A CHIP OFF THE OLD BLOCK: INVESTIGATIONS OF A MARITIME ARCHAIC LITHIC WORKSHOP/QUARRY SITE IN BIG BROOK (EjBa-2), NORTHWESTERN NEWFOUNDLAND

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A Chip Off the Old Block: Investigations of a Maritime Archaic Lithic Workshop/Quarry Site in Big Brook (EjBa-2), Northwestern Newfoundland

By

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ABSTRACT

The following is a discussion of a Maritime Archaic Indian workshop/quarry site in Big Brook, Northwestern Newfoundland. It begins with an overview of the Maritime Archaic focussing on Southern Branch culture in Newfoundland and southern Labrador. The Late Archaic/Intermediate Indian period of the same region is also discussed. This discussion is followed by an overview of the Big Brook 2 site (EjBa-2) including descriptions of the excavation and artifacts. These descriptions illustrate a site characterized by a large lithic scatter and extensive burning. Discussion will then lead to a particular chert found on the site. Mention will be made of source areas in the area adjacent to the site. The distribution of this raw material is demonstrated along the Strait of Belle Isle. Finally, the Late/Archaic Intermediate Indian period in Newfoundland and southern Labrador along the Strait of Belle Isle is discussed.

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CHAPTER 1 - INTRODUCTION

Newfoundland prehistory is represented by two distinct cultural groups: Amerindian and Paleoeskimo. This thesis focuses on the Amerindian component, particularly that of the Maritime Archaic Indians. The Maritime Archaic cultural tradition covers a wide geographical area from Maine to northern Labrador along the North Atlantic. In particular, Newfoundland is associated with a geographical variant known as the southern branch Maritime Archaic. This variant begins in Newfoundland around 5500 BP and shows gradual cultural change extending into the Intermediate Indian period of Newfoundland and Labrador ending approximately 2000 BP.

Recent excavations in the community of Big Brook, on the Northern Peninsula of Newfoundland, uncovered a Maritime Archaic occupation based on quarrying/workshop activities. Furthermore, a Late Archaic/Intermediate Indian component was discovered, the first of its kind in Newfoundland. The excavations highlight two interesting points: 1) Big Brook 2 (EjBa-2) is a quarry/workshop site related to a locally available source of raw material and 2) this material plays an important role in southern branch Maritime Archaic along the Strait of Belle Isle.

This thesis begins with a review of all available literature on Maritime Archaic culture in Newfoundland. An extensive literature review of every published and unpublished reference is compiled with the help of the Maritime Archaic database compiled by the Provincial Archaeology Office of Newfoundland and Labrador. The review divides the Island into regions: northern Newfoundland, southern Newfoundland,

eastern Newfoundland, western Newfoundland and the Northern Peninsula. The information for each region is then generalized to characterize each particular region. Subsequently, a review is made of southern Labrador sites along the Strait of Belle Isle for southern branch Maritime Archaic and later Intermediate cultures.

Big Brook 2 (EjBa-2) is then introduced beginning with a description and analysis of the excavations. This analysis reveals quarrying/workshop activities evident from a large lithic scatter including early tool types and debitage. Additionally, three activity areas are identified. Furthermore, extensive burning is noted with the presence of numerous hearth features and a scatter of fire-cracked rock and charcoal which is nearly ubiquitous on the site.

Tool types found at Big Brook 2 are presented next. A dominance of early stage artifacts such as preforms and cores is revealed likely related to the quarrying/workshop activities noted in previous descriptions. In addition, a linear flake industry is presented along with other tools found on the site. At this point, the particular white/pitted and gray banded chert that characterizes the site is presented. The source of this chert is discussed.

The chert source, tool types and site features are then discussed with reference to site function. Evidence for domestic activities present at Big Brook 2 is also discussed. It becomes evident through an intra-site analysis that Big Brook 2 is a quarry/workshop site. Additionally, evidence is presented to the effect that it is likely part of a larger domestic area of a larger site or a satellite of such a camp. This information is then compared to other Newfoundland sites reviewed in previous sections. This comparison supports arguments that Big Brook 2 is primarily a quarry/workshop site.

Focus then shifts to the particular raw materials found at Big Brook 2. They are collectively identified as Big Brook chert based on the close proximity of two possible sources. The relationship of Big Brook chert to Maritime Archaic groups along the Strait of Belle Isle is then highlighted. It is demonstrated that Big Brook chert usage was relatively extensive throughout the southern branch Maritime Archaic occupation of the area into the Late Archaic/Intermediate Indian period. Furthermore, previous notions of the Intermediate Indian period in Newfoundland are addressed with evidence from Big Brook 2 and chert distribution along the Strait of Belle Isle.

CHAPTER 2 - BACKGROUND

2.1 Introduction

Newfoundland culture history includes two distinct phases of prehistoric Amerindian occupation: Maritime Archaic Indian or Maritime Archaic (5500 to 3200 BP) and Recent Indian (2000 to 450 BP). Recent Indian occupation then led into the historic Beothuk period (Pastore, 1985). There is no evidence for Amerindian occupation on the Island of Newfoundland during the period 3000 to 2000 BP. In adjacent Labrador this period is referred to as Intermediate Indian.

Paleoeskimo cultures are also present, represented by Groswater Paleoeskimo (2800 to 1900 BP) and Dorset Paleoeskimo (2000 to 1200 BP) occupations. The relationship between co-existing prehistoric Palaeoeskimo and Amerindian groups has not yet been determined for the Island of Newfoundland (but see Renouf, Bell and Teal, 2003).

The following will give background information about Big Brook 2 (EjBa-2). Therefore, Maritime Archaic culture is the focus. First, data from Newfoundland are reviewed. There will then be brief mention of Maritime Archaic in southern Labrador along the Strait of Belle Isle. Finally, the Intermediate Indian period of Labrador will be discussed since it is postulated to be represented at Big Brook 2. First, however, a general overview of the Maritime Archaic will be given.

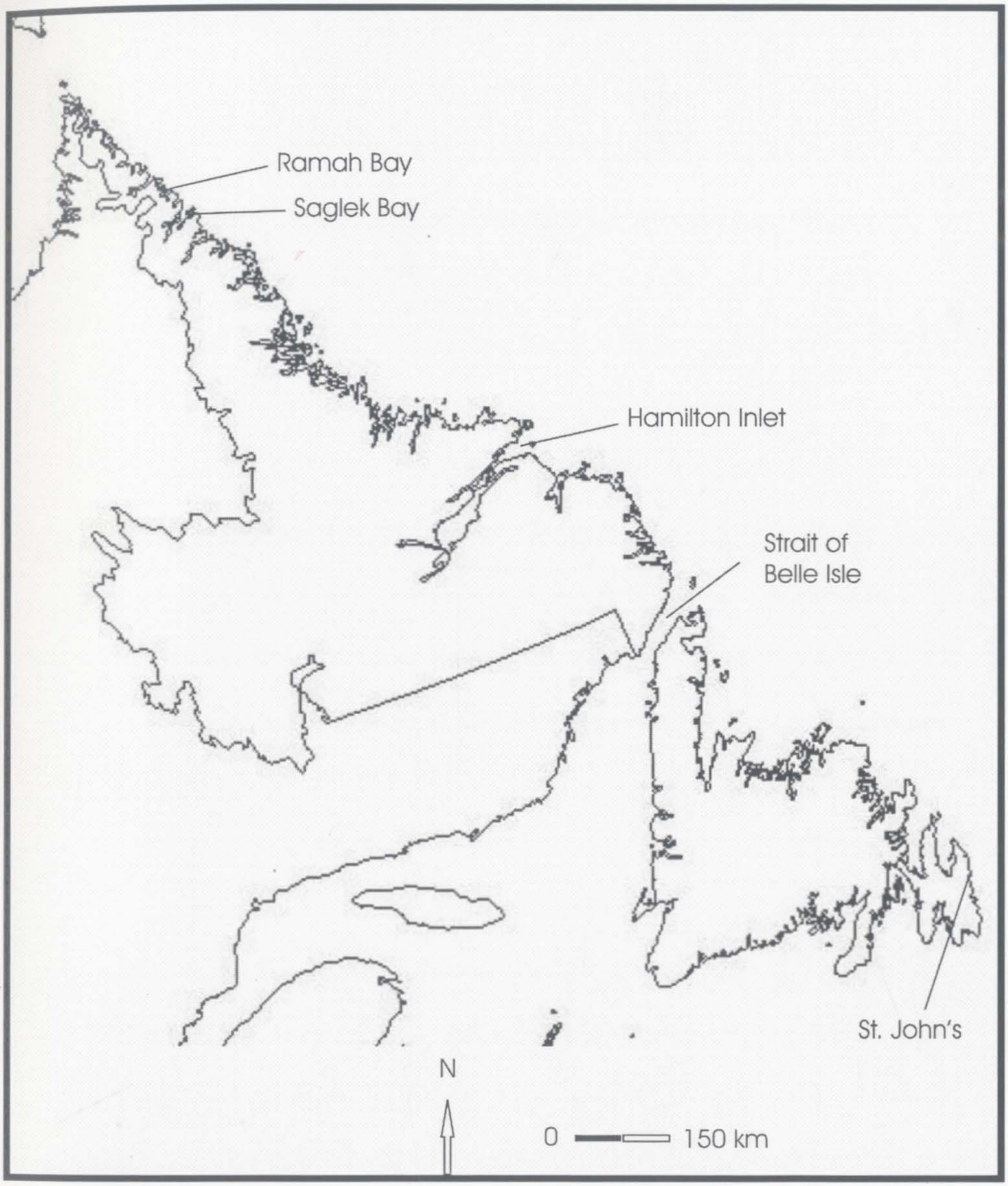
2.2 Maritime Archaic

The idea of a Maritime Archaic tradition was originally postulated by Tuck (1971) based in part on his excavations at Port au Choix 3 (EeBi-2) on the Northern Peninsula of Newfoundland. Tuck noticed similarities in the burial traditions, technology and economic foci amongst Archaic groups in the northeast Atlantic region circa 4000 BP. These regions included northern New England, the Canadian Maritime Provinces and the lower St. Lawrence. Burial practices in the region at this time were associated with the use of red ochre and the inclusion of elaborate grave goods. Technology included a variety of ground slate and bone implements with a strong maritime focus. Finally, economic resources in the region were similar with a likely focus towards sea mammals, fish, sea birds and caribou.

Later research extended both the chronology and the geographic distribution of the Maritime Archaic. Southern Labrador Archaic groups demonstrated strong maritime adaptations in the region around 7500 BP although they were likely in place to as early as 9000 BP (McGhee and Tuck, 1975; Tuck and McGhee, 1976). Additionally, Maritime Archaic groups likely reached northern Labrador in the vicinity of Ramah Bay by approximately 6500 BP (Figure 2.1) (Fitzhugh, 1978; McGhee and Tuck, 1975).

With such a vast area inhabited by Maritime Archaic groups, differences between groups in northern and southern areas arose. Additionally, Canadian Maritime and New England groups are often treated differently from Newfoundland, Labrador and Quebec by researchers from the different regions. Furthermore, it has been postulated that these groups were adapted to different economies involving deer hunting and swordfish and

Figure 2.1 – Newfoundland and northern Labrador



cod fishing (Bourque 1975, 1976; Sanger, 1975; Speiss, 1993; Speiss, Bourque and Cox, 1981). Therefore, the following will review data relevant to Newfoundland and Labrador.

As mentioned above, differences occurred in northern and southern areas from the Strait of Belle Isle and Newfoundland to Ramah Bay. Differences in artifact types and evidence of dwelling structures occurred. This led to the development of the categorization of northern and southern branch Maritime Archaic (Fitzhugh, 1978; Tuck, 1982).

The northern branch Maritime Archaic occupied the area north of Hamilton Inlet as far as Ramah Bay in Labrador between approximately 7000 to 3500 BP (Fitzhugh, 1978). However, it originated in the Strait of Belle Isle circa 7500 BP and lasts until approximately 6000 BP in this area (Tuck, 1988). Northern branch Maritime Archaic in this region is often characterized by the use of locally available quartz and quartzites while sharing characteristics with other groups of central and northern Labrador.

Sites from approximately 6000-4500 BP in and near Hamilton Inlet, Labrador are characterized by tapering stemmed points in the southern variant of the early northern branch, known as the Sandy Cove Complex (Fitzhugh, 1978). The tool kit of this complex also includes a chipped stone industry of leaf-shaped knives, unifacial flake knives and pièces esquillées while the ground stone tools include small stemmed points and bipoints and single edge asymmetric knives and ulus (Fitzhugh, 1978).

The northern variant believed to be contemporaneous to the Sandy Cove Complex is known as the Naksak complex is characterized by "nipple" based points (Fitzhugh,

1978). This complex is found in the Nain-Okak region and further north (Fitzhugh, 1978). Other tools from this complex include pièces esquillées, triangular points, points with broad-notched stems, bi-points and round based bifaces, gouges, celts, chisel planes and ulus.

The Rattlers Bight Complex comes after the Sandy Cove and Naksak complexes and extends from Hamilton Inlet to as far north as Saglek Bay from approximately 4500 to 3500 BP (Fitzhugh, 1978; Tuck, 1975). The characteristic tapered stem biface and uniface points and micropoints are combined with asymmetric biface knives, leaf shaped bifaces, wide stemmed knives, chipped adzes, celts gouges and small slate points (Fitzhugh, 1978). Chipped stone tools are made exclusively from Ramah chert (Fitzhugh, 1978).

Dwelling features of the northern branch Maritime Archaic have been noted in conjunction with the tool kit. This branch is characterized by dwellings beginning with single family pit houses circa 6000 BP and ending with longhouse structures up to 100 m in length circa 3500 BP (Fitzhugh 1980, 1981, 1985). Curiously enough, northern branch Maritime Archaic disappears from the archaeological record around 3500 BP, coinciding with the large longhouse structures, however, also with the Palaeoeskimo colonization of Labrador (Fitzhugh 1978, 1980, 1981, 1985).

Meanwhile, southern branch Maritime Archaic begins before 5000 BP along the Strait of Belle Isle in Labrador and its range extends across the island of Newfoundland northward to Black Island near Hamilton Inlet (Fitzhugh, 1978). It is characterized by expanding stemmed and side notched projectile points, leaf shaped bifaces, ground slate

woodworking tools and hunting tools, linear flakes and a distinctive weathered white chert (Tuck 1982, 1988).

This complex lacks any type of structural remains thus far and habitation sites are often interpreted based on the appearance of hearths. It extends as far north as Hamilton Inlet and likely had its origins on the north shore of the St. Lawrence (Tuck, 1982). This period is believed to continue into a Late Archaic/ Intermediate Indian phase, to be discussed later (Madden, 1976; Tuck, 1982).

Southern branch Maritime Archaic presently is best represented in Newfoundland. This does not rule out a possible northern branch influence on the island. Contracting stemmed points are present in many southern branch collections. However, the dynamic between the groups remains unclear at present. Thus the remainder of this thesis will focus on the southern branch whose influence is greater in Newfoundland, with brief mention of northern branch.

Data about the Maritime Archaic in Newfoundland are surpassingly sparse. Much of what is known comes from the Curtis Site (DjAq-1) on Twillingate Island, the Beaches site (DeAk-1) in Bonavista Bay and Port au Choix 3 (EeBi-2), a large Maritime Archaic cemetery, on the Northern Peninsula. The later two sites are well published, however much of what is available on other sites remains unpublished. In addition, there are few data on settlement and subsistence because of a lack of faunal preservation. Furthermore, there are no data on structural remains. This literature review covers every possible Maritime Archaic Indian report available for the Island of Newfoundland while also

covering southern branch Maritime Archaic sites in southern Labrador. This allows a synthesis of information and a useful reference point for future research.

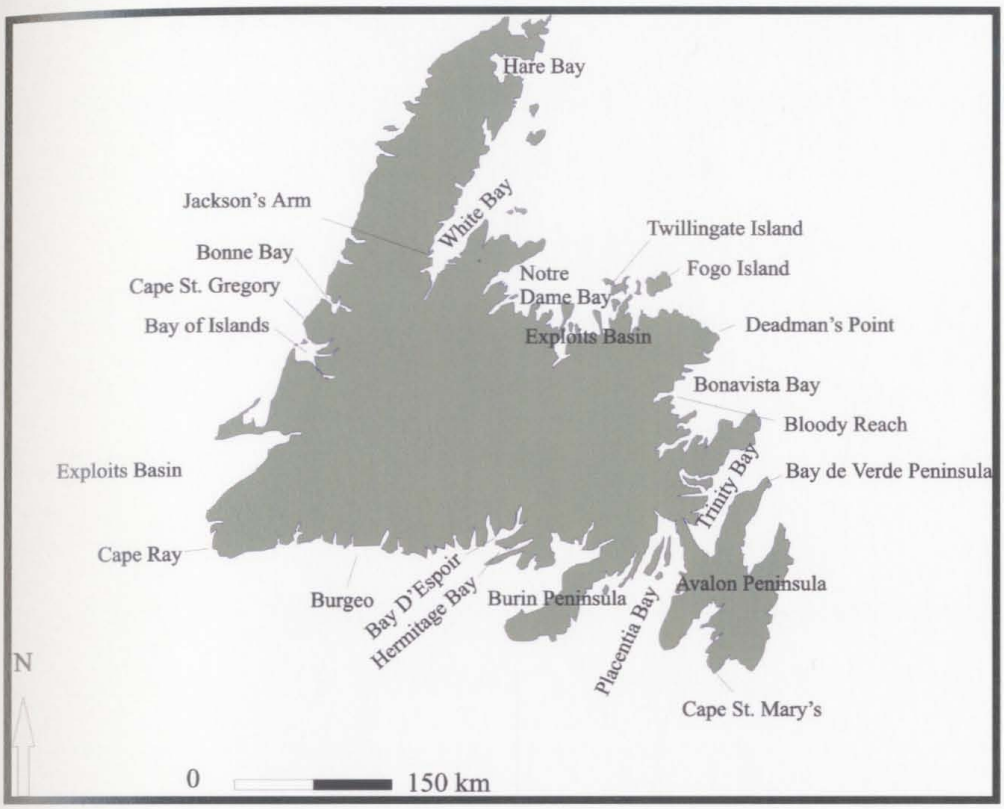
The review is divided into five regions: northern Newfoundland, southern Newfoundland, eastern Newfoundland, western Newfoundland and the Northern Peninsula. Each reviews all Maritime Archaic Indian sites in that particular region that have been published or written up in an unpublished site report. The review includes tool types, site features and dates. The information is then summarized to create a generalized picture of Maritime Archaic Indian characteristics for each region. All this information is then synthesized to be applied to the Island as a whole.

2.3 Northern Newfoundland

The boundaries of northern Newfoundland extend from the west coast of White Bay as far north as Jackson's Arm to Deadman's Point to the east of Notre Dame Bay (Figure 2.2).

Maritime Archaic Indian prehistory in the region has been primarily reported by Harp (1963), Devereaux (1965), McLeod (1966, 1967), Linnamae (1967), LeBlanc (1972), Thompson (1986), Schwarz (1987), Penney (1988), Thibaudeau (1993) and Holly (1997). Devereaux (1965), Linnamae (1967), LeBlanc (1972), Pastore (1981), Marshall (1982), Thompson (1986) and Schwarz (1987) will be briefly mentioned followed by a

Figure 2.2 – Place names mentioned in the text



more detailed account of Harp (1963), McLeod (1966, 1967) and Thibaudeau (1993), Penney (1988) and Holly (1997).

2.3.1 Devereaux (1965), Linnamae (1967), LeBlanc (1972), Pastore (1981), Marshall (1982), Thompson (1986), Schwarz (1987)

There is a variety of small reported Maritime Archaic finds. Firstly in Notre Dame Bay, Devereaux (1965) mentioned a gouge from Jackson's Cove (DkAx-1) and a gouge and biface from a local collector at Alf's Cove (DhAs-2). Pastore (1981) reported an ovate biface of possible Maritime Archaic origin from Roberts Arm 4 (DiAw-4).

Marshall (1982) reported numerous artifacts from Miles Cove 1 (DjAw-6) including an adze, an axe-shaped tool, chisels, a gouge, a double ended gouge and a stemmed projectile point which were found by a local resident. Additionally, testing yielded a hafted slate tool, a projectile point, two blades, a blade-like flake and a retouched flake.

In White Bay, Linnamae (1967) briefly mentioned a cache of bifacial blades possibly related to Maritime Archaic at the Pittman Site (DkBe-1) (Linnamae, 1967). Thompson (1986) briefly mentioned Shelly Garden (EaBa-10) and its Maritime Archaic artifacts including small ground slate gouges, adzes and celts, and a stemmed biface made of Ramah chert (Thompson, 1986).

In the interior, Schwarz (1987) reported an ovate biface, at Parson's Brook (DdAo-2). In addition, LeBlanc (1972) reported on Wigwam Brook (DfAw-1) with the discovery of an adze fragment and Maritime Archaic bifaces.

2.3.2 Harp (1963)

Harp briefly surveyed the west coast of White Bay where he reported three sites. Gold Cove 1 (DjBf-1) yielded a stemmed lanceolate biface, a blade, a retouched flake and a flake scraper while an adze was found at Gold Cove 2 (DjBf-2). Brown's Cove (DjBe-1) was the other site visited by Harp, where he found leaf shaped bifaces, an ovoid biface and a gouge.

