

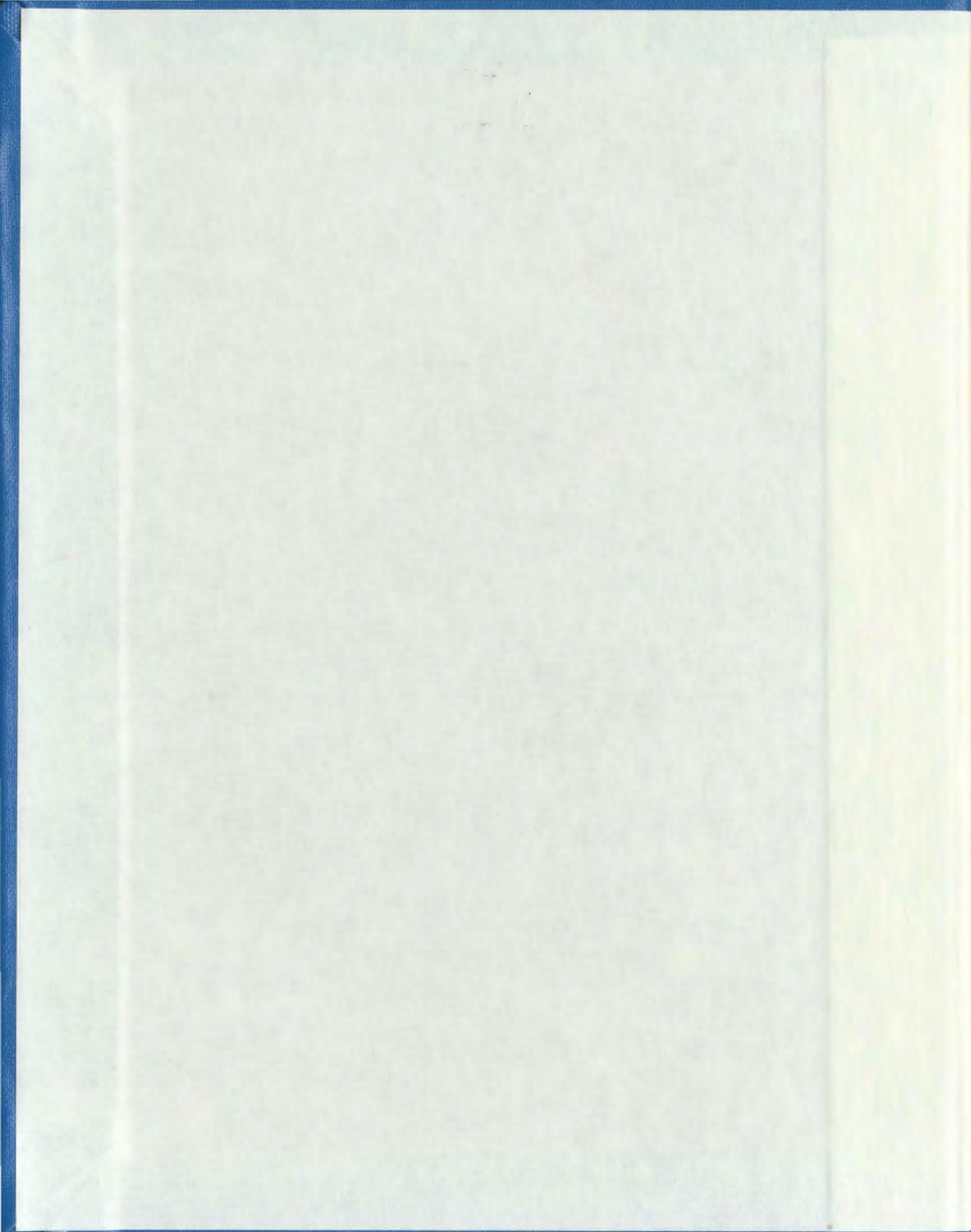
AN ARCHAEOLOGICAL INVESTIGATION OF THE
GOULD SITE (EeBi-42) IN PORT AU CHOIX,
NORTHWESTERN NEWFOUNDLAND:
NEW INSIGHT INTO THE RECENT INDIAN
COW HEAD COMPLEX

CENTRE FOR NEWFOUNDLAND STUDIES

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**AN ARCHAEOLOGICAL INVESTIGATION OF THE GOULD SITE (EeBi-42)
IN PORT AU CHOIX, NORTHWESTERN NEWFOUNDLAND: NEW INSIGHT
INTO THE RECENT INDIAN COW HEAD COMPLEX**

by

© Michael A. Teal, B.A.

A thesis submitted to the School of Graduate

Studies in partial fulfilment of the

requirements for the degree of

Master of Arts

Department of Anthropology

Memorial University of Newfoundland

September 2001

St. John's

Newfoundland

ABSTRACT

The excavation of four occupation areas at the Gould site (EeBi-42) in Port au Choix, northwestern Newfoundland offers new insight into the Recent Indian Cow Head complex (2000 to 1500 B.P.). New artifacts, including contracting stemmed projectile points and ceramic vessels are introduced as elements of the Cow Head assemblage and information about housing and settlement data indicate the use circular tent-like structures and the occupation of near-coastal areas. Also present is evidence that Cow Head groups participated in a broad sphere of inter-regional interaction that involved other coeval late prehistoric groups along the Lower North Shore of Québec, central Labrador, and the Maritimes.

ACKNOWLEDGMENTS

The challenges of this thesis could not have been overcome had it not been for the help and support of many people. First and foremost, I would like to thank Priscilla Renouf who first introduced me to Newfoundland archaeology. As my advisor she was a constant source of knowledge, guidance, encouragement, generosity, and, above all, patience throughout every stage of this thesis.

A research grant from the Culture and Heritage Division of the Government of Newfoundland and Labrador helped fund much of the research and analysis for this project. Monetary assistance was also provided by a fellowship and teaching assistantship awarded by Memorial University of Newfoundland.

I would like to thank John Gould who allowed me to dig up large sections of his property. Thanks also to Rhonda Aylward, Lisa Fogt, Brenda Gaslard, Vincent Genneaux, Ian Gould, Sophia Gould, Lisa Hodgetts, Hazel Hynes, Shaunda Lowe, Aidan Mahar, Cindy O'Driscoll, Heather Reid, and Nicholas Rose all of whom spent many hours carefully excavating and recording. I am grateful for their hard work. I owe particular thanks to Sophia, Cindy, and Nicholas who through wind, rain, and fly bites endured the tedious task of "rod person".

The analysis of archaeological material was accomplished with the assistance of many people. I would like to thank Michael Deal for identifying various pieces of animal skin and for his comments about Native American ceramics. Thanks also to Ruth Whitehead for her observations concerning the animal skin. I am grateful to Lisa Hodgetts and Kathlyn Stewart for identifying many fragments of bone, and to Roger Pickavance and Bob Hooper for examining

several pieces of shell. I appreciate the kindness of Wayne Roberts for allowing Lisa the use of the comparative material at the University of Alberta Zoological Museum to make her identifications. Lisa Lee, Pam King, Maggy Piranian, and Cathy Mathias helped identify several inorganic non-artifactual items for which I am thankful. I would like to express my gratitude to Elaine Anton, Lori Balson, and Ellen Foulkes for their help in accessing various collections, and to Ken Reynolds, Steve Hull, and Delphina Mercer for their help in obtaining reports. Trevor Bell was very helpful with many of my computer related problems, as was David Mercer who drafted my maps. Thank you both. Thanks is also owed to Jean-Yves Pinal and Jim Tuck who allowed me to view some of their material and were very helpful with comments on the archaeological material discussed in this thesis.

My family and friends were a constant source of support and encouragement throughout the entire process of this thesis. I had many conversations with Latonia Hartery, Steve Hull, Cindy O'Driscoll, Heather Reid, and Eleanor Stoddart who were kind enough to listen to my ideas and allow me to vent my frustrations. Thanks guys. During the final months of writing Lisa Hodgetts and Ed Eastough, and Jim and Jane Justynski were extremely hospitable and provided me with a place to live for which I can not express enough gratitude. Mom, Dad, and Grandpa thank you for everything you have done for me. Without you I may not have been able to finish. Thanks also to Greg, Michelle, and David for your words of encouragement.

Finally, Ellen, more than anyone you experienced first hand the physical and emotional ups and downs of this research and I am forever thankful for your patience, support, and understanding over the last three years. You and Daisy were always there for me. Thank you.

