

Compliments
J. Erskine

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MICMAC NOTES, 1958

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for Nova Scotia Museum of Science, Halifax, N.S.

During the summer of 1958 I was again in the field in the service of the Nova Scotia Museum of Science, investigating the archaeological picture of Indian life in Nova Scotia. My first intention had been to repeat in Cape Breton the kind of superficial survey that I had begun in 1957 in southwestern Nova Scotia. Before starting I investigated a site near Melanson in Kings County. Then I set out for Cape Breton where I dug the remains of a small site near Little Narrows, and then investigated vainly the rumours of sites throughout the island and the eastern half of Nova Scotia. The results here were scanty. During August I returned to Bear River to continue the excavation of the site found last year at the mouth of the river. However, I found that my samplings had given me an inadequate idea of the site which was so large and deep that a month was insufficient for complete digging of more than the central wigwam.

This report, therefore, is again merely a statement of progress. It includes:

1. Observations on the Melanson site.
2. Details of the excavation of the Odaskwanokh site.
3. Details of the partial excavation of the Bear River site.
4. A miscellany of observations and supplements to Notes, 1957.
5. Summary to date.

1. Melanson.

On the northwest bank of the Gaspereau River, beginning about a quarter-mile above the Melanson bridge, is the site of a scattered encampment where for a generation of more local families have picked up arrowheads. A great part of the site had been ploughed in the autumn of 1957, so that it was possible to mark down the ancient wigwam-sites by the concentrations of conspicuous chips of white quartz. These concentrations avoided the lower areas and were scattered for about four hundred yards and never more than thirty yards from the river. Farther upstream and on the other bank of the river occasional chippings could be found.

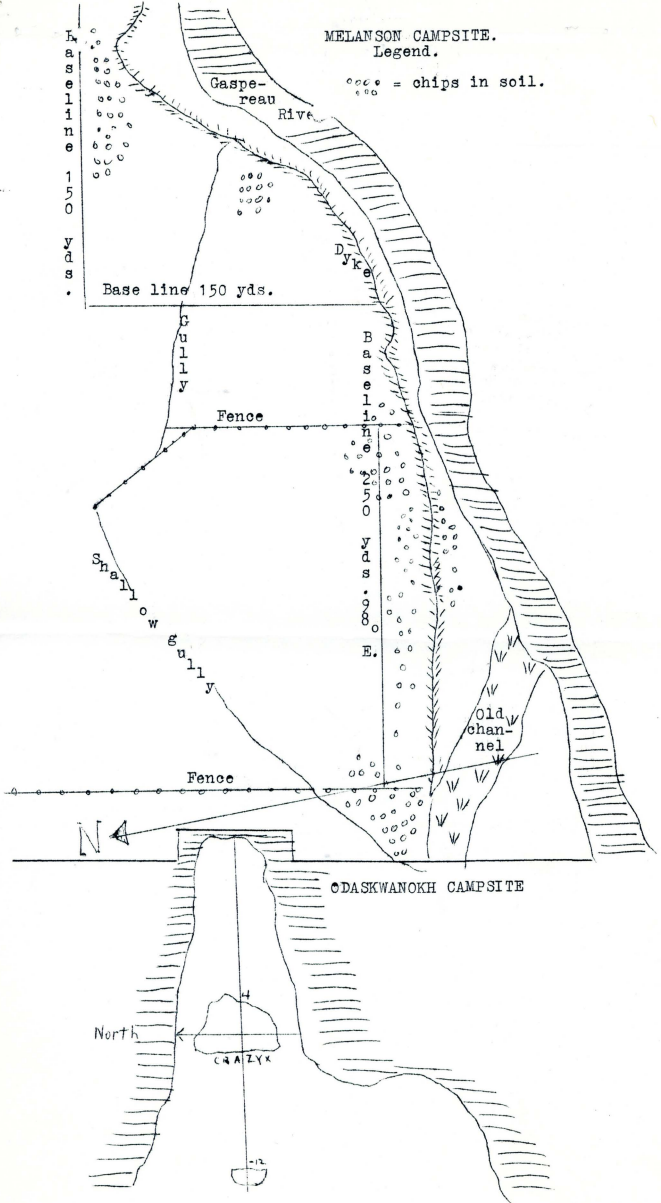
The reason why this had been chosen as site for a camp became obvious when, on my visit on 20th April, I found the river bank lined with families dipping smelts. A month later a great net on the farther shore was scooping up gaspereaux. No doubt, salmon too would have been common in Indian times. The obvious season for occupation, then, would have been late April and May. A marsh still discharged a rivulet along a ditch through the centre of the camp, and this would probably have provided the Indians with drinking water. (Many sites suggest that the Indians preferred spring or brook water to river water.)

Mr. Bud Martin who owns part of the site, showed me what remained of his collection of "arrowheads". One of chalcedony was round-based long-triangular; one of amethyst-tinted quartz was long-triangular, ~~base~~ notched; a broken spearhead of whitish chalcedony? was pressure-flaked; and there was a piece of greyish flint, round-pointed and jagged-edged, which seemed to have been the business end of some tool. In answer to Mr. Martin's query, I could only venture that it was some sort of knife. He told me that he had picked up many more points, as well as a French iron tomahawk, but that these had been given away. During the spring I searched the site many times and picked up a few points, mostly broken, and some scrapers and curious long pieces of slate suggesting whetstones. A few sherds of pottery were found in the ploughed area, but these were much eroded, and it seemed to me that most pieces must have crumbled as a result of rough treatment and exposure. There were many fragments of American and British chinaware of the nineteenth century, fragments of iron and rusty nails

MELANSON CAMPSITE.

Legend.

ooo = chips in soil.



both of wrought iron and of drawn wire. This suggested that the gathering for fishing had gone on until the beginning of this century, which older Indians confirm.

Only one spot showed black ash. I dug there and found fire-reddened hearthstones but nothing else, so that this camp probably dated from an age more recent than flint-working. An old dyke ran along the edge of the encampment, and at the upper end there were a few square yards of undisturbed turf outside the dyke, and here I dug some test-holes. In almost every hole I found black ash, but the depth of stained soil was never more than one inch, and in other places there were successive layers of black ash and yellow silt about one-quarter of an inch thick. In so diffuse a camp, where wigwags could be pitched anywhere and only for a short period at each occupation, it could never have been profitable to dig. At one spot I found thirty small sherds of a single pot, many chips, and a beautifully worked arrowhead of violet quartz which had been discarded when almost complete because of an intractable flaw in the stone. Points. I found only two entire points and eight broken ones, too few for adequate generalization. Three (including both entire ones) are of quartzite, one stemmed, two triangular, which group them into Lower Woodland technique, though it seems that the technique was continued into the Middle Micmac period. All the rest can be assigned to typical Middle Micmac technique. Pottery. The only two pot-rims were of Middle Micmac type: firm and large, with almost vertical rims, elaborately corded and punched outside and well scarified inside.

Food. No traces of food were found. We have presumed that fish was the staple. The neighbouring fence-line is crowded with chokecherries and hawthorns, but I could find no comparable fence-lines to serve as a control for numerical study. In its upper part the camp is bordered by an old channel of the river, now marshy and choked with bogbean, Menyanthes trifoliata L. In Europe the roots of this plant were used as a famine food and as a medicine, but Victorin (Flore Laurentienne) notes only medicinal uses of the plant in Canada, and Wallis does not list it among the plants used by the Micmacs. However, this is one of the only two stations of this plant within forty miles.

Summary. There is no doubt that this encampment was used seasonally by the Indians during many centuries, probably only during the five weeks of the year when smelt and gaspereaux were running. No tools suggest the Red-Paint people, about one-quarter might have been made by the Lower Woodland culture, the rest belong to the Middle Micmac period. As usual, the Acadian period is poorly represented. One piece of clay pipe-stem is so thick as to suggest the hand-made pipes of French sailors, and the "French iron tomahawk" may have been a trade-axe like the ones in the Pictou burial. However, it is ill building on possibilities and hearsay. I turned away from Melanson convinced that, while much might be picked up, little could be learned from scattered and ploughed sites.