2.3.3 McLeod (1966, 1967), Thibaudeau (1993)

McLeod excavated the Curtis Site (DjAq-1) on Twillingate Island, Notre Dame Bay, but only briefly reported his activities (McLeod (1966, 1967). Thibaudeau (1993) summarized the excavations based on McLeod's original field notes and examined the collections at the National Museum of Civilization in Hull, Quebec. The following information is from Thibaudeau (1993). The Curtis Site (DjAq-1) was a Maritime Archaic cemetery. Although no human remains were found, analysis of soil and ochre beds revealed concentrations of phosphorous and calcium. The graves were described as oval depressions where tools were laid in beds of ochre mixed with bits of charcoal all of which were covered by angular rocks. Charcoal from these beds was dated to 3200 +/- 90 BP (Gak-1254), 3560 +/- 140 BP (Gak-758) and 3720 +/- 130 BP (Gak-834).

Tools from the site included gouges, adzes, axes, picks and ground stemmed projectile points. Chipped stone tools included straight stemmed, contracting stemmed and expanding stemmed points. Stone plummets were also found along with a netting needle made of argillite. Artifacts made of Ramah chert as well as a piece of copper were also found.

2.3.4. Penney (1988)

Penney surveyed an area of the west coast of Notre Dame Bay. During this survey eight sites with Maritime Archaic components were recorded. Badger Bay 6 (DiAv-7) was a dual component site with an apparent Maritime Archaic component likely based on unnamed low grade chert and rhyolite artifacts. Badger Bay 2 (DiAw-6)

produced a ground slate fragment, a utilized flake and Ramah chert flakes. Brighton Tickle Island 1 (DjAv-4) yielded ground slate celts, a stemmed point, a soapstone plummet, and stone axes. This site was disturbed. Paddock's Cove 1 (DjAw-10) contained only a single gouge. Crescent Lake 1 (DjAx-1) contained an unnamed Maritime Archaic artifact originally reported by a local resident in 1965. Port Anson 2 (DjAx-2) was the site of an isolated Maritime Archaic celt. Finally, three adzes and an axe were collected from a garden at King's Point 1 (DjBa-1) while a gouge was collected from a potato field at King's Point 2 (DjBb-1).

2.3.5 Schwarz (1992)

Schwarz identified four Maritime Archaic sites during his 1992 survey of the Exploits Basin inland of Notre Dame Bay. Winterhouse Cove 1 (DhAt-3) was disturbed during a construction project and yielded a cache of eight artifacts including gouges and celts. Gillis Point (DgAt-2) contained a small number of slate fragments with no finished tools. Peterview 2 (DgAt-8) yielded a ground slate celt and Pope's Point (DfBa-1) yielded a single ground slate axe.

2.3.6 Holly (1997)

Holly investigated Fogo Island, Notre Dame Bay, in 1997 and found several artifacts from local gardens (Holly, 1997). A gouge was found at Baxter Newman's Garden (DkAm-1), a gouge/adze was found at the Esso site (DkAn-2) and a biface was

found at the Dump site (DkAn-3). Thus far in this area, only spot finds have been made by local collectors.

2.3.7 Summary

In summary, Maritime Archaic tool assemblages from northern Newfoundland are characterized by a chipped stone tool kit including straight stemmed, contracting stemmed and expanding stemmed points. In addition, leaf shaped and ovate bifaces occur along with a notched lanceolate biface. The ground stone kit includes a variety of woodworking tools including adzes, axes, celts and gouges. In addition to this, digging tools are present in the form of ground stone picks. Fishing implements include plummets and a netting needle. Items made from foreign materials such as Ramah chert and copper were found. An artifact cache was also found. Finally, a single site provided a date range of approximately 3720 +/- 130 BP (Gak-834) to 3200 +/- 90 BP (Gak-1254).

With the exception of the Curtis Site (DjAq-1), the Maritime Archaic sites in northern Newfoundland consist primarily of artifact spot finds or local residents' collections. The Curtis Site is one of two Maritime Archaic burial sites on the Island. Bone preservation did not occur at this site but grave goods were evident. In addition, the graves were covered with red ochre. Other than these burial features, the artifact cache is the only other indication of a Maritime Archaic feature.

2.4 Southern Newfoundland

The southern coast of Newfoundland is defined as bound by Cape Ray in the west to Cape St. Mary's in the east (Figure 2.2). This area was principally investigated and reported by Penney (1984) and Rast (1999), but was also studied by Linnamae (1971) and McAleese (1993).

2.4.1 Linnamae (1971), McAleese (1993)

Linnamae (1971) reported a side notched endblade, a large stemmed point, a leaf shaped biface, an endscraper and a discoidal scraper/chopper at Great Brule (CjAm-1), Placentia Bay. In addition, McAleese (1993) investigated Parson's Cabin (CkBl-1) near Burgeo, where an adze/wedge was found.

2.4.2 Penney (1984)

Penney investigated Hermitage Bay, Bay d'Espoir and the Burgeo area, visiting a total of 18 sites. Of these sites three yielded evidence of Maritime Archaic occupation. L'Anse a Flamme (CjAx-1) was dated to 3590 +/- 110 BP (S-1976) and produced a celt fragment, a projectile point and a uniface. Two celts were found at Eagle Head (CjAx-2) while one was found at Bay de Vieux (CjBg-1). Neither Eagle Head (CjAx-2) nor Bay de Vieux (CjBg-1) were dated.

The date at L'Anse a Flamme (CjAx-1) is associated with a possibly disturbed hearth. The two celts found at Eagle Head (CjAx-2) appeared to be out of context and

the celt from Bay de Vieux appeared at a site apparently destroyed by European occupation.

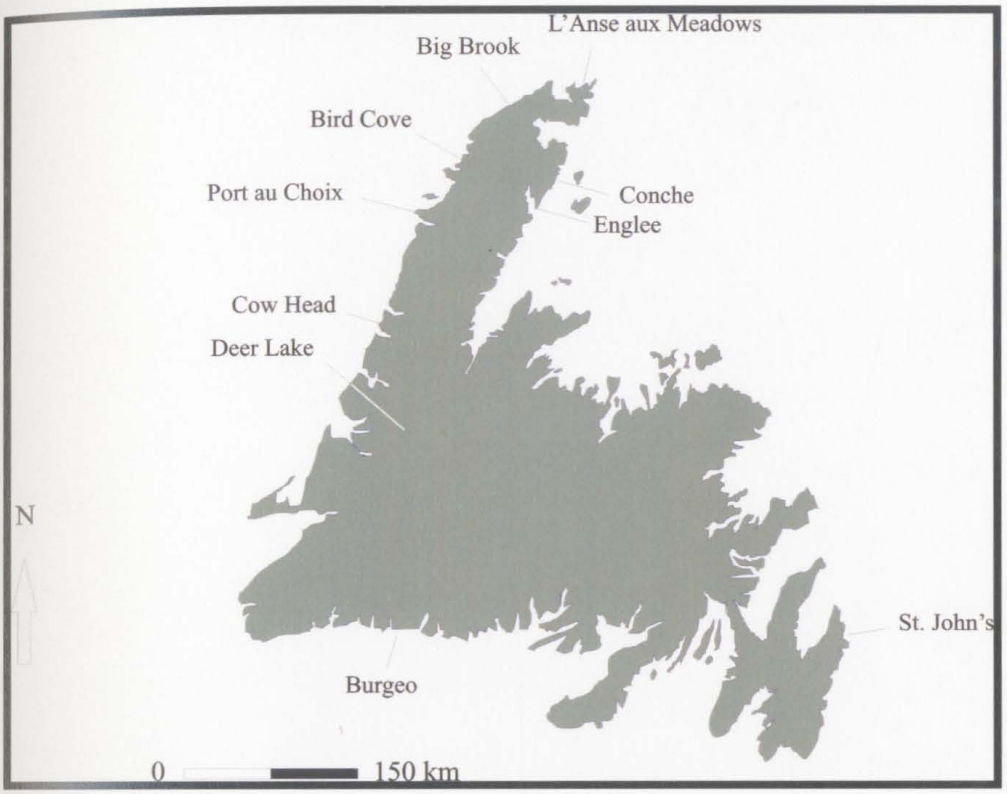
2.4.3 Rast (1999)

Rast investigated the Burgeo area (Figure 2.3). A total of 41 sites were investigated, four of which indicated a Maritime Archaic presence. Slate fragments, fire-cracked rock and flakes were found at Fox Point (Little Barasway 1) (CjBj-3). In addition, Rast interprets a large plano-convex biface fragment found by Penney as similar to Maritime Archaic bayonets from the cemetery at Port au Choix. Morgan Island 3 (CjBj-13) was interpreted as a Maritime Archaic site based on local collections and three Maritime Archaic artifacts found in the 19th century. The local collection included stemmed bifaces, linear flakes, side scrapers, large bifaces and large utilized flakes, while the museum artifacts included two chipped and ground stone adzes and a large biface. Big Barasway 3 (CjBk-3) has a Maritime Archaic component based on local collections that included bayonet fragment and a lanceolate biface. Finally, as mentioned above, Parson's Cabin (CkBl-1) was interpreted as a Maritime Archaic site based on a ground basalt adze found by McAleese (1993).

2.4.4 Summary

In conclusion, only nine sites were reported in southern Newfoundland. The toolkit from these sites include side notched points, stemmed points, linear flakes, lanceolate bifaces, ground stone woodworking tools and a variety of scrapers. One date

Figure 2.3 – Town locations



from L'Anse a Flamme at 3590 +/- 110 BP (S-1976) indicated a Maritime Archaic presence. It was associated with a hearth feature.

2.5 Eastern Newfoundland

The boundaries of eastern Newfoundland include Deadman's Point in the North to Cape St. Mary's in the south (Figure 2.2). Eastern Newfoundland has a relatively large number of well-researched Maritime Archaic sites. There is a small number reported in Trinity Bay by Marshall (1990), Rutherford and Gilbert (1992) and Gilbert (1996). However, Maritime Archaic research in eastern Newfoundland has largely been confined

to Bonavista Bay. Maritime Archaic sites in Bonavista Bay are reported by Carignan (1974, 1975, 1977), Tuck (1979), Austin (1980, 1980a, 1984) and McLean (1997, 2000).

2.5.1 Marshall (1990), Rutherford and Gilbert (1992), Gilbert (1996)

Marshall (1990) briefly mentioned an adze fragment found at Bull Island (CkAk-1), Trinity Bay. Meanwhile, Rutherford and Gilbert discussed a contracting stemmed biface and a biface preform from Collier Bay 1 (CjAk-1) also in Trinity Bay. In addition, Gilbert (1996) mentions extensive testing of a relatively large lithic scatter, originally identified on the basis of an unusual chipped stone axe and the tip of a ground slate projectile point at Anderson's Cove (CjAj-3), Trinity Bay. The only other artifact uncovered from the testing was a biface fragment.

2.5.2 Carignan (1974, 1975b, 1977)

Carignan found evidence of Maritime Archaic occupation in northwestern and central Bonavista Bay. Cape Freels 1 (DhAi-1) and Cape Freels 3 (DhAi-3) are located in northwestern Bonavista Bay. A single celt and a lanceolate biface were found at Cape Freels 1 (DhAi-1) (Carignan, 1977) while only one lanceolate biface was found at Cape Freels 3 (DhAi-3) (Carignan, 1977). Both sites were assigned a Maritime Archaic component based on these diagnostic tools.

Bloody Bay Cove (DeAl-1), Brown's Beach (DeAl-2), the Sailor Site (DeAj-1) and Fox Bar (DeAk-3) are located in south-central Bonavista Bay. Three of these sites have a large workshop component.

Lanceolate bifaces, triangular bifaces, stemmed preforms, blades, blade-like flakes, retouched flakes, and a celt preform were found at Bloody Bay Cove (DeAl-2) (Carignan, 1974). A number of preforms indicate this may have been a workshop site although Carignan does not state this.

Lanceolate bifaces, a lanceolate uniface, blades, blade-like flakes, linear flakes and a celt or gouge preform were found at Brown's Beach (Carignan, 1974). The site appears to be primarily a workshop site according to Carignan based on flake concentrations associated with the Maritime Archaic component. Raw materials are dominated by a local gray rhyolite (Carignan, 1975b).

The Sailor Site (DeAj-1) had only a small number of Maritime Archaic artifacts. A celt, a celt preform and a large retouched flake were found within a hearth (Carignan, 1974). Meanwhile, Fox Bar (DeAk-3) contained one complete lanceolate biface, several preforms, celts, a plummet, blades, a blade-like flake and retouched flakes (Carignan, 1974). This site was interpreted as a habitation site although without explicit reasoning. Raw materials at the site were dominated by a local gray rhyolite (Carignan, 1975b).

Knowledge of Newfoundland Maritime Archaic chipped stone industries has largely been influenced by the Beaches (DeAk-1) excavations. This is because of the relatively large area excavated and the large size of the artifact assemblage. See Figure 2.4 for examples of Maritime Archaic artifacts from the Beaches site. Furthermore it is relatively well published. The Beaches (DeAk-1) is a multicomponent site in south-central Bonavista Bay located along the Bloody Reach, approximately ten miles from the mouth of the Terra Nova River. Components found at the site include Beothuk, Recent

Figure 2.4 – Examples of Beaches Maritime Archaic artifacts

(Carignan, 1975b)

Indian, Dorset Palaeoeskimo and Maritime Archaic. Maritime Archaic artifacts from the Beaches site are mostly made from locally available gray rhyolites.

The Maritime Archaic component was largely composed of chipped stone industry with some additional ground stone. It was recovered from two distinct cultural layers. Cultural layer 1 had a high proportion of preforms and retouched flakes with an undetermined number of flakes. Other artifacts included lanceolate and stemmed bifaces and ground stone tools such as celts and gouges. Cultural layer 1 was unstratified and also included Beothuk, Recent Indian and Dorset Palaeoeskimo material. This layer was not dated. In addition, no features were directly related to the Maritime Archaic component.

Cultural layer 2 was composed entirely of Maritime Archaic material. This layer was dominated by preforms, retouched flakes and a blade industry. Also included were bipointed, stemmed and lanceolate bifaces. Bipointed bifaces did not appear in layer 1. In addition, several ground stone stemmed point fragments and an abrader were also recovered. Similar to layer 1, a gouge and a celt were also found. In addition, three separate pockets of charcoal were present. These were not identified as separate hearth features but rather as singular pockets of charcoal, each pocket given a feature number. Feature 1 was dated to 4950 +/- 230 BP (SI-1384), feature 2 was dated to 3740 +/- 100 BP (I-6761) and feature 3 was dated to 3890 +/- 100 BP (I-7509). Thus, the Maritime Archaic presence at the Beaches (DeAk-1) spanned at least 1210 years according to the dates from layer 2. Structural remains and hearths were absent from the Maritime Archaic component.

Although the site has often been referred to as a habitation site, there is little evidence to support this. Based on Carignan's descriptions it appears as though there is a large workshop component to the site, much like other sites such as Bloody Bay Cove (DeAl-1), Brown's Beach (DeAl-2) and Fox Bar (DeAk-3) found in the area.

2.5.3 Tuck (1979)

Tuck investigated areas within Terra Nova National Park. During this survey he identified five Maritime Archaic sites. The Unnamed Site (DdAj-4) yielded a slate knife, a side notched point or knife, a celt and incomplete bifaces. Sandy Cove 1 (DdAk-2 contained two celts and also some faunal material. The faunal material in the form of

calcined bone was briefly inspected and attributed to bird species, fish otoliths and sea mammal species. Charcoal samples were collected. Clode Sound 1 (DdAk-3) was adjacent to Sandy Cove 1 (DdAk-2) and yielded a preform, a lanceolate biface, two celts and two slate scraper/knives. Swale Island (DdAk-8) yielded a lanceolate biface while Chandler Beach 1 (DdAk-10) provided a biface preform.

2.5.4 Austin (1980, 1980a, 1984)

Austin found evidence of Maritime Archaic occupation at Cape Cove 1 (DhAi-5) and Cape Cove 3 (DhAi-7) in northwestern Bonavista Bay. Cape Cove 1 (DhAi-5) was identified as Maritime Archaic based on dates of 4540 +/- 135 BP (S-1859) and 3615 +/- 120 BP (S-1860) (Austin, 1980a). A contracting stemmed point and chipped stone lance were also found (Austin 1980, 1980a, 1984). Cape Cove 3 (DhAi-7) was identified as having a Maritime Archaic component based on small triangular bifaces, scrapers, notched points and large and roughly flaked bifaces (Austin 1980, 1980a, 1984). A hearth feature was uncovered at Cape Cove 1 and fire cracked rock and charcoal formed other features associated with burning.

2.5.5 McLean (1997; 2000)

Since Carignan's investigations of the Sailor Site (DeAj-1) in 1974, a number of ground slate bayonet points were shown by residents of the area to McLean, of the Burnside Heritage Foundation Inc. These were part of local collections from the site (McLean, 2000). In addition, McLean found another new site in the Burnside area in

1994 with the help of a property owner. Little Sandy Cove 1 (DdAk-14) yielded large ground stone tools including two adzes and a plummet (McLean, 1997).

2.5.6 Summary

Reported Maritime Archaic sites in eastern Newfoundland are largely limited to the Bonavista Bay region, in particular, northwestern and south-central areas. According to radiometric dates, the area of Bonavista Bay itself has had a Maritime Archaic presence from 4950 +/- 230 BP (SI-1384) at the Beaches (DeAk-1) to 3615 +/- 120 (S-1860) at Cape Cove 1 (DhAi-5).

The Maritime Archaic tool kit from this area includes chipped and ground stone tools. The chipped stone industry contains contracting stemmed, lanceolate, stemmed and bipointed bifaces. In addition, retouched flakes, blades and blade-like flakes are also common. Ground stone tools include stemmed points, knives, adzes, celts, gouges and plummets. A single abrading tool was found which was likely used to produce some of the ground stone tools. Many of these sites have workshop components. Particularly at the Beaches (DeAk-1), this seems to be a prominent theme in eastern Newfoundland. Finally, there was a small amount of faunal evidence from Sandy Cove 1 (DdAk-2) suggesting a maritime oriented diet including fish, sea mammals and birds.

2.6 Western Newfoundland

For the purposes of this study, western Newfoundland includes areas as far south as Cape Ray and as far north as Cape St. Gregory (Figure 2.2). Maritime Archaic sites

in this area are reported at the Bay of Islands and Deer Lake. Harp (1963) visited Deer Lake while Schwarz (1994) worked in the Bay of Islands. Reader (1993, 1994, 1996, 1999) later revisited the Deer Lake area to work at the South Brook Park Site.

2.6.1 Harp (1963), Schwarz (1994a)

Harp (1963) found a side notched or expanding stemmed lanceolate point during a brief stop in Deer Lake while Schwarz (1994a) briefly mentioned a Ramah chert biface fragment from the Bay of Islands at Tiheay Cove 2 (DgBn-4). This was given a Maritime Archaic cultural affiliation.

2.6.2 Reader (1993, 1994, 1996, 1999)

The South Brook Park site (DgBj-3) is located near Deer Lake. This would be considered an inland site by today's standards, however, because of changing sea levels the area close to the site was possibly inundated by seawater during its time of occupation (Reader, 1996). It was initially identified as a Maritime Archaic site because of the presence of a full channeled gouge (Reader, 1993). Later this identification was confirmed with a date of 5140 +/- 50 BP (Beta-122766) from a possible hearth (Reader, 1999). Also found were two triangular shaped quartz projectile points, a retouched blade-like flake, retouched flakes, a quartzite biface, a quartz scraper, quartz and quartzite core fragments and debitage dominated by quartz and quartzite (Reader 1994, 1999). Reader believes that the date indicates a younger component at the site. He based this on the presence of a full channeled gouge and the two triangular projectile points that are

similar to older Archaic sites in Labrador and elsewhere. If this is correct, South Brook Park (DgBj-3) would be the oldest Maritime Archaic site known on the Island. The use of quartz and quartzite would certainly have connections with older sites in Southern Labrador. Older components of the northern branch Maritime Archaic predominately used such materials in their chipped stone industries (McGhee and Tuck, 1975; Tuck and McGhee; 1976).

The gouge had apparent heavy usewear suggesting a high degree of woodworking (Reader, 1993). In addition, debitage was mainly comprised of locally available raw materials showing preference for quartzite and quartz found near the site. Therefore, the people from South Brook Park may have utilized a variety of locally available inland materials for everyday activities.

2.7 Northern Peninsula

The boundaries used for the Northern Peninsula include Cape St. Gregory in the south west to Jackson's Arm in northern White Bay (Figure 2.2). Maritime Archaic sites on the Northern Peninsula are primarily reported by Wintemberg (1939), Harp (1951, 1963, 1968), Tuck (1971, 1976), Wallace (1983, 1989), Reader (1997, 1998, 1999) and Renouf (1998, 1999, 2000, 2000a, 2001). Tuck (1972), Bishop (1973) and Beaton (2003) will be discussed first, since these reports are of a briefer nature.

2.7.1 Tuck (1972), Bishop (1973), Beaton (2003)

Tuck reported Maritime Archaic artifacts from Norris Point (DjBl-2) in 1972. These included an adze and quartzite bifaces. The site was later revisited and excavated by Bishop yielding biface and biface preforms made of pink quartzite of similar form to rhyolite bifaces found by Carignan at the Beaches Site (DeAk-1).

