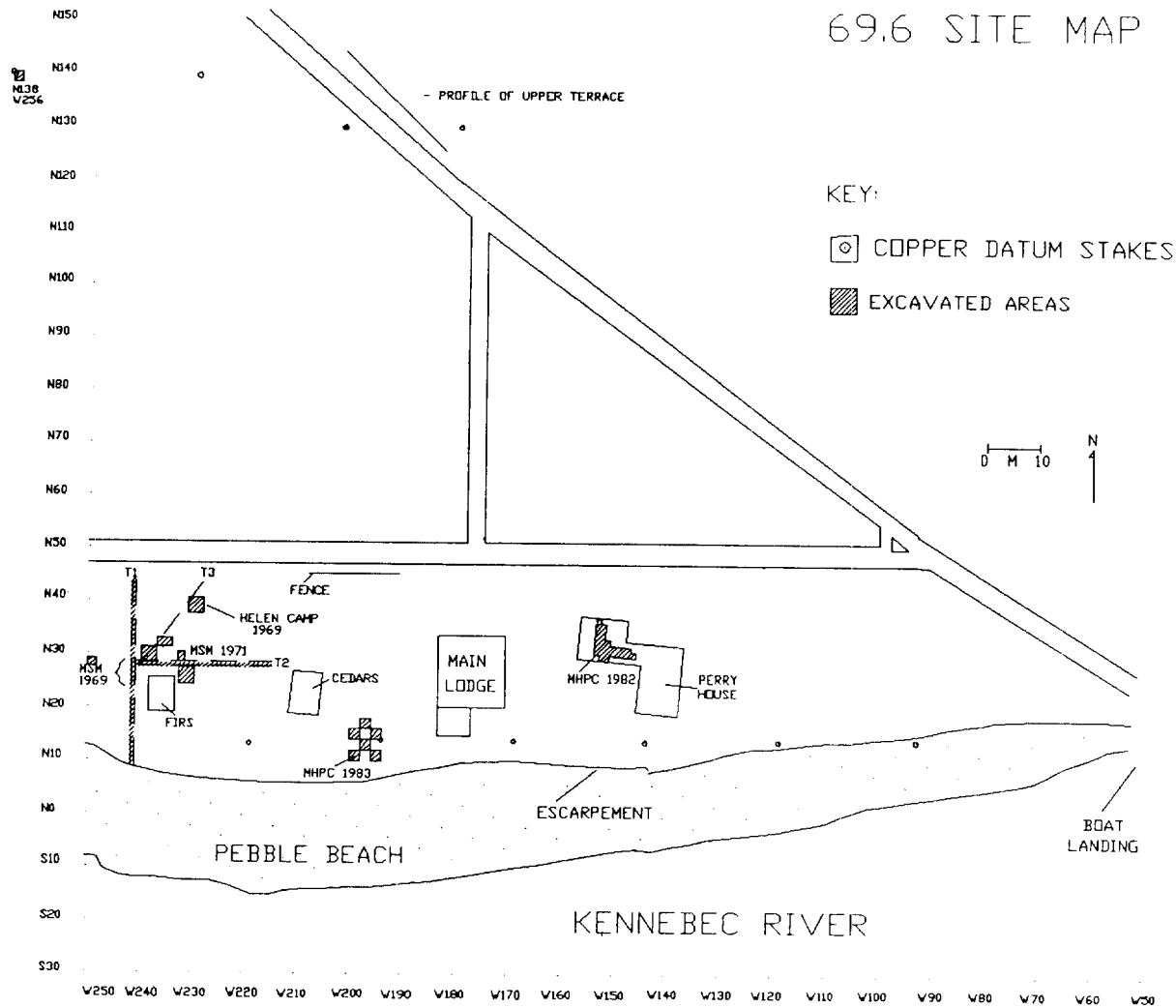


Figure 6. Plan of the site and excavations through 1983.

material were associated, mostly in the form of debitage was recovered. However, the base of one corner-notched biface (found near N14) which was left with Mr Perry. Trench 2 ran "S 75 degrees E from Station 0+60 on Trench #1", at right angles to Trench #1 across the north end (front) of a cabin named "Firs". One culture material concentration was located near ca. N29 W231 ("0+25-30" on the MSM grid), including 175 potsherds, 250 lithic flakes, 4 charcoal concentrations, "a knife, diamond-shaped scraper, projectile point and 4 blade fragments". Artifact cards indicate that the trench was subsequently enlarged to a ten foot square

extending to the south between "0+22 and 0+32" on Trench 2. Only moderate quantities of ceramic sherds and flakes were recorded along the easternmost 50 feet of Trench #2. Trench #4 "extends 10 feet north from station 0+23 on Trench #2" and apparently represents a further attempt to explore the concentration of artifacts. Approximately 28 potsherds, 2 tool fragments and 26 flakes were recovered. Trench #3, as far as we can determine from a sketch map, consisted of discontinuous 5 and 10 foot squares set in a staggered array NE from the intersection point of Trenches #1 and #2. A large grooved stone interpreted as a "canoe anchor" was found in Trench #3, along with mod-



Figure 7. Maine State Museum crew excavating Trench #1 in 1969.

erate numbers of potsherds, flakes and 2 concentrations of charcoal.

The lithic artifacts recovered in 1971 were left with the Perrys, and thus should have been part of the collection described in Spiess et al. 1983 (William Perry, personal communication to Spiess). However, the MSM files contain outline drawings of the lithics left with the Perrys. None of these outlines match the bifaces in the Perry Collection (Spiess et al. 1983).

Only two of the bifaces described by outline in the MSM notes had possibly diagnostic attributes. One is a stemmed point with rounded shoulders, ca. 56mm long by 23mm wide by 6.5mm thick, with a stem 9mm long by 10mm across. It came from 15" below surface near N29 E241 (MSM scale "0+55"), apparently not associated with pottery. The second, a broken corner-notched (or expanding

stem) biface measured ca. 30mm wide by 6.5mm thick (1/4" on MSM record) with a stem 16mm wide at the shoulder expanding to 23mm at the base. The base exhibited a slight notch (basal thinning?) at the center. This biface reportedly came from 14" bs near N14 W241 and was also not associated with pottery.

The potsherds from the 1971 field season are in the Maine State Museum archaeology collection and were cleaned, catalogued and analyzed by vessel lot for this report. No potsherds could be located from the 1969 excavations, with the exception of a small sample of potsherds from the small testpit excavated "28' West of the Main Trench at "0+50 to 0+55".

Approximately two-thirds of the prehistoric potsherds recovered by the MSM in 1971 (265/391) could be related by multiple attributes and sorted

Table 1. Ceramic vessel temper attributes, vessels from 1969 and 1971 Museum excavations. All vessels were constructed by the coil method.

VL#	Temper Density	Material	Size Range	Largest	Temper/Paste	Ratio
10	Medium	Quartz/sand w/fiber? pores	Mostly fine Some coarse		3.3mm	1:3
11	Medium	Quartz, feldspar	Fine to Coarse		3.4mm	1:3
12	Medium	Quartz, feldspar and mica	Fine to Medium		2.1mm	1:3
13	Medium	White quartz	Medium/Coarse		4.0mm	1:3
14	Medium	Quartz	Medium/Coarse		4.2mm	1:3
15	Medium	Quartz	Medium/Coarse		5.5mm	1:3
16	Medium	Quartz	Coarse		6.8mm	1:3
17	Medium	Quartz/Mica	Medium/Coarse		4mm	1:3
18	Medium	Quartz/feldspar	Medium		2mm	1:3
19	Med/dense	Quartz/Mica	Medium		2.5mm	1:3
20	Medium	Quartz/grog	Mostly fine		2.2mm	1:3
21	Dense	Quartz/feldspar	Fine/Coarse		7.3mm	1:2
22	Dense	Quartz	Fine/Coarse		11.3mm	1:2
23	Medium	Quartz/granite mica	Fine/Coarse Mostly medium		5.1mm	1:3
24	Medium	Quartz/feldspar mica	Mostly fine		1.5mm	1:3
25	Medium	Quartz/feldspar	Coarse		5.7mm	1:3
26	Medium	Quartz/granitic	Medium/Coarse		5.2mm	1:3
27	Medium	Quartz	Fine/Medium		2mm	1:3
28	Medium	Quartz/granitic	Mostly medium		2.5mm	1:3
29	Medium	Quartz	Fine crushed		1.4mm	1:3
30	Medium	Quartz	Fine/Medium		2.5mm	1:3
31	Medium	Quartz/Feldspar	Mostly Medium		2.84mm	1:3
32	Medium	Granitic	Fine/Medium		2.6mm	1:3
33	Dense	Quartz	Medium/Coarse		4.2mm	1:2
34	Dense	Quartz/Granitic	Medium/Coarse		3mm	1:2

into a minimum of 24 vessel lots (See Tables 1-3 and Figures 8-14 below). These vessel lots were assigned relative ceramic period dates on the basis of criteria developed by Petersen and Sanger (1989). Six vessel lots with sherds (n=35) marked by twined fabric impressions on both interior and exterior walls are identified as Vinette 1 vessels of Ceramic Period 1 (Vessel Lots #25, 26, 27, 28, 33 and 34). In all cases the temper is quartz with some from a granitic matrix. Where the twist of the cordage strands could be discerned, all were S-spun Z twist. The fabrics ranged from simple twining (n=1), net twining with cords spaced 5mm apart (n=2), right oblique twining

(n=1) to left oblique twining (n=2).

Ten vessel lots with sherds (n=106) marked by fine tooth rocker dentate stamping are attributed to CP 2 (vessel lot #11, 12, 13, 16, 17, 18, 19, 20, 24 and 29). Four of these vessels were decorated with very fine pseudo-scallop shell impressions (vessel lot #16, 18, 20 and 29). Another four (vessel lot #11, 12, 13 and 17) had fine toothed dentate rocker stamping but lacked the distinctive pointed teeth of the pseudo-scallop shell varieties. Another (vessel lot #19) was a plain vessel with a double row of simple punctates made with a rounded point (bone?) tool. Vessel Lot #24 is a thin walled (5.6mm) fine grit tempered vessel with two

Table 2. Ceramic vessel lot size and decoration attributes from 1969, 1971 Museum excavations.

VL#	Thickness			Dia. Orifice	Decoration Tool
	LIP	NCK	BDY		
10	4.4	10.7	10.6	23cm	Plain with Scraped Surfaces
11	4.6	4.7	8.1	23cm	Dentate Stamp 2.23cm long 5 v. fine teeth per cm 0.8mm thick rounded one side, straight on other.
12	ND	ND	8.3	ND	Dentate Stamp 2.43cm long 5 teeth per cm spaced 0.7mm apart, 2mm thick.
13	6.5	5.5	8.9	39cm	Dentate Stamp more than 2cm long, 1.6mm thick, 5 squared teeth per cm
14	4.3	4.65	9.5	29cm	Dentate Stamp 2mm thick by 1.9cm long 3 squared off teeth per cm spaced 1.1mm apart.
15	5.0	5.1	8.5	23cm	Dentate Stamp 2cm long 4 oblong teeth rounded at corners per cm
16	6.5	6.5	9.5	33cm	Pseudo-Scallop Shell Stamp 1.5cm long 7 teeth per cm 0.5mm apart notched one side continuous line on opposite side.
17	ND	ND	7.7	ND	Dentate Stamp 2.5 teeth per cm spaced 0.8mm apart. Teeth are oblong (up to 4.5mm long). Stamp thins at one end to 0.75mm thick.
18	6.5	7.1	8.3	23cm	Pseudo-Scallop Shell Stamp 5 rounded teeth per cm ca. 1mm thick spaced 0.6 mm apart with straight edge opposite side.
19	ND	ND	7.5	ND	Punctate tool with a rounded end (bone?).
20	ND	ND	8.5	ND	Pseudo Scallop Shell Stamp < 14mm long 1.4mm thick. 8 pointed teeth per cm.
21	ND	ND	11.5	ND	Dentate Stamp < 2.25cm long by 1.2mm thick 3 teeth per cm spaced 1.5mm
22	ND	ND	9.0	ND	Dentate Stamp 1.5mm thick with 3 teeth per cm spaced 1.3mm apart, rounded one side, straight on the other side.
23	4.5	6.3	10.5	27cm	Dentate (broken Pseudo Scallop Shell?) Stamp 2.4mm long 2mm thick with 2 triangular teeth on one end, remainder apparently broken.
24	4.1	3.9	5.6	Large	Pointed tool 2mm wide at tip.
25	ND	ND	8.8	ND	Fabric S-spun Z-twist Left Oblique Twining Cords 1.2mm thick, 4mm apart
26	4.6	ND	8.8	ND	Fabric-grass? Loosely S-spun Strands 0.63mm Cords 1.3mm Left Oblique twining
27	ND	ND	8.7	ND	Fabric, Weft only visible ca. 2mm thick, spaced 4.8mm apart
28	ND	ND	7.6	ND	Fabric, S-spun Weft: Strand 0.46mm Cord 0.91. Warp: Cord 0.79 Z-twist w/2 unspun(?) strands. Simple Twining: Warp/Weft are perpendicular
29	ND	ND	8.8	ND	Pseudo-Scallop Shell Stamp. 1.35mm thick, 9 small teeth with very acute points per cm, straight edge one side
30	ND	ND	< 4	ND	Dentate Stamp 5 teeth per cm spaced 0.7mm apart
31	ND	ND	8.6	ND	Dentate Stamp 3 teeth per cm spaced 1.9mm apart
32	ND	ND	8.7	ND	Dentate Stamp 3 teeth per cm spaced 1.7mm, 1.5mm wide
33	ND	ND	8.8	ND	Fabric, Warp not visible, Weft loosely S-spun Z twist 1.3mm thick Right Oblique Twining.
34	ND	ND	8.3	ND	Fabric, Strands not visible, Cord about 1.6mm thick, Simple Twined Netting cords spaced 5mm apart spin and twist not discernible.

more or less parallel scraped lines dragged around the neck, using a tool 2mm wide at the tip. Nearly all of the CP 2 vessels were distinguished by relatively thin walls (Range: 5.6-9.5mm). The thickest wall specimen had pseudo-scallop shell impressions. Vessel integrity is consistently good for this group.

