

THE WIGWAM BROOK SITE
AND THE HISTORIC BEOTHUK INDIANS

CENTRE FOR NEWFOUNDLAND STUDIES

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THE WIGWAM BROOK SITE
AND THE HISTORIC BEOTHUK INDIANS

by

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Abstract

This thesis is concerned with a description of the historic Beothuk using both ethnohistoric and archaeological data. A summary of ethnohistoric descriptions of Beothuk material culture is provided. This consists of descriptions of such things as canoes, habitations, storage and smoke houses, deer fences etc., most of which would not survive in the archaeological record. As such, it constitutes an important part of the existing knowledge of the Beothuks, and furnishes a valuable source of information for the interpretation of the archaeological remains.

Archaeological data consist of earlier work done on Beothuk burials and more recent work on a number of habitation sites on the Island. The former is reanalyzed in light of new information on the prehistory of Newfoundland. The latter consists of a summary of the results of excavations previously conducted at two Beothuk habitation sites and a description of the results of archaeological field work carried out for this thesis at the Wigwam Brook (DfAw-1) site, a late historic Beothuk component located near Grand Falls in central Newfoundland.

The work at Wigwam Brook furnished the data for a detailed discussion of the characteristics of such things as features and artifacts at an interior late historic Beothuk encampment. Analysis of recovered faunal material indicate an unexpected year round occupancy, a fact which may be important in the understanding of the possible causes for the eventual extinction of the Beothuks in the early nineteenth century.

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INTRODUCTION

This thesis deals primarily with a description of archaeological work carried out on the historic Beothuk Wigwam Brook site (DfAw-1), located in the Exploits Valley in central Newfoundland. The purpose of this field research was to collect sufficient data to attempt to formulate an archaeological 'identity' of the historic Beothuk. However, it was thought at the outset that a careful consideration of ethnohistoric descriptions of Beothuk material culture would result in a more cogent picture of the culture of these people in historic times. We shall therefore summarize the available ethnohistoric data on such objects as canoes, habitations, weapons, etc. This will not only provide an idea of cultural items which would not normally be preserved in archaeological contexts, but also serve as a source for comparisons and interpretations of features in the archaeological records.

We shall also consider what former archaeological work has been done on the Beothuk problem. This summary will consist of descriptions of early investigations of Beothuk burials. These interments were examined before the development of controlled archaeological techniques, and the descriptions are therefore brief and incomplete. However, they do constitute an important part of what is now the present status of Beothuk archaeology. Cognizance also shall be taken of the work of such scholars as T.G.B. Lloyd and James P. Howley although much of what they conclude with respect to the archaeology of these Indians is largely erroneous in terms of what we now understand about the prehistory of the island of Newfoundland. Lastly, the more recent archaeological work of Helen Devereux shall be described for it constitutes the only other major detailed, controlled analysis of Beothuk habitation sites.

The major part of this report shall focus on excavations conducted at the site of Wigwam Brook. Field work at this component spanned a period of seven weeks and during this period a total of 5000 square feet or a little less than 10% of the presumed occupation area was excavated. Analysis of this work will include a consideration of environmental aspects of the general location of the site, followed by descriptions and interpretations of the features and artifacts which were discovered.

A chapter will also be devoted to the subsistence practices of the Beothuk at Wigwam Brook as elucidated by the faunal material recovered at the site.

Finally, in the conclusions we shall synthesize the archaeology and ethnohistory to provide a picture of historic Beothuk culture.

CHAPTER 1

ETHNOHISTORIC DESCRIPTIONS OF BEOTHUK MATERIAL CULTURE

The Beothuks of Newfoundland have received considerable attention during the past 400 years and despite James P. Howley's magnum opus "The Beothuks", which is a chronological summary of the contemporary accounts concerning these Indians, they continue to remain the so-called "mysterious race." This situation exists even though there was a comparatively long period of contact between the natives and Europeans which began in the late 15th century with John Cabot and supposedly terminated in 1829 with the death of Shanawdithit, the last known Beothuk. It appears that animosities between the Europeans and Red Men, probably sparked by such things as repeated kidnapping by the Portuguese (Hoffman 1961:29, 31, 200), and destruction of forests and game plus occupation of favoured camping areas along the coast by the Europeans, were likely responsible for the small amount of intensive interaction between the two groups throughout the historic period. Consequently, we now have only a minor collection of descriptions of Beothuk material culture and virtually nothing concerning their social structure, religious practices, etc. We owe the bulk of our knowledge of these people to observations made by the Portuguese and British (notably Whitbourne and John Guy) early in the historic period and in the last 50 years of contact, to the detailed reports of Lieutenant John Cartwright, Captain David Buchan and William Cormack.

Notwithstanding the rather limited nature of the available descriptions of the Beothuks, it is thought that a careful consideration of them

would be of value to an analysis such as this one. David Baerreis (1961: 59) has pointed out that, "...much of ethnohistoric data pertain to perishable materials so that they in effect comprise a very valuable addition to the archaeological record." This is certainly true with the Beothuks since the sources have descriptions of such things as canoes, wigwams, storage houses and several other items, all of which are not likely to be preserved in the archaeological record.

This chapter, therefore, will be devoted to a presentation of available ethnohistoric descriptions of Beothuk material culture. Where possible attempts have been made to locate and document the primary source of the descriptions, since very often papers presented with a similar theme in mind, fail to do so. Furthermore, we have also tried to synthesize all available descriptions concerning each particular object under discussion in order to illustrate the variability which often exists. Lastly, comments on a number of reports are included in the text. The following then, will consist of descriptions of canoes, habitations, storage houses, smoke houses, deer fences and sewels, vapour baths, burial methods, weapons, snowshoes, bark utensils, use of iron pyrites, use of red ochre, dress, "mythological emblems", food, food processing and storage.

Canoes

The earliest reference to the Beothuk canoe is contained in a short description concerning these natives by Henri Estienne about 1509. He notes, "...their barque is made from the bark of a tree. With a single hand a man (can) place (one) on his shoulders" (Hoffman 1961:31, from Eusebius 1512:172 in Harrisse 1900:162-163).

Later, Jacques Cartier observed the use of boats, "...made of the bark of birch with the which (sic) they fish and take great store of seals..." (Lloyd 1874a:21).

Another early though brief description of Beothuk canoes was contained in a report by Whitbourne who visited Newfoundland in 1582 and published an account in 1622. He describes them as similar to, "...the wherries on the river Thames," made of birch bark, which was sewn together and then sealed with turpentine" (Ibid:22; Howley 1915:21).

The earliest detailed description of the canoe is contained in John Guy's Narrative (Howley 1915:15-18). Guy relates that the canoes were approximately twenty feet long and, "...four foot and a half broad in the middle aloft." The keel and other frame parts were of "dry fire." Birch bark was used as the cover and was sewn together with quartered roots. A thin pole, wrapped with roots and about 3 feet in length was secured vertically to the bow and stern. The canoe was supposed to have weighed less than one hundred pounds and was capable of carrying four persons.

Lieutenant John Cartwright of the Royal Navy who travelled up the Exploits River to Lieutenant's Lake (now Red Indian Lake) in 1768 on a reconnaissance mission to locate and bring about friendly relations with the Beothuks, provides us with the most detailed specifications of their canoes. He describes the canoe as one with:

"...the sides beginning at the very keel, and from thence running up in a straight line to the edge or gunwale. A traverse section of it, at any part whatever, makes an acute angle; only that it is not sharpened to a perfect angular point, but is somewhat rounded to take in the slight rod that serves by way of keel. This rod is thickest in the middle, (being in that part about the size of the handle of a common hatchet,) tapering each way and terminating with slender curved extremities of the canoe. The form of this keel will then, it is evident be the same with the outline of the long section, which when represented on paper is nearly, if not exactly, the half of an ellipse longitudinally divided. The coat or shell of the canoe is made of the largest and fairest sheets of birch rind that can be procured. Its form being nothing more than two sides joined together where the keel is to be introduced, it is very easily sewed together entire. The sewing is perfectly neat, and performed with spruce roots, split to the proper size. That along the gunwale is like our neatest basket

work. The seams are payed over with a sort of gum, appearing to be a preparation of turpentine, oil and ochre, and which effectively resists all the efforts of the water. The sides are kept apart, and their proper distance preserved by means, of a thwart of about two fingers substance, whose ends are lodged on the rising points above mentioned, in the middle of the gunwhale. The gunwhales are made with tapering sticks, two on each side; the thick ends of which meet on the rising points with the ends of the main thwart, and being moulded to the shape of the canoe, their small ends terminate with those of the keel-rod, in the extremities of each stem. On the outside of the proper gunwhales with which they exactly correspond, and connected with them for as by a few thongs, are also false gunwhales, fixed there for the same purpose as we use fenders. The inside is lined entirely with sticks two or three inches broad, cut flat and thin, and placed lengthways, over which again others are crossed. A short thwart near each end to preserve the canoe from twisting, or being bulged, makes it complete" (Howley 1915:32-33).

Cartwright illustrates an example of a model canoe which Howley has duplicated (Howley 1915:Plate III, opposite p. 32).

Cartwright also points out that since these canoes have, in a sense, no bottom, with the sides meeting at a point which is also the keel, they had to be ballasted with stones so they would float upright. The stones, in turn, were apparently covered with moss. Canoes were usually paddled but he also notes that sails were occasionally used, though, "...this is a practice for which these delicate and unsteady barks are by no means calculated" (Cartwright 1826:312).

A length of 14 feet and a beam of four feet is suggested by Cartwright (Ibid.). Cormack, however, states that lengths vary from 16 to 22 feet (Howley 1915:213).

An interesting remark in Cormack's short description of the canoe is his observation that the covering or "shell" as Cartwright calls it, was "...deer skins sewed together and fastened by stitching the edges round the gunwhale" (Ibid.). Except for a very early (1501) remark to this effect by one of the Cartereals who also noted the use of deer skin for garments and houses (Cantino, October 17, 1501; in Biggar 1911:64

cited in Hoffman 1961:29); Cormack seems to be alone in this belief since, as Howley points out in a footnote to this comment on skin coverings, (Ibid.) all other observers (Cartwright 1826:911; Whitbournie (Lloyd 1874: 22), and Buchan (Howley 1915:85-86) are very specific about the use of birch rind as canoe covering. However, Howley concedes the possibility that caribou hides may have been used in the event of a scarcity of a suitable supply of birch rind (Ibid.:footnote #2, p. 213).

The odd shape of the Beothuk canoe, that is the elevated midsection, is perhaps peculiar but it is certainly not unique in the northeast. The Micmac canoes of Newfoundland, and "...throughout the Micmac range as far as southern Nova Scotia" (Speck 1922:32), have a similar profile which, according to Wallis and Wallis (1955:48) is to increase the sea-worthiness of the craft. A similar notion may have prompted the Beothuks into using this feature of elevated gunwales. In this respect, Lloyd notes the observation of a certain John Evans who states that,

"...the greater height of the gunwale and the curving up of the ends of the canoe, as compared with the ordinary canoe of Canada, would render it less liable to ship a sea, whilst its V-shaped section would increase its capability as a sailing craft in moderate weather" (Lloyd 1874:36).

Lloyd (Ibid.) suggests that finds of canoe paddles and arrowheads on the Funk Islands, over thirty miles off the coast of Newfoundland seem to argue for sea travel by the Beothuks. Whether or not the artifacts on the Funks are in fact Beothuk is a moot question but given the design advantages, for rougher water and the fact that sea travel in canoes is reported for the Micmac (Speck 1922:119) between Cape North of Cape Breton and Cape Ray, Newfoundland I see no reason to doubt the possibility that the Beothuk canoe was very probably well adapted to short distance sea travel among the Islands off the coast of Newfoundland. In fact, the summer

part of the yearly cycle would dictate the necessity of some sort of sea travel between the coast and islands to obtain sea birds and eggs -- foods which are noted as important during the coastal occupation in the ethno-historic sources.

As might be expected, no evidence of any kind which would have suggested the presence of canoes was found at Wigwam Brook. However, at the Indian Point site a red ochre stain some 22 feet by five feet was encountered in the Lower Occupation or prehistoric component (Devereux 1970:41), which H.E. Devereux suggests, "...would be congruent with the plan of an upturned canoe. This had perhaps been left to disintegrate so that the ochre staining in the subsoil today is the only visible remaining evidence of its existence." Ethnographic evidence, which Devereux cites [Whitbourne (Howley:1915:21); and Cormack (Howley 1915:190, 192)] suggest dimensions of canoes as being 22 feet and also that they were stained with red ochre. One would wonder however, if the amount of red ochre used in colouring a canoe would be sufficient to leave its mark in the ground for several hundred years. Nevertheless, the stain is suggestive, and the interpretation interesting.

Habitations

John Guy (1612) briefly describes a Beothuk wigwam in his Narrative. His description indicates a conical structure with a circular ground plan of about 10 feet. The covering was of caribou hide and a fireplace occupied the centre of the dwelling (Howley 1915:15).

A more detailed analysis by John Cartwright also suggests a conical structure whose size was determined by the number of family members. Oblong hollows situated around a central hearth formed the sleeping areas.

The framework consisted of straight poles with a covering of birch bark. A smoke hole was incorporated into the top of the structure. The bark covering was held in place by a series of poles which were leaned up against the exterior of the wigwam (Cartwright 1826:308; Howley 1915: 29-30).

Regarding the birch bark covering there seems to be some dispute. Captain George Cartwright states that the framework of poles was covered with skins (no mention is made of what type) and, "...often with sails, which they contrive to steal from the fishing rooms" (Howley 1915:48). Others (Jukes 1842:126 and MacDougall 1891:100) also mention the use of skin coverings. As with canoes perhaps use of skins depended on the lack of suitable birch bark.

In 1822, Cormack (Howley 1915:211) who refers to the Beothuk wigwam as a Mamateek, gave a detailed description in which he notes the use of straight poles,

"...of fir, about twelve feet high, flattened at the sides, and driven in the earth close to each other; the corners being made stronger than the other parts."

An interesting addition to John Cartwright's account is the use of moss presumably to chink the crevices and line the inside. Continuing, Cormack states,

"...the roof was raised so as to stand from all parts and meet in a point in the centre, where a hole was left for the smoke to escape. The remainder of the roof was covered with a treble coat of birch bark, and between the first and second layers of bark was placed about six inches of moss, about the chimney clay was substituted for the moss" (Ibid.).

What Cormack appears to be describing is a structure with sub-walls probably greater than 10 feet in height on which was mounted a conical-like roof with smoke hole. Only the roof appears to have been covered with bark.

Besides the conical type of wigwam which we have been discussing and the presumably aberrant type described by Cormack there are references to multi-sided wigwams. (Perhaps Cormack's mention of corners in the above description may be taken as an indication of a multi-sided structure.) Buchan is the first to make a statement concerning the multi-sided dwelling. This, he describes as a octagonal structure which was supposedly used only in winter. Constructional details suggest sub-walls of about four feet from which poles were attached to form a conical roof with smoke-hole. The covering was again birch bark and a hearth occupied the central portion of the floor (Howley 1915:85). Buchan also makes a brief reference to the fact that the round wigwam was used in summer "...whilst employed on the ponds and rivers in procuring food for winter" (Ibid.).

Howley has reproduced sketches of two types of mamateeks (Howley 1915:Sketch VI opposite p. 246). The first is an octagonal dwelling, according to the accompanying description and appears to be similar to the multi-sided lodge which Buchan describes. There are some additional details, however, which might be added here. These include the heaping up of a circular mound of earth around the walls, and the placement of two octagonal hoops on the upper framework to presumably act as braces (Howley 1915:245).

The second mamateek illustrated by Shanawdithit is a simple conical structure without vertical walls. This example was regarded as a temporary or summer structure (Ibid.). Though referred to as a mamateek by Shanawdithit, Patterson (1891:34) presented the term meotick for the simple conical summer wigwam. His source for the term is George Cartwright but no other reference to this name was found in the ethnohistoric records.

A third type of habitation and one which is quite distinct from the conical and multi-sided types we have just discussed is a square

dwelling. John Guy mentions this type in his narrative in 1612 but gives no details. John Cartwright, however, is much more explicit and describes the square house as,

"...a rectangle framed nearly in the fashion of the English fishing houses, only that the studs were something apart from which it was evident that they alone could not, in that state, form the shell, as in the English buildings where they are closely joined together. But about eighteen inches within this, and parallel to it, there was another frame of slighter workmanship rising to the roof. From the hair which adhered to the studs, the interval appeared to have been filled with deer skins... This was the construction of only three sides, the fourth being raised by trees well squared and placed horizontally one upon another, having their seams caulked with moss. ...The lodgements of the rafters on the beams, and the necessary joints, were as neatly executed as in the houses commonly inhabited by our fisher. The roof was a low pyramid being encompassed at the distance of three feet from its vertex by a hoop, tied to the rafters with thongs... the space above the hoop had been left open... for a passage to the smoke, the fireplace, according to custom, having been in the centre" (Cartwright 1826:309; Howley 1915:30).

As will be seen in more detail later on in this chapter the square dwelling, based on its description by Cartwright, is most probably a type of habitation which is due to contact with Europeans and therefore a phenomenon of the historic period.

To summarize, then, habitations of the Beothuks appear to include two types of wigwam and the square house. Of the wigwams, the mamateek or winter wigwam, is an octagonal structure which appears to consist basically of a conical roof mounted on low vertical walls of 2 to 4 feet. The roof was covered with birch bark and insulated with moss. The second type of wigwam, the meotick, was a simple conical structure with a circular floor plan. This type was purported to have been used in summer only, and was much like that used by the Micmacs on the Island (Patterson 1891: 134). The square dwelling was a square walled building with three walls made of small upright poles and the fourth of horizontally placed squared logs. The roof was pyramidal in shape.

Storage Houses

Brief descriptions of four different types of storage houses can be found in the ethnohistoric records. The first of these is reported by William Cull, who describes a building some forty to fifty feet square located approximately 60 miles up the Exploits River (Howley 1915:69). The structure, which was discovered in the winter of 1810, was of wood and covered with skins and bark. No mention is made of what type of bark was used, though one might reasonably assume birch rind. The roof is not described. Lieutenant Buchan, however, states that the store house seen by Cull was "...built with a ridge pole, and has gable ends" (Howley 1915: 85). Cull also observed a similar though much larger store house on the opposite bank of the river but no examination of this one was made (Howley 1915:69).

Contents of the described house included nearly 100 deer (caribou), some of which was fatty and,

"...in junks entirely divested of bone, and stowed in boxes of birch and spruce rinds, each box containing about 2 cwt. The tongues and hearts of the deer were stowed in the middle of each package. The lean venison, or that more recently killed was in quarters and stowed in bulk, some part of it with the skin on" (Howley 1915:69).

Mention is also made of skins of marten, beaver and deer.

In 1811 Lieutenant Buchan discovered a circular storage house, covered with deer skins (Howley 1915:75), and "...not so large as their wigwam" (Ibid.). Though no details are given on this structure it may perhaps be speculated that they resembled the smaller conical wigwam or meotick used in summer.

A third type of store house is reported by Cormack who states that they found, "...a small log house, in a dilapidated condition, which we took to have been once a (sic) storehouse" (Howley 1915:192). No

information other than this brief note was given by Cormack and it may be debatable if this structure was in fact used for storage.

The fourth type is described by J.P. Howley and is based on a sketch by Shanawdithit (Howley 1915:248 and sketch VIII opposite p. 248). The structure is also called a drying house and was apparently 10 feet wide and 4½ feet high at the wall. The roof was peaked and had a "...low angle of slope." Inside, the building was divided, "...into two rows of large squares, one above the other, six squares in each row, and every alternate square is crossbarred as though representing lattice work. This was probably to allow for the free circulation of air" (Ibid.:248). Howley states that the store house contained packs of dried venison (Ibid.).

To summarize, four types of storage houses have been recorded in the literature. These include: very large types approaching 50 feet to a side; a possible log example for which there are no details; another square walled type with a gabled roof but much smaller than those described by Cull; and a circular wigwam-like example which was covered with hides.

Smoke Houses

Cormack mentions a wooden Building, "...constructed for drying and smoking venison" (Howley 1915:192), but gives no description.

Shanawdithit sketched a venison smoke house for Cormack which Howley interprets as "...an oblong structure consisting of upright sticks forming the walls on all sides with a gabled roof similar to the fishermen's tilt or storehouse" (Howley 1915:245, illustration VI opposite p. 246).

The description of the walled storage houses by Cull, Howley, and Cormack; the square dwelling mentioned by Cartwright; and the sketch and description of the smoking house suggest the possibility that contact between the fishermen and the Beothuks, such as it was, may have fostered

the above imitations of the English buildings of the types described above. Whether similar building existed in prehistoric times would depend on whether or not it is possible to recognize structural remains of these buildings. There is some indication that they did exist in early historic times as shown by Guy's reference to them in 1612. However, even by this time Europeans had been in sporadic contact with the Beothuks for at least a century, and it is likely that this was sufficient time for these Indians to learn how to duplicate square structures using aboriginal materials. We therefore believe that square structures, whether they be habitations, store houses or smoke houses, are a phenomenon of the historic period. This must however, remain a hypothesis until future excavation can be done to determine the presence or absence of these buildings on prehistoric sites. If they are characteristic of the historic period then perhaps the one skin covered conical store house noted by Buchan may be the aboriginal type.

Cormack mentions the association of a smokehouse, wigwams, and a store house at an interior encampment which suggests their presence on a historic period site (Howley 1915:192). However, no remains of anything even resembling the floor plan of a square or oblong structure was encountered during the work at Wigwam Brook nor is any such feature suggested at the Indian Point site (Devereux 1970; and personal communication 1972). Moreover, the lack of any information on possible ground modification in the construction of such buildings and the fact that the upright poles which may have been merely sticks thrust into the ground and therefore not likely to leave any traces due to the highly acidic nature of the soils in the interior, suggests that these structures may be very difficult if not impossible to recognize. However, the vagaries of preservation may

possibly be favourable at some time in the future and enable future investigators to make a more explicit statement regarding square walled buildings.

Deer Fences and Sewels

John Cartwright is again the most reliable source for a description of this particular feature of Beothuk material culture which, interestingly enough, survived until the late nineteenth or early twentieth centuries (Lloyd 1875a:25; 1975b:224; Speck 1922:19-20). According to Cartwright the Indians selected areas along the Exploits River which would be suitable for intercepting the migration of caribou. The most favourable locales occurred where there was a beach of approximately twenty feet, and a high river bank (Cartwright 1826:309-310; Howley 1915:30). The Indians apparently felled trees on the river bank so that the trunk was not completely severed from the stump and directed each to fall parallel to the river and upon its neighbour. Weak areas in the fence were strengthened with branches which were interwoven into the matrix in some instances, and lashed in others. Heights ranged from six to ten feet depending on location (Ibid.).

In areas devoid of vegetation sufficient for fence building the Beothuks supposedly used sewels. These were made, "...by tying a tassel of birch rind, formed like the wing of a paper kite, to the small end of a slight stick, about six feet in length" (Cartwright 1826:310). Sewels were placed, "...about ten or a dozen yards apart... [and inclined so that any wind would cause a movement of the tassel and], "Thus it is sure to catch the eye of the deer, and to make them shun the place where it stands" (Ibid.:311).

Caribou were killed from "...certain convenient stations... where the Beothuks had ... small breast works half the height of a man (by the furriers called gazes), over which it may be presumed they shoot the deer passing between the waterside and the bank..." (Cartwright 1826:310). Cormack also mentions killing of the caribou in water using spears and canoes (Howley 1915:194 and 195) which certainly seems to be a far more efficient method than waiting on the bank since caribou mobility is severely restricted in water.

Reports from contemporaneous and more recent observers indicate extraordinarily long deer fences. Cormack, for example reports one which was located on the Exploits River as being "...at least thirty miles" (Howley 1915:195), long. T.G.B. Lloyd mentions one example which was formerly about 35 miles long and had been partially rebuilt for use by the Micmacs of the Island (Lloyd 1875a:224).

Mention has already been made of the fact that some of these fences were still in existence in the early twentieth century (Speck 1922:19-20). As far as we know there have been no recent reports of such fences and it is likely that intensive logging operations which have been carried on in the Exploits valley over the past seventy-odd years have eliminated all traces of them. No reconnaissance was carried out in the vicinity of Wigwam Brook to ascertain the possibility of a local deer fence. If there was one, a major forest fire which swept down the valley in 1897 (Malcolm Squires, Chief Forester, Price (Nfld.) Pulp and Paper, verbal communication 1972) and logging operations in the area have probably eliminated all traces.

Vapour Baths

Cormack describes a vapour bath in some detail. He observes that

the Beothuks raised;

"...the steam...by pouring water on large stones made very hot for the purpose, in the open air by burning a quantity of wood around them; after this process, the ashes were removed, and a hemispherical framework closely covered with skins, to exclude the external air, was fixed over the stones. The patient then crept in under the skins taking with him a birch rind bucket of water, and a small bark dish to dip it out, which, by pouring on the stones, enabled him to raise the steam at pleasure" (Howley 1915: 190-191).

In a footnote, Cormack says that Shanawdithit later told him that vapour baths were used mainly by old people "...and for rheumatic affections (sic)" (Howley 1915:191).

The only feature which may be indicative of these vapour baths or sweat houses at Wigwam Brook are fire-cracked rock concentrations. This interpretation will be dealt with in more detail in the section on features.

Burial Methods

Four methods of interment are reported in the sources by William Cormack.

The first mode of burial is described as a "...hut ten feet by eight or nine, and four or five feet high in the centre, floored with squared poles, the roof covered with rinds of trees..." (Howley 1915:192-193). Two bodies were found in the extended position by Cormack, one of which was concluded to have been Mary March who had been captured by Europeans and held for some length of time but died before she could be returned to her "tribe" by Captain Buchan. Buchan apparently returned the body to the interior and left it where the Indians were likely to meet it." Cormack therefore assumed that the body had been moved to the above sepulture which had been built for her husband following his death at the hands of the English.

Grave goods included wooden figurines, several model canoes, two boat models, an iron axe, a bow and quiver of arrows, two "fire stones" or radiated iron pyrites "...from which they produce fire by striking them together..."

The second type which Cormack outlines is a scaffold burial with the body being wrapped in birch bark (Howley 1915:194).

"The scaffold was formed of four posts about seven feet high, fixed perpendicular in the ground, to sustain a kind of crib, five feet and a half in length by four in breadth, with a floor made of small squared beams, laid close together horizontally, and on which the body and property rested" (Ibid.).

The "crib" was apparently about 4½ feet above the ground (Ibid.).

In the third type, it seems from the description, that the body was flexed, wrapped in birch bark, and deposited on its right side in a box-like container which was simply left on the ground surface. The box was four feet long, three feet wide and two and one-half feet deep. It was made of small squared sticks which were horizontally laid and notched at the corners. Birch bark was used to line the container.

The fourth mode of burial and the one which Cormack acknowledges to be the most common, entailed wrapping the body in birch rind and then heaping stones over the bundle. Occasionally the bodies were placed approximately a foot or so beneath the ground and the place was covered with stones. In sandy areas the corpse was apparently buried a little deeper; no stones were placed over the graves in these instances (Ibid.).

As will be pointed out and discussed later, most known archaeological occurrences of Beothuk burials are found in caves along the coast. However, there is no reference to the use of caves as a type of sepulchre in the ethnohistoric references.

Cemeteries were supposedly located on the sea coast and the Indians apparently carried their dead to these particular locations (Ibid.).

Weapons

Bows

Cartwright reports that bows were made of sycamore (maple). Despite what he considers poor selection of material, workmanship was quite fine.

Except for,

"the grasp, the inside of them is cut flat but so obliquely and with so much art that the string will vibrate in a direction coinciding exactly with the thicker edge of the bow...The bow is full five feet and a half long" (Cartwright 1826:312-313).

Miniature bows were reported by Howley (1915:331) for a burial found on Burnt Island in Pilley's Tickle, Notre Dame Bay.

Arrows

John Cartwright (1826:313) also briefly describes arrows as made of, "...well seasoned pine, slender, light, and perfectly straight. Its head is a two edged lance, about six inches long, and the stock is almost three feet more." Lieutenant Buchan also mentions arrows and notes the presence of feathers and the fact the blade was shouldered but not barbed (Howley 1915:86).

Arrows and fragments have been reported from a number of coastal burial sites. These include one on Burnt Island in Pilley's Tickle, Notre Dame Bay (Howley 1915:331; Patterson 1891:156-157); a burial in southern Newfoundland (Dawson 1915:332-333); and on Swan Island, Bay of Exploits (Howley 1915:288-291). However, no details are available.

Harpoons and Deerspears

Shanawdithit illustrates a seal harpoon and a deer spear (Howley

1915: sketch VIII, opposite p. 248). The seal harpoon is purported to have been 12 feet long and had a bone socket with a triangular shaped iron endblade. The socket seems to have a line hole and Shanawdithit depicts a line attached to the hole and the shaft. Howley's description of it suggests a toggling type harpoon and he believes it was borrowed from the Eskimo (Ibid.:248). The possibility of Dorset Eskimo - Beothuk contact will be considered in the chapter dealing with the archaeology of the Island. Suffice it to say here, that the problem is still not completely resolved.

The deer spear is, as Howley points out, quite different from the seal harpoon. No shaft length is given for the deer spear but since the sketches are the same size it may be reasonable to assume that it was also 12 feet in length. The point is a long tapering specimen with obtuse angle shoulders. The blade also has a long tang, a portion of which seems to be embedded in the shaft for hafting purposes. Since no line is attached to the shaft or point one might safely assume that this example fulfilled a different function than the above mentioned seal harpoon.

Snowshoes

Lieutenant Buchan describes the Beothuk snowshoe as one being 15 inches wide and $3\frac{1}{2}$ feet long with an additional one foot tail. Webbing was of skin thongs (Howley 1915:87). An illustration which seems to have been produced by Howley using Buchan's description is pictured on page 86 of that book.

A second short description and illustration by Lloyd (1875:225 and pl. VII fig. 2) suggests a different type about $5\frac{1}{2}$ feet long and resembling rather closely, as Lloyd points out, a tennis racket. The webbed portion is much less than half the overall length. Webbing was supposed

to have been of "...seal skin or of cord..." but Lloyd suggests babiche of deer or seal skin (Ibid.:225). The harness consisted of a board into which the user placed the toes. No source is given by Lloyd for his description. It may be possible, however, that Mr. John Peyton of Twillingate Island, Notre Dame Bay an informant whom Lloyd mentions frequently in connection with descriptions of other items, was the original source.

Bark Utensils

The earliest reference to Beothuk bark vessels was by Whitbourne (1622) who states,

"...they sew the rinds of spruce trees, round and deep in proportion, like a brass kettle, to boil their meat in..." (Lloyd 1875a:22).

In the same description of the Beothuks, Whitbourne also mentions several bark, "...pots...standing each of them on three stems, boiling, with fowls in each of them..." (Ibid.). Buchan adds some corroboration to Whitbourne's report by noting the use of both spruce and birch bark for, "Their household vessels..." (Howley 1915:86).

Shanawdithit sketched a number of bark vessels for William Cormack during her captivity in St. John's (Howley 1915:sketch VIII) which may be divided into three categories. The first category includes two examples which are called drinking cups, or Shoe-wan-yessh. These resemble, as Howley (1915:249) pointed out, small bowls.

The second category has two representatives which are similar to but slightly larger than the drinking cups. These are labelled Shoe-wan.

The third group are referred to as water buckets. There are three examples in this category; two are labelled Guin-ya-butt and the third Sun-ong-guin-ya-butt. Each of the three examples is distinct. The first resembles an inverted isosceles triangle, the apex being squared off to

form the base. The second is essentially rectangular, the height being slightly greater than the width. The last is again a triangular shaped specimen with the apex cut off to form the top. (See also Howley's description p. 249). Howley suggests the first two are approximately a foot in height and the third is slightly shorter.

Use of Iron Pyrites

Cormack, who reported the presence of two firestones or radiated iron pyrites in what was thought to have been Mary March's tomb, believed Beothuks used iron pyrites for fire making (Howley 1915:193-194). Lloyd also mentions use of iron pyrites for the same purpose and further states that John Peyton told him blue jay down was used as tinder (Lloyd 1875b: 226). No iron pyrites were found at Wigwam Brook but several pieces are reported from a hearth in an historic housepit at the Indian Point site near Millertown, Newfoundland (Devereux 1970:30).