During the summer a new dyke was bulldozed and draglined along this section of river, and the greater part of the camp was destroyed.

2. Odaskwanokh.

I began my visit to Cape Breton with a piece of good luck. The first Indian I met was John Googoo, once a guide and now just back from hospital. He was not one of the very knowledgeable Indians, but he was friendly and helpful. In his youth he had belonged to the band of four families which had travelled the area Whycoomagh - Lake Ainslie - Mabou - Port Hood, and he remembered having dug arrowheads at a camp near Little Narrows. Two Americans, he said, had also unearthed two axes there. His son showed me the place, and I set to work on it.

The camp had been on a gravel spit at the narrows where the tide from the Bras D'Or flowed into and from the brackish lake which the Indians call Oda'skwanokh - cattails (cf. skanook, Rand). I had already searched this area but had neglected that spot because it was on the wrong side of the channel from the only fresh water. However, in this case the gravel site and canoe-beach and the nearness to the fishing had outweighed the usually preponderant factor of fresh water. They must have fetched their water by canoe, though only from some fifty yards away.

The spit ran almost due east and west with the narrows at the western end. Spruce-trees fringed the spit from about ten yards from the narrows, but John Googoo said that in his boyhood all this had been bare. A level bald stretch, much hummocked by digging and modern camp-sites, ran along the centre and was edged on the north by an almost continuous shallow hollow which looked like a borrow-pit. I suspected a long-house, but test-holes showed a barren gap of nearly ten yards in the middle. Once there had been a mill-dam across the narrows, so that many confusing details may have been added by the whites.

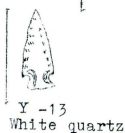
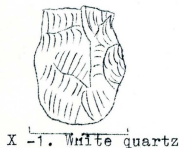
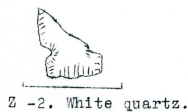
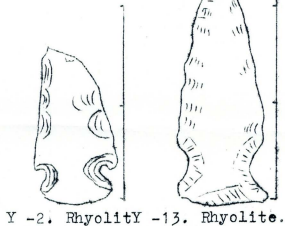
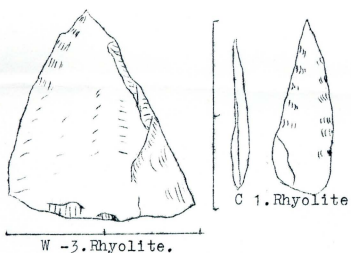
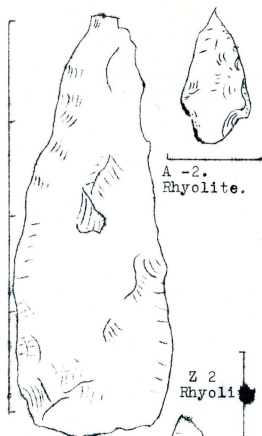
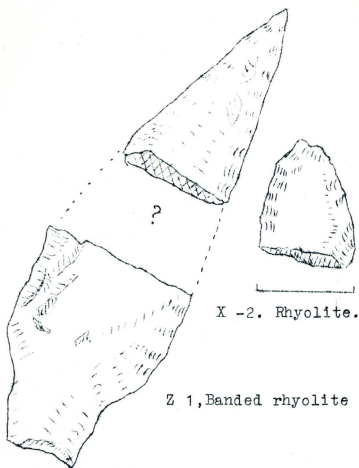
In the main site, which began about fifteen yards east of the point, I found a very confused deposit. The only shells were occasional valves of oyster, not sufficient to protect bones from decay, so that the usual interesting information about food was missing, but the channel is still used for eel-spearing. Even without the usual bulk of shell, the deposit was as much as sixteen inches deep, of ash and chipped stone. There were rather small hearthstones at Z1, A-1, and D-1. It would have been difficult for more than one of these to be used at a time, yet there were little differences between them. From B2 southwestward and from -2 eastward had already been dug, and even the narrow undisturbed strips were confused on the surface by the remains of nineteenth-century Micmac camps.

(According to John Googoo, this camp became uninhabitable some forty years ago because of ghosts. The same story is told about the Bear River site, and I think it probably is a rationalization by the Indians of their having been driven out by the whites. Googoo told me also why there were no longer any oysters to be found there. He and a friend had been gathering oysters nearby when some white oyster-fishers drove them away. The friend then suggested: "Let's take the oysters out of the bay." So they hung oysters on grasses from the gunwales of their canoe and trailed them in the water out towards Little Narrows. The oysters took the hint, and now they have all moved out there. Magic, according to Malinowski, is used when practical measures are not available. Most Indians have only the most confused ideas of their own rights and of the limitations of those of the whites. Feeling, probably correctly, that they have no chance of justice, as they understand it, under white man's law, they resort to magical revenges which are beyond the law and restore their self-respect.)

At -13 occupation remains to a depth of six inches or less began again. This was the best defined wigwam site that I had found until this time. It was semi-circular, the half west of -13 having been dug already, and nineteenth-century remains, including a finger-ring which may once have been worth five cents, were common in the centre. In the borrow-pit to the north were the flat stones which had been used to hold spruce-boughs against the wall of the wigwam. I have met these otherwise only at the western wigwam of Bear River, and I suspect that in both cases they belonged to recent camps.

Stone-working. As Googoo observed to me, the old Indians must have used this place as a factory for manufacturing stones brought from elsewhere, since these were not local stones. This is true and interesting. The great majority of chips and tools were of a greyish-black rhyolitic lava which, according to Mr. William Take of the N.S. Museum could have come from many places in Cape Breton, the nearest being Lake Ainslie. Other rocks included white quartz, which could have come from anywhere, and agate and chalcedony typical of the North Mountain three hundred miles away but perhaps from some undiscovered source in Cape Breton. The quality of the stone was generally good, except that quartz seems here, as everywhere, to have been valued beyond its utility. One piece of bronze quartzite was found. This type of rock looks unusual, yet it is abundant in the Bear River site and occurs occasionally at Melanson. At West, these rocks give grounds for suspicion that the Micmacs were approaching unification over a wide area, probably as a result of social rather than trading intercourse.

The work was usually of Middle Micmac type, good stone chipped thin and often pressure-flaked. There were two large pieces: a broken spearhead or knife with stem and fine wavy pressure-flaking; the other, also broken and perhaps never finished,



had a concave base and no notching or stemming. The points were fine and light and were certainly arrowheads. Of the eleven with recognizable bases, 5 were corner-notched, one side-notched, 4 leaf-shaped to triangular, and 1 stemmed. This last had more the outline of the earlier Bear River type but was well-chipped and light. The hearths were full of the fine transparent pressure-flakes, and the smallest point was a masterpiece of skill rather than of utility. It was 14/16" long, 6/16" at its widest, corner-notched and almost serrulate from ten minute pressure-flakings on each side of the blade. It was of white quartz and was found in the shallow eastern site.

(The Grand Chief, Gabriel Sullaboy, told me that arrowheads were flaked by heating the stone and then stroking it with a feather dipped in cold water, at which the chips would hiss and fly off. I have tried this with various stones from the camps, and have heated them to various degrees up to red heat, but in no case would a chip fly off for me, though occasionally the stone cracked across.)

Scrapers were few and dubious, since these can scarcely be separated from rejects, but the lack suggests that little hunting was done from the camp. One piece of broken beaver incisor suggests some woodworking. But the very high ratio of chips in the fishing camps may point to seasonal specialties. Perhaps flint-working was easier in the warmer weather, or perhaps fishing left the men more free time. (John Googoo says that in his day this camp was occupied at any season for about three weeks at a time. He showed me his son's eel-spear, a leister of prehistoric form with wooden side-barbs and a central point of iron.)