Ceramic Period 3 was the latest stylistic period represented in the 1971 MSM sample with 8 vessel lots and 123 sherds. All of these were marked by generally thicker body walls (Range: 8.5

to 10.7mm), larger grit sizes for temper and poorer vessel integrity than was characteristic of CP 2 vessels. Final decorative traits included dentate stamps with larger more widely spaced angular or rounded teeth applied with rocker stamping (vessel lot #22 and 23), mixed with simple stamping (vessel lot #14), drag stamping (vessel lot #15, 30 and 31) or dragged simple stamps (vessel lot #32). One stamp used on vessel lot #23 had all but two triangular end teeth broken and may have represented

Table 3. Ceramic vessel decoration attributes from 1969 and 1971 Museum excavation

VL#	Method of Decoration Application	Motif	Period	#Sherds	Weight g
10	Scraped and smoothed	Lip thinned	CP 2/3	33	160.4
11	Rocker Stamping	Perpendicular series begins closely spaced series below lip, spreads out down body	CP 2	46	177.4
12	Rocker Stamping	Perpendicular series w/some drag close and even	CP 2	5	36.8
13	Rocker Stamping	Perpendicular series, dragged near lip extending over part of flat lip slightly curved out	CP 2	6	18.8
14	Rocker Stamping	Perpendicular series, some overlaps evenly spaced, lower body plain	CP 3	14	45.4
15	Rocker Stamping	Perpendicular series overlapping lapping with alternate parallel below, flat lip, some dragging & slightly excurvate irregular press	CP 3	10	59.1
16	Rocker Stamping	Alternate perpendicular, close & overlapping. Horizontal PSS. Lower body plain.	CP 2	28	123.9
17	Rocker Stamping	Perpendicular series, evenly spaced	CP 2	4	10.2
18	Rocker Stamping	Perpendicular series. PSS overlaps half of slightly excurvate lip	CP 2	4	19.1
19	Punctate	Two parallel rows of punctates around vessel	CP 2/3	2	6.2
20	Rocker Stamping	Perpendicular & oblique PSS ca. 8mm apart. Lower body undecorated	CP 2	7	19.4
21	Rocker Stamping	Alternating perpendicular and punctate & horizontal series w/DRS tool used as punctate over DRS impressions	CP 3	6	25.6
22	Rocker Stamping	Perpendicular series, pushed hard Well spaced rows of DRS on one end	CP 3	7	22.6
23	Rocker Stamping	1st series horizontal below lip, rest are perpendicular, lip slightly excurvate, rounded	CP 3	49	217.8
24	Drag Punctate	Two parallel lines dragged using punctate tool around vessel parallel to rim	CP 2	5	11.6
25	Fabric Impressed	All over impression, in and out	CP 1	12	38.0
26	Fabric Impressed	All over impression, in and out	CP 1	13	31.4
27	Fabric Impressed	All over impression on exterior, interior wall spalled off	CP 1?	1	4.0
28	Fabric Impressed	All over impression, in and out	CP 1	3	7.5
29	Rocker Stamping	Oblique series alternating w/ undecorated areas - PSS	CP 2	2	4.7
30	Dentate Stamp	Dragged along surface. Dragged forming parallel lines	CP 3	1	1.2
31	Dentate Stamp	Dragged on surface, leaving parallel lines	CP 3	2	8.2
32	Dentate Stamp	Widely spaced, parallel to coil fracture	CP 3	1	5.0
33	Fabric Impressed	All over impression, in and out	CP 1	2	2.1
34	Fabric Impressed	All over impression, in and out	CP 1	6	19.5

CERAMIC PERIODS OF VESSEL LOTS RECOVERED

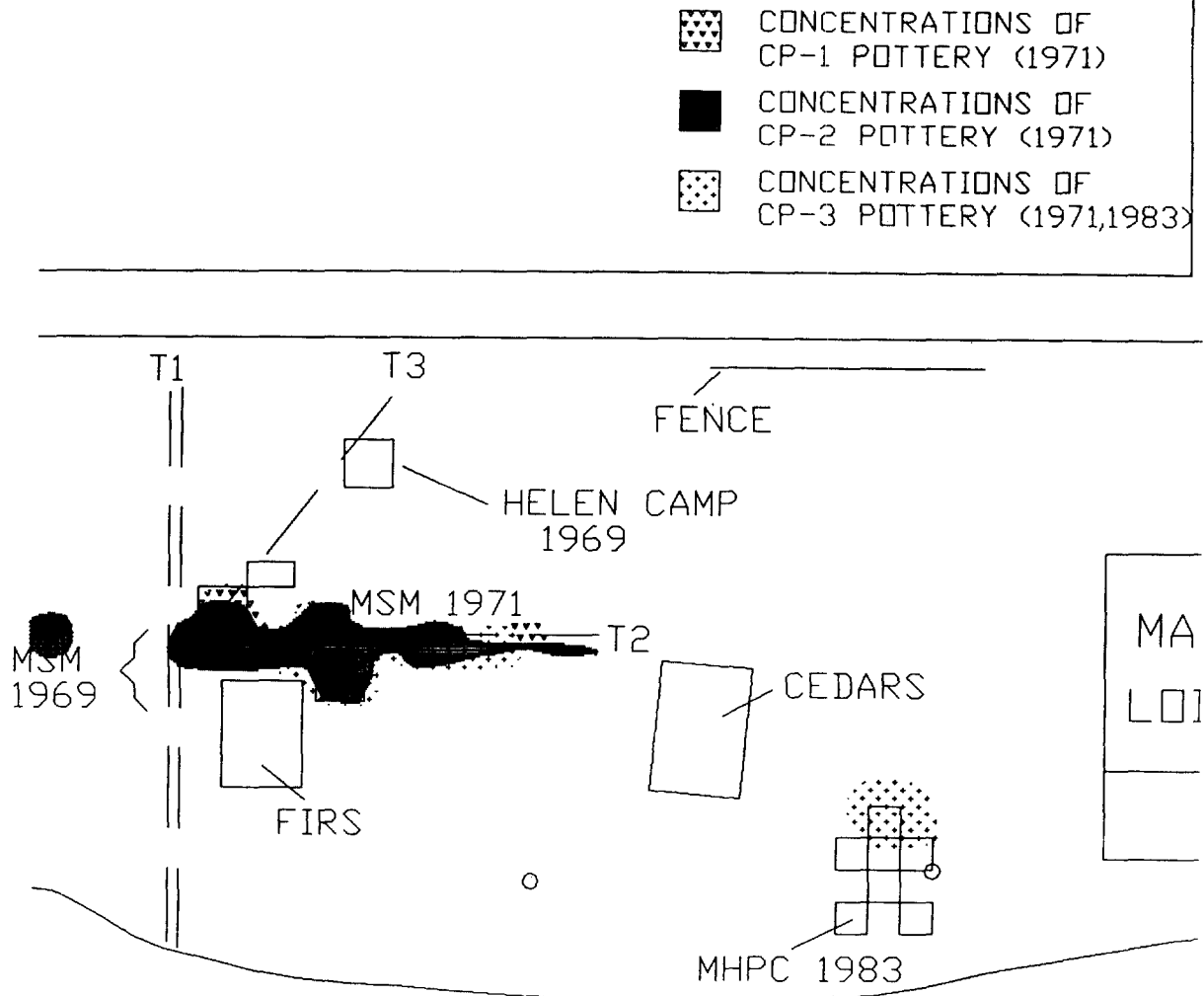


Figure 8. Known distribution of Ceramic Periods 1, 2 and 3 vessel lots.

an older (pseudo-scallop shell?) heirloom piece. Another thick walled vessel was left with the exterior smoothed over and undecorated (vessel lot #10).

Available locational data indicates a broad distribution of CP 1 through CP 3 vessel lots in the area excavated in 1971 (Figure 8). CP 1 vessels (Figure 9) were concentrated within 2m of N30 W238 on the 1983 grid (MSM T2 0+05 to 0+15

and T3 0-10), within 1m of N30.5 W234 (MSM T4) and, within 2m of N28.5 W220 (MSM T2 0+65 to 75). The heaviest concentrations of CP 2 (Figures 10, 11, 12) and 3 vessels were within 2.5m of N28.5 W232.5 (MSM T2 0+20 to 25/T4/10' square S of T2) and within 2m of N28.5 W227 (MSM T2 0+40 to 55). However, a scatter of CP 2 vessel lot sherds appeared over the entire



Figure 9, at left. Examples of CP-1 vessel lots from the 1971 Museum excavations. Vessel lot 15 upper left. Vessel lot 26 upper right. Vessel lot 28 lower.



Figure 10, below. CP-2 vessel lots from the 1971 Museum excavations. Vessel lot 11 left. Vessel lot 12 upper right. Vessel lot 13 lower right.

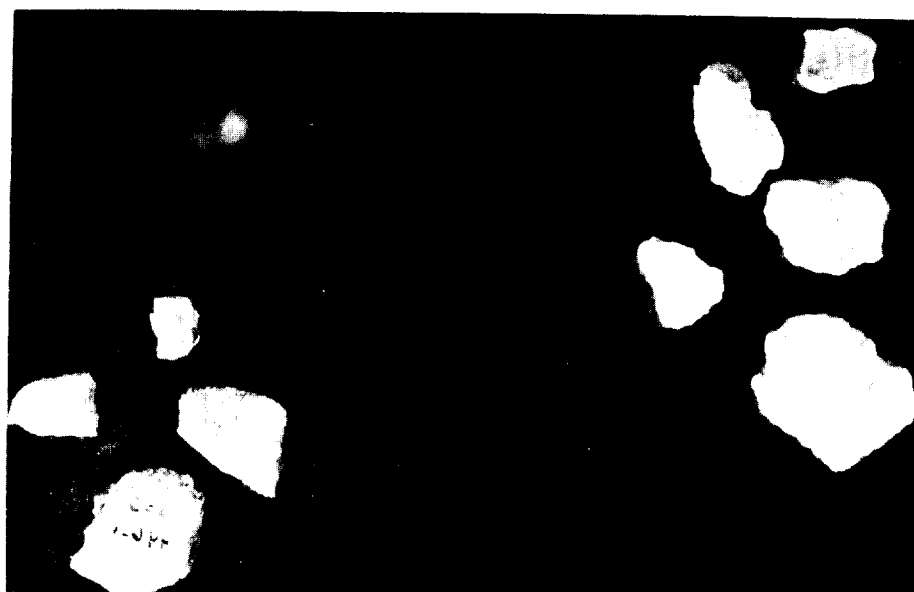
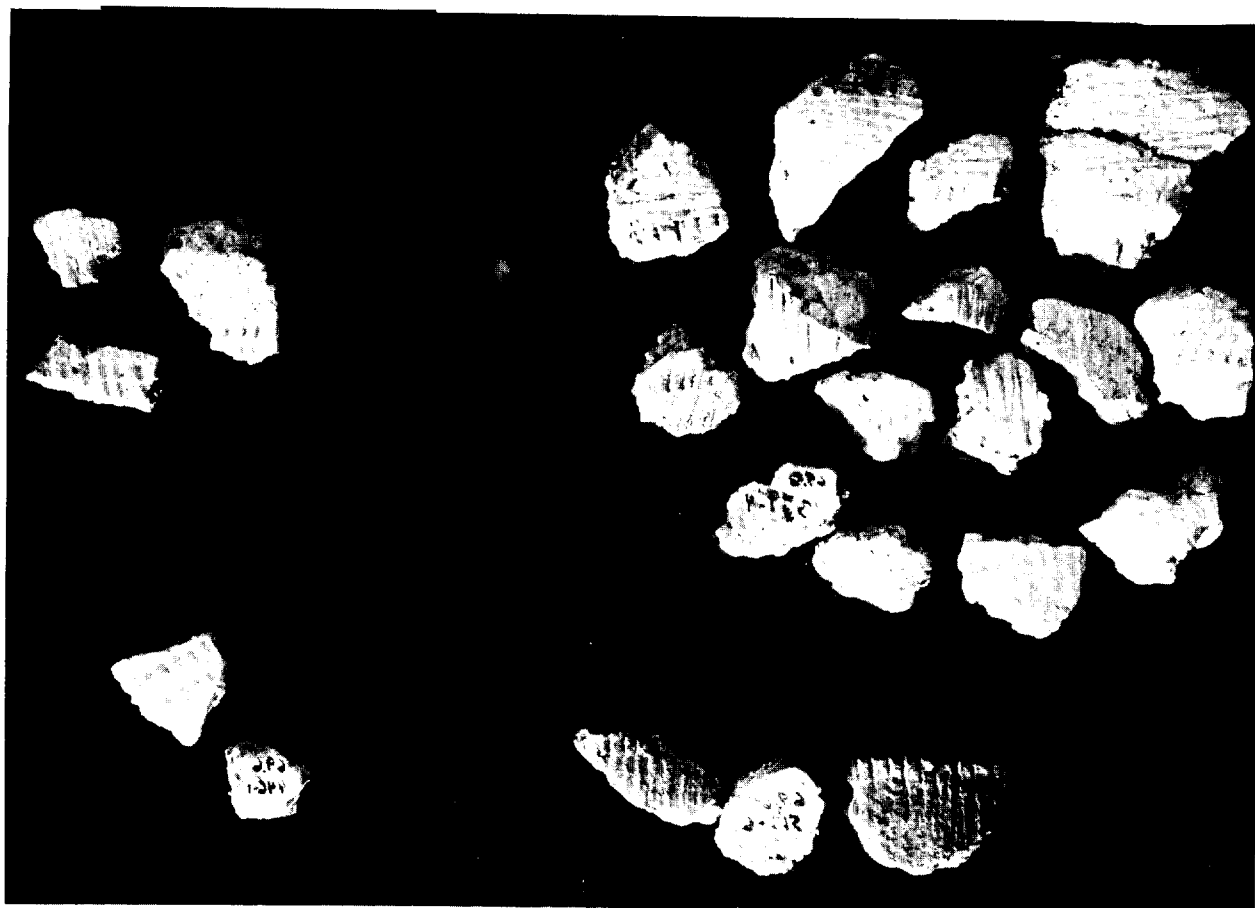


Figure 11 above. More CP-2 vessel lots from the 1971 Museum excavations. Vessel lot numbers are as follows: 16, upper left; 17, upper right; 18, lower left; 19, lower right.