Use of Red Ochre

The ethnohistoric sources contain frequent references to the Beothuks using red ochre. In 1534, for example, Jacques Cartier describes the Indians as painting, "...themselves with certain road colours" (Lloyd 1874: 21). The next mention of Beothuk use of ochre is by Whitbourne in 1622. He states, "They have great store of red ochre, which they use to colour their bodies, bows and arrows, and canoes..." (Ibid.:22). John Guy (Howley 1915:17); Patrick Gordon (Ibid.:27) and others have also observed this trait of Beothuk culture. In fact, John Cartwright has stated that,

"The epithet of "red" is given to these Indians, from their universal practice of colouring their garments, their canoes, bows, arrows, and every other utensil belonging to them with red ochre" (Cartwright 1826:307).

Howley (1915:262) mentions two sources of red ochre which were reputedly used by the Beothuks. These are Ochre Island in the Bay of Exploits and Ochre Pit cove in Conception Bay. Oddly enough, recent investigation of the former did not result in location of any red ochre deposit on the island (Paul Carignan:personal communication 1973).

There has been some conjecture on the reasons why the Beothuks used red ochre. Lloyd, for example, was told by his informant, John Peyton, that the Indians used a mixture of red ochre and deer's fat, "...which during the summer season must have formed a good protection against the flies which infest the Island, and rendered them less sensitive to the effects of heat and cold" (Lloyd 1874:23). The former statement seems reasonable in view of the fact that present day woodsmen often use motor oil as an insect repellent. Caribou fat may perhaps have performed a similar function. The question of course is whether or not the red ochre helped in any way. I suppose if it was applied in sufficient quantity it would indeed act as somewhat of a shield against insect pests. With regard to red ochre being useful for protection against heat or cold, it is doubtful if it could itself served such a purpose. However, in pursuing the topic of weather protection further David Buchan states that a mixture of oil and ochre was applied to the outside of the clothing and this mixture was, "...admirably adapted to repel the severity of the weather" (Howley 1915:86). Again it would seem obvious that the oil (caribou fat?) was a form of waterproofing, perhaps something like the modern day neat's foot oil.

Another suggestion on the use of red ochre is contained in a footnote by Howley (1915:262) who puts forth the notion that covering the body and clothing with red ochre may have been a means of camouflage

against detection by enemies and prey. He also adds that this procedure would be particularly useful in autumn when, "...the bushes and shrubs covering the barrens where the caribou most resort, assume many tints of red and brown, corresponding closely with the red ochre of the Indians."

The above interpretation is certainly possible, but with respect to hunting on the barrens I think Howley is ignoring what has been stated concerning Beothuk hunting practices in the Interior i.e., they seem to have confined themselves to the rivers and lakes of the forested areas and apparently did not stalk the caribou on the barrens. This certainly seems to be the case, given the extensive deer fences which are reported to have existed along the banks of the Exploits. Furthermore, the descriptions of deer fences and how they were used suggests the Indians waited for the animals either along the shore behind the fence or in canoes in the river or lake and they did not require any camouflage. In other words the Indians do not appear to have stalked caribou and therefore it is doubtful if red ochre was used specifically for this purpose.

Howley (1915:265) has also suggested that the use of red ochre may have had some connection with religious beliefs. He bases this conclusion on burial finds along the sea coast in which it is evident, according to him, that the graves were revisited and ochre smeared on the bones. However, it is probably unlikely that graves were revisited with the specific purpose of covering the bones with ochre. A more plausible explanation for this is that sufficient ochre was spread over the corpse at the time of interment so that with time, the bones became impregnated with this substance. Nevertheless the fact that certain of the graves contain packets of red ochre is certainly suggestive that its importance was perhaps more than purely utilitarian (Ibid.). This certainly seems to be the most reasonable of the alternatives offered.

Perhaps we may also suggest the possibility that red ochre was used purely for cosmetic purposes.

A few pieces of red ochre were found at Wigwam Brook but none of the large red ochre configurations in the subsoil which Devereux (1970: 57, 59) reported for the historic and prehistoric components at the Indian Point site, were encountered. In addition to the above archaeological occurrences of this material nearly all of the reported burials which are discussed elsewhere in this report, contained red ochre in one form or another. Thus there seems to be a fairly good correlation between the archaeological evidence and the ethnohistoric accounts of red ochre use even though its function cannot satisfactorily be explained.

Dress

In describing the clothes worn by the Beothuks, Buchan states,

"Their dress consisted of a loose cossack, without sleeves, but puckered at the collar to prevent it falling off the shoulders, and made so long that when fastened up around the haunches it became triple, forming a good security against accident happening to the abdomen. This is fringed round with cutting of the same substance. They also had leggings, moccasins, and cuffs, the whole made of the deer skin, and worn with the hair side next the body, the outside lackered with oil and red ochre... The only discernible difference between the dress of the sexes, was the addition of a hood attached to the back of the cossack of the female for the reception of their children" (Howley 1915:86).

Cornack describes essentially the same sort of garment but adds that it was made of two deer skins, "...sewed together so as to be nearly square, [and occasionally it had] ...a collar also formed with skins... [which] ...reached along its whole breadth" (Ibid.:212). The mantle or cossack was cinched around the loins to apparently keep the garment off the ground. He also states that, "The collar of the dress was sometimes made of alternate stripes of otter and deer skins sewed together, and

sufficiently broad to cover the head and face when turned up..." (Ibid.). In addition to the leggings and moccasins which Buchan mentions, Cormack adds that arm coverings were also worn (Ibid.).

"Mythological Emblems"

Howley has illustrated six totems (see Fig. 14) or emblems which were originally sketched by Shanawdithit (Howley 1915: sketch IX opposite p. 248). Each of the six consists of a tapered shaft, six feet long with the emblem being attached on the thicker end. The first, as Howley (Ibid. p. 249) suggests, is rather remarkably similar to the two masted fishing boat commonly used by fishermen at that time.

The second example has the likeness of a whale's tale, according to Howley, and was called Owas-bosh-no-un. A small note accompanying this sketch indicates the apparent importance of the whale to the Indians. In fact, Howley cites a note by Cormack which states, "The Bottle Nose Whale which they represented by the fishes tail, frequents, in great numbers the Northern Bays, and creeps in at Clode Sound and other places, and the Red Indian Consider it the greatest good luck to kill one. They are 22 and 23 feet long" (Ibid.:249-250).

The third consists of an inverted semi-lunar shaped object which was apparently painted red. The aboriginal name is listed as Kuis.

The fourth is a wood staff, "...wide at the top with a pyramid end but tapering gradually away towards the bottom" (Ibid.:250). The purported Beothuk name is Boogh-woodje-bee-shneck.

The fifth which is called Ash-wa-meet, consists of four square, "...or somewhat oblong pieces which appear to be let into the upper end of the staff, and are separated from each other by narrow open spaces" (Ibid.).

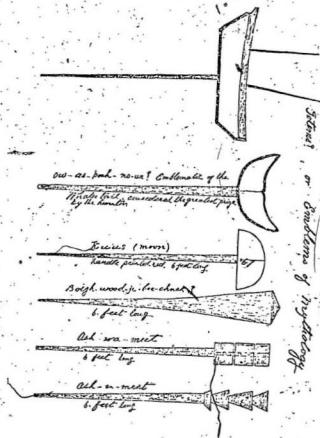


Figure 14

The last, has four, "...triangular shaped pieces..." each with the apex cut off and superimposed on one another (Ibid.).

Apparently Cormack did not pursue the topic of these 'emblems' with Shanawdithit to any extent. Howley cites a passage by Cormack which stated that he had found the key to the mythology of her (Shanawdithit's) tribe, but either Cormack neglected to record it or it has since been lost.

Howley (1915:250), in an attempt to interpret the above-mentioned objects suggests they could have been "...crests of families corresponding with armorial bearings of civilized persons." Though a rather crude comparison it may well be that these so called 'totems' were representative of clans or perhaps lineages. Again this is pure speculation and a definite conclusion concerning them is probably impossible.

Foods, Food Processing, and Storage

Foods

The earliest known remark on types of foods used by the Beothuks was by Jacques Cartier in 1534 who mentions fishing and sealing from canoes (Lloyd 1874:21). A slightly later report by Whitbourne (1622) indicates use of birds "...as big as a pigeon, and some so big as a duck" (Ibid.:22). Whitbourne (Ibid.) also mentions some buckets filled with, "...the yolks of eggs, that they had taken and boiled hard, and so dried small, which the savages used in their broth." We might also imply the use of deer, beavers (beavers?), bears, seals, and otters from Whitbourne's statement that the Indians had skins of these animals in "great store".

In addition to the above list of animals, John Cartwright indicates use of ptarmigan during winter, the marten or sable, beaver, wolf, fox, hare, and "...two or three birds of prey..." (Cartwright 1826:322-323).

Patterson divides the food used into categories of winter and summer. Caribou were apparently the primary source of meat in the fall, while the summer take of game was far more varied. Patterson mentions sea fowl, ptarmigan, hares, "deer", bears and otters taken on the islands off the coast. Sealing and salmon fishing were also pursued in the spring and summer (Patterson 1891:138). Eggs comprise another source of food taken on the coast during summer (Ibid.:139). Patterson believes that supplies were built up for the winter during the summer stay on the coast.

Shanawdithit also provides us with additional details on foods. In a sketch (Howley 1915:Sketch VII, opposite p. 246) done by her for Cormack she notes: dried salmon; dried meats (type not stated); dried lobster tails; pieces of seal fat on the skin; a deer's bladder containing seal oil; a seal bladder filled with oil; a seal stomach filled with intestines; use of eggs is suggested by a birch rind vessel which was supposedly used to boil eggs.

Processing

Regarding preservation of foods George Cartwright states that the Beothuks jerked, "...venison, seal's flesh, birds and fish,..." and made "sausages" which, "...consisted of flesh and fat of seals, eggs and a variety of other rich matter, stuffed into the guts of seals, for want of salt and spices" (Howley 1915:48).

With specific reference to preservation of caribou, Lloyd reports that the meat was cut into thin strips, washed then packed with alternating layers of melted tallow in birch bark, "...which they bound up tightly, thus forming a hermetically sealed mass" (Lloyd 1875a:227; see also Patterson 1891:135). Birch bark packets of caribou were found by William

Cull in a large store house on the Exploits River in 1810 (Howley 1915: 69) and p. this report). Lieutenant Buchan also notes bark packets such as these and lists dimensions of three feet by 15 inches.

Storage

We have already discussed in detail (p.10) the ethnohistoric sources which deal with store houses and descriptions need not be repeated here. However, in addition to storage houses there is a reference to a storage pit by William Cormack which he describes as "...a small square mouthed or oblong pit, dug in the earth about four feet deep, to preserve their stores, etc. in. Some of these pits were lined with birch rind" (Howley 1915:190). These pits were apparently located close to winter wigwams.

To summarize: the Beothuks seems to have made full use of the available fauna of the Island. Ethnohistoric sources suggest use of birds (eggs, ptarmigan, sea fowl); otters, seals, bear, wolf, marten, fox, salmon, lobster, and of course the caribou or deer. On the strength of Cormack's very brief reference to use of the Bottle Nose Whale we can perhaps include that species in the list. Food processing consisted principally of drying or jerking. This was apparently done with eggs, venison, fish, beaver, etc. Venison also seems to have been preserved in fat, enclosed in supposedly airtight birch bark packets. Game was kept in storage houses or fairly large pits. Seal oil seems to have been retained in caribou and seal bladders. The storage facilities which are mentioned in the sources were located at interior points and were probably used in the fall and winter. If this is so we might perhaps assume that low temperature associated with this time of year may have also been relied upon as a means of preserving game.

CHAPTER II

PREVIOUS ARCHAEOLOGICAL WORK DEALING WITH THE BEOTHUKS

Before discussing what archaeological work has been done on the Beothuk problem it may be useful to give brief consideration to a summary of the archaeology of Newfoundland in order to give some idea of the chronological relationship of the Beothuk occupation to other prehistoric and historic Indian and Eskimo groups which have inhabited the Island.

James A. Tuck (1971a, 1971b, n.d.) has previously summarized the archaeology of the Island and Labrador. For the purposes of this report we shall confine ourselves to the prehistory of the Island itself.

As Tuck has pointed out (1971b:17), a number of persons have contributed toward our present understanding of the Island's prehistory, and it is now evident from this work that three distinct non-European cultures inhabited Newfoundland.

The earliest known group of people which lived on the Island were members of what is called the Maritime Archaic Tradition, as defined by Tuck (1970, 1971c). This is an early coastal-interior adapted culture which is best represented by the site of Back Harbour on Twillingate, Notre Dame Bay, and on the Great Northern Peninsula at Port au Choix 3 (MacLeod 1967; Tuck 1971c:18). Faunal remains from Port au Choix suggest utilization of various sea mammals, species of fish, sea birds and several terrestrial mammal species as well (Tuck 1971b:22). A two part seasonal round with living sites on the sea coast in summer and a winter

sojourn in the interior, is postulated by Tuck.

A rich material culture characterizes this tradition, as indicated from the remains at Port au Choix. Ground slate bayonets and projectile points are common and have been reported from other stations in both the Maritimes and New England. However, perhaps the most startling find at this site was a rich bone industry which was preserved by neutral soil conditions and brought to light by the excavations at Port au Choix. This industry included toggle, and barbed harpoons, bone duplicates of slate bayonets and spears, and bone daggers etc., all of excellent workmanship. Decorative objects were also well represented in the form of combs, pendants, pins, etc. and, "seal's claws, caribou incisors, fox, marten, and wolf teeth and jaws, bird bills and wings..." (Tuck 1971b:22).

Woodworking tools such as gouges, adzes and axes, as well as modified beaver incisors were also present in the collections from Port au Choix (Tuck:1971c 352).

Radiocarbon dates from Port au Choix and Back Harbour as well as at other sites on the Island suggest that Maritime Archaic peoples inhabited Newfoundland roughly 4000 years ago (Tuck 1971c 353-354). Elsewhere in the northeast Atlantic region this tradition has been dated to as early as 3400 B.C. (Fitzhugh:personal communication).

The Dorset Eskimos, members of the Arctic Small Tool Tradition, were the next major group which inhabited the Island after a 1000 year period during which we have found no convincing evidence of occupation. Our present knowledge of the Dorset occupation of the Island is mainly due to the work of Elmer Harp Jr. (1964), W.J. Wintemberg (1939, 1940), and more recently, Helen Devereux, Urve Linnemae, and James A. Tuck.

This occupation appears to have spanned a period from some time around 100 B.C. until approximately 700 A.D. (Tuck 1971b:23).

The Dorset economy was essentially the same as that of the former Maritime Archaic peoples. However, stylistic differences in tool forms and lack of certain categories of tool types such as woodworking implements in Dorset and absence of soapstone bowls in Maritime Archaic would argue for a profound difference between the two cultures (Tuck 1971b:23). Skeletal evidence also suggests a profound difference between these two groups. Remains from the Port-au-Choix site exhibit Indian characteristics whereas Dorset remains on the Island suggest definite Eskimo characteristics (J.A. Tuck:personal communication).

Following the Dorset occupation of the Island we seem to have had a return of Indian groups. These include Algonkian visitors such as the Montagnais and Micmac, and of course the resident Beothuk who are also most likely Algonkian.

The Micmacs are still present on the Island at settlements in Bay d'Espoir, St. Georges Bay and at Badger, but have almost entirely abandoned the aboriginal way of life. We do not know if the Micmacs had any settlements on the Island in pre-contact times. Although it is possible they did cross the Cabot Straits in prehistoric times in birch bark canoes, Elmer Harp Jr. believes they did not begin to settle in Newfoundland in any numbers until the French began to permanently inhabit Nova Scotia and Cape Breton in 1604. Acquisition of firearms and use of sailing ships were very likely important in this migration which probably occurred in the mid to late 17th century (Harp 1964:152).

The Montagnais are known to have hunted on the Island in historic times and were also reported as being friendly with the Beothuks (Ibid.). Harp believes that the Montagnais did not begin to visit Newfoundland until about the end of the 17th century and perhaps not until the early part of the 18th (Ibid.:152). However, despite the fact they seem to have

been fairly frequent visitors to the Island they did not settle there permanently.

The Beothuks appear to have been a prehistoric-historic occupation which supposedly ended with the death of Shanawdithit in 1829. As yet it is not entirely definite whether or not the Beothuks were recent arrivals to the Island of Newfoundland or the result of an in situ development. Present evidence would favour the former hypothesis. James A. Tuck has suggested a probably date of about 1000 A.D. for the earliest appearance of Beothuk on the Island and further believes that they are part of the larger proto-Algonquin Shield Archaic Tradition (Tuck 1971c:n.d.) as defined by James V. Wright (1968). Linguistic evidence also serves to indicate an Algonkian affiliation for the Beothuks (Hewson 1967, 1968, 1971). Furthermore, ethnological studies by Frank Speck (1922) and by Regina Flannery (1939) also seem to point to the Algonkian affinities of these Indians. It is obvious, however, that explanations of Beothuk origins must for the moment remain conjectural. Only future archaeological research will verify Tuck's hypothesis of Beothuk origins, and their probably Algonkian relationships.

As for their extinction Tuck has also suggested that because the Beothuks were cut off from the coast by European occupation of these regions they had to retreat to the Interior and thus could not make use of the important faunal resources which were found by the sea. Consequently, a slow period of starvation probably ensued which culminated in their eventual extinction sometime during the early 19th century (Tuck 1971b:25).

The prehistory of Newfoundland is therefore characterized by three successive occupations spanning a period of some 5000 years. The first of these was presumably an Indian occupation now called the Maritime Archaic Tradition. This was followed by the Dorset Eskimo culture which

endured until at least 700 A.D. The most recent non-European cultures include Indian groups represented by the Beothuk, Micmac and Montagnais. The Beothuks thus comprise a relatively recent stage in the continuum of cultural groups inhabiting the Island.

Early Archaeological Work

Before proceeding further with a description of our archaeological work at Wigwam Brook it will, we believe, be very useful to review what has previously been done. This is necessary since some of the earlier work is erroneous in that artifacts which are attributed to the Beothuks are in fact actually characteristic of either the Maritime Archaic Tradition or of the Dorset culture. This is particularly true of T.G.B. Lloyd's publications and also of J.P. Howley's book which is so often taken as the ultimate truth with respect to the Beothuks. The following short analysis of these early works will attempt to clarify their conclusions in terms of our present knowledge of the prehistory of Newfoundland.

In a paper titled "On the Stone Implements of Newfoundland," T.G.B. Lloyd (1875b) discusses two sites and describes and illustrates a number of artifacts which he believes are Beothuk. His conclusions concerning the stone artifacts are that,

"In default of any existing knowledge of the occupation of Newfoundland by the Eskimo, ... I think that the balance of the evidence is in favour of the Beothuks as the aboriginal stonefolk of Newfoundland" (Lloyd 1875b:245).

However, upon closer analysis both of the sites which he discusses and the artifacts which are described it is obvious that more often than not the conclusion that the site or artifact in question is Beothuk, is incorrect.

For instance, the first site mentioned was located on Sops Island

in White Bay, and here Lloyd recovered "...two or three finely worked arrowheads... from the surface as well as ...a good number of small arrowheads, fragments of stone pots, and numerous chips and flakes" (Lloyd 1875b:234). The mention of stone pot fragments suggests the site as a possible Dorset component, since Dorset is the only culture on the Island which is presently known to have used stone pots. The only reference to the Beothuks having stone pots was by Howley who mentions a stone dish in a burial (Howley 1915:331-332). Harp (1964:169), however, believes that since this was the only shred of evidence there are no firm grounds for inferring that the Beothuks used stone vessels. Further support to the suggestion that the Sops Island site is not Beothuk comes from the recent work of Helen Devereux (1969) whose excavations at that site have demonstrated by the presence of a small Archaic component overlain by a larger Dorset one.

In the second site which is located at Conche harbour on the eastern shore of the Great Northern Peninsula, Lloyd reported that a fisherman had found, "Human skeletons arranged in natural position, the bones of which crumbled to pieces on being touched (Lloyd 1875b:235)... bones of seal and whale, and ...measures, stone pots, 'drinking-cups' of stone, some whole and others in fragments, and a stone 'knife', about eighteen inches long." Lloyd surface collected a few flakes and points as well as a stone pot from the fisherman's potato garden. He also excavated a small area on a lower terrace and recovered stone pot fragments, "...smooth oval-shaped pebbles... [and]...pieces of charcoal and chips..." Additionally, he notes the presence of, "...small lumps of a black, carbonized substance, containing flakes and small pebbles, together with pieces of charcoal...."

Again as with Sops Island, the presence of stone pots at Conche Harbour is certainly suggestive of a Dorset occupation. The burials, on the other hand may be attributable to either Dorset or to Maritime Archaic, although the presence of the 18 inch stone 'knife' which may well be a Maritime Archaic ground slate bayonet suggests the latter interpretation. Harp (1964:169) thinks the site at Conche Harbour is both Dorset and Beothuk and adds that the, "...site is apparently another of those which may be suspected as stratified, although there is not enough evidence for proof of this."

To summarize: the Sops Island site appears to be definitely not Beothuk. There is a possibility however, that the Conche Harbour site may have a Beothuk component, but only future field work will clarify this problem.

The implements described by Lloyd are from several localities but no precise proveniences are noted. He groups the artifacts into nine classes which include:

- 1) "Axe and chisel-shaped tools.
 - 2) Gouge-shaped tools.
 - 3) Broken stone pots.
 - 4) Sinkers.
 - 5) Spear and arrowheads.
 - 6) Scrapers or planes.
 - 7) Fish hooks.
 - 8) Objects in the course of manufacture, cores, flakes.
 - 9) Whetstones, rubbing stones, and other miscellaneous articles."
- (Lloyd 1875b:236)

The first category is, from what we now know, characteristic of the Archaic occupation of the Island and not known in Beothuk contexts. Lloyd illustrates (1875b:Plate X, fig. 4) an example which is clearly an Archaic axe or adze. He also figures a second example of this class (Ibid.:Plate X, fig. 5) which is also considered a member of the second category. This particular example appears to be a typical Archaic gouge.

As pointed out earlier stone pots (category 2) are characteristic of the Dorset occupation of the Island.

The fourth category - sinkers - are, judging from the illustrated example (Ibid.: Plate, fig. 4), plummets and therefore an Archaic trait. Smith (1948:32, 33, fig. 5 and fig. 6) figures a number of different types of plummets from the Maine Cemetery Complex, which, according to Tuck (1971c) is a local expression of the Maritime Archaic Tradition.

With respect to projectile points, Lloyd subdivides the class into three subclasses which include:

- (a) "Stemmed arrowheads;
- (b) Double-barbed triangular ditto (sic).
- (c) Abnormal forms" (Lloyd 1875b:238).

The illustrated example of the class (a) type is, according to Lloyd, of ground red slate. Ground slate as far as we now know does not pertain to Beothuk contexts and the pictured example is clearly a stemmed Maritime Archaic ground slate projectile point similar to types illustrated by Smith (1948:44, fig. 17d; p. 45, fig. 18b, c, d, e, f, k) and Tuck (1971c:346, fig. 2c) for the Maritime Archaic. Lloyd's first class of projectile points are therefore definitely not Beothuk.

Class (b) arrowheads (Lloyd 1875b:Plate XI, fig. 9, 10, 11 and 12) vary in length from 3 inches to 5/16 of an inch. Bases are described as being "hollowed out." The illustrations of these class (b) points seem to be duplicates of typical Dorset end-blades similar to the types illustrated by Elmer Harp (1964:37, Plate 1) for Newfoundland.

The last sub class, abnormal forms, consists of two illustrated examples (Lloyd 1875b:Plate X, fig. 3 and Plate XI, fig. 13). Both appear to fall within the range of what are called Dorset asymmetric blades similar to five examples from Newfoundland Dorset contexts which are illustrated by Harp (1964:44, Plate V).

Scrapers constitute the sixth class of Lloyd's typology. Four examples are figured (1875b Plate XI, figs. 4, 5, 6, 7), all of which are triangular end scrapers and reminiscent of the Dorset types illustrated by Harp (1964:55, Plate XII). Triangular end scrapers are rather non-diagnostic however, and it is of course almost impossible if not dangerous to make definite statements simply on the basis of illustrations. It is therefore conceivable, or even probable, that some of the scrapers discussed by Lloyd are in fact Beothuk. Again, the fragmentary state of our archaeological knowledge of these people frustrates any definitive statements we can make concerning their implements. Only future research aimed at identifying such things as the range of tools used can alleviate the present state of affairs.

The seventh class includes chipped stone artifacts which Lloyd suggests are either used for scraping arrow shafts or as fish hooks (1875b: Plate XI, figs. 1, 2, 3). The specimens pictured by Lloyd seem to be very similar to Dorset concave side scrapers, examples of which are figured by Taylor (1968:fig. 26 r, s) for the Tyara Dorset site in the eastern Canadian Arctic.

Category eight, "...consists of cores of hornstone, a number of flakes and chips, with a quantity of the raw material of quartz, hornstone, etc." (Lloyd 1875b:240). No illustrations of cores are reproduced by Lloyd and no comment can therefore be made concerning cultural affiliations.

The last class considered by Lloyd includes, "...whetstones, rubbing stones and other miscellaneous articles" (1875b:236). No descriptions nor illustrations are offered for the whetstones and rubbing stones. It may be noted, however, that abraders do occur in Beothuk components and have been reported by Devereux (1970:58, 60), for both the prehistoric

and historic components at the Indian Point site and they were also present at Wigwam Brook. Rubbing stones are also known for Dorset and Maritime Archaic components. Under the miscellaneous category Lloyd describes a piece of "...micaceous slate, about four inches long and 5/8 of an inch broad near the middle..." (1875b:240). The object was apparently covered with red ochre and upon removal of this substance, Lloyd found four groups of "small notches", along one side (1875b:Plate X, fig. 2). Again it is not definitely known what the cultural affiliation of this may have been and it would be of no real use to hazard a guess. Additionally, Lloyd mentions awl-shaped tools made of chipped stone. These may be very likely perforators, or drills and may be prehistoric Beothuk or possibly Archaic. Devereux (1970) does not report any drills for the prehistoric component at Indian Point but the present lack of any drills in known Beothuk components may simply be a question of the lack of a sufficient sample from prehistoric Beothuk contexts.

In summary: except for the possibility that the Conche Harbour site may have a Beothuk component and that the endscrapers, abraders and drills may also be Beothuk, the majority of what is discussed by Lloyd is not Beothuk. In fact, given our present state of our knowledge regarding the archaeology of these people it is perhaps pure speculation to conclude that anything in Lloyd's paper is of any use to Beothuk research.

In carrying our analysis further with a consideration of early archaeological work on the Beothuks we must consider J.P. Howley's (1915) work. In particular, Howley includes a number of plates in his book of artifacts which have been attributed solely to the Beothuk occupation of the Island. However, as with Lloyd's work, upon reanalysis it is obvious that all three traditions of Maritime Archaic, Dorset and Beothuk are represented. Indeed, if we consider the appendix in which we have attempted

to attribute the figured artifacts to the appropriate tradition (see Appendix II, p. 46) we can see that the majority are not in fact Beothuk. We must therefore use extreme caution in utilizing these plates for comparative purposes.

In a more recent publication dealing with Beothuks, Jenness (1929: 37) mentions long adze-blades, and ground slate tanged points as being Beothuk. Again, these appear to be characteristic of the Maritime Archaic occupation of Newfoundland.

Jenness also suggests that the above mentioned artifacts as well as the canoe and wigwam imply a relationship to Algonkian groups in Canada and the U.S., an interpretation which, of course, agrees with current thought on the subject. We can, however, ignore the implied similarity on the basis of the artifacts since they are not, as indicated above, Beothuk. Jenness also believes that there is some evidence to imply contact between Eskimo and Beothuk. He notes records which report Beothuk use of retrieving harpoons for sealing, and suggests this is indicative of contact with what was then being defined as Dorset by Jenness (1929: 37-28). The postulated period of contact was sometime prior to 1500 A.D.

Harp (1964:166-171) has reconsidered the problem of Dorset-Indian (Beothuk) relationships in some detail and after analyzing the evidence then available concludes that, "The only positive grounds for the diffusion of culture between the two peoples seems to be the use of the sealing harpoon by the Beothuk: if we can believe the accuracy of the reports that have come down to us, the bone head of this harpoon was typically Dorset in that it had a bifurcated base, a rectangular shaft socket and incised line holes. This same type has been suggested by Collins to be the latest or most recent variant in the Dorset series.

It is also possible that the Indians may have used this harpoon without benefit of a foreshaft." As Harp observes, (Ibid.:169), to base a conclusion of contact between the two groups on this amount of evidence, is indeed tenuous and even though it is suggestive of a relationship it is certainly not indicative of any long term association. It therefore seems that contact was either non-existent or very minimal, but we would agree with Harp's (1964:170) proviso that more research may be needed to fully clarify this problem.

Beothuk Burials

Before Devereux's work at a number of different stations on the Island (eg. Indian Point, Beaches etc.) and our excavation of Wigwam Brook the only type of Beothuk sites which had been discovered and investigated, were burials. Though only briefly reported on it may be of value to summarize what information is available to us. Michael Spence (1964) has recently done a brief survey of Beothuk archaeology which includes a summary of the burials. However, due to the general unavailability of this mimeographed paper, it was thought useful to include a modified resumé of this information.

Locations of Burials

Except, for the Red Lake burials reported by Cormack (see pg.15) in 1822 all of the reported burials have been found on the sea coast. These coastal locales include: Burnt Island in Bailey's Tickle, Notre Dame Bay (Howley 1915:331-332, pl. XXXI; Patterson 1891:156-157); one in 'southern' Newfoundland (Dawson 1860:462); Rencontre Island, Lower Burgeo group (Patterson 1891:157-159); Comfort Island, Bay of Exploits (Howley 1915:332-333; MacDougall 1891:102); Swan Island, Bay of Exploits (Howley 1915:288-291); Hangman's Island, Placentia Bay (Howley 1915:293); Bonavista

Bay burial in Charles Hamiltons' Sound (Howley 1915:334-335; Lloyd 1875a: 227); North China's Head burial on Long Island, Notre Dame Bay (Ryan 1948); and a number of burials examined by Diamond Jenness in the Bay of Exploits (Jenness 1929).

General Characteristics of Recorded Beothuk Burials

The Red Lake burials have been discussed in detail elsewhere in this report and need not be reconsidered here. (See pg.15).

The burial on Burnt Island in Pilley's Tickle was found in a rock-shelter. Skeletal remains included the skull and leg bones of an adult and a flexed skeleton of a young male of 10 to 12 years, lying on its left side. The two were found 14 feet apart under a birch canopy which was supported by arched poles and covered with rocks and gravel.

The adult remains were associated with grave goods which included birch bark vessels, iron articles (no details), a supposed stone dish for which there is no description, and several well made slate projectile points. The latter sound very suspiciously like Dorset or perhaps Maritime Archaic items but no detailed descriptions were given hence it is impossible to conclude definitely one way or the other.

The other skeleton was apparently dressed in moccasins and skin pants, and was wrapped in a deerskin robe which was decorated with bird feet and carved bone ornaments. Other grave offerings included a wood figurine, two birch bark model canoes, model paddles, bows and arrows, and also birch bark packages of red ochre and smoked or dried salmon.

The burial in "southern Newfoundland" was found in a cave. The body was wrapped in birch bark. Mortuary offerings included such things as an iron knife and hatchet, an arrow with a rather crude stone point, perforated univalve shells, as well as three walrus bone pendants, and

a fragment of cut walrus tusk.