Pottery. Potsherds from the site amounted to 70 ounces. Lumps of grey clay in one hearth suggested that some pottery had been made locally. In all the pots there was a strong family likeness in the clay, in the design and in the decorative patterns. The clay, probably a slip-coat, tended to degenerate into a pockmarked surface, although the general paste was not overtempered and made a firm body. Of 16 pot-rims found, 12 had a slightly overhanging rounded cornice, 4 were erect. The decoration was almost always of very fine corded-twist impressions in not very elaborate patterns; one, however, had a horizontal patterning of coarse cording. Four had necklaces of small circular punch-marks, one had a bolder necklace of crescentic punches. One recognizable base had the nipple-shape found by H.I. Smith at Merigomish but otherwise unknown in Nova Scotia.

Summary. The Odaskwanokh site was occupied for purposes of eel-spearing during the Middle Micmac period. We have no way of measuring the date or the length of time that the occupation lasted. As in most sites, we find a senior wigwam to which others have been added at long intervals. Here the older site may at times have held two wigwams, the younger only one and that not for very long. In recent times four families used the site. (Wherever nineteenth-century bands have used old sites, the recent families have outnumbered the ancient ones. The present population of those officially classed as Indians is about 2500, and I should guess that the pre-French population was not much more than half that.) The pottery is provisionally recognized by Dr. MacNeish as "Wickham Corded" which, he says, "would be late Point Peninsula in time". However, as techniques normally radiate outward from the centres of greatest population and growth, we have to allow an unknown interval for the type of pottery to become standard a thousand miles away. Smith's Merigomish pottery included similar types as well as others which were not found at Odaskwanokh but seem frequent at Bear River and Port Joli. The nipple-based pots and the cylindrical ungrooved adzes, so common on the North Shore and not on the South, suggest one drift of population into Nova Scotia by way of the Chignecto Peninsula, whereas other Micmac types of pot common to both North and South suggest that this is not the whole story. We shall need to know a great deal more about the archaeology of both Nova Scotia and New Brunswick before we can feel any certainty about such matters.

3. Bear River.

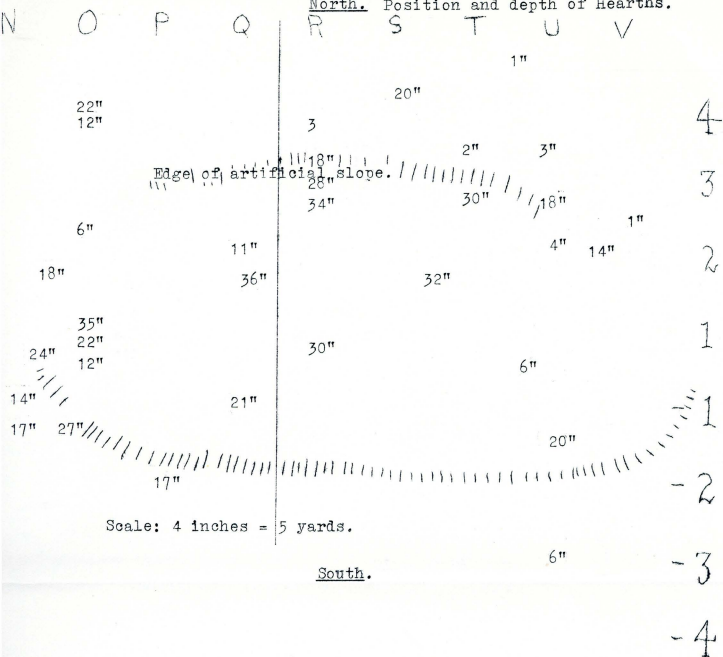
This site, described briefly in Micmac Notes, 1957, was the principal excavation of the summer and, owing to lack of time, was not completed. It consists of three wigwam-sites levelled from the slope of a glacial kame or river terrace. The soil was of sand and gravel and therefore well-drained; there was a spring some fifty yards away on the slope and another just below the high-tide mark. A beach of coarse grit would have made easy landing for canoes and has harboured clams until today. Reefs broke the waves and yielded mussels; Bear Island protected the bay and was probably the hunting-place for seals. The hill behind the camp cut off all winds except those from the south and was covered with hardwoods for fuel, and the five miles of tidal estuary would have made a wide area available for hunting. The high tide would have made weir-fishing practicable, and the river had its run of salmon. All in all, this was a most desirable site. Like most shore camps it seems to have fallen out of use during the Middle Micmac period (before contact with the whites) and to have been taken up again during the nineteenth century. The ruins of a farm are to be seen on the slope above and to the east, and a road from there used to lead across the site to the western end of the beach. The abandonment of the site by the Indians is attributed by them to ghosts but was more probably related to this farm or to the later building of a hotel on the crown of the hill.

The campsite had three wigwam shelves, an eastern one about seven feet, a western about five feet, higher than the more important central one. This central site was covered with the slash of two big spruce-trees, pinned down by the branches of a fallen oak and further entangled by young spruces and firs. Therefore I began on the western wigwam. A few days' work on this showed me that such a site was not what I was seeking. Although flint points and bone awls reached the top two inches, nails and chinaware reached down six inches in a depth exceeding twelve inches in only one square yard. Seemingly the modern Micmacs, equipped with more effective tools than those of their ancestors, had been able to level the site by hoeing and so to confuse the periods. As I was seeking an undisturbed site, I turned my attention to the second and central wigwam.

Following the line of my samplings of 1957, I dug a trench eastward along Line 3 (see map), burrowing under the fallen oak. I soon found that my sampling had been merely of the shell-tip surrounding the main site, and my trench dropped to a depth of 38". By the end of the trench I was tearing out my heart in shifting tons of ash and shell up the slopes which surrounded me. Therefore I cut a cross-trench southward along S and was able to dump the waste down the steep slope. (Bad technique but necessary.) Every square yard was treated separately and depths were recorded for stone artifacts. Unfortunately I did not give the same treatment to the pottery which seemed to me to be all of a kind. Now I began to dissect the eastern half of the site where I suspected, on Micmac precedents, that I should find the results of the men's work. The site was not so rigid as I could have wished, and hearths turned up frequently and in many places. However, I recorded their positions and depths and continued. (The large-scale map of the site shows the positions of stone-rimmed hearths and their depths from the surface in inches.) Then, leaving Line R undug, I ransacked the women's half of the site. I then cleared Line R except for R₁ which I left while I mapped and measured the base of the site with relation to its pre-excavation surface. Finally I removed that pillar for the sake of its contents and turned my attention to the cross-trenching of the eastern wigwam. As the excavation of the eastern and western wigwams was incomplete, this report will cover only the central wigwam, except where incidental details from the others may amplify the picture.

The central wigwam was excavated over a rectangle of nine yards by seven yards, with a tail of two extra yards of exploratory trench at the northwest. At the northeast the corner of the rectangle was encroaching upon the shell-tip of the eastern wigwam. The depth of the deposit at the centre was 38", and this varied only by about two inches over the long oval, 4 yards by 9, of the original shelf. To the north the artificial slope had been left

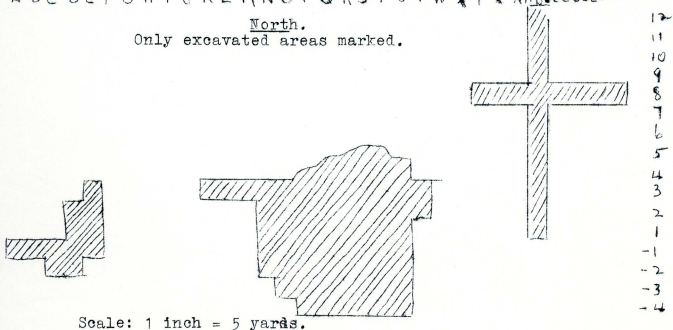
BEAR RIVER - Plan of Central Wigwam.
 (Each letter represents one yard east-west, each number N-S)



Bear River - Plan of whole site.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A A B C C D D E E F F

North.
 Only excavated areas marked.



at about 45°, and this had been masked gradually by layers of clamshells. These were separated by layers of ash and leaf-mould in a fan pattern of which the axis lay at the top of the slope. The lowest layers followed the steep slope; later ones started from a higher site-level and reached much the same place; at last the occupation level climbed to the top of the slope and pushed the shell-tip farther up the hillside. Only two explanations of this stratification occurred to me. One was that clams were eaten at the top of the slope and the shells were allowed to trickle down towards the wigwam; the other was that the shells from the meals were carried from the wigwam and thrown up the slope. As the shells are mixed with flint chips, potsherds and a bit of ash, as well as, on one occasion, a bear's-canine pendant, the second explanation fits better. The Scotch Point site (Port Joli 3, Micmac Notes, 1957) suggests the state of a shellheap site at the end of the winter, circular pits surrounded by yard-deep mounds of shell and refuse. The shells had been thrown out of the wigwam, but how had they been gathered and carried? I recalled the moosehide rugs of LeClercq. Perhaps when a rug became full, it was bundled up and its contents tossed away. Not all the shells were tossed up the slope, that most inconvenient of directions. From Line -2 the original shelf had advanced two yards southward over a talus of shells, and westward, hardly at all eastward, the barren shell-tip had spread for some yards, becoming progressively thinner.