Brief mention should also be made of Noah's Garden (EjBa-5) in the community of Big Brook. Two stemmed biface preforms and one teardrop shaped preform were surface collected from the garden of a local resident (Beaton, 2003).

2.7.2 Wintemberg (1939)

Wintemberg (1939) described material collected by himself and Jenness in 1927 and 1929 before the identification of a Maritime Archaic culture in the Northeast. He described the presence of an Indian component based on a picture someone showed him of a stemmed ground slate lanceolate point from the Englee area along with a stemmed lanceolate biface.

2.7.3 Harp (1951, 1963, 1968)

Harp was the first on the Northern Peninsula to describe the culture that would later become known as Maritime Archaic. He referred to them as Beothuk in his first writings and later called them Boreal Archaic (Harp 1951, 1963). Harp surveyed from Deer Lake to Ireland Bight.

This survey located several sites along the Northern Peninsula. Ireland Bight was the most northerly stop (EiAw-1) where two asymmetrically shaped knives were found, one of white pitted chert. Harp visited Port au Choix 3 (EeBi-2) where he found a bayonet point and a gouge. An adze and a bifacial knife were found at Port au Choix 9 (EeBi-3). In addition, two leaf shaped bifaces were found at Portland Creek (EbBj-1). Harp visited Woody Point (DjBl-7) where he found an elongated contracting stemmed point.

Harp later described a burial with grave goods similar to those of the Moorehead complex (Harp and Hughes, 1968). These grave goods included a variety of ground and polished slate tools and came from Port au Choix 3 (EeBi-2).

2.7.4 Tuck (1971)

Tuck first investigated Port au Choix 3 (EeBi-2) in 1967 and returned in 1968 to excavate the site fully. There were three Maritime Archaic loci, Locus I, Locus II and Locus IV. Locus II of the site was the most productive and yielded 53 burials. The burials ranged from infants in extended positions to adults in loosely flexed positions, and rarely, bundle burials. Most were buried individually in a pit, covered with limestone rocks and they ranged in depth from approximately 10 centimeters to approximately 1 meter. Red ochre was present at all of the burials as were grave goods. Graves of children and infants were most productive.

Grave goods included hunting gear such as ground slate stemmed points, ground bone stemmed points, slate bayonets, large whalebone lances, toggling and barbed

harpoon heads of bone and antler, forshaft pieces and bone daggers. Woodworking tools such as axes, adzes, gouges and beaver incisors were also found. Other items included combs, hair pins, bone tubes, whistles, water-worn pebbles, and pendants. For a full description of artifacts see Tuck (1976).

Dates from Locus II ranged from 4290 +/- 110 BP (I-3788) to 3690 +/- 90 BP (I-4682). Locus I also provided a date at 3410 +/- 100 (I-4677) while Locus IV provided a date of 3230 +/- 220 (I-4380) (Tuck, 1976). Therefore, the site was used for approximately 1000 years.

Based on the evidence provided from the cemetery, Tuck described and defined a new cultural tradition that he called Maritime Archaic. The current refinement of this tradition into northern and southern variants was presented at the beginning of the chapter.

2.7.5 Carignan (1975a)

Carignan located two Maritime Archaic sites on the Northern Peninsula during his 1975 survey. The Conche Site (EfAx-1) in Hare Bay was investigated after a gouge-celt and a soapstone plummet was found by a resident of the community. A stemmed slate point base, slate point tip, celt preform and several ground slate fragments were found. The site appears to be old based on a gouge-celt with a channel running over half its length. In Labrador, this type of gouge is related to earlier Maritime Archaic sites.

Main Brook (EgBa-1) was located based on a large bipointed biface found by a local resident. A ground slate point and two retouched flakes were also found. The site was located approximately 11 km inland.

2.7.6 Wallace (1983, 1989)

Wallace (1989) reported the finding of a Maritime Archaic adze at L'Anse au Meadows (EjAv-1). She also reports a date of 5880 +/- 120 BP (Qu-365), from a disturbed context. In addition, the terrace where the date was taken contained a series of eleventh century AD Norse hearths (Wallace, 1989). Likely because of this mixture of cultures, most recent researchers have chosen to ignore this as the earliest Maritime Archaic date on the Island of Newfoundland (Reader, 1999; Renouf and Bell, 1999).

2.7.7 Reader (1998, 1998a, 1999)

Reader excavated two Maritime Archaic sites in the Bird Cove Area: Big Droke 1 (EgBf-11) and Caines (EgBf-15). Big Droke 1 (EgBf-11) was located on a terrace approximately 9.24 m asl, similar to where Renouf and Bell (2000) found a Maritime Archaic site in Port au Choix (Reader, 1997). Big Droke 1 (EgBf-11) turned out to be an extensive site with 12 hearth features and a lens of calcined bone. The hearths left a pink staining baked into the subsoil (Reader, 1999a). In addition, a possible single post mold was identified. Lithics from the site included an expanding stemmed point, leaf shaped bifaces, macroblades, a gouge blank, a slate knife, a possible pendent, scrapers, a pièce esquillée and several modified flakes (Reader 1998, 1999, 1999a). Particularly

noticeable at Big Droke 1 (EgBf-11) was a high degree of expedient tools such as retouched flakes (Reader, 1999). Raw material on the site was dominated by a white pitted chert as well as gray and dark banded gray varieties (Reader, 1998). Dates from the site ranged from 4530 +/- 60 BP (Beta-108559) to 3470 +/-50 BP (Beta-129398) (Reader 1998, 1999). The site was interpreted as a repeatedly and briefly occupied living site.

Caines (EgBf-15) was located on a ridge at 8.32 m asl (Reader, 1998). Six hearth features were identified, two of which were described as used in heat treatment of chert (Reader 1998, 1999, 1999a). Heath features left distinct red discolorations in the underlying soil. In addition, one biface cache and another biface/artifact cache were noted. Lithics from the site included ovate and lanceolate shaped bifaces, a ground slate axe, a celt fragment, an unfinished gouge, blades, and scrapers (Reader 1998, 1999, 1999a). In addition, a side notched projectile point was found. Lithics were mostly composed of a mottled brown/white chert followed by white pitted chert and gray banded chert. Calcined bone was also recovered indicating the presence of avian species. This likely points to a late spring/late autumn occupation since these would be optimal times for a hunt in the Bird Cove area (Reader, 1999a). The site was dated to 3600 +/- 60 BP (Beta-108562) and 3490 +/- 80 BP (Beta-113405) (Reader, 1998). The site was interpreted as a special purpose site for processing lithic raw materials and the heat treating of various stages of artifacts (Reader, 1999a).

2.7.8 Renouf (1998, 1999, 2000, 2001), Renouf and Bell (2000, 2001)

Although a large cemetery site is present in the community of Port au Choix, no habitation site has yet been found. In order to address this problem a new survey strategy was developed based on sea level history in the area and site location preferences (Renouf, 1998; Renouf and Bell, 2000). Based on a changing post-glacial sea level history, Renouf and Bell proposed that a Maritime Archaic habitation site would be located between 8-10 m asl (Renouf, 1998; Renouf and Bell, 2000). This data combined with site preference variables, were used to locate the Gould Site (EeBi-42). The Gould Site (EeBi-42) turned out to be a Maritime Archaic non-mortuary site (Renouf, 2001). At this point, Renouf and Bell are reluctant to conclude that the Gould site is directly associated with the cemetery (Renouf, personal communication, 2004).

The Gould Site (EeBi-42) also provided Maritime Archaic artifacts and dates. Three gouges, beach pebbles similar to ones found at Port au Choix 3 (EeBi-2), a retouched macroblade, retouched flakes, two asymmetrically side notched projectile points and a stemmed, ground slate point were found (Renouf 1998, 1999, 2000). In addition, four Maritime Archaic hearths were found. Maritime Archaic dates at the site ranged from 5440 +/- 50 BP (Beta-134151) to 3260 +/- 50 (Beta-108099) (Renouf and Bell, 2000).

Renouf also reported a Maritime Archaic component at the Old Boatyard Site (EeBi-43) in Port au Choix. This site produced the base of a ground slate point and a date of 3980 +/- 110 BP (Beta-121297).

Additionally, Renouf makes mention of a possible site in Green Island Brook based on a gouge reported in a provincial site record form. Thus far it has not been possible to obtain permission to investigate the site.

Finally, Renouf surveyed the Big Brook area resulting in the discovery of an extensive lithic scatter that will be discussed further in subsequent chapters.

2.7.9 Summary

A variety of ground slate and chipped stone tools make up the Maritime Archaic tool kit from the Northern Peninsula of Newfoundland. Grave goods from Port au Choix 3 (EeBi-2) likely skew this kit towards highly curated or ideologically significant tool types, which may not be encountered commonly on other Maritime Archaic sites in the area. Therefore, the average tool kit for the area will include tool types from the Gould site (EeBi-42), Big Droke 1 (EgBf-11) and Caines (EgBf-15). Ground stone tools include woodworking tools such as the axe, celt and gouge. Chipped stone tools include expanding stemmed/side notched projectile points, ovate and lanceolate shaped bifaces, bifaces at various stages of manufacture, blades, retouched macroblades and retouched flakes. Emphasis seems to be placed on bifaces at various stages of manufacture and expedient tools such as retouched flakes compared to finished or unbroken projectile points

Dates for the area, ignoring the older L'Anse aux Meadows date, range from 5440 +/- 50 BP (Beta-134151) at the Gould site (EeBi-42) to 3260 +/- 50 BP (Beta-108099) also at the Gould Site (EeBi-42). Furthermore, based on sea level history, a model of Maritime Archaic sites at an elevation of 8-10 m asl was established. Obviously

elaborate burial practices are noted at Port au Choix 3 (EeBi-2) while the Gould site (EeBi-42) represents a repeatedly used site over a long period for non-mortuary purposes. The Bird Cove area demonstrated a possible living area and specialized heat treating site.

2.8 Biological Evidence

2.8.1 Kennedy (1981)

Kennedy examined 18 adult females and 22 adult males from Port au Choix 3 (EeBi-2), Locus II. She used measurements and statistical analysis based on metric and non-metric traits from the skeletal population. From this analysis she concluded that there was a slightly greater variability of traits within the female population. In addition, there was a significant difference in trait expression between the sexes.

She interpreted these results as characteristic of groups that practiced non-specific exogamy coupled with male-male residence. This meant that females were selected from outside the group to reside with their male partners and live with their families. Another interpretation was that individuals buried at Locus II in the Port au Choix cemetery came from the same band since variability of traits should have been higher otherwise.

2.8.2 Jelsma (2000)

Much of Kennedy's 1981 study was later supported by Jelsma, using different methods of analysis. In a study of Locus II from Port au Choix 3 (EeBi-3), mitochondrial DNA suggested individuals in the cemetery came from the same band. It also suggested that females were brought in, confirming that the individuals from Port au Choix 3 (EeBi-2) practiced patrilocal residence patterns.

Nitrogen isotope analysis provided information on diet patterns of Locus II. This was done according to Nitrogen isotope analysis. Diets were varied according to the three burial clusters within Locus II, clusters A-C. Jelsma concluded that cluster A subsisted mainly on fish while cluster B subsisted primarily on marine mammals. Cluster C had a comparatively variable diet with one individual who subsisted on terrestrial mammals. In addition, interpretation based on grave goods suggested an avian component to the diet.

On the basis of dietary information coupled with grave goods data and demographic data, Jelsma concluded that cluster A consisted of older individuals less capable of hunting, thus relying heavily on fish. Cluster B was made up of individuals who were young less experienced hunters subsisting on marine mammals. Finally, Cluster C was made up of individuals of high status who were relatively skilled hunters whose diets were made up of a variety of foods.

2.9 Site Location

Directly determining settlement and subsistence in Newfoundland is problematic because of a general lack of organic preservation on the island. Therefore, researchers have been forced to infer such basic aspects of human existence based on tool types, resources at hand and recently of great importance, site location. The places where humans locate themselves on the landscape likely reflect to some extent resources that were exploited. Much of this research has focused on diachronic and synchronous

systems involving interior and exterior resource exploitation. Particularly, it is not fully understood to what degree the Maritime Archaic ventured into the interior.

As the name suggests, Maritime Archaic groups are believed to have relied heavily on coastal resources (Tuck, 1971; Speiss, 1993). This point is not to be debated. Evidence comes from technology, limited faunal data, isotope analysis and site location data. However, at the same time, there is evidence of usage of a variety of resources from both sea and land. Evidence for this is provided by site location data available for the island of Newfoundland.

The likely scenario is that Maritime Archaic Indians used resources from both the coast and interior, with coastal resources of primary importance. Current postulations suggest Maritime Archaic groups likely followed a subsistence model of maritime resource procurement with a minor seasonal component comprised of terrestrial mammals (Fitzhugh, 1972; McGhee and Tuck, 1975).

In order to illustrate this, a review of site location data for the island of Newfoundland will now be presented. Pastore (1986) originally distinguished the difference between outer and inner coastal site locations. He suggested that "outer coast" sites were on islands, exposed headlands and coastal locations and reflected highly specialized maritime economic activities such as seal hunting by Palaeoeskimo groups. "Inner coastal" locations were inside bays and in sheltered areas and would offer access to a greater variety of resources and would reflect more generalized activities. Additionally, Schwarz (1994) notes that the Maritime Archaic have the highest proportion of inner coastal sites of any Newfoundland group.

Occupation zones of Newfoundland were later refined to include discussion of the interior (Rowley-Conwy, 1990; Schwarz, 1994; Holly, 1997). In particular, Schwarz (1994) introduced two interior zones. "Deep interior" sites are located more than 30 km away from the coast, while "near coastal" sites lie 30 km or less from the sea (Schwarz, 1994). Interior sites in both zones only accounted for 14.8 % of Maritime Archaic sites in Newfoundland (Schwarz, 1994).

Renouf and Bell (in press) then decided to look specifically at Maritime Archaic site locations in Newfoundland. Their results echoed that the majority of Maritime Archaic sites were at the coast. However, they added that "nearshore" (inner coastal) settings accounted for 85 % of Maritime Archaic coastal sites. According to Rowley-Conwy (1990), this is the optimal location for winter settlements in Newfoundland. This would give access to both interior and coastal resources during winter, which is the most difficult season to obtain resources on the island (Tuck and Pastore, 1986; Rowley-Conwy,1990).

Two additional scales of analysis were then added to look closer at Maritime Archaic site settings (Renouf and Bell, in press). The "shoreline setting" scale determined that the greatest proportion of Maritime Archaic sites were located in coves (63 %) (Renouf and Bell, in press). The "site setting" scale determined that 89% of Maritime archaic sites are located near a river, stream or pond, 70% are within easy access of a potential monitoring station, 46 % have a view in more than one direction and 21 % are near a route inland (Renouf and Bell, in press).

Site locations of Maritime Archaic Indians would have remained uninfluenced by other groups since they were the pioneering population on the island of Newfoundland. Other groups such as Recent Indian and Dorset Palaeoeskimo lived contemporaneously on the Island and likely would have influenced site location selections (Holly, 1997). There has been an apparent absence of Late Archaic/Intermediate Indian groups in Newfoundland thus far, however, if such a period existed following Maritime Archaic there could have been interaction with the Groswater Palaeoeskimos.

It must be noted at this point that relative sea level history of Newfoundland has likely biased site location data for the island of Newfoundland, particularly for Maritime Archaic groups. On the Northern Peninsula, the sea level was 4-5 m higher than present during Maritime Archaic occupation of the island and the land has shown a continual emergence since (Renouf and Bell, 2000). In the northeast of the island, the Maritime Archaic sea level was between 1 and 3 m below present sea level (Renouf and Bell, in press). The south coast represents an area where sea level was 5 to 10 m below present, with a lowstand of 20 m or more including the outer Burin Peninsula and Avalon Peninsula except Bay de Verde (Renouf and Bell, in press). Application of these data to site location would indicate that sites on the Northern Peninsula would be preserved, sites in Northeastern Newfoundland would be at or near the current water level and sites on the south coast could be submerged (Rast, 1999; Renouf and Bell 2000; in press).

It has also been proposed that the differences in sea level in Newfoundland have attributed to an uneven distribution of Maritime Archaic sites on the island (Bell and Renouf, in press). The highest number of Maritime Archaic sites occur in northern and

eastern Newfoundland, followed by the Northern Peninsula, where sites would still likely be above water (Bell and Renouf, in press). Meanwhile, the lowest number of sites are in the southern and western parts of the island where sites would be inundated with water (Bell and Renouf, in press). The relative sea level of these areas described above, therefore, likely has influenced the samples size of Maritime Archaic sites on the island.

Furthermore, it has been postulated that the lack of early Maritime Archaic sites (8000-5500 BP) found in Newfoundland is linked to sea level history as well. It has been hypothesized that early Maritime Archaic sites on the island of Newfoundland have largely been submerged, while sites on the Northern Peninsula are located at higher elevations which have not yet been closely examined (Bell and Renouf, in press). This idea remains to be tested.

2.10 Summary of Newfoundland Maritime Archaic

Dates for Maritime Archaic on the island range from 5440 +/- 50 BP (Beta-134151) at the Gould Site to 3200 +/- 90 BP (Gak-1254), from the Curtis Site. Tool types include lanceolate bifaces, stemmed bifaces, leaf shaped bifaces, contracting stemmed bifaces, bi pointed bifaces, ground slate stemmed bayonets, side notched projectile points and stemmed and expanding stemmed projectile points. Woodworking tools include ground stone adzes, axes, celts, gouges and picks. Additionally, scattered finds of plummets have also been found. Items are normally made of locally available raw materials.

Some artifacts were made of rarer raw materials such as copper and Ramah chert. Ramah chert displays connections with northern Labrador (Fitzhugh, 1972; Gramly, 1978). Elaborate artifacts were often included in graves. Such items included a variety of carved bone, wood and antler weapons and personal items such as combs. Graves were always associated with ochre and bodies were buried in positions from extended to flexed with occasional bundle burials.

Only one possible structural element was found at any Maritime Archaic site in Newfoundland at Big Droke 1 (EgBf-11) in the form of a posthole. In addition, caches were sparsely present in Newfoundland sites.

Faunal evidence is limited to three sites. Port au Choix 3 (EeBi-2) yielded evidence that sea mammal, avian species, caribou, beaver, other terrestrial mammals and polar bear were present. Sandy Cove 1 (DdAk-2) yielded evidence of calcined fish, sea mammal and bird bones. Finally, Big Droke 1 (EgBf-11) contained possible pieces of calcined avian bones. The faunal evidence that is available correlates with available isotope analysis from Locus II at Port au Choix 3 (EeBi-2). This evidence suggests a diet consisting mostly of sea mammal and fish supplemented with land mammal and avian species (Jelsma, 2000).

Maritime Archaic sites in Newfoundland were commonly in "nearshore" locations in coves near rivers and monitoring spots (Renouf and Bell, in press). Sites were most numerous in northern and eastern Newfoundland, followed by the Northern Peninsula, southern Newfoundland and western Newfoundland. The sample sizes of the

sites from these areas however, are likely biased because of the particular relative sea level histories of the regions.

There appears to be an overall uniformity for the Maritime Archaic tool kit in Newfoundland. However, some anomalies have been noted. For instance there is a connection in artifacts with so-called "pie-wedge" bayonets between Port au Choix 3 and the Cow Point Site in New Brunswick (Sanger, 1973; Tuck, 1976; Robinson, 1996)

Additionally, although sites on the island are generally considered southern branch, some northern branch characteristics were noted. As mentioned earlier, contracting stemmed points and bifaces have been noted that show possible influence. This is a subject that requires further attention where contracting stemmed points and bifaces could be analyzed and compared to artifacts from Labrador.

In addition, three sites in particular show connections with northern branch Maritime Archaic in raw material use and artifact form. As previously noted, the use of quartz and quartzites is a characteristic of older northern branch sites in southern Labrador. The South Brook Park site near Dear Lake was similar displaying the use of local quartz and quartzites, and also contained triangular points and a full channeled gouge. Norris Point, further north on the Northern Peninsula displays similarities in raw material usage with quartzites primarily used in biface manufacture. Finally, the Conche site appears to be older based on a gouge-celt with the groove running over half its length. Whether or not these sites are northern branch Maritime Archaic requires further investigation.

2.10.1 Site Types and Distribution

The number of sites displaying archaeological features was limited and thus, differences between sites in different areas could be attributed to sample size. The limited sample size, particularly for areas such as the south coast is likely correlated with a rise in relative sea level.

Despite these problems, sites were placed into eight types. See Table 2.1 for summary. 1) "Small artifact finds" contained no features. To generalize, artifacts commonly occurring on these sites included one or more bifaces of varying form, a projectile point of slate or chert, a woodworking tool, a small to medium degree of lithic debitage and related expedient flake or blade tools.

2) "Local Collections" were sites based on verbal information. Artifacts were found by residents of an area and subsequently shown or given to an archaeologist. The location of where the artifacts were found was then given.

3) "Lithic workshop sites" are defined as a site were tool manufacture /modification accounted for the majority of archaeological evidence. These were commonly associated with biface manufacture. Hearths were often present along with a variety of various staged preforms. Large lithic scatters were present. Debitage related to slate tools is rare but complete and broken slate tools related to hunting are often found. More often than not woodworking tools are present. Blade technology is represented by the presence of blades, blade-like flakes and linear flakes. Retouched expedient tools are often present. In addition, projectile points are often found.