Figure 12 left. More CP-2 vessel lots from the 1971 Museum excavations. Vessel lot 20 at left, vessel lot 24 at right.



Figure 13. Examples of CP-3 vessel lots from 1971 Museum excavations. Vessel lot 10 at upper left, 14 at upper right, 15 bottom.

length of T2 and westward an additional 24 feet to the testpit excavated in 1969 (within 1m of N29 W247). CP 3 vessel lots (Figures 13, 14) were missing only from the most easterly 5 meters of the T2 trench (east of W225 N28.5 in the 1971 sample). Cord wrapped stick impressed or any other decorative or manufacturing trait suggesting a Ceramic Period 4 or later date were not present in the MSM sample.

A typed one page summary of the stratigraphy of Test Trench #1 (Figure 15) provided some observations which are relevant to our understanding of the landform development at the Evergreens. At 20 foot intervals along the trench (N 241), the MSM took soil auger borings to 6 feet below sur-

face. These borings revealed what from our present perspective appears to be the profile of a buried flood channel. This channel was ca. 5 meters across by ca. 1.5m deep. The MSM found fine sandy alluvial deposits to 106cm (MSM 42") overlying coarse sand and gravelly clay between N46.75 (MSM 0+00) and N36.4 (MSM 0+34). From the latter point to N34.6 (MSM 0+40) the coarse sand/gravelly clay drops to 244cm below surface before rising to 122cm at N31.5 (0+50) and continuing at that level to N22.75 (MSM 0+80). From N31.5 (MSM 0+50) to N16.5 (MSM 1+00) the MSM found a marked increase in the number of cobbles and boulders encountered. From the latter point to the shore at N1 (MSM 1+50), the

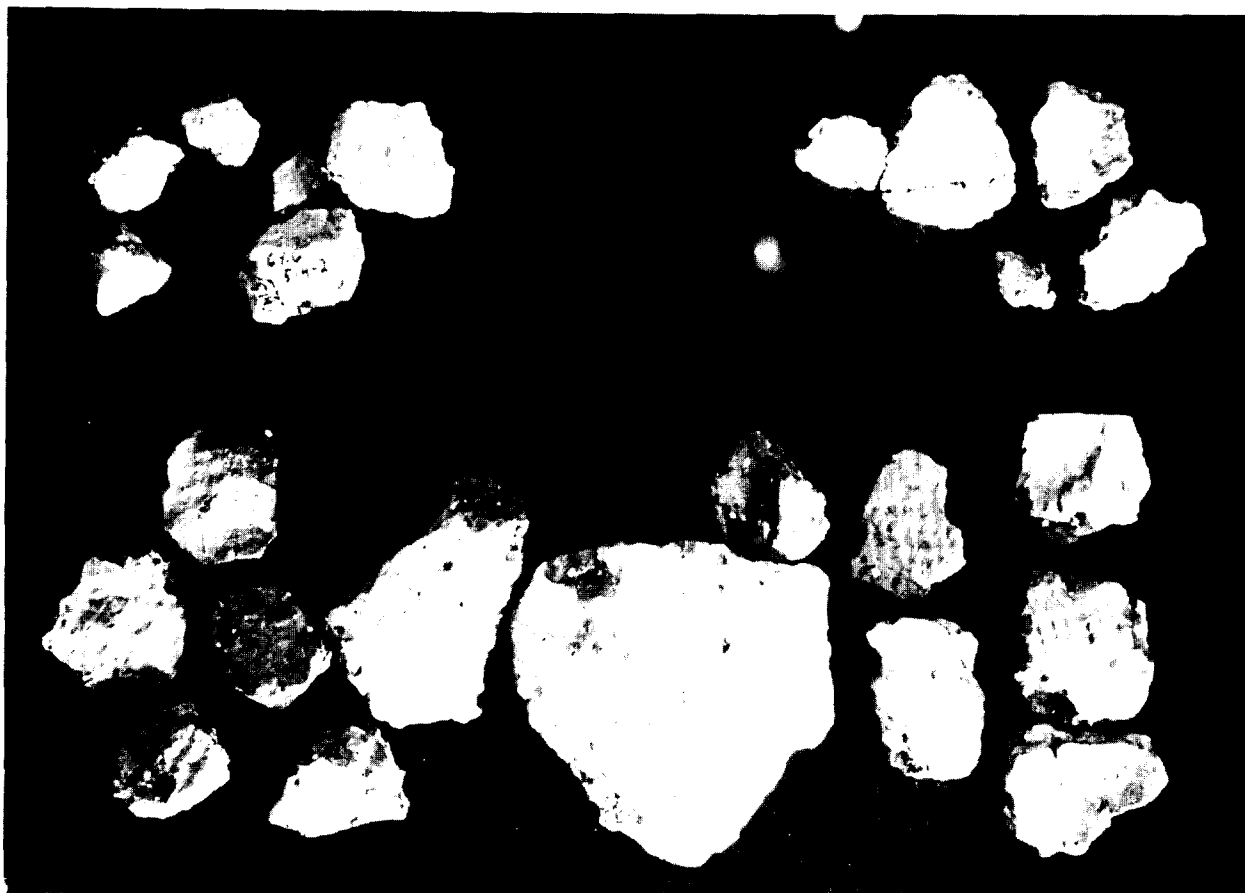


Figure 14. More CP-3 vessel lots from the 1971 Maine State Museum excavations. Vessel lot 21 upper left, vessel lot 22 upper right, vessel lot 23 bottom.

clay basal matrix disappeared from the borings with basal deposits distinguished only by yellow-brown sand with "many cobbles and boulders."

In August 1981 Spiess spent two days at The Evergreens to obtain information for a nomination to the National Register of Historic Places. He verified the alluvial stratigraphy to a depth of about 1.5 m and attempted to establish inland site limits with a series of 50x50 cm shovel testpits ($n=4$) and one 1x1 meter square testpit. Spiess was unable to relocate the (wooden?) datum stakes left by the previous excavators 10 years before. William Perry had reported (personal communication to Spiess August 19, 1981) that excavation of a post-hole for a fence along the road north of "The Cedars" cabin had encountered "an arrowhead, a knife, a celt," plus fire-cracked rock and charcoal. Spiess's 1x1 m test square was located 10 m north-

west of the northwest corner of "The Firs" cabin in the vicinity of the fence. We now know it was within a few meters of the 1969 Trench #1. Spiess' 1x1 m square revealed a 28 cm deep plowzone, with cultural material continuing to at least a depth of 50 cm. The plowzone yielded approximately 2 kg of fire-cracked rock, 15 pieces of felsite debitage and an oblong hammerstone. Immediately under the plowzone he encountered an oxidized (red) soil stain associated with charcoal flecks, in situ oxidized fire-cracked rock, and 4 more felsite flakes. Apparently, features were common on the site at least as far inland as the access road behind the cabins, along which the fence runs.

The following year (1982) at the request of the Perrys, Spiess directed a small salvage excavation (26 m²) in the foundation area planned for a garage

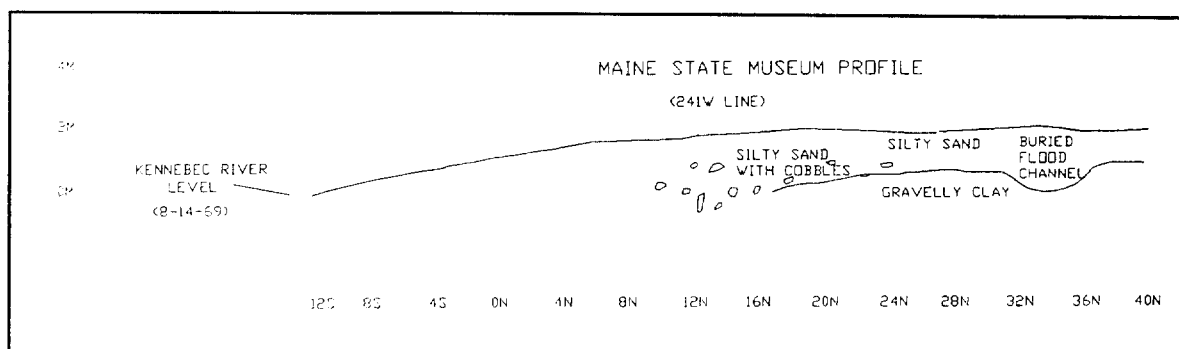


Figure 15. Maine State Museum 1969 topographic profile along W241 line, from Kennebec River thence 50 meters north, with subsurface features projected from field notes.

they were about to build next to their house. This work is described in detail elsewhere (Spiess et al 1983) but is summarized below. On the 1983 grid, the 1982 excavations beneath the present garage were located in a L-shaped pattern running from ca N29 W145 on the SE corner to N30 W151 on the SW corner and north to ca N37 W150 on the NW. Four features were uncovered within the 26 square meters excavated, including a small fire-hearth (Feature 2), and two possible postholes with rock support fill (Features 1 and 4).

Feature 3 was much larger, a complex of at least two episodes of feature construction (Figure 16). We paraphrase that 1983 report (ibid: 21-22). Feature 3:Upper is a shallower, fire-cracked rock and charcoal basin of smaller size, built into the eastern end of the previously used, much larger fire-pit of Feature 3:Lower. Upper was clearly separated from the black rocky fill of Feature 3:Lower by a 4 cm thick lens of sterile, orange-tan silt. This silt must have been kicked or washed into the existing basin of Feature:Lower subsequent to its construction and before construction of Feature 3:Upper.

The 20 cm plowzone disturbed a few centimeters of the upper-most Feature 3 fill, scattering a small proportion of the total fire-cracked rock into adjacent squares. Feature 3:Upper was almost straight sided, extending from the plowzone base another 17-19 cm down to an almost flat bottom over a North-South width of about 55 cm. Feature 3:Lower was built in a sloping-sided basin about 90 cm wide. Along its longest axis (grid NE-SW) it was 2 m long. Its deepest point was 60 cm below modern surface. The fill of Feature 3:Upper consisted essentially of a pavement of solidly

packed, cracked and reddened river cobbles (FCR). Lump charcoal was scattered among the baseball-sized cobbles. Several pseudo-scallop-shell ceramic sherds, the only lithic, ceramic or bone material from the feature fill, were recovered among the rock fill in charcoal about 10 cm below the base of the plowzone and subsequently in 1991 processing of further feature fill samples.

Feature 3:Lower must have required considerable labor to fill. The fill consisted of a thick layer of football-sized cobbles and bedrock slabs, more closely packed and not as commonly fire-cracked as Feature 3:Upper, with little charcoal between the rocks. However, a black charcoal-rich level, continuous across the base of the feature was encountered underneath most of the rock fill. For whatever reason, rocks had been added to the pit after construction of the fire, perhaps after it had burned to coals.

Rocks and cobbles picked by hand from the Feature 3 fill were weighed in the field on a Hanson 25 lb kitchen scale, accurate to one ounce. A total of 514 fragments weighing 454 1/2 lbs (247 kg) were recorded from Feature 3:Lower.

Approximately 130 quarts of fill were removed from these features independently of removal of larger pieces of rock. This fill was water screened on 6.3 mm or on 1 mm screening in the river. Approximately 10 quarts of lump charcoal was recovered from the screening operation, the rest of the fill being fine silt and small fragments of cracked rock.

A sample of lump charcoal from Feature 3:Lower (remaining after receipt of the first radiocarbon date) was identified as a mixture of *Betula* (birch) and *Quercus alba* (white oak) (M. Pinello,



Figure 16. Feature 3 as partially excavated in 1982. Feature 3:Upper completely excavated at left, with light brown dirt separating Feature 3:Upper from Feature 3:Lower. At right is Feature 3:Lower basin with some of large cobbles still in situ.

personal communication, May 5, 1984). Subsequent (1991) re-analysis of a large sample by Nancy Asch Sidell identified birch, beech, ash, and red oak, not white oak (Table 2). Feature 3:Lower must have had some special function other than a domestic hearth because of 1) its large size and construction with rock placed on top of a bed of coals, 2) lack of calcined bone or other evidence of "domestic" function, and 3) choice of only dense hardwood to create the bed of coals. Feature 3:Upper was a smaller feature. Feature 3:Upper and/or Feature 3:Lower may have been at least partially involved in the manufacture of ceramic vessels since approximately 20 scraps of partially fired, unformed clay were recovered from within 50 cm of the eastern end of Feature 3. No such scraps

were recovered from the fill of either Feature 3:Upper or Lower, although Feature 3:Upper contained several sherds of a pseudo-scallop shell-impressed ceramic vessel (CP-2, Petersen and Sanger 1989). Four broken bifaces, cores, hammerstones, an anvil, and two utilized flakes of Pennsylvania Jasper indicated that the area also served as a work station in the manufacture of stone tools and perhaps working of wood or bone. Projectile points, whole or broken, were not found.

A sample of lump charcoal from Feature 3:Upper originally provided a date of 2360 ± 60 B.P. (Beta 5152), but lump charcoal from underneath the pavement of Feature 3:Lower returned a date of 1730 ± 60 (Beta 5153). Since the upper feature could not date 600 years earlier than the lower

feature, we asked Beta Analytic to review their records. They reported no anomalies in the radiocarbon dating process, and we could not find any microscopic or macroscopic contaminants (e.g., partially burned tree roots) in the remaining sample. Subsequently, remaining charcoal from the Feature 3:Lower sample has returned a date compatible with the older date: 2400 ± 70 (Beta 40710, November 1990). Feature 3:Upper charcoal has returned a second date of 2330 ± 50 (Beta 43439). Thus, we are now convinced that Feature 3:Upper and Lower were sequentially constructed within a few days to years of each other, circa 2360 B.P. That date applies to the manufacture of ceramics on the site and the discard of at least one broken vessel, a pseudo-scallop shell-impressed (CP-2) ceramic.