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CHAPTER 1 – INTRODUCTION

This thesis is part of a growing body of literature about the Recent Indian Cow Head complex. Specifically, it focusses on the archaeological investigation of four Cow Head complex affiliated areas discovered at the Gould site (EeBi-42) in Port au Choix, northwestern Newfoundland¹ (Figure 1.1). The Cow Head complex (2000 to 1500 B.P.²) is the earliest and least understood component of the Recent Indian period. To date, few sites relating to the Cow Head complex have been discovered. Consequently, there are many questions concerning who Cow Head complex peoples were, where they came from, how they lived, and how they relate to the other cultures of the late prehistory of Newfoundland.

Recently, several discoveries on the west coast of Newfoundland's Northern Peninsula have provided an opportunity to expand our understanding of the Cow Head complex. One is at the Peat Garden site (EgBf-6) in Bird Cove. Here, several Cow Head components dating between 1795 +/-45 B.P.³ (RC-11/99) and 1423 +/- 40 B.P. (RC-22/99) have been uncovered (Hartery in prep.; Hartery and Rast 2000; Reader 1998). The other is at the Gould site (EeBi-42) in Port au Choix where four Cow Head related areas dated between 2080 +/-40 B.P. (Beta-134147) (cal B.P. 2140 to 1945) and 1480 +/-70 B.P. (Beta-134150) (cal B.P. 1525 to 1280)

¹ The term Newfoundland here, and throughout this thesis, refers to the island of Newfoundland, as distinct from the province of Newfoundland and Labrador.

² Before present (A.D. 1950).

³ Site dates throughout this thesis are presented in conventional, uncalibrated, radiocarbon years before present (B.P.). However, for the Gould site, calibrated dates (cal B.P.) are provided to 2 sigma ranges.

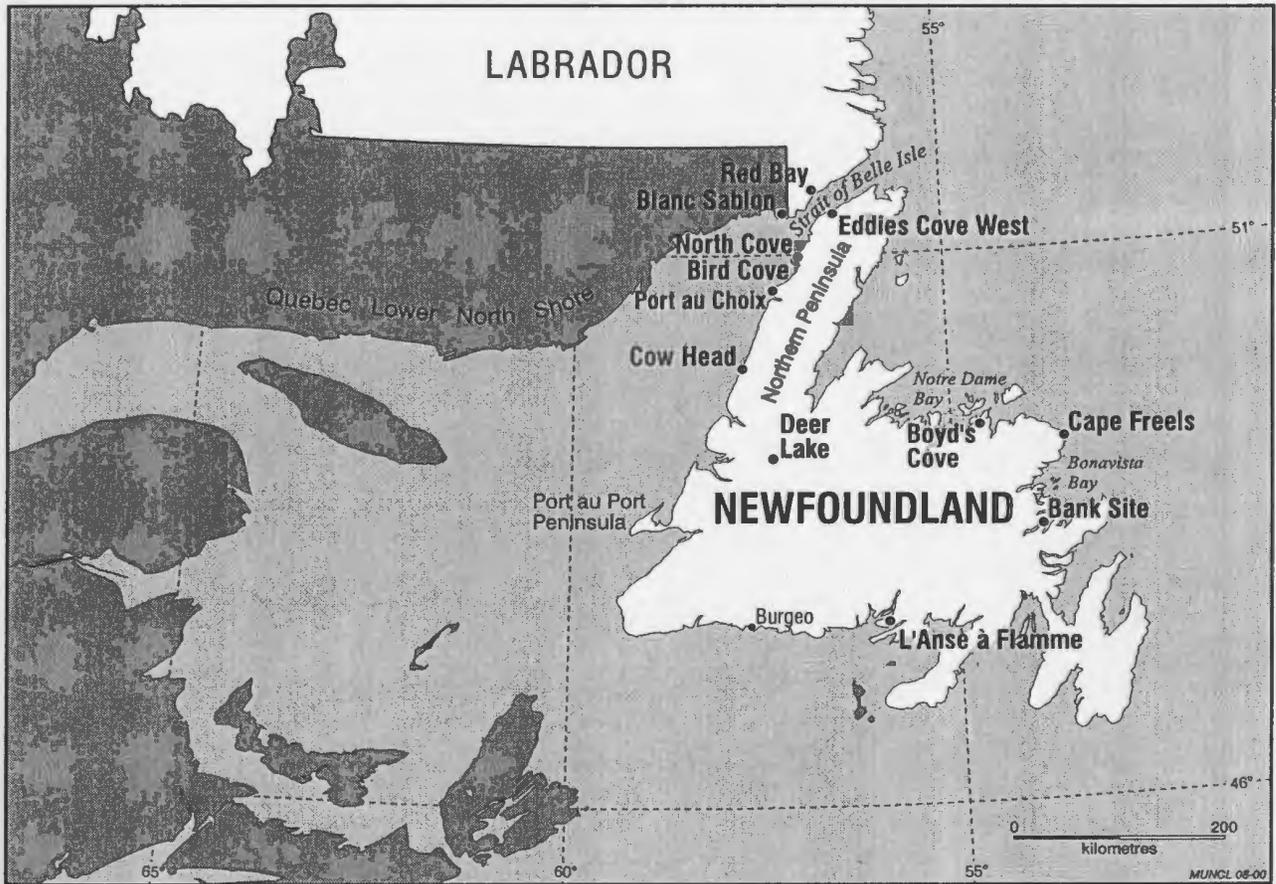


Figure 1.1 - Map of Newfoundland showing the location of sites and place names mentioned in the text.

were revealed (Renouf and Bell 1998, 1999, 2000). These areas form the basis of this thesis and contribute to our knowledge of the Cow Head complex. In particular, the discovery of several new forms of stone tools and pottery provides insight into Cow Head technology, structural evidence offers information about housing, some aspects of settlement patterns are inferred from site location, and stylistic similarities to assemblages from late prehistoric sites in Labrador, Québec, and the Maritimes provide new information about Cow Head social and cultural interaction.

Thesis Outline

In the remainder of this chapter an overview of the Recent Indian period is presented, which establishes the cultural context of the Cow Head complex and highlights gaps in our current understanding of this period in prehistory. Chapter 2 is an introduction to Port au Choix and the Gould site. Here, descriptions of site stratigraphy, the method of excavation, and the results of excavation establish the context from which the Recent Indian material at the Gould site was collected. Chapter 3 reviews the cultural material recovered during excavation, providing descriptions and analyses of lithic material, Native American ceramics, faunal material, and inorganic non-artifactual material. In Chapter 4 the Recent Indian components from the Gould site are summarized and interpretations of site function, duration of occupation, settlement and seasonality, cultural affiliation, and Recent Indian interaction are discussed. Finally, Chapter 5 concludes with a discussion of how the Recent Indian material from the Gould site contributes to our understanding of the Cow Head complex.

The Recent Indian Period

The Recent Indian period characterizes the late prehistoric Indian occupation of Newfoundland between 2000 to 450 B.P. It is the latest of Newfoundland's four prehistoric cultural periods, which include the Maritime Archaic Indian period (5500⁴ to 3200 B.P.), the Groswater Palaeoeskimo period (2800 to 1900 B.P.), and Dorset Palaeoeskimo period (2000 to 1200 B.P.) (Figure 1.2). The Dorset period overlaps the first eight hundred years of the Recent Indian period. The Recent Indian period ends with the arrival of Europeans and the first written records of Newfoundland in the early sixteenth century (ca. 450 B.P.). At this time the Indian inhabitants of the Island are known as the Beothuk, who became extinct by the early nineteenth century (Marshall 1996).

The Recent Indian period consists of three stylistically distinct, yet comparable, complexes (Figure 1.3). The earliest is the Cow Head complex (2000 to 1500 B.P.), followed by the Beaches complex (1500 to 1000 B.P.), and lastly the Little Passage complex (1000 to 450 B.P.). In the following sections each Recent Indian complex is reviewed and their defining characteristics, as well as their site distributions, site structures, settlement and subsistence patterns, and cultural affiliations are presented. Discussion begins with the well known Little Passage complex and works backward to the least known Cow Head complex.

⁴ This date is based on recent excavations at the Gould site which revealed a Maritime Archaic Indian deposit dating to 5440 +/- 50 B.P. (Renouf and Bell 2000). Prior to this, the earliest dates for the Maritime Archaic Indian tradition in Newfoundland were about 5000 years ago (Carignan 1975).