It was not possible to trace stratification through this site. At P2-R2 almost the entire content was ash, showing eight discernible layers above the 28" depth and none below. In the eastern site a more definite stratification was repeated about every five inches: grey ash; black ash and leaf-mould; mixed ash, mould and shell. By my theory, the grey ash represents the occupation layer, the black ash the mixing with some summers of fallen leaves and vegetation, the mixed layer the releveling of the site for a new occupation. Eight of these successions were observed along Line BB-CC. How long each lasted I cannot suggest. Probably the ash layer accumulated in one season; probably the neighbourhood would not withstand a yearly hunting over.

I have one suggestion with regard to duration of occupation. My calculations are rough, but anyone is welcome to improve upon them. I estimate the amount of material that I shifted from these 65 square yards as roughly 75 tons. Of this approximately one-fifth would be wood ash = 15 tons. The ash from a cord of hardwood is approximately 200 pounds. Therefore ten cords of wood should be allowed to one ton of ash. During the time of occupation 150 cords of wood were burned to supply the needs of one wigwam. The Indians tell me how small was the fire and how warm it kept the wigwam. (French missionaries were less enthusiastic.) I find it reasonable to believe that one or two cords of wood should have supplied the needs of a wigwam for a year, though we must make some allowance for separate menstruation lodges and for fires for smoking meat and fish in summer. (In winter the wigwam was smoky enough.) But during how much of the year was this camp in use?

Food. The only clues to the season of occupation are to be found in the food. Unfortunately there are no enthusiastic mammalogists or adequate museum collections in this neighbourhood to help with the identification of the masses of bones found in this site. I was very lucky to be put in touch with Mr. Evan Hazard, then at the University of Michigan and now at Bemidji, who kindly named teeth and some bones and corrected some of my misconceptions. At present the remains from this site of which we can be fairly certain are:

Name	Found in sq.yds.	Determined by:	Origin
Mammals			
Whitetailed deer	61	E.B.Hazard	Ancient
Moose	41	"	"
Beaver	16	"	"
Canis (prob.dog)	6	"	"
Bear	3	"	"
Seal	3	"	"
Otter	1	"	"

Name	Found in sq.yds.	Determined by:	Origin
Mammals, cont.			
Woodchuck	1	E.B.Hazard	Ancient
Porcupine	1	"	"
Fox	1		
Caribou (doubtful)			
Small carnivores unidentified.			
<hr/>			
Cow	1	"	Recent
Horse	1	Dr. C.W. Hibbard	"
Porpoise	6		
<hr/>			
Birds			
Goose	1		Ancient
Unidentified	28 (size - partridge to loon)		"
Common Loon	1	Dr. R.W. Storer	"
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Fish			
Cod family	9		
Sculpin	1		
Hake, (Squirrel or Silver?)	1	Dr. A.H. Leim	
<hr/>			
Shellfish			
Long clam	Throughout		
<u>Buccinum undatum</u>	Common		
<u>Neptunea decemcostata</u>	Common		
Mussel (<u>Mytilus</u>)	Common		
Surf clam	2		
Scallop	2		
<u>Pollinices heros</u>	2		
<u>Colus Stimsoni</u>	2		
<u>Aporrhais</u>	2		
<u>Thais</u>	1		
Oyster	1		
Sea urchin	1		

Deer, which were extinct in Nova Scotia by the time of the French, seem to have formed the principal item of food, exceeding in bulk both moose and clams. Clams were probably a reserve rather than a staple food, but a reserve often called upon. The deer were brought into camp whole (we cannot tell whether the entrails were given to the dogs as was recently done with moose, fide Wallis and Lou Harlow,) for the heads were cooked and dismembered for the brains. A high proportion of the skulls carry antlers, a few seem to have shed them recently. This dates the main occupations to the winter season. Moose teeth and jaws also occur occasionally, which is unusual, since moose were dismembered in the woods and brought home piecemeal. Food may have been scarcer than in later camps. No part of a moose skull except the jaw was observed and never a fragment of moose antler that had not been worked.

Dogs are rather a surprise. Mr. Hazard's comment upon one jaw was that it must be a dog, since it was larger than that of any specimen of wolf in the museum collection. I have since found two others even larger. Lescarbot said that the dogs of the savages were "almost like to foxes in form and bigness", and that the savages did not eat wolf. These creatures were very large and were eaten. I have found many faults with Lescarbot as a guide to archaeology, yet his observations seem to have been accurate and he distinguished well between fact and hearsay. We have to remember that every site thus far excavated, apart from the Pictou burial, shows us a people culturally very different from that of 1607, though their race may have been the same. I think that Mr. Hazard is right and that these were husky-type dogs. Such dogs have been found in Archaic sites by the Great Lakes and are recorded once among the Beothucks and are still the standard dog of Labrador Indians. Teeth of a smaller dog turned up in Port Joli 3, but that culture was later than the main Bear River culture.

Cod vertebrae suggest summer rather than winter occupations, and these are found, though uncommonly, at all depths. Perhaps this site was used during some summers. Shellfish are an uncertain factor. John Googoo says that shellfish were not eaten in June and July. This could be merely an adoption of the

European custom with regard to oysters, but it would also explain Lescarbot's statement that the savages would not eat mussels. They may have been out of season, a custom which may have arisen in connection with poisoning from summer mussels. Denys states that the Indians visited the oyster beds in spring. But our knowledge is not firm enough to allow us to refer shellfish to any one season.

The occurrence of one oyster valve deep in the shell-tip is of interest. Wintemberg also found oysters in the Eisenhauer shell-heap at Mahone Bay. They come fairly low in his list of frequency but not so low as in mine. His collections of points, half quartzite, half jasper, all consistently corner-notched, suggest a date not earlier than the upper half of the Bear River site. It has been suggested that oysters became extinct along the Atlantic shore as a result of the cooling of the waters after the climatic optimum. These occurrences are probably the swan-song of South Shore and Fundy oysters.

The only hints as to vegetable food are in the trees surrounding the site. My attention was called to the site by a camp of unusual native hawthorns. These were common around the western wigwam, and another microspecies was frequent around the eastern wigwam. Amelanchier and chokecherry occurred rarely. But there was also a crabapple tree. It would have been as possible for these trees to become established in the nineteenth century, like the apple, as at any earlier period.

Tools. In my digging of the Odaskwanokh camp's eastern wigwam I found three entire and one broken point in a single shallow square yard north of the hearth, while to the south of it the deposit was barren except for potsherds trodden into crumbs. The plan of the Micmac wigwam as described by Rand dropped neatly into place. The doorway would have been to the south, the men's place to the right and behind the fire, while the fruitless excavation of the women's side would have discouraged the diggers. I checked this arrangement of the wigwam with friendly Indians in different places and found them in agreement with it. Thus they arrange their wigwams of tarpaper for Santanawimk, the feast of their patron saint on 26th July.