Since the 1982 work was not mandated by law, and since it was at the pleasure of the landowners, we were under extreme time and budget constraints in the 1982 salvage work. Nor did we understand the deeply stratified nature of the site, since none of the testpits to date had extended below 2-3 feet (50-60 cm). Our excavation strategy in 1982 was to clear the plowzone, screening it for artifacts, then clean the subplowzone interface in a search for features. We excavated deeply only to explore and recover feature contents.

William Perry reported to Spiess (personal communication August 20, 1982) that other buried features were encountered by the backhoe during cellar construction. Three more "fireplaces" had been found, associated with a total of about half as much fire-cracked rock as we had recovered from Feature 3. One "fireplace" was deeper by at least a foot than our feature, under the area we had designated N0W8-9 in our 1982 grid system (N30 W156 on the 1983 grid). The two other features were shallowly buried slightly north of where our excavation had stopped. Associated cultural material spotted by the Perry's during the foundation excavation consisted of a "few chips", no pottery and no bifaces. Thus, we had to acknowledge that the site might be deeply stratified. Accordingly, in August of 1983, another largely volunteer crew was organized. We shall present the results of the 1983 excavation in a subsequent article.

Table 4. Plant Remains from Feature 3, upper and lower. Identifications by Nancy Asch Sidell. "P" stands for present but unquantified.

Feature 3	Upper	Lower
Sample weight (g)		
>2 mm	100.4	284.6
0.5-2 mm	.8	3.1
Total	101.2	287.7
No. frags. >2 mm		
Wood	3315	8694
Bark	117	34
Twig	26	71
Fungi	-	3
Unknown	13	P
Total	3471	8802
Wood Identifications		
<i>Betula</i> spp., birch	23	30
<i>Fagus grandifolia</i> , beech	17	11
<i>Fraxinus</i> sp., ash	-	2
<i>Quercus</i> , red oak gr.	10	7
Total	50	50

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FORT HALIFAX ARCHAEOLOGICAL EXCAVATIONS 1991

Leon Cranmer

INTRODUCTION

Archaeological investigations have been conducted annually at the site of Fort Halifax (ME486-01) in Winslow, Maine, since 1987. The 1990 field season was to be a definitive season after which a comprehensive report/book would be written. However, the 1990 field season produced unexpected results which required further investigation. That field work was conducted in the fall of 1991. This is an interim report of that 1991 field season at Fort Halifax. A more comprehensive report/book will follow if funding becomes available.

A portion of the 1990 field season was devoted to locating and identifying what evidence remains of the northeast blockhouse of the fort. A 5' X 12.5' test unit designed to bisect the western sill of that blockhouse was excavated. To our surprise, we found a fieldstone wall lying at a 45° angle to the orientation of the fort (see Cranmer 1991: 20-23). One side of the wall was filled with large rock while on the other side was a cellar hole with a buried wooden structure in the floor of the cellar, which we did not excavate in 1990. It was hypothesized that this wall and cellar were part of the remains of the center blockhouse of General Winslow's first fort built in 1754 (hereafter called Halifax I). It was also suggested that the following year, when Captain Lithgow built his redesigned fort (hereafter called Halifax II), he rotated Winslow's blockhouse 45°, thus the odd angled wall. It was felt that another field season was necessary to further explain this unusual evidence.

The 1991 field season at Fort Halifax was made possible by an \$11,000 grant from the Maine Historic Preservation Commission to the Maine

Archaeological Society. The two week field season was conducted from October 21, 1991 through November 4, 1991. The crew of four skilled excavators consisted of Maxine Collins, Kaare Mathiasson, John Cooper, and Jeremy Pencoske. The field supervisor was Leon Cranmer.

GOALS AND METHODOLOGY

The goals for the 1991 field season at Fort Halifax were twofold. Our primary desire was to learn as much about the site of the northeast blockhouse as possible. Specifically, was our hypothesis regarding the odd angled wall correct; why was the outside of the wall filled with rock; and what was the wood lined structure in the cellar floor? Assuming we could answer these questions within the two weeks available, a secondary goal was to excavate one or two test units north of the northeast blockhouse in an effort to find evidence of 17th-century occupation. Over the years, as the excavations progressed north across the site, more evidence of 17th-century occupation appeared. So, we believed that testing still farther north might produce some substantial 17th-century evidence.

In order to fully investigate the site of the northeast blockhouse, an areal excavation was required. Rather than opening individual, scattered test units, a large area was opened to provide a larger "window" with which to interpret the activities which had taken place in this area. However, within this large area excavations were done within individual 5' X 5' test units in order to maintain tight provenience control. This area was laid out along previously established grid lines. All measurements were made in feet and tenths of feet. Before excavations were begun, elevation measure-

ments were taken of datum points on the ground surface using a transit. All dirt was screened either through $\frac{1}{4}$ " mesh screening, or in many cases, through $\frac{1}{8}$ " mesh screening. Both black and white print and color slide photographs were taken throughout the period of excavation. All artifacts were returned to the Maine Historic Preservation Commission archaeological laboratory for cleaning, cataloging, analysis, and temporary storage.

FIELDWORK PROCEDURES

Work began on October 21, 1991 by laying out a large 20' X 25' rectangle covering the area N60-85 E115-135. This work area comprised twenty 5' X 5' individual test units. After this area had been laid out, the City of Winslow backhoe arrived and opened this rectangle by carefully removing the top 24" of parking lot fill. The crew then spent the rest of the day leveling the floor of the work area, straightening the walls, and re-opening the 12.5' X 5' test unit excavated in 1990. The following day crew members began work on individual 5' X 5' test units within the larger 20' X 25' work area. Work thus continued by opening additional 5' x 5' test units with the result that 14 $\frac{1}{2}$ contiguous test units were excavated. As the excavations became deeper, crew members teamed-up on test units to facilitate the removal and screening of soil.

Test units to the north of the main excavation were not opened because of a lack of time. But, as will be seen, our secondary goal of identifying a 17th-century occupation site was achieved.

RESULTS

The 1991 field season at Fort Halifax resulted in the identification of several new features relating to the fort as well as a 17th-century feature. (Refer to Figure 1 for the following discussion.) The feature we had been wondering about all that previous winter was the wood lined structure in the floor of the blockhouse cellar, designated Feature 81. The most plausible identification suggested for this feature was a wood-lined powder magazine, but the completed excavation of this feature proved it to be much smaller than anticipated. Feature 81 was a

wood-lined box measuring approximately 3' X 5' and 2' deep. The sides were wood with the remains of square wooden braces in each inside corner, but there was no evidence of a wooden floor.

The upper portion of feature 81 fill contained large rock, complete brick, and an axe head with a portion of the wooden handle remaining in the socket. The feature fill also contained 7 gunflints, 75 lead shot of varying sizes, a canister shot, 20 stoneware sherds, 1 piece of redware, nails, window glass, and hundreds of pieces of fresh and calcined bone, especially fish bone.

At present there is no adequate explanation for this feature. The box is aligned with the Halifax I wall, and therefore can be assumed associated with Winslow's center blockhouse. One suggestion is that Feature 81 is the remains of a privy designed to be used if the fort was ever under siege and the defenders were forced to retreat into the inner defenses. This is not a totally acceptable hypothesis, but the best we have to date.

Further excavations of the wall representing Halifax I proved disappointing. As it turned out, most of the surviving wall of Halifax I had been exposed in 1990 (although additional wall may remain intact in the unexcavated portion of this area). The Halifax I wall was 11 feet long with the northeast end gradually being lost in the rock rubble fill "behind" the wall. The southwest end of the wall ended at a wall and bulkhead of Halifax II.

As previously mentioned, an area behind (the northwest side of) the Halifax I wall had been dug-out, forming a 45°, 45°, 90° triangular hole, almost as deep as the cellar floor, and then back-filled with large rocks. The 90° angle of this triangular depression was apparently the location of the northwest corner of the Halifax II blockhouse. The west wall of the Halifax II blockhouse is represented by a line of flat rock laid on top of the rock rubble, the bottom step of the previously mentioned bulkhead, and another wall which continues from the southern side of the bulkhead to the southern end of our excavation at the N60 grid line (Figure 2).

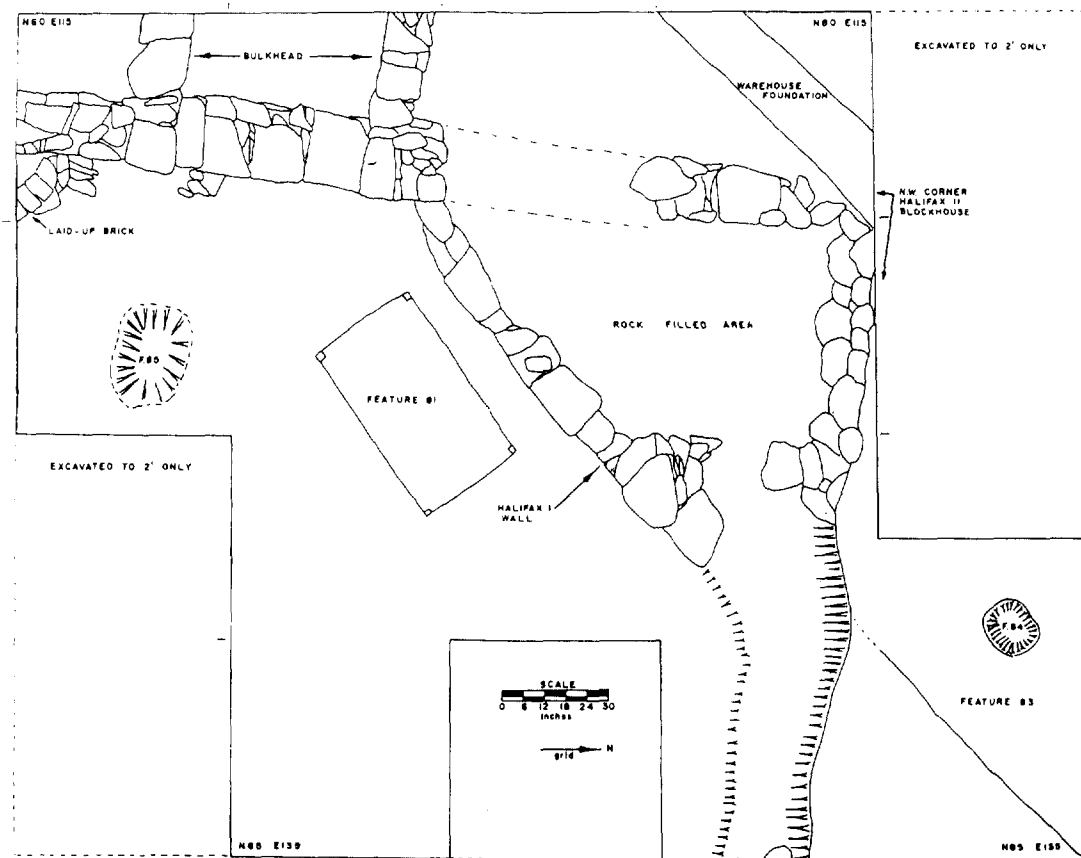


Figure 1. Plan of the 1991 fieldwork at Fort Halifax (ME 486-01).

The bulkhead consisted of two parallel rock walls perpendicular to, and outside of, the suggested west wall of the Halifax II blockhouse. The inside distance between the two bulkhead walls was 4.5'. Several large flat rocks in-line with the suggested Halifax II west wall probably was the bottom step of the bulkhead. The remainder of the bulkhead consisted of either wooden steps or a ramp as suggested by the gently curving wall of undisturbed subsoil between the two bulkhead walls.

In the corner formed by the intersection of the south wall of our excavation and the west wall of Halifax II were found six whole bricks which appeared to have been laid-up in a gradual curve (as seen in Figure 1). These bricks were not on the cellar floor but resting on fill. One possibility is that they are the remains of a brick hearth for the

abutting, northern most, enlisted men's barracks. This explanation is not totally satisfactory and it even may be that the brick does not represent a structural feature at all.

Feature 85, located on the cellar floor N60 E120, proved to be a basin shaped, oval depression measuring approximately 2.25' X 1.75', and 6" deep. The feature fill contained nails, brick fragments, fresh and calcined bone, a shoe buckle fragment, a shard of window glass, and a pipestem fragment. The purpose of this feature is unknown at present.

Outside the cellar hole in N75 E115, a portion of a cement foundation wall was found. This is the remains of part of the foundation of a 20th-century warehouse located in this area. Part of the warehouse cellar was located during the 1990 field season, but this portion of the warehouse apparently



Figure 2. Photo showing remains of western wall of Halifax II. Bulkhead is in upper left quadrant, and wall of Halifax I is barely visible in upper right corner. Lower right corner is location of laid-up brick.

had no cellar and may have been a loading platform.

Also outside the cellar in N80 E130, Feature 83 appeared as a diagonal northeast/southwest line

across the test unit. On the southeast side of the line was dark gray, almost sterile sand. The soil to the northwest of the line, designated as the feature, was dark, almost greasy black sand containing



Figure 3. Gunflints recovered at Fort Halifax from 1987 to 1991.

charcoal, calcined bone, and 17th-century artifacts. Seventeenth-century artifacts had also been found in the cellar hole adjacent to Feature 83, as though these artifacts had been pushed into the cellar from the top of Feature 83.

Feature 83 was not totally excavated because of a lack of time, and we did not want to rush the excavation of it. To the extent the feature was excavated, it appeared to be convex or bowl shaped. As the square was taken down, the diagonal line moved to the northwest. This simple may be a large bowl or basin shaped feature, or it could be the edge of a deeper depression, such as a cellar hole. The diagonal line of the feature appears to line up with the wall of Halifax I, but the shape of the depression of Feature 83 would suggest that the

wall and feature are not related. The artifacts contained in Feature 83, being all 17th century in origin would also suggest that this alignment was a coincidence.

Feature 84 was located within Feature 83 but the two are not related. Feature 84 is a post hole containing some remnants of wood. The shape and size of the post hole would suggest this feature had been for a utility pole.