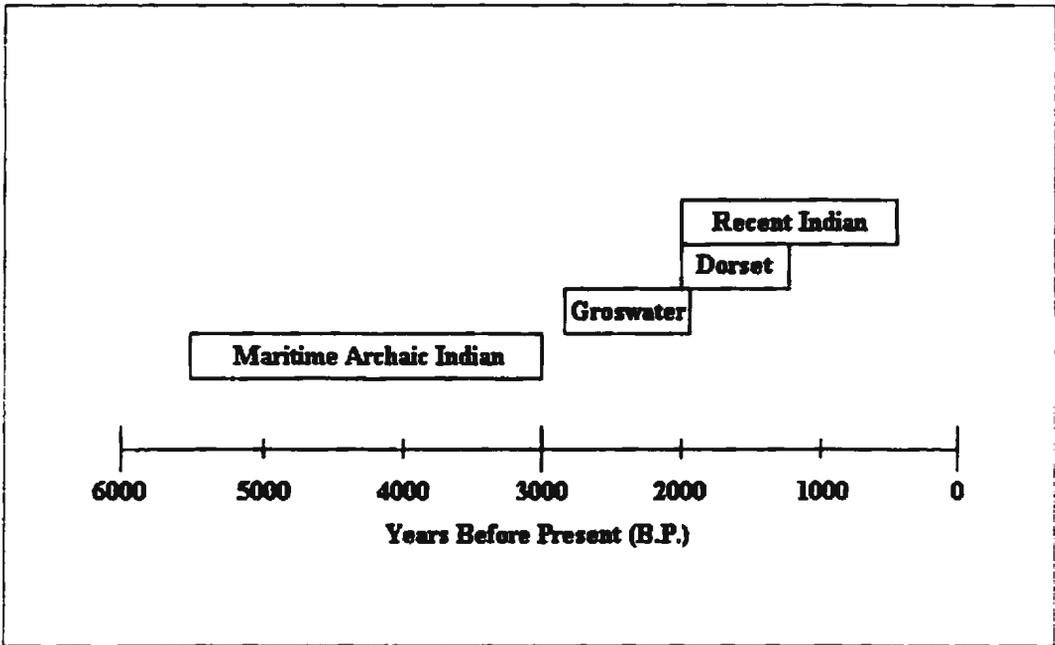


Figure 1.2 – Chronology of Newfoundland Prehistory

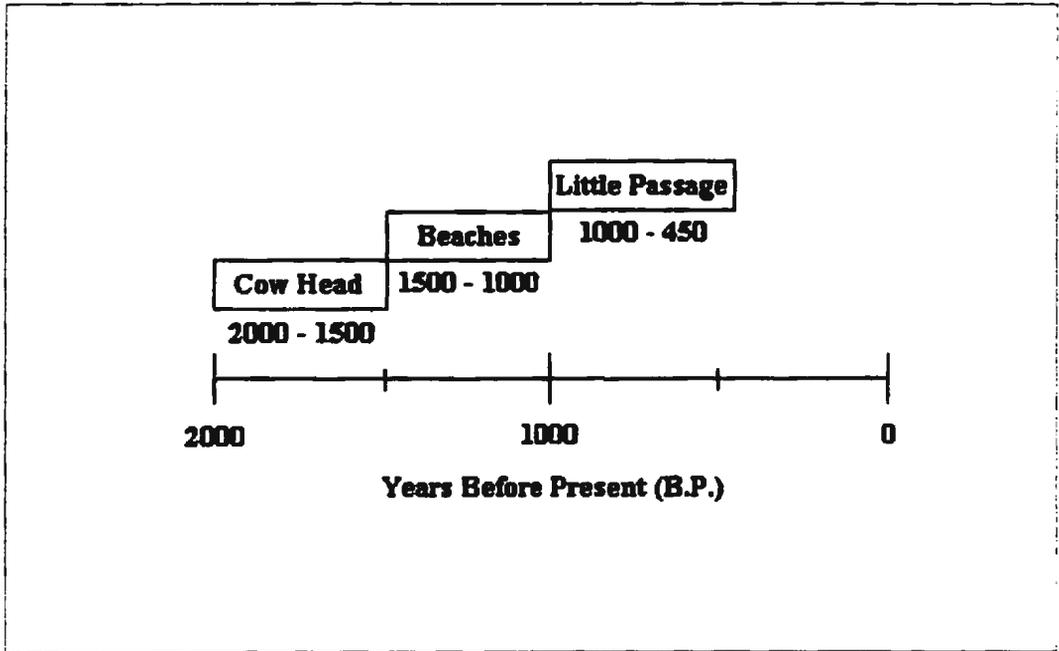


Figure 1.3 – Chronology of the Recent Indian period.

The Little Passage Complex

Defining Characteristics

The Little Passage complex dates between 1000 to 450 B.P. and was initially identified at the L'Anse à Flamme site (CjAx-1) on the south coast of Newfoundland (Penney 1981, 1984). It is defined by a distinct lithic assemblage composed of small corner-notched and expanding stemmed projectile points, small triangular bifaces, thumbnail end scrapers, and linear flakes (Penney 1981:100-101, 1984). Many of these tools, in particular the stemmed projectile points, are unifacially flaked and frequently made of fine quality Newfoundland cherts that generally come from the west coast on the Port au Port peninsula (Simpson 1984, 1986). More exotic raw materials such as Ramah chert, a distinctive semi-transparent stone from Ramah Bay in northern Labrador, are also occasionally found in Little Passage assemblages.

Site Distribution

The distribution of Little Passage sites is extensive, including areas both on and off the Island. On the Island, sites are roughly distributed throughout the outer coasts (exposed headlands and islands facing the open sea), inner coasts (sheltered islands, bays, and inlets), and interior (Holly 1997; Pastore 1986a: Table 2; Schwarz 1994:60-64). Off the Island, Little Passage sites have been identified on Québec's Lower North Shore, near Blanc Sablon (Pintal 1989, 1998), and Little Passage artifacts have been found at Red Bay, southern Labrador (Robbins 1989; Tuck 1987).

Site Structure

Small hearths and scatters of artifacts and lithic debris are frequently all that remain on most Little Passage sites. Evidence of structures and/or other features, which probably were originally present is largely lacking. This may be the result of several contributing factors, including: 1) site variability, 2) population mobility, 3) the type of dwellings used, and 4) thin soil deposits. In terms of site variability, some Little Passage sites, for instance quarries, are not likely to have contained structures or other features, while base camps would. If sites were not occupied for long, then structures would have been temporary and evidence of them would be difficult to detect in the archaeological record, especially within the shallow soils found on many Newfoundland sites (Pastore 1992).

Settlement and Subsistence

Based on knowledge of Newfoundland resources, the distribution of archaeological sites across the landscape, and scant faunal evidence, it is suggested that Little Passage groups practised a generalized subsistence strategy that followed a seasonal settlement pattern of coastal and interior occupations (Holly 1997; Pastore 1985:326, 1986a; Rowley-Conwy 1990; Schwarz 1994). Pastore (1985, 1986a), Schwarz (1994), and Holly (1997) propose that during the early spring people probably occupied Newfoundland's outer coasts where large numbers of migrating harp seals heading north from the Gulf of St. Lawrence can be exploited as they whelp on the pack ice. With the warming months of late spring the harp seals continue their migration north and Little Passage groups presumably retreated to the inner coastal zone to take advantage several marine and terrestrial resources that are available throughout the summer; most notably

salmon. During the fall they likely moved into the interior to hunt the large caribou herds migrating to their winter territories. In the winter resource options are at a minimum and people likely relied on summer and fall stores; however, caribou could have been taken occasionally from the interior, and harp seals are available from the outer coasts as they migrated south to breed in the Gulf of St. Lawrence (Tuck and Pastore 1985). The importance of the winter harp seal hunt, however, was unlikely to have been as great as the spring hunt because during this period the seals travel in the open water and would have been more difficult to take (Tuck and Pastore 1985:74). Come early spring the cycle repeated itself and groups moved from the interior back to the outer coast for the harp seal hunt.

An alternative fall-winter pattern is suggested by Rowley-Conwy (1990:24-26) whereby instead of settling in the interior, Little Passage groups may have moved to areas a short distance inland. From these locations the autumn caribou were accessible, and the winter seal migration could be monitored without travelling a great distance. Thus near coastal settlement would have optimized subsistence options during the resource lull of the winter months.