The Rencontre burial which Patterson describes was found about midway up a steep hill in a small hollow which had been filled with small rocks. The skeletal remains were wrapped in birch bark. Grave goods, located by the skull of an adult male included historic European goods such as glass beads, a hatchet head, a knife handle with an affixed fragmentary blade. Other items consisted of flat circular stones, a bone spearhead, several flint points, some carved bone articles, a carved block of walrus ivory, a carved diamond-shaped object of bone, and bone combs. All grave articles were wrapped in birch rind along with the skull and the whole was covered with gravel and red ochre. From the above list of grave goods it would appear that the Rencontre burial contains an admixture of both historic and prehistoric articles. It is therefore possible that this particular burial was early historic, perhaps dating from around 1550 to about the mid 17th century. Another possibility is that the presence of prehistoric materials may simply indicate that they were collected during the lifetime of the individual and deposited with the body on death. In this case the grave may range in age from the early to the late historic period.

The Comfort Island burial was found in a cave. The body was in flexed position and on its right side. The bones were smeared with red ochre. The post-cranial skeleton was wrapped in birch bark; the skull with deerskin. Grave offerings which were found inside the bark covering included arrows, a bag containing a string of shell beads, carved bone pendants, a piece of iron pyrites and several bird skulls. Spence (1964:5) has pointed out that since this burial lacks historic artifacts, it may be prehistoric in age.

The Swan Island burial was found under a rock overhang, and beneath a birch bark canopy which had been weighted down with rocks and gravel. Associated grave goods included bone pendants, carved square ivory blocks, bone combs, carved diamond shaped blocks, various carved bone objects, pieces of iron, glass fragments, charred sticks, bow and arrow pieces, necklaces of deer thongs with clay pipe stem fragments, sheet lead rings, pieces of birch bark and perforated shells, lumps of iron pyrites, fragments of shellfish and lobster claws, perforated seal and walrus teeth and pig tusks.

The Hangman's Island burial was located in a cave, the remains being covered with a birch bark canopy weighted down with rocks and gravel. Twenty-four bone pendants comprise the only reported grave goods.

The Bonavista Bay find consisted of a grave containing a skull, scapula, pelvis and some miscellaneous small bones. The skull was partially damaged and it was presumed to have been the result of a bullet wound. Beneath the skeletal remains was a circular storage pit about 30 inches in diameter which was lined with birch bark. It contained two pieces of iron pyrites. The grave also yielded a spear shaft stained with red ochre.

The North China's Head burial on Long Island was situated in a cave. The floor of the cave produced 30 bone pendants, two pieces of perforated birch bark, as well as a triangular piece of wood with a burnt-on groove and a piece of crescent shaped wood smeared with red ochre.

Jenness has reported on one undisturbed burial found in the Bay of Exploits area. It contained the remains of an adult female(?) a child's cranium, the lower jaw of another individual, and a few other miscellaneous bones. The adult cranium and one metal spoon were found about two feet away from the other remains in a crevice. Grave goods accompanying the

other remains included one metal spoon, two copper basin fragments, an arrow section, some red ochre, a piece of iron pyrites, several carved bone ornaments plus a number of pieces of sewn birch bark, and part of a birch bark dish. All of the above were found beneath a birch bark canopy.

More recently a number of burials have been found by Helen Devereux (personal communication) but no information is available at this time. Hughes (1969) has reported on some fragmentary human remains found near Manuels River, Conception Bay. A comparison of these with other human remains suggests the possibility that these osteological materials are, "...more likely to have been Indian than Eskimo or European... [and also]...that they exhibited ...some resemblances to known Beothuk remains."

Two other burials, one in Notre Dame Bay, the other in Bonavista Bay have been recently salvaged; the former in 1971 by Mr. Paul Carignan and this writer; the later in 1972 by Mr. Carignan.

The Notre Dame burial was located in Devil's cove near Robert's Arm. It was found beneath a rock overhang and had been heavily disturbed by the local people who apparently believe some type of treasure had been buried in the area. No grave goods were recovered nor was there any red ochre present. Fragmentary remains of two(?) individuals were retrieved.

The second burial was situated near the Beaches site off Bloody Reach, in Bonavista Bay. It also contained fragmentary remains of more than one individual. Pieces of birch bark, and a number of bone pendants plus a great deal of red ochre accompanied the osteological remains. (P. Carignan:personal communication).

Discussion

Except for the possibility that the Comfort Island burial may have

been prehistoric, the recorded finds seem to be definitely historic in age. On the information available, Hangman's Island may be either historic or prehistoric since the diagnostic artifacts present were bone pendants and it is not as yet known if these are restricted to the historic period.

A number of recurring traits occur in the abovementioned burials. Spence (1964:8) has singled out the following examples of these traits: birch bark canopies; birch bark body coverings; the inclusion of mortuary goods within the bark shrouds; location of burials in caves or under rock overhangs; wooden images or dolls; vessels of birch bark; bird skulls; model canoes; arrows; iron pyrites; perforated boar's tusks and perforated shells.

The ethnohistoric literature contains references to Beothuk burials containing grave goods (Howley 1915:193-194) which have been used as a basis to infer Beothuk affiliation of the burials described above. Traits mentioned in the sources include birch bark shrouds, iron pyrites, arrows, bows, model canoes, iron axes, wooden images, and "culinary utensils of birch bark." The only obvious discrepancy between the literature and the archaeology is the fact that all the burials which have been found in the last 100 years or so were located near the coast and almost without exception (the one exception being the Bonavista Bay burial in which the remains were found in a grave) the remains were in caves or beneath rock overhangs. The historic account of Cormack points to an interior location for Beothuk burials with depositories which include a hut, a box-like sepulchre, a scaffold and burial beneath a pile of rocks. It must be noted however, that Cormack's descriptions represent very late historic Beothuk burial methods and may not in fact, be representative of methods employed in the early historic or the prehistoric periods. Perhaps future archaeological research may resolve the differences between the archaeological finds and

the ethnohistoric record. One further feature which is recurrent in the archaeological finds and not mentioned in the sources, is the use of birch bark canopies.

As far as we now know there have been no archaeological finds of burials in the interior of the Island. This discordance between the historic records and archaeology may occur for one of two reasons. On the one hand there has been little extensive archaeological reconnaissance in the interior so it may be that we simply have not found any interior burials because of the infancy of field work in this area. Then again, since all of the ethnohistorically recorded burial methods are above ground or shallow subsurface types, the rather harsh climate of the interior region would have very probably eliminated any above-ground structures while the very acidic soil would more likely than not, have quickly destroyed the skeletal remains.

On the other hand, Cormack stated that the "burying places", of the Beothuks were on the sea-coast, "...and it is well known that they have been in the habit of bringing their dead from a distance to them" (Howley 1915:194). If we can accept this statement then it is quite possible that the burial types observed by Cormack in the interior were merely temporary, (except perhaps the hut example which seems to have been rather special in view of its apparent association with Mary March) designed to accommodate the dead until the spring move to the coast when presumably the wrapped corpses would be transferred to the "burying places" on the coast, which of course may have been the caves and overhangs of known finds. Perhaps the frequent occurrence of fragmentary remains in these caves, etc. occasionally with more than one individual being represented, may be due to the vagaries of transportation of remains to the coast from the interior. It is also possible that the fragmentary nature of the

Remains may have been due to rockfalls, or disturbance by rodents or perhaps fishermen. Further archaeological work may possibly clarify this problem.

Recent Archaeological Work

Beothuk Living Sites

The above has dealt with only one aspect of Beothuk archaeology - burials - and for a good number of years this has remained the only type of Beothuk site that had been investigated in something of an archaeological sense. Living sites, though known, were not investigated nor reported upon in any great detail (see Speck 1922; Lloyd 1875a). It is only in the last decade that any attempt has been made to carry out careful archaeological work on a Beothuk habitation site, and it is primarily the work of H.E. Devereux at a number of stations throughout the Island (notably Indian Point, the Beaches, and Popes Point) that has contributed substantially to our knowledge of the archaeological "identity", as Devereux puts it, of the Beothuks. Devereux's work is as yet unpublished, but two reports, a preliminary one on the Indian Point site, and a second final report on the Beaches site, are available for consideration and will be given a brief review here since they represent the only previous scientific work completed on Beothuk habitation sites.

The Indian Point Site (DeBd-1)

The Indian Point site is located on the southeast shore of Red Indian Lake one and one-half miles from the village of Millertown in central Newfoundland. The site had been visited by Frank Speck in the early part of this century (Speck 1922), and he reported the presence of at least seven pit features. All of these were, "Either circular or somewhat quadrilateral in form, ... and ... appear excavated about a foot"

(Speck 1922:21). The presence of a central fireplace was apparently evident due to remains of fire-cracked rock and charred soil (Ibid.). Speck recovered remains of implements and animal bone in the vicinity of the hearths. No extensive excavation was carried out by him.

When Devereux began initial reconnaissance of the site she was informed by local residents that the site had been visited and "examined" several times over the years since Speck's time. This had resulted in slight disturbance. However, much more intensive "potting" of the site was carried out in the 1960's by an artifact collector residing in Grand Falls. This latter artifact collector brought the site to the attention of Devereux in 1968 who carried out excavation in 1969 and 1970.

As a result of the two summers work at Indian Point, Devereux was able to distinguish two components at the site. The first or Lower Occupation is described as prehistoric; the second or Upper Occupation as historic.

General featural characteristics of the prehistoric component included such things as large red ochre stains in the subsoil; shallow hearths with fire-cracked rock, carbon and flaked stone tools; shallow midden deposits of fire-cracked rock, calcined bone spicules and the odd stone tool in a black humic matrix; "intensive crust-like fire-cracked rock concentrations... one to ten feet in size overlying ... a shallow black lens containing more fire-cracked rock, calcined bone fragments, stone flakes and a few flaked stone tools, chert cores, and occasionally fragments of unburned bone" (Devereux 1970:59).

Artifacts attributed to the prehistoric period included small corner notched chert points; small and large stemmed varieties; triangular and leaf-shaped knives and assymetric bifaces, large flake knives, snub-nosed end-scrapers, chert cores, planers or smoothers, abraders, cobble

choppers; retouched chert flakes and a number of possible bone tools (Ibid.: 59-60).

The historic occupation, which is of more direct interest to this study, yielded features somewhat akin to the prehistoric component, but was itself still fairly distinctive.

Historic featural characteristics included a,

"Housepit with hexagonal plan 25 feet by 20 feet., shallow insloping walls, enlarged angle where two wall sections meet as though a large post had been driven into the ground at that point; central mounded hearth; platform around the interior periphery except for the entrance area; an interior hollow between the mounded central hearth and platform concentric with these; single entrance in the northeast wall; two exterior adjacent flanking cobble concentrations of unknown function; very thin, almost sterile black occupation layer in the interior" (Ibid.:57).

Other features consisted of limited red ochre stains; hearths containing iron tools, fire-cracked rock and bone fragments; shallow kitchen middens consisting entirely of bone; concentrations of bone mash; and shallow concentrations of bone containing some fire-cracked rock and the occasional iron tool (Ibid.:57-58).

Artifacts associated with the historic component included such things as iron "deer spears"; iron toggling harpoon heads for seal; "two-pronged compound iron fish spear heads;" iron knife blades; unmodified iron spikes; fragments of iron rodding and sheet iron; iron pyrite spheres; abraders; hammerstones; anvil stones; "some fire-cracked rock;" and a great deal of caribou bone (Ibid.:58).

Devereux makes good use of the ethnohistoric sources and demonstrates rather well, several parallels between the archaeological record and the sources and is thus confident in concluding that, "...the historic component at Indian Point almost certainly consists of the remains of a Beothuk occupation" (Ibid.:65). Similarly, with the prehistoric component,

comparisons with the historic component at the site and also with the Beaches site, a transitional Beothuk component in Bonavista Bay, enabled Devereux to conclude that the Lower occupation is indeed Beothuk.

The Beaches Site (DeAk-1)

This site represents the only coastal Beothuk living site which has been excavated and reported upon (Devereux 1969; no pagination). The site is located on a gravel bar near the end of Bloody Reach in Bonavista Bay, northeastern Newfoundland. It had been previously reported as a Beothuk component by T.G.B. Lloyd (1875a). He noted the presence of 16 housepits, averaging 12 feet in diameter. Depths ranged from two feet down to six or seven inches and the pits were flat bottomed.

Due to the effects of erosion over the 100 or so years since Lloyd's time, Devereux found only four pits remaining. These four were all roughly circular depressions with peripheral embankments. The diameters varied with exteriors ranging from 12 to 23 feet and interiors from 7 to 12 feet. The depths of two pits (Nos. 3 and 4) are 1.2 and 2.0 feet respectively. Devereux (1969) has speculated that the pits were made by, "...scraping loose gravels away from a central circular area to form a depression with a slight ridge around the periphery."

Two housepits (Nos. 3 and 4) were selected for more careful examination. The first (No. 3) was tested in 1965 and contained a probable central hearth near the approximate centre of the pit. Artifactual remains were quite meagre with only one flint chip and the head of an iron spike being found. A test pit outside the limit of the pit resulted in the recovery of an additional flint chip. The sparse remains and the lack of a definite cultural zone within the pit lead Devereux (1969) to conclude that it had been flushed out by high seas which are a common phenomenon in the area.

In 1966 Devereux returned to the site and partially excavated house-pit number four, which fortunately turned out to be considerably more productive than the former. Three features were distinguished from excavation of the southeast quadrant of the housepit. These included: a central hearth; a thin occupation zone; and a small midden.

The occupation zone delimited what Devereux thinks is the original "topography" of the housepit which was described as a saucer-shaped depression. The average depth of this deposit was about one inch. This level joined the central hearth in the middle of the depression.

The supposed central hearth was represented by "...a greater proportion of charcoal..." and a thickened occupation zone. No artifacts were encountered in the excavated portion of the hearth. This feature is thought to have been about three feet in diameter.

The midden was found extending over the edge of the pit. It was five inches in depth and consisted of a mixed concentration of bone and shell. Analysis of the bone, which was carried out by Dr. Howard Savage, Department of Ornithology, Royal Ontario Museum, indicated the presence of immature harbour seal (Phoca vitulina), harp seal (Phoca groenlandica), caribou (Rangifer tarandus), black bear (Ursus americanus), polar bear (Thalarctos maritimus), Canada goose (Branta canadensis), northern double-crested cormorant (Phalacrocorax auritus), common cormorant (Phalacrocorax carbo carbo), and sea duck (Aythya sp.). The shell remains were mainly softshell clams although one scallop shell was present (Devereux, 1969).

The faunal remains seem to indicate an occupation in March or April, and June or July. This, Devereux (1969) points out, is in agreement with ethnohistoric records which set a spring to late fall period of occupation at coastal locations.

The artifacts recovered, which were mainly from zone III of the

Housepit, consisted of a mixture of iron and stone. Stone artifacts included one stemmed projectile point; a triangular stemmed flake tool; a triangular quartz tool; a concave edged flake tool; one conical core; one blade fragment; seven used and six unused flakes; one possible abrader; one "natural stone block" and two pieces of shattered rock. Fire-cracked rock was also present.

Iron artifacts included: one iron spearhead; seven square nail fragments; eleven sheet iron fragments; and one bolt fragment.

One piece of an undecorated clay pipestem was also recovered.

Devereux (Ibid.) has concluded on the basis of an admixture of stone tools and historic items that the Beaches was probably occupied before the late historic period "...since the last occupied sites of the Beothuks contained no stone tools." She has suggested the period of 1600 to 1800 A.D. for possible occupation of the site. The presence of stone tools would lead one to think the occupation would probably have been towards the earlier end of the range suggested by Devereux. Though not noted by her the relatively large diameter of the hole of the pipestem (2.3 mm or c. 6/64") would indicate a probable date range of 1680 to 1710 according to the "Harrington Chart" (Hume 1969:298, fig. 96). Obviously, only one pipestem is meagre evidence for making a definite statement regarding the date of the site, but it is, nevertheless, suggestive and agrees with Devereux's interpretation that the site is not a late historic one.

Mention should perhaps also be made of the work of Mr. Don Locke who has, for a number of years been traversing the Exploits River system in search of Beothuk sites, a skill at which he is quite adept. Despite the fact he is reported to have found a great number of sites the bulk of the little knowledge we have of his work is contained in a short paper

(Locke 1972) by him.

Locke's paper deals with a comparison of two interior prehistoric sites and a prehistoric coastal component in terms of relative percentages of five artifact classes. The sites are presumably Beothuk. The artifact classes include triangular knives; arrowheads; spearheads; snub-nosed scrapers; and tips of points (Locke:1972:24). Locke illustrates examples of each class and concludes on the basis of high percentages of snub-nosed scrapers that a primary activity at interior Beothuk encampments was skin processing. He also mentions a leaf-shaped knife which was found at one of the interior sites and concludes it must have been used for butchering.

At the coastal site Locke observed a large percentage of triangular knives (45%) which he interprets as evidence that the primary activity was woodworking i.e. construction and repairing of canoes and the fabrication of weapons. These same triangular knives also apparently turn up at interior locales and are again interpreted as evidence of woodworking.

Other interpretations which are made by Locke appear to depend on the ethnographic literature but no references are provided as to the source.

I would not violently disagree with Locke's interpretation that the high percentage of scrapers is an indication of hide processing as an activity at interior sites but I would argue with his contention that it is a major activity. Certainly it is one which is connected with the killing-butchering-hide processing pattern in caribou exploitation but I would imagine that hide processing in itself occupied a relatively short span of time and was certainly not the major occupation which Locke proposes. The interpretation that the triangular knives were purely

woodworking tools is also dubious. These would more likely be multi-purpose tools suitable for butchering and possibly woodworking. There is an obvious necessity for butchering tools on interior sites - the utilization of caribou would dictate this. The mention of a single leaf-shaped biface knife is certainly slender evidence of this activity and I would therefore suspect that the 12% and 14% figures for his two interior sites are more an indication of butchering activities than woodworking. Possibly the same could be safely said for the occurrence of these knives on the coast. Perhaps the only way to resolve this question of functional interpretation would be by controlled excavations and by microscopic analysis of working edges.

CHAPTER III

EXCAVATIONS OF WIGWAM BROOK (DfAw-1)

Introduction

In this chapter we shall consider in detail, the results of field work conducted in June and July of 1972 at the Wigwam Brook site, (DfAw-1). The work spanned a period of seven weeks and was accomplished using a crew which varied from five to seven persons. The chapter is broken down into three sections. Section one will be concerned with environmental aspects and site description. The second section will deal with an analysis of featural remains. The final part of the chapter will centre around artifact description and analysis.

Section I: Wigwam Brook and the Exploits Valley

Location and History

Wigwam Brook (DfAw-1) is located on a point of land (Latitude 48°56', Longitude 55°44') at the confluence of the Exploits River and North Angle Brook (formerly Wigwam Brook), approximately three miles west of the town of Grand Falls, in central Newfoundland (see fig. 1). The point of land on which the site is found is about 1000 feet long, fairly level, and covered with heavy bush. The actual occupational area encompasses an area about 600 feet long by 75 to 125 feet wide, and overlooks the Exploits River. The area to the north and east of the site is slightly lower in elevation and is characterized by alder thickets, which are flooded during periods of high-water, and an area of muskeg. The muskeg formation

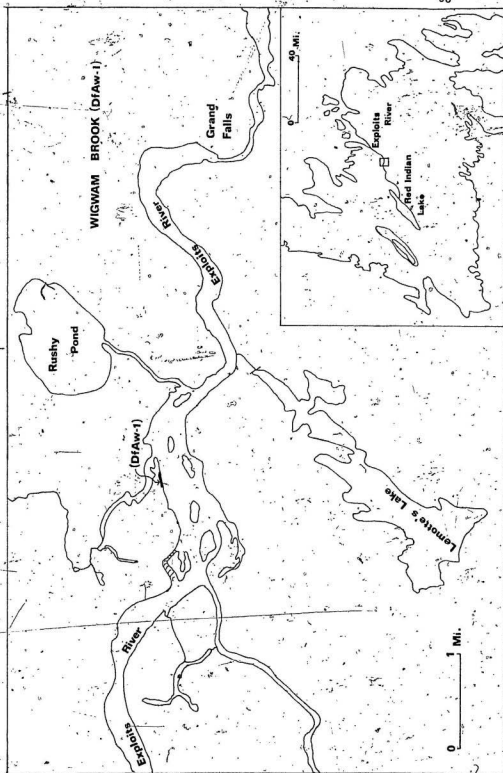


Figure 1

extends in a general north-easterly direction and comprises what is locally referred to as Nine Mile Bog. Further to the north is a line of hills which are about 600 feet above sea level and mark the northern limit of the Exploits Valley in this area. Across the river, which near the site is about 1000 yards wide, there is another series of hills approximately 500 feet in elevation which form the southern margin of the valley. The site itself is around 250 feet above sea level.

Wigwam Brook was initially discovered by Mr. Don Locke, mentioned above, who resides in Grand Falls. In 1968, Mr. Locke pointed out the location of the site to Helen Devereux who had been working in the area at that time. Devereux spent a short time in 1968 clearing out bush and mapping suspected housepit depressions and rock concentrations. Some preliminary testing was also carried out and a permanent bench mark established. More recently, logging operations in the vicinity of the site threatened to destroy it, but through the foresight of Mr. Nelson Williams of the Woods Division of Price (Nfld.) Pulp and Paper, the wood cutters were stopped approximately 100 yards from the actual occupation area and the site was thus preserved for future investigation.

Geography

Physiographically speaking the site is located in the High Plateau physiographic province of Newfoundland, which according to Gutsell (1949: 9), "...refers to the whole of the island east of the main fault zone which extends from the Codroy Valley through Grand Lake to White Bay..." The plateau trends in a southeasterly direction to the Atlantic coast. The Exploits river which cuts through the area flows in a general southwest to northeast direction and runs along a major fault line (Ibid.).

PLATE 1.

Air Photo of Wigwam Brook (DfAw-1) Site Area



Geology

Geology of the Grand Falls area has been considered by Chilton (1948), Hriskevitch (1948), and Williams (1962). In general the area to the east of Grand Falls consists of sedimentary rock of Silurian age (Williams 1962:8) and is part of the Botwood Group. This includes rocks such as sandstones which range in colour from reddish-brown to greyish-pink, grey shales, and various conglomerates. The area to the east of Grand Falls and up to Red Cliff which is located approximately two miles west of the site consists of volcanic rocks of the Morton-Breakhead formation. This formation extends in a northeast direction to the west of Grand Falls. It consists of "...light rhyolite, to darker andesitic flows and agglomerates" (Chilton 1948:10). Most of the flows are reddish in colour.

A short reconnaissance of the site was made by Mr. C. Tucker, a graduate student in Geomorphology at Memorial University. According to him the point of land on which the site is located is part of an island complex which has been altered by dam building at Millertown and at Grand Falls. The shoreline, as shown in plate 1 is truncated, possibly due to the mechanical action of pulp logs which are compacted and held in this area by a log boom about one-quarter mile downstream from the site.

Tucker has also speculated that truncation may have been the result of the abrupt angle of the original shoreline to the water. The point itself is composed of fluvial materials made of sandy water-washed materials with, "sand lenses and cut and fill structures" (Tucker 1973:personal communication).

Climate

In general the climate of Newfoundland is marine in character. (Hare

1952) and is profoundly affected by the Labrador current which almost completely encircles the Island and bathes, "...the east, south and south-west coasts with cold water throughout the spring and summer" (Ibid.:38).

Thus spring and summers are relatively cool and winters are moderated at coastal locations. The interior experiences greater extremes of temperatures.

Winters on the Island tend to be rather long. Interior locations experience greater extremes of temperatures with January mean temperatures at Grand Falls, for example, being 16°F. However, a monthly minimum average of -15°F is not unheard of at this station (1952:84).

Spring comes fairly late with the average last spring frost occurring on June 7th at Grand Falls. This may vary however, from as early as May 15th to as late as June 30th. Mean temperatures in interior regions during May are in the 40's.

Summers are "brief but pleasant". Interior areas experience relatively warm July averages in the 60 to 63 degree range (Grand Falls, July mean is 61°F). Hot spells are known to occur and Buchans, for example, has recorded a July monthly maximum of 87°F. The frost free season varies considerably from the northern to the southern part of the Island. Some areas along the south coast may have a frost-free period averaging 140 to 150 days while in certain inland areas where local landscape favours frost drainage this period may be as short as 78 days, as it is at Millertown. Grand Falls has an average frost free period of 113 days (Hare 1952).

When autumn arrives temperatures drop rather rapidly. September 28th marks the mean for the first autumn frosts at Grand Falls. However, initial frosts may occur as early as September 1st or as late as October 17th.

In general all of Newfoundland receives, "...abundant, well-distributed precipitation, which falls chiefly from the fronts of numerous cyclones approaching from the southwest or west" (Hare 1952:53). Grand Falls has recorded a mean yearly-precipitation of 40.1 inches. This figure represents 27.6 inches of rainfall and 125 inches of snow.

To summarize: the climate in the region of the site is a typical inland Newfoundland type. Summers are short, with hot spells being quite common. Winters on the other hand are fairly long and cold with temperatures averaging as low as -15°F in January at Grand Falls. Precipitation is fairly evenly distributed throughout the year and amounts to some 40 inches.

Flora

The island of Newfoundland is located in the Hudsonian Biotic Province (Dice 1943), a transcontinental vegetation zone which stretches from Newfoundland to western Alaska. The vegetation in this area is referred to as boreal and is typical of sub-arctic environments. Species common to boreal forests include coniferous varieties such as black spruce (Picea mariana); white spruce (Picea glauca); balsam fir (Abies balsamea); larch or tamarack (Larix laricina); and jackpine (Pinus banksiana). Broadleaved species include white birch (Betula papyrifera); balsam poplar (Populus balsamifera); aspen (Populus tremuloides) as well as various shrubs and bushes (Hare 1959:23). Additionally, sphagnum moss is characteristic of the Hudsonian province is generally associated with wetter areas and is common on forest floors with spruce canopies. Associated with the sphagnum in wetter areas are bog plants such as Labrador tea (Ledum groenlandicum) and blueberries (Vaccinium spp.) (Dice 1943:13).

The vegetation in the Wigwam Brook area pertains to Rowe's (1959)

"Grand Falls section" (B28a) which covers a wide area, occupying "...the plateau of central-northern Newfoundland... [and] ...contains the greatest area of productive forest land in the province" (Rowe 1959:32). Areas to the south and west are characterized by "...highland moss barrens..., to the east ...by the poorer forests of the Avalon Peninsula, and on the north by a narrow maritime strip differentiated by a contrasting prominence of white spruce" (Picea glauca). Forests in this area are mainly coniferous in character with a predominance of balsam fir and black spruce. White birch "...is of general though scattered distribution throughout" (Rowe 1959:32). The same is also true for white spruce. Aspen is often first to regenerate in cut over or burned out regions; balsam poplar is relatively rare. White pine (Pinus strobus) was formerly quite common but is now absent from the area. The only stands of red pine (Pinus resinosa) left on the Island are found in this section (1959:32).

Hare has grouped the different forest-types which occur in boreal forests into several moisture series following the work of Hustich (1951) in Labrador (Hare 1959:26-28, Table II). The vegetation in the immediate vicinity of Wigwam Brook belongs to two of the moisture series with three cover types being represented.

The point of land on which the site is located has what is called a mixed forest type of the moist series. This signifies a closed crown of mixed conifers and broad-leaved deciduous trees. The forest floor is shaded and mosses are prevalent. As mentioned earlier (LeBlanc n.d.) tree species on the site consist primarily of black spruce and balsam fir with both having approximately equal representation. White spruce is also present among the coniferous types. Broadleaf trees include white birch and aspen. Other types include speckled alder (Alnus rugosa), pincherry

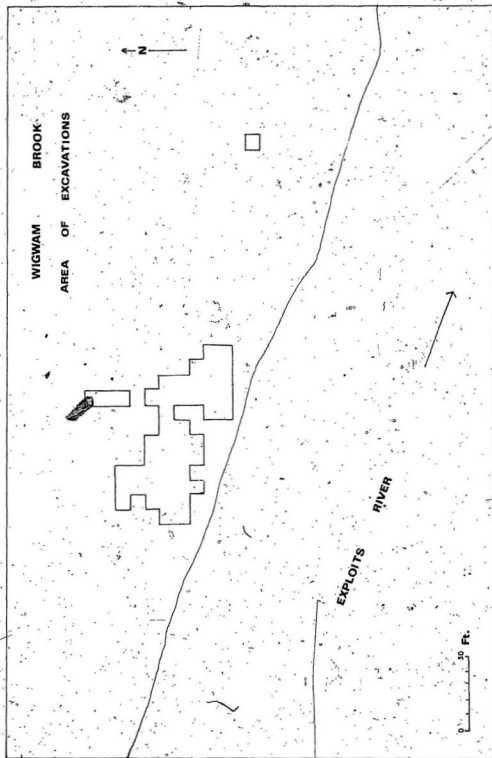


Figure 2

(Prunus pensylvanica), and witch hazel (Hamamelis virginia) (Malcolm Squires 1972:personal communication).

The second cover type in the area is part of the wet series and consists of Alders (Alnus spp.). This vegetation lines both banks of North Angle Brook and is composed of dense thickets of speckled alders up to 12 feet in height. During periods of high water these areas become flooded. It might be noted here that these particular areas were the most heavily insect infested in the vicinity of the site.

The third boreal forest subdivision in the local vegetation of the site consists of another wet series cover type called fen (Hare 1959:28, table II). This area is located to the northeast of the Trans Canada Highway. Vegetation in this bog includes sedge-meadows with the occasional stunted black spruce. Patches of open water are quite common in the area and very characteristic of fen.

To summarize: vegetation in the region of the site is typically boreal, consisting of the three subdivisions of mixed forest, alder thickets, and fen. The actual site locus contains a mixed-forest cover type.

Wigwam Brook: Excavations.

Techniques

Excavation procedures followed closely those employed by H.E. Devereux at the Indian Point site near Millertown, Newfoundland. At the outset it was necessary to clear large areas of the thick bush which covered the site. This was done so that sighting lines could be made in order to establish a grid which was based on a datum stake established previously by Devereux. Clearing of bush was also mandatory so that some idea of the general topography of the site could be obtained and also to reveal possible housepit walls, and such obvious features as firecracked

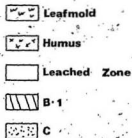
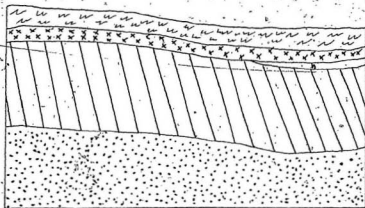
rock concentrations. When an area had been cleared and selected as promising for excavation a grid of 10 foot units was placed over the area, using as reference points, east-west and north-south base lines. Ten foot units were designated by upper case letters denoting the appropriate 100 foot unit and were numbered consecutively from 1 to 100, commencing from the east-west line. The southeast stake of each ten foot unit was given the square designation. When bone concentrations became too heavy to warrant mapping of individual pieces or when it was obvious that the square had been disturbed, faunal material was collected by quadrant. Quadrants were designated so that the northeast five foot square became the north quadrant, the southeast the east, the southwest the south, and the northwest the west. Measurement was in feet and tenths of feet. (See figure 2 of excavated area.)

After the grid had been established over a selected area, the individual squares were raked to remove leaf-mold. This revealed the humus which was then carefully troweled. All cultural debris such as artifacts, faunal material and fire-cracked rock was left in situ in the hope that patterns would be visible and enable us to formulate problems and draw some initial conclusions. Since the cultural level was so thin (0.2 feet or less) a fairly large area of 5000 square feet was excavated in six weeks.

Stratigraphy

Natural and cultural stratigraphy were found to be quite simple and basically consisted of four different horizons (see fig. 3). The uppermost of these was leafmold in various stages of decomposition. This level was seldom more than 0.1 feet in depth and contained no cultural debris. Beneath the leafmold was a dark-brown to black humus layer about 0.1 to

WIGWAM BROOK STRATIGRAPHY



0 1 Ft.