ARTIFACTS

Over 14,445 artifacts were recovered during the 1991 field season at Fort Halifax. Almost 44% of this figure was bones. All the artifacts, including the bones, from this field season have yet to be thoroughly analyzed. This will be done when the

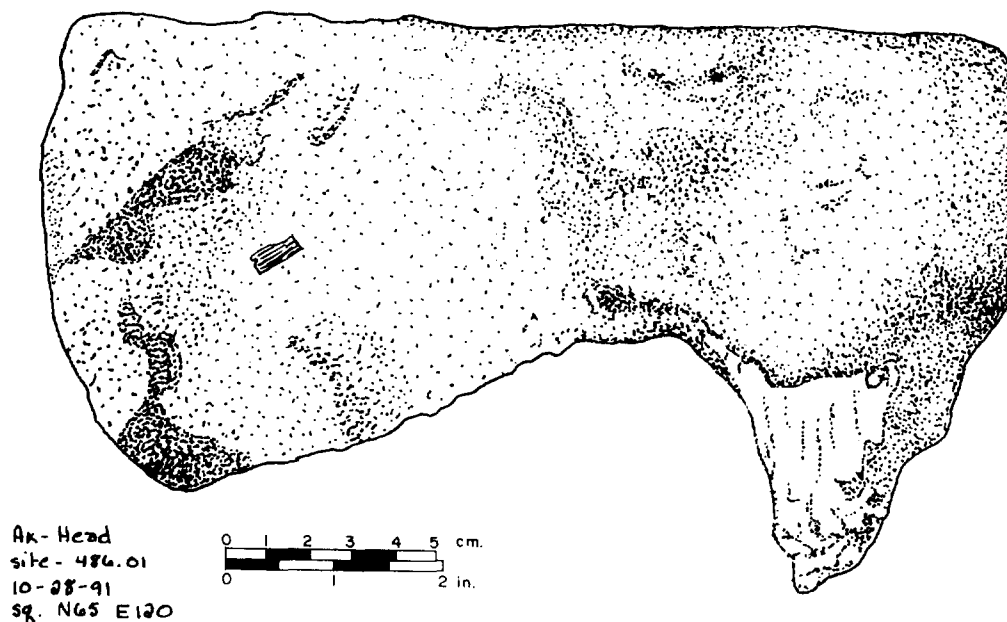


Figure 4. Axe head found near top of Feature 81 (Drawn by Carrie Swan).

artifacts from all five field seasons at Fort Halifax are combined, and a comprehensive analysis undertaken. However, there are some artifacts from the 1991 assemblage which stand out and can be mentioned here.

Far more artifacts related to the military presence at the fort were found during the 1991 excavation than in all previous excavations combined. Figure 3 shows 25 complete gunflints found throughout the site; about 80% of these were found in 1991. 211 pieces of lead shot were found during this field season which also represents a large portion of the total shot found. There were three cast iron canister shot found in 1991 as well, and none had been found previously. It seems reasonable that many of these artifacts might have come from the first year of occupation when this cellar had been part of the central structure of Winslow's fort, and would probably have been used as the main storehouse for the fort. When Lithgow built his fort with a 40' X 80' Fort House which included space for a storehouse, the supplies would have been moved there.

Why 1/3 of the above mentioned military related artifacts were found in the 3' X 5' wood lined box (Feature 81) is still a mystery, just as is the purpose of this feature. It may be that once the box was no longer needed for its original purpose, it was used as a handy trash pit. The presence of all the bone and the axe with a broken handle (Figure 4) adds support for this hypothesis.

A total of 158 measurable clay tobacco pipestems were recovered from the site in 1991. This assemblage was different than that from previous years in that the resulting pipestem bore diameter distribution had a very definite bi-modal pattern (Figure 5). What this means is that the pipestem assemblage represents two distinct periods of occupation. Occupation of the site from the fort period onward is represented by the $4/64$ " and $5/64$ " diameter pipestems. This is the first year, however, that a significant number of $7/64$ " and $8/64$ " pipestems representing the 17th century were found. In addition to these white clay pipestems from the 17th century, one red clay pipestem and one red clay pipebowl fragment was found, representing the last

half of the 17th century.

The 1991 field season also resulted in the discovery of several other 17th-century artifacts. Figure 6 illustrates two copper points and 11 trade beads. Although many of the trade beads could be 18th-century in origin, they were associated with 17th-century artifacts and Feature 83, a 17th-century feature, and surrounding area.

Feature 83 was identified as a 17th-century feature not only by the pipestems discussed above, but also by the ceramics which came from the feature and surrounding area. These ceramics consist of one sherd of North Devon gravel tempered ware, one sherd of Iberian olive jar, and several sherds of a

Bartmann (also known as graybeard or Bellarmine) stoneware jug. Although all of these ceramics were manufactured into the 18th century, the Bartmann is definitely of 17th-century origin, based on the quality of shards containing fragments of a medallion which would have been on the belly of the jug. Also, the North Devon gravel tempered ware is most commonly found on mid 17th-century American sites, and the Iberian olive jar is not recovered from sites dating later than the first half of the 18th century.

CONCLUSION

The 1991 field season at Fort Halifax was surprisingly fruitful and rewarding, considering we did not really achieve our main goal of verifying the construction sequence of Halifax I & II. The theory still holds that Winslow may have constructed his center blockhouse at a 45° angle to the position shown on his plan, and Lithgow rotated it back 45°. One problem arises with this hypothesis in regard to the rock-filled triangular depression on the northwest side of the Halifax I wall; why is it there? The only explanation readily apparent at this

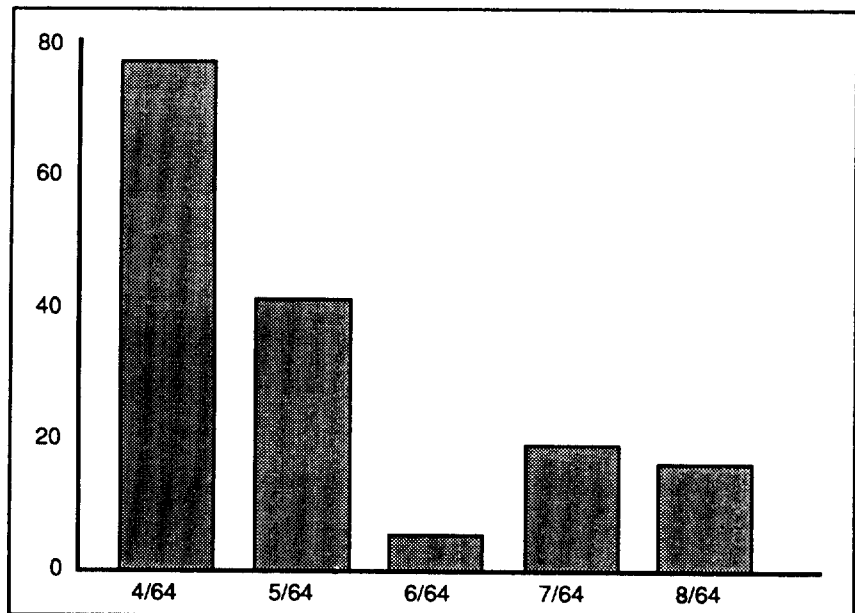


Figure 5. Distribution of measurable pipestem bore diameters from 1991 field season at Fort Halifax. Note bi-modal distribution suggesting two periods of occupation.

time is that Winslow began construction of his fort as planned, including digging the blockhouse cellar. But for some reason he later decided to turn the blockhouse 45°. This required building the Halifax I wall and it left a triangular hole outside this wall to fill. Lithgow then turned the blockhouse back to its original position. (Figure 7 illustrates a possible sequence for these events.) The eastern section of this northeast blockhouse is still unexcavated, so there may be more evidence yet to be found that will help identify these sequences of events.

The discovery of a 17th-century feature and a relatively large assemblage of 17th-century artifacts was an added bonus to the 1991 field season. The feature and artifacts are ambiguous, however, in that they could represent the Clarke and Lake trading post supposedly taken over by the Indians in 1676, or they could be part of a fortified Indian village. The only way to determine what was on this site is to do further field work which would look for 17th-century features, beginning with the completion of Feature 83 and working north from there.

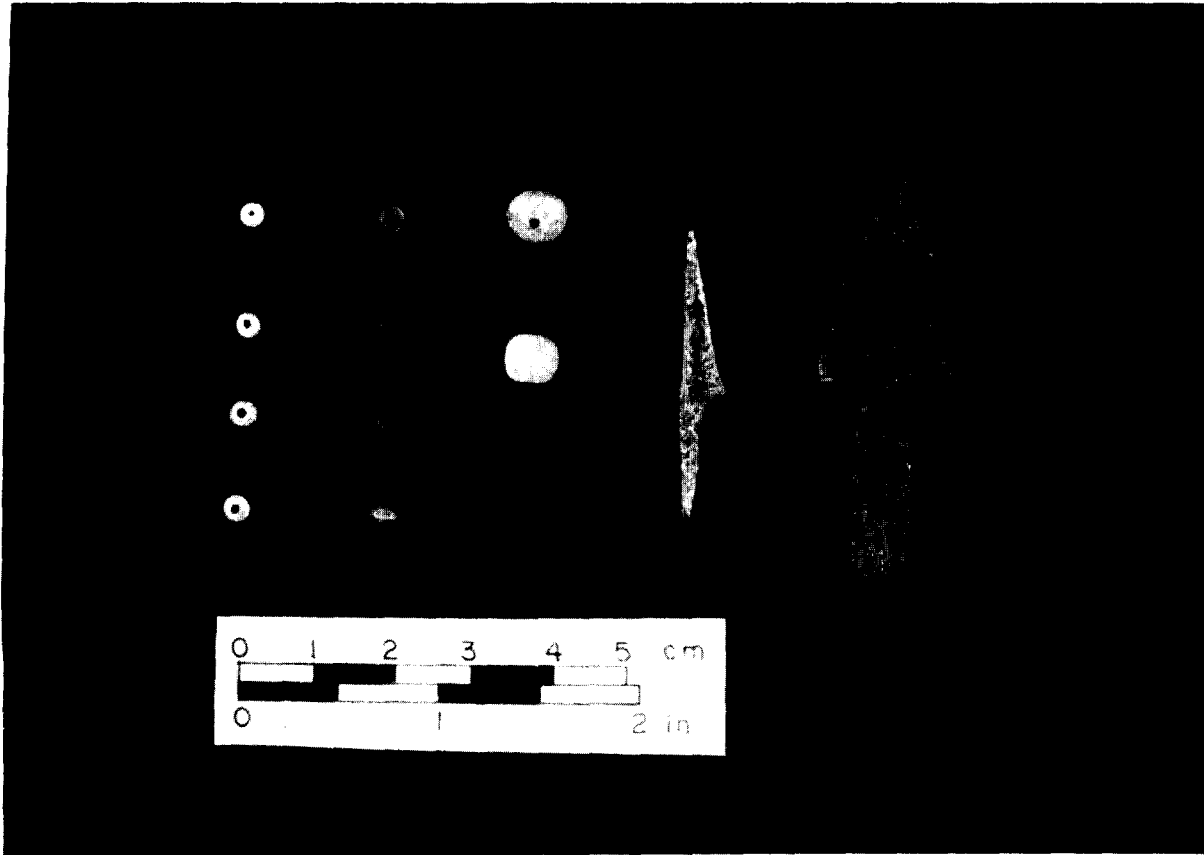


Figure 6. 17th-century trade beads and two copper points from the 1991 Fort Halifax excavation.

A final benefit derived from the 1991 field season at Fort Halifax was the number of students who were affected, to an unknown degree, by this excavation. On October 30, 1991, the entire 3rd and 4th grades of Winslow visited the site in groups of about 40 students. They were all given a talk by Cranmer and shown some of the artifacts from the site, and then given the opportunity to work with the crew in helping them sift soils. The stu-

dents and teachers all seemed to have a great time and hopefully developed some appreciation for archaeology and this historic site within their town. Also, a Freeport High School senior, Carrie Swan, took on the subject of Fort Halifax for an archaeology class project. Carrie produced a 30 page report including the excellent drawing shown in Figure 4 of this report.

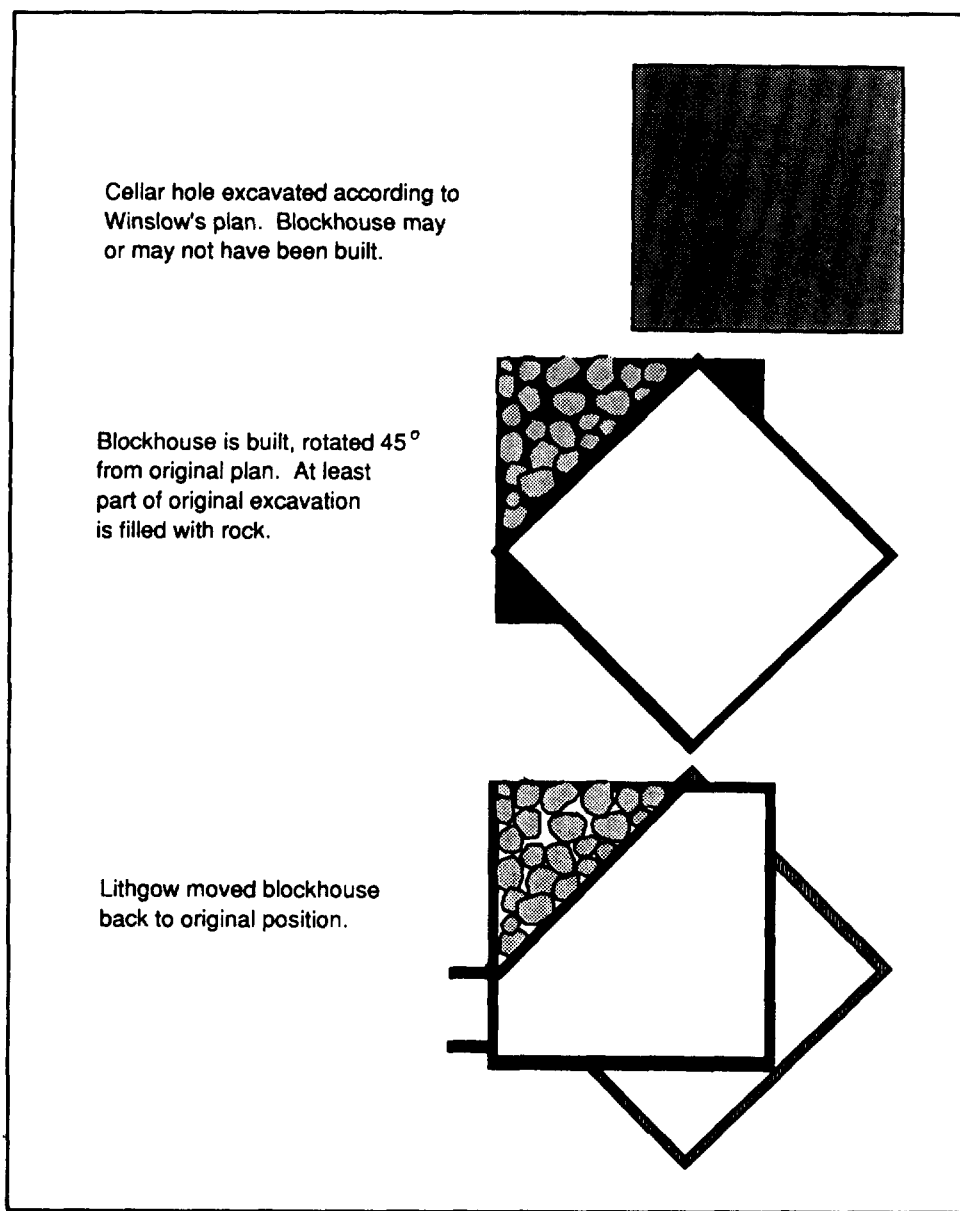


Figure 7. Possible sequence for construction of NE blockhouse.