The current model of Little Passage settlement and subsistence patterns is a hypothesis yet to be tested. Due to Newfoundland's naturally acidic soil, which is not conducive to the preservation of bone, there are too few sites with faunal material to thoroughly test the model. To date, only three inner coastal sites related to the Little Passage complex contain faunal assemblages of any notable size. While these assemblages support the position of a generalized marine-interior settlement and subsistence pattern (Cridland 1998), more faunal evidence is required to firmly establish this trend. There is a particular need for faunal evidence from outer coastal sites as well as interior sites.

Cultural Affiliations

The Little Passage complex is thought to be the ancestral stock of the historic Beothuk Indians (Austin 1984:124; Pastore 1992; Tuck 1982). The Little Passage-Beothuk connection was partly established by discoveries at Boyd's Cove (DiAp-3), Notre Dame Bay. Here, several Little Passage lithic tools were found in association with a number of Beothuk and European artifacts including aboriginally modified iron nails, and glass and lead trade beads (Pastore 1983:139, 1984:107; 1985:323). An attribute analysis of Little Passage and Beothuk projectile points by Fred Schwarz (1984) provides further support for the connection between these two groups. In general, analysis indicates that there is an unbroken progression of changing projectile point forms over time characterized by a gradual decrease in point size, the broadening of hafting notches as they move from the corners towards the base, and a reduction in surface retouching (Schwarz 1984:66).

The Little Passage complex may also have connections to the Point Revenge complex (Loring 1992; Pastore 1987:59; Robbins 1989). The Point Revenge complex is a coeval Indian culture found throughout coastal Labrador. It is considered to be the ancestral stock of the historic Montagnais-Naskapi Indians, identified today as Innu (Loring 1992). Both complexes have virtually identical small corner-notched and expanding stemmed flake and bifacially worked projectile points. What distinguishes the two groups is their choice of lithic raw material. As noted previously, Little Passage stone tools are predominately made from fine grained Newfoundland cherts and small amounts of Ramah chert. In contrast, Point Revenge lithic assemblages are almost exclusively made from Ramah chert (Loring 1992).

Evidence of the Little Passage-Point Revenge connection appears to be strongest on either

side of the Strait of Belle Isle. At Eddies Cove West, near the top of the Northern Peninsula, a small Recent Indian site revealed a Ramah Little Passage/Point Revenge type point (Renouf n.d.). At the North Cove site (EgBf-8) in Bird Cove, midway up the Northern Peninsula, large amounts of Ramah chert have been interpreted as a Point Revenge occupation (Hull 1999; Reader 1998:22). Conversely, it has already been mentioned that evidence of Little Passage sites has been found near Blanc Sablon on Québec's Lower North Shore and at Red Bay in southern Labrador (Pintal 1989, 1998; Robbins 1989; Tuck 1987). These discoveries clearly bear out the interaction that took place between Little Passage and Point Revenge groups

Finally, the Little Passage complex is also thought to have some connection to the earlier Beaches complex. Radiocarbon dates from various sites, and stratigraphic evidence from Boyd's Cove have demonstrated that the Beaches complex directly precedes the Little Passage complex, and suggests that both complexes represent an *in situ* development of Recent Indian culture (Pastore 1985, 1992). Also, Little Passage and Beaches lithic assemblages have several stylistic similarities, most notably small triangular bifaces and thumbnail end scrapers, which further suggest a connection between the two complexes (Robbins 1989; Tuck n.d).

The Beaches Complex

Defining Characteristics

The Beaches complex directly precedes the Little Passage complex and covers a period that extends back to about 1400 B.P.⁵ It was first identified at the Beaches site (DeAk-1) in

⁵ Some dates from the Cape Cove-2 site at the northern tip of Bonavista Bay suggest that this date may tentatively extend back to as early as ca. 1800 to 1900 B.P. (Austin 1984).

Bonavista Bay and is defined by the presence of side and corner-notched projectile points, small end scrapers, small triangular bifaces, and larger square based lanceolate bifaces (Austin 1984:124; Carignan 1975, 1977). Many of the stone tools from Beaches assemblages are made of local fine grained cherts and rhyolite; however, Ramah chert is also present in small amounts (Loring 1992:456).

Site Distribution

Sites that relate to the Beaches complex were once thought to be limited to northeastern Newfoundland (Tuck 1982:211) within the coastal regions of Bonavista Bay (Austin 1981, 1984; Carignan 1975, 1977; Tuck 1983) and eastern Notre Dame Bay (Pastore 1983, 1985). However, the distribution of Beaches sites now includes coastal areas on the Northern Peninsula (Hull 1999; Ingstad 1985; Reader 1998; Renouf 1992, 1993) and the south coast (Penney 1989; Rast 1999). Also, a single Beaches site has been identified near Deer Lake in the interior of western Newfoundland (Reader 1998a).

Site Structure

Beaches sites are similar to Little Passage sites in that they are typically composed of small cobble hearths and/or a scattering of stone artifacts and debris; structural evidence is lacking. One exception, however, is the Deer Lake Beach site (DhBi-6) in the interior of western Newfoundland. Here, Reader (1998a) has recently uncovered tentative evidence of two dwellings related to the Beaches complex. The first structure was roughly oval in shape and measured approximately 5 m by 10 m. It was identified by an artifact distribution which abruptly

ended at the inferred wall boundaries, a patch of compact clay interpreted as an entranceway, the location of several post holes, and a long linear hearth. The second structure, although partially eroded, appeared similar to the first dwelling and was identified by the same characteristics.

Settlement and Subsistence

Beaches groups are thought to have followed a similar settlement and subsistence pattern to Little Passage groups because their sites are found in similar areas; although fewer Beaches sites have been found in the interior (Marshall 1996, Table 16.1; Schwarz 1994:60-64).

However, again, a shortage of faunal material makes this scenario hypothetical. To date, the only Beaches site to contain a substantial collection of faunal material is the Deer Lake Beach site, which, as stated previously is at an interior location. Here, Reader (1998a:55) reports that beaver represented a large part of the collected bones, followed by caribou, and that this suggests the site was occupied from fall to early winter. While these results support the hypothesized settlement-subsistence model, they remain tentative until more interior sites and faunal material are found.

Cultural Affiliations

The connection between Beaches and Little Passage groups has already been noted, therefore, it will not be discussed further here. A number of the diagnostic Beaches tools including, side and corner-notched projectile points, and triangular and lanceolate bifaces, are quite similar to those found on Daniel Rattle complex sites in Labrador (Loring 1992:456). The Daniel Rattle complex (1800 to 1000 B.P.) (Loring 1992) represents the earliest group of late prehistoric Indians in Labrador and is directly related to the later Point Revenge complex, thus

forming part of the cultural continuum leading to the historic Montagnais-Naskapi (Innu) (Loring 1992). The nature of the relationship between Beaches and Daniel Rattle groups remains to be clarified, but it is possible that they represent regional varieties of the same culture like their later counterparts (Loring 1992).

The Cow Head Complex

Defining Characteristics

The Cow Head complex dates 2000 to 1500 B.P. (Renouf *et al.* 2000). In terms of culture history it appears to be a re-emergence of Indian culture in Newfoundland after a one-thousand-year hiatus following the disappearance of Maritime Archaic Indian peoples around 3000 B.P. (see Figure 1.2). Furthermore, as Cow Head groups were appearing in Newfoundland, much of the Island was occupied by Dorset Palaeoeskimo groups. These two cultures co-existed in Newfoundland for more than six hundred years. The Cow Head complex was first identified by Tuck (1978) on the west coast of Newfoundland at the Cow Head site (DIBk-1). Here, he defined it from a lithic assemblage composed of a variety of broad-bladed, stemmed and widely notched projectile points, large ovate, lanceolate and bi-pointed bifaces, large flake side-scrapers, smaller flake end-scrapers, linear blade-like flakes, and bipolar cores (Tuck n.d). In a recent re-examination of the Cow Head site assemblage two additional tool types have been identified including, pièces esquillées or bipolar cores, and small side-scrapers (Hartery in prep.; Latonia Hartery, personnel communication). Lithic material on Cow Head

sites is predominately local, including black and brown-beige cherts, and pitted⁶ white/light grey rhyolite probably from western Newfoundland; small amounts of Ramah chert are also present (Hartery, in prep.; Reader 1998).