My first thought was a pot-hunting one that I could best sample a site by digging in its north-eastern quadrant which would contain most of the arrowheads. Next it occurred to me that this might be a key to the division of tools into men's and women's, with consequent hints as to the purpose of unknown tools and to the division of labour.

In this site there could be no doubt as to the direction of the wigwam door, since the wigwam was placed in a wide horseshoe of excavation on the hillside with the sea to the south. Obviously the door would be to the south as usual. The distribution of hearths in the site falls roughly into three lines: a principal one in Lines Q and R which in the central section were entirely ash; a number on each outer margin, probably menstruation lodges or smoking fires or summer kettle-hearths. Therefore I chose as centre a line dividing Lines Q and R.

My next postulate was that the men sat to the right of the door Micmac-fashion and that they did the hunting. Presumably the men in winter repaired their equipment in the wigwam and dropped broken points or lost good ones among the fir-boughs on the floor. No doubt, in good weather they also chipped outside on the shell-tip. No doubt also, women as often as men broke their teeth on broken spear-tips left in the meat, so that there would be some exceptions, without taking into account the variability of the pitching of the wigwam. Let us test the reconstruction by the distribution of points (arrow, spear or knife, one cannot be sure which is which).

Line	N	O	P	Q	R	S	T	U	V	(Number is that of sq.yd. where a point was found)
-1			-3	3	3	2	2	1	3	
			-4		-1	-1	-1	-2	2	
					-2	-2	-2	-4		
					-3		-2			
							-2			
							-2			
Total	1	0	2	1	4	3	5	3	2	= 21

To the left of the hearth-centre we find four points (of which two were on the tip), and seventeen to the right (five on the tip). However, the east-west central line of the original shelf runs along Line 1, so that the southeastern quadrant, the men's side of the doorway, seems to be richest in points. This is a fairly good proof that the organization of the wigwam was the same in early days as today.

The lack of any consistent stratification in the site led me to neglect to a great extent the importance of depth. Where XIX-century intrusions had penetrated to a depth of ten inches in places, while genuinely old points reached to within two inches of the surface, it seemed unnecessary to be more accurate than the material. Fortunately I did record the depth of almost every complete or nearly complete point and of many fragments. It was only when I was sorting the points that I noticed that the finest pieces, thin blades of a stone resembling the rhyolite of Odaskwanokh and with similar pressure-flaking and usually corner-notched, came consistently from the upper levels. I found only nine pieces of this type (of one I had not recorded the depth) from all three wigwams, and these included a laurel-leaf blade (343), some tips without bases and one reject. As there seems no reason to doubt that all three wigwams were occupied simultaneously during the latter period, they should have accumulated deposit at similar rates, and the measurement of depth from surface should be valid for all. The depths of the pressure-flaked points were as follows:

240 - 24"; 241 - ?; 230 - 3"; 250 - 3"; 334 - 8"; 335 - 8"; 343 - 9"; 357 - 9"; 360 - 6".

Taking eight other points, beginning with the best ones for which I have certain depths:

214 - 20"; 216 - 16"; 221 - 6"; 238 - 13"; 239 - 26"; 254 - 16"; 259 - 14"; 359 - 16".

Only one in each group falls within the depth-range of the other group. No. 240 is very much out, but this may be explained. 240 was a reject broken at a twisting flaw in the rock and was found at BB10 in the eastern wigwam. At BB-CC 8-9 in this site a boulder projected two feet above the levelled site and made it impracticable to pitch the wigwam except to the south of it. The southern part of the site alone was occupied until the tip and deposit had risen to a depth of two feet and had overflowed the boulder. The deposit to the north of that dates largely from the same period as the top ten inches of the southern part of the site. Confirmation of this explanation will have to await the completion of the excavation of the eastern wigwam.

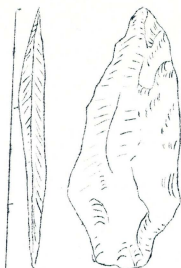
The points found below ten inches are all of quartzite or slate and are leaf-shaped, stemmed or rarely side-notched. A few of them could have been used on arrows, though they would have been thick and clumsy. (This may not have mattered. John Gogoo told me that the stone arrowhead had a magical quality - though the arrow-shaft might bounce back from the moose, the stone-point would continue on into its heart.) I should like a little more evidence before assuming that the early Bear River Micmacs had the bow. In U-1, near the edge of the tip, I found a curious lump of quartzite which had been pecked into a ball roughly four inches in diameter. A flaw in the rock had prevented its completion. Was this intended for a bolas-stone? We know that Early Woodland tribes used the bolas (though how effective this can have been in woodland country I cannot guess). I found a quartz ball on the beach at Indians Gardens, but it was undatable and smaller. (The quartz ball weighed 7 oz., the quartzite 15 oz. but would probably have been about 13 oz. when completed.) Neither was grooved. Lining up the traits of different periods:

Trait	Archaic	E. Woodland	Early Bear	R. Mid. Micmac
Bolas	Yes	Yes	Yes?	No
Bow	No	?	Yes?	Yes
Ground slates	Yes	No	No	No
Chipping	Percussion	Percussion	Percussion	& pressure
Point-bases	Stem.	Stem	Stem	Corner-notched
Pottery	No	Yes	Yes	Yes
Dogs	None or husky	?	Husky	Small

Points from Bear River central wigwam.



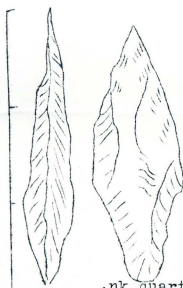
221.
U -4, dark red
quartzite
6" depth.



241. S 2, argillite,
2" depth.



251 T -2, argillite,
rather humped on
obverse.



214. U 1, pink quartzite.
20" depth.



259.
P -3, yellow-brown
quartzite. 14" depth.



203 N -1, grey
quartzite.
19" depth.

226

V 3, argillite,
coated unevenly with
red paint.



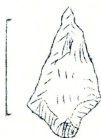
230. East wigwam.

BB6, argillite, 10" depth.



239.

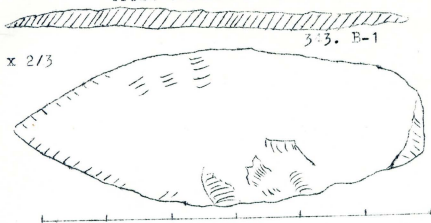
S -2, argillite
26" depth.



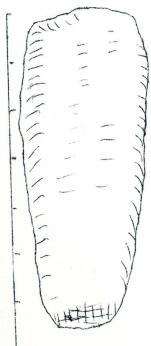
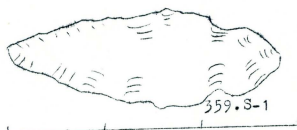
BEAR RIVER

Under 10 inches.
cross-section lengthwise

Below 10 inches.



x 2/3



quartzite



Slate.

Middle Micmac.

Lower Woodland?



x 1/2

The early part of our site, then, falls into the Early Woodland sub-culture, although the date may be far later than for such a period in the agricultural area. The top of the site, leaving out the accretions from the nineteenth century and the broken glass and pop-bottle caps of the atomic age, belongs to what I shall call (and have called previously in this report) Middle Micmac period. The stone culture has traces of Middle Woodland influence, but it lacks the all-important agriculture. Lescarbot records that the "Souriquois" used to have agriculture, and this may have been true of elements migrating from the west, but as yet we have no evidence of it in Nova Scotia. The Middle Micmac culture seems to have come in rather suddenly but without serious interruption or change in the general Bear River customs.

Other Stone Tools. If we now turn the investigation around, we can examine the other tools deductively, using the wigwam-plan as a proven axiom.