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THE CARR SITE (41.66): A MIDDLE CERAMIC PERIOD SITE IN NORTHPORT, MAINE

Harbour Mitchell III

INTRODUCTION

The Carr Site (41.66), located in Ducktrap Harbor, Northport, Maine and owned by Jane and Allen Carr, is a single component, prehistoric site occupied during the early to middle Middle Ceramic period between c.2150 and 1350 before present (B.P.). It faces consistent loss due to erosion along the southern ocean face as well as significant and irreparable loss from the Carr's long term plans regarding an existing structure there.

Although separated from the Harmon Site (41.66) by a small stream and associated meander "valley", the Carr site is considered part of 41.66. Geographically, the site consists of a small, elevated finger of land, 0-3m above m.h.w., 40m ± long, 20m ± wide, lying at the back of a large cove in Ducktrap Harbor (Fig.1).

It is defined by a low lying stream/weepage along the northern margin; a more stable, semi-annual stream and its meander "valley" along the east-northeast margin; and the Ducktrap Harbor along the southern margin.

Representations of cultural involvement include: gravel lenses; intermittent shell concentrations; well defined concentrations of debitage; calcined and uncalcined bone; diagnostic ceramics; and episodes of general refuse dumping.

This effort's immediate goal was the salvaging of a representative sample of the cultural remains present. Three rationales directed this goal:

- (1) All cultural remains present are in danger and a representative sample is needed to define the temporal and spatial limits of the site;

- (2) If no future work can be undertaken at the site, at least one representative sample will exist; and

- (3) In order to develop a comparative base with which to understand the subsistence economies represented within Ducktrap Harbor, there is a significant need to recover a faunal sample from the small portion of shell midden remaining at the Carr Site before it completely erodes away.

STRATIGRAPHY

Natural Stratigraphy

The soil structure in the Carr site is comprised primarily of a basal layer of compact, clayey silt with little over lying soil. The overlying soil that does exist is interpreted as having developed post glacially through natural processes. This A Horizon is generally dark to medium brown and extends to 25cm+ Below Surface (B.S.). From 14 to 20-25cm B.S. it contains cultural inclusions such as: shell deposits; gravel lenses of varying thickness; soil; gravel; faunal remains; shell; charcoal; and other non-organic inclusions. Immediately following is a tan to yellow tan, compact silty, claylike matrix with little, if any, gravel.

The soil structure, then, consists of an A Horizon with a visually indeterminable, developmental sub-stratum which can be plotted using cultural inclusions within the matrix, eg., debitage (Fig.2). Cultural inclusions are interpreted as having "settled out" to approximately 14 to 25cm B.S. due to a natural process (bioturbation) and concentrated in a natural soil sub-stratum which

would have developed regardless of cultural inclusions.

Cultural Stratigraphy

As with the majority of prehistoric archaeological sites in the Ducktrap Harbor, the Carr Site maintains little of its aboriginally deposited shell component. The site is primarily non-shell; non-stratigraphic deposition representing at least one episode of cultural involvement.

The author interprets the Carr Site as having only one cultural stratigraphic unit that is culturally all inclusive. Generally, a discrete stratum of Native American cultural materials begins at 13-15cm B.S. and continues for approximately 5-10cm. These cultural deposits appear to be shallow with the exception of several units in which culturally amended matrix extends to 25-30cm B.S.

Recent, historic, cultural materials were generally recovered from ground surface to 10-13cm B.S. While this could be construed as reflecting cultural stratigraphy, the present, lying on the surface, or a few centimeters below surface, is not interpreted as a discrete, cultural stratum. In addition, it is worth noting that very recent historic, even those of no appreciable weight such as cigarette filters, were recovered as deeply as 15cm B.S. ±.

Gravel

While virtually all contents of the A Horizon are attributable to human occupation, one might intuitively expect some waterworn gravels, pebbles, and rocks to be randomly distributed within the site given its proximity to the cobble beach. This, however, is not the case.

Gravel in the Carr site is not distributed randomly but is constant across the entire site. In addition, the gravel is sorted such that pea gravel tends to be centrally located on the site while larger pebble gravel is peripheral to it, with lesser amounts present radially away from the site's geographic center.

In all excavation units, gravel formed a lens of material accompanied by cultural materials. However, no stratigraphic separation between the gravel lens and cultural materials was noted and the

gravel is interpreted as being culturally deposited. (The gravel is not known to have been included into the matrix after aboriginal occupation.)

EXCAVATION STRATEGY

The sampling strategy involved the development of a one meter, north by east oriented grid encompassing an area of 468m² (13m x 36m). Within the grid, 25 50 x 50 cm units were excavated in 10cm levels and designated with the north by east grid designation and the appropriate quad number to allow for integration with future efforts. A total of 6.25m² were investigated.

FEATURES

To date, no sub-surface features have been encountered. Even in areas of high concentrations of calcined bone and debitage there is no indication of any significant ground disturbance either topographically or in profile (stratigraphically). The author believes the paucity of features is a result of two factors: 1) the limited amount of excavation; and 2) the probability that such activities are spatially very discrete and easily missed by the sampling strategy.

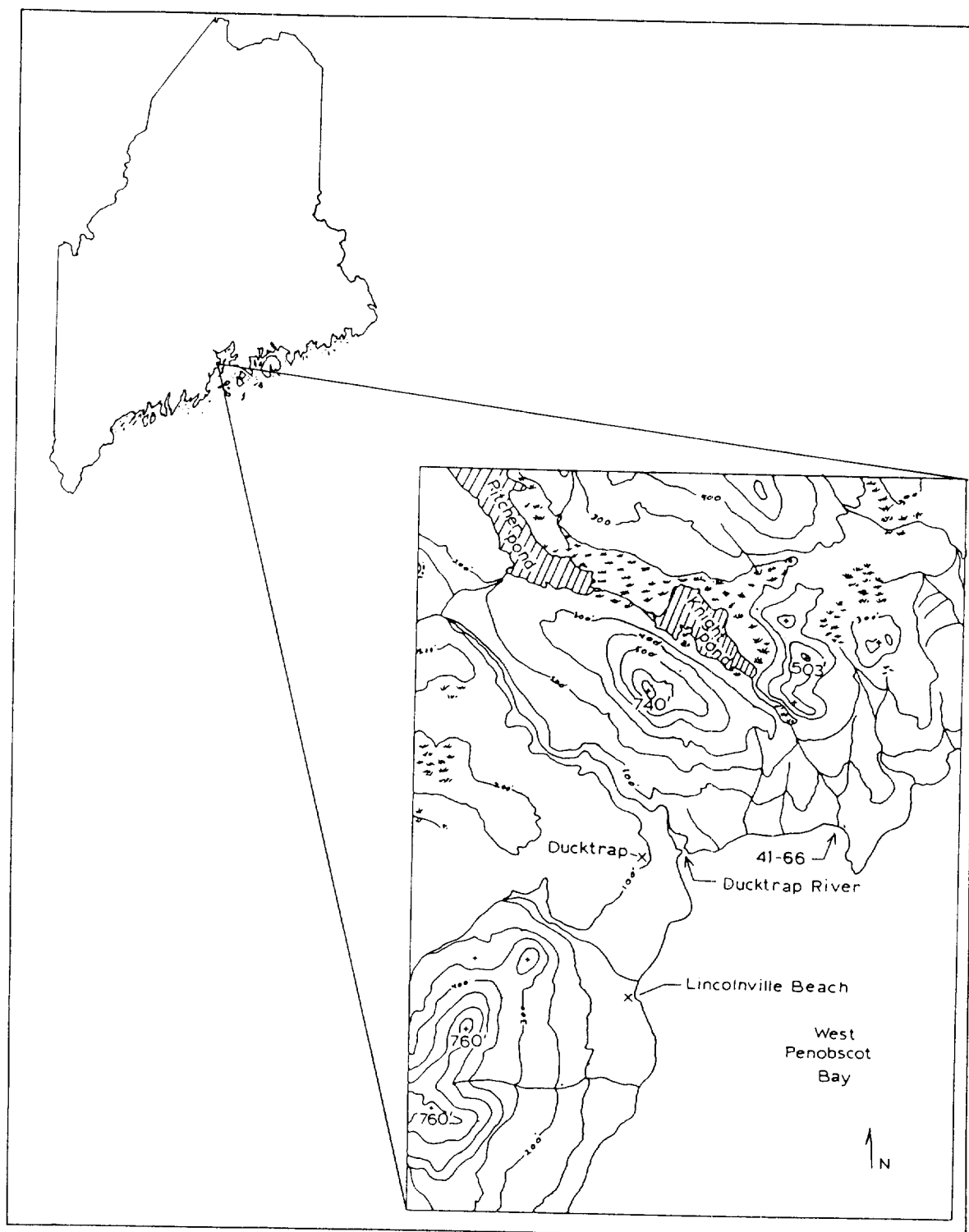
DEBITAGE

Debitage is the largest, inorganic sample of cultural material present, involving all but one excavation unit. Although present across the grid, its distribution is far from even. Four hundred fourteen flakes were recovered from 24, 50 x 50 cm units for an average of 17 flakes per unit.

Mapping of the debitage indicates that two very discrete concentrations of flaking activity exist within the site (Fig.3). That they still exist is probably due to the fact that plowing, which would surely have destroyed any evidence of aboriginal surface activity, does not appear to have occurred.

The largest concentration of debitage, though dispersed over 6m + , is highly suggestive of a lithic "station" or activity area. In addition too, and supporting this interpretation is the presence of one of two lithic sub-assemblages, discussed further in the section entitled **Lithic Sub-assemblages**. A second "high" concentration of debitage is visible

Figure 1. The Carr site (41.66) and its location in Northport, Maine, on Penobscot Bay.



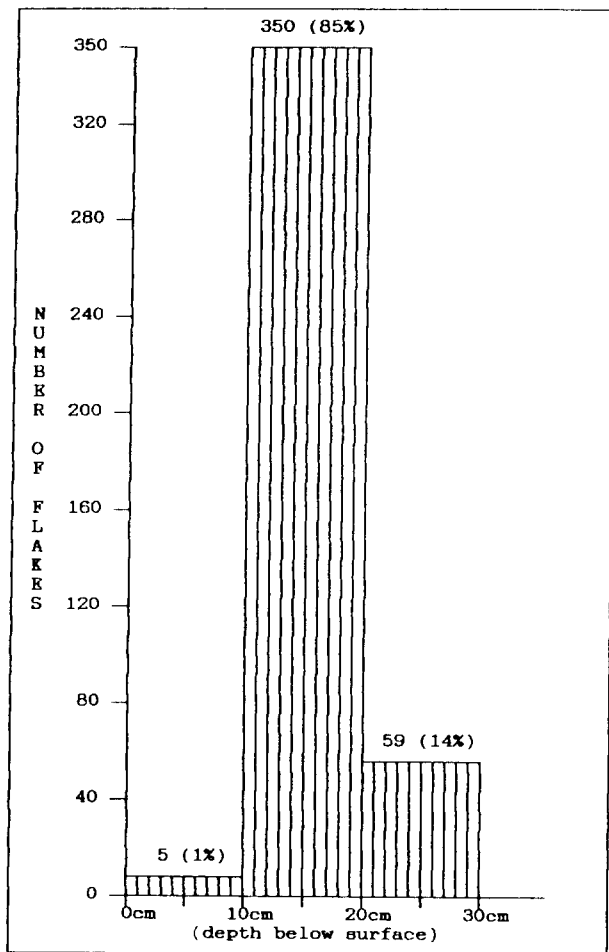


Figure 2. Vertical distribution of debitage at the site.

in units N1E34 Q4 and N1E35 Q3, Q4. Like the previous concentration, this area is also associated with a lithic sub-assembly.

Lithic Materials

Eighty-seven percent of all debitage (n=360) recovered from excavation is felsite (Fig.4). This contrasts sharply with the second most frequent material, quartz, representing only 9% (n=38) of the sample. All other materials account for the remaining 4% of the sample.

Interestingly, only one slate flake was recovered. While it is positively a flake, bearing, in text book fashion, the attributes associated with flaking

technology, it maintains three, obviously ground facets. No other indications of flaked or ground slate were encountered.

Chert is represented by only 4 flakes. Of these, 75% (n=3) came from adjoining units, N1E34 and N1E35; two are deep maroon with quartz veining and one is grey. The fourth, a grey-black chert, was recovered over 30m away in N4E5 Q4.