Table 2.1 – Site types

Site Type	Sites
Small artifact finds	***Northern Newfoundland:*** Jackson's Cove (DeAk-1), Wigwam Brook (DfAw-1), Roberts Arm (DiAw-4), Parson's Brook (DdAo-2), Gold Cove 1 (DjBf-1), Badger Bay 6 (DiAv-7), Badger Bay 2 (EiAw-6), Brighton Tickle Island 1 (DjAv-4), Paddock's Cove (DjAw-10), Port Anson 2 (DjAx-2) King's Point 1 (DjBa-1), King's Point 2 (DjBb-1), Gillis Point (DgAt-2), Peterview 2 (DgAt-8), Pope's Point (DfBa-1) ***Southern Newfoundland:*** Great Brule 1 (CjAm-1), Parson's Cabin (CkBl-1), L'Anse a Flamme (CjAx-1), Eagle Head (CjAx-2), Bay de Vieux (CjBg-1), Fox Point (CjBj-3) ***Eastern Newfoundland:*** Bull Island (CkAk-1), Collier Bay 1 (CjAk-1), Cape Freels 1 (DhAi-1, Cape Freels 3 (DhAi-3), Sailor Site (DeAj-1), Unnamed Site (DdAj-4), Clode Sound 1 (DdAk-3), Swale Island (DdAk-8), Chandler Beach 1 (DdAk-10), Cape Cove 3 (DhAi-7), Little Sandy Cove 1 (DdAk-14) ***Western Newfoundland:*** Tiheay Cove 2 (DgBn-4) ***Northern Peninsula:*** Norris Point (DjBl-2), Noah's Garden (EjBa-5), Ireland Bight (EiAw-1), Port au Choix 9 (EeBi-3), Portland Creek (EbBj-1), Woody Point (DjBl-7), Conche Site (EfAx-1), Main Brook (EgBa-1), L'Anse au Meadows (EjAv-1), Old Boatyard Site (EeBi-43).
Local collections	***Northern Newfoundland***: Alf's Cove (DhAs-2), Miles Cove 1 (DjAw-6), Gold Cove 2 (DjBf-2), Brown's Cove (DjBe-1), Crescent Lake 1 (DjAx-1), Baxter Newman's Garden (DkAm-1), Esso Site (DkAn-2), Dump Site (DkAn-3) ***Southern Newfoundland:*** Morgan Island 3 (CjBj-13), Big Barasway 3 (CjBk-3)
Lithic workshop sites	***Eastern Newfoundland***: Bloody Bay Cove (DeAl-1), Brown's Beach (DeAl-2), Beaches (DeAk-1), Anderson's Cove (CjAj-03) ?
Caches	***Northern Newfoundland:*** Pittman Site (DkBe-1), Winterhouse Cove 1 (DhAt-3)
Burial sites	***Northern Newfoundland:*** Curtis Site (DjAq-1) ***Northern Peninsula:*** Port au Choix 3 (EeBi-2)
Special purpose	***Northern Peninsula***: Caines (EgBf-15)
Repeated use domestic	***Northern Peninsula***: Big Droke 1 (EgBf-11)
Unknown purpose	***Northern Newfoundland***: Shelly Garden (EaBa-10) ***Eastern Newfoundland:*** Fox Bar (DeAk-3), Cape Cove 1 (DhAi-5) ***Western Newfoundland***: South Brook Park (DgBj-3) ***Northern Peninsula***: Gould Site (EeBi-42)

4) "Caches" were characterized as areas where numerous artifacts were found stored together. No faunal or food caches were found.

5) "Burial sites" are represented by two cases on the Island. The clearest evidence of these sites are the appearance of red ochre and/or skeletal remains and finished tools in the form of grave goods.

6) "Special purpose" sites associated with particular activities. The only site in this category was used for the processing and heat treatment of raw materials.

7) "Repeated use domestic" sites were used over long periods of time and did not fit into the workshop or burial category.

8) "Unknown purpose sites" is a catch-all category for any sites that did not fit into any of the other categories. This includes sites that were more substantial than small artifact finds and often included hearths.

In summary, Newfoundland sites consist mainly of "small artifact finds" and "local collections." There is only a small sample of other site types in comparison. However, "lithic workshops," "caches," "burial sites," "special purpose sites" and "repeated use domestic" sites are also evident. At this point a larger sample is needed to further analyze these categories. Furthermore, with the exception of the "repeated use domestic" site found at Big Droke 1, there is little evidence of a substantial habitation site on the island of Newfoundland.

2.11 Southern Labrador

Those Maritime Archaic sites in southern Labrador considered relevant to Big Brook 2 will now be discussed. Relevant sites are those from the same time period and with use of similar raw material. Therefore, as mentioned at the beginning of the chapter only southern branch Maritime Archaic will be discussed. In addition, there is less of a need for a synthesis of data since most sites are well described in relatively few publications and volumes. Black Island Cove (GcBk-9) and Black Island 2 (GcBk-13) from Hamilton Inlet will not be discussed (but see Fitzhugh, 1978 for details).

2.11.1 McGhee and Tuck (1975), Tuck and McGhee (1975)

McGhee and Tuck conducted archaeological survey in southern Labrador along the Strait of Belle Isle from 1973-1974. During this time they described and defined a Maritime Archaic sequence in the area. For a complete description see McGhee and Tuck (1975). Several sites were discovered which would later fall under the category of southern branch Maritime Archaic.

The Graveyard site (EiBf-6) is located on the north shore of Forteau Bay at an elevation of approximately 10 m asl (Tuck and McGhee, 1976). Characteristic projectile points from this site were made of weathered white chert and had expanding stems with a straight base (McGhee and Tuck, 1975). This type of projectile point is known as the "Graveyard" style projectile point. In addition, six linear flakes, four retouched flakes and a round base lanceolate biface with a broken tip were found (Tuck and McGhee,

1976). Three dates at 4450 +/- 85 BP (SI-2307), 4285 +/- 85 BP (SI-2308) and 3410 +/- 70 BP (SI-2435) were reported (Wilmeth, 1978).

The Forteau Point site (EiBf-2) is located on a point extending into Forteau Bay at an elevation of 10 m asl (McGhee and Tuck, 1975). Artifacts from this site included two broken ground slate bayonets, a gouge, two celts, three linear flakes, two abraders, expanding stemmed Graveyard style points of weathered white chert and several bifaces of white chert. Bifaces were bipointed. Burned areas were present with a patch of ochre-stained sand. In addition, caches of badly eroded stone tools were present. Tuck suggested Forteau Point (EiBf-2) may have served as a burial site based on a number of oval and irregular patches of red and yellow ochre with chipped and ground stone tools (Tuck and McGhee, 1975; Tuck, 1988). The site was dated to 5399 +/- 58 (P-691) and 5035 +/- 65 (SI-2311).

The English Point site (EiBf-5) is located 300 m from the sea at an elevation of 10 m asl (McGhee and Tuck, 1975). Projectile points from this site included a side notched form as well as a corner notched or "drooping" side notch (Tuck and McGhee, 1976; 86). Several of these were made of weathered white chert. In addition to these artifacts a number of bifaces, twelve linear flakes, one possible linear flake core and three retouched flakes were found. The estimated date based on stylistic characteristics of the artifacts is 3500-3000 BP (Tuck and McGhee, 1976).

The Iceberg site (EjBe-19) is located east of L'Anse au Diable about 200 m from the sea at an elevation of approximately 6-8 m asl (Tuck and McGhee, 1976). This site also contained the drooping side notched form with a specimen made of weathered white

chert (Tuck and McGhee, 1976). Other artifact forms included flake points with side notches and a square side notched point (Tuck and McGhee, 1976). A possible hearth was also found.

L'Anse Amour (EiBf-4) is the largest aboriginal habitation site in southern Labrador. It is located approximately 12 m asl. The site consisted of multiple areas with multiple occupation horizons. This site also contained weathered white chert specimens in the form of bifaces but the majority of tools were made from a brown chert. Bifaces were convex based and lanceolate. The dated area of the site contained gouge fragments and a chipped stemmed point. This area was dated approximately to 6200-4105 BP (Tuck and McGhee, 1976). Weathered white chert was associated with a stratigraphic deposit younger than 6080 +/- 110 (I-7506) in area 5 of the site (McGhee and Tuck, 1975).

2.11.2 Auger and Stopp (1986, 1987)

Auger and Stopp (1986, 1987) surveyed the southern Labrador coast along the Strait of Belle Isle, finding 74 sites. For a full description of the survey see Auger and Stopp (1986, 1987).

The Dynamite site (EiBf-14) was a surface scatter of white chert located 46 m asl with linear flakes. Additionally, milky quartz flakes were found; however there were no diagnostic artifacts. It has been interpreted as a specialized site likely related to bird hunting based on the location between two nearby bird nesting ponds.

A proximal biface fragment made of white chert was found at Pitts Harbour 2 (FaAx-2). This fragment was similar to others found at the Graveyard site (EiBf-6) and Forteau Point (EiBf-2). This site lies at an elevation of 15 m asl.

The Hancock site (EiBf-9) is at an elevation of 7 m asl. This site had white chert flakes and seems to be of the same technological tradition as the Dynamite site (EiBf-14) and Pitts Harbour 2 (FaAx-2) on the basis of similar raw material.

L'Anse au Diable 3 (EjBe-35) is at an elevation of 20 m asl. It was represented by a biface fragment made of white chert.

2.11.3 Summary

Dates for southern branch Maritime Archaic along the Strait of Belle Isle in Labrador range from approximately 6200 BP at L'Anse Amour to approximately 3000 BP at English Point. Southern branch Maritime Archaic Indians in the region are characterized by a ground stone industry including gouges, stemmed points and bayonets. Chipped stone tools include bipointed bifaces, rounded based, lanceolate bifaces, expanding stemmed and drooping side notched projectile points and linear flakes. In addition, southern branch Maritime Archaic groups along the Strait of Belle Isle in Labrador is characterized by the appearance of a weathered white chert.

Sites are generally characterized by a variety of chipped and ground stone tools. Forteau Point displays characteristics of a burial site but this has not been determined conclusively. L'Anse Amour represents a habitation site with multiple components. In addition, the Dynamite site could be a specialized bird hunting site by virtue of its

location near a bird pond. However, this is also difficult to prove without more evidence. Functionality is difficult to tell for the remainder of the sites.

2.12 Intermediate Indians

The Intermediate Indian period represents a period of cultural change in Newfoundland and Labrador signaling the end of the Maritime Archaic period. The Intermediate Indian period is represented by a gradual cultural change from Maritime Archaic groups in the Strait of Belle Isle (Madden, 1976). Meanwhile, northern Labrador shows a more sudden disappearance of this culture from the archaeological record. It is believed that this cultural change was catalyzed by the arrival of Paleoeskimo groups in Newfoundland and Labrador (Fitzhugh, 1972; Nagle, 1978; Tuck, 1988).

The Intermediate Indian period along the central Labrador coast spans approximately 3500 BP to 1500 BP. This period was defined on the basis of a series of cultural occupations in Hamilton Inlet. The early portion of this period is referred to as the Saunders Complex comprised of smaller complexes including Charles and Brinex and dates from 3500 to 2800 BP (Nagle, 1978; Fitzhugh, 1972). The Saunders Complex is characterized by large and small convex based side notched points, small triangular knives, a variety of bifaces and scrapers as well as linear flakes (Nagle, 1978). The Saunders Complex is followed by a series of smaller very specific geographical occupations leading to approximately 1500 BP including the Road component (2700-2300 BP), David Michelin complex (2300-1800 BP) and the Recent Indian North West River Phase (1800-1400 BP). For a full review refer to Fitzhugh (1972).

McGhee and Tuck (1975) and Madden (1976) argue for the Intermediate Indian period in Labrador along the Strait of Belle Isle as one represented by a gradual change. This change lasts throughout the southern branch Maritime Archaic occupation of the Strait of Belle Isle in Labrador. In fact, it is difficult to distinguish where Maritime Archaic ends and Intermediate Indian begins in this region. Therefore, for the remainder of the thesis, when referring to the Strait of Belle Isle, such groups will be referred to as Late Archaic/ Intermediate Indian. This term will also apply to Newfoundland.

The gradual change is based on a seriation of projectile point technology from expanding stemmed to side notched and leading to corner notching (Madden, 1976). The time period for this period is difficult to ascertain; however for the purposes of this thesis it will refer to the period of 3500-2000 BP based on Madden (1976). The period will now be discussed with reference to Newfoundland, then southern Labrador along the Strait of Belle Isle.

2.13 Newfoundland Intermediate Indian

No sites of the Intermediate Indian period on the Island of Newfoundland have been reported except for a spot find at Garden Cove (EjAv-2). This find includes an expanding stemmed biface (Figure 2.5). It is unclear if this actually represents an Intermediate Indian component. No date has been obtained and the stylistic qualities of the biface could represent earlier Maritime Archaic. Therefore, for all intents and purposes, Intermediate Indian sites are thus far absent from the Newfoundland archaeological record.

Figure 2.5 – Artifacts from Garden Cove

2.14 Southern Labrador Intermediate Indian

Intermediate Indian data in southern Labrador largely comes from Madden (1976). Therefore, a review will now be presented followed by brief mention of Tuck (1991).

2.14.1 Madden (1976)

Madden excavated at two sites, the Iceberg site (EjBe-19) and Black Rock Brook (EjBe-24). The Late Archaic/Intermediate Indian components are located at an elevation of 7 m asl. Artifacts included large lanceolate, leaf shaped, triangular and side notched

bifaces. In addition, side notched projectile points and small flake points characterized the assemblage. Linear and blade like flakes were also present. Artifacts were often made of weathered white chert. Finally, a series of hearths were dated giving a range of 3470 +/- 50 BP (SI – 2431) to 2115 +/- 70 BP (SI – 2427).

Black Rock Brook (EjBe-24) is at approximately 7 m asl. Weathered white chert comprises the majority of the raw material at this site. Artifacts from this site include lanceolate bifaces, a side notched projectile point, a drill, endscrapers, flake scrapers, linear flakes, retouched flakes and a whetstone. The Black Rock Brook site is dated to 3500 +/- 70 BP (SI-2438) and 2960 +/- 70 BP (SI-2437), these dates coming from a large hearth feature.

2.14.2 Tuck (1991)

The Plain Site (EjBe-50) is located at 6 m asl. It consists solely of white chert flakes. It was determined to be an Intermediate Indian site based on the raw material and its proximity to Black Rock Brook (EjBe-24).

2.14.3 Summary

Late Archaic/Intermediate Indian sites in southern Labrador are largely found at elevations between 6 and 7 m asl. White weathered chert is largely characteristic of this cultural phase in Labrador. The tool kit includes expanding stemmed points leading into a corner notched form. A variety of biface forms including large lanceolate, leaf shaped, large triangular and linear flakes characterize this period.

2.15 Chapter Summary

Maritime Archaic Indians are a maritime-adapted cultural tradition that encompasses groups that inhabited the north Atlantic region including Newfoundland, Labrador and areas of Quebec. Inclusion of groups further south is left for debate. Newfoundland Maritime Archaic occupations are largely represented by a regional variant of this tradition referred to as the southern branch. They occupied the island of Newfoundland from approximately 5500 to 3000 BP and southern Labrador slightly earlier.

Their toolkit was relatively homogeneous across the Island of Newfoundland, showing little evidence for regional variation. They are most represented in northern and eastern areas of the island followed by the Northern Peninsula, southern and western Newfoundland. This sample however, is likely biased due to the dynamic relative sea level history of the island.

Site locations suggest a primary orientation to the sea but with access towards a variety of interior resources. This is supported by isotope analysis data where the majority of diet was comprised of sea mammals and fish but also included interior resources.

Site types of Newfoundland Maritime Archaic include "workshops", "caches", "burials", "special purpose" sites and "repeated use domestic" sites, but are largely, "small artifact finds" and "local collections." Similar material culture is also found in southern Labrador across the Strait of Belle Isle.

Southern Branch Maritime Archaic gradually changed over time to be characterized as Late Archaic/Intermediate Indian. This transition was evidenced in southern Labrador but has been lacking in Newfoundland. As of yet, no dated Intermediate Indian components have been identified on the Island of Newfoundland.

CHAPTER 3 – SITE DESCRIPTION AND EXCAVATION

3.1 Introduction

Big Brook is a small fishing hamlet located towards the northernmost reaches of the Island of Newfoundland, approximately 45 km SW of L'Anse aux Meadows (Figure 2.3). It is situated along the Strait of Belle Isle, approximately 30 km SE across the Strait from Red Bay, Labrador. It is an isolated community with a current population of 11 during the summer months. For the purposes of this thesis, the term Big Brook River is used to avoid confusion with the community of the same name. Big Brook 2 is located within a short walk of the shores of Unfortunate Cove and the banks of the Big Brook River (Figure 3.1).

Big Brook and its environs are in stark contrast to bleak limestone barrens to the NE and SW. Therefore, the river system at Big Brook would have provided an attractive area for any inhabitant, providing coastal as well as riverine and terrestrial resources (Figure 3.2). Thus far, no sites have been discovered in the interior close to Big Brook. The known archaeological sites in the area are oriented towards coast and the river.

Until recently, not much attention has been directed towards the archaeological potential of the region. Carignan (1975) may have visited the area during his 1975 survey of the west coast of Newfoundland. This could be the origin of the small collection held at the Newfoundland museum under the Borden number of EjBa-1. This

Figure 3.1 – Air photo of Big Brook

Figure 3.2 – Big Brook River system

is only speculative at this point since no documentation of a visit to the area by Carignan is available. Nevertheless, based on the collection, the Big Brook area was tested by Renouf (2002) in August 2001 at the recommendation of Ken Reynolds from the Provincial Archaeology Office. It resulted in the confirmation of an extensive lithic scatter that later became known as Big Brook 2 (EjBa-2) (Renouf, 2002). This was the primary focus of the 2002 field season.

However, before the field season began additional testing was done near the river and Big Brook 3 (EjBa-3) was discovered. This site was a spot find of an isolated Groswater Paleoeskimo hearth. Additional survey located another site called Noah's Garden (EjBa-5). This site consisted of a surface collection from a garden and was identified as Maritime Archaic. These sites are discussed in more detail in Beaton (2003).

The following is a description and analysis of the excavations that took place during the 2002 summer field season at Big Brook 2 (EjBa-2) and the cultural materials found.

3.2 Methodology/Excavation

Areas to be excavated were staked out into 1 m^2 units. Sods were then removed either by shovel or trowel. Areas were excavated with a trowel to expose each stratigraphic deposit. Information was gathered with the aid of a total station theodolite and a data collector. All artifacts were shot in using the total station to record exact provenience. Data were then downloaded into a program called Excavation Manager.

This software is an enhanced form of Map Info that was developed by Trevor Bell and M.A.P. Renouf of Memorial University (Teal, 2001). Recording forms were also used for all cultural material found in individual squares. Plan drawings recorded stratigraphic levels and profiles were drawn. Photographs were taken in color, black and white and digital forms. All back-dirt was screened using a 5 mm mesh. These methods were used at Big Brook 2 and Big Brook 3.

3.3 Big Brook 2 (EjBa-2)

3.3.1 Location

Big Brook 2 is 235 m from the current shoreline of Unfortunate Cove and 95 m from the Big Brook River. The site is on a height of land approximately 6.5 m asl (Figure 3.3, 3.4), that runs through the community of Big Brook. If relative sea level data from Port au Choix can be applied to Big Brook, this height of land would have been much closer to the shoreline when the site was originally occupied (Renouf and Bell, 2000).

To place the site within Newfoundland site location context discussed earlier in Chapter 2, it would be in the nearshore zone and is located within the cove. It is close to monitoring stations to the southeast that would provide views of coastal and interior resources. The river system is a major system and provides access to interior resources. Salmon are available during the summer months and a steady in the river adjacent to the site offers an ideal habitat for bird species.