Site Distribution

Currently, all certain Cow Head sites are located on the west coast of the Northern Peninsula. Reports of other Cow Head sites in Newfoundland are questionable because they are largely based on single, early radiocarbon dates and/or a small number of fragmented stone tools. Sites reliably identified as Cow Head include the Cow Head site, which is the type site of the Cow Head complex, and the Peat Garden site (EgBf-6), located near Bird Cove (Hartery in prep.; Reader 1998). The attribution of a Cow Head affiliation at the Peat Garden site is based on the stylistic similarities of several artifacts to those from the Cow Head site, and early radiocarbon dates (Hartery in prep.; Reader 1998:16-17). The Cow Head artifacts include a tear-drop shaped biface, the base of a lanceolate biface, and a basal fragment of an expanding stem projectile point (Reader 1998:17-18). Radiocarbon dates from the site range from 1795 +/-45 B.P. (RC-11/99) to 1423 +/- 40 B.P. (RC-22/99). The Peat Garden site also produced a date of 1153 +/-40 B.P. (RC-24/99) (Hartery in prep.). Since this date is much later than the present date range for the Cow Head complex it is unclear if it is from a Cow Head-related deposit.

Cow Head components have been tentatively identified from early radiocarbon dates and/or stone tool fragments at L'Anse aux Meadows on the Northern Peninsula (Tuck n.d.),

⁶ The pits in the rhyolite are created from phenocrysts (tiny quartz crystals) that have eroded out of the rhyolite matrix (M.A.P. Renouf, personal communication).

Bonavista Bay in northeastern Newfoundland (Austin 1981, 1984; Carignan 1975, 1977), and on the south coast near Burgeo (Rast 1999). These reports suggest that the distribution of Cow Head complex sites may be more extensive than the northwestern coast of Newfoundland; however, their Cow Head affiliations are questionable. At L'Anse aux Meadows several Recent Indian artifacts, including large ovate, lanceolate, and triangular bifaces were found next to a large cooking pit dated to 1140 +/-90 B.P. (T-365) (Ingstad 1985; Birgitta Wallace, personal communication). While the bifaces are generally comparable to Cow Head varieties, they are also similar to Beaches examples from the Cape Freels-2 site (DhAi-2) and Beaches site (DeAk-1) in Bonavista Bay, thus a Beaches affiliation cannot be ruled out. Furthermore, the date from the feature is much later than the presently accepted date range of the Cow Head complex, and fits well in the Beaches period.

Along the Cape Freels-Cape Cove area of Bonavista Bay several Recent Indian sites have produced early radiocarbon dates, some of which are associated with a hand-full of artifacts (Austin 1981, 1984; Carignan 1977). A date of 1605 +/- 65 B.P. (S-868, NMC-664) was obtained from charcoal in a rock concentration (Locality 9) at the Recent Indian Cape Freels-1 site (DhAi-1) (Carignan 1977:148). Three artifacts were found near the feature, including two unifaces and a stemmed biface (Carignan 1977:231, Plate 2f) similar to Cow Head bifaces from the Cow Head site. Charcoal from a small hearth at the Cape Freels-2 site (DhAi-2) has been radiocarbon dated to 1740 +/- 100 B.P. (S-831, NMC-661) (Carignan 1977:149); however, the artifacts associated with it (two triangular bifaces) appear more similar to Beaches-type stone tools than Cow Head. Finally, at the Cape Cove-3 site (DhAi-7) a single, undated feature (Feature 4) contained two large lanceolate bifaces that would not be out of place in a Cow Head

complex assemblage, although a Beaches affiliation cannot be ruled out either (Austin 1981, 1984).

Lastly, near Burgeo on Newfoundland's south coast, several stemmed Recent Indian points were found in undated contexts at the Big Barasway site (CjBk-1), Father Hughes Point site (CjBk-8), and Hunters Rest site (CjBk-10) (Rast 1999:56-57, 150-151, 155, 156). The points have been interpreted as Cow Head artifacts because they are unlike examples from the Little Passage and late Beaches assemblages; however, it is also noted that they could also be associated to the early Beaches period (Rast 1999:56-57). Thus, the Cow Head connection at these sites is not firmly established.

Site Structure

Cobble hearths and flake scatters predominate on Cow Head complex sites. Many of the hearths are associated with artifacts and chipping debris from all stages of stone tool manufacture, which suggests that workshop activities were a primary endeavour (Hartery in prep., and personal communication; Reader 1998; Tuck n.d.). At the Peat Garden site two features were distinctly different from the others. Both were relatively large pits associated with many fire-cracked rocks, charcoal, and concentrations of calcined bone fragments; one pit was also partially lined with clay. Based on their size, the presence of charcoal, fire-cracked rock, and calcined bone the features have been interpreted as cooking pits used to heat cobbles for stone-boiling (Hartery in prep., and personal communication).

Settlement and Subsistence

Due to the small number of known sites there is a lack of information about Cow Head complex settlement and subsistence practises. Unlike the Little Passage and Beaches complexes, a site distribution cannot be used to infer the seasonal movements of Cow Head groups. Furthermore, there is a lack of faunal material to substantiate any hypotheses about their seasonal rounds. Nevertheless, given the few resource options Newfoundland offers (Tuck and Pastore 1985) it is likely that Cow Head groups followed a similar settlement and subsistence pattern to Beaches and Little Passage groups; however, more sites, particularly from the interior, and more faunal material are needed to confirm this possibility.

Cultural Affiliations

Presently, the connection between the Cow Head complex and the Beaches-Little Passage-Beothuk cultural continuum is in question. While apparent differences in artifact types and styles suggest that Cow Head groups are distinct from the other Recent Indian groups, common elements in Cow Head and Beaches assemblages, such as lanceolate bifaces, large flake side scrapers, and linear flakes, indicate a connection may exist. However, more sites with firmly established radiocarbon dates are needed to confirm this possibility.

Given the short distance (15 km) between Newfoundland and the mainland it is suggested that Cow Head groups likely had connections to coeval groups in Québec-Labrador; however the evidence is slim (Pintal 2000). The presence of small amounts of Ramah chert in Cow Head assemblages indicates that groups had some connection to Labrador. In the same sense, interaction with groups along the Lower North Shore of Québec is suggested by the presence of

cherts from western Newfoundland on coeval sites near Blanc Sablon (Pintal 1989, 1990, 1992, 1998, 2000). Also, the broad-bladed, stemmed projectile points and some biface forms from the Cow Head assemblage are stylistically similar to examples from the Petit Havre complex (Pintal 1998). The Petit Havre complex (1500 to 1200 B.P.) is defined by late prehistoric groups from the Lower North Shore of Québec. Their assemblages are characterized by stemmed, side-, and corner-notched projectile points, asymmetrical leaf-shaped bifaces, various forms of scrapers, and occasionally grit-tempered pottery (Pintal 1998:171-189).

Finally, it is hypothesized that Cow Head peoples participated in some form of interaction with Dorset Palaeoeskimo groups, given that both of these populations co-inhabited the Island (2000 to 1200 B.P.); however, there is little material proof of Cow Head-Dorset contact (Renouf *et al.* 2000; Tuck n.d.). Mixed Indian-Dorset assemblages are known from Newfoundland (Renouf 1992, 1993) and Blanc Sablon (Pintal 1998, 2000), yet much remains to be learned concerning the nature and intensity of the interaction between these two groups.

The origin of the Cow Head complex also poses many questions. Current theories suggest that it may be a continued expression of the earlier Maritime Archaic Indian culture in Newfoundland, or alternatively, represents the emergence of new Indian groups from Québec-Labrador (Robbins 1989:23-24; Tuck n.d.). A shortage of sites and evidence makes arguments for either case tenuous.

Summary

In summary, the Recent Indian period is characterized by the Little Passage, Beaches, and Cow Head complexes, and represents the last fifteen hundred years of prehistoric Indian culture

in Newfoundland. The Little Passage complex was antecedent to the historic Beothuk Indians and was in turn derived from the preceding Beaches complex. Both groups likely practised a generalized subsistence strategy that followed a seasonal round of coastal and interior occupations, and several similarities with coeval Indian peoples in Labrador suggest that they also interacted with the mainland. Knowledge of the Recent Indian period before ca. 1200 B.P. is scarce due to the small number of known sites. Nevertheless, sufficient evidence exists to identify the Cow Head complex as a technologically and stylistically distinct group of Recent Indian peoples.

The recent excavation of four Cow Head components at the Gould site provides new insight into the Cow Head complex. These excavations and the material they revealed will be examined and interpreted in the following chapters.