Attribute Analysis

Of the total debitage sample, 63% of the flakes (n=261) maintain a striking platform. Of these, 7.6% (n=20) are classified as decortication flakes due to the presence of cobble cortex; all are felsite.

Generally, the debitage is small. An analysis of all debitage shows 73% (n=306) have a greatest axial length of less than 2cm and a full 90% (n=371) are shorter than 3cm (Fig.5). The debitage is generally interpreted as representing tool refinement, i.e., thinning, pressure flaking, and/or retouching.

The significance of a felsite tabular core, in association with a large concentration of felsite flakes, is interpreted as indicating some amount of primary lithic production (the site maintains a 10% level of decortication flakes). However, this is not interpreted as reflecting biface production.

Retouched Flakes

Only 2% (n=8) of the debitage shows signs of being utilized or reworked. For this effort, the author uses five categories to define flake modification. They are:

- (1) **retouched**: limited evidence of pressure flaking, either unifacial or bifacial;
- (2) **retouched/hammered**: evidence of edge damage in the form of crushing and step flaking interpreted as a result of hammering;
- (3) **retouched/biface frag.**: flaking similar to "retouched" except the "flake" is fragmentary, bifacial, and is interpreted as a possible biface fragment;
- (4) **retouched/edge prepared**: minute flaking along a portion of the flake's margin. It is

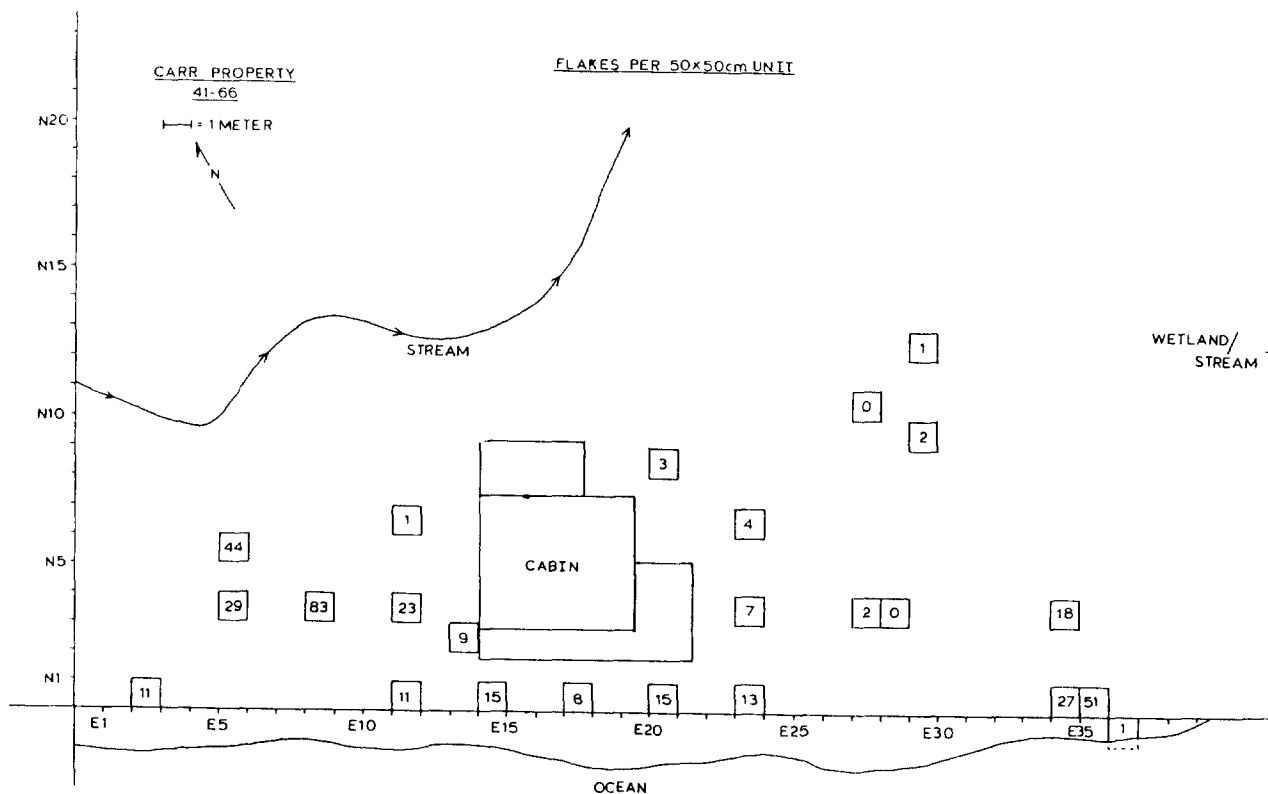


Figure 3. Flake distribution in test excavation units at the Carr site.

interpreted as representing an effort to prepare the margin for striking off additional flakes; and

(5) **retouched/use wear**: minute, unifacial step flaking along one or more edges and is interpreted as being a consequence of use.

Sixty-two percent ($n=5$) of all modified flakes are large decortication flakes exhibiting attributes associated with retouch ($n=1$), hammering ($n=1$), edge preparation ($n=1$) and use wear ($n=2$). This represents 50% ($n=5$) of all large flakes recovered (5-8cm long) and suggests the presence of a separate sub-industry within the site's overall lithic industry.

The only retouched/biface fragment, AJC-153, is an unknown volcanic exhibiting a black mass with pink flow bands. With the exception of AJC-222, a flake of similar material exhibit-

ing a grey mass with pink flow bands, it is the only flake of its kind recovered thus far.

The only slate flake recovered, (AJC-271, discussed in **Lithic Materials**) exhibits retouch interpreted as use wear, i.e., minute step flaking along its margin. The ventral flake surface is slightly concave and the flake would lend itself well to use as a scraper.

LITHIC ARTIFACTS

No diagnostic tools (projectile points) were recovered from the Carr Site; the lithic assemblage is limited to non-diagnostic tools, eg., hammerstones and cores (Fig.6). I suggest that an expectational bias toward projectile point technologies accounts for the perception of a "low" amount of diagnostic lithics. Thus the absence of projectile points may reflect an aspect related to site function rather than a "missing" part of the assemblage.

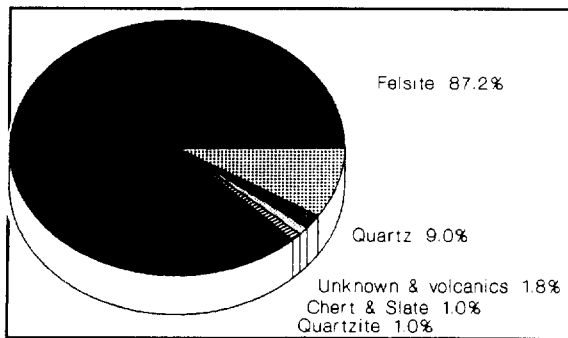


Figure 4. Carr site lithic material type percentages.

Hammerstones

Within the lithic artifact sample, four specimens qualify as hammerstones. Two additional specimens exhibit hammering to some extent. However, they exhibit other attributes which exclude them from this category. The hammerstones' shapes range from sub-rectangular to sub-oval to teardrop.

AJC-290 is a sub-rectangular, flattened, granitic cobble 9.9cm in greatest axial length, 7.5cm in width, and 5cm thick. Light hammering is present at six separate points corresponding with either a prominence on the surface or the intersection of two or more arises.

Similarly, a sub-oval, slightly flattened, hammerstone from N4E34 Q4 exhibits light hammering on several prominent points at the intersection of arises. The hammering on these pieces is qualified as light due to the limited amount of damage resulting from use. However, a third hammerstone, AJC-64, recovered from N4E8 Q2, shows significant amounts of damage including the splitting of the cobble, traumatic flaking, and severe erosion of the cobble surface from heavy and forceful use.

A fourth hammerstone, AJC-192, is sub-oval to slightly teardrop shaped, measures 16.5cm long, 2-6.5cm wide, and 2-4.5cm thick. It differs in the nature of the damage to its surface, in the location of damage, and in the damage being precisely replicated on both sides of the specimen.

Arrises are not the focus of use on AJC-192, flat surfaces are. Four separate areas of damage

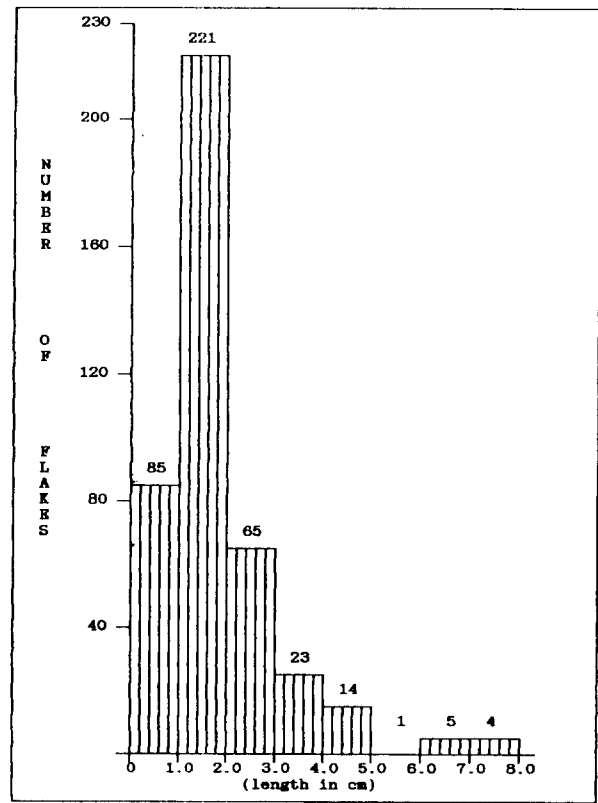


Figure 5. Flake length frequencies.

are visible and are interpreted as reflecting use similar to a modern hammer, i.e., holding the stone at the narrow end while hammering an object with the flat side of the stone. There are two forms of damage present: light hammering 1cm+ back from the distal (widest) end; and heavy hammering 4cm back from the distal end correlating with the stone's point of greatest thickness. The heavy hammering is highly localized and forms identical depressions 2cm wide, 3.5cm long, and 2mm deep on both sides.

Recovered from N7E11 Q4, AJC-192 is associated with only one flake, an *in situ* fire cracked cobble, and copious amounts of gravel. No shell, bone of any kind, ceramics, or other lithic artifacts were present in the unit (a significant deviation from most units).

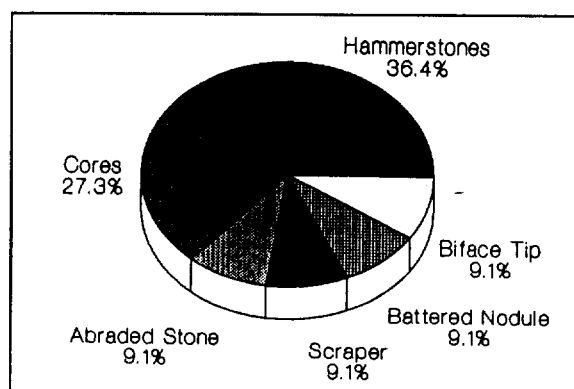


Figure 6. Lithic tool assemblage type percentages.

Cores

Cores comprise the second largest lithic artifact category and include one felsite tabular core (AJC-46), a quartz cobble core (AJC-66), and a felsite core/core fragment (AJC-348).

AJC-46 is a large flake, 7cm long, 8cm wide, and 2.3cm thick. Numerous flake scars are present on the ventral surface and considerable edge retouch, interpreted as representing platform preparation, is evident along the ventral surface's margin.

AJC-66 is a small, white quartz cobble (or large pebble) 6.4cm long, 3.8cm wide, and 3.6cm thick. A large percentage of the cobble's cortex is present around the mid-line of the cobble indicating that flaking efforts focused on the ends of the cobble. Categorizing of the specimen is tentative due to the difficulty of interpreting what may be either edge retouch attributed to platform preparation or very light hammering along arrises formed by flake removals.

Battered Nodule

Only one artifact is included in this category, AJC-274. It is a sub-rectangular, felsite cobble on which major flaking has produced a single arrise running longitudinally for the length of the cobble. The arrise thus produced maintains a slightly obtuse angle of approximately 100°.

At one extreme end of the arrise, the surface exhibits significant hammering characterized by

crushing, minor traumatic flaking, and pitting. In addition, very light hammering is evident at the opposite extreme end of the arrise. Hammering is interpreted as having taken place subsequent to the flaking episode(s).

Abraded Stone

A flattened, palm sized rock, AJC-226, composed of a black volcanic material, was recovered from N3E13 Q4. It is sub-rectangular, 9.6cm long, 5.4cm wide, 3.2cm wide, and exhibits considerable scoring and abrasion on one side.

Bifaces

Although the author expected their presence, no bifaces were recovered. The high number of flakes in some units, approximately $176 \pm$ per sq. m in N6E5, and the high number of flakes recovered overall suggested a lithic industry and the assumption was made that this industry included biface production. However, the only evidence of bifacial points on the site is a single felsite biface tip 2.5cm long in N6 E5 Q3 and a possible white quartz biface midsection fragment, 1.7cm wide, from N9 E20 Q3.

Scraper

A single felsite "thumb" scraper, AJC-377, was recovered from N1E35 Q3. It is 2cm long (distal to proximal), 2.1cm in maximum width, 4mm thick, and has a span (unifacial margin) length equal to the scraper's greatest width of 2.1cm. The specimen was produced as a flake. Present are a striking platform on the ventral surface and previous flake scars across the dorsal surface. Some use wear is noted along the unifacial margin.

LITHIC SUB-ASSEMBLAGES

No diagnostic lithic artifacts have been recovered to date from either excavation or surface collection associated with the Carr site. However, two lithic concentrations, composed of flakes and non-diagnostic stone tools, are present. The first, located within N4E5, N4E8, N4E11, and N6E5, is comprised of: 1 hammerstone; 1 quartz cobble core; 1 tabular felsite core; 1 possible weathered,

felsite core fragment; 1 retouched felsite flake; and 162 additional flakes.