Figure 3.3 – Community map with site locations

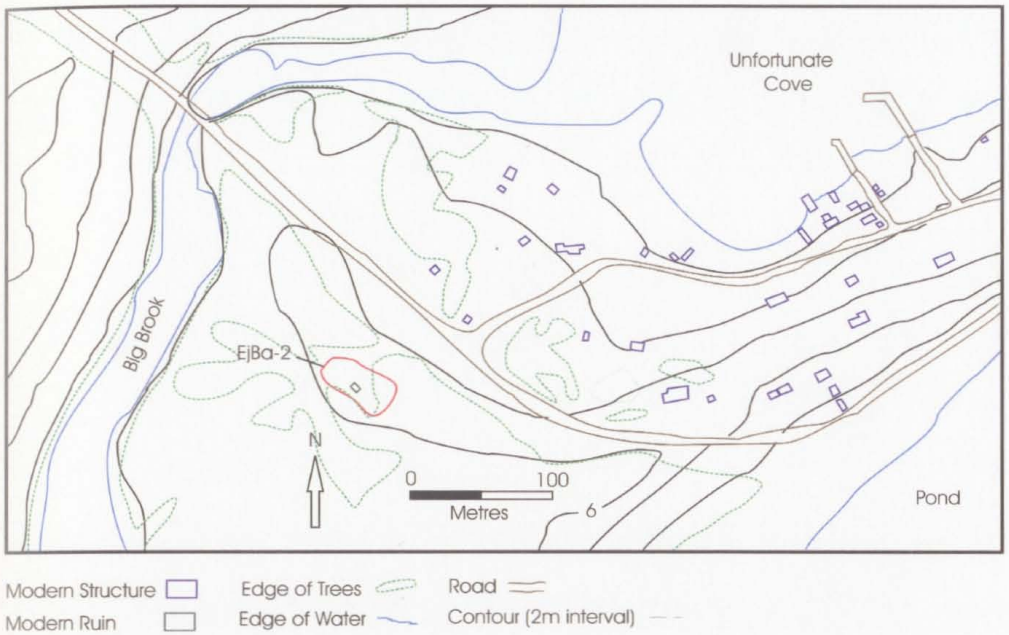


Figure 3.4 – Photo of 6.5 m asl height of land

Big Brook 2 is situated near two other known sites. Big Brook 3 is a Groswater Paleoeskimo site, 80 m NW of Big Brook 2 and Noah's Garden is another possible Maritime Archaic site located 270 m to the SE of Big Brook 2. Noah's Garden (EjBa-5) is also located on the 6.5 m asl height of land. Therefore it is likely that this terrace is associated with other Maritime Archaic sites in the region and was probably just above the active beach at the time of occupation.

The site can be accessed from the community of Big Brook. Once arriving in town, there is a large trail to the left off the main road, at the Big Brook community sign. The trail leads to a clearing associated with a house ruin (Figure 3.5). The open area of the clearing is where the 2002 excavations took place.

The area yielded three dates. Feature 14 provided a date of 4090 +/- 40 BP (Beta-177106) (Cal BP 4810 to 4750 and Cal BP 4710 to 4500 and Cal 4480 to 4440), Feature 7 provided a date of 3820+/40 BP (Beta- 171715) (Cal BP 4380 to 4090) and Feature 4 gave a date of 2830+/-40 BP (Beta- 171714) (Cal BP 3050 to 2850). The first two dates fit comfortably within the Maritime Archaic Indian time period while the last fits within the late Maritime Archaic/early Intermediate Indian time period.

3.3.2 Introduction to Site Stratigraphy

The stratigraphy of the site was interpreted at the beginning of the 2002 field season as consisting of three separate levels with an interface between the bottom of level 1 and the top of level 2. Upon further consideration however, the interface is clearly the

Figure 3.5 – Photo of clearing within site

top of level 2 and not treated separately in this thesis. Therefore, the site consists of three separate levels. These levels were continuous throughout the site (Figure 3.6).

3.3.3 Level 1

Level 1 is the topmost level of the site. It is defined by a blackish to dark brown soil with hints of lighter brown as well as reddish colorations. Towards magnetic north of the site, there is only slight disturbance of this level. However, in the southern area there is heavy disturbance. Disturbance is marked by the appearance of contemporary human garbage in the upper 15 cm of the peat in some areas. In addition, gray sand had moved slightly up into the peat in most areas of the site. This phenomenon was minimal in most areas and is attributed to disturbance based on a combination of

3.3.4 Level 2

Level 2 is composed of gray sand and is continuous across the site. This deposit seems relatively undisturbed. This level contains the vast majority of cultural material. Included in it are white pitted, gray banded/pitted and higher quality gray chert flakes, artifacts of seemingly non-local materials, fire-cracked rock and charcoal with associated hearth features and pumice. This is the Maritime Archaic/Intermediate Indian level. It ranges in thickness from 4 cm to mere mm.

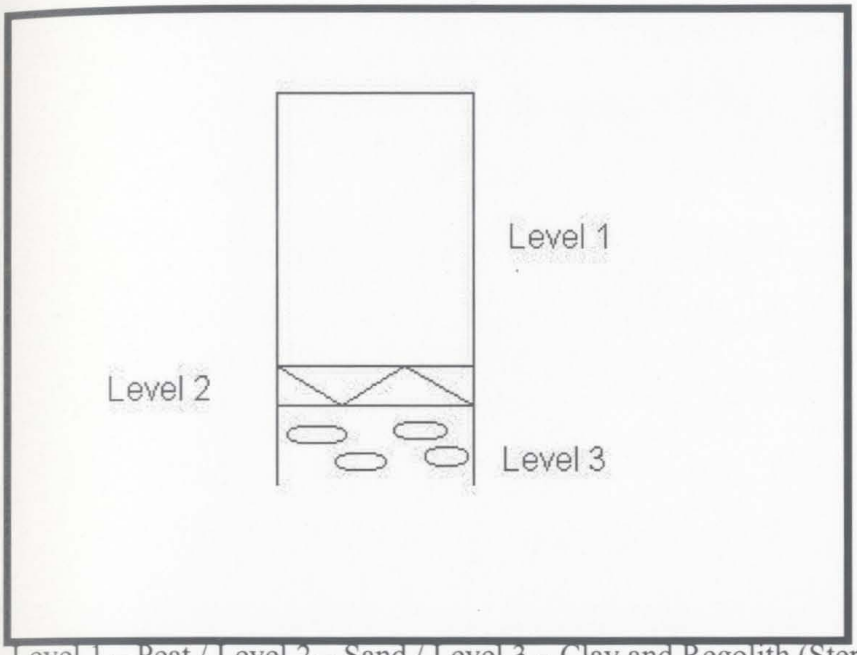
3.3.5 Level 3

Level 3 is the bottommost deposit at Big Brook 2. It is a brown clay layer mixed with regolith from the underlying bedrock. Regolith refers to broken pieces of bedrock that have moved up and become intermixed with the overlying soil matrix. Level 3 consists of a sterile deposit with a small amount of cultural material in its topmost reaches. The cultural material here appears to have been trampled into this level.

3.3.6 Excavation Results

Excavation revealed a large lithic scatter of chert flake debitage covering 66 m^2. In addition, evidence of hearth features and burning were apparent across the site as evidenced by the large scatter of fire-cracked rock (Figure 3.7, 3.8 and 3.9). Ten features were identified at Big Brook 2, three of which were interpreted as activity areas, five of which were hearth features and two of which were related to the disturbance of the site.

Figure 3.6 – Schematic representation of stratigraphy at Big Brook 2



Level 1 – Peat / Level 2 – Sand / Level 3 – Clay and Regolith (Sterile)

bioturbation and stump removal when the area was originally cleared for habitation. Bioturbation factors include root action from trees as well as any burrowing animals and insects that inhabit the area. The thickness of this level varies from 40 to 8 cm across the site.

Cultural material, composed of white pitted and gray banded chert, was recovered from this level. In addition, two likely palaeoeskimo scrapers were recovered from the northern extent of the site at level 1. It seems that they would not be contemporaneous with other cultural material of the site as level 1 is in places disturbed.

Figure 3.7 - Distribution of hearths/fire cracked rock (northern area)

Figure 3.8 – Distribution of fire cracked rock (southern area)

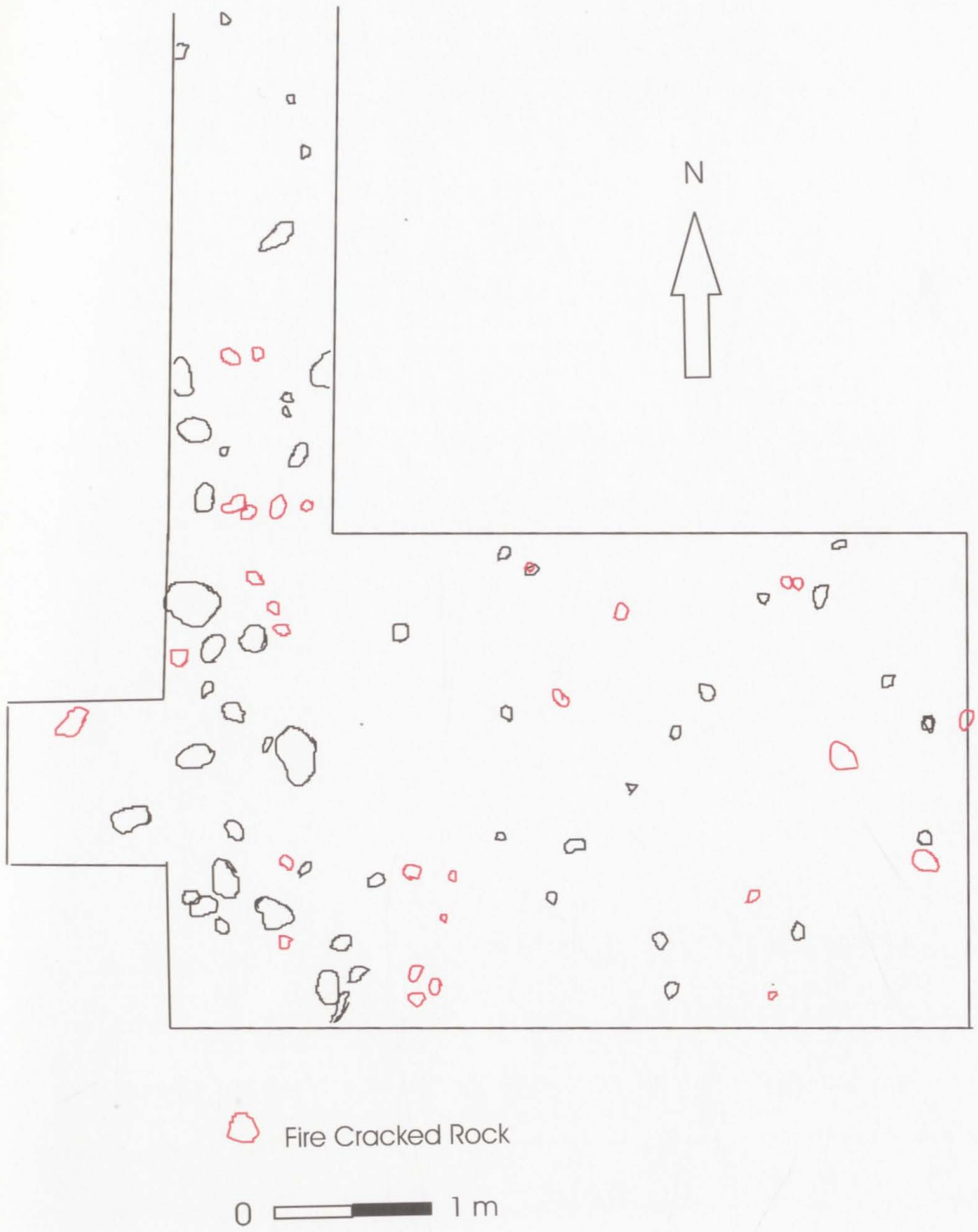
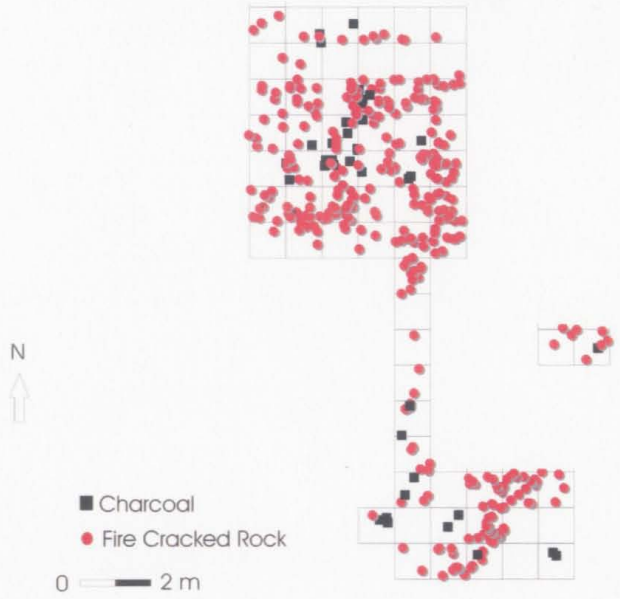


Figure 3.9 – Distribution of charcoal and fire cracked rock



The features described below begin with Feature 4. Features 1 to 3 are associated with another site (Big Brook 3).

Feature 4 was the most well-defined hearth found on the site. It measured 147 cm (N/S) x 144 cm (E/W). It was a circular area of burning with black colorations mottled with gray and brown (Figures 3.7 and 3.10). Beach cobbles and stones surrounded the area in a semi-circle. The topography of the feature was relatively level with some minor undulations. The soil matrix was black and silty. Associated fire-cracked rock was found within and around the feature. It also contained flakes, two preforms, a core and a piece of raw material. Charcoal obtained from Feature 4 provided a date of 2830 +/- 40 BP (Beta- 171714) (Cal BP 3050 to 2850) (Stuiver et al, 1998).

Figure 3.10 – Feature 4

Feature 5 was another hearth feature (Figure 3.7) measuring 66 cm (N/S) x 65 cm (E/W). It was a pinkish red coloration mottled with gray and brown in a concentric shape and was relatively flat with few undulations. Fire cracked rock was discovered in association with this feature. The matrix had a chalky feel and appeared to be composed of clay with some possible silt. It contained flakes but no artifacts.

Feature 6 was an area of disturbed and churned soil where all stratigraphic levels were mixed. It measured 40 cm (N/S) x 52 cm (E/W). This feature contained many flakes. It seemed modern and looked like a test pit without any flake removal. It contained no artifacts.

Feature 7 was a hearth feature. It measured 2.92 m (N/S) x 2 m (E/W) but continued unexcavated to the east (Figure 3.7 & 3.11). It was an area of pink

Figure 3.11 – Feature 7

discoloration mixed with charcoal inclusions and was mottled with red, brown and black. This feature had a relatively undulating topography with an old shovel-test and possible root disturbance. It looked to lie-rest within the sandy level and burnt through to the underlying clay. The soil matrix was a silty clay. Beach cobbles and fire-cracked rock were contained within the feature. Rocks were discolored pinkish to whitish hues. The feature contained flakes, pumice and a blade. In addition, this feature contained charcoal which was dated to 3820 +/- 40 BP (Beta- 171715)(Cal BP 4380 to 4090) (Stuiver et al, 1998).

Feature 8 was an area of modern disturbance measuring 61 cm (N/S) x 30 cm (E/W). It was a semicircular pit that continued south into the unexcavated area. The soil was completely disturbed and a modern tea pot lid was found with some plastic pieces of plates and other kitchen wares. The disturbance continued into the natural deposit of

level 3. The disturbance was likely associated with the occupants of the house ruin on the site.

Feature 9 was an area of burning, probably an informal hearth (Figure 3.12). This feature was located slightly east of the main excavation area in a test pit. It was a slightly irregular shaped area of pink discoloration with associated fire cracked rock. Flakes, a blade, a retouched flake and charcoal were found in the feature.

Feature 10 was a flake scatter associated with root activity. It measured 25 cm (N/S) x 63 cm (E/W). It was a depression of the normal site stratigraphy with some black mottle. Flakes were contained within. It was likely an area of root disturbance now rotted out creating an environment where flakes gathered over time.

Feature 11 was an area with a relatively high concentration of flakes, linear flakes and cores (Figures 3.13, 3.14). In this feature flakes were thicker than the sandy matrix in some areas of level 2. Cores, linear flakes, flakes, an abrader and a beach cobble were found in Feature 11.

Feature 12 was an area of burning, likely a hearth (Figure 3.7 and 3.15). It was a pinkish/red burned area mottled with gray and black and measured 86 cm (N/S) x 84 cm (E/W). The soil matrix was a silty clay. A beach cobble, one limestone cobble, flakes and charcoal were found in association.

Feature 13 was an activity area associated with a high concentration of cores and preforms (Figure 3.16 and 3.17). It contained an elevated mound 18 cm high, probably a result of a stump removal while the area was cleared. There were cores,

Figure 3.12 – Feature 9

Figure 3.13 – Feature 11

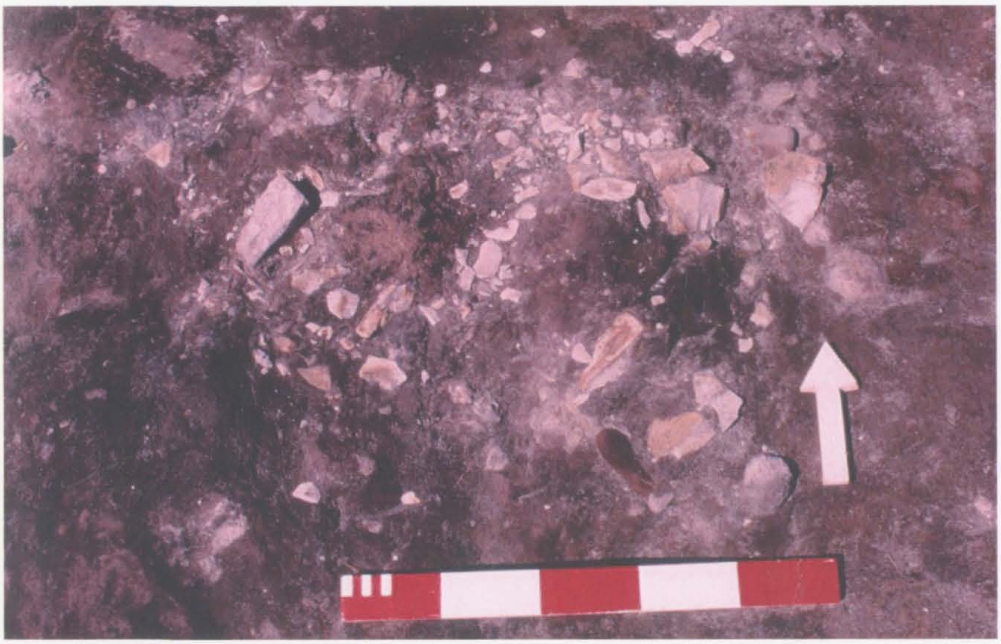
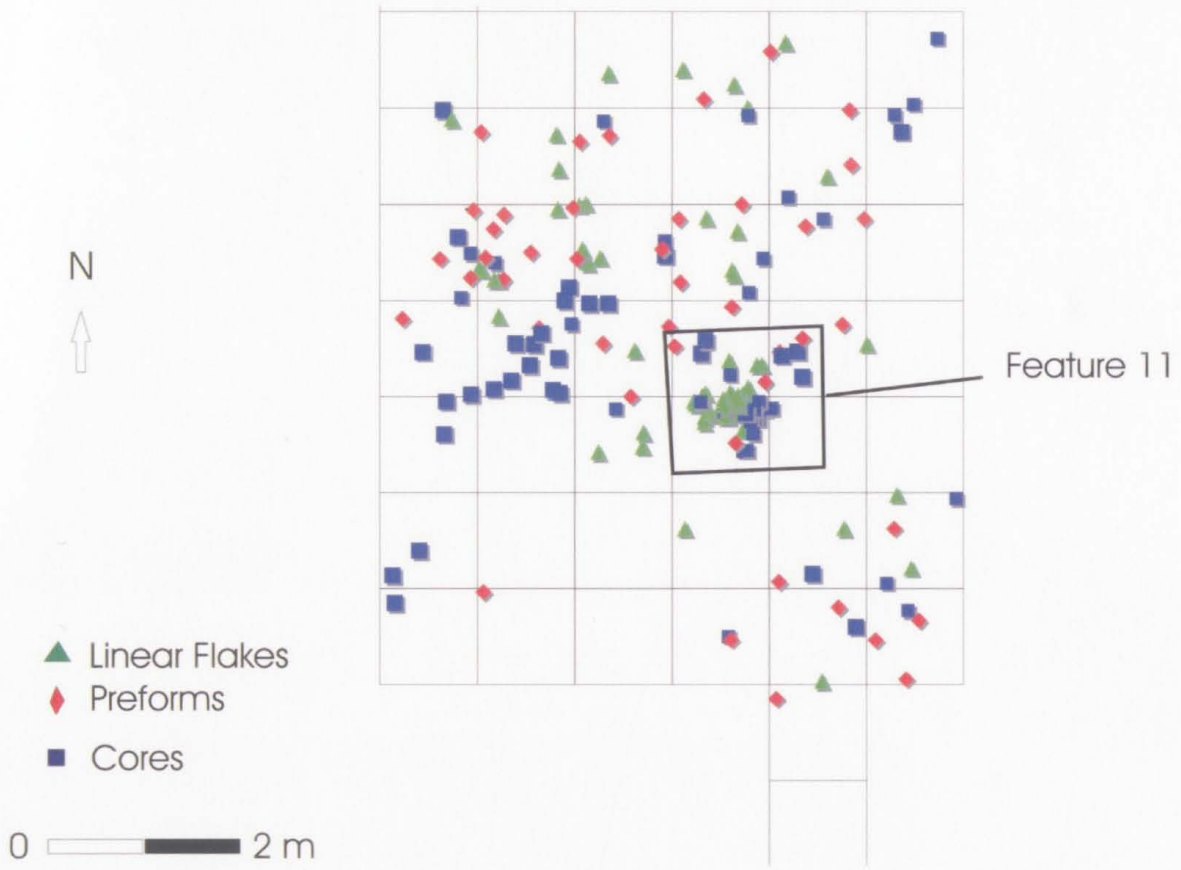


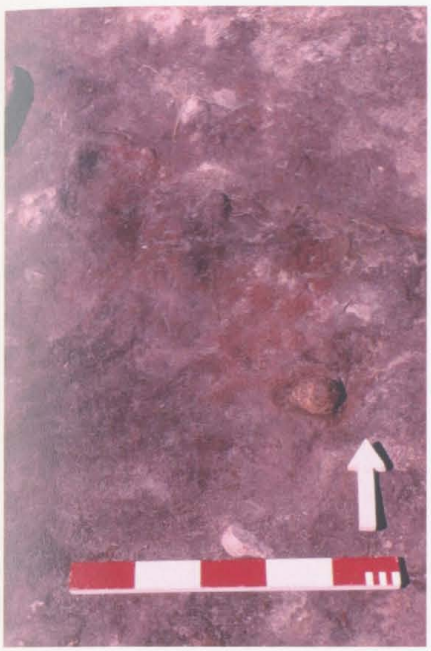
Figure 3.14 – Northern section activity areas



preforms and shatter scattered within and around it. Thus this feature is interpreted as a core reduction/early tool reduction activity area.