Tools.	Line	N	C	P	Q	R	S	T	U	V	Total
Adze or wedge, flat					3	-3		-1			3
semi-cylindric									-4		1
Beaver incisors			-3	1					-2		5
			-2								
			-2								
Cleavers?				1		-3				4	5
				-1						4	
Round-point knives			-2		-3						2
Scrapers		2	-3	1		5	4	-3			13
		-1		-1		3	-3				
						-1					
						-2					
						-3					
Thong-smoothers		-1			2	3			-1		5
						2					
"Whetstones"											
X-section - oval			1	1		1					5
				1							
				1							
- flat			-1			-2		2			3
-3angled-1											1
-rough,irregular						5					2
						1					

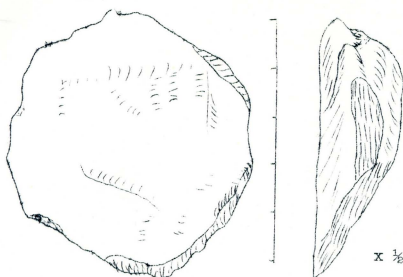
Adzes. The adzes tell us nothing. Three are from the tip on the men's side, a smaller wedge-like one on the women's, but we have no reason to assign monopoly of any part of the tip to either sex. The flat adzes are very primitive; the semi-cylindrical was found at 6" depth and so belongs suitably with Middle Micmac tools.

Beaver incisors. These seem to have been used in woodworking, except for one which had been sharpened into an awl. The others are three from the women's, one from the men's side.

Cleavers? The site yielded a number of heavy chips struck from a quartzite boulder with a single blow and then bruised to bluntness on one edge. Wintenberg illustrates one of these (XXVIII 5) and calls it "a celt or adze in process of manufacture". Here, however, we have five of them, three from around the central hearth and two from the tip, and nothing to suggest further tooling. Our adzes, moreover, were not made of quartzite. I suggest that these were cleavers for jointing big game. They are eoliths, like most of the tools destined for women's use, and were probably not valued or carried away.

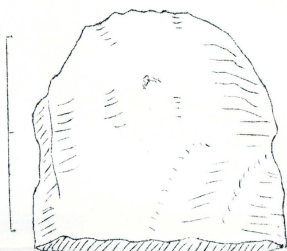
Round-point knives. From the women's side two broken bits turned up. These were rounded and sharp. They might have been the butt-ends of leaf-shaped points, many of which seem to have been sharpest at the wrong end, but they also resemble the curious round point from Melanson. Also they are on the women's

Bear River central wigwam. Miscellaneous, chiefly women's, tools.



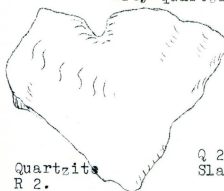
P -1. Cleaver ?
Greenish siliceous slate.

P 1. "Whetstone" or "potting
paddle". Slate.



O -2. Round-point knife?
Grey quartzite.

N -1. "Cord-smoother"
Slate.



Quartzite
R 2.

Q 2.
Slate.



Q -3
Round-point knife?
Quartzite.



U -1
Quartzite

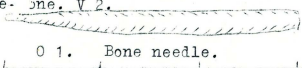
Thong-smoothers.



Meat-skewer? of moose-bone. V 2.



P -1
Pressure
chipper??



O 1. Bone needle.



O -1. Beaver-tooth awl.



S4. Bear's-tooth Pendant

X 2/3
BB8
Bone
"awl"
cloak
toggle
3

of the hearth where broken points are least likely. Could they be broken flensing knives? But would they skin animals indoors?

Scrapers. Scrapers had many uses and might well be of many kinds. It is hard to distinguish scrapers from rejects, and probably unprepared chips were used once and discarded more often than specially shaped scrapers were used. The distribution tells us nothing. Two, one a spokeshave, were definitely on the women's side; two were on the men's side; the rest were on the tip.

Thong-smoothers. Sinew-smoothers are known in Nova Scotia. Usually short whetstones or gorgets (what Willoughby calls "arrowmaker's stones" have been grooved by rubbing down the sinews to an even thickness. On the other hand we have here a group of eoliths of constant shape, a flat piece of slate or quartzite with a single chip out of one edge, making a groove of standard size showing wear. I suggest that these were used for sizing thongs of less than quarter-inch diameter, but I have never seen such tools illustrated, nor have I found them in other sites. Their distribution is not sex-linked. "Whetstones". No Micmac site is complete without its whetstones. Usually there are large flat pieces of rough stone which have been worn by being rubbed with the tools. What did the Micmacs want to whet? Beaver-teeth, antler-tines, bones, very rarely stone adzes. For short tools like these the rubbing-stone is better than the whetstone. Perhaps they used them for smoothing wood. But most whetstones are of smooth slate and useless as sandpaper. It has been suggested that they used them for softening skins. Again slate would scrape poorly unless it had a sharp edge, while a sharp-edged postr would save much labour. I have divided these whetstones into general types according to their cross-section.

Oval. There were five of these, all from around the principal hearth, four on the women's side, one just on the men's side. Definitely these are women's tools. I have wondered whether potting paddles were always of wood as books imply. A stone paddle or surface-smoother would have been as effective as a wooden one.

Flat. These are almost always sharp on one edge, blunt on the other. They could have been used in flensing or scraping skins or as potting-paddles, but their position, two on the men's side to one on the women's, making all these uses improbable.

Triangular. This is the only tool of the type which shows signs of the pecking that shaped it. The position on the tip tells us nothing.

Rough and irregular. Only two erratic pieces were thrown into this lot. One is rhombic in cross-section and almost wedge-shaped at one end. The other, also of slate, is long and flattish with a concave jagged edge which could have been used for scraping wood.

All in all, I should prefer to leave the "whetstone" group, found also at Melanson and Port Joli 3, in the category of dubious tools.

Tools of animal origin. I have already dealt with beaver incisors. One piece of surf-clam shell was worn by scraping, but worked tools of shell have not turned up. Antlers of whitetailed deer were commonly used, but one cannot always say for what purpose. One sturdy antler had been sawn off (with what tool?) and a four-inch section, smoothed into a cylinder, was found discarded beside it. Many such sections, smoothed presumably for the hand, are tapered down to a point which is always broken off. Were these the handles of beaver-tooth knives, like the one illustrated by H.I. Smith from New Brunswick? We have not a single complete one and most seem too small. A piece of bone harpoon or toggle was on the tip. One antler-tip with a rounded point, which type I have suspected of being pressure-flakers, was found on the women's side. Antler punches were found at T-3, O1 and O-2 and a smaller, almost needle-size, one at O-2, all but one from the tip were on the women's side. A bone needle, $\frac{1}{4}$ " thick, was at O1. Flattened points of bone, which may have been broken "awls" or projectile points, were at U2, D-1 and D-2. Moose bone was little used, but what seems to be an awl came from Q3 and another from C-1.

There are always many pieces of long bone of moose which have been sharpened, seemingly on purpose, by two blows, into a point. These are commonly found throughout the site and are not certainly to be distinguished from ordinary soup-bones split for their marrow. However, the constancy of the pattern suggests to me that they were forks or skewers made for the occasion for handling hot meat. A few others resemble spoons; long ones would have been useful as trowels. But it is as possible that these are accidents as that they are ecoliths or rather ecoliths.

There are several flat bits that could be moose antler, which are hard to explain. One piece, 4"x 2", seems to have been flattened and bevelled at one side and notched at one end, though this notch could have been a hole broken away. Another broken one shows small grooves at right-angles to the edge. These slightly resemble sinew-smoothing grooves, but such a use seems improbable. The tapered and bevelled wedges of antler found by both Smith and Wintenberg were not in this site.

Personal Ornaments. The only ornaments that have survived are two teeth pierced to serve as pendants or part of necklaces, one a bear's canine, one a seal canine. Isolated moose incisors, like those pierced for suspension which are illustrated by H.I. Smith, were occasional throughout the site but not pierced. Little patches of red ochre were found twice in this site and once at Odaskwanokh; in two cases they were definitely on the men's side of the hearth. An arrowhead also seems to have been painted red. At O1 among the ashes there was a cluster of damaged teeth. One seemed to be a rather small bear canine split and seemingly burned and two others which may be burned seal-canines, perhaps a bit of a burned necklace.