CHAPTER 2 – PORT AU CHOIX AND THE GOULD SITE (EeBi-42): DESCRIPTION AND EXCAVATION

Introduction

Port au Choix is a small fishing community on the western coast of Newfoundland's Great Northern Peninsula (Figure 2.1). It is perhaps best known for its long record of prehistoric Indian and Palaeoeskimo habitation that extends back over 4000 years (Table 2.1), which is, in part, attributed to its advantageous location upon two peninsulas that extend out into marine rich

Table 2.1 – Dates of occupation at Port au Choix by Indian and Palaeoeskimo cultures.

Culture	Date of Occupation at Port au Choix
Maritime Archaic Indian	5500 to 3200 B.P.
Groswater Palaeoeskimo	2800 to 1900 B.P.
Dorset Palaeoeskimo	2000 to 1300 B.P.
Recent Indian	2000 to 840 B.P.

waters of the Gulf of St. Lawrence. Here, exposed headlands provide access to coastal resources, in particular harp seals, which arrive seasonally in great abundance (Renouf 1994). Port au Choix also offers many sheltered areas in Gargamelle Cove, Old Port au Choix Cove, Barbace Cove, and the town's main harbour, Back Arm. From these locations freshwater streams and ponds are in close proximity as are many terrestrial resources from the near interior. These combined characteristics made Port au Choix a preferred area of settlement along the Northern Peninsula.

Knowledge of Port au Choix's prehistory has been dominated by its Maritime Archaic

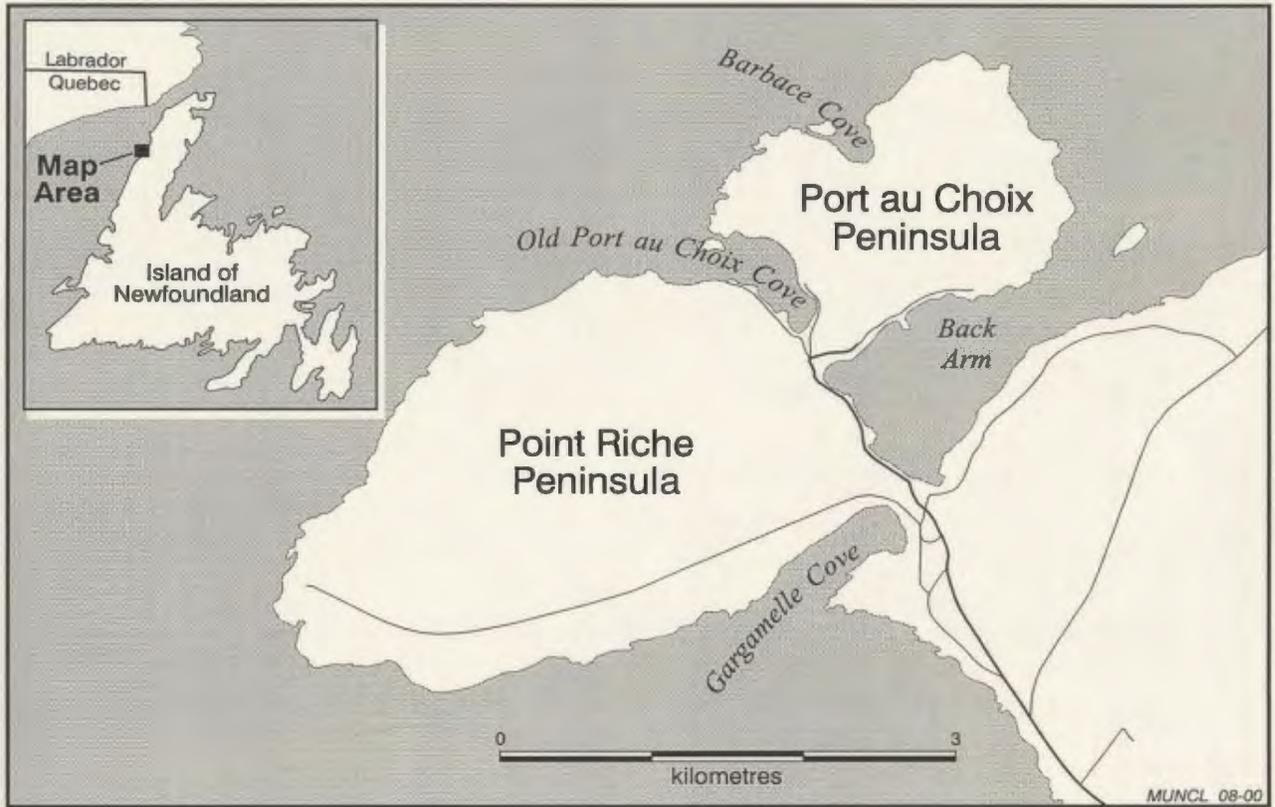


Figure 2.1 – Map of Port au Choix and surrounding area.

Indian cemetery (Tuck 1970, 1971, 1976), and by its Groswater and Dorset Palaeoeskimo sites, namely, Phillip's Garden East, Phillip's Garden, and Phillip's Garden West (Harp 1964; Renouf 1993a). These large, rich sites have attracted researchers for many years, and have contributed substantially to the understanding of Maritime Archaic Indian and Palaeoeskimo peoples. In contrast, much less is known about the Recent Indian occupants of Port au Choix because, in part, the sites are much smaller and fewer have been found. To date, two Recent Indian sites have been identified in Port au Choix. The Spence site (EeBi-36) has a Beaches component dated to 1340 +/- 80 B.P. (Beta-66442), and a Little Passage component dated to 1020 +/- 60 B.P. (Beta-66441, CAMS-9758) and 840 +/- 90 B.P. (Beta-66440) (Renouf 1992, 1993). The Gould site (EeBi-42) has a Cow Head component that dates from 2080 +/- 40 B.P. (Beta-134147) (cal B.P. 2140 to 1945) to 1480 +/- 70 B.P. (Beta-134150) (cal B.P. 1525 to 1280) (Renouf and Bell 1998, 1999, 2000). Over the last three years material recovered from this site has revealed new and important information concerning the technology, housing, settlement patterns, and cultural interaction of Recent Indian peoples in Port au Choix and in Newfoundland.

The Gould Site (EeBi-42)

The Gould site is located approximately 400 m inland atop a broad peat-covered terrace that borders the southeastern edge of Port au Choix at 8 to 10 m above sea level (Figure 2.2). Here, the area is covered with thick spruce forest except in places it has been cleared for land development or for snowmobile paths which form a network of trails to the north and east. The site is situated around the northeast end of Field Pond. This area is predominately composed of



Figure 2.2 – Aerial photo of Port au Choix showing the location of the Gould site.

Photo: M.A.P. Renouf

town land and the private properties of Leo Gould ¹, John Gould, Rex and Juanita Boyd, Ben Ploughman, and Greg and Pat O'Keefe. To date, most excavation at the Gould site has occurred on the property of John Gould, which is located on the north side of a small stream draining Field Pond into Gargamelle Cove (Figure 2.3). Here, Recent Indian material related to the Cow Head complex was found suspended in peat above a Maritime Archaic Indian component that dates to between 5440 +/- 50 B.P. (Beta-134151) (cal B.P. 6305 to 6175) to 3270 +/- 50 B.P. (Beta-108099) (cal B.P. 3595 to 3370) (Renouf and Bell: 1998, 1999, 2000).

Site Stratigraphy

The stratigraphy of the site consists of seven levels defined by colour, texture, and

¹ Recently, Leo Gould's house was purchased by the government of Newfoundland and Labrador and now serves as a field station for crew members excavating in Port au Choix.



Figure 2.3 – Aerial photo of the Gould property where most excavation was conducted.

Photo: M.A.P. Renouf

cultural content. The occurrence of each level varies throughout the site resulting in two slightly different stratigraphic sequences (Figure 2.4).

Level 1 is the topmost level of the site. It is defined by loose reddish-brown peat that contains a variety of twigs, roots, and the remains of logs or large branches that appear as orange patches in the matrix. In some areas, the top 5 cm of Level 1 is disturbed from prior forest clearance. The thickness of the level ranges from 20 to 40 cm and it contains no cultural material.