Feature 14 was a linear flake production activity area (Figure 3.17). It contained a high concentration of linear flakes with a smaller number of cores and preforms. A hammerstone, pumice and charcoal were also found in association. A date of 4090 +/- 40 BP (Beta- 177106) (Cal BP 4810 to 4750 and Cal BP 4710 to 4500 and Cal BP 4480 to

Figure 3.15 – Feature 12



Feature 3.16 – Feature 13

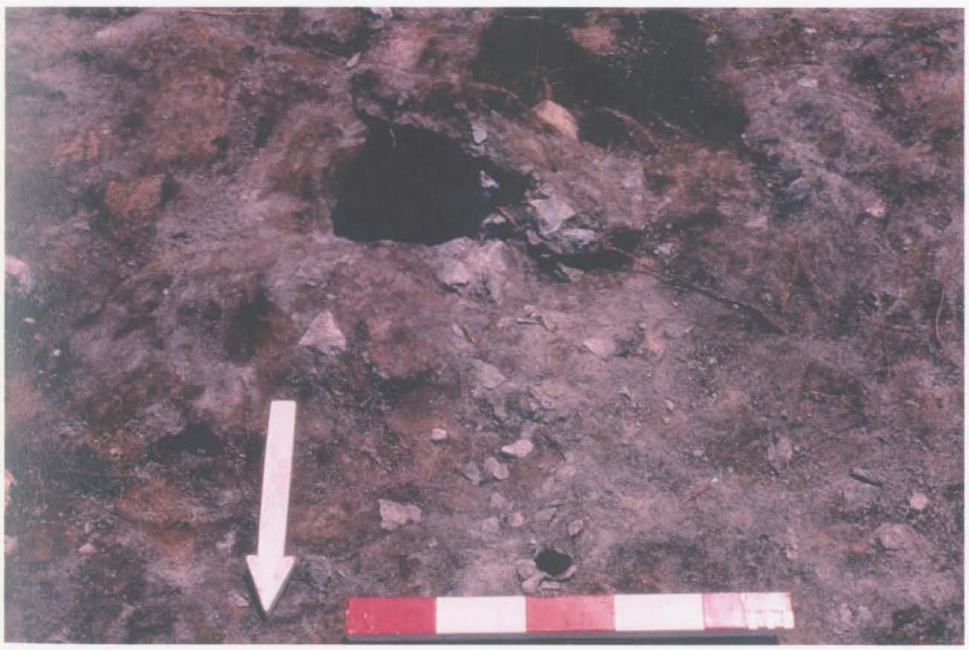
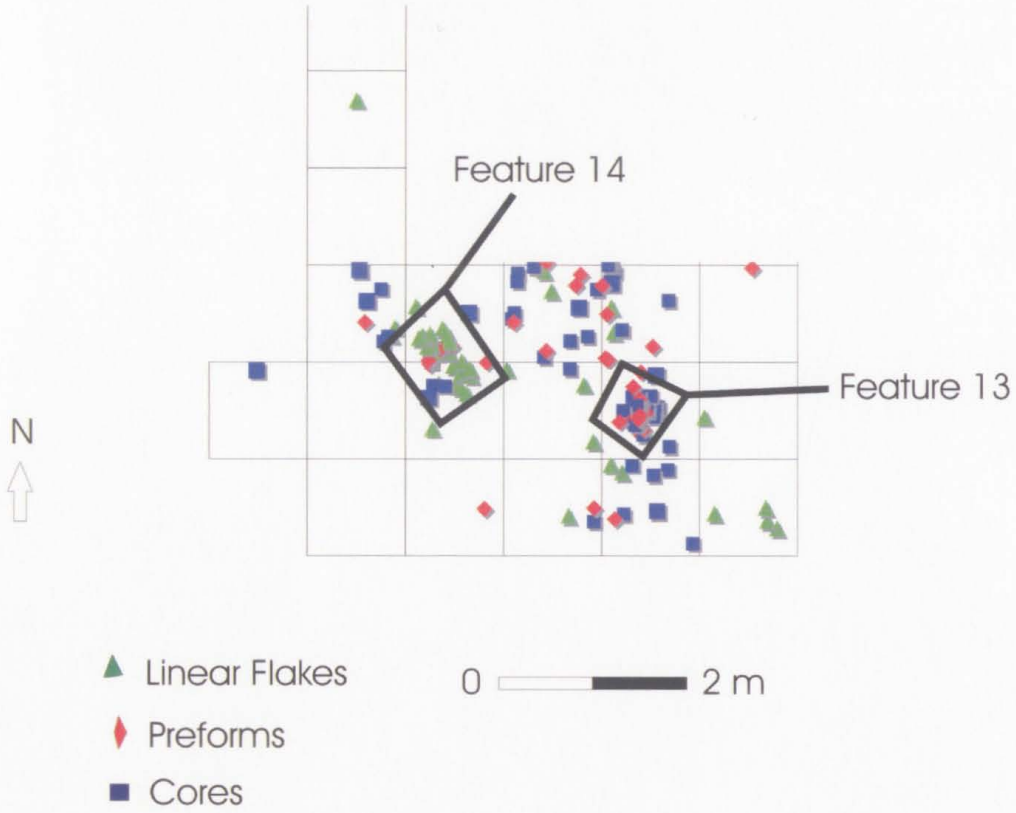


Figure 3.17 – Southern activity areas



4440) (Stuiver et al., 1998) was obtained in association with the linear flakes from this activity area.

3.4 Chapter Summary

In summary, Big Brook 2 was characterized by a large lithic scatter dated between approximately 4000 to 2800 BP (Figure 3.18). It was located on a terrace 6.5 m asl and near a major river system. Stratigraphy at the site showed one definable cultural deposit

underlying a layer of peat. The lithic scatter showed discernible activity areas. In addition, extensive burning took place, often coloring the subsoil pink and red.

Figure 3.18 – Top of level 2

CHAPTER 4 – ARTIFACT DESCRIPTION AND ANALYSIS

4.1 Introduction

The following is a description of the lithic cultural materials collected at Big Brook 2 (EjBa-2) during the 2002 summer field season. There was no organic preservation. They are described by artifact type, each receiving individual attention.

4.2 Big Brook 2 (EjBa-2)

A vast quantity of lithic debitage and artifacts was uncovered from Big Brook 2. There was not a single excavated square on the site that did not provide at least some type of culturally modified material. Flakes are divided into four types (primary, secondary, tertiary and shatter) with raw material grade noted for each type. There are also 13 different artifact types recovered from the site, many of which are made of similar raw material as the debitage. In addition, pumice will be discussed.

4.2.1 Raw Material Grade Definitions

Raw materials for the site were divided into three different grades. The three grades are all from the same source. This is evidenced by flakes that contain elements from more than one of the three grades. However, these grades are not represented in the same piece all of the time, rather, the normal case is a flake of a single grade. For the purposes of this study, a distinction seems useful since the distribution of raw material grades on site seems to be patterned. Grade 1 chert is found to be the majority in the

northern area of the site, while Grades 2 and 3 are the majority in the southern area. There is some overlap of grades towards the middle of the site.

Grade 1 is white, pitted chert (Figure 4.1). Grade 2 is a gray banded and sometimes pitted chert (Figure 4.1). Grade 3 chert is a gray, banded, fine grained chert with many internal joints (Figure 4.1). These joints are flaws in the chert that lead to unwanted and unpredictable fractures when working with this material. Finally, any cherts not included in the three grades were referred to as exotic.

Two possible chert sources close to Big Brook were mentioned by geologist Ian Knight (personal communication, 2002). One was located near Boat Head, which we were unable to locate (Figure 4.2). Another was located in and along the coast of Lower Cove not far from Big Brook (Figure 4.2). This suggestion led to the discovery of a possible location of the source of Grade 3 chert in the cliff face north of Lower Cove (Figure 4.3).

A likely source for chert Grades 1 and 2 was located up the Big Brook river system. During a brief survey approximately two hours up the river, chert cobbles with an orange/brown pattination were found. These cobbles became more abundant moving further upriver. When cracked in half, the cobbles had a bluish-gray color, with one displaying pits like those of Grades 1 and 2 (Figure 4.4). Other cobbles appeared to be identical to the chert from the site. Therefore it seemed likely that this secondary deposit was the primary source of chert for Big Brook 2.

Figure 4.1 – Raw material grades

4.2.2 Debitage

Debitage was divided into primary, secondary and tertiary flakes as well as shatter. Primary flakes were defined based on presence of a striking platform, cortex and/or relative size and less than three scars on the dorsal surface. Secondary flakes were defined based on the presence of a striking platform, lack of cortex and higher body width to platform width ratio. Tertiary flakes were defined based on presence of striking platform, relative size and could be described as long and thin. Shatter included flakes with no diagnostic features, regardless of size. Debitage was then subdivided based on the three grades of raw material (Tables 4.1 - 4.6). See Figure 4.5 for flake distribution at Big Brook 2.

Figure 4.2 – Location of possible sources

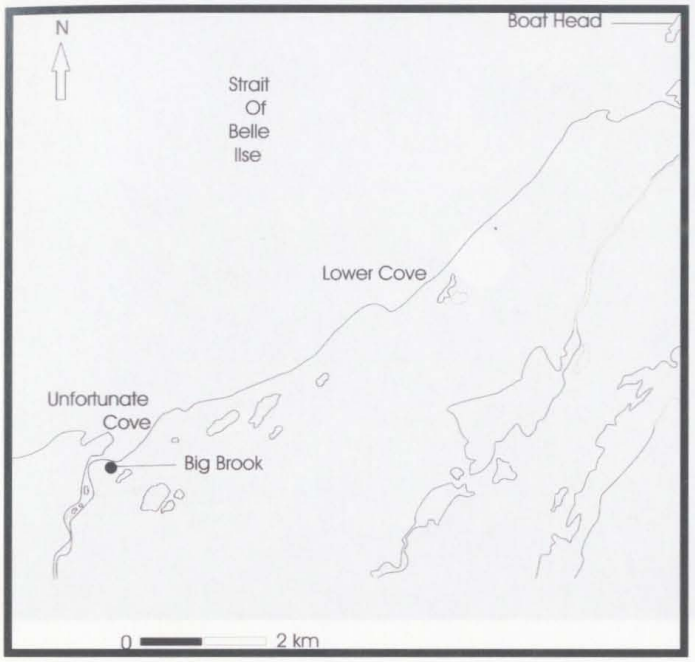


Figure 4.3 – Chert from Big Brook River

Figure 4.4 – Chert from Lower Cove

Table 4.1 – Primary flakes

Type	**Number**	**Percentage**
Grade 1	615	2.27
Grade 2	571	2.10
Grade 3	35	0.13
Total	**1221**	**4.5**

Table 4.2 – Secondary flakes

Type	Number	Percentage
Grade 1	8538	31.47
Grade 2	2780	10.24
Grade 3	202	0.74
Total	**11520**	**42.46**

Table 4.3 – Tertiary flakes

Type	Number	Percentage
Grade 1	303	1.12
Grade 2	165	0.61
Grade 3	44	0.16
Total	**512**	**1.89**

Table 4.4 – Shatter

Type	Number	Percentage
Grade 1	9814	36.17
Grade 2	3764	13.87
Grade 3	301	1.11
Total	**13879**	**51.15**

Table 4.5 – Flake type totals

Type	**Number**	**Percentage**
Primary	1221	4.5
Secondary	11520	42.4
Tertiary	512	1.9
Shatter	13879	51.2
Total	27132	100

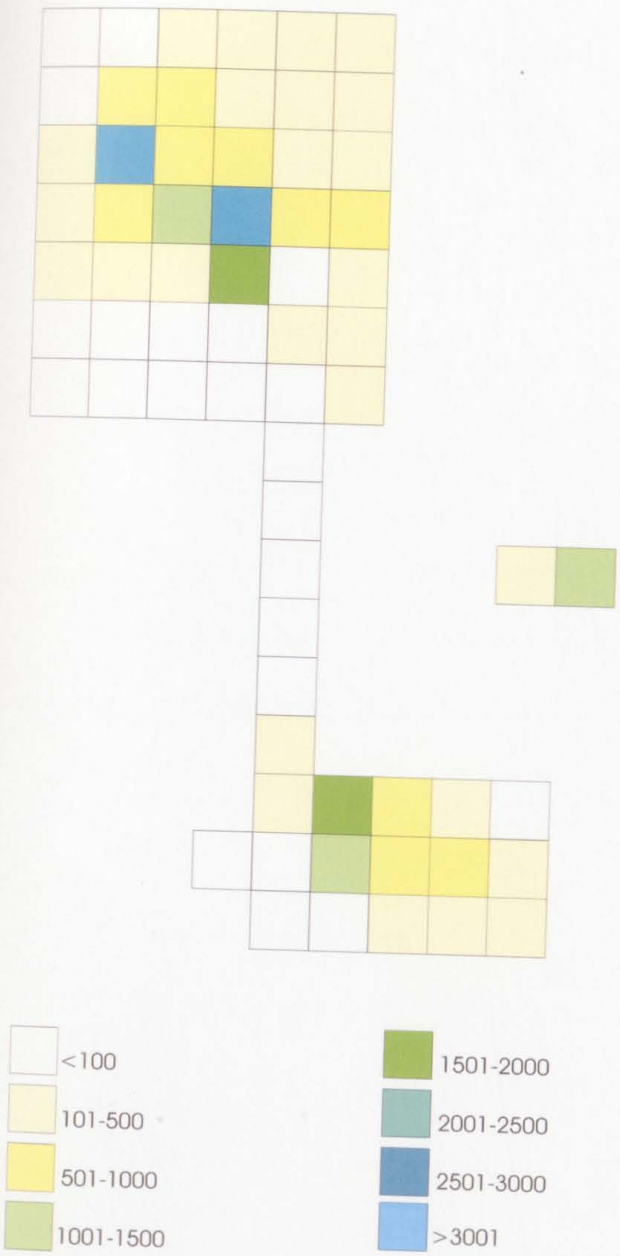
Table 4.6 - Raw material grade totals

Type	**Number**	**Percentage**
Grade 1	19270	71.1
Grade 2	7280	26.8
Grade 3	582	2.1
Total	**27132**	**100**

4.2.3 Abraders

Twenty abraders were found on site. They are large and small fragments of soft, coarse-grained and fine-grained stone (Plate 1). They are gray and exhibit striation and polishing wear patterns that are noticeable to the naked eye.

Figure 4.5 – Flake Distribution Totals



4.2.4 Bifaces

Three biface fragments were found. Two of the three are from the same biface and the other is a small fragment. Therefore, only two distinctive bifaces are represented. The first is a slightly lanceolate, stemmed biface with slight expansion towards the proximal end (Plate 2). The tip is missing and it has been broken in half. It is light blue/grayish chert with yellowish bands. The second example is a Ramah chert midsection fragment.

4.2.5 Cores

One hundred ten cores were recovered. All of these were made of the three different raw material grades (Plate 3). They were divided into four different categories. Unidirectional cores exhibited flakes scars that were roughly parallel such that long linear flakes were removed (Andrefsky, 1998). Multidirectional cores exhibited flake scars that indicated flakes removed in several directions from multiple platforms (Andrefsky, 1998). Bipolar cores had pitting on opposite sides of where flakes were detached by contact on both ends. Undetermined cores showed flake scars but could not be assigned to any of the above categories.

Results showed that multidirectional cores were most numerous while bipolar were least. Additionally, Grade 1 raw material was most common while Grade 2 was the least (Table 4.7).

Table 4.7 – Cores (raw counts)

Type	Grade 1	Grade 2	Grade 3	Total
Uni.	5	5	11	21
Multi.	33	17	20	70
Bipolar	0	1	5	6
Undetermined	7	4	2	13
Total	**45**	**27**	**38**	**110**

4.2.6 Gouge

One gouge was found along the trench connecting the northern and southern areas of the site (Plate 1). The gouge is incomplete with one end broken off. The channel takes up approximately half its surface. The slate is a light beige color.

4.2.7 Ground Slate

This category includes all the debitage and unidentifiable pieces of this material (Plate 1). It was categorized separately from flakes and unidentified tool fragments. In total, 10 pieces were found. One is an unidentified piece of ground slate formed into a tool and looks as though it has broken off through some type of applied force, such as use. The rest are various pieces of debitage.

4.2.8 Hammerstones

Nineteen hammerstones were recovered from the site. They range in shape from elongated to oval to round (Plate 4). The hammerstones were rounded beach cobbles with pitting and/or wear. This pitting or wear was hypothesized to be a sign of use. Their distribution on the site was not patterned or in association with other tool types. The weathered and rounded beach cobbles that were selected for hammerstones are not naturally occurring on the site thus, they were likely brought in. The size of the stones indicates use in early stages of core/raw material reduction.

4.2.9 Linear Flakes

A total of 218 linear flakes was recovered from the site. Initially in the field the terms blades, microblades and blade-like-flakes were used for this material. However, it is believed that these items were all generated in the same manner and this separation would not provide new information. In addition, the technology as a whole seems to be creating many more expedient flakes and a term such as blade has a much more formalized connotation. Furthermore, single arrises are the norm at Big Brook 2. Therefore, for the purposes of this research a linear flake is defined as a flake which has relatively parallel sides and at least one arris that covers over fifty percent of the length.

The linear flakes at Big Brook 2 were overwhelmingly characterized by one arris at eighty-five percent of the total (Plate 5) while two arrises only accounted for fifteen percent (Plate 5). Raw materials included the three chert grades of which, Grade 2 appeared most frequently with double arris blades (Table 4.8).

Table 4.8 – Linear flakes (raw counts)

# Arrises	Grade 1	Grade 2	Grade 3	Total
One	110	71	5	186
Two	15	17	0	32
Total	**125**	**88**	**5**	**218**

4.2.10 Preforms

Ninety-one preforms were found on site. These were made from the common three raw material grades found at Big Brook 2 (EjBa-2). They were divided into three categories. Early and late preform stages were adopted from Andrefsky (1998). Andrefsky (1998) outlines a model of tool manufacture beginning with a blank (unmodified flake or piece of raw material), followed by an edged biface (flakes taken off the edge of both sides) a thinned biface (piece thinned to the center), a preform stage (flake scars are patterned and go past the center) and finally a finished piece.

Early preforms at Big Brook 2 had noticeable areas on the artifact without flake scars and required further heavy reduction or alteration to produce a finished tool (Plate 6). Late preforms were covered in flake scars but had not been completely thinned and finished (Plate 6). Failed preforms are both early and late preforms that have been broken during the toolmaking process (Plate 6).

The majority (n = 52) of preforms are early in the stages of reduction (Table 4.9). There were 32 failed preforms and finally only seven late preforms.

Table 4.9 – Preforms (raw count)

Type	Grade 1	Grade 2	Grade 3	Total
Early	26	14	12	52
Fail	10	15	7	32
Late	3	2	2	7
Total	**39**	**31**	**21**	**91**

4.2.11 Projectile Points

Two projectile points were found (Plate 2). One is a ground slate stemmed point. The other is a side-notched point made from an exotic chert. This point was located directly adjacent to Feature 4, which is dated to 2830 +/- 40 BP (Beta – 171714) (Cal BP 3050 to 2850).

4.2.12 Raw Material

Forty-nine pieces of raw material were recovered in chert Grades 1-3. For the purposes of analysis, raw material was defined as material which did not show any discernable flaking scars and that was not a flake itself. Grade 1 and Grade 3 were the most frequent on site followed by Grade 2 (Table 4.10).

Table 4.10 – Frequencies of raw material

Grade	Frequency	Percent
1	26	53.1
2	6	12.2
3	17	34.7
Total	**49**	**100**

4.2.13 Retouched Flakes

Eight retouched flakes were found. They are all fairly crude, expedient tools with only slight retouch (Plate 7). They are of the three chert grades from the site.

4.2.14 Scrapers

Three scrapers were found. One is made from Grade 3 raw material. The other two are made from exotic cherts that are more characteristically Paleoeskimo in origin and were found higher in the peat (level 1). On the basis of raw material and stratigraphic association, the first scraper is identified as Maritime Archaic and the second two are identified as Paleoeskimo (Plate 7).

4.2.15 Unidentified Tool Fragment (UTF)

Eleven unidentified tool fragments were found. This category is designed to encompass artifacts that could not be assigned to any of the above categories. They are

in some manner modified; however, design and function cannot be ascertained (Plate 7). They include the three chert grades.