Pottery. The pottery excavated from the central wigwam amounted to 14 lbs. 3 oz., roughly 3.4 oz. per square yard dug. This is slightly more than in the shell-heap sites, but this site averaged deeper. Usually the quality of the pot decreases as the size increases. It seems that the larger pots need thicker walls and that these need a greater tempering of sand so as not to crack in drying. But in this site only the later pots seemed at all large and the general quality was low with an average hardness between 2 and 2.5 inside and between 2.5 and 3 on the face.

My attempts to classify the types of form and decoration have not been conspicuously successful. They are:

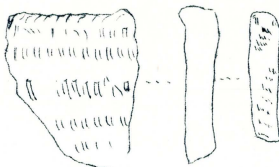
1. Rim erect or slightly flared at top. Lip cross-corded, square. Horizontal corded pattern, usually coarse, on body. Suspension holes occasional. Dark drab. Hardness: 3. Nine rims came into this group which was well defined. 1/3" thick.
2. Rim widely flared with raised points. Lip smooth dentate. Fabric pattern often with a collar of vertical smooth grooves and/or one to three horizontal lines of grooves. Pink. Hardness: 3. 6 rims. 1/2" thick.
3. Rim slightly turned out, lip dented or not. Fine diagonal grooves crisscross over fine rockered surface. Black drab. Hardness: 3. 1/2" thick. 6 rims.
4. Rim little flared with raised points. Lip 1- or 2-corniced. collar of punch-lines of round or oval or long-rectangular punches. Body covered with fabric pattern. Pink or grey. 1/3" thick. Hardness: 3. 5 rims.
5. Not classified. 19 rims.

Clay was found in one hearth, suggesting that the pots, or some of them, were made locally. To confirm this the sherds glittered with mica just as does the glacial sand under the camp. In the Port Joli sites there had been frequent lumps of crumbling sandstone and gritstone, and in Port Joli 3 and Indian Gardens 2 there had been almost identical chunks of fine sandstone rubbed into rough spheres but showing here and there original flat facets. I take it that they were introduced as temper for potting. Nothing

POT-RIMS.



Melanson
Drab.

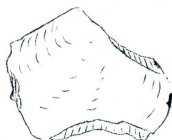


Bear River P-3
Drab.

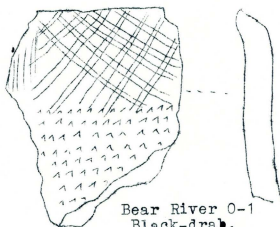
Group 1.



Odaskwanokh
OY-14

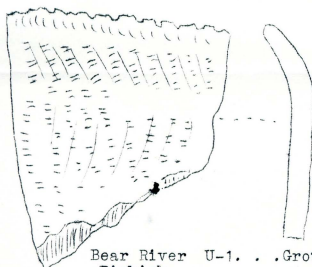


Nipple-
base

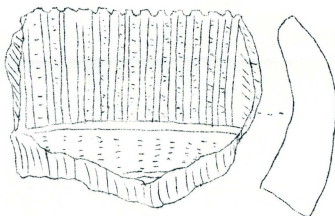


Bear River O-1
Black-drab.

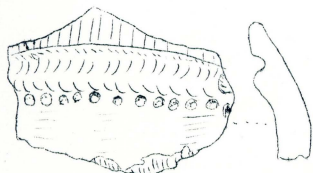
Group 3



Bear River U-1. . . Group 2 . . . Pink-drab.
Pinkish



Bear River S-1



Bear River U-1
Ochre drab. Group 4.



Bear River U-4
Pink

similar was found in this site, for there was no need for it on a hillside of sand. One blackish pot (5) showed shell temper.

The patterning of the pottery still puzzles me. Punches of various shapes and corded-twist patterns are obvious enough, as are the fine curved zigzags made by rocking the edge of a shell or the sternum of a bird up the pot. But from the lowest to the highest (my records here are not exact) the bodies of almost all the pots except Group 1 were covered with continuous patterning like the impression of a fabric. Often this was faint and underlay other patterning. The commonest form was of squarish dots, not sharp at the edges, about twelve to the inch. Others were coarser, with sharp upper and lower edges, and suggested fine basketwork of split twigs or pounded reeds. The background in Group 3 was a neat continuous mesh of triangular dots, certainly not a fabric, since the edges of the dots were sharp, but showing none of the irregularities that occur when rows or patches have been joined together on an uneven surface. This seems nearest to what Smith calls "rocker-stamp" pattern, but I could find no edges to the stamping and none of the irregularities of a roller. The fabric impressions are our only evidence, such as it is, of fine basketry or cloth. The basketlike impressions suggest a type of basket not now made by the Micmacs. Descarbot mentioned provision baskets made of rushes and roots by the women. At Port Joli I had noticed the frequent occurrence of the reed, Phragmites communis Trin., var. Berlandieri (Fourm.) Fern., along the shore, and the same uncommon but conspicuous grass was to be found at Annapolis and the Pomquet River, both places associated with Indian settlements. I took some of this reed to Lou Harlow to ask if the Indians ever used it, but he had not even a Micmac name for it and did not think it could be used. However, this reed, pounded so as not to be so brittle, is used for mats and baskets in Europe and Asia. It is perhaps worth noticing also that this grass rarely sets seed.

The fact that the same general type of pot-decoration was so common throughout the site suggested to me a continuity of tradition among the women, a matrilineal tendency.

Burial. When I had finished the central wigwam, I had a few days left, so I explored the eastern site by preliminary cross-trenching. As usual I misjudged the site which was eccentric owing to the projecting boulder which had crowded the wigwam into the southern end of the shelf until the mound of refuse had risen to a depth of two feet. My trenches, therefore, were central only to the later camp and were marginal to the early one.

My north-south trench had just reached the area of the boulder when I brought up from the sand at the bottom a number of unusual bones. I had removed several before I recognized one as a shattered human jaw. I then covered the spot with a large stone while I excavated the two neighbouring square yards which covered the ~~next~~ rest of the grave with 34 inches of stratified deposit. By afternoon I was able to remove the stone and to free the rest of the skeleton from the sand.

The whole of that wigwam has not been excavated, so that my description of the life of the land must be taken as provisional. The skeleton is now under specialist's examination. My own opinion, subject to correction, is that this was a nine-year old girl of Otamid type. (The Otamid type is the heavy-boned big-featured element so common among the purer Micmacs. It belongs with the Australoid, Rhodesian and Neanderthaloid races, but has been modernized by admixture with proto-mongoloid stock.) At first I thought that the jaw could not belong to the tiny ribs and thin shanks, for the shallow chinless mandible was longer than mine and the permanent molar was larger by far than any I used to have, and had curious double roots as wide as the tooth. However, there is an anthropological saying: "Great jaws on little apemen grow", and, although this was not an ape-child, the saying fits. The skull and ribs were badly crushed, probably by the weight of the soil, but the vertebrae and long bones had suffered little. The child was lying on the right side, head towards the west, face towards the south, and was in an exaggeratedly doubled up position. My impression was that the vertebrae were all in place but that the leg-bones were more compacted to the body than they

could have been in the flesh. A bone awl lay beside the ribs. It was collared for suspension and was worn smooth a little above the middle, which made me think that it had served as a toggle for fastening the beaver cloak in which the child had been buried. There were no grave gifts, and the only trace of covering or lining was a very thin black line visible in the sand for about six inches near the child's head. In the hollows of the long bones were the shells of tiny land-snails.

As I reconstruct the burial, the girl died in winter when interment was impossible. She was therefore wrapped in birchbark and hung in a tree or on a scaffold. The cloak suggests cold weather, since one so young would scarcely have needed clothing in summer. The snails suggest that the body had spent a period above ground, at least until spring had brought the snails abroad, and the smallness of them suggests a stitched wrapper through the seams of which only the tiniest could penetrate. The sand in which the body was buried seemed too friable to leave cracks through which the snails could have penetrated after burial. The family may well have moved away before the soil thawed and have buried the child on their return. It seems probable that the burial took place before the second wigwam-site was occupied and had been forgotten when the need for a second wigwam occurred.