Level 2 is the Recent Indian culture layer. It is sandwiched within Level 1 at a depth of approximately 10 to 30 cm. The level is identified by the presence of artifacts, flakes, and fire-

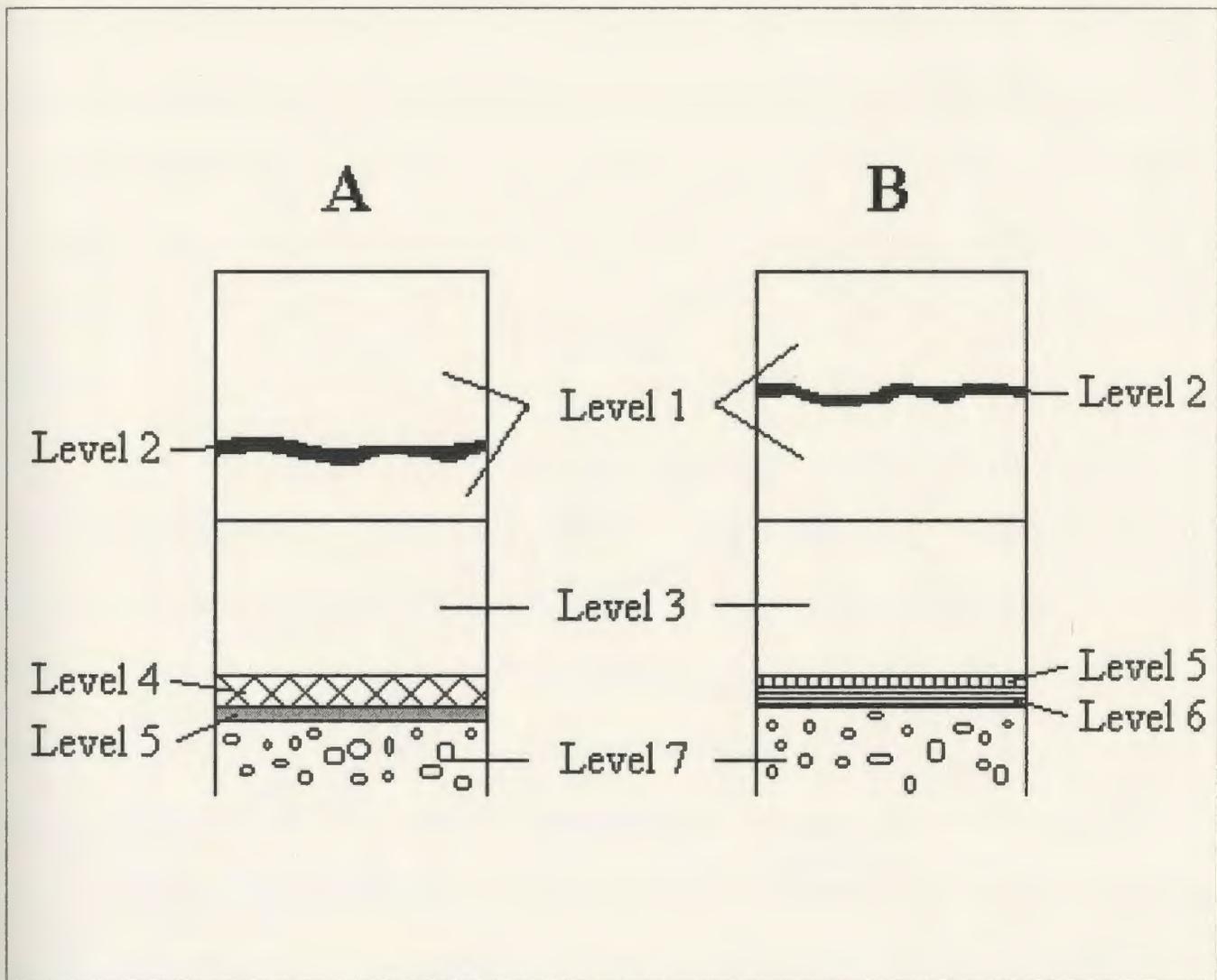


Figure 2.4 – Stratigraphy of the Gould site in area of main excavation (A), and in areas near the stream (B). Level 1 is peat; Level 2 is the Recent Indian cultural layer; Level 3 is dense peat; Level 4 is black muck; Level 5 is (A) grey clay and (B) white sand; Level 6 is brown sandy loam; Level 7 is limestone gravel/bedrock.

cracked rock that lie on its surface and/or by a black charred layer that is predominately associated with hearth features. Level 2 is discontinuous and varies between 1 to 5 cm in thickness, which often makes it difficult to detect. However, in most cases it can be identified in advance of excavation by the fire-cracked rocks that extend from its surface up into Level 1.

Level 3 is a transitional layer forming a gradation between Level 1 and Level 4. At the

top of this level (20 to 40 cm below the surface) the peat is still reddish-brown like Level 1, but starts to become compact and materials like twigs and roots are less abundant. This trend continues to near the bottom of the level, at approximately 65 to 75 cm below the surface. Here, the peat is dark brown or black, very dense, and has a greasy texture when rubbed between two fingers. Pieces of preserved wood are occasionally found within Level 3 but cultural material is absent.

Level 4 is a black, mucky Maritime Archaic Indian cultural layer that is found below Level 3 at about 65 to 75 cm below the surface. At times it is difficult to distinguish the top of Level 4 from the bottom of Level 3; however, when it is rubbed between the fingers it rolls into a ball, unlike the bottom of Level 3 which smears. The thickness of Level 4 varies across the site from 2 to 7 cm and near the stream it is completely absent.

Level 5 is a layer that is distinctly different in areas near the stream and those set back from the stream. Near the stream Level 5 is a discontinuous white sand layer that can at times be very dry and concreted. It occurs directly below Level 3 and is up to 2 cm thick. Away from the stream Level 5 is identified as a beige-grey, clay-like layer that lies directly below Level 4 at approximately 75 to 80 cm from the surface, and is about 1 cm thick. At both locations Level 5 contains Maritime Archaic Indian material, but more so near the stream than away.

Level 6 is a brown, medium-compact, sandy-loam layer that is found only in areas adjacent to the stream. It occurs directly beneath Level 3 or Level 5, near depths of 75 to 80 cm and ranges in thickness from 1 to 5 cm. Maritime Archaic Indian material is found throughout this level.

Level 7 is a limestone gravel or bedrock substrate that represents the final level. Some

Maritime Archaic Indian material is occasionally found at this level, but only in areas closest to the stream.

In summary, the stratigraphy at the Gould site consists of a top layer of peat that contains evidence of Recent Indian occupations. Below this level, the peat is sterile and becomes more compact over two clayey layers and a sandy layer containing Maritime Archaic Indian material. All layers rest on top of limestone beach gravel or bedrock.

Method of Excavation

Excavation followed routine procedures. Areas to be opened were staked out into m² units, then shovel-shined to remove sod and the top layer of disturbed soil. Cultural levels were carefully exposed by trowel and then recorded. Most data collecting was done digitally through the use of a Total Station² and then stored in a *Mapinfo*³-based program called *Excavation Manager*, which was developed by Trevor Bell and M.A.P. Renouf of Memorial University of Newfoundland. The Total Station was used to record the three-dimensional location of all artifacts and features, and the surface of soil levels. Excavation forms, detailed drawings, photographs, and digital images were also used to record excavation data. One litre soil samples were collected by level in every unit and from inside all features, and back-dirt from each unit was screened by level through a 5 mm mesh screen.

² A Total Station is an electronic transit which takes precision provenience measurements and stores them in a data collector.

³ *Mapinfo* is a mapping program based on geographical information systems (GIS).

Results of Excavation

Most of the Recent Indian material presented in this thesis was collected during the 1999 field season in conjunction with Renouf and Bell (2000). However, it also includes some material that was recovered during the site's initial discovery in 1997 (Renouf and Bell 1998), and during preliminary excavation in 1998 (Renouf and Bell 1999). The results from all three years of excavation are presented here.

Recent Indian material was recovered from four occupation areas (Figure 2.5). An occupation area is a distinct location that contains evidence of one or more activities defined by a discrete set features, artifacts, lithic raw material, and radiocarbon dates. The occupation areas have been gradually exposed over the course of three years; consequently, each is contained within one or more excavation areas (a collection of excavation units) and/or test trenches.

Occupation Area One

Two excavation areas (Areas 98-8 and 99-11) and one test trench (Test Trench 97-13) composed this occupation area, which totals 33 m². It contained four features, including Features 3, 21, 216, and 280.