Figure 3

0.2 feet in thickness. The humus stratum contained the cultural debris and most of the features and it thus comprised the occupation zone. Underlying this was an orange-yellow soil of clayey consistency, varying in depth from 0.6 feet to slightly over 1.0 feet. This layer was designated as the B-1 zone. Occasionally bones and/or artifacts were found in this horizon. However, for the most part cultural debris found in the B-1 zone was taken as an indication that some type of disturbance has occurred since aboriginal occupation of the site. Occasionally there was a very thin, (0.1 feet or less) grayish white leached zone typical of coniferous forest podzolic soils, which was located sporadically between the B-1 zone and the underlying subsoil. The subsoil which we have called the C horizon was of unknown depth and consisted of waterworn pebbles and cobbles in a light-brown sandy matrix. No charcoal or cultural debris was encountered in this level during our work on the site. Despite the fact that no vertical stratification was encountered at Wigwam Brook there was some indication of horizontal separation of the components. This took the form of a number of stone flakes and implements of Ramah chert found in an area slightly to the west of the major area of excavation. This material, which will be discussed in detail later on in this report, appears to be good evidence of a Maritime Archaic occupation on the site at least 3000 years ago.

Section II: Features

A total of 19 features were found at Wigwam Brook. These can be grouped into five categories for the purposes of discussion. The first category which includes two types, contains 10 fire-cracked rock concentrations. The second comprises four hearths. The third category includes one bone midden. The fourth includes one possible pit and the fifth and



A hand-drawn sketch on a textured, speckled background. The sketch includes several lines: a horizontal line across the middle, a vertical line on the left, and a diagonal line on the right. There are also some curved lines and small circles scattered throughout. The text 'PLATE 2' is written in the center, and 'Feature 5' is written below it. There are also some faint, illegible markings and arrows.

PLATE 2

Feature 5



WIGWAM BROOK

UNIT A SO 72

FEA 5

7 13 72

last group consists of three housepits.

Category 1: Fire-cracked Rock Concentrations

Type A

Seven features (nos. 2, 5, 8, 9, 12, 18, 19) are included in this type. These features are simple fire-cracked rock concentrations which contain no bone mash and little or no evidence of fire. In general they are irregular in outline and vary considerably in size. All were found in the humus and on top of the B-1 horizon; occasionally they were visible through the leafmold.

Feature 2

This example was located in Unit B square 44 and contained small to large cobbles of fire shattered rocks. Dimensions were 9.4 feet long by 6.3 feet wide. Associated cultural debris included seven unburned bone fragments and two very small clusters of burned bone. No artifacts nor evidence of fire in the form of charcoal or oxidized soil, was encountered.

Feature 5

This feature was a small, dense concentration of fire-shattered cobbles approximately 5 inches in depth (see Plate 2). It was roughly circular in outline, being about 3.6 feet in diameter. It was visible in the leafmold. One piece of burnt bone was found within the limits of the feature. No charcoal nor artifacts were turned up upon dismantling this jumble of rocks.

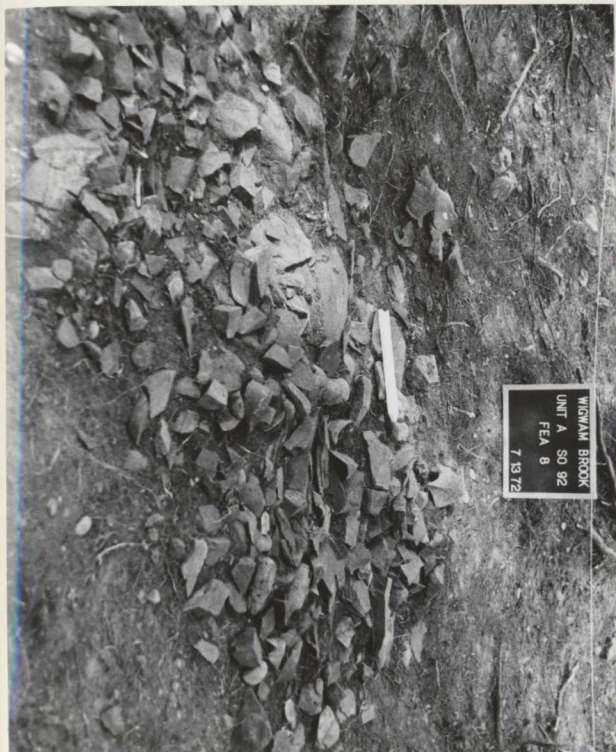
Feature 8

This particular example was relatively large and fairly dense (see Plate 3). It measured 7.2 feet by 6.0 feet in size. No bone fragments were discovered within the presumed limits of the feature but three



PLATE 3.

Feature 8



WIGWAM BROOK
UNT A SO 92
FEA 8
7 13 72

fragments were found immediately outside of it. One fairly coarse-grained chertz cobble was found on top of the fire-cracked rock of this feature. Upon removal of the rock and in a slightly depressed area there was a small, thin (1.5 feet across, 0.5 inches deep) deposit of charcoal underlain by a dimensionally similar layer of reddish oxidized soil. No cultural debris of any description was encountered in this deposit.

Feature 9

The main portion of this cluster of fire-cracked rock was found in a shallow depression. The rock was localized over an area 8.0 feet wide by 9.4 feet long. The only cultural debris found consisted of three fragments of unburned bone.

Feature 12

This was a dense cluster of rock 4.5 feet wide and 6.0 feet long. A very small deposit of burnt bone was found near the northern limit of the feature on top of the rock. It appeared that this bone had been deposited sometime after deposition of the rock. No charcoal or oxidized earth was encountered.

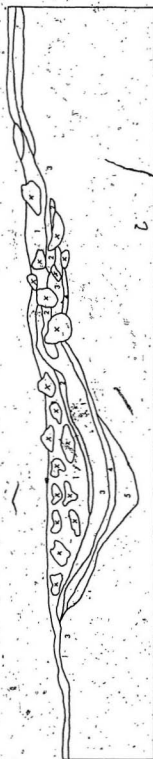
Feature 18

This small diffuse cluster of small fire-cracked cobbles measured 3.5 feet wide and 4.3 feet long. No bone nor charcoal was discovered. One small Ramah chert flake was found within the limits of the feature. However, this flake lay on top of the B-1 zone and it is not, therefore, thought to have been directly associated with the feature.

Feature 19

This feature which was found about three feet west of Feature 18 was

PROFILE OF FEATURE 1



- 1-Humus
- 2-Bone Mash
- 3-B-1
- 4-Charcoal and Humus
- 5-Grayish-White Ash
- (X)-Fire-cracked Rock

0 1 - 2 Ft.

Figure 4

also a very small (3.2 feet by 2.5 feet) diffuse cluster of small fire-cracked rock. There were no artifacts, bone, nor charcoal in the feature.

Type B

This class includes four features (nos. 1, 6a, 6b, and 17). These are distinguished from type A features by their considerably more complex nature as exemplified by the presence of bone mash, considerably more unburnt and burnt bone material as well as direct evidence of heat in the form of charcoal and/or heat discolouration of surrounding soil.

Feature 1

This feature located in area A was 8.0 feet wide and 10.0 feet long. The feature had been recently disturbed presumably by an artifact collector and was therefore readily visible through the leafmold. The disturbance, however, was confined to a relatively small area (4 square feet) near the approximate centre of the feature.

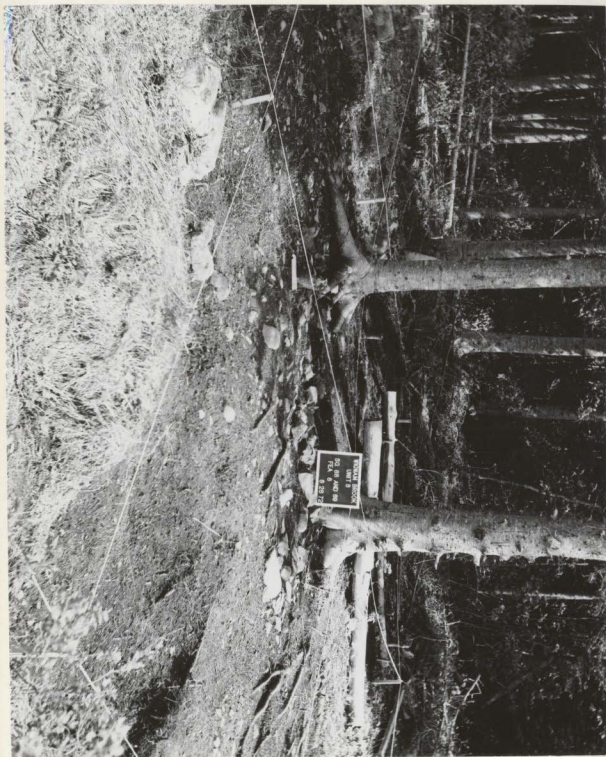
Fire-cracked rock was dense with shattered pieces ranging in size from small chips to large cobbles circa 0.8 feet in diameter. No artifacts were found within the confines of the feature. However, there was a good deal of faunal material, (82 pieces) as well as a deposit about 4.0 by 3.0 feet and 5.0 inches deep of what Helen DeVereux (1970:21) has called bone mash. This material consists of bone particles $\frac{1}{4}$ to $\frac{1}{2}$ inch in size, and powdered bone. When damp this substance takes on a rather interesting resemblance to corn flakes. The mash was found among the fire-cracked rock but for the most part was located beneath the rock.

In profile (see fig. 4), Feature 1 had a layer of humus containing fire-cracked rock, underlain by bone mash in one area of the cross-section and a layer of B-1 in another. This latter horizon surmounted a



PLATE 4.

Feature 6



PROFILE OF FEATURE 6

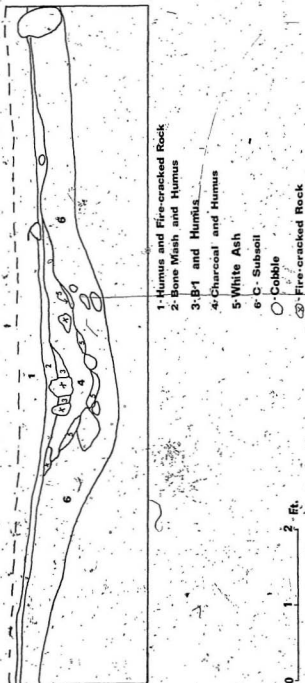


Figure 5

thin deposit of humus containing bits of charcoal. This level which appeared to have been a buried humus layer, was in turn, overlain by a greyish-white horizon which was most likely a leached zone. No heat discoloured soil was in evidence.

Feature 6a & b

Previously (Le Blanc n.d.), what we are now calling Feature 6 was considered as two fairly discrete entities. However, upon closer analysis it was decided that Feature 6a which was found beneath 6 should be grouped with 6 and considered as one example of a type 2 fire-cracked rock concentration. As with Feature 1, Feature 6 was a rather large one being 15 feet long on the north-south axis and approximately 7 feet on the east-west axis. Two areas of the feature had been disturbed, but this was not overly damaging to it, since it amounted to mere displacement of the rock. Near the approximate centre of the feature was a bone mash deposit 8.0 feet by 5.5 feet.

Artifacts found in the feature included, three sandstone abraders, a square nail fragment (wrought), three chunks of chert; one partially finished iron projectile point, one complete square nail (wrought), one flake, and one small chert nodule. The nails, one abradar, the chert nodule and the projectile point were found in the mash lens beneath the rock.

In profile (see fig. 5) Feature 6 had the usual topmost layer of fire-cracked rock embedded in humus. This was underlain by a bone mash lens varying in depth from 0.1 to 0.3 in thickness. This overlay a lens of charcoal and humus with a maximum thickness of 0.4 feet. Two small pockets of B-1 mixed with humus were found just on top of the humus-charcoal and beneath the bone mash, probably as a result of disturbance.

PROFILE OF FEATURE 17



- 1. Humus
- 2. Bone Mash
- 3. White Ash
- 4. Oxidized Soil
- 5. Charcoal
- 6. B-1
- Cobble

0 0.5 1.0 Ft.

Figure 6

Separating the charcoal lens was a thin (circa 0.1 feet or less) discontinuous lens of white ash which was underlain by the B-1 horizon. No evidence of thermally affected soil was found.

Feature 17

Feature 17 is a complex example of type two fire-cracked rock concentrations. The feature was 10.1 feet by 8.5 feet. Shattered rock was not as obviously dense as in the other examples but was in some areas quite thick (i.e. 1.0 feet). Bone mash was scattered beneath and between rocks. The bone mash did not cover any extensive area. The largest was 1.6 by 1.3 feet in extent. There was also a small pocket (1.6' x 0.8') of burned bone and charcoal found among the fire-cracked rock in the north sector of the feature.

About 30 pieces of unburned faunal material were retrieved from among the rocks. Additionally, there were three iron artifacts: a projectile point; a square nail (wrought); and one piece of strip iron.

An east-west section (see fig. 6) through the feature revealed a relatively complex profile. Beneath the rock bearing humus on the east was a B-1 layer. In the central portion of the profile were isolated lenses of B-1 and bone mash. The humus layer on the west appears to extend to beneath the above mentioned lenses of B-1 and bone mash. Underlying the humus on the west was a lens of whitish ash. Beneath the B-1 horizon on the east there was a charcoal bearing layer varying in thickness from 0.1 to circa 0.5 feet. This was underlain by a thin (less than 0.1 feet) lens of reddish thermally affected soil. This same lens extended through the central part of the profile and into about the first 1/4 of the western half.

Discussion

Devereux (1970:66) noted the common occurrence of fire-cracked rock features at the Indian Point site and has suggested that they are more "...profuse in the prehistoric component than in the historic one," and in fact may actually be a feature of the prehistoric period. This is not entirely born out by the evidence at Wigwam Brook. In three cases (eg. Features 5, 18, 19) it is almost impossible to definitely conclude that a particular feature belongs to the prehistoric or historic time period, usually because no artifacts exist to give an indication in this direction. In instances where it is possible to make a statement concerning age there appears to be a slight bias toward the historic period. Features 8 and 12 which contain a chert cobble and an adze fragment respectively, are the only definitely prehistoric examples. Other features such as 6 and 17 contain historic iron goods and it would therefore seem reasonable to equate them with the historic period. Feature 1 does not contain any artifacts other than bone; however, the fact that the bone, and the bone mash in particular has not disintegrated is certainly suggestive of its being historic. Devereux has stated that bone does not last more than about 400 years in the acidic soils of interior Newfoundland (1970:22). Similarly features 2 and 9 which both contain unburned bone may perhaps be attributable to the historic period.

To summarize, of the 10 fire-cracked rock concentrations it is possible to assign 7 to either the prehistoric or historic time periods. Features 8 and 12 which are type 1 examples appear to be prehistoric. Features 1, 2, 6, 9 and 17 which pertain to both types seem to be historic in age.

Interpretation: Type A

In all except one instance (Feature 8) there is no evidence that fire was directly associated with these features. In other words the fire-cracked rocks appear to have been heated elsewhere then deposited in their present loci, perhaps as a result of cleaning of housepit hearths. The same may be also true of Feature 8. The burned area beneath the rock was very small indeed and the extensive distribution of the rock would certainly not suggest that it was the result of mere scattering of rock from near the area of charcoal and burned earth. It is therefore quite probable that the charcoal and reddish soil is not associated with the rock, but perhaps the result of a small fire at some time previous to the deposition of the rock.

A possible indication of the nature of these rock concentrations is provided by ethnohistoric descriptions of the Beothuk vapour bath, which we have already considered in the discussion of material culture (see p. 14 for description). Similar features have been observed among the Micmac, Montagnais, and Naskapi (Wallis and Wallis 1955:124) and seem to be a common feature throughout the eastern Algonkian area (Flannery 1939:142).

However, if some of the type 1 features represent the remains of sweat houses as described for the Beothuk in the literature, then one would expect to find at least some charcoal or evidence of heat in the form of discoloured subsoil either within the bounds of the feature or around the perimeter. However, none existed, except of course for Feature 8 and the charcoal area here is so small that it is unlikely evidence of rocks being heated at this location. It is a possibility, though, that heating stones by building a fire around them was only one method to procure rocks

hot enough for a sweat house. Another possibility is that the rocks may have been heated elsewhere then removed to a specific area after which the 'hemispherical' structure would be erected over them. Ethnographic data dealing with the Malecite Indians of New Brunswick appear to indicate that preparation of hot rocks to be redeposited elsewhere was not unheard of amongst eastern Algonkians (Wallis and Wallis 1957:4). Perhaps the very compactness and denseness of Feature 5 at Wigwam Brook is an example of Beothuk use of such a procedure.

Additionally, one might expect a series of post molds if a structure was erected over the heated stones. No evidence of post molds was found in association with any fire-cracked rock feature at Wigwam Brook. However, it may well be that the structure described by Cormack was a movable one which was simply placed over the rocks thus eliminating the need to embed sticks in the ground. Moreover, even if sticks from such a structure were set in the ground it is probably that the acidic nature of the podzolic spils in this area would have completely eliminated all traces of such evidence.

Type 1 fire-cracked rock features then, may possibly be due to two things. They may be simply the result of redeposition of rock from hearth areas in housepits. Another possibility, suggested by the ethnohistoric descriptions of vapour baths is that some of the features (Feature 5 for example) may represent the remains of a sweat house.

Interpretation: Type B

As mentioned above, these three features (1, 6, and 17) are distinguished from type A examples by virtue of their generally larger size, and the addition of such things as bone mash and indications of fire in the form of heat discoloured soils and or charcoal. Features one and six do

not exhibit any evidence of heat-discoloured soils but do have deposits of charcoal and ash in the lower portion of the feature. This lack of any evidence of oxidized soil beneath the ash and charcoal suggests the possibility that the charcoal, ash, and definitely the unburned bone, and bone mash as well as the fire cracked rock were deposited in natural depressions in the forest floor, possibly as a result of house-keeping activities. Thus, in respect to redeposition of materials, they resemble type A rock concentrations.

Feature 17 is underlain by a thin zone of reddish oxidized soil which obviously suggests the presence of fire, and that this feature may have been a hearth. But there are problems with this interpretation, since there are pockets of unburned bone mash throughout the feature and there is also a lense of B-1 soil separating the charcoal from the fire-cracked rock. This suggests the possibility that the mash and rock may have been dumped on top of what may have, at one point in time, been a hearth. This would explain the lack of definite association of fire-shattered rock, charcoal and thermally affected soil.

Bone Mash

A constituent of the type B fire-cracked rock clusters which has been frequently mentioned but as yet undiscussed, is bone mash. As noted earlier this substance consists of small particles of bone and bone powder. Similar material was found at the Indian Point site, but was not nearly as common as at Wigwam Brook (Devereux 1972:personal communication). Devereux did not offer any speculations on the origin of this debris and a thorough search of ethnohistoric sources on the Beothuks also failed to shed any light on what the Indians were doing to create this residue which appears to have been disposed of along with the fire-cracked rock.

However, ethnographic descriptions of Micmac material culture in Nova Scotia appear to provide us with a possible explanation.

Wallis and Wallis (1955) cite the remarks of Le Clercq who observed the Micmac making,

"...a kind of grease which is taken from the bones of the legs and thighs of the moose. After they have eaten all the marrow, they pound and crush these bones until they have reduced them almost to powder; then the fragments are placed in a huge kettle of boiling water so that every remaining trace of marrow or grease in these broken bones floats upon the water... They then collect this grease, and preserve it carefully, as something very choice and delicate. As to the soup, it becomes, as white as milk; and according to their idea, they believe it as good for the chest as a large glass of brandy, or as the best of our meat broths" (Wallis and Wallis 1955:65).

The residue from a process such as the above would probably be small chips and particles of bone which would probably be disposed of once all grease had been procured. Though it may perhaps be dangerous to employ the above description as a model which the Beothuks may have followed it is the best explanation of these bone mash remains.

To summarize: as far as can be determined from our observations of the type B fire-cracked rock features, the rock, bone mash, unburned bone, charcoal and ash seem to have been removed from elsewhere and deposited in their present locations. Features one and six are prime examples of this. Feature 17 has evidence of fire in the form of oxidized soil at the base of the feature, but the composition of the feature as shown by a profile would argue for a later deposition of the abovementioned materials upon what may have been a hearth.

Inter-site Comparisons: Beothuk

The Indian Point site and the Beaches site are the only other excavated Beothuk habitation sites which we can use for comparative purposes.

However, since no extensive excavations were conducted outside the limit of the housepits at the Beaches site it is not known if fire-cracked rock features exist at that site. At the Indian Point site a total of 7 fire-cracked rock features have been assigned to the Lower or prehistoric occupation and one to the Upper or historic occupation. The prehistoric features range in size from 1 to 100 square feet and thus are considered comparable in size to those at Wigwam Brook. Their prehistoric affiliation is based on presence of stone debitage, and implements (Devereux 1970:41a). The historic example is considered as such on the basis of indirect evidence, i.e. the presence of unburned bone (Ibid.:27). As noted earlier, Devereux (Ibid.:68) has concluded that fire-cracked rock concentrations are most probably a prehistoric phenomenon, a conclusion that seems reasonable in view of the associated stone tools but one which is not applicable at Wigwam Brook.

Devereux (Ibid.:41a) offers the tentative conclusion that these features are middens. This agrees well with our observation that these features appear to have been the result of redeposition of rock, bone, charcoal, ash and bone mash.

Inter-areal Comparisons

Martijn and Rogers (1969) report a small fire-cracked rock cluster at the R-13 (Pointe du Camp) site on Temiscamie Island in Central Quebec (Ibid.:179). The feature was 2.0 by 1.2 feet in size and was found in the humus. Pieces of charcoal were strewn in amongst the 30 pieces of rock which formed the cluster. No faunal material or artifacts were associated. Martijn and Rogers suggest two possible interpretations for this particular feature. The first is that the rocks may have been heated in order to roast meat on them. They suggest that such a procedure would

not require a great deal of rock (Ibid.:180). However, it would seem that one would expect some remains of bones, perhaps burned, in and around the feature if such an activity took place. The second possibility is that the feature may have been a vapour bath. A description by Honigman (1964: 328) is cited as the basis for such an interpretation. Apparently, stones were heated by the Mistassini by building a fire around them, then a structure was erected over the hot stones after removal of the ashes. This is very similar to the method of making a vapour bath which Cormack describes for the Beothuk. However, with respect to the features at Temiscamie Island Martijn and Rogers (1969:81) state that there was "...no trace of any depression of fire pit which according to Hind (1863:vol. 1, p. 34) is commonly associated with such a vapour bath."

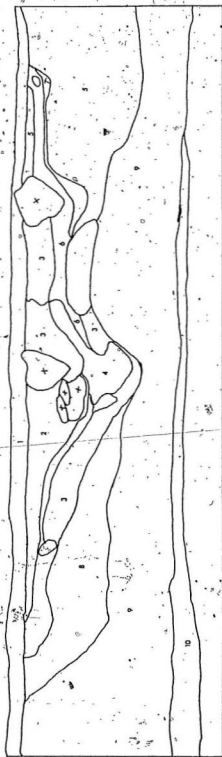
William Ritchie (1969:25 and Pl. 7, p. 21) has reported two fire-cracked rock features from a late Susquehanna stratum (no. 2) at the Hornblower II site on Martha's Vineyard. The first (Feature 7) was exposed for an area of 18 by 24 inches. No ashes or charcoal were present. The second feature was 4 by 5 feet and was found in what appeared to be a shallow basin. "Thermal affects" were visible on the surrounding soil but no charcoal was found in association with the rock. Ritchie has interpreted both of these features as being hearths.

To summarize: fire-cracked rock features similar to the types found at Wigwam Brook and Indian Point have been reported in various archaeological contexts in the northeast. Some examples have been interpreted as stone hearths, while others have been considered as possible vapour baths or roasting platforms.

Hearths

Four features were discovered which are thought to have been hearths.

PROFILE OF FEATURE 4



- 1. Humus
- 2. Ash
- 3. Oxidized Soil
- 4. Gray Lens
- 5. B-1
- 6. Charcoal
- 7. White Lens
- 8. Purplish Lens
- 9. Water-Washed Gravels
- 10. Beach Sand
- Cobble
- ⊗ Fire-Cracked Rock

0 0.5 1.0 Ft.

Figure 7

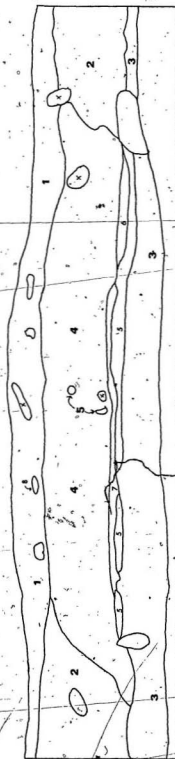
or fireplaces. In three instances (Features 7, 10, and 11) they appeared to have been the central hearths of housepits. The fourth (Feature 4) does not bear any relationship to any house feature and seems to have been an open air fireplace. In every case the presence of the hearth was signalled by reddish soil which had been oxidized by heat, large amounts of charcoal, the presence of burned bone, and by bits of fire-cracked rock. All of the hearths were rather amorphous in outline and might be called simple sand hearths.

Feature 4

This feature was 7.4 feet long (east-west) and 3.9 feet wide (north-south). It was observed in the humus and B-1 level as a deposit of burned bone fragments, charcoal, small fire-shattered rocks and streaks of grayish ash. An east-west profile (see fig. 7) near the approximate centre of the hearth revealed a relatively complex stratigraphy. The humus was underlain by ash on the east and by oxidized soil on the west half of the profile. Beneath the ash on the west was a layer of reddish soil about 0.25 feet in thickness. However, in the east, the oxidized soil lay on top of a small charcoal lens about 0.3 feet thick. This was partially underlain toward the centre by oxidized soil and towards the west by B-1 subsoil. A lens on the east beneath the thermally affected soils seemed to exhibit a slight purplish tinge, perhaps as a result of leaching from the overlying horizon. Several heat affected cobbles were distributed throughout the profile. The feature appears to have been built in a slight natural depression. The nature of the stratigraphy, the depth (circa 1.0 feet), and the overall length of the hearth suggest successive use of the area.

The only associated artifact was one small unmodified piece of sheet iron. No unburned bone was encountered.

PROFILE OF FEATURE 7



- 1-Sod
- 2-Disturbed
- 3-B-1
- 4-Ash and Humus
- 5-Oxidized Soil
- 6-Charcoal
- 7-Ash?
- 8-Bone Fragment
- 9-Cobble
- 10-Fire-cracked Rock

0 0.5 1.0 Ft.

Figure 8

Feature 7

Feature 7 was centrally located in a heavily disturbed depression (Feature 15) which was very likely a housepit.

The hearth was irregular in shape and measured 3.7 feet (north-south) by 4.8 feet (southwest-northeast). By a very fortunate accident the hearth had been almost completely circumvented by whoever disturbed the housepit and disturbance was therefore minimal (See profile, fig. 8). This was indicated by the presence of definite stratigraphy in the vicinity of the hearth whereas immediately adjacent to the feature the profile indicated mottled soils composed of mixed B-1 and humus.

Artifacts within the hearth area included two iron fragments, one complete wrought iron nail, two broken projectile points, and a lump of hematite.

A cross-section of the hearth revealed the following. The topmost layer consisted of sod 0.25 feet thick, containing pieces of unburned bone, as well as pebbles and cobbles. This level is thought to have been partially disturbed. The next layer which was 0.6 feet thick consisted of humus and ash along with burnt bone and charcoal. This section was bounded on the east and west by the previously disturbed mottled soils. Beneath the ash and charcoal level were lenses of charcoal and what was probably ash. These were about 0.1 feet in thickness and lay on top of a thin (circa 0.15 feet) layer of reddish oxidized soil. The lowermost horizon was undisturbed B-1 soil.

Feature 10

This feature was found within the limits of another housepit (Feature 14). It was quite large with a length (southwest-northeast) of 8.1 feet and a maximum width of 4.0 feet (east-west). The feature was

initially recognized as a reddish stain similar to that described for the other hearth features. In this case the reddish earth contrasted markedly with the surrounding B-1 soil. The main part of the feature was located on a slight mound.

Artifactual debris included one abraded which was found in five fragments, 59 pieces of burned and unburned glass, one small piece of polished ivory and one piece of sheet iron. Other debris included several pieces of burned and unburned bone.

Except for a small area near the southern margin of the feature there were no extensive deposits of charcoal either in the humus or on top of the oxidized soil within the area delimited as the hearth. There were, however, two areas of charcoal found after removal of the humus flanking the hearth mound to the northwest and to the southwest. It is suggested that factors of erosion or perhaps flooding of the site during a year of exceptionally high water may account for the lack of charcoal on the mound. This suggestion is further enhanced by lack of any evidence whatsoever of thermally affected soil beneath the areas containing the charcoal. Also, a profile taken near the south border of the feature indicated the presence of charcoal and burnt bone in the humus overlying the oxidized earth. This further suggests that charcoal was at one point present on the mounded portion of the hearth.

Feature 11

This example was located in a heavily disturbed housepit (Feature 16). The feature was recognized as a heat-stained area in the soil; burned bone and charcoal were also present. It measured 4.0 feet (north-south) by 3.5 feet (east-west). Unfortunately the feature had been extensively disturbed and was only slightly more than 0.1 feet in depth. Artifacts

found within the limits of this presumed hearth included two iron projectile points, seven square nails (wrought), eleven fragments of iron and three pieces of unmodified shell. However, due to the disturbed nature of the hearth and housepit it is doubtful whether these artifacts have remained unmoved since aboriginal times.

Hearths: Interpretations

As mentioned in the general observations on the hearths at Wigwam Brook these features were considered as such on the basis of the occurrence of fire-reddened earth, large amounts of charcoal, the presence of burned bone, and by bits of fire-broken rock. All of these features appear to be simple sand hearths.

Features 7, 10, and 11 seem to have been the central hearths of housepits. This conclusion hinges on two pieces of evidence: a) their location in what are presumed to have been housepits; and b) the fact that ethnohistoric records continually point out the presence of a central hearth in Beothuk habitations. We have already noted the locations of the hearths with respect to possible housepits. Both David Buchan (Howley 1915:85) and John Cartwright (1826:308) mention hearths in their descriptions of Beothuk wigwams. Cartwright (Ibid.:309) observed the presence of a hearth in a reputedly square dwelling. It seems reasonable therefore to conclude that Features 7, 10, and 11 are most probably the central hearths of the housepit Features 15, 14 and 16 respectively.

Feature 4 is more difficult to explain. It is definitely distinct from the other three in two respects. Firstly, it is not found in a depression which could be called a housepit. Secondly, only one metal artifact was found in association with Feature 4 whereas the other three all contained a considerably greater amount of artifactual debris. These

two points suggest a difference in function between Feature 4 and Features 7, 10, and 11. If this is in fact true then the most obvious and perhaps least speculative conclusion that can be offered regarding feature four is that it was simply some type of open air fireplace. However, on a more speculative level we might offer the suggestion that this hearth may have been the smoking fire of a smokehouse. It must be admitted though, that there is virtually no evidence of any structure around Feature four.

With regard to age, each of the fireplaces has iron goods associated with it and it seems fairly safe to assume that they belong to the historic period.

Inter-site Comparisons: Beothuk

The hearths discussed above exhibit much the same characteristics i.e., some fire-cracked rock, bone fragments and iron tools as the historic component examples at the Indian Point site. The Indian Point hearths are also quite large (Feature 33 A for example, is 7 feet by 2 feet) and are thus similar, in this respect, to the hearths at Wigwam Brook. For the sake of contrast, the prehistoric hearths at Indian Point were generally small [eg. Feature 47 is 2.5' x 1.0' (Devereux 1970:32)], and shallow (Ibid.: 59). Precisely what this change in hearth patterns reflects is not known as yet and must await future archaeological research.

Bone Midden

There was only one feature containing bone which was extensive enough to be labelled as a bone midden (Feature 13). The presumed extent of this feature was seven feet by six feet. Regretably it has been partially disturbed up by somebody searching for artifacts. However, by a fortunate accident, bone and humus from the disturbed area of the

midden has been heaped to each side, thus preserving about a third of the total area. In the undisturbed section, the humus contained a very dense jumble of bone fragments ranging in size from bits less than an inch in size to large portion of caribou long bones. A few fire-cracked rocks were scattered throughout the feature but there was no evidence of fire. No artifacts were discovered within the limits of the midden. A total of 1742 pieces of bone was recovered from this feature (Appendix I, p. 14')

Interpretation

It would appear from the state of the bone recovered from this midden that the bone deposited here was broken up presumably to extract the marrow although no evidence was discovered that would indicate that this was done in the immediate vicinity of the midden. Also, it is not known if the bones were boiled to extract the bone grease-- a process which is thought to have resulted in the bone mash by product. However, judging by the generally small size of the bones it is quite possible that such an activity took place.