The second, located within N1E34, N1E35, and N4E34, is comprised of: 2 hammerstones; 1 felsite, Ceramic Period "thumb" scraper; 1 retouched decortication flake; 2 retouched/use wear decortication flakes; and 77 additional flakes.

Nine units account for 63% of all lithic artifacts recovered and approximately 60% of all debitage recovered. These lithic concentrations are interpreted as discrete activity areas due to their context, i.e., direct association with other lithic materials (felsite core with felsite flakes), locational discreteness, sharp contrast from the majority of the excavation units, and shallow depths indicating little disturbance. They are classified as sub-assemblages due to the limited nature of the excavation effort and the expectation that more lithic tools will be recovered as more excavation is undertaken thus producing a more complete lithic assemblage.

ABORIGINAL CERAMICS

Diagnostic aboriginal ceramics identify the Carr Site as a single component site: only dentate stamped ceramics are present. The possibility that other groups used the Carr Site has not been eliminated. However, the author tentatively concludes that the site was occupied at some point(s) during the early to middle Middle Ceramic period (CP2 and CP3); approximately 2150-1350 B.P. (Petersen and Sanger 1989:20-29). Aboriginal ceramics tend to cluster in two fairly discreet loci associated with the two lithic sub-assemblages. In the case of the eastern-most pottery concentration the overlap is very exact. There, aboriginal ceramics are in direct association with debitage, stone tools, and faunal remains suggesting a dumping episode in this area. In the western most concentration, ceramics are also associated with a lithic sub-assemblage, though somewhat peripherally.

Based on their locational discreteness and perceived variation in dentate tooth impressions, two possible vessel lots are suggested. A small-toothed dentate stamp characterizes the western most ceramic concentration while an apparent large toothed dentate is associated with the eastern ce-

ramic concentration.

Based on positive impressions made from decorated sherds, rocker dentate stamping may be present. However, due to the sherds' small size, discreet design elements cannot be positively identified and overall decorative schemes cannot be seen.

Vessel 1

These simple dentate stamped ceramics are thick (approximately 1cm), clearly illustrate coil construction, and contain grit temper consisting of quartz and feldspar which varies in size from very small (1 mm) to very large (5 mm). The sherds' interior surfaces vary in color from grey to black and show no sign of surface treatment other than smoothing (no channeling or effort at decoration is evident). One specimen, comprised of three re-fitted sherds, maintains a slight eversion suggesting it may be a lower rim sherd from the vessel; no punctations are evident.

Vessel 2

These simple dentate stamped specimens contain small feldspar and quartz grit temper (1 mm - 2 mm). Although no decorated Vessel 2 sherds maintain an interior surface, one undecorated sherd, associated with this concentration, maintains both its interior and exterior surfaces; it measures 9 mm in thickness.

FAUNAL REMAINS

Species Identification

Within the sample, a diverse group of species is represented including fish, bird, deer, beaver, porcupine, domestic pig (mature and juvenile), clam, and snail. The fragmentary nature of the remains, however, precludes identification of much of the sample.

Identified fish elements include the following: haddock (*Melanogrammus aeglefinus*) - cleithrum; haddock (*Melanogrammus aeglefinus*) - caudal vertebra; and cod (*Gadus morhua*) - caudal vertebra.

Fish elements with uncertain identification include: cod family - partial vomer; cod family -

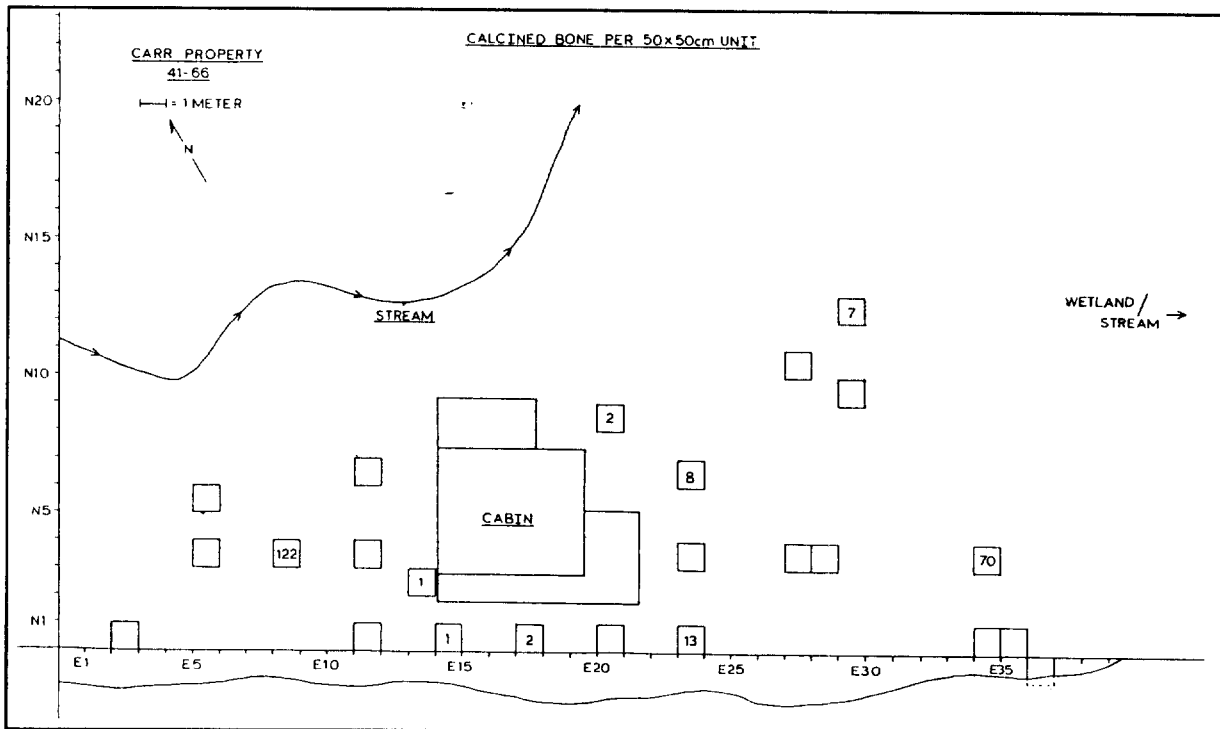


Figure 7. Number of calcined bone fragments recovered per excavation unit.

vertebrae; cod family - mesethmoid; and shad or alewife (*Alosa* sp.) - caudal vertebrae.

Identified mammal remains include: porcupine (*Erithizon dorsatum*) - incisors; white-tailed deer (*Odocoileus virginianus*) - incisors, 2nd phalange, auxiliary phalanges, and sesamoid; domesticated pig (immature) - fragmentary maxilla, domesticated pig (adult) - canine; and beaver (*Castor canadensis*) - 3rd phalange.

Identified shellfish include: surf clam (*Spisula*); soft shell clam (*Mya arenaria*); and common northern moon snail (*Lunatia* or *Polinices*).

Bird is also present. Identifications include: gull family (Lariidae) - quadrate; and unidentified large bird - sternum.

Bone Distribution

Two hundred twenty six pieces of calcined bone were recovered from the Carr Site. When counted and plotted by unit (Fig.7), 84% (n=194)

of all the calcined bone was recovered from N4E8 Q2 (54%, n=122) and N4E34 Q4 (30%, n=70). These concentrations correlate with the two lithic sub-assemblages previously described. They are very well defined and clearly suggest discrete activity loci possibly connected with subsistence.

One hundred six pieces of uncalcined remains were recovered during excavation. When counted and plotted, 78% (n=83) of the uncalcined bone was recovered from N10E29 Q4 (36%, n=39) and N13E29 Q4 (41%, n=44). As with calcined bone, a clear concentration is evident suggesting the presence of an activity area.

Faunal Assemblages

The author believes two culturally and temporally separate assemblages exist within the Carr Site: Assemblage 1 (predominantly uncalcined) and Assemblage 2 (predominantly calcined).

Containing mature and immature domestic

pig, Assemblage 1 is comprised almost entirely of uncalcined bone. However, due to the presence of pig across the eastern portion of the site, and its being stratigraphically undifferentiated from aboriginal cultural materials, definitive cultural statements regarding historic versus aboriginal subsistence cannot be made in this area.

Topographic evidence suggests the presence of a substantial disturbance associated with Assemblage 1, possibly a large pit. It is hypothesized that this area was used as a refuse dump by modern occupants living nearby, possibly associated with activity related to the remains of a fish weir located in the cove adjacent to the site. However, given the presence of two domesticated pigs (both adult and juvenile), a pig holding area is not out of the question.

Assemblage 2 is generally isolated to two areas. It is associated with high concentrations of aboriginal cultural materials, and, aside from a limited amount of uncalcined bone associated with a thin lens of shell midden, is comprised almost entirely of calcined bone. The assemblage, which includes beaver, gull, and deer, is associated with simple stamped dentate ceramics and the two aboriginal lithic sub-assemblages corresponding to units N4E8 Q4 and N4E34 Q4. The author attributes Assemblage 2 to approximately 2100-1350 B.P.

INTRA-HARBOR CERAMIC COMPARISON

Within Ducktrap Harbor, three sites (four geographically separate areas) exist from which aboriginal ceramics have been recovered either through excavation or surface collection. These sites are: 41.66 (both the Carr and Harmon properties), a 20 minute walk north of 40.3; 40.3 (the Lehmann Site, Mitchell 1990, 1991, 1992); and 40.1, a 20 minute walk south of 40.3 in Lincolnville Beach.

While 40.3 has the largest overall sample it does not represent the broadest temporal range. Specimens include: simple dentate stamped, rocker dentate, and cord wrapped stick impressed sherds (Mitchell 1992:10). Both grit and shell temper are

represented in the cord wrapped stick impressed sherds while only grit temper is present in the dentate stamped sherds (Mitchell 1992:10).

Based on decorative techniques and temper types, the Ceramic period occupation at 40.3 is considered, at a maximum, to extend from the early Middle Ceramic period to the early Late Ceramic period, i.e., CP2-CP5 (Petersen and Sanger 1989:21, 26, 31, 34, 39). The temporal range, then, is approximately 2150-650 B.P. (Petersen and Sanger 1989: Table 1).

The situation at 40.1 is quite different. Only one decorated sherd is known to exist and it exhibits small toothed, dentate rocker stamping with quartz grit temper. This decorative tool, tooth size, and decorative technique typically represents CP2 (Petersen and Sanger 1989:21, 26) and places the Ceramic period occupation there at 2150-1650 B.P. (Petersen and Sanger 1989: Table 1).

At 41.66, the Ceramic period occupation's temporal range is the greatest of the three sites, 2150-400+ B.P., though some decorative techniques are not represented. Through both active sampling and ongoing efforts at surface collection, a broad ceramic sample exists, though the sherds themselves tend to be small. The ceramics recovered from the Carr property have already been described. However, the Harmon property, on which the balance of 41.66 is located, has also yielded a number of decorated pottery sherds, as follows.

Dentate decoration is represented by one specimen which maintains both simple dentate stamped and dentate rocker stamped elements. In addition, dentate, or oval, punctations are present at the apex of each rocker impression reinforcing the point of directional change in stamping.

A second dentate surface treatment is represented by a single sherd with possible dragged dentate decoration. Whether or not it is in fact dragged, the sherd does fall in the general temporal realm of other dentate applications. The teeth are notably larger than other examples of dentate from 41.66. However, this may be a result of the perceived "slurring" of the impressions rather than an actual technological difference.

To date, no cord wrapped stick impressed sherds have been recovered from 41.66. Nor is the period present represented by shell temper in undecorated sherds. This presents an interesting contrast to 40.3.

A third decorative technique revealed at 41.66 maintains distinct and deliberate channeling on what was originally interpreted as being the exterior surface of the vessel. A minimum of four channels are present and the author interprets the decorative effort to have been accomplished using a dentate-like, or toothed, tool dragged linearly across the vessel's surface.

While channeling with a toothed implement is referred to by Petersen and Sanger (1989:21), the context is vessels' interior surfaces, most notably in "...Vermont and further west.." and "...is not common in Maine and the Maritimes..". (Petersen and Sanger 1989:21). This decorative technique is representative of CP2 (Petersen and Sanger 1989:21) and the above mentioned sherds are tentatively attributed to this period, 2150-1650 B.P.

The last type of decorated ceramics can be seen in a possible lip/rim sherd. It appears to have oval punctations in addition too, and integrated with, faint incisions. The combination of a thin vessel wall and decorative attributes are suggestive of a Late Ceramic period vessel c.650-400+ B.P. similar to that illustrated in Petersen and Sanger (1989:49, Fig. 18).

CONCLUSION

Based on ceramic artifacts, the Carr site maintains clear and considerable contemporaneity with both the Harmon portion of 41.66 and two other prehistoric sites within the confines of Ducktrap Harbor.

Due to its single component nature and the limited amount of ground disturbance, the Carr Site presents a near ideal opportunity to view the spatial

patterning of a Middle Ceramic period occupation site, c.2150-1650 B.P., in high resolution. It has several, well preserved, very discrete loci illustrating aboriginal lithic and faunal assemblages with well defined spatial and temporal constraints as well as providing highly visible patterns of lithic and subsistence activity.

The Carr site also affords a model to which other geographically contemporaneous sites can be compared. The Ceramic period represents a significant portion of the prehistory of the micro-region and the early and middle Middle Ceramic periods appear to predominate followed by the late Middle Ceramic and Late Ceramic periods both temporally and in their representative status within Ducktrap Harbor.

The Carr site represents one of a limited number of undisturbed sites along the littoral with the potential to reveal details of human settlement, subsistence, and intra-site patterning little afforded by the multi-component, plowed sites that predominate along the coast.

Only further scientific efforts will enable the Carr site to be fully understood before the effects of human activities and erosion steal it forever away from our grasp.

To date, permission to further define the cultural, temporal, and spatial limits of the site has been refused and there is currently no discussion regarding future plans. If no mitigation plan is developed and implemented, the Carrs' eventual rehabilitation and expansion of the cabin present will destroy 40-50% of the known site.

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