Feature 3 is a small hearth that consisted of a charcoal-lined depression and a semicircular arrangement of fire-cracked rock (Figure 2.6). It extended into the north baulk of the trench, but the exposed portion measured 85 cm east-west, 28 cm north-south, and 18 cm deep. Material associated with the hearth was minimal, including: a biface tip, hammerstone, and a small number of flakes. A charcoal sample from Feature 3 was radiocarbon dated to 1520 +/-60 B.P. (Beta-108552) (cal B.P. 1530 to 1300) (Renouf and Bell 1998).

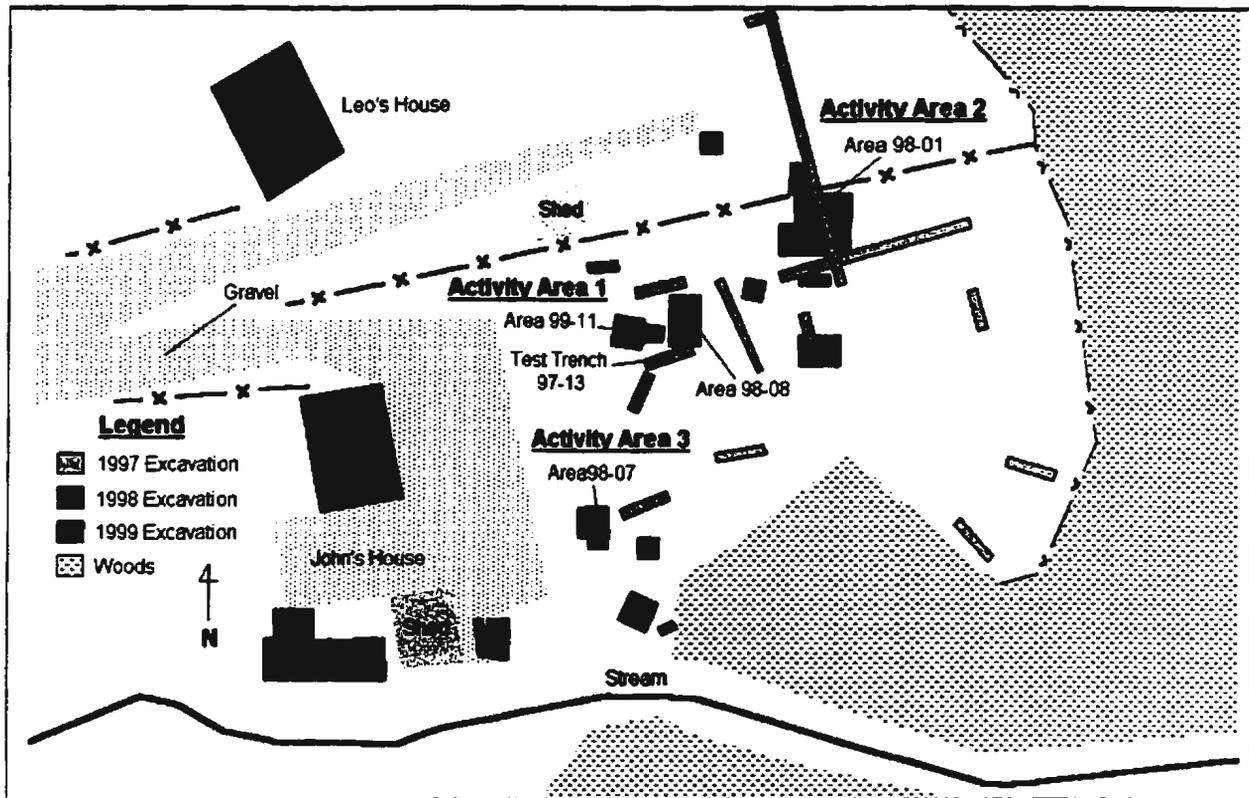


Figure 2.5 – Plan view of the Gould site showing areas of Recent Indian occupation. Occupation Area Four, which is not shown, is located approximately 120 m south of this area.

Feature 21 is an irregular shaped charcoal concentration that measured 55 cm east-west and extended beyond the north-south boundaries of the excavation area (Figure 2.7). The charcoal composing *Feature 21* reached a maximum thickness of 9 cm. Cultural material associated with the feature included: six pieces of grit-tempered pottery, one biface fragment, one ground stone fragment, fire-cracked rock, and several flakes.

Feature 216 is a shallow, oval-shaped depression (Figure 2.8). It was defined by a thin and discontinuous layer of charcoal, as well as a few artifacts and flakes found along its sides and bottom. *Feature 216* measured 102 cm east-west by 73 cm north-south, and reached a



Figure 2.6 – Northern profile of Feature 3 in Occupation Area One.
Photo: M.A.P. Renouf



Figure 2.7 – Outline of Feature 21.
Photo: M.A.P. Renouf



Figure 2.8 – Outline of Feature 216.

Photo: M.A.P. Renouf

maximum depth of 14 cm. Two artifacts were found with the shallow depression: a whetstone fragment, and a rectangular ground stone scraper. Also found was a small fragment of animal skin with short, straight, brownish orange hairs. Charcoal from Feature 216 was radiocarbon dated to 1480 +/- 70 B.P. (Beta-134150) (cal B.P. 1525 to 1280).

Feature 280 is a broad, shallow depression located about 5 m west of Features 3, 21, and 216 (Figure 2.9). It is defined by a thin, charred layer in the peat. At the bottom of the depression is a burnt sandy layer that measured 105 cm east-west by 65 cm north-south, and reached a thickness of 7 cm. The total size of the depression is unknown because the southern and western edges extended outside of the area, but it measured approximately 300 cm by 200 cm, and reached a maximum depth of 24 cm. The black layer that lined the depression was about

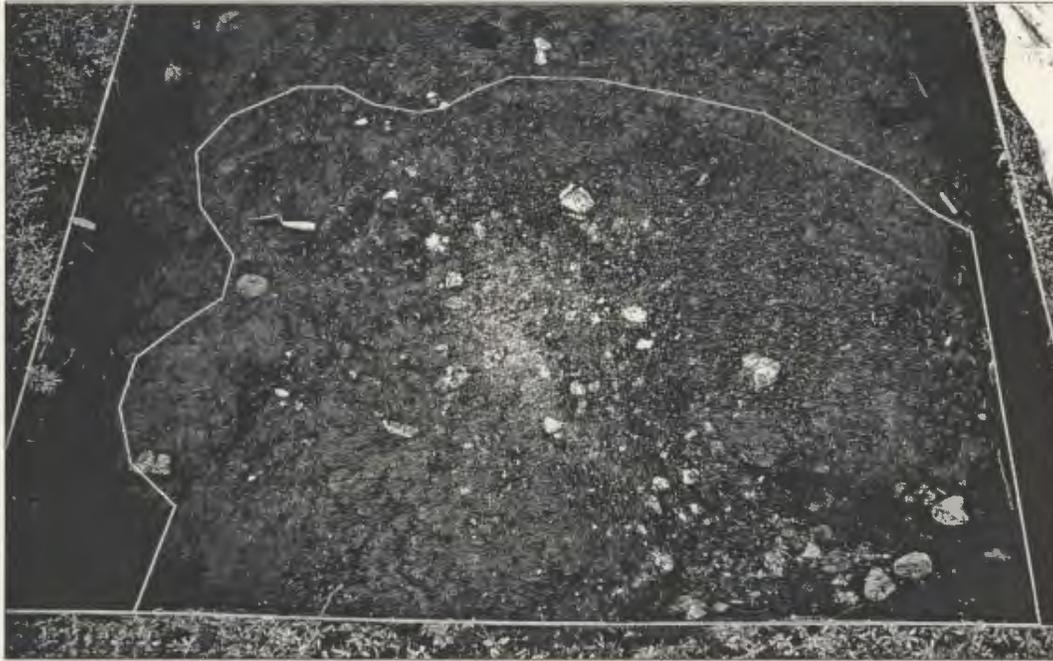


Figure 2.9 – Outline of Feature 280.

Photo: M.A.P. Renouf

5 cm in thickness near the sand, but thinned to less than 1 cm at its edges. Charcoal from this layer was radiocarbon dated to 1500 +/- 40 B.P. (Beta-134156) (cal B.P. 1505 to 1310).

Feature 280 is associated with a diverse array of cultural material, including: 11 contracting stemmed projectile points and point fragments, 25 bifaces and biface fragments, 284 pottery sherds, one retouched flake, one whetstone fragment, 16 ground stone fragments, one