Comparisons with Indian Point and Beaches

One bone midden is reported for the historic component at the Indian Point site. This example (Feature 1) was 5 feet by three feet and was discovered near an historic hexagonal housepit (Devereux 1970:20). According to Devereux the faunal material consisted of unburned caribou bone ranging from fragments one inch in size to complete bones. No fire-cracked rock occurred in the feature. Except for the lack of heat affected rock, this particular example is quite comparable to the midden at Wigwam Brook, which is also probably historic in age as demonstrated by the excellent state of preservation of the bone.

With respect to the prehistoric component two "diffuse" middens were discovered. These consisted of "...a thicker than normal organic deposit...", fire-cracked rock and calcined bone spicules (Ibid.:41a). Whether or not the organic deposit is the result of disintegrated faunal material is not known.

The midden at the Beaches site has already been considered (see pg.51). To briefly recap here, it was 5 inches thick and located just outside housepit No. 4. Midden material was more varied than at Indian Point or Wigwam Brook with immature harbour seal, caribou, duck, polar and black bear, and shell remains being found (Devereux 1969). Except for the expected differences in faunal remains the Beaches midden is quite similar to those discussed above.

Pit

Only one small pit-like feature was encountered (Feature 3). This was found partially covered by Feature 2 and excavated into the B-1 horizon beneath the humus. It was a roughly circular basin shaped depression 1.7 feet in diameter and about 0.4 feet in depth. A cross-section indicated a very thin (0.1') topmost layer of humus. This was underlain by a charcoal rich humus layer which contained a few small pieces of fire-cracked rock. An abrading tablet of reddish sandstone was found in this horizon. The next lens consisted of a grayish-white soil, perhaps ash, containing flecks of charcoal. No evidence of oxidized soil was observed.

It is difficult to conclude definitely whether or not this feature is in fact an intentionally dug pit. The small size suggests it was probably unsuitable as a storage facility, since ethnohistoric sources indicate much larger subsurface pits for storage purposes. As noted in

PLATE 5.

Southwest Quadrant of Feature 14



PLATE 6.

Southeast Quadrant of Feature 14





PLATE 7.

Northwest Quadrant of Feature 14

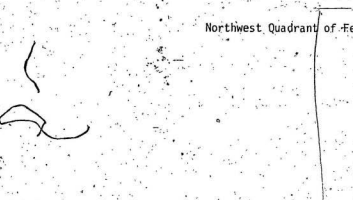
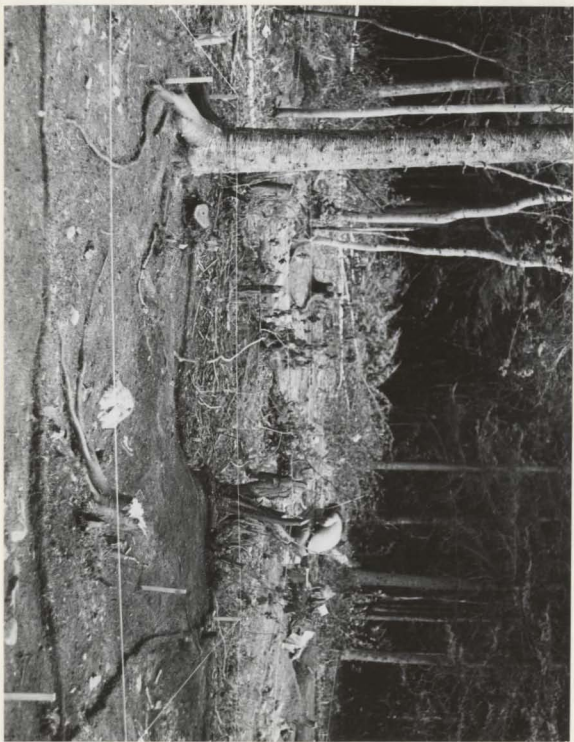




PLATE 8.

Northeast Quadrant of Feature 14



the chapter dealing with material culture, storage pits were about four feet deep, and lined with birch bark. The feature may have been a small fire pit scraped into the subsoil. The presence of fire-cracked rock, charcoal, and possibly ash certainly suggests this but the lack of any oxidized soil to indicate intensive heat is puzzling. Also, the abrader which was found in the feature did not exhibit any evidence of having been subjected to heat. Perhaps the only interpretation which we can now offer is that this small depression was scooped out and became a small refuse depository which was subsequently covered by the fire-cracked rock of Feature 2.

No similar features were reported for either the Indian Point or the Beaches sites.

Housepit Features

Three features (14, 15, 16) are considered to be housepits. Two of these (15, 16) were quite badly disturbed by unauthorized persons. As a result it was impossible to discern the definite outline of the walls and the general internal characteristics. The third (Feature 14) however, was untouched and appears to have been a multi-sided example similar to a hexagonal housepit discovered at the Indian Point site (Devereux 1970). Feature 14, which with the others will be discussed in detail below, has parallels with multi-sided habitations described in the ethnohistoric literature.

Feature 14 (Plates 5, 6, 7, 8)

This housepit was completely undisturbed and located approximately 23 feet north of the riverbank. The feature measured 24 feet wide (east-west) by 21 feet deep (north-south). Several surface profiles were

FEATURE 14
SURFACE PROFILES

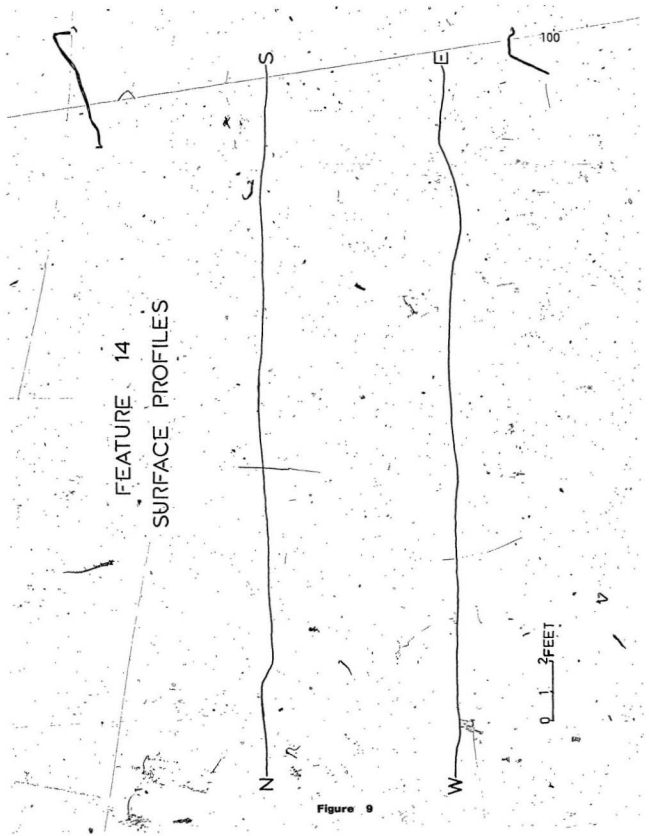
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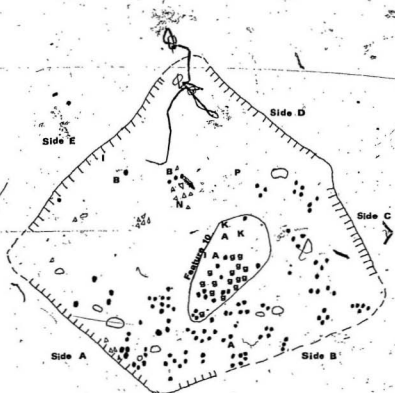
0 1 2 FEET

100

Figure 9



FEATURE 14



- 4- Fire-cracked rock
- Cobble
- Wall
- A Abrader
- Bone fragment
- Glass fragment
- K Pipe bowl fragment
- P Decorated porcelain
- I Iron fragment
- B Button
- N Nail

0 2 Ft.

Figure 10

taken before excavation to indicate surface configuration (see fig. 9).

Figure 10 illustrates the general outline of the structure along with associated cultural debris. As can be seen from the floor plan, there were five corners, two of which were definite (A-B and C-D). Corner B-C was obscured by the remains of a stump and a tree; corners D-E and E-A were completely indistinct, probably as a result of the great number of stumps in these two areas. The two definite corners were of the expanded type similar to those described for the hexagonal depression at Indian Point (Devereux 1970:16). A small hollow located at these corners was vaguely reminiscent of the post-hole but no definite evidence of such was found.

Side A, which was 12 feet long was the most obvious wall and sloped approximately 7 inches to the interior of the feature. Side B was almost non-existent and for reasons to be stated later this particular side appears to have been the most advantageous as the entrance area. Side C (c. 15 feet) was again quite obvious and was quite higher than A, being approximately 0.9 feet above the floor. It appears that a natural undulation of the forest floor, perhaps caused by a log fall was used as a wall on this side of the feature. Side D was about 9 feet long and was also quite visible but became less and less so as it approached corner D-E. Wall E was probably 11 feet long but was difficult to define due to the high concentration of stumps in this section of the feature.

As mentioned above, side B may have been the entrance area of the housepit. The southeast aspect of side C is believed to have been ideal if the house had been inhabited in winter since it faced away from prevailing southwesterlies and provided an adequate view of the approaches on the river, a factor which may have been of importance for protection against enemies.

Interior characteristics of the feature included a relatively flat floor in the eastern half of the feature. Slightly to the southeast of the centre was a low mound about 0.3 feet high which had Feature 10, the probably central hearth, located on it. Flanking the mound to the north-east and southeast were slight depressions, possibly as a result of their location between the central mound and the walls at these points. Other characteristics included several large cobbles located as indicated on the map, as well as a small cluster of fire-cracked rock approximately three feet to the northwest of the central hearth. In general, except for the southeast sector of the housepit and the hearth which contained a great deal of cultural debris, the feature was relatively "clean."

Cultural debris recovered from the area outside the limit of the central hearth (see pg. 89 for list of artifacts in Feature 10) included two white glass buttons, one piece of decorated china, one abraded, one flake, one square nail (cut), one piece of iron, and approximately 96 pieces of faunal material as well as the odd scattered piece of fire-cracked rock. No evidence of post-molds which would indicate any super structure was encountered in excavation of the feature.

Feature 15

This feature was, as noted above, heavily disturbed. This was indicated by the presence of mottled earth consisting of mixed B-1 and humus plus frequent pieces of buried sod throughout the entire area except for the central hearth (Feature 7). The feature was a depression slightly oval in outline being about 20 feet long (north-south), 17 feet wide (east-west), and 1.5 feet deep. The southern margin of the depression abutted directly onto the present riverbank. A hearth, (Feature 7) which has already been described, occupied the approximate centre of the depression. Disturbance

FEATURE 15
SURFACE PROFILES



0 1 2 FEET

Figure 11

FEATURE 15

105

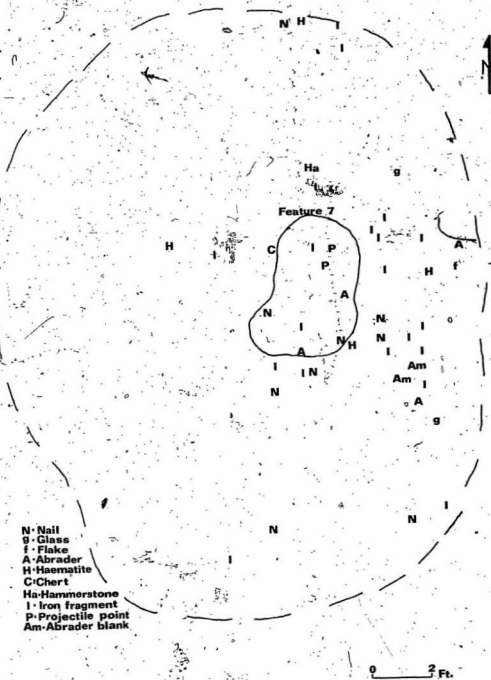


Figure 12

extended to outside the limits of the depression so it was impossible to distinguish the original shape of the housepit. Surface profiles taken on north-south and east-west axes (see fig. 11) indicate the general surface configuration of the depression.

In addition to a great deal of caribou bone there were a number of artifacts which included 16 pieces of iron; seven square nails or nail fragments, (wrought), four pieces of haematite, one clasp knife blade, two pieces of greenish, unburned glass, three abraders, two abraded blanks and one flake of grayish chert. (See figure 12)

Feature 16

This feature was indicated by the presence of a roughly circular wall which delimited a depression about one foot in depth. Feature 11, a hearth, was centrally located within the depression and has been discussed elsewhere. Disturbance was very extensive and it was therefore impossible to determine the original configuration or anything concerning internal characteristics of the depression. A rough estimate of the diameter would be about 14 feet. (See Figure 13)

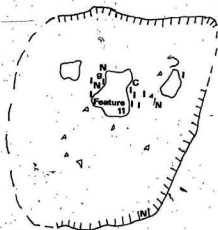
Artifactual debris besides that already noted for Feature 11 included six square nails, (wrought), 13 fragments of iron, one piece of plate glass, and one chip of gray chert. As well there was a great deal of unburnt faunal material.

Housepits: Interpretations

A) Comparisons with the Ethnohistoric Evidence

In our discussion of ethnohistoric descriptions of Beothuk habitations we noted that there are three basic types: the circular, the octagonal or multi-sided and the square type. No evidence of the latter type was

FEATURE 16



Δ Fire-Cracked Rock

N Nail

I Iron Fragment

G Glass Fragment

C Chert

● Cobble

0 2 4 Ft.

Figure 13

encountered at Wigwam Brook. Feature 14 may possibly be representative of a multi-sided dwelling. The sources specifically indicate an eight-sided structure but our example at Wigwam Brook is most likely five sided or an irregular pentagonal in outline. This discrepancy between the ethno-historic reports and the archaeological evidence is not regarded as serious however, since it is suspected that one would expect considerable variability in such a dwelling. It may well be that the number of sides of a multi-sided lodge is a function of the number of major structural poles which were erected, each of which would form a distinct corner. Thus, depending on the number of major poles used the number of sides could possibly vary from as little as three, for example, up until sides become indefinite, the floor plan of the house circular, and the structure a simple conical one. Whether this explanation could account for the observed types ie. circular and multi-sided, is debatable and only future excavation of Beothuk sites will hopefully furnish the data necessary to substantiate or disprove such an hypothesis. As it stands now the two excavated multi-sided housepits (Feature 14 at Wigwam Brook and the hexagonal depression at Indian Point) are themselves distinct and differ with respect to the source descriptions thus perhaps indicating at least some form of variability.

With regard to the circular type of habitation reported by contemporary observers there is no definite evidence of this type at Wigwam Brook. Features 15 and 16 which may have been examples of such lodges are disturbed to such an extent that it is impossible to be definite as to what type of wall configuration they once had.

Housepit walls are described in the ethnohistoric sources on the Beothuks. Buchan, for example, notes that the Indians heaped up a mound

of earth around the perimeter of the above ground structure, thus forming a wall-like outline (Howley 1915:85). However, no record of housepit excavation was indicated in the literature. The walls of Feature 14 did not appear to have been the result of mounding. A profile of wall C indicated a seemingly natural soil profile and as mentioned earlier in the description of this feature this wall may have a natural undulation of the forest floor, perhaps caused by an ancient log fall. Unfortunately time did not permit cross-sectioning of the other walls. However, on the basis of simple observation, side A appears to have been formed by excavation rather than heaping up of earth. Similarly with Features 15 and 16 despite the disturbance which has eliminated traces of wall outline the fact that they are depressions would suggest sub-surface excavation.

B) Internal Features

Internal features mentioned in the sources include central hearths, and sleeping hollows located around the central fireplace. Central hearths are mentioned by John Guy (Howley 1915:15), John Cartwright (Howley 1915: 29-30) and by G.C. Pulling (mss. p. 12). Oblong hollows are given particular notice by John Cartwright (1826:308) who states they formed the sleeping areas, and by G.C. Pulling who reports a wigwam with, "...seven or eight holes or berths formed around the center which they make their fireplace" (mss.:12). A hearth was found in each of the presumed housepits at Wigwam Brook. In one case (Feature 14) the hearth was on a central mound, as it was at the Indian Point hexagonal depression. Sleeping hollows were not definitely evident in Feature 14 at Wigwam Brook. However, it may be possible that the slight depressions flanking the central mounded hearth on the northeast, and the southwest represent such sleeping depressions, though they do not appear to have been excavated into the floor of the

housepit.

C. Comparisons Throughout the Northeast

In comparing Beothuk housepits to other ethnographically known Algonkian habitations in the Northeast, Speck points out a distinctive difference between the Beothuk and the Micmac and Montagnais whose range on the island of Newfoundland was at one point contiguous with the Beothuk though perhaps later in time. The difference was that no subsurface excavation is known for the Micmac or Montagnais. As Speck, puts it, "...they generally erect the wigwams upon flat ground" (1922:31). Pit excavation has, however, been reported on the Penobscot River in Maine, with both rectangular and circular configurations being mentioned (Ibid.).

It may be useful to take a brief look at constructional details of a number of wigwam types in the northeast for the sake of comparison with the Beothuk examples described in an earlier part of this report. Wallis and Wallis (1955:57) have described a Micmac summer conical wigwam whose construction resembles the descriptions for the Beothuk examples. This particular example consisted of four main poles 14 feet in length. These were lashed approximately three feet from their smaller ends, then they were erected and the butt ends were placed in holes in the ground. Smaller poles were arranged and tied to the larger ones with spruce roots or cedar bark. Birch bark was used to cover the entire structure and a further series of poles was placed on top of the bark to hold it in place. The entrance was oriented to face the sun at midday. The floor was covered with fir branches; a hearth occupied the centre of the floor (Wallis and Wallis 1955:57-59).

With regard to the Malecite Indians of New Brunswick no details are available for their dwellings. However Wallis and Wallis (1957) cite

a brief description by Levinge which mentions a central hearth, floor coverings of fir and also seems to indicate some sort of partitioning, ie. "...four laths accurately determine the finish of the divan and the commencement of the kitchen department" (1957:2).

For the central Quebec area there are fairly detailed descriptions of Mistassini dwellings. Rogers (1967) mentions seven types of shelter. These include: 1) a conical lodge; 2) a dome-shaped lodge; 3) an earth-covered conical lodge; 4) the communal lodge; 5) tents; 6) log cabins; and 7) temporary shelters. Two of these - the conical lodge and the earth-covered conical lodge - bear some resemblance to Beothuk habitations.

The Mistassini conical lodge has a circular floor plan with an above-ground structure consisting of four main poles. Two were lashed together near the narrow ends, or if one had a crotch near its top the other was simply placed in it. In any event, two poles were erected and the other two were leaned against these. Additional poles were placed against the main four-pole framework to complete the foundation. Covering was of hides or bark. This type of dwelling was also used in winter (Ibid.:13).

The earth-covered conical lodge was elliptical in floor plan, being 18 feet by 14 feet. Interestingly enough the ground was excavated to a depth of approximately one foot, and the resulting back dirt was heaped around the perimeter of the pit to a height of about a foot. The foundation was formed of poles which were "...fitted tightly to one another...", their ends being embedded in the loose earth around the pit. According to an informant interviewed by Rogers, the first five feet of the lodge was chinked with moss and covered with earth. The remainder, except for a smoke hole was covered with canvas. A low passage was 14 feet long and eight feet wide extended out from the doorway of the dwelling (Ibid.).

There are a number of constructional details of this lodge which are similar to Beothuk practices. Firstly, sub-surface excavation was used along with exterior mounding of earth around the perimeter of the pit. Secondly, moss was used to chink the walls. This procedure is also reported for the Beothuk by Cormack (see pg. 7). Lastly, Cormack (Howley 1915: 211) in his description of the multi-sided wigwam mentions walls, "... built of straight pieces of fir about 12 feet high, flattened at the sides, and driven in the earth close to each other;..." thus suggesting a somewhat similar pattern used by the Mistassini. It must be noted however that the Beothuk walls seem to have been the base for a conical roof whereas the Mistassini earth-covered lodge appears to have been entirely conical in shape.

The above demonstrates rather well the affinities in constructional details of the Beothuk wigwam to other Algonkian lodges which have been observed throughout the Northeast.

D) Comparisons with Indian Point and the Beaches

Despite Speck's statement that there were several housepits at the Indian Point site only one definite pit was located and excavated by Devereux. This was a hexagonal depression which has been described elsewhere in this report, and it is comparable in some respects to Feature 14 at Wigwam Brook.

Both depressions are multi-sided. Feature 14, as mentioned above, is pentagonal in outline while the depression at Indian Point is six-sided. However, for reasons stated earlier this difference is perhaps not critical and the fact that both are multi-sided may be the most important similarity.

A central mound of earth upon which there was a hearth was found in

the hexagonal depression at Indian Point. Similarly, Feature 14 had a slight mound near the centre containing the remains of a hearth. The central hearth at the Indian Point housepit was not excavated due to lack of time but had it been we would suspect it too would be similar to Feature 10 at Wigwam Brook.

An interior platform was found in the Indian Point pit which extended around the periphery of the depressions at the base of the walls. No such platform was encountered in Feature 14 at Wigwam Brook.

A "series of conjoined hollows" was found between the central hearth and the platform mentioned above in the Indian Point depression. These have been interpreted as sleeping hollows. Two depressions which may be similar to the ones at Indian Point, were found to the northeast and southwest of the central mound of Feature 14.

With regard to the location of cultural debris, at the Indian Point depression it was found between the hearth and the presumed entranceway which faced north. The remainder of the housepit was relatively "clean." This compares favourably with Feature 14. Here, the bulk of the artifactual debris was found between the hearth and the presumed entranceway which was oriented towards the southeast.

Lastly, in overall dimensions both are roughly similar (Indian Point example 20' x 25'; Feature 14 at Wigwam Brook 21' x 24').

At the Beaches site Lloyd (1875a) recorded the presence of 16 circular pits. Devereux's work in the 1960's revealed the remains of four, two of which were tested. These are described as roughly circular depressions (Devereux 1969) but since they were not completely excavated it is difficult to make any detailed comparisons with respect to configurations with those at Wigwam Brook. We might note however that there was evidence of

central hearths in housepits 3 and 4 at the Beaches and in this respect they are similar to the housepits at Wigwam Brook.

Section III: Artifacts

In spite of the fact that a relatively large area of 5000 square feet of the site was excavated the number of artifacts recovered was somewhat disappointing, with only 308 being discovered. This figure may at first glance seem to represent a sample large enough to be a useful representative sample of historic Beothuk artifacts but as we shall see later on this is not so since very few of the recovered materials are actually aboriginally made.

The total artifact inventory can be divided into the six major categories of 1) metal, 2) glass, 3) ivory, 4) ceramics, 5) lithics, and 6) bone. Table one below, represents a detailed list of the artifacts from the site.

Table 1

List of Artifacts from Wigwam Brook

1) Metal

Projectile points.....	11
European articles.....	17
Nails	
Wrought.....	41
Cut.....	1
Wire.....	1
Strip or flat iron.....	13
Sheet iron.....	15
Miscellaneous iron fragments.....	32
Lead.....	1

2) Glass

White glass buttons.....	2
Green bottle (?) glass.....	2
Plate glass (window-pane glass).....	3
Bottle sections (top-neck and one side).....	2
Unburned bottle (?) glass fragments.....	3
Burned bottle (?) glass fragments.....	34

3) Ivory

One fragment.....	1
-------------------	---

4) Ceramics

Clay pipe bowl fragments.....	2
Decorated porcelain.....	1
Undecorated porcelain.....	8

5) Lithics

Abraders.....	15
Polishing stones.....	2
Abrader blanks.....	2
Hammerstones.....	3

Bifaces

Complete (Ramah).....	1
Broken (Ramah).....	2
Broken (Chert).....	1

Chert core.....	1
-----------------	---

Adze.....	1
-----------	---

Detritus

Ramah chalcedony.....	16
Chert.....	20

Haematite nodules.....	30
Chert cobbles.....	2
Quartz pebbles.....	1

6) Bone

Definite artifacts.....	5
Possible artifacts.....	16
Total.....	308

Since there appear to be two components - Archaic and Beothuk - represented in the artifactual debris we shall separate the two at the outset and deal first with the Archaic material, then with the Beothuk artifacts.

Archaic Component

A presumed Archaic occupation of Wigwam Brook is represented by a number of flakes (16) of Ramah chalcodony, by one complete biface, and two broken bifaces of Ramah chalcodony and by one adze fragment. The flakes and bifaces were found in one area about 20 feet west of Feature 14. The sole adze fragment was found in Feature 12.

BifacesComplete (Plate 9, fig. d)

This single example of a complete biface is of Ramah chalcodony. It is 111 mm. long, 52 mm. wide and has a maximum thickness of 14 mm. It is leaf-shaped, has convex sides, a rounded base and is made on an expanding flake; striking platform is on the lateral side; the dorsal surface appears to have remains of cortex still on it; the ventral side has wide shallow flakes removed.

PLATE 9.

Figures:

- a. Biface fragment (Ramah chalcidony)
- b. " " "
- c. " " (Chert)
- d. Biface (Ramah chalcidony)
- e. Core (Chert)
- f. Adze fragment



a



b



c



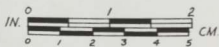
e



d



f



Broken (Plate 9, fig. a, b).

There are two examples of these both of which are of Ramah chalcedony. The first is 64 mm. long, 29 mm. wide and 7 mm. thick. Thinning flakes are long and shallow; specimen may be basal fragment of a bipoined biface. The second is a tip (?) fragment 44 mm. long, 23 mm. wide and 6 mm. thick; left lateral edge is retouched on one surface only; other side is bifacially worked.

Flakes

A total of 16 Ramah chalcedony flakes, all of which appear to be thinning flakes, were found.

Adze Fragment (Plate 9, fig. f)

This specimen which consists of the bit end of an adze is of weathered greenish argillite. Dimensions are: length 55 mm; width 59 mm; thickness 17 mm.

Discussion

Ramah chalcedony is not known to have been used by the prehistoric Beothuk, and is only rarely found in Dorset collections on the Island (J.A. Tuck: personal communication). Furthermore, ground stone tools such as large adzes do not pertain to either of the above named cultures but are, however, commonly known in the Maritime Archaic Tradition as is the use of Ramah chalcedony. Thus it would seem that the artifacts described above and the 16 flakes may represent the remains of a small interior Maritime Archaic encampment at Wigwam Brook.

Beothuk Component

Metal

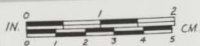
Projectile Points

A total of eleven iron projectile points were recovered. This

PLATE 10.

Figures:

- a Complete-projectile point
- b Unfinished " "
- c Complete " "
- d " " "
- e Unfinished " "
- f Broken " "
- g Unfinished " "
- h Projectile point blank
- i " " "
- j Broken projectile point
- k " " "



includes three complete, two broken, four unfinished, and two blanks.

Complete. (Plate 10, fig. d)

A very well made point of iron, this specimen is unfortunately very heavily corroded; the tang was also broken in approximate middle. Total length is about 86 mm.; blade length is 28 mm.; maximum width of blade is 7 mm.; maximum thickness of blade is 2 mm.; maximum thickness of tang is 3 mm. Blade has obtuse angle shoulders and tapers to a point whose thickness is greater than immediately above tang. Tang is square in cross-section and pointed on distal end.

(Plate 10, fig. c)

This specimen is not nearly as well made as the above example. The blade is thinned near the shoulders which are themselves only slightly perceptible; tang is square in cross section and may originally have been longer. This point may have been made using a square nail as raw material. Dimensions: Length 79 mm.; blade length 19 mm.; blade width 5 mm.; blade thickness 3 mm.

(Plate 10, fig. a)

This point has a rounded blade which in its present condition is slightly split and folded up and over onto the rest of the blade; blade is thinned from tang down length of blade. The tang is square in cross-section and tapers to a point on its distal end. Dimensions: length 110 mm.; width of blade 7 mm.; thickness of blade 2 mm.; thickness of tang 4 mm.; length of blade 20 mm.

Broken Projectile Points

(Plate 10, fig. f)

The blade of this example is broken off 14 mm above the tang; blade is thinned above tang. The tang is square in cross-section and has a

pointed distal end. Dimensions: total length 117 mm.; width of blade 18 mm.; thickness of blade 2 mm.; length of tang 102 mm.; thickness of tang 4 mm.

(Plate 10, fig. k)

The blade of this specimen is broken off below the shoulders. The tang is square in cross-section and pointed on the distal end. There is a very shallow groove running almost the entire length of the fragment on one side. Traces of a similar groove are also visible on the opposite side. Dimensions: total length 70 mm.; width 5 mm.; thickness 4 mm.

(Plate 10, fig. j)

The blade of this example is also broken off below the shoulders. What remains of the blade is approximately 8 mm. long and thinned to about 1 mm. The tang is round in cross-section and has a maximum diameter of 4 mm. Overall length is 94 mm.

Unfinished Projectile Points

(Plate 10, fig. g)

This point has a broad blade with shoulders which are obtuse and rounded; blade appears to have been thinned, probably by hammering, from the beginning of the tang to approximately the middle of the blade; remainder of the blade is unmodified. The tang is square in cross-section. This point seems to have been fabricated from a piece of flat iron with sections being removed to from tang and blade. Dimensions are: total length 110 mm.; width of blade 26 mm.; thickness of blade 3 mm.; length of tang 10 mm.; thickness of tang 3 mm.

(Plate 10, fig. e)

This point is a long bladed example which is symmetrical in outline,

and has very obtuse angle shoulders which are slightly rounded. What remains of the tang indicates it had a square cross-section. A 19 mm. section above the tang has been thinned; the remainder of the blade is probable thickness of iron used in its fabrication. Dimensions are: total length is 103 mm.; blade width is 16 mm.; maximum blade thickness is 3 mm.; tang remnant is 7 mm.

(Plate 10, fig. b)

This example consists of a piece of square shank iron which is flattened at each end and almost separated in the approximate middle. This specimen may represent two projectile points in the process of manufacture. Dimensions are: total length 169 mm.; thickness is circa 4 mm.

Projectile Point Blanks

(Plate 10, fig. h)

This example is an asymmetrical piece of iron which exhibits a small area of thinning on one side near the rounded base. There appears to have been a tang which was presumably broken off during fabrication. Remainder of the blank is unmodified. Dimensions are: total length 77 mm.; width 10 mm.; thickness 4 mm.

(Plate 10, fig. i)

This blank is bipointed and exhibits evidence of thinning near one end. Other evidence of modification occurs near the midsection where there are score marks. Dimensions are: total length 95 mm.; width 15 mm.; thickness 3 mm.

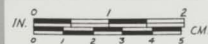
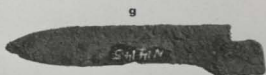
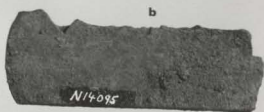
European Articles

This particular class consists of metal items which are obvious European derivation. In some instances these articles have been modified,

PLATE 11.

Figures:

- a Tong
- b Jack plane blade
- c Unidentified
- d Jack plane blade
- e Hook for piece of fireplace equipment
- f Kettle lug or bale fastener
- g Clasp knife blade
- h Book clasp
- i Turnbuckle or swivel



usually by removal of sections or parts of the original item.

Knife Blade (Plate 11, fig. g)

One clasp knife blade was found, which closely resembles the blade of the modern pocket knife. It is 85 mm. long, 19 mm. wide and has a maximum thickness on the blade portion of 4 mm.

Plane Irons (Plate 11, figs. b, d)

Two jack-plane irons were discovered, each of which has had sections removed from it. Both have rounded working edges and the actual blade edge is plano-convex. One example is notched about 8 mm. from the working edge.

Metrics

	Length	Width	Thickness
Fig. b	87 mm.	32 mm.	4 mm.
Fig. d	75 mm.	28 mm.	3 mm.

Axe Head (Plate 12, fig. a)

One partial axe head of the folded variety was found. The pole end and part of the blade have been removed. The length is 94 mm., the width 35 mm. and the thickness is 13 mm.