XXX Nineteenth-Century Micmacs. In the nineteenth century three or four Micmac wigwams used to occupy the old sites, and nails and chinaware had intruded in one place to a depth of ten inches. Because of such thorough levellings it was difficult to tell new hearths from old. Near the surface moose-bones looked fresher, mussel shells were more often entire. It was not possible to determine a bottom date for these remains. All the chinaware seemed to belong to the nineteenth century and varied from earthen crocks to much-chipped fruit-plates with elaborate scalloped edges. Bone-handled kitchen-knives were broken and discarded; iron pots were used for cooking; pieces of stray iron were brought in, and at one period long squared spikes were common, probably stolen from shipyards. Loops of wire must have held the wigwam-poles in place of withes. Broken embroidery-scissors told of the vanishing convent-culture; large flat buttons of brass and smaller ones of silver suggested the finery of self-respect. A local industry was marked by porpoise vertebrae. It seems that the Micmacs had not hunted the porpoise on any large scale until the coming of the gun, but at Digby Gut a trade in porpoise-oil grew up during the eighteenth century, the beasts being shot from canoes and then harpooned and dragged ashore. On Victoria Beach they were cut up and rendered down, and casks of porpoise-oil were freighted across Fundy in huge canoes and were sold in Saint John. "There were seven different kinds of meat in a porpoise." In this site, at least one porpoise had been shared by two wigwams. He was not only food, for in both sites some of his vertebrae had been whittled into neat discs. In the eastern site one of these had also been domed on top and engraved beneath with a compass-rose (probably traced around a shilling or a twenty-five-cent piece) and the lines had been filled in with red ochre. This bears some resemblance to the waites discs illustrated by Wallis, and possibly these were to be counters in that modern gambling game. A few wire nails mark the turn of the century, and then the Indians are gone.

4. Miscellaneous.

Supplement to Micmac Notes, 1957. Mr Evan B. Hazard named the the following teeth collected in 1957:

Port Joli 2 - deer, otter.

Port Joli 3 - porcupine, rabbit, deer, bear, seal, dog, beaver. Also spiny dogfish, identified by Mr. Reeve Bailey, and American scoter, identified by Dr. H.B. Tordoff. (My bird-bones were sent to the National Museum at Ottawa for examination, and I hear by the grapevine that great ark was found among them.)

Port Joli 6 - deer.

Port Joli 7 - deer, mink, seal.

Port Joli 8 - rabbit, seal.

It should not be taken from this list that moose were not part of the diet in these sites. Moose long-bones, split for the marrow, outnumbered all other types of bone in these camps, but the heads were not brought to the camp as they were at Bear River.

Ethnological Notes. My most helpful informants among the Indians were Martin Sack, for thirty years counsellor of the Shubenacadie Reserve, and John Prosper, chief of the Bayview Reserve.

Martin Sack was very factual and added no hearsay. When he was a boy, his grandfather (his father was dead) took the family up the Stewiacke River where there were then few farms, and they pitched their wigwam with some other families. In the morning his mother called to him: "Martin, make up the fire!" He put on his coat, tied his cap under his chin, put on his mittens and began to blow up the fire which had died down to embers. A very small fire kept the wigwam warm. When the fire had burned awhile, his mother rose, took buckwheat meal, added water, and kneaded a cake which she placed among the embers, covering it also with a few embers. There were only a few burned spots, and it was very good with butter. The time would come when she would say: "Puppa, food running out." Then the grandfather would get up, cut a big chunk of cake, fill the centre with butter, roll it in his handkerchief and tie this around his waist for his dinner, and would go out. He would not be gone long. He would come back with the tongue, the liver and the fat from inside the moose, as much as he could carry. Then a man would go from every wigwam and would take from the carcass as much as he could carry. After that the grandfather would take the rest to sell at the store and would buy needed things such as flour. Sometimes the men went up to the bog to hunt caribou. One man said: "Why don't we move the camps up to the bogs where the caribou are?" But they never did. . . .

It is worth noting in this description that a formalized sharing system is still present and that the custom that the women bring in the meat is not there. The date would be 1885-1900.

John Prosper was born at Canso. His band used to spend the winter at Framboise Bay near Louisbourg or at L'Anse au Loup where there were unfreezing swamps in which one could spear eels and beaches where one dug foxholes and ambushed seals. In summer they went up a river from St. Ann's Bay to the barrens where they hunted caribou, and they came down by the Indian River which was too steep to go up. They camped also near Iona and Canso.

Here it may be noted that the winter camp was on the shore, another proof that one must not take too literally the generalization that the Indians went inland in the winter. Some of them did, that is all. Their movements followed food.

John Andrew Chisholm of Margaree Forks gave me a note on Micmac burial customs. An Indian once stopped at their house and asked his grandmother if he might stay the night. (Date: c.1860) He had a big bag which he left on the porch, and she poked at it out of curiosity without learning what was in it. In the morning she asked the Indian. "That my grandfather," he said. "He want to be buried in Mabou. He not too heavy. I take out him guts."

Micmac Words. I find that Indians vary the pronunciation of many words to a point where it is difficult to be sure that the original words are the same. As in Micmac tonic accent varies without regularity and most syllables are unclear and the vowels and consonants do not correspond closely to those of any language I know, it is not surprising that everyone records them differently. The leister type of fish-spear I have noted as nigaul, which may be

5. Summary.

The summer's work fills in a spot in our inadequate prehistoric picture. The hypothetical sequence of cultural horizons has now a few well-anchored points, though even these are still based only upon projectile-points and are poorly linked to other areas. This is the rough picture:

Suggested Culture datings.	Name.	Description and criteria	Sites known.
13000-1000 BC.	Ancient.	Fluted points, extinct mammals.	Not so much as one point.
1000BC-500 AD.	Boreal Archaic = Red-Paint.	Ground points of slate; well-made gouges. No pots.	Tusket Falls; Indian Gardens; Grand Lake. No sites dug.
500 - 1250 AD.	Early Woodland.	Stemmed points of quartzite, quartz, slate. Bolas. Pottery.	Bear River; perhaps Lequille.
1250-1400 AD.	Middle Micmac.	Fine, pressure-finished, corner-notched points of chalcedony, jasper, quartz and lavas.	Port Joli, Indian Gardens, Merigomish, Odaskwanokh.
1400-1500 AD.	Late Micmac.	A few large serrated points from	Indian Gardens.
1500-1600 AD.	Contact.	Decline of stone and pot, replacement by iron and kettles.	Not known.
1600-1750 AD.	Acadian.	Rich in iron and copper, guns from 1650.	Pictou Burial; no sites.
1750-1900 AD.	British.	Poor; guns, wooden arrowpoints, chinaware, nails, buttons.	Very many.

It may turn out that some of the above periods are unnecessary. We have no evidence of Ancient man here, but Nova Scotia seems to have been ice-free earlier than the Appalachians (Livingston, 1958), there were mastodons here, these died out, and wherever this happened we suspect the hand of man. The vague datings are based on Dr. Ryers' carbon-dates for Maine plus a few centuries for diffusion. Until the end of the Early Woodland period most of eastern North America was in the "hunting-gathering" economic stage, changing very slowly, and our cultures would be somewhat impoverished versions of the ones general farther west. With the explosion of corn-culture from New York State southward and westward at about the beginning of our era technical changes spread from that area into Nova Scotia which, however, seems to have remained outside the limit of corn-planting. Its culture from that time forward, therefore, needs to be distinguished from that of agricultural tribes. "Late Micmac" is based upon a few western-type war-heads in Dr. Raddall's collection, and it may be that these points or their makers may have been brought in as a result of wars with western tribes. However, the legends of the Mohawk wars related by Rand include no European weapons but show a life much like that described by Lescarbot and unlike that of the shell-heaps. Wintemberg's Mahone Bay site had corner-notched points of quartzite suggesting transition to Middle Micmac, but his pots were truly Middle Micmac, of the southern type. However, we need to know a great deal more about the pottery types here before we rely upon them for dating.

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