4.2.16 Additional Materials - Pumice

Pumice was found across the site and was therefore recorded. It is unclear whether the pumice is natural or if it was brought in to be used as a polishing stone. No evidence was found for either possibility.

Summary

Below is a summary of cultural material from Big Brook 2 (EjBa-2), in table form (Table 4.11 on next page).

Table 4.11 – Summary of artifacts from Big Brook 2

Type	**Number**	**Percentage**
Abraders	20	3.67
Bifaces	3	0.55
Cores	110	20.17
Gouge	1	0.18
Ground Slate	10	1.83
Hammerstones	19	3.49
Linear Flakes	218	40.00
Preforms	91	16.70
Projectile Points	2	0.37
Raw Material	49	9.00
Retouched Flakes	8	1.47
Scrapers	3	0.55
UTF	11	2.02
Total	**545**	**100**

CHAPTER 5 – SUMMARY AND DISCUSSION

5.1 Cultural Affiliations

Big Brook 2 (EjBa-2) is a multicomponent site, occupied by Maritime Archaic Indian, Late Maritime Archaic/Intermediate Indian and Paleoeskimo groups. The Paleoeskimo and Late Maritime Archaic/Intermediate Indian components will be discussed first since they are least represented.

5.1.1 Palaeoeskimo

Two of the three scrapers found are attributed to a Paleoeskimo component at the site. They are made of fine-grained cherts characteristic of Northern Peninsula Paleoeskimo groups (Renouf, personal communication, 2003). They were also found at a higher stratigraphic level uncharacteristic of the other cultural components. Although there is disturbance on the site, the stratigraphic position at which they were found is believed to be primary context.

5.1.2 Late Maritime Archaic/Intermediate Indian

The Late Maritime Archaic/Intermediate Indian component was attributed to the date from Feature 4 and the single, side notched projectile point (Plate 2) that was found immediately adjacent. Feature 4 was dated to 2830 +/- 40 BP (Cal BP 3050 to 2850) (Beta-171714) from good context. This date fits within the Intermediate Indian time period of southern Labrador.

The date of Feature 4 could also fit into the Groswater Palaeoeskimo time period of Newfoundland. Evidence to support this cultural affiliation would be the previously noted Palaeoeskimo component at Big Brook 2. In addition, a Groswater Palaeoeskimo hearth was found closer to the Big Brook River at Big Brook 3 (EjBa-3). However, diagnostic Groswater Palaeoeskimo artifacts and fine-grained cherts were completely absent from Feature 4 and the surrounding perimeter. In fact, the only two Paleoeskimo artifacts were the aforementioned scrapers which were not found in or around the hearth. In addition, these were found in a higher stratigraphic deposit than the side notched projectile point and the dated charcoal sample.

Hence, Feature 4 is interpreted as Late Archaic/Intermediate Indian. In addition, the side notched projectile point that was found beside Feature 4 is given the same cultural affiliation. It is anomalous to projectile points of Maritime Archaic origin. For instance, points from southern Labrador are expanding stemmed while this point is side notched. It has been previously noted that southern Labrador Maritime Archaic points show a seriation from expanding stemmed to side notched as they move towards the Late Archaic/Intermediate Indian period.

With side notches, it is similar in form, although not an exact match, to side notched points from the Iceberg site and Black Rock Brook which have been identified as Late Archaic/Intermediate Indian (Madden, 1976) (Figure 5.1). Side notched Iceberg site points are dated between 3470 +/- 50 BP (SI-2433) and 2870 +/- 60 BP (SI-2429). Black Rock Brook is dated between 3500 +/- 50 (SI-2438) and 2960 +/- 50 (SI-2437) and also contains a similar projectile point. Furthermore, the side notched point at

Figure 5.1 – Iceberg site side notched point

Big Brook 2 was found directly adjacent to a hearth that was dated to 2830 +/- 40 BP (Cal BP 3050 to 2850) (Beta-171714). Since a side notched point circa 2800 BP on the other side of the Strait of Belle Isle seems to indicate a Late Archaic/Intermediate Indian presence, it is postulated that such a component exists at Big Brook 2.

Consequently, because of the date obtained and the presence of the side notched point, Feature 4 has been identified as a Late Archaic /Intermediate Indian hearth feature. If correct this is the first dated Intermediate Indian component on the Island of Newfoundland.

Debitage and non-diagnostic artifacts in and around Feature 4 were not interpreted as Late Archaic/Intermediate Indian. It is possible that some of these could be included in this component however, because of the unstratified nature of the Maritime

Archaic and Late Archaic/Intermediate Indian deposits at the site it is difficult to sort out what debitage is associated with what group. In addition, since similar artifacts and debitage at Big Brook 2 are associated with Maritime Archaic dates, they will not be included with the later component.

5.1.3 Maritime Archaic

The largest component at Big Brook 2 belongs to Maritime Archaic Indians. With the exception of Feature 4, the side notched projectile point and the two Paleoeskimo scrapers, the remainder of the site is identified as Maritime Archaic.

This is based on several pieces of evidence. The first is the diagnostic artifacts including a gouge, a ground slate stemmed projectile point and two expanding stemmed biface fragments. Additionally, materials such as biface preforms, linear flakes, ground slate fragments and retouched flakes are consistent with Maritime Archaic lithic workshop sites such as those reported in northern and eastern Newfoundland.

Two radiocarbon dates from the site confirm this identification. Feature 7, a hearth feature, is dated to 3820 +/- 40 BP (Cal BP 4380 to 4090) (Beta 171715) while Feature 14, an activity area, is dated to 4090 +/- 40 BP (Cal BP 4810 to 4750 and Cal BP 4710 to 4500 and Cal BP 4480 to 4440) (Beta-177106). Both had flakes in context which are ubiquitous on the site. Additionally, Feature 14 was a linear flake producing activity area whose debitage is also well represented at Big Brook 2.

Therefore, in summary, Big Brook 2 was a Maritime Archaic site with small Late Archaic/Intermediate Indian and Paleoeskimo components. The majority of activities at

the site are attributed to the Maritime Archaic while only one feature and three artifacts are related to other groups.

5.2 Site Function

Site function will be discussed only with regard to Maritime Archaic activities. The sample for the other two components is too small for any inference to be made and thus this section will not address them. Evidence for a workshop/quarrying function and likely domestic activities are provided. This information will then be used to present a final interpretation of how the site was used and what it meant in general to the Maritime Archaic Indians that once occupied Big Brook 2.

5.2.1 Features 11 and 14 – Linear Flake Activity Areas

Features 11 and 14 were associated with the production of linear flakes. The function of the linear flakes is unclear. They could have been used as expedient tools or they could be the byproduct of some other tool production activity. In addition, their numbers may be exaggerated if broken pieces were counted separately and therefore twice. However, their appearance at Big Brook 2 is readily apparent and it is unlikely that their existence is an accident. This point is supported by the existence of blade technology and linear flakes at other Newfoundland Maritime Archaic sites such as the Beaches site (Table 5.1). Because of this, it is postulated that the linear flakes at Big Brook 2 were purposefully generated.

Therefore, Features 11 and 14 are labeled linear flake production activity areas. Primary deposition is apparent for several reasons. First, the linear flakes were associated with the raw material they were originally struck from. This was evident since only three visible grades of raw material were used on the site.

Grade 1 was associated with the northern area of the site where Feature 11 was found. The linear flakes from this Feature were composed of Grade 1 raw material. The same was true for Feature 14 located in the southern area and associated with Grade 2. The linear flakes from Feature 14 were composed of this same grade without evidence of mixing. The lack of mixing of raw material grades makes it less likely that secondary deposition was occurring.

Both areas also contained cores of the corresponding raw material. In the case of Feature 11, only one unidirectional core was found; however, there were a plethora of multidirectional cores. Feature 14 was associated with two unidirectional and one multidirectional core. Therefore, the likely cores were found in context with their resultant debitage.

5.2.1.1 *Implications of Features 11 & 14*

As discussed earlier, blade technology is identified at several Newfoundland Maritime Archaic sites. At none of these sites are blades or blade like flakes as numerous as the linear flakes from Big Brook 2 (Table 5.1). Since the flakes were found in a primary context it is suggested that the Big Brook 2 linear flakes were not used. Rather, they were likely manufactured where they were found and the best specimens

Table 5.1 – Blade industries of Newfoundland Maritime Archaic

Site Name	**Blade Industry**
Miles Cove 1 (DjAw-6)	2 blades, 1 blade like flake
Gold Cove 1 (DjBf-1)	1 blade
Morgan Island 3 (CjBj-13)	? linear flakes
Fox Bar Site (DeAk-3)	2 blades, 1 blade like flake
Bloody Bay Cove (DeAl-1)	26 blades, 81 blade like flakes
Brown's Beach (DeAl-2)	1 blade, 1 retouched blade, 7 blade like flakes, 2 linear flakes, 3 retouched linear flakes
Beaches (DeAk-1)	22 blades; 12 with retouch, 15 with battering
South Brook Park (DgBj-3)	1 retouched blade like flake
Big Droke (EgBf-11)	18 macroblades
Caines (EgBf-15)	4 complete, 6 fragmented blades
Gould site (EeBi-42)	1 retouched macroblade

were selected to be used at other localities, either at Big Brook 2 or at other sites, likely near at hand. A formal usewear study was not undertaken but potentially could prove useful; however, examination of artifacts in the field for categorization and later measuring activities did not turn up any specimens that seemed utilized. From these basic macroscopic observations, linear flakes did not appear to be chipped or worn along potential cutting edges.

If the linear flakes were not used at Big Brook 2 they would likely have been used somewhere close by. Because of the expedient nature of the tools themselves, and the relative poor quality of the raw material from which they were struck, distant transport was not likely. Additionally, ethnographic evidence suggests that hunter-gatherers would have created such tools at the time that opportunities for their use were presented (Binford, 1979). Therefore, what was likely was that domestic activities were taking place close to Big Brook 2 or in other, unexcavated areas of the site itself.

5.2.2 Feature 13 – Core Reduction/Preform Production Area

Feature 13 was a core reduction/preform production activity area. Primary deposition at this activity area was disturbed, indicated by a large hump, which was likely produced by stump removal. Although this feature was disturbed it is likely that the original artifact association and density were preserved. A large number of secondary and shatter flakes from this area match the Grade 2 and 3 chert that comprised the collection of cores and preforms from the feature.

5.2.2.1 *Implications of Feature 13*

Feature 13 preforms were bifacially worked and thus are categorized as biface preforms. Biface preforms are indicative of workshop activity as they represent an incomplete stage in tool manufacture. Furthermore, there is an absence of finished bifaces at Feature 13. This likely means that raw material was reduced to a biface preform to be transported and finished or used elsewhere, or that finished tools were

made and brought elsewhere. The complete dominance of secondary and shatter flakes and the absence of tertiary flakes indicate that the latter scenario is not likely.

The presence of cores and raw material in situ at this feature provides evidence for quarrying activities at Big Brook 2. The cores and unflaked raw material indicate that this feature was likely a spot were manageable sized pieces of raw material were selected to be reduced into biface preforms.

Evidence from Feature 13 can be used in conjunction with other materials found at Big Brook 2 to illustrate the quarry/workshop nature of the site. There were very few bipolar cores in relation to unidirectional and multidirectional cores. Bipolar technology is often related to scarcity of raw material since smaller raw material pieces can be flaked and broken to obtain usable flakes (Andrefsky, 1998). This points to a nearby raw material source and thus a likely quarry component to the site at Big Brook 2.

This evidence is further supported by the presence of numerous hammerstones (19) scattered across the site. They were not naturally occurring beach pebbles and cobbles at the site and also exhibited pitting. Some of them were fairly large in size and likely indicate use at earlier stages of lithic reduction. This would attest to the proposed quarry component of the site.

Additional evidence is provided by the quantity of shatter material located on the site. Shatter material was likely produced during early stages of reduction (Kooyman, 2000) and attests, to a degree to the quarry nature of Big Brook 2. Conversely, the number of secondary flakes attest to the early workshop nature of the site where biface preforms were generated.

All of the factors mentioned above attest to Big Brook 2 as a quarry/workshop site. The quarry component was likely related to the close proximity of a raw material source and is evidenced by artifacts and debitage. The workshop nature is attributed to biface preform production. Thus far, site function seems to be dominated by such activities because of the overwhelming degree of lithic evidence. However, these are not likely to have been the only activities that occurred at and around Big Brook 2.

5.2.3 Burn Features – Features 5, 7, 9, 12

Feature 7 is identified as a hearth. Additionally, Features 5, 9 and 12 are smaller burned areas with red staining. No particular patterns can be identified for the burnt areas combined with the hearth. In addition, Feature 7 was only partially excavated. No calcined bone was found in any of these features.

The hearths do not appear to have been used repeatedly. No formalized structure is present such as a pit, depression or ring of rocks. It has been observed with the Alywara (Central Australia), Nunamiut (North-Central Alaska) and !Kung (Kalahari Desert) hunter-gatherers, that repeatedly used hearths would be maintained by cleaning, which would lead to size sorting of materials (Yellen, 1977; Binford, 1983; O'Connell, 1987). Debitage and discarded artifacts show no patterning indicative of cleaning or size sorting. There is no evidence of such maintenance activities at Big Brook 2. Finally, there is no indication of multiple layers, deeper deposits of ash and charcoal or digging or wearing into the substrata within the hearth that would indicate multiple burns and cleaning episodes.

However, the hearths appear to have burned for long periods of time. It has been noted among the Alywara that red staining occurs in the soil with hearths that have been left burning for weeks (O'Connell, 1987). Additionally, red staining was reported at long standing hearths that were believed to be used in heat treating of raw materials at the Caines site (Reader, 1999). This red staining also occurred at a "repeated use domestic" site at Big Droke 1. Red staining occurred in all of the interpreted Maritime Archaic hearths (Features 5, 7, 9 and 12). Furthermore, Big Brook 2 is covered in charcoal and fire-cracked rock. This coverage as well as the red staining is not visibly patterned, and therefore suggests that much of the area had been burned. Therefore, this suggests a long period of occupation at Big Brook, without reuse of the hearth features but with hearths burned for long periods.

The function of the hearths is unclear but is not likely related to heat treating of raw materials. Heat treating could be expected due to the relatively poor flaking quality of the raw material at Big Brook 2. Debitage and discarded tools show no evidence of heat treatment in the form of potlid fractures or discoloration. Therefore, it appears that the hearths are associated with domestic activities rather than the actual toolmaking/quarrying process that occurred at Big Brook 2. This would also likely mean that the area was burned prior to the creation of activity areas outlined above. Since a hearth and a linear flake production activity area both provided Maritime Archaic dates, this cultural affiliation for both remains to appear accurate. Therefore, parts of the site were likely reused, albeit not necessarily at the same time.

5.2.3.1 *Implications of Features 5, 7, 9 & 12*

The function of burning at Big Brook 2 remains the single most vexing aspect of the site. There are several possible explanations, none of which is satisfactory at present. Perhaps, the excavated area is part of a larger site, which included a more intensive focus on domestic activities such as a habitation. This could mean that structural features or other evidence of such a site exist in areas immediately adjacent or relatively close to Big Brook 2. This would not be out of the question. The location of Big Brook suggests a focus on a number of faunal resources as well as chert procurement. However, without further testing of the area, this remains to be seen.

Big Brook 2 could also have served as a special purpose site used for example, for salmon smoking or meat drying, in conjunction with quarry/workshop activities. Without faunal evidence, this is difficult to determine, yet a lack of calcined bone in the hearths could mean that meat was being smoked, hence the need for long duration fires. Salmon were likely available in the river much as it is present day. However, to argue this point one must use conjecture and rely on the shaky foundation of negative evidence.

Another possibility is that select raw materials could have been heat treated and subsequently removed, leaving little evidence of the procedure, which went undetected during analysis. It was previously noted that heat treatment of Big Brook chert likely occurred at the Caines Site. However, without any evidence of heat treated materials it is impossible to tell if this occurred at Big Brook 2.

Irregardless, because of the likely long duration of the fires and the inferred nearby presence of a chert source, the most likely scenario is that Big Brook 2 was used

for both domestic and quarry/workshop activities. This would coincide with ethnographic research among the Nunamuit where the procurement of raw materials was embedded in other subsistence activities (Binford 1978, 1979). However, it is unclear at this time to what intensity and to what degree domestic activities are in evidence at the site.

5.2.4 Artifact Evidence

Just because the degree and intensity of domestic activities are unclear does not mean there is a lack of evidence for their existence. The possibility of woodworking at Big Brook 2 is suggested based on the presence of two ground slate items.

A single gouge was found that looked heavily worn and partially broken. In addition, a ground slate tool fragment was found which showed force shatter marks as if it had been broken in the process of working on something. The piece was rounded and shaped at one end but its function is unclear. The portion that was visibly shaped did appear to be finished. Therefore, it appears that this piece was likely broken during use rather than tool manufacture. These two pieces of evidence indicate a likely archaeological signature of at least some degree of woodworking activity.

Other tool fragments combined with the ground slate gouge also provide evidence, albeit conjectural that a residential base is nearby. A small Ramah chert biface midsection, a finished, broken blue/gray banded chert biface and a broken ground slate projectile point suggest either discarded tools or, hunting tool repair or replacement.

There is a lack of debitage matching these discarded tools to suggest that while they were maintained at Big Brook 2 they were likely manufactured elsewhere.

The presence of retouched flakes also indicate a degree of domestic activity taking place. Retouched flakes would have been used as expedient cutting tools, likely generated at the time of use (Binford, 1978). Ethnographic evidence based on the Nunamuit suggests a variety of uses such as butchering and scraping (Binford, 1979). In addition, a solitary Maritime Archaic scraper was found. Therefore, contrary to the lack of retouch on the linear flakes, these artifacts point to a degree of subsistence related activities occurring on or near the site.

5.3 Raw Material

One of the most striking characteristics of Big Brook 2 is the overwhelming abundance of a particular chert that occurs in three grades. It was useful to differentiate the three grades since they permitted the definition of activity areas at the site. These three grades were matched with locally occurring cherts. In particular, Grades 1 and 2 which were most abundant on site were visually matched with chert coming from upstream areas of the Big Brook river system.

Grade 1 white pitted chert came primarily from the northern section. This was the most abundant grade at the site. Chert from the southern section of the site was referred to as Grade 2 and was a dark gray banded chert, often with pitts. Grade 3 chert was fine grained, gray and sometimes banded. This grade was the least abundant at the site but was highly represented at Feature 13.

As noted earlier, visually similar cherts were identified in beds along coastal cliffs near Lower Cove and upstream the Big Brook river system in cobbles. Thus far, the bedded cherts have only been visually matched to Grade 3. Meanwhile, cobbles from upstream are similar to Grade 2 and Grade 1. Color has not yet been matched for Grade 1 but the characteristic pits are present. This is probably the source of chert related to the toolmaking/quarrying activities at Big Brook 2.

For the remainder of the thesis all three grades of raw material found at the site are referred to as Big Brook chert. In addition, Big Brook chert refers to both possible sources adjacent to Big Brook 2 including the chert beds north of the site at Lower Cove and the fluvial cobbles found up the Big Brook river system. This statement is made based on the hypothesis that the local sources are the points of origin of the three grades found at Big Brook 2. This is also based on the interpretation that all three grades of chert are related. This was made because of the presence of chert found at Big Brook 2 where all three identified grades were visible in single specimens.

Furthermore, for the remainder of the thesis, chert from all other sites, matching the descriptions of the three grades from Big Brook 2 will be referred to as Big Brook chert. This includes all such varieties occurring on the Newfoundland and Labrador sides of the Strait of Belle Isle.

Another possible source of visually similar chert has been attributed by Reader (1999) to an area on the Dog Peninsula near the community of Bird Cove. However, the source of this chert in the area remains elusive, despite searches by geologists and archaeologists alike (Hartery, 2002). It is likely that Big Brook chert occurs along the

northwestern coast of the Northern Peninsula in Ordovician and Cambrian limestones and dolostones with patched local sources including the Bird Cove area.

The cobbles from the Big Brook river system likely represent fluvial rather than glacial transport because of the characteristic yellow to orange-brown patination. Such staining often occurs in river deposits and is the result of strong iron oxide staining (Lavin and Prothero, 1992). Furthermore, the association of the cobbles with the river itself adds strength to the fluvial transport hypothesis. Therefore, the cobbles likely represent a secondary chert source with the primary source located further up the Big Brook River system. The chert for Grades 1 and 2 are most visually similar to the cobble samples and thus likely came from upriver.

The bedded chert from Lower Cove was found to be most visually similar to Grade 3 chert and displayed similar fracture characteristics. The coastal chert seemed to demonstrate undesirable fracturing for use in toolmaking because of internal flaws and jointing. This was similar with the Grade 3 chert found on site.

The connection of Big Brook 2 to Big Brook chert seems undeniable because of proximity and similar visual characteristics. Yellow patination is visible on some chunks of raw material, cores and debitage from Big Brook 2 that is similar to the patination at the source.

The lack of oxidized patination on other pieces of raw material at the site suggest the possibility of a parent source located further upriver. This would be within the realm of possibility since the oxidized cobbles likely originated further upriver and were

transported by erosion. However, in order to substantiate such claims, further survey work must be done.