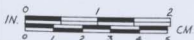
Scissor Parts (Plate 12, figs. e, f)

Two scissor parts, a blade section with part of the shank attached and a finger-hole handle section also with part of the shank attached were recovered. The blade has a hole, 2 mm. in diameter, 38 mm. from the shank end. The dimensions of the blade are: overall length 106 mm.; maximum width 17 mm.; maximum thickness 4 mm. The dimensions of the handle section are: overall length 66 mm.; thickness of shank 9 mm.; diameter of finger hole 29 mm.

PLATE 12.

Figures:

- a Axe blade
- b Iron kettle fragment
- c " " "
- d " " "
- e Scissor blade
- f Scissor handle
- g Bell clapper (?)
- h " " "



Iron Kettle Fragments (Plate 12, figs. b, c, d)

Three pieces of iron were recovered which, because of their curved shape and thickness, are thought to be iron kettle fragments.

Metrics

	Length	Width	Thickness
Fig. b	81 mm.	56 mm.	7 mm.
Fig. c	38 mm.	37 mm.	6 mm.
Fig. d	40 mm.	35 mm.	4 mm.

Handle (Plate 11 fig. e)

This object which has been identified as a hook for the handle of a piece of fireplace equipment (Daniel Barber: personal communication, 1973) is a piece of flat iron which has a tang-like section which has been bent back to meet the portion of the object above the tang thus forming a "loop-hole." Overall length is 46 mm.; maximum width is 24 mm.; maximum width above the "tang" is 17 mm.; and maximum thickness is 6 mm. at the base of the loop.

Tong (Plate 11 fig. a)

This specimen may possibly represent a tong for the handle of a file, chisel or perhaps a knife (Barber: personal communication, 1973). It consists of a two-armed piece of metal joined at one end. Both arms are now fused together by rust. Dimensions are: length 80 mm.; width 10 mm.; thickness 7 mm.

Chain or Turn Buckle Swivel (Plate 11 fig. i)

This specimen resembles a chain-link one end of which is flattened and has a cast hole presumably for attachment of remainder of a chain. The total length is 55 mm.; width of the link is 30 mm.; thickness of the

link wire is 6 mm. and the hole diameter is 8 mm.

Book Clasp (Plate 11 fig. h)

This is a small hinge-like metal bracket 51 mm. long, 27 mm. wide, and 2 mm. thick. It is triangular in shape and the pivot point consists of a piece of wire looped through each section.

Kettle Lug or Bale Fastener (Plate 11 fig. f)

This particular piece of iron is 70 mm. long, 33 mm. wide, and has a maximum thickness of 13 mm. The expanded end consists of two leaves each of which has two holes about 5 mm. in diameter. The opposite end also has a single hole of the same diameter. This end is also thinner (3 mm.) than the midsection where it is 13 mm. thick. This object may have been fixed to a pot or kettle with the expanded end with the two leaves serving for attachment. The opposite end would therefore have served as a point for attachment of the bale or wire handle.

Objects of Unknown Use

(Plate 12 fig. h)

This specimen is a chisel-like object which resembles a large wrought iron nail with a rose pattern head. The shank is very irregular and has a flattened chisel-like end which is quite dull. Overall length is 108 mm.; blade length is 12 mm.; blade width is 11 mm.; and blade thickness is 4 mm. The shank below the head is 8 mm. in thickness. The head does not show any signs of the "mushrooming" effect one would expect had this object been used as a chisel.

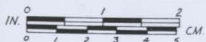
(Plate 12 fig. g)

This object is 54 mm. long and consists of a knob of iron 14 mm.

PLATE 13.

Figures:

- a-s Wrought iron nails.
- £ Wire nail
- u Cut nail



in diameter to which is attached a folded piece of iron resembling a cotter pin. This latter piece is 43 mm. long, 10 mm. wide and 5 mm. thick. This object and the above described specimen may have possibly been bell clappers (Barber:personal communication, 1973).

(Plate 11 fig. a)

This object consists of a two-armed piece of iron joined at one end. One arm on the opposite end has an extension resembling a horizontal elongate S. The specimen is 105 mm. long, 11 mm. wide and 8 mm. thick.

Nails

A total of 43 complete and fragmentary nails were recovered. Of these 41 were of the wrought variety (Plate 13 figs. a-s), one was of the type described as cut (Plate 13 fig. u), and another was of the wire type (Plate 13 fig. t). With regard to the 41 wrought iron specimens 26 had head portions remaining which can be classified according to their shape (see Table 2).

Table 2

Distribution of Nail Types According to Head Type

Tang Shape	Head Type			
	Rose	L-Head	T-Head	Indeterminant
Straight	12	1	--	--
Spatulate	2	1	--	--
Incomplete	7	1	--	2
Totals	21	3	0	2

(after Mercer 1926, Nelson 1963)

PLATE 14.

Figures:

- a Flat or strip iron
- b Unidentified
- c-g Flat or strip iron
- h Unidentified
- i-n Flat or strip iron
- o Lead
- p Flat or strip iron

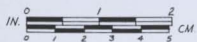
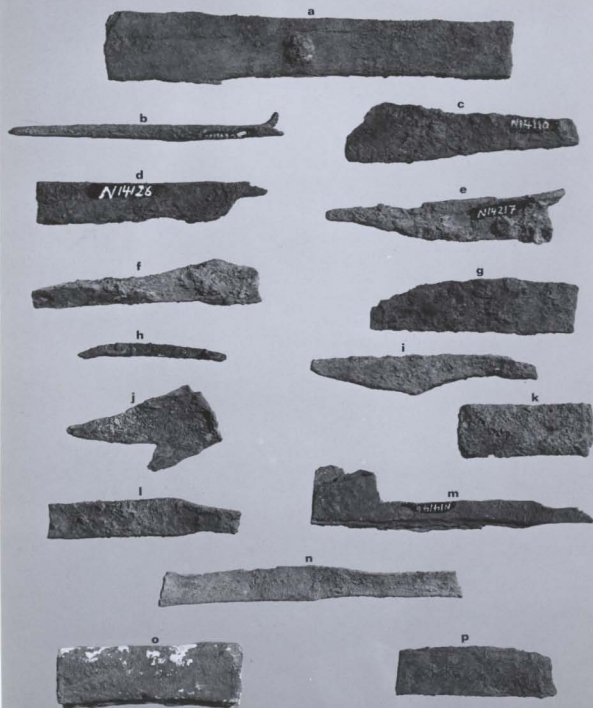


Table 3
Metrics for Complete Wrought Iron Nails

	f	Range	Mean
Length (Unbent)	8	54 mm.-95 mm.	74 mm.
Width	16	5 mm.-9 mm.	5.6 mm.
Thickness	16	3 mm.-7 mm.	4.6 mm.

According to William Cormack nails "...were much prized by those people" (Howley 1915:192), and this is certainly borne out by their frequent occurrence at Wigwam Brook. As a source of raw material they may well have proved important in the fabrication of such implements as the smaller projectile points with square tangs and small blades, or with very little modification, as awls.

Strip Iron or Flat Iron (Plate 14 figs. a, c-g, i-n, p)

Thirteen pieces of flat iron were retrieved. Most of these have probably been removed from some larger piece of iron or represent waste material from tool manufacturing. One piece of this material is slightly plano-convex in cross-section and may not be true flat iron. Two other pieces exhibit score or chisel marks on one surface. Another example has been hammered near one end thus reducing the overall width of the piece. (See Table 4 for metrics of flat iron).

PLATE 15.

Figures:

a-f Sheet iron



Table 4
Metrics of Flat Iron

	f	Range	Mean
Length	13	55 mm. - 142 mm.	79 mm.
Width	13	13 mm. - 24 mm.	19 mm.
Thickness	13	3 mm. - 6 mm.	4 mm.

Sheet Iron (Plate 15)

This class includes very thin (c.1 mm. or less) iron some examples of which appear to have been modified. The total figure of 15 pieces includes one small disc (Pl. 15 fig. c) 15 mm. in diameter which has a small barb or projection bent up on one side; remains of a similar barb are evident on the opposite side of the disc. Three pieces (Pl. 15 figs. b, e, f) have one or more rolled edges. One square specimen (Pl. 15 fig. f) has two crimped edges. Another piece has been partially crimped along one edge and also exhibits two linear and parallel indentations on the opposite edge (Pl. 15 fig. d). The remainder consist of unmodified pieces of sheet iron.

Miscellaneous Iron Fragments

This category includes 28 pieces of ~~amorphous~~ iron most of which probably represent waste material connected with tool manufacture. Additionally there are four linear or rod-like pieces of iron which are very heavily corroded and unidentifiable. Lastly, there are two pieces which are in better condition but their use remains unknown. One example (Plate 14 fig. b) may be the remains of a wrought iron nail whose head has been removed and the shaft split on the head end to form a sort of barb. This example is 96 mm.

PLATE 16.

Figures:

- a Top-neck of whiskey bottle
- b Porcelain (undecorated)
- c " "
- d Ivory
- e Porcelain (decorated)
- f Button
- g " "
- h Side of whiskey bottle



long, and 6 mm. thick. The second object (Plate 14 fig. h) is 52 mm. long, 5 mm. wide, and 3 mm. thick. It is slightly curved and bears a barb or projection 4 mm. long located 9 mm. from one end.

Lead (Plate 14 fig. o)

One piece of lead which had been folded or crimped, was discovered. It is covered with lead oxide. The specimen is 64 mm. long, 23 mm. wide, and 9 mm. thick.

Glass

Buttons (Plate 16 figs. f, g)

Two identical white glass buttons were found in Feature 14. Each has four holes and is 11 mm. in diameter and 3 mm. thick.

Green Bottle Glass

Two fragments of dark green bottle glass were retrieved from Feature 15. Each fragment contains a great number of flaws in the form of minute bubbles. One piece is 51 mm. long, 40 mm. wide, and has a maximum thickness of 5 mm. The other piece is 41 mm. long, 19 mm. wide and has a maximum thickness of 4 mm.

Plate Glass

Three pieces of plate glass or window-pane glass were discovered. One of these exhibits what may well be the results of use retouch along one edge.

Bottle Sections (Plate 16, figs. a, h)

Two bottle sections, the top-neck and one side, were reconstructed

from several fragments. The top-neck section has suffered from heat warpage. The side portion does not appear to have been subjected to considerable heat. The bottle has been identified as a whiskey flask which was blown into a mold. The top was later worked onto the rest of the bottle using tongs (Barber: personal communication, 1973). Barber estimates the date of the bottle to be circa 1865.

Miscellaneous Glass Fragments

A total of 37 glass fragments was found in Feature 10 which probably form part of the same bottle represented by the abovementioned bottle sections. Of the 37 fragments, 34 have been burned or at least subjected to heat. The remainder have not been burned.

Ivory

One small fragment (Plate 16 fig. d) 9 mm. long, 11 mm wide, and 3 mm. thick was found in Feature 14. It is plano-convex in cross-section. One end is rounded and the other end which is the break edge has the remains of a drilled hole. The convex surface of the fragment is polished. This object is probably part of a handle covering, perhaps for some form of cutlery.

Ceramics

Eleven fragments of ceramic material were found. This figure includes two clay pipe bowl fragments, one sherd (Plate 16 fig. e) of a transfer printed earthenware cup (Barber: personal communication, 1973), and eight fragments (Plate 16 figs. b, c) of undecorated porcelain creamware.

Lithics

Abraders (Plate 17)

Fifteen abraders or grinding stones were discovered. Of these, eight are made of reddish sandstone, two of light-brown sandstone, four of grayish sandstone and one is of fine grained grayish granitic material. Each example has at least one smoothed surface and some have as many as four or five. The breakdown is as follows: seven have one abrading surface; four have two; two have three; one has four and another has five. In nine instances the polished surface on the stone is curved and this curvature would seem to have been the result of constant sharpening of metal tools such as knives or projectile point blade edges. Interestingly enough, one abrader has a groove cut in it which exhibits traces of rust, suggesting its use for sharpening or modifying metal objects. Other evidence indirectly suggests that these abraders were used for working metal. For example, none of the bone artifacts which were recognized seem to have been ground and polished on such stones. Furthermore, it does not seem that these stones were used to modify stone. Ground stone implements are unknown in Beothuk contexts and the only ground stone implement recovered on the site was a fragmentary adze which is thought to have been related to an earlier Archaic occupation. Certainly one would expect considerably more evidence of ground stone had the fifteen abraders found on the site been used to work stone. Lastly, most of the recovered abraders were either found in association with features which are of undoubted Beothuk affiliation or they were associated with typical historic materials such as iron, ceramics, or glass. The most logical conclusion concerning these abraders is, therefore, that they were employed for working metal and must be a feature of the Beothuk tool kit. (See Table 5 for metrics of abraders)

PLATE 17.

Figures:

- a Abrader (granitic)
- b-e " (red sandstone)
- f " (grayish-white sandstone)

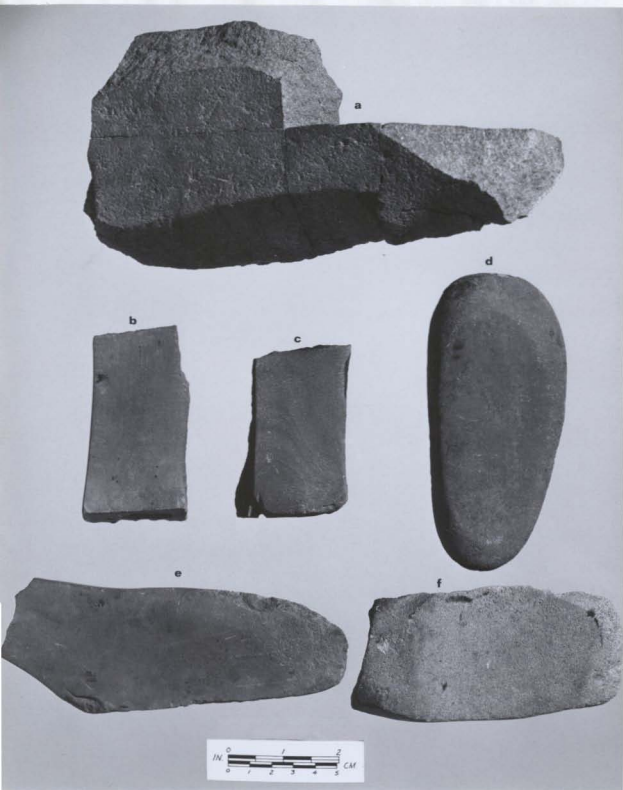


Table 5
Metrics for Abraders

Acquisition Number	Length	Width	Thickness
N 14174	82 mm.	52 mm.	23 mm.
N 14281	158 mm.	57 mm.	35 mm.
N 14277	136 mm.	64 mm.	29 mm.
N 14051	112 mm.	102 mm.	31 mm.
N 14172	112 mm.	49 mm.	20 mm.
N 14178	136 mm.	91 mm.	14 mm.
N 14141	90 mm.	51 mm.	23 mm.
N 14149	110 mm.	78 mm.	24 mm.
N 14208	178 mm.	76 mm.	20 mm.
N 14203	122 mm.	57 mm.	33 mm.
N 14169	123 mm.	65 mm.	30 mm.
N 14102	91 mm.	52 mm.	14 mm.
N 14158	155 mm.	58 mm.	35 mm.
N 14130	133 mm.	48 mm.	26 mm.
N 14068	205 mm.	110 mm.	84 mm.

Polishing Stones (Plate 18 figs. a, b)

Two stones were recovered which exhibit areas of polishing but neither could be considered an abrader in the sense applied to those described above. One example is of gabbro and is 86 mm. long, 55 mm. wide and 27 mm. thick (fig. b). It is roughly oval in shape and has one side which is quite smooth in contrast to the surrounding areas. The obverse side also exhibits some polishing but not to the degree that it exists on the dorsal side. The other stone is of a very fine-grained grayish sandstone and is roughly cylindrical in shape. It is 133 mm. long, 48 mm. wide, and 26 mm. thick. One surface has been polished along the entire length of the stone.

PLATE 18.

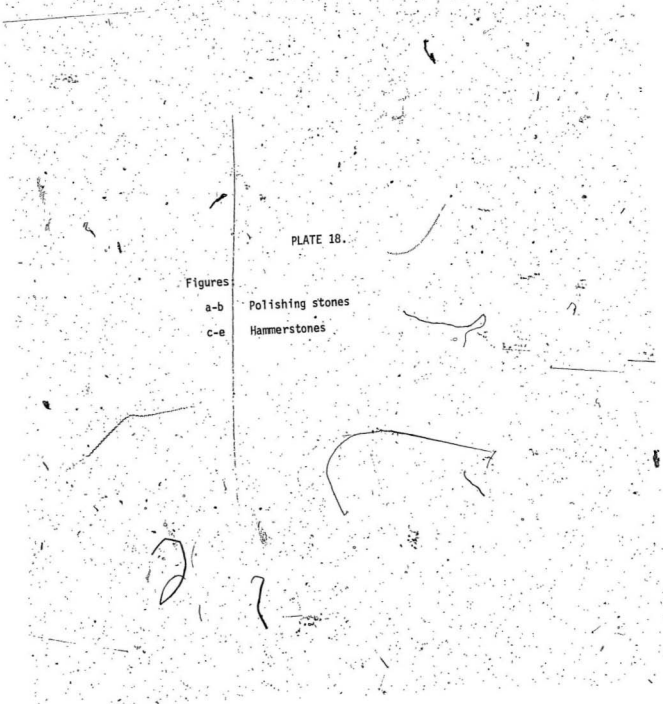
Figures

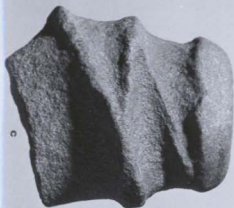
a-b

c-e

Polishing stones

Hammerstones





Abrader Blanks

Two pieces of reddish sandstone were found which may represent raw material for abraders. One is 139 mm. long, 91 mm. wide and 12 mm. thick. The other is 148 mm. in length, 128 mm. in width and has a maximum thickness of 11 mm. No surface modification was observable on these specimens.

Despite the fact that these blanks are rather thin, there is reason to believe that this is not a negative factor since one abradar which was found (Acquisition No. N 14178, Table 5) has a maximum thickness of 14 mm. and also exhibits polishing on one edge which is 11 mm. thick.

Comment

Raw material for abrading implements appears to be of local origin. As noted in the section of geology, the area downstream from the town of Grand Falls is a sedimentary one in which there are deposits of sandstones which are reddish in colour.

Hammerstones (Plate 18 figs. c, d, e)

Three rocks were found which we are calling hammerstones. The first of these (fig. c) is 93 mm. long, 93 mm. wide, and 70 mm. thick and is a concretion which exhibits pitting or battering facets on one end. The second example (fig. d) is a roughly circular cobble 81 mm. in diameter and 44 mm. thick and has pitting facets on one end and on one flat surface suggesting an additional use as an anvil stone. The last specimen (fig. e) is 103 mm. in length, 86 mm. in width and has a thickness of 63 mm. There is evidence of crushing on one end. There is also a slight area of polishing on the opposite end.

Haematite or Magnetite Nodules

Twenty cobbles and pebbles of iron enriched sandstone material plus

ten cobbles of haematite or magnetite were found at Wigwam Brook (Dr. R. K. Stevens, Geologist, Memorial University of Newfoundland: personal communication, 1973). The former (enriched sandstone) is reddish in colour and quite soft. It is possible that this material could have been collected and ground up for use as red ochre. A deposit of this material is located to the south of Grand Falls (Chilton 1948) and may well have been exploited by the Beothuks. The magnetite or haematite is very dark brown in colour, but also exhibits patches of red similar to the abovementioned sandstone material. Deposits of this rock are relatively rare in the Exploits Valley (Stevens: personal communication, 1973). Again, as with the sandstone, this material was probably collected for red ochre production.

Miscellaneous Lithic Material

Chert Cobbles

Two broken cobbles of a poor quality chert were recovered from the site. Each was shattered but appeared to have been rendered so by frost action rather than by the Indians. When reconstructed one example measured 135 mm. in diameter and 85 mm. in thickness. The other was only partially reconstructible and is approximately 150 mm. in diameter and 95 mm. in thickness.

Chert Biface Fragment (Plate 9 fig. c)

One grayish-brown chert biface fragment was found in the vicinity of the Ramah chalcedony bifaces. This object is 19 mm. long, 28 mm. wide, and 5 mm. thick. The basal portion opposite the broken edge has the striking platform of the original flake. One edge shows evidence of (use?) retouch.

Chert Core (Plate 9 fig. e)

One core of grayish banded chert was found. Dimensions are: 69 mm. long; 44 mm. wide; and 38 mm. thick.

Detritus

In addition to the 16 flakes of Ramah chalcedony which were mentioned in connection with the discussion of the Archaic material there were 20 pieces of chert flakes and chips.

Quartz Pebble

One unmodified white quartz pebble 43 mm. in diameter and 25 mm. thick was found within the limits of Feature 14.

Bone

Twenty-one bones (see Appendix 1 for detailed descriptions of these artifacts) all of which were caribou or other large mammal long bone shaft portions are considered as artifacts (5) or possible artifacts (16). Modifications on long bone sections consisted of, "...unnaturally smooth... [areas]...and edges which were rounded" (Appendix 1, p. 24). Frances L. Stewart speculates that since few striae were noted on these examples they were most likely used for working materials such as skins or food. The next most commonly modified faunal material was caribou antler. Stewart notes that the modified antlers as well as the, "...the antler pedicles showing butchering marks suggest that antler was one of the favourite sources among the faunal material for artifacts" (Appendix 1, p. 24). Stewart further suggests that the paucity of bone artifacts is perhaps a reflection of, "...a greater reliance on metal or stone tools" (Ibid.). However, since the

bulk of the Beothuk artifacts are iron the lack of bone implements is most probably a reflection of a greater dependence on metal.

Discussion

Eleven iron artifacts appear to be stylistically representative of what may be called projectile points, and as such they seem to be the only purposefully fabricated aboriginal iron artifacts. Other European-made iron goods such as the plane irons and the axe head have been altered by removal of sections from them, but their original identity has not been masked by such a procedure. Furthermore, it is not immediately obvious if the modifications performed on the above tools were intended for procurement of raw material for other implements or whether they were modified for use as another aboriginal implement. For example, the plane irons may have been cut down for use as scrapers; the one scissor blade section may have had the handle and shank removed so that it could be employed as a knife. But, except for these possible examples, the only other form of alteration on iron consists of evidence of scoring marks, hammering, and/or obvious indications that the piece had been removed from a larger section of iron, or had sections removed from it. In these cases no implement was obviously formed.

In looking more closely at the projectile points as the sole form of intentionally made iron artifacts, the larger bladed examples appear, as noted in the descriptions of them, to have been made from pieces of flat iron. The source of this flat iron was not obvious from the recovered iron debris on the site but Howley (1915:341) mentions two spear points made out of steel trap springs and it is possible that this material was employed at Wigwam Brook. For the smaller bladed points the square section tangs suggest fabrication from square nails, or perhaps straightened chain links, though this must of course remain conjecture for the moment.

Interestingly enough, Cormack mentions the fact that the Beothuks were particularly fond of nails, perhaps for raw material for projectile points.

In a number of instances the blades of projectile points exhibit areas which seem to have been thinned, perhaps by hammering. A passage in the Pulling manuscript which refers to the beating out of points on a stone anvil (Pulling mss.:17) suggests that hammering was one of the steps in point manufacture.

The projectile points from Wigwam Brook seem to be quite similar to the examples illustrated by Devereux (1970:fig. 8 a,b,c) for the Indian Point site. They are also, in some cases, much like the iron deer spear drawn by Shanawdithit and illustrated in J.P. Howley's book (1915:250).

The abraders are quite common on the site and, as mentioned earlier, they seem to have been used to modify metal and must therefore be a part of the historic Beothuk artifact inventory. At the Indian Point site, however, the one example which is discussed is attributed to the prehistoric period (Devereux 1970:49).

With regard to the bone tools, the examples at Wigwam Brook consist mainly of specimens with smoothed edges which were probably due to use wear rather than intentional smoothing. The relative paucity of bone implements reflects, as noted above, a possible change in preference for iron as a source of raw material for tool fabrication.

The remainder of the presumed Beothuk artifactual debris--the porcelain, glass, etc.--are essentially unmodified.

In conclusion, then, there are a number of ethnohistoric references to the fact that the Beothuks made use of European goods. In fact, it seems apparent from the sources that these Indians developed a need for these materials relatively early in the historic period. Whitbourne, for example, points this out in 1622 when he states they (the Beothuks) used to "...steale Sailes, Lines, Hatchets, Hookees, Knives and such like" (Chappell 1818:171),

and reports of continuous pilfering by the Beothuks continue to appear throughout the historic period (see Pulling mss., and Howley 1915).

The artifacts recovered from Wigwam Brook reflect this use of European derived articles. They also demonstrate that the Beothuks were quite capable of altering iron for production of such aboriginal implements as projectile points. It is unfortunate, however, that the rather limited sample of iron artifacts and the scarcity of European articles frustrates any attempt at a detailed analysis of Beothuk iron technology. Furthermore, it is obvious that the small sample is not likely to be representative of the range of aboriginally made tools and it is hoped that future work on other historic Beothuk components may aid in furnishing a more comprehensive assortment of historic aboriginally modified artifactual materials.

Chronology

Several of the European articles which were thought to have been sufficiently diagnostic to indicate a possible date range for the site, were submitted for analysis to Mr. Daniel Barber, Associate in Historical Archaeology, Rochester Museum and Science Centre, Rochester, New York. These objects included the bottle sections, the jack plane blades, the hook from a piece of fireplace equipment, the tong, the chair swivel, the hinge or book clasp, the kettle lug, the clasp knife blade, the two possible bell clappers, the decorated earthenware, and one object which was found to be unidentifiable.

On the basis of these specimens Barber has concluded that they represent a period from 1865 to 1900. He points out that, "This estimate is, of course, based upon the most recent intrusions."

This date is, however, unsuitable as an indication of the probable period of Beothuk occupation of Wigwam Brook; since as is stated in Howley's book (1915) the last known Beothuk was Shanawdithit who perished while in captivity in St. John's in 1829. The dated artifacts thus appear to date a later, post-Beothuk occupation of the site. This later occupation may have been by Micmac trappers, or by lumbermen who have been in the area of Grand Falls since the late 19th century.

The assigned date of the second half of the 19th century was, as noted above, based upon the most recent artifacts in the sample. The bottle, for example, dates to about 1865 (Barber: personal communication, 1973). However, it must be pointed out that some of the artifacts used in dating were in use prior to the 1800's and persisted until the early to late 19th century. The jack plane blades are examples of these. So too are the kettle lug and the hook for the fireplace equipment. Thus the fact that some of these objects were in fact used in the 18th century suggests the possibility that they may have been collected by the Beothuks. It should also be observed that the sample of datable European articles which was found was very small and those which were submitted for dating were from many different proveniences throughout the site. Consequently, though the latest objects date to the latter half of the 19th century others represent a scattering of dates from the 18th century as well.

The artifacts recovered from Wigwam Brook have not given any definite indication of the possible date of Beothuk occupation of the site. Ethnohistoric data, however, suggest that it may have been inhabited in the late 18th century. John Cartwright produced a sketch map of the Exploits based on his reconnaissance of that river in 1768. On this map he noted the location of Beothuk wigwams (Cartwright 1826:33). Approximately three miles upstream from what is designated "The Falls" which probably indicates

the approximate location of the present town of Grand Falls, there is a brook flowing into an area marked as Nimrod's Pool and Islands. This latter name may well represent the expansion in the river which occurs in the vicinity of the Wigwam Brook site. Near the mouth of the brook Cartwright has indicated the presence of a wigwam. It is therefore possible that this particular location noted by Cartwright in 1768 is in the general area of the Wigwam Brook. If this is so it suggests that the site was indeed occupied in late historic times.

CHAPTER IV

SUBSISTENCE

This chapter is directed towards a consideration of interior Beothuk subsistence as indicated by the faunal remains recovered from Wigwam Brook. However, before considering the results of the faunal analysis it may be useful, for the sake of comparison, to inventory the food sources which may have been available for exploitation by the Beothuks.

Faunal Resources

Mammalian

Stewart (n.d.a:2) has listed eleven species and subspecies of terrestrial mammals which were probably used by the Beothuks. These include:

Black Bear, Ursus americanus hamiltoni

Marten, Martes americana atrata

Short-tailed Weasel, Mustela erminea richardsonii

Otter, Lutra canadensis degener

Red Fox, Vulpes fulva deletrix

Wolf, Canis lupus beothucus

Lynx, Lynx canadensis subsolanus

Beaver, Castor canadensis caecator

Muskrat, Ondatra zibethica obscura

Arctic Hare, Lepus arcticus bangsii

Caribou, Rangifer tarandus caribou

Avian

Avian species which frequent interior locales and may have been used by the Beothuks include the following:

Common Loon, Gavia immer

Red-Necked Grebe, Podiceps grisegena

Horned Grebe, Podiceps auritus

Pied-Billed Grebe, Podilymbus podiceps

Great Blue Heron, Ardea herodias

Least Bittern, Botaurus lentiginos

Canada Goose, Branta canadensis

Black Duck, Anas rubripes

Green-Winged Teal, Anas carolinensis

Blue-Winged Teal, Anas discors

Common Goldeneye, Bucephala clangula

Common Merganser, Mergus merganser

Red-Breasted Merganser, Mergus serrator

Goshawk, Accipiter gentilis

Sharp-Shinned Hawk, Accipiter striatus

Rough-Legged Hawk, Buteo lagopus

Gyr Falcon, Falco rusticolus

Pigeon Hawk, Falco columbarius

Sparrow Hawk, Falco sparverius

Willow Ptarmigan, Lagopus lagopus

Rock Ptarmigan, Lagopus mutus

Common Snipe, Capella gallinago

Whimbrel, Numenius phaeopus

Spotted Sandpiper, Actitis macularia

Solitary Sandpiper, Tringa solitaria

Greater Yellow Legs, Totanus melanoleucus

Lesser Yellow Legs, Totanus flavipes

Common Tern, Sterna hirundo

Caspian Tern, Hydroprogne Caspia

Horned Owl, Bubo virginianus

Snowy Owl, Nyctea scandiaca

Gray Jay, Perisoreus canadensis

Blue Jay, Cyanocitta cristata

Common Raven, Corvus corax

Common Crow, Corvus brachyrhynchos

(after L.M. Tuck 1967, and Peters and Burleigh 1951)

Fish

Two species of freshwater fish may have been exploited by the Beothuks. These are the Atlantic Salmon (Salmo salar) and the Eastern Brook Trout (Salvelinus fontinalis). (Rostlund 1952).

Vegetal Resources

There is no comprehensive list of edible plants available for Newfoundland but several species of vascular plants which are listed by Rouleau (1956) for the Island were possibly important to the Beothuks during the late summer and early fall of the year. The more important species probably include:

Bake Apple, Rubus chamaemorus

Blackberry, Empetrum spp.

Bear-berry, Vaccinium macrocarpon

Blueberry, Vaccinium cespitosum

Bunchberry, Cornus canadensis
 Choke Cherry, Pyrus melanocarpa
 Wild Cherry, Prunus pensylvanica
 Ground Raspberry, Rubus acaulis
 Partridge Berry, Vaccinium oxycoccos
 Squashberry, Viburnum edule *
 Wild Cranberry, Ribes glandulosum

(after Rouleau 1956)

Discussion

The foregoing provides a general idea of the range and kind of subsistence resources which may have been available to, and exploited by, the Beothuks in the interior. It is of course not known which of the above were in fact used. The ethnohistoric sources mention almost all of the land mammals listed above but as far as avian species are concerned only ptarmigan, and "...two or three birds of prey..." (Cartwright 1826:322-323), are noted. Sea birds are mentioned as a general resource but are of no concern here. Salmon are noted but there is virtually no mention of edible plants. Cormack lists several plants which were purported to have been used for medicinal purposes (Howley 1915:153-154) but one must wonder how he obtained this information and whether or not it is merely the result of his own speculation on the subject.

We shall now direct our attention towards a consideration of what the archaeological remains indicate about historic Beothuk subsistence.

Summary of Faunal Report

A total of 19,923 pieces of faunal material were retrieved from the site and submitted to Frances L. Stewart for analysis (see Appendix 1 for

complete report). Despite the rather wide assortment of faunal and vegetal resources which were theoretically available to the Beothuks the analysis revealed the presence of only four land mammal species plus one avian species in the remains. In addition to the terrestrial mammals there were two teeth of some unknown species of seal. However, it is very likely, as Stewart points out, that these remains were brought in from the coast and therefore do not represent part of the interior faunal resource. The four mammalian species include, in order of decreasing frequency: caribou (Rangifer tarandus caribou, 98.61% of mammalian bone); beaver (Castor canadensis caecator, 0.63%); arctic hare (Lepus arcticus bangsii, 0.42%); and red fox (Vulpes fulva deletrix, 0.04%) (Appendix 1: Table 1). The avian bones were identified as common loon (Gavia immer) and represent 60% of the recovered avian remains. No fish remains were identified in the faunal material.

Total Number of Individuals

The known number of individuals of a species was determined by, "...finding the single identifiable element which occurred most often" (Appendix 1, p. 6). Thus, there were 78 adult, 16 immature, and three young caribou; two adult, one young adult, and three immature beavers; and one each of arctic hare, red fox, and common loon. In terms of dietary importance of these animals, caribou accounted for at least 16,435 pounds of usable meat; the Beaver remains contributed about 105 pounds; the arctic hare and fox added 4.5 and 4.0 pounds respectively; and the common loon could be expected to have yielded about 6.7 pounds of usable meat. Thus the total amount of usable meat represented by the faunal material retrieved from Wigwam Brook is approximately 16,555 pounds (see Appendix 1, p. 20-21).

If must be noted, however, that the estimate of the total number of individuals and the total poundage is a minimum one since it is thought, on the basis of our reconnaissance of the site, that probably less than ten percent of the actual occupation area was excavated.

Seasonality

Stewart (Appendix 1, p. 16) points out the fact that the season or seasons of site occupation may be determined "...by examining antler pedicles to see if the antlers had been shed naturally or not." Of the 29 frontal bones which were suitable for examination, 11 (37.93%) indicated that they had been shed naturally. The other 18 (62.07%) had cut marks suggesting that they had been removed (Ibid.). Stewart (Ibid.) states that this indicates that these animals "...were killed at a time when most of them were still carrying their antlers but at the end of such a time since some of the antlers had been shed." Dugmore (1913) and Cameron (1958) suggest that stags have well-developed antlers from September to December, while females and young males "...may carry their antlers from early fall to March or April" (Ibid.). Stewart (Ibid.) concludes on the basis of these shedding dates and the shed to non-shed percentages that Wigwam Brook was occupied in the fall and winter.

However, three immature caribou mandible portions and a number of immature long bones would indicate, according to Stewart (Ibid.:17-18), that these animals had been killed between March and October. Thus the site must have been occupied in the spring to early fall. Avian remains (common loon) may also point to occupation in the winter or spring-early fall (Ibid.) Thus, Stewart (Ibid.) concludes on the basis of mammalian and avian remains that "...the faunal material suggests a year-round occupancy for this site."

This is very interesting in light of the fact that ethnohistoric records suggest a dual phase seasonal cycle with a fall-winter period stay in the interior and a spring-summer sojourn on the coast. Furthermore, both the Indian Point site and the Beaches site accord well with the ethnohistoric data. The faunal remains from the former indicates a fall-winter occupation (Stewart n.d.a) while midden remains from the latter suggests a spring-early summer occupancy (Devereux 1969). This discrepancy between Wigwam Brook, the ethnohistoric sources and the other two Beothuk components may perhaps be explained by James A. Tuck's hypothesis that the Beothuks were eventually cut off from the coast by European occupation of these areas and thus had to retreat to interior locations and attempt to survive throughout the entire year. This proved fatal in the early nineteenth-century however, since the coastal faunal resources were not only important for subsistence throughout the summer but were also, according to Patterson (1891:139) necessary for the reserve food supply they provided for the ensuing winter period of habitation in the interior (Tuck 1971b). Stewart (Appendix 1) points out the fact that the Beothuks could have preserved meat which was taken in the fall, for the entire year by freezing and smoking, and ethnohistoric records mention preservation of caribou by jerking and packing in birch bark packets. Thus it is entirely plausible that they could have survived from one caribou migration to another by living on preserved meat and killing small mammals which were always obtainable, and birds which were seasonally available. However, such a practice would have had a high risk factor. The Beothuks appear to have used the "head-em-off-at-the-pass" technique to take caribou (Burch 1972) which involves a considerable number of risks, the main one being the failure of the caribou to arrive at a particular loca-

tion. Such a failure at Wigwam Brook, for example, would have meant very probable starvation for the group. Thus it would appear that the faunal remains from Wigwam Brook supports Tuck's hypothesis of Beothuk extinction.

To conclude: Stewart's analysis of the faunal material from Wigwam Brook indicates the following: a) that the occupants were successful in taking caribou and that the site itself was probably chosen for its suitability as an interception point in the migration route of these animals; b) that caribou was overwhelmingly the preferred type of food; and c) that the site appears to have been occupied for the entire year.

CHAPTER V

CONCLUSIONS

The archaeological work conducted at Wigwam Brook has demonstrated the presence of at least two and possibly three different cultural groups on the site. The first of these seems to have been a fairly small Maritime Archaic occupation as indicated by the recovery of four artifacts and a number of flakes of Ramah chalcidony. The second occupation which is represented by a number of features such as housepits, hearths, and fire-cracked rock concentrations as well as historic iron and glass artifacts, has been assumed to have been a Beothuk component. The third which may have been Micmac or European, is suggested by the presence of a small number of late 19th century European articles. It now remains for us to state the reasons for the assumption that the second occupation was in fact a Beothuk one.

The first source of direct evidence for assuming that the second occupation was Beothuk deals with the housepits. As we have already noted, the Beothuks practiced subsurface excavation in the construction of their habitations whereas the Micmac (and Montagnais) erected their wigwams on flat ground (Speck 1922). Attention has also been drawn to the fact that the multi-sided (pentagonal) housepit (Feature 14) at Wigwam Brook corresponds to reports in the ethnohistoric sources of multi-sided wigwams (cf. Cormack, Shanawdithit's sketch, Howley 1915:246). The literature explicitly states eight sides for this type of structure but we have maintained that variability in such a lodge is indeed probable and the fact that Feature 14 is multi-sided may be the more important comparison. Thus, as far as housepits

are concerned there is a definite parallel between the archaeology and the ethnohistoric descriptions. This would certainly imply a Beothuk occupation on the site.

However, the parallelisms also extend to the artifactual debris. The sample of projectile points was small, but nevertheless it was sufficient to demonstrate the similarities of certain types found at Wigwam Brook with the deer spear sketched by Shanawdithit and illustrated in J.P. Howley's book (1915:250). This alone would point to the obvious fact that the site had been occupied by the Beothuks. But, further credence to this view can be added by remembering that the Micmacs did not come to Newfoundland in any great numbers until the early 17th century and by that time had acquired firearms (Harp 1964). Therefore there is no reason to assume that the Micmacs would have used projectile points such as those found at Wigwam Brook. Thus, in terms of most of the artifactual remains, Wigwam Brook would most definitely appear to have been inhabited by Beothuks.

Finally, in comparing Wigwam Brook to the Indian Point site which Devereux (1970:60-65) has demonstrated to have been clearly occupied by Beothuks it is obvious that both are very similar in terms of artifacts and features and therefore it seems safe to assume that the second occupation of Wigwam Brook was indeed a Beothuk one.

A further assumption which was made regarding Wigwam Brook was that it was probably inhabited in the fall and winter and was most likely selected for habitation because of its advantage as an interception point in the fall caribou migrations into the interior. The latter supposition appears to be amply demonstrated by the large number of caribou bone remains recovered from the site, the identifiable portions of which represent a minimum estimate of 16,435 pounds of usable meat (Appendix 1, p. 20). The former presumption was based upon the cyclical pattern of a fall-winter caribou

hunting in the interior and spring-summer sojourns on the coast which is described in the ethnohistoric literature (Patterson 1891). Furthermore, faunal material from the Indian Point site indicated a definite fall-winter occupation of that site (Stewart n.d.a) and midden bone from the Beaches site suggested a spring-early summer habitation. (Devereux 1969). These two Beothuk components thus correlate well with the expected Beothuk settlement pattern. This suggested that Wigwam Brook would have most likely adhered to the established pattern of Beothuk settlement. However, as we have already pointed out the faunal bone recovered from Wigwam Brook clearly indicates a year round occupancy--an unexpected result indeed and one which is important in the understanding of late historic Beothuk culture history. As we have previously stated the need to remain in the interior because of relatively intensive European occupation of coastal areas in late historic times may have been largely responsible for the eventual extinction of the Beothuks in the early 19th century.

As mentioned in the Introduction this research was carried out to attempt to provide a picture of the historic Beothuk as represented by ethnohistoric descriptions and the results of archaeological work conducted at the Wigwam Brook site. We have collated the available ethnohistoric accounts of Beothuk material culture and this body of data though not extensive does furnish an idea of a fairly wide range of items which would not normally survive in archaeological contexts. Also, it might be noted that without this compendium of descriptive data the archaeological record would be considerably more difficult to understand and in addition would certainly lack the colour which this information now imparts to the total picture. Thus, the ethnohistoric literature has been invaluable to this study, as indeed it would be to any such consideration of Beothuk culture-history.

All the same, the ethnohistory of the Beothuks does not provide all the answers. Many aspects of Beothuk culture and culture-history are not at all touched upon by the contemporary observers of their culture. Technology, for example, is one category for which the sources are of little value. Consequently, though the artifact sample from Wigwam Brook and the historic artifacts from the Beaches and the Indian Point site are not extensive they nevertheless do indicate something of the range of materials used and also provide an idea of some of the implements which were fabricated by these people.

The work at Wigwam Brook and that of Devereux at Indian Point have also been important in illustrating the composition of an interior Beothuk component in terms of featural remains. We now have fairly detailed descriptions of historic Beothuk hearths, fire-cracked rock middens, bone middens, housepits, etc. It is to be regretted, of course, that disturbance has limited the extent of our information concerning the housepits. However, it is specific enough, as we have seen, to indicate definite correspondances between the archaeological finds and descriptions in the literature. It is to be hoped that future work on different Beothuk habitation sites both on the coast, and in the interior will further our understanding of house-pit features and perhaps make us aware of a greater range of other types of features of which we do not as yet know.

To summarize then, the archaeological work completed at Wigwam Brook has provided a certain amount of descriptive data concerning the archaeology of the historic Beothuk. However, the results of this research have created many more problems for future research. The most obvious of these is indicated by the small sample of artifacts which was recovered. We now have only a restricted idea of the variety of implements which were

fabricated by the Beothuks and used in the interior in the historic period and very little knowledge of Beothuk iron technology. There is a definite need for excavation of other historic Beothuk components if we are to fill the gaps in our understanding of the implements of these people.

With respect to other aspects of the archaeological record we have already drawn attention to the rather limited information concerning Beothuk housepits. Much additional work needs to be done on the questions of variability in size, shape, and internal characteristics of these features. It would also be very useful to know if there is any observable differences in housepits between the ecological zones of the coast and interior with reference to the abovementioned parameters of size, shape etc., and additionally what changes and/or differences may have occurred over time. Similarly, with respect to the artifactual data, it would be valuable to know if there are any functional or stylistic changes in implement types between coastal and interior sites.

Though the ethnohistoric descriptions, as well as the archaeological work done at Wigwam Brook and that carried out by Helen Devereux on the historic component at Indian Point, contribute substantially towards an understanding of the culture-history of the historic Beothuk, our knowledge regarding these people is still in a state of infancy. If this situation is to improve it is obvious that much additional archaeological work needs to be done with the aim of answering questions such as those listed above.

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APPENDIX I

FAUNAL ANALYSIS OF THE WIGWAM BROOK
SITE, NEWFOUNDLAND

by

Frances L. Stewart

FAUNAL ANALYSIS OF THE WIGWAM BROOK SITE OF NEWFOUNDLAND
Dig in the summer of 1973 by Raymond LeBlanc et. al.

INTRODUCTION

The Wigwam Brook site was located on the Exploits River, near Grand Falls in central Newfoundland.¹ It is thought that this site was inhabited by the Beothuck Indians (Le Blanc: personal communication). Despite the occurrence of eleven species and subspecies of land mammals in this area prehistorically,² analysis of the faunal remains from Wigwam Brook revealed remains of only four different land species. These four in the order of frequency of the bones were

Woodland Caribou	<u>Rangifer terandus caribou</u> ³
Beaver	<u>Castor canadensis canadensis</u>
Arctic Hare	<u>Lepus arcticus harrisi</u>
Red Fox	<u>Vulpes fulva deletrix</u> ⁴

As well as these land mammal bones, there were two eroded teeth which were thought possibly to be from some species of seal. That seal tooth should be found on an inland site at first seems unlikely. However this apparent discrepancy is removed when it is remembered that the Beothuck Indians travelled to the coasts to fish and hunt sea mammals in the summer and returned to the interior for the rest of the year. Thus, these seal-like teeth may have been carried into the interior by the inhabitants of the site. Since the mammal bones

1 See sketch map 1

2 Stewart n.d.: 1-2

3 Subspecies identifications here are based on location of the finds.

4 Scientific names for mammals used throughout this paper follow Cameron: 1958.

WIGWAM BROOK and VICINITY



Sketch: Map 1
Source: LeBlanc, n.d.

identified to species accounted for only slightly over a quarter of those identified to class, it is possible that in the large number of specimens identified only to class, there were bones of some other mammals which were living in the area prehistorically. Besides the mammal bones, there were five bird bones recognized of which three were identified as Common Loon (Revia immer).¹ No fish bones were identified in the faunal material and "Newfoundland has no native reptiles nor amphibians"² so these classes also were not represented. Thus, this report deals mainly with mammalian forms.

The general organizing principle for this paper will be to go from the general to the specific. Thus, the broadest groups of identification (i.e. the class rather than the particular species) will be considered before the more specific. Similarly, the faunal remains will be considered as a single group from the site as a whole prior to consideration of the remains from individual features of the site. What follows then is a review of the figures and percentages of the various groups of the faunal remains regardless of their particular locations on the site.

GROSS FIGURES AND PERCENTAGES OF THE FAUNAL MATERIAL

The total number of bones, teeth and antler portions presented for study from excavations on this site during the summer of 1972 was 19923.³ Besides these specimens, samples of bone mash in which the small pieces of bone could not be identified even to class, were collected. Of the total faunal sample excluding the bone mash fragments, 19,880 specimens or 99.79% of the specimens were identified

1 Scientific bird names used in this paper follow Godfrey: 1966.

2 Cameron: 1958:74

3 Faunal specimens recovered in 1968 from this site by H.E. Devereux et. al. are not included in this report.

at least to class. Of these, 19875 (99.76%) were classed as mammalian and 5 (0.03%) were avian. This left 48 or 0.24% of the specimens which could not with certainty be assigned to any class. Beyond the class level, 5556 (27.09%) specimens were identified to family. Of these, 5553 (27.07%) were from mammalian families and 3 (0.02%) were avian family representatives. All but four of these specimens identified to family (two Cervidae and the two possible seal specimens), were also identified to genus and species.

Specimens identified as Woodland Caribou totalled 5476 which was 27.45% of all the faunal specimens and 98.01% of the mammal bones identified at least to family. Beaver specimens totalled 35 which was 0.18% of the total specimens and 0.63% of the mammal bones identified to family. The 23 Arctic Hare bones accounted for 0.12% of all the material and 0.14% of the mammalian bones identified to family. The two possible seal teeth and the two fox bones each accounted for 0.01% of the total and 0.04% of the mammalian specimens identified to family. Finally, the three Loon bones identified made up 0.02% of the total number of specimens and 60.00% of the bones identified as avian.

A small percentage of the specimens showed evidence of modification either by burning, butchering or use. There were 407 specimens (2.04% of the total) which had been exposed to heat. Of these 159 or 39.06% of the total number of burnt specimens, were charred while 248 (60.93%) were calcined. Indications of butchering or marks possibly resulting from meat removal were noted on 121 specimens which was 0.61% of the total number of specimens. Of these, 104 or 85.95% were thought definitely to show evidence of butchering while 17 or 14.05% were more questionable. An artifact in this study was considered to be any specimen modified by use rather than only those modified for use. Using this definition, there were 21 specimens or 0.11% of the total sample which were thought to be or possibly be artifacts. Of these 21 modified specimens, 5 or 23.81% were artifacts while 16 or 76.19% were only possibly artifacts.¹

1 See Table 1 for a summary of these figures.

TABLE 1

GROSS FIGURES OF THE FAUNAL MATERIAL

SPECIMEN TYPE	TOTAL NUMBER OF SPECIMENS	PERCENTAGE OF TOTAL NUMBER OF SPECIMENS	PERCENTAGE OF SPECIMENS OF THE SAME CLASS
FAUNAL	19923	100.00	
CLASSIFIED	19800	99.79	
NON-CLASSIFIED	48	0.24	
MAMMALIAN	19875	99.76	
AVIAN	5	0.03	
IDENTIFIED TO FAMILY	5556	27.89	
MAMMALIAN SPECIMENS IDENTIFIED TO FAMILY	5553	27.87	
AVIAN BONES IDENTIFIED TO FAMILY	3	0.02	
CARIBOU	5476	27.49	98.61
BEAVER	35	0.18	0.63
ARCTIC HARE	23	0.12	0.42
RED FOX	2	0.01	0.04
SEAL(?)	2	0.01	0.04
LOON	3	0.02	60.00
BURNT	407	2.04	
1) Charred	159		39.06
2) Calcined	248		60.93
BUTCHERED	121	0.61	
1) Definitely butchered	104		85.95
2) Possibly butchered	17		14.05
ARTIFACTS	21	0.11	
1) Definitely artifacts	5		23.81
2) Possibly artifacts	16		76.19

A number of specimens were thought to be of particular significance in determining the season(s) of occupation of the site and percentages were arrived at for these samples. However, these will be recorded in the section on seasonality.

NUMBERS OF INDIVIDUAL ANIMALS REPRESENTED ON THE SITE

The number of individuals of a species represented on the site was determined by finding the single identifiable element which occurred most often. Then, the number of examples of this element was taken to represent the known number of individuals of that particular species. This procedure gives a conservative figure for several reasons. First, not all of the site was excavated and so more examples of the same element may still be in the ground. Second, not all of the animals used on the site necessarily had the element counted deposited on the site. Third, some examples may have deteriorated beyond recognition. Therefore the figures for minimal numbers of individuals given in this paper are possibly too low.

Since most of the bones identified to species were Caribou, it is not surprising to find that this was the most numerous animal individually as well. On the basis of 78 right talus bones which appeared to be adult, it is possible to conclude that there were at least 78 adult Caribou on this site.¹ Adult animals are considered to be those in which the epiphyses or ends of the long bones have completely fused to their diaphyses or shafts. This is in contrast to young adult bones in which the epiphyses have fused to their shafts but the fusion is not complete so that the line of fusion is still evident. Immature individuals for this study are those in which fusion has not even begun. In the case of teeth, adult animals were considered to be those which had all their permanent dentition erupted while immature animals were those in which the deciduous or milk teeth had not yet been shed. Returning to the numbers of caribou individuals and using these definitions, it can be shown on the basis of the distal ends of

1 See Table 11 for the adult Caribou long bone elements and Table 111 for the adult Caribou teeth.

TABLE 11

ADULT SARIBOU LONG BONE ELEMENT TOTALS

ELEMENT	COMPLETE		RIGHT		LEFT	
	RIGHT	LEFT	PROX.	DISTAL	PREX.	DISTAL
Metacarpal 384			20	16	17	12
Metatarsal 384			7	13	6	19
Scapula			17	1	19	
Humerus			2	11	1	13
Radius			15	45	13	48
Ulna			15	23	8	26
Femur			1	2	1	
Tibia	1		2	65	4	52
Fibula	13	20				
Calcaneus	15	20	32	9	40	7
Talus	78	72				

TABLE 111

ADULT CARIBOU TEETH TOTALS

TOOTH	UPPER		LOWER	
	RIGHT	LEFT	RIGHT	LEFT
Incisor 3			1	
Premolar 1			2	
Premolar 2	4	2	3	1
Premolar 3	2	3	17	9
Molar 1	7	7	8	9
Molar 2	8	7	13	10
Molar 3	11	13	4	5

right tibia in which the line of fusion was still evident that there were at least 3 young Caribou on this site. Tibia distal ends are usually the most abundant element of a species from archaeological sites.¹ However, basing the number of individuals of young adult age on this element can present a problem since fusion in most mammals occurs last at the shoulder, wrist and knee.² Thus, a Caribou in which fusion has begun at the ankle may have no fusion occurring at the shoulder, wrist or knee. In such an animal, the distal end of the tibia would be classed as being from a young adult while the proximal end of the same bone would be called immature. In this material, the most common immature bone element was the distal epiphysis of the right radius. There were 15 such elements and thus, at least 15 immature Caribou.³ Since fusion occurs at the ankle, hip and elbow at about the same time, it is unlikely that the young adult tibia distal ends were from the same individuals as the immature radius epiphyses. An adjustment to the number of immature individuals must be made however. Three bones were recovered which were from very young animals who must have died in the first few months after birth. Since one of these bones was a femur shaft⁴ and the other two were metapodial 3&4 shafts⁵, it is possible to conclude only that there was one such short-lived individual. However, this raises the total number of Caribou of immature age on the site to sixteen.

The number of adult Beavers represented was only two and this total was based on two upper right first and second molars and two right lower molars.⁶ Since there was only one each of a young adult

1 White:1953:397

2 See Stewart:n.d.:12 for an explanation of this patterning.

3 See Table V for the immature Caribou elements

4 Specimen B770-W-61

5 Specimens B452-22 and B452-23

6 See Table V for the adult Beaver teeth

TABLE IV

YOUNG-ADULT CARIBOU LONG BONE ELEMENT TOTALS

ELEMENT	RIGHT		LEFT	
	PROX.	DISTAL	PROX.	DISTAL
Metacarpal 324		1		1
Metatarsal 324		2		1
Radius		1		2
Tibia	1	3		1

TABLE V

IMMATURE CARIBOU LONG BONE ELEMENT TOTALS

ELEMENT (EPIPHYSES)	RIGHT		LEFT	
	PROX.	DISTAL	PROX.	DISTAL
Humerus		1		1
Radius		15		15
Ulna		3	1	1
Femur				3
Tibia	2	7	4	5
(SHAFTS)				
Humerus				2
Radius		2		3
Femur	3		2	2
Tibia		5	2	

TABLE VI

ADULT BEAVER TEETH TOTALS

TOOTH

UPPER

LOWER

RIGHT

LEFT

RIGHT

LEFT

Incisor 1

2

Molar 1

2

1

1

Molar 2

2

2

1

Molar 3

1

1

and left femur, it can only be stated that there was one young adult Beaver on the site.¹ Three Beaver left femurs were found to which no epiphyses had fused giving a known total of three immature Beavers.² These estimates give a known total of six Beaver individuals. This total seems unusually high considering the relative scarcity of Beaver material identified.

The high number of beaver individuals from a low total number of bones might lead one to expect a similar result from the Arctic Hare bones. However, only one adult hare can be shown to have been on the site. Furthermore, since all of the bones identified to this species except for one were found in one small clump they are likely all from the same individual.³ With the low bone counts for the Red Fox and seal species (?) as well as for the Common Loon, it is not surprising to find that these species are represented by single individuals. In each of these three cases, those bones appear to be from adult animals.

The total number of individuals of each species was not worked out for each feature because in most features there were not enough bones to merit such a calculation. However, the total number of bones, Caribou, and Beaver bones were tabulated for each feature.⁴ Besides these Caribou bones which were found in all features having bones, all the identified Loon bones were noted as being from Feature 13 while the other large bird bones were from Feature 15. One Red Fox bone was also from Feature 15.

Three mandible portions had teeth erupting and so could be aged more precisely than merely as immature. Such detailed aging is important in the consideration of seasonality and so these specimens are discussed in the next section.

SEASONALITY OF THE SITE AS INDICATED BY THE FAUNAL MATERIAL

Since Caribou shed their antlers each year and because both males

1 See Table VII for the young adult Beaver bones.

2 See Table VIII for the immature Beaver bones

3 These were found in Unit B, Square 55. See Sketch Map 2 of the excavated areas.

4 See Table IX

13
TABLE VII

YOUNG-ADULT BEAVER BONE ELEMENT TOTALS

ELEMENT	COMPLETE BONE	
	RIGHT	LEFT
Femur	1	1

TABLE VIII

IMMATURE BEAVER BONE ELEMENT TOTALS

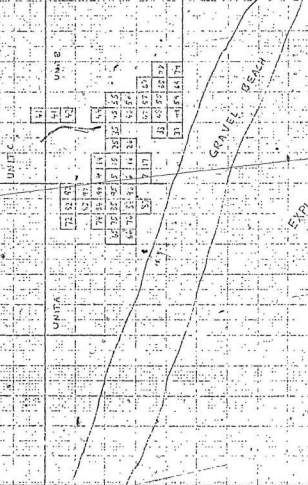
ELEMENT	COMPLETE BONE		RIGHT		LEFT	
	RIGHT	LEFT	PROX.	DISTAL	PROX.	DISTAL
Humerus		1				
Femur	1	3	1			
Tibia		1			1	
Talus		1				

TABLE 1X
BONE TOTALS ASSOCIATED WITH FEATURES

FEATURE NUMBER	TOTAL NUMBER OF SPECIMENS	TOTAL NUMBER OF CARIBOU SPECIMENS	TOTAL NUMBER OF BEAVER SPECIMENS
1	82		
2	7	66	
3	0	6	
4	74		
5	1	3	
6	57		
7	217	46	
8	0	19	2
9	3		
10	13	3	
11	88		
12	0	36	1
13	1742		
14	622	943	
15	1435	251	6
16	1783	502	4
17	761	501	8
		287	2

SKETCH MAP II

WISDOM, BRONK
 SKETCH MAP OF
 EXCAVATED AREAS
 Source: Lefranc, n.d.



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 87
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 100

and females carry antlers, it was thought that the season(s) of occupation of the site might be established by examining antler pedicles to see if the antlers had been shed naturally or not. It was found that 29 frontal bone portions with antler pedicles were suitable for this purpose. Of these, 11 (37.93%) showed that the antlers had been shed naturally while 18 (62.07%) showed that the antlers had been cut away. Likely these 18 pedicles with cut marks in them represent animals which were still carrying their antlers at their deaths. These figures then suggest that the Caribou were killed at a time when most of them were still carrying their antlers but at the end of such a time since some of the antlers had been shed. According to Dugmore, the antlers of Newfoundland Caribou "are discarded before the snow becomes deep" although does may "carry their little horns (sic) throughout the winter.... Small stags do not shed their antlers until December or even later."¹ Cameron places the time of shedding for males slightly later. He states, "adult males lose their antlers in December or January, young males and females not until March or April." ² Antlers begin to grow each year in the summer. "Does not having lost their horns (sic) till the end of the Spring, do not show much until July, but the stags by that time have a fairly good head of velvet-covered antlers, the growth not being complete before the last of August or the beginning of September."³ Thus, from September to December approximately the stags have well-developed antlers while the females and young males may carry their antlers from early Fall to March or April. These dates combined with the percentages of shed to non-shed antlers suggest a Fall and Winter occupation period for this site.

A Fall and Winter estimation for the seasons of occupation is further supported by the migratory nature of Caribou. In Spring, the

1. Dugmore:1913: 37 and 76

2. Cameron:1958:106

3. Dugmore:1913:20

the Caribou move north; in summer, they are "more or less solitary in habit, going about singly or in pairs" ¹ and then in Autumn they migrate south again in large herds. "Autumn migration usually begins between October 15th and 22nd but this is extremely variable." ² Thus, the herds of Caribou would be crossing the centre of Newfoundland in the Fall and they would be easy game in their large herds. The importance of the fall migration as a food supply will be discussed below in the section on the dietary importance of the various animals identified in the Wiquem Brook material. Here the Fall migration is merely mentioned since it supports the Fall to Winter occupation period suggested by the conditions of the antler pedicles. Despite the seemingly good case for a Fall and Winter occupation, it must be remembered that meat from Caribou killed in these seasons could have been preserved by freezing or smoking and therefore could have supported the Wiquem Brook inhabitants in other seasons as well. Also, other small mammals such as the Beaver, Fox and Hare which were represented in the faunal material could have been caught throughout the year. The three very young Caribou bones mentioned in the section on the numbers of individuals represented on the site were from animals killed in the Spring or early Summer.

Three mandible portions with deciduous teeth in place also give more specific ages of death. Sanfield concluded that the deciduous incisors in Caribou are replaced in 9 to 12 months and the deciduous premolars in 17 to 20 months. The permanent molars are erupted in succession: molar 1 at about 2 months, molar 2 at about 9 months and molar 3 at about 17 months. ³ Tooth eruption does vary from individual to individual, but using these figures, ages can be established for the three mandible portions. In one left mandible portion ⁴ deciduous

1 Dugmore:1913:19

2 *ibid*:17

3 Sanfield paraphrased in Kelsall:1960:25. Sanfield was referring to barren-ground Caribou but likely woodland Caribou are similar in both eruption times and pattern of eruption.

4 Specimen 8677-1

premolars 3 and 4 were still in place as were molars 1 and 2. Molar 2 was slightly worn suggesting that it had not been erupted for long. Thus, this individual appears to have been between 15 and 17 months old when it died. In a second mandible,¹ the same teeth had erupted but molar 2 showed no wear at all suggesting that this individual died when it was about 9 months old. A third mandible portion² still had deciduous premolar 4 in place as well as all the molars. This mandible was from an animal that was about 17 months old when it died. Since Caribou calving occurs throughout June,³ these immature animals died between April and October for the first mandible discussed; in March for the second mandible and around October for the third. These mandible specimens combined with the immature long bones suggest a Spring to early Fall period of occupation for the site.

Migratory birds are often good indicators of seasons of occupation when their bones are identified on sites. Unfortunately only one such bird, the Common Loon, was identified in the Wigram Brook material. Furthermore, although this species does migrate and so would be expected in the area of this site from May until October, Common Loons do occasionally winter here. (Godfrey: personal communication) Thus, considering both the mammalian and the avian remains, the faunal material suggests a year round occupancy for this site.

DIETARY IMPORTANCE OF THE VARIOUS ANIMALS IDENTIFIED

Caribou was obviously by far the most important animal species to the inhabitants of the Wigram Brook site. Caribou are easy to kill once located. Although their herd size may vary from year to year, once a herd was found it would supply a great deal of meat. The inhabitants of Wigram Brook appear to have used Burch's "head-'em-off-at-the-pass" technique⁴ for hunting the Caribou. While this technique involves risks as Burch noted, it appears that the Indians at Wigram

1. Specimen 1 from Feature 15, Square 57

2. Specimen 8604-1

3. Kelsall:1968:177

4. Burch:1972:346-7

Brook were successful. The risk of judging the exact migration route for any season may have been reduced by the construction of long tree fences¹ which funnelled the Caribou to particular spots. Also, the location of the site on the Exploits River bank was likely chosen not only for the available water supply but also for easy locating and killing of the Caribou as they crossed the river in their north-south migrations.

According to White,² the average live weight of a single Caribou is 250 pounds and half of this weight or 125 pounds is usable meat. White's figure for the average weight seems to be too low. Most authorities place the weight quite a bit higher as can be seen in the following chart:

Dugmore 1913:14	Males 300 to 500 lbs.	Average: 400
Hall and Nelson 1959:1017	Weights to 600 lbs.	
Palmer 1954:303	Males 150 to 700 lbs. Females 150 to 350 lbs.	Average: 425 Average: 250
Peterson 1966:332	Males 350 to 550 lbs. Females 200 to 350 lbs.	Average: 395 Average: 270

Averaging the male and female weights of these authors, 350 pounds per individual would appear to be a closer approximation. Since on the basis of antler pedicles it was concluded that most of the adult Caribou were killed in the Fall to Winter period and since the herds migrate across the Exploits in the Fall, the remains at Wiqum Brook are likely from Fall kills. This is important to consider here since Caribou are fat and in their prime in the Fall³ and so increasing White's poundage seems even more important. White's estimate of the percentage of usable meat is also questionable. Different cultures have different

1 Oswalt:1966:76-7

2 White:1953:397

3 Dugmore:1913:2

food preferences. However, since we cannot be sure of the percentage of the meat used by the Peathucks, the possibly conservative estimate of 50% may be used, with caution. With these considerations in mind then, the estimated poundage of usable Caribou meat represented by these bones becomes ¹

$$78 \times 175 = 13650$$

$$3 \times 170 = 510$$

$$15 \times 150 = 2250$$

$$1 \times 25 = 25$$

16435 pounds in total.