Additional evidence for the connections of the chert worked at the site comes from the expedient nature of the tools present. Highly curated materials lead to highly curated artifacts with common evidence of repair and retouch (Binford, 1979; Bamforth, 1986). Various stages of abandoned, broken or nearly complete tools make up most of the Big Brook chert tool inventory. It may be argued that the finished artifacts were taken away from Big Brook after manufacture; however debitage indicating the later stages of reduction seems to be lacking. As noted earlier, tertiary flakes at Big Brook are relatively rare while earlier stage debitage is well represented. Early stage reduction debitage often indicates a close proximity to the source of raw material (Newman, 1994). This implies that the source of the chert was close by.

5.4 Site Interpretation

At this point, characteristics of the Big Brook 2 site will be compared to other Newfoundland Maritime Archaic sites discussed earlier. It will first be related to the categories of Newfoundland Maritime Archaic sites outlined in Chapter 2. Comparisons will then be made according to site location data for the Island of Newfoundland. Interpretations will then be made based on previous sites of this type and be combined with some of the unique aspects of Big Brook 2.

Extensive lithic reduction and toolmaking occurred at Big Brook 2 indicating that this was a lithic workshop site. Large lithic scatters coupled with the presence of biface

preforms and a blade industry have been noted at Bloody Bay Cove (DeAl-1), Brown's Beach (DeAl-2) and the Beaches (DeAk-1), in Bonavista Bay, all associated with locally occurring raw materials. This is also the case for Big Brook 2 as it has been demonstrated that the source for the chert that was worked at Big Brook 2 is locally occurring.

The difference between Big Brook 2 and the Bonavista Bay sites is the lack of finished artifacts made from the locally occurring raw material. In addition, the blades found at these sites shows signs of use and retouch, which is not the case at Big Brook 2. This likely attests to the earlier stage of reduction that is occurring at Big Brook 2 compared to the Bonavista Bay workshop sites. This is no doubt related to the suggestion that Big Brook 2 also contains a quarry component based on fluvial deposited cobbles found up the Big Brook river system.

Big Brook 2 also had similar features to Big Droke 1 (EgBf-11) and the Caines site (EgBf-15) on the Northern Peninsula. Along with similar raw material, Big Brook 2 displayed extensive burning resulting in a red subsoil staining. However, unlike the Caines site, Big Brook 2 did not display evidence of heat treating. In addition, domestic activities were not as evident as they were at Big Droke 1. Perhaps this is because areas with such evidence have yet to be excavated, however this remains conjecture at this point. Therefore, it is unclear exactly how the sites relate to one another.

The location of Big Brook 2 (EjBa-2) makes it an ideal location for a residential base from which logistical trips could be made. It is located in a nearshore area with access to both coastal and interior resources. The coast would have provided access to

seal species such as harbor seal and harp seal. Its location near a major river system would have provided easy access to the interior as well as provided ideal habitat for fishing and bird hunting. This river system also offered fresh water. In addition, a monitoring spot was found close to the site. Finally, a nearby chert source would have provided a useful material in the construction of tools.

These site location variables are generally compatible with other Maritime Archaic sites in Newfoundland. As mentioned in Chapter 2, 71% of Newfoundland Maritime Archaic sites are located in nearshore areas (and 85 % of Maritime Archaic coastal sites) (Renouf and Bell, in press). Furthermore, locations near rivers, monitoring stations and travel routes were important. All these criteria were met at Big Brook 2.

In sum, Big Brook 2 is primarily a quarry/workshop site. However, these activities do not fully account for site function. Hearth features that likely represent long duration fires and artifacts from the site suggest other activities also took place. It is possible that these activities were in support of quarry/workshop tasks. Its ideal location would have provided opportunities for the exploitation of a plethora of resources. Regardless, it is likely part of, or a satellite of a larger site in the Big Brook area.

The most interesting aspect of the site however, is its relation to Big Brook chert procurement. This activity raises an interesting aspect of Maritime Archaic culture in Newfoundland. For instance this behavior suggests connections and interactions with Labrador. The use of Big Brook chert formed a wide ranged cultural continuum of raw material usage along both the Newfoundland and Labrador sides of the Strait of Belle Isle.

5.5 Labrador Connections

Big Brook chert has been noted at other sites along the Northern Peninsula as well as southern Labrador. Its appearance was first noted in the mid-seventies and was often referred to as weathered or patinated white chert (McGhee and Tuck, 1975; Tuck and McGhee 1976; Madden, 1976). Visual examination of collections from these sites as well as others on both sides of the Strait of Belle Isle were undertaken by the author. These examinations determined a match between weathered white chert and Big Brook chert.

Such connections between Newfoundland and Labrador Maritime Archaic sites had previously been noted by Reader (1999), Hartery (2002) and Hull (2002). They suggest a possible pattern of chert procurement across the Strait of Belle Isle as part of a seasonal round. In addition, Tuck (1988) noted the appearance of Big Brook chert relating to southern branch Maritime Archaic groups in southern Labrador although he did not refer to it by that name. Reader originally identified the chert as Bird Cove chert because of its appearance in the Bird Cove area, however, the source was never properly located (Hartery, 2002).

Madden (1976) postulated Big Brook chert possibly occurred naturally in patches in southern Labrador. This scenario is unlikely because of the differences in the bedrock geology between southern Labrador and the Northern Peninsula. Southern Labrador does have some limestones and dolostones overlying earlier granites, which are ideal locations for finding chert sources. However, this geological formation is older than those

occurring on the Northern Peninsula (Coleman-Sadd and Scott, 1994). Furthermore, a source area has been identified in the younger Northern Peninsula formation. It is therefore highly unlikely that an identical chert would have formed in a different geological formation during a different period in geological time.

Therefore, the appearance of the Big Brook chert along the Labrador coast likely demonstrates direct contact with Newfoundland. This notion is investigated further to see just what these connections implied.

Collections from the Newfoundland Museum and Memorial University were examined for the presence of Big Brook chert. In all, eight sites in southern Labrador had Big Brook chert present in their collection. Additionally, four more sites that were not available for viewing were reported as having visually similar white weathered cherts to Big Brook chert that were originally reported by Tuck and McGhee (1975) and Auger and Stopp (1987).

In all, these sites include Forteau Point (EiBf-2), L'Anse Amour (EiBf-4), English Point (Forteau Bay) (EiBf-5), the Graveyard site (EiBf-6), the Hancock site (EiBf-9), the Dynamite site (EiBf-14), Arrowhead Mine (EiBf-16), L'Anse Au Clair (EiBg-10), the Iceberg site (L'Anse au Diable 2) (EjBe-19), Black Rock Brook (EjBe-24), L'Anse au Diable 3 (EjBe-34), L'Anse au Diable 4 (EjBe-35) and Pitts Harbour (FaAx-2) (Figure 27). The only site not listed in the Maritime Archaic Indian database compiled by the Department of Tourism, Culture and Heritage Archaeology Division is L'Anse Au Clair which is listed as culture undetermined.

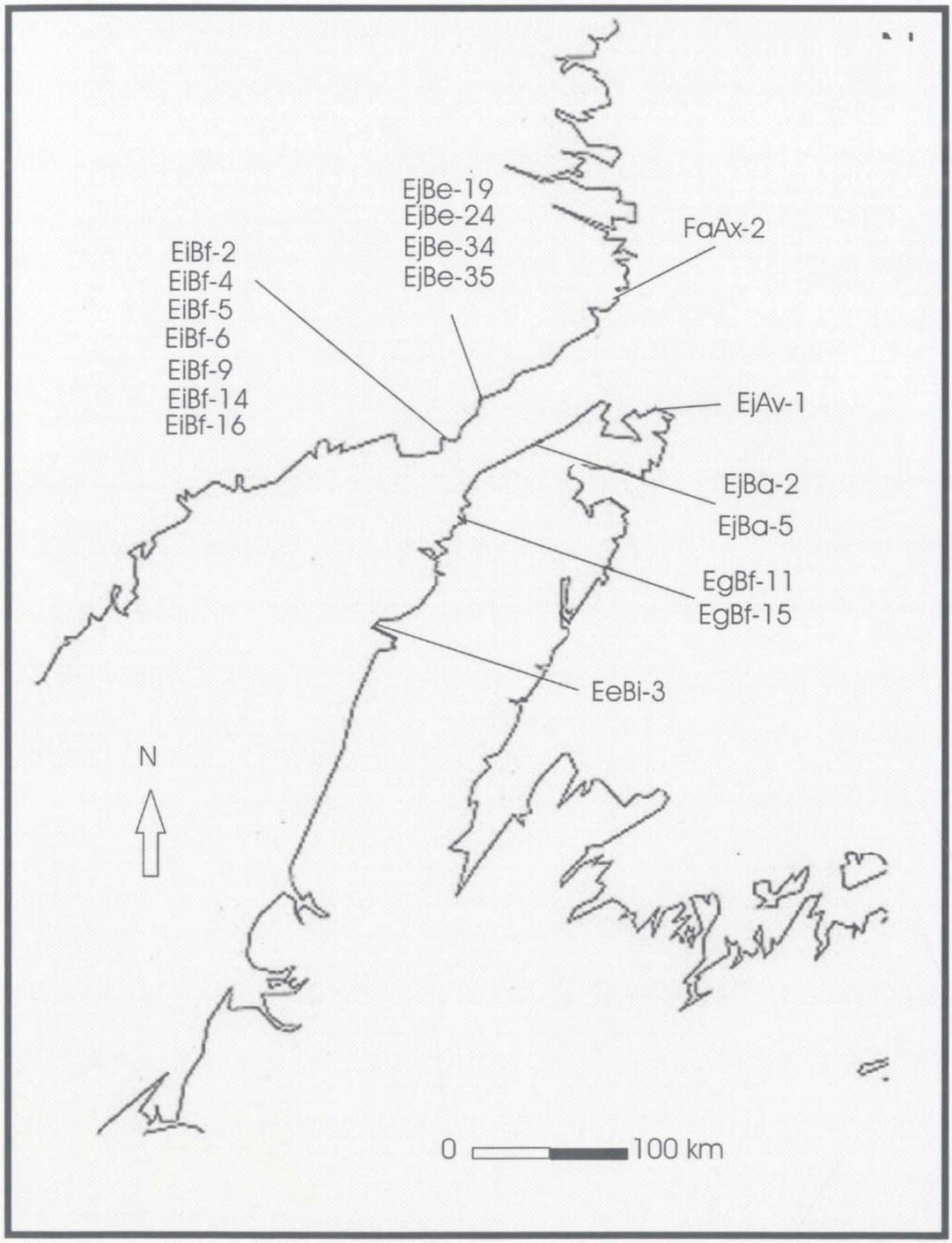
In Newfoundland, 12 sites had visually similar chert to Big Brook chert. Maritime Archaic sites only number seven and include the Gould site (EeB-42), Port au Choix 9 (EeBi-3), Big Droke 1 (EgBf-11), the Caines site (EgBf-15), Big Brook 2 (EjBa-2), Noah's Garden (EaBj-5) and L'Anse aux Meadows (EjAv-1) according to the Provincial Archaeology Office database (Figure 5.2). Big Brook chert appears in the Recent Indian component of the Gould site.

Maritime Archaic sites with Big Brook chert display continuous raw material usage along both sides of the Strait of Belle Isle (Figure 5.2). In Labrador the Maritime Archaic sites range from Henley Harbour in the north to Forteau in the south. The dates range from 4450 +/- 85 BP (SI-2307) at the Graveyard site to a Late Archaic/Intermediate Indian date of 2440 +/- 50 BP (SI-2428) at the Iceberg site (EjBe-19). Arrowhead Mine (EiBf-16) was not included since the biface fragment made of Big Brook chert was not from the dated biface cache.

In Newfoundland, the Maritime Archaic sites range from L'Anse aux Meadows at the northernmost extent to Port au Choix in the south. The Maritime Archaic dates of these sites range from 4530 +/- 60 BP (Beta –108559) at Big Droke 1 (EgBf-11) to 3490 +/- 80 (Beta-113405) at Caines (EgBf-15). The controversial date at L'Anse au Meadows was not included since, as mentioned earlier, it has been largely disregarded in current research. Furthermore, it is unclear if this date is associated with Big Brook chert found at the site.

The identified cultural continuum fits with current radiocarbon dates. The proposed source of the raw material is found along the northwest coast of the Northern

Figure 5.2 – Locations of Maritime Archaic sites with Big Brook chert



Peninsula. Therefore, it would make sense that this material appears with the quartz and quartzites on the Labrador side of the Straits after the first Maritime Archaic occupation of Newfoundland is already established around 5500 BP. It is important to note that the Maritime Archaic component at 5500 BP was found at the Gould site where Big Brook chert was not present. However this date was simply used as a marker to give an idea of the first known Maritime Archaic occupation on the island of Newfoundland.

One aspect that is illustrated by this Maritime Archaic pattern of chert usage on the Strait of Belle Isle is the apparent absence of a Late Archaic/Intermediate Indian period on the Newfoundland side. With the degree of contact predicted on both sides by the appearance of Big Brook chert, this period should be represented in Newfoundland. Thus, it is not suprising that such a component was recently discovered on the west coast of the Northern Peninsula. Big Brook 2 is interpreted as having such a component.

It is therefore postulated that current views regarding the Late Archaic/ Intermediate Indian period be readjusted. As a model for Newfoundland settlement Tuck and Pastore (1985) discussed the possibility of extinctions of cultures of the Island of Newfoundland. They argued that because of a small number of highly productive prey species Newfoundland could at times support high populations. However, these species would sometimes be prone to population fluctuations. A lack of alternative choices would have made prehistoric populations susceptible to extinctions from starvation.

This model is still valid and likely was influential to prehistoric inhabitants of the island. However, another scenario was also postulated regarding the maintenance of social relationships across the Strait being a cultural adaptation to the harsh

Newfoundland environment (Renouf, 1999). Rather than prey species fluctuations resulting in mass extinctions, this model predicted that food shortages would be offset by kin ties between adjacent groups. Furthermore, although Newfoundland is an island, it is not necessarily isolated and culture contact on both sides of the Strait of Belle Isle was likely a relatively common occurrence (Renouf, 2002; Hull, 2002).

Evidence for cultural connections illustrated by the presence of Big Brook chert on both sides of the Strait support such a hypothesis. In addition, although, the Late Archaic/Intermediate Indian component at Big Brook 2 was not directly related to Big Brook chert, it is tied to the source area and occurs on a site that is littered with the raw material in question. Additionally, Late Archaic/Intermediate Indian groups in southern Labrador made use of this raw material at the Iceberg site and Black Rock Brook. Consequently, it is suggested that the Archaic groups were present on the Newfoundland side later than generally perceived, later than 3200 BP and as late as 2800 BP based on the youngest date from Big Brook 2.

It is further postulated that the Late Archaic/Intermediate Indian period on the Northern Peninsula along the Strait of Belle Isle demonstrates a seriation of projectile points similar to Madden's (1976) in Southern Labrador. For instance an expanding stemmed/side notched point made of Big Brook chert was found at the Caines site in association with a date of 3600 +/- 60 BP (Beta-108562). This point is earlier in the archaeological record than the interpreted Late Archaic/Intermediate Indian point from Big Brook 2. However, upon looking at the two points, the one from the Caines site is

slightly more expanding stemmed than the one from Big Brook 2 (Figures 5.3, 5.4). The projectile point from Big Brook 2 moves towards a true side notched point. This echoes Southern Labrador where early expanding stemmed points move toward a side notch at younger dates. However, a larger sample size would be needed to fully test this idea.

Another interesting aspect of the distribution of Big Brook chert on both sides of the Strait of Belle Isle is the unique ability to view a cultural territory of Maritime Archaic people for a particular period of time. Thus far, the distribution of this raw material was only found along the Strait of Belle Isle and was absent from other areas of Newfoundland and Labrador. An opportunity is therefore afforded to observe a sphere of interaction ultimately illustrating mobility, based on a localized raw material.

The Strait of Belle Isle provides a unique landscape representing an island and continental environment with different resources available on either side. The interplay between the two is therefore unto itself interesting, and demonstrates a sophistication in travel technology and ability. It is unclear at this point how Big Brook chert was involved in travel between the continent and island. Procurement as part of a seasonal round across the strait, trade, gift giving among kin and special trips for chert are all possibilities.

Additionally, there are other questions regarding Big Brook chert that require more attention. For instance, it is still unclear if there are additional outcrops on the Northern Peninsula and if so how widely it is distributed. Therefore, what importance the Maritime Archaic and Late Archaic/Intermediate Indians placed on the Big Brook area still remains to be seen. Also, heat treatment of Big Brook chert was reported at the

Figure 5.3 – Projectile point from Caines site

Figure 5.4 – Projectile Point from Big Brook

Caines site. It is still unclear if this was a common practice with this raw material or a special case.

Therefore in summary, there are still many aspects of Maritime Archaic culture along the Strait of Belle Isle which require further research. It is postulated that research involving distribution of Big Brook chert in both Newfoundland and Labrador in particular, could provide invaluable data. Regardless, the Strait of Belle Isle provides a unique sphere of interaction with a gradual change, at the very least, on the Labrador side from Maritime Archaic to Intermediate Indian periods.

5.6 Chapter Summary

In summary, Maritime Archaic culture in Newfoundland likely continued on and gradually changed as predicted in southern Labrador along the Strait of Belle Isle. This is evidenced by the continued use of Big Brook chert originating from Newfoundland, in southern Labrador into the Intermediate Indian time period. Further evidence is the newly discovered Late Archaic/Intermediate Indian component at Big Brook 2.

Big Brook 2 was a multicomponent site including Palaeoeskimo and Late Archaic/Intermediate Indian elements. Primarily however, Big Brook 2 was a Maritime Archaic Indian quarry/workshop site. It was likely part of a larger site yet to be excavated or represented a satellite thereof. Excavation provided evidence of quarrying, biface preform manufacture and linear flake production. In addition, extensive burning was noted, likely pointing to domestic or special purpose activities.

CHAPTER 6 – CONCLUSIONS

Big Brook 2 is a multicomponent site represented by Palaeoeskimo, Late Archaic/Intermediate Indian and Maritime Archaic Indian cultures. The site represents the first dated Late Archaic/Intermediate Indian component on the island of Newfoundland, however it is primarily a Maritime Archaic Indian quarry/workshop site. Artifacts found at the site attest to this classification including raw material, cores, biface preforms and hammerstones.

It is similar to workshop sites previously identified in Bonavista Bay such as Bloody Bay Cove, Brown's Beach and the Beaches site. However, Big Brook 2 has a comparably lower number of finished and retouched artifacts. This difference is likely related to the quarry component at Big Brook 2.

A chert source was found upstream of the Big Brook river system. Chert cobbles with an oxidized cortex were discovered in a secondary fluvial deposit along the banks of the river. Additionally, chert beds were found along the coast kilometers away from the site. The two "Big Brook" chert sources proved to be related and provided a visual match to the majority of chert on the site.

Big Brook chert also provided a visual match to artifacts and debitage from several other sites in Newfoundland and Labrador along the Strait of Belle Isle. Continuous raw material usage was demonstrated in the region for southern branch Maritime Archaic sites up to the Intermediate Indian period. This raw material usage demonstrates connections between Newfoundland and Labrador since the raw material is

a visual match to Big Brook chert. These connections lasted from approximately 4500 to 2500 BP in southern Labrador and at least 4600 to 3400 BP to as late as 2800 BP on the Northern Peninsula of Newfoundland.

The connections based on this chert usage coupled with a newly found Late Archaic/Intermediate Indian component at Big Brook 2 support the argument that Maritime Archaic culture remained along both sides of the Strait of Belle Isle into the Intermediate Indian period contrary to previous cultural paradigms. At the very least, Late Archaic/Intermediate Indian groups in southern Labrador likely made excursions across the Straits whereby they obtained Big Brook chert, not necessarily from Big Brook, and other resources.

In addition, the Late Archaic/Intermediate Indian component proposed for the west coast of the Northern Peninsula likely followed a similar serriation of projectile points as southern Labrador moving from expanding stemmed to side notched. This follows the logic that it would be similar to southern Labrador if these groups were somehow connected. It is evidenced by the interpreted Late Archaic/Intermediate Indian projectile point from Big Brook 2 and earlier Maritime Archaic expanding stemmed point from the Caines site.

However, several questions remain based on the data and interpretations provided in this thesis. Firstly, are there several outcrops of Big Brook chert on the Northern Peninsula that provided usable raw material? Secondly, how far upriver is the primary source of Big Brook chert located in the Big Brook area? Thirdly, to what extent did Maritime Archaic groups interact across the Strait of Belle Isle? Fourth, to what extent

did the Late Archaic/Intermediate Indian period exist on the Northern Peninsula and the island as a whole? Fifth, did Late Archaic/Intermediate Indian occupation extend to the rest of the island of Newfoundland and if not, why? If they did why has it never been found?

It has become evident that these questions require further attention in order to gain a fuller grasp of southern branch Maritime Archaic culture history. To what extent Big Brook 2 played a role in this is unclear. It could be extremely minor. Nonetheless, this site has raised some interesting questions while attempting to provide answers for a few.

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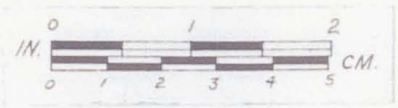
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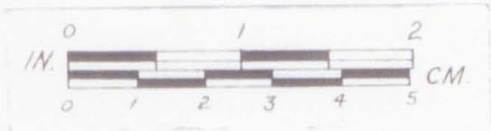
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