As Burch noted caribou "can provide for all human subsistence requirements." But "most populations of tarandus hunters depend on other sources of food during at least one season every year."² Although the major activity at Wingham Brook was likely the killing and preparing of Caribou, other animal remains were found in the faunal material collected from this site. Second in frequency to the Caribou were the four Beaver individuals represented. Of these one was a young adult yielding close to 39.5 pounds of usable meat, according to White while the others were immature individuals. Since the three immatures were based on large immature bones, they may have come from individuals weighing about 30 pounds. If this estimation is correct, then they contributed about 66 pounds of usable meat. This increases the Beaver meat total to about 105 pounds. The single Arctic Hare and Fox individuals according to White, would have contributed 4.5 and 4.0 pounds respectively of usable meat. Because the seal identification was not certain its contribution cannot be estimated. White does not give figures for the Common Loon but for all of the other birds she lists including Geese, Swans and Ducks, she takes 70% of their live weight to represent the pounds of usable meat. Taking an average of 9.5 pounds for the

1 According to Kelsall:1968 50 pounds would be an average weight for a calf in its first summer. See Kelsall's chart on pages 194-5. The other figures used here are merely guesses.

2 Burch:1972:362-5

weight of adult Common Loons (Godfrey: personal communication), and White's figure of 70%, the single loon known to have been on the site would have provided about 6.7 pounds of meat. This brings the total poundage of usable meat to about 16555 pounds.

MODIFIED FAUNAL SPECIMENS

Modified specimens included those which were burnt, showed signs of butchering or were modified by use. Burnt specimens were further separated into those which had been exposed to fire only long enough to become charred and those which had been exposed for a longer time or at a greater heat and so had become calcined.¹ Cut marks and in a few instances the occurrence of extremely smooth breaks were considered to be evidence of butchering.² A specimen was considered to be a 'possible artifact' if it showed at least three aspects that seemed to be unnatural. Thus a bone with two smooth borders and one rounded edge would be considered a possible artifact. Any specimen with four or more unnatural features was considered to be an artifact.³ Since most of these modified specimens were found in association with features of the site, they will be discussed by feature⁴ as well as on the site as a whole. Detailed descriptions of these features can be found in LeBlanc: n.d.⁵

BURNT SPECIMENS

Most of the 407 burnt specimens were found in features as can be seen in Table X. From this table it is obvious that Feature 7 accounted for almost half of these specimens and that over two-thirds of these were calcined. This supports the suggestion that this feature was "the remnant of a hearth".⁶ The calcined bones may have reached their condition by being in the hearth for a long time or by being exposed to the hottest part of the fire. Similarly, the high concentration of burnt bone in Feature 4, of which all but one specimen was calcined, supports the suggestion that this feature may also have been a hearth⁶ or perhaps the refuse cleaned out of a hearth.

1 Appendix I lists the burnt faunal specimens.

2 Appendix II lists the faunal specimens with evidence of butchering.

3 Appendix III lists the faunal artifacts and possible artifacts.

4 See Table IX for the number of bones associated with each feature.

5 LeBlanc: n.d.:13

6 ibid:12

In general, most of the burnt specimens were fragments or small portions of bone which were identified only as being mammalian. All of the burnt specimens which could be identified beyond the class level were Woodland Caribou specimens. Many of these specimens were toe bones although examples of the metapodials, radius, tibia and scapula were also found to be burnt. Of these, the scapula was of special interest since the Montserrat Indians of the mainland with whom the Beothucks may have interacted, practised cannibalism. However, this single burnt scapula was charred only in the glenoid fossa area and therefore was not likely used for dividing.

SPECIMENS WITH BUTCHERING MARKS

Unlike the burnt bones, only slightly over half of the 121 specimens with butchering marks were found in association with features as can be seen in Table XI². High concentrations of these bones occurred only in Feature 13 and 15. The relatively high number of butchered specimens in Feature 13 may merely reflect the high total of bones in this feature which was considered to be a midden. Feature 15 was thought possibly to be a housepit of which Feature 7 with its 3 associated bones with butchering marks on them, was possibly the central fireplace. If this feature is a housepit, then there is a suggestion that some of the butchering may have occurred within the house. However if this explanation is valid, then it seems odd that high concentrations of similarly marked bones were not also found in Feature 14, 10, 16 and 11 which were also possible housepits and their fireplaces.

Most of the bones with butchering marks on them were identified as Woodland Caribou although a few were known only to be from large mammals⁴ or just mammals. There was a particularly high percentage of skull bones and antlers showing evidence of butchering with a total of 26 such specimens (21.49% of the butchering specimens). This suggests that removal of the antlers was one of the common butchering practices.

1 Any specimen whose greatest length was more than 30 mm. was considered to be a portion while any specimen equal to or longer than 30 mm. was called a fragment.

2 See appendix II

3 LeBlond: n.d.: 118

4 Large mammals included Black Bear, Wolf and Caribou for this study. However most of the bones identified as 'large Mammal' are likely Caribou.

Another pattern in the butchered specimens was noted in those found in Feature 15. Here 9 of the 17 specimens with butchering marks or 52.94% were humeri in which one of the condyles had been cut across sagittally leaving a very smooth surface and removing a third to a half of the distal ends. Although other humeri were found which had butchering marks on them, nowhere else was this same type of butchering found. This limited occurrence in what may be a housepit may reflect a single individual's or family's method of butchering around the elbow joint. No other unusual patterns were evident in the specimens with butchering marks.

ARTIFACTS NOTED IN THE FAUNAL MATERIAL

Only 21 examples of faunal specimens modified by use were noted in this material as can be seen from Table XII. Furthermore, of these only 5 were thought to be unquestionably modified. Most of these specimens were Caribou or other large mammal long bone shaft portions with areas which were unnaturally smooth and edges which were rounded. Since only a few striations were noted on only a few of these specimens, it seems likely that they were used for working some soft material such as food or skins. Second to modified long bone shaft portions were the antler portions which were worked in different ways. The occurrence of 4 modified antler specimens (19.04% of all the modified specimens) as well as the antlers and antler pedicles showing butchering marks suggests that antler was one of the favourite sources among the faunal material for artifacts.

None of the features showed a particularly high concentration of artifacts with the most being 5 in Feature 13, the midden. The lack of such artifacts in those features which were thought to be housepits is surprising. The all over general paucity of faunal artifacts perhaps reflects a greater reliance on metal or stone tools.

SUMMARY AND CONCLUSIONS

From the analysis of the 19,923 faunal remains collected from the Wiquem Brook site it is possible to reconstruct some of the activities

of the Beothuck Indians when they lived on this site. First, it appears that the inhabitants made use of at least 27 Caribou, 6 Beavers and one each of Arctic Hare, Red Fox, Seal species(?) and Common Loon. Of these species, it is obvious that Caribou was by far the most important accounting for over 50% of the usable meat provided. Caribou was likely also very important for its fur. Second, the condition of the antler pedicles suggested a fall to winter occupation of the site but a closer examination of the other faunal remains led to the conclusion that this site was used throughout the whole year. Third, in considering the dietary importance of the various animals it was concluded that the Caribou were the most important and that likely this site was located on the Exploits River because this was a good location from which to intercept the moving herds during their southerly fall migration. The finding of burnt Caribou bones supported Howley's statement that the Beothucks cooked their food.¹ Not unexpectedly, most of the burnt bone was found in association with the central hearth of a housepit. Fourth, specimens modified both by butchering and use were found most frequently in association with features and led to the supposition that various house occupants may have butchered their meat in different ways. Finally, the numbers of bones on this site invited the conclusion that the Beothucks living at Eguem Brook had an ample supply of food.

The faunal remains from this site can now be compared to those from the Beothuck Indian Point site (DeBd-1).² Perhaps the most significant difference between these two sites is in their seasons of occupation as indicated by the faunal material. It was concluded that the DeBd-1 site was inhabited in the late Fall and early Winter. Of course it is possible that this site was also occupied throughout the year but nothing in the faunal material suggested a Spring or Summer occupation. At both sites, antlers appear to have been purposely removed. However, at DeBd-1 modified antlers were rare whereas at Eguem Brook they seem to have been the second most favourite material for tools, second only to long bone shaft portions which were the most commonly

1 Howley:1915:8

2 Stewart:n.d.

used remains at both sites. More generally, there were fewer specimens modified either by butchering burning or use at Miquam Brook than at DeSd-1. Perhaps this reduction in worked bones is related to an increase in metal trade items. The common practice of removing the ends of long bones and then splitting the shafts which was noted in the DeSd-1 material was not found in the material from Miquam Brook. This difference may reflect a greater supply of food at the latter site or differences in dietary preferences. Despite the differences of the faunal remains, these sites share significant features. Both were located on water ways likely to aid in the interception of migrating Caribou which was the single staple food animal at both sites.

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APPENDIX 1 SPECIMENS WITH EVIDENCE OF BURNING

FEATURE 2

B47

Seven mammal bone portions; all charred
 Twenty-four mammal bone fragments; all charred

FEATURE 4

B91

Two mammal bone portions; both calcined
 Thirteen mammal bone fragments; 1 charred; 12 calcined

B643

Fifty-five mammal bone fragments; all calcined

FEATURE 7

B953

- | | | | |
|----|--|---|---------|
| 1. | Woodland Caribou
(<u>Rennifer tarandus</u>
<u>caribou</u>) | Proximal phalanx, proximal
end fragment | Charred |
| 2. | " | Middle phalanx, 2 nd or 5 th
digit | " |
| 3. | " | Metatarsal 3&4 distal end
fragment | " |
| 4. | " | " | " |
| 5. | " | Talus fragment | " |

Thirteen mammal bone portions ; 9 charred, 4 calcined
 One hundred and ninety-seven mammal bone fragments;
 55 charred; 142 calcined

FEATURE 9

B900

One mammal bone portion; charred

FEATURE 11

B773

- | | | | |
|-----|--|---|-----------------------|
| 36. | Woodland Caribou
(<u>Rennifer tarandus</u>
<u>caribou</u>) | Proximal phalanx, proximal
end fragment, and portion of
shaft | End partly
charred |
|-----|--|---|-----------------------|

FEATURE 13

B219

46. Large mammal

Long bone shaft portion

Partly charred

256.

"

"

"

FEATURE 14

B335

One mammal bone fragment; calcined

B334

Two mammal bone fragments; calcined

B336

1. Woodland Caribou
(Rangifer tarandus
caribou)Metapodial 384 distal
epiphysis

Charred

B249

One mammal bone fragment; charred

B352

One mammal bone portion; charred

B343

One mammal bone fragment; charred

B396

1. Woodland Caribou
(Rangifer tarandus
caribou)Metapodial 384 distal end
portion; 2 fitted pieces

Charred

B349

1.

"

Right tarsal 283 fragment

Charred

B337

1.

"

Phalanx, distal end fragment

Calcined

B339

One mammal bone fragment; charred

B338

"

Calcined

B333

1. Woodland Caribou
(Rangifer tarandus
caribou)

Radius shaft fragment

Charred

FEATURE 14 (continued)

B330

One mammal bone fragment; calcined

B253

One large mammal long bone shaft portion; charred

B256

B258

B336

One mammal bone fragment; charred

B340

- | | | | |
|----|--|---|---------|
| 1. | Woodland Caribou
(<u>Rangifer tarandus</u>
caribou) | Proximal phalanx proximal
end fragment | Charred |
|----|--|---|---------|

FEATURE 15

B304

- | | | | |
|-----|--|---------------------------------------|-----------|
| 18. | Woodland Caribou
(<u>Rangifer tarandus</u>
caribou) | Metapodial 324 distal end
fragment | Calcined. |
|-----|--|---------------------------------------|-----------|

B310

- | | | | |
|-----|---|---|----------------|
| 21. | " | " | Partly charred |
|-----|---|---|----------------|

B311

One large mammal long bone shaft portion; charred
Two mammal bone portions; charred

FEATURE 16

B769-W

- | | | | |
|-----|--|---|---------------------------|
| 11. | Woodland Caribou
(<u>Rangifer tarandus</u>
caribou) | Sesamoid | Partly charred |
| 26. | " | Middle phalanx, 2 nd or 5 th
digit | Charred |
| 52. | " | Right scapula, glenoid
area | Glenoid fossa
charred. |
- Three mammal bone portions, charred
Five mammal bone fragments, charred

NO FEATURE

B791

- | | | | |
|----|--|---|----------------|
| 1. | Woodland Caribou
(<u>Rangifer tarandus</u>
<u>caribou</u>) | Metapodial 3&4 distal end
portion; 2 fitted pieces | Partly charred |
|----|--|---|----------------|

B561

- | | | | |
|----|---|---------------------------|---------------------------|
| 3. | " | Metatarsel 3&4 distal 1/6 | Charred on one
condyle |
|----|---|---------------------------|---------------------------|

B644

- | | | | |
|-----|---|--|---------|
| 30. | " | Right tibia distal end
fragment and portion of
shaft | Charred |
|-----|---|--|---------|

31.

- | | | |
|---|----------------------|---------|
| " | Radius shaft portion | Charred |
|---|----------------------|---------|

B205

One mammal bone fragment, partly charred.

B958

Nine mammal bone fragments, charred.

B91

Twenty mammal bone fragments, calcined

B757

One mammal bone fragment, charred.

B355

- | | | | |
|-----|--------------|-------------------------|----------------|
| 31. | Large mammal | Long bone shaft portion | Partly charred |
|-----|--------------|-------------------------|----------------|

B630

- | | | |
|----|---|---------------------------|
| 1. | " | One bone portion, charred |
|----|---|---------------------------|

B120

- | | | | |
|----|--|-------------|----------------|
| 1. | Woodland Caribou
(<u>Rangifer tarandus</u>
<u>caribou</u>) | Right talus | Partly charred |
|----|--|-------------|----------------|

APPENDIX 11 - SPECIMENS WITH BUTCHERING MARKS

FEATURE 1

B36

1. Woodland Caribou
(Rangifer tarandus
caribou)

Right frontal bone portion
with pedicle for antler

Three cut marks
noted on pedicle;
butchering

B10

1. "

Left frontal bone portion
with pedicle for antler

Straight edge on
break of pedicle
suggests butchering;
10 cut marks
on pedicle; butchering

B26

1. "

Five cut marks
on pedicle, butchering

B28.

1. "

Cut marks in pedicle
butchering

FEATURE 6

B313

6. Woodland Caribou
(Rangifer tarandus
caribou)

Long bone portion

Two cut marks on
outer surface;
butchering

FEATURE 7

B312

20. "

Right frontal bone portion
with pedicle for antler

Three deep cut
marks in pedicle;
removal of antler;
butchering

39. Large mammal "

Long bone shaft portion

Three short cut
marks on exterior
surface, one deep
cut mark on interior
surface

45. Woodland Caribou
(Rangifer tarandus
caribou)

Antler pedicle and base
of antler

Antler pedicle cut to
remove antler, 3
cut marks noted
on antler; butchering

46. "

Antler portion

Four cut marks,
butchering

FEATURE 7 (continued)

47. Woodland Caribou
(Rangifer tarandus
caribou)

Right metapodial 384
distal 1/5

Cut marks at break
on posterior side,
butchering

FEATURE 13

B66

20. Woodland Caribou
(Rangifer tarandus
caribou)

Right humerus shaft portion

Two cut marks just
above break at
distal end, butchering

21. Large mammal

Bone portion

Three deep cut marks
into one surface from
border, butchering

22.

"

"

Three faint cut marks
in one surface,
butchering.

B887

22.

"

Long bone shaft portion

Two cut marks on
surface; butchering

B220

22. Woodland Caribou
(Rangifer tarandus
caribou)

Long bone shaft portion

1.

"

Radius shaft portion

B219

43.

"

Long bone shaft portion

Six nicks out of one
border in a concave
area, possibly from
trying to split the
bone; butchering?

15.

"

Long bone shaft portion

Three cut marks in
surface near break,
some curved in cut;
butchering

22.

"

"

Two short cut marks
on external surface;
butchering.

23.

"

"

Straight edge suggest
butchering

B485

36. Mammal

Bone fragment

(one border very
smooth, butchering
or artifact

FEATURE 13 (continued)

B354

- | | | |
|--|---|--|
| 45. Woodland Caribou
(<u>Rangifer tarandus</u>
<u>caribou</u>) | Metatarsal 3&4 shaft
portion | Two cut marks on the
interior; butchering |
| 38. Large mammal | Long bone shaft portion | One end has an even
break, notch cut into
one side, butchering |
| B219b | | |
| 45. Woodland Caribou
(<u>Rangifer tarandus</u>
<u>caribou</u>) | Left humerus shaft portion | One long faint cut mark
down shaft; butchering |
| 63. " | Left calcaneus articular
end portion | Six shallow notches cut
out of shaft; butchering |
| 46. Large mammal | Long bone shaft portion | Four cut marks noted,
also partly charred;
butchering |
| 47. " | " | Two cut marks noted on
shaft surface; butchering |

FEATURE 14

B660

- | | | |
|---|---|---|
| 1. Woodland Caribou
(<u>Rangifer tarandus</u>
<u>caribou</u>) | Proximal phalanx, missing
part of proximal end | Sharp borders suggest
butchering |
| B218 | | |
| 2. " | Antler portion | Cut marks at both ends,
butchering |
| B655 | | |
| 1. " | Proximal phalanx missing
part of proximal end | Break has very sharp
edge, possibly butchering |
| B651 | | |
| 1. " | " | " |
| B649 | | |
| 1. " | " | " |

FEATURE 14 (continued)

- | | | | |
|-----|--|---------------------------------------|---------------------------------------|
| 17. | Woodland Caribou
(<u>Rangifer tarandus</u>
<u>caribou</u>) | Humerus shaft portion near distal end | One deep cut into surface; butchering |
|-----|--|---------------------------------------|---------------------------------------|

FEATURE 15

B305

- | | | | |
|------|---|--|--|
| 46. | " | Left humerus distal end portion | Condyle cut with straight edge; 2 cut marks on medial surface; butchering |
| 48. | " | " | Cut across condyle with straight edge, possibly butchering |
| 54. | " | Left metatarsal 384 distal 1/5 | Two grooves cut on anterior surface; 2 faint cut marks on posterior surface; butchering. |
| B310 | | | |
| 56. | " | Long bone end fragment | One edge sharply cut, butchering |
| B309 | | | |
| 34. | " | Left humerus distal end, condylar portion | Break very flat across condyle; possible butchering |
| 39. | " | Left metatarsal 384 distal 1/5, young adult | Three cut marks on anterior surface; butchering |
| 46. | " | Left radius portion, proximal end | Two cut marks on one surface, butchering |
| B304 | | | |
| 34. | " | Antler portion | One cut mark near break; butchering? |
| 14. | " | Left humerus distal end portion with 1 condyle | Cut marks on surface butchering |
| B307 | | | |
| 31. | " | Left frontal bone portion with antler pedicle | Ten cut marks in pedicle, antler removed, butchering |

FEATURE 15 (continued)

B306

16. Woodland Caribou
(Rangifer tarandus
caribou)

Antler pedicle portion

Deep cut marks on both sides of pedicle, butchering

B305

25.

"

Right radius proximal end

Two cut marks on shaft; butchering

42.

"

Right humerus distal end portion

Condyle cut across with very straight edge, possibly butchering

43.

"

"

44.

"

Left humerus distal end portion

"

45.

"

Right humerus distal end portion

"

B308

20.

"

Left humerus distal end portion

"

B311

32.

"

Frontal bone portion with antler pedicle

Deep gouge in pedicle and two cut marks on pedicle, butchering

FEATURE 16

B452

37.

"

Bone portion

Very straight edge across one end suggests butchering

B769-W

6.

"

Calcaneus shaft portion

Three broken borders have very sharp edges possibly from butchering

Square 57

2.

"

Antler pedicle

Marks in pedicle, antler removed, butchering

FEATURE 16 (continued)

Square 57 (continued)

- | | | | |
|----|--------------|-------------------------|---|
| 3. | Large mammal | Long bone shaft portion | Cut marks at one break and four depressions from hits ?; butchering |
| 4. | " | " | One cut mark near break; butchering |

B221

- | | | | |
|-----|--|---------------------|--|
| 31. | Woodland Caribou
(<u>Rennifer tarandus</u>
<u>caribou</u>) | Femur shaft portion | Two concave areas on each border, butchering |
| 32. | " | " | One concave area on border, butchering |

B770-N

- | | | | |
|-----|---|--|--|
| 9. | " | Right frontal bone with pedicle for antler | Cut marks in pedicle, antler removed, butchering |
| 59. | " | Long bone end fragment | One deep cut mark, possible butchering |
| 60. | " | Humerus distal end portion likely | Two deep cut marks, butchering |

FEATURE 17

B447

- | | | | |
|-----|--------------|--|---|
| 2. | " | Left fused radius and ulna distal 1/3; young adult, epiphysal line still evident | Five cut marks in surface near break, butchering |
| 6. | " | Radius shaft portion; 2 fitted pieces | Three cut marks in surface, butchering |
| 11. | " | Calcaneus shaft; immature lacking epiphysis | Cut marks on shaft, butchering |
| 41. | " | Right metatarsal distal 1/6 | Cut marks below break on posterior surface; butchering |
| 42. | Large mammal | Long bone shaft portion | Break at one end worn smooth; 2 cut marks near other end; 1 cut mark below break; butchering and artifact |

FEATURE 17 (continued)

B447(continued)

43.	Large mammal	Long bone shaft portion	Two cut marks noted on outer surface; butchering
B448			
17.	Woodland Caribou (<u>Rennifer tarandus</u> <u>caribou</u>)	Antler portion	Area just above pedicle flattened, 6 cut marks in this area; base of brow tine has 4 cut marks in it; groove near distal end, butchering and possibly an artifact
NO FEATURE			
B889			
8.	"	Calcaneus portion articular end	Two cut marks; butchering
B895			
28.	"	Antler base portion	Distal end cut across beam, brow tine cut off; butchering
23.	"	Right metatarsal 3&4 proximal end fragment	Three cut marks on shaft, butchering
B450			
1.	"	Right talus portion	Straight edged break suggests butchering
2.	"	Rib shaft portion	Three cut marks on one side, butchering
B880			
1.	"	Left calcaneus portion articular end	Four cut marks in surface; butchering
B874			
4.	"	Rib head portion	Cut mark in shaft just below articular area; butchering?
B87			
1.	"	Right frontal bone portion with antler pedicle	Cut marks on pedicle, antler cut off, butchering
B590			
		One mammal bone portion with one cut mark on an exposed surface, possibly butchering	

NO FEATURE

0725

1.	Woodland Caribou (<u>Rennifer turandus</u> <u>caribou</u>)	Right fused radius and ulna shaft portion	Faint cut marks on radius; butchering
B881			
62.	"	Left frontal bone portion with antler pedicle	Cut marks on pedicle antler removed; butchering
B875			
34.	"	Right metatarsal 3&4 proximal end fragment and portion of shaft	Straight edge of break suggests butchering
35.	"	Rib shaft portion	Three cut marks noted on one side; butchering
B110			
1.	"	Left frontal bone portion with antler pedicle	One cut mark at base of pedicle; 12 on pedicle; butchering
B741			
1.	"	Right talus	Two long cut marks on surface; butchering
B555			
6.	"	Right ulna proximal 1/4	One cut mark on the articular surface; butchering
B580			
1.	"	Frontal bone with portion of pedicle	Cut marks on pedicle and one smooth edge; butchering
B757			
23.	"	Right frontal bone with antler pedicle	Two cut marks at distal end of pedicle; butchering
B466			
1.	"	Rib shaft portion 2 fitted pieces	Two cut marks on outer surface, 1 cut mark on inner surface; butchering

NO FEATURE

8832

1. Woodland Caribou
(Rangifer tarandus
caribou)

Left tibia shaft portion
from proximal 1/2Cut marks on outer
surface; butchering

8872

10.
(likely).

Long bone shaft portion

Concave depression in
one border, possible
butchering

8872

1. Woodland Caribou
(Rangifer tarandus
caribou)

Antler portion

Straight edge suggests
butchering

8822

1. "

Metatarsal 3&4 distal
1/5Three cut marks on
posterior surface;
butchering

2. "

Right metatarsal 3&4
distal 1/8Two cut marks on
anterior surface;
butchering

3. "

Left scapula proximal end
portionTwo cut marks on
body; butchering

4. "

Left talus, eroded

Two cut marks on sur-
face; butchering

8873

1. "

Metatarsal 3&4 distal 1/8

Four cut marks on
posterior surface
just below break;
butchering

8875

8. "

Right calcaneus distal 1/3

Two cut marks on
end; butchering

27. "

Metatarsal 3&4 shaft
portionSix cut marks on one
side; butchering

29. Mammal

Bone portion

Two cut marks;
butchering

Square 49

135. Mammal

Long bone shaft portion

Six cut marks on
inner surface;
butchering

NO FEATURE

Square 49 (continued)

136.	Woodland Caribou (<u>Rangifer tarandus</u> <u>caribou</u>)	Proximal phalanx, proximal 2/3	Two cut marks on surface; butchering
137.	"	Long bone shaft portion	Two cut marks; butchering
138.	"	Right metatarsal 384, distal 1/8	Three cut marks on anterior surface just below break, 2 on posterior surface, butchering
139.	"	Proximal phalanx	Two cut marks near proximal end; butch- ering
B890			
11.	"	Left metatarsal 384 distal 1/6	Two cut marks on shaft just above the break; butchering
34.	"	Metatarsal 384 distal 1/6	Two cut marks on posterior surface just below break; butch- ering
35.	"	Left frontal bone with antler pedicle	Two cut marks in pedicle; butchering
36.	"	"	"
37.	"	Proximal phalanx, poster- ior 1/2 of shaft	Broken edge straight, 2 cut marks on surface; butchering
38.	Large mammal	Long bone shaft portion	Three depressed areas on shaft, caused by hits ?; butchering
B951			
24.	"	"	One end cut off and surface smoothed, -2 cut marks; butchering
B952			
21.	"	"	Four faint striae near one end, possibly butchering
B814			
1.	"	"	"

NO-FEATURE

B355

16. Woodland Caribou (Rangifer tarandus caribou) Right frontal bone portion with antler pedicle Antler cut off 2. 5 cut marks; butchering

2. " Metapodial 3&4 distal end portion One condyle appears to have been cut off as border is very smooth; butchering

B457

7. Large mammal Long bone shaft portion One end cut straight across; butchering

B654

47. Mammal Bone fragment One cut mark on surface; butchering

B454

10. Woodland Caribou (Rangifer tarandus caribou) Frontal bone fragment with antler pedicle Five cut marks on pedicle; butchering

B892

33. " Left scapula proximal 1/6 Three cut marks on superior surface, possibly butchering

B888

31. " Metatarsal 3&4 shaft portion Nine cut marks on one side; butchering

32. " Left calcaneus proximal 1/6 Six cut marks at break; butchering

33. Mammal Bone portion Two cut marks; butchering

B894

22. Woodland Caribou (Rangifer tarandus caribou) Right calcaneus One cut mark near articular surface; butchering

23. " Antler portion Three cut marks near one end; butchering

24. " Right radius distal epiphysis, immature Two cut marks on anterior surface, possibly modern?

APPENDIX 111 SPECIMENS WITH EVIDENCE OF USE

FEATURE 7

B312

240. Woodland Caribou
(Likely)

Long bone shaft portion

One border very smooth
with 1 rounded edge;
faint striae noted on
this border; possible
artifact

FEATURE 13

B682

1. Large mammal

Long bone shaft portion

Hole drilled thru
shaft near one end;
artifact

B219

17. Woodland Caribou
(Rennifer terandus
caribou)

Long bone shaft portion

Both ends taper to
asymmetrical points
with smooth borders
and some rounded edges;
possible artifact

23.

"

One end reaches an
asymmetrical point,
borders quite smooth,
edges rounded, (may be
from erosion; possible
artifact)

24.

"

One end reaches an
asymmetrical point with
smooth borders and
rounded edges; groove
in surface; artifact

Square 67

6.

"

Tibia shaft portion

One end reaches a long
point with smooth
borders and a rounded
edge; possible
artifact

B485

36. Mammal

Bone portion

One border very smooth
butchering or artifact

FEATURE 15

B334

35. Woodland Caribou Antler portion
(Rangifer tarandus
caribou)

Part of one surface cut away, 4 striae on this surface; possible artifact

B310

58. " Long bone shaft portion

One end reaches an asymmetrical point, borders smooth with edges rounded; possible artifact

FEATURE 16

B452

1. " Right metatarsal 384 distal 1/5

Groove cut across shaft and 2 holes drilled into the anterior surface of shaft to meet the nutrient canal; artifact

B769-W

93. Large mammal Long bone shaft portion

One border smooth with one edge rounded, outer surface smoothed almost to a polish; artifact

B221

30. " "

Parts of both long borders smooth, one end smooth; possible artifact

14. Mammal

One end border very smooth; possible artifact

FEATURE 17

7. Large mammal

All borders smooth, one end flattened with striae noted on this end border; artifact

NO FEATURE

8890

29. Large mammal Long bone shaft portion

Where not eroded borders are smooth, 1 and reaches a flat point with very smooth borders; possible artifact

8875

26. Woodland Caribou
(Rangifer tarandus
caribou) Antler portion

One area cut and smoothed; possible artifact

8580

20. " "

Proximal end has a straight border as if cut, side near this border slightly smooth, 2 cut marks noted; artifact

17. " "

Butchering and possible artifact; see Appendix 11

42. Large mammal Long bone shaft portion

Butchering and artifact; see Appendix 11

8450

7. Woodland Caribou
(Rangifer tarandus
caribou) Metatarsal 3&4 shaft
portion; 2 fitted pieces

Two thin grooves cut along natural depression in shaft; possible artifact

8580

177. " Head of femur

Four notches cut into head, spaced equally, possible artifact

APPENDIX II

Probable Cultural Affiliation of Artifacts
 Illustrated in Plates XV-XXXVII in "The
 Beothucks" by J.P. Howley (1915)

Plate Number	Figure Number	Dorset	Beothuk	Maritime Archaic
XV	1-4 ?			
SVI	1-6			X
	7			X?
	8-12			X
	13-14	X?		
XVII	1-9			X
XVIII	1-7			X
XIX	1-9			X
	10			X?
	12?			
	13-19	X		
	20-23?			
XX	1-20?			
XXI	1-46	X		
	47, 48		X?	
	49?			
	50-52		X?	
	53			X?
	54	X?		
	55, 56?			
	57?			
	58-59	X?		
	60-63	X		
	64-67?			
XXII	1	X?		
	2-7	X		
	8			X?

Appendix II continued

Plate Number	Figure Number	Dorset	Beothuk	Maritime Archaic
	9?			
	10			X?
	11-12?			
	13-15	X		
	16?			
	17	X		
	18	X?		
	19-23	X		
	24-28			
	30?			
	31			X?
	33	X		
	34		X?	
	35 (Europ.)			
	36			X
	37-38?			
XXIII	1-7		X?	
XXIV	I			X?
	1-23	X		
	24?			
	25-31	X		
	32		X?	
	33-50?			
XXV	1-7?			
	8	X?		
	9-54		X	
XXVI	1-45		X	
XXVII	1-39		X	
XXVIII	1-20		X	
XXIX	1-36		X	
XXX	1-8		X	

Appendix II continued

Plate Number	Figure Number	Dorset	Beothuk	Maritime Archaic
XXXI	1-9		X	
XXXI*	1-5 and Pl. of Fleur-de-Lys	X		
XXXIII	1-7		X	
XXXIV	1-3		X	
XXXV	1-10		X	
XXXVI	1-30		X	
XXXVII	1-7			X
	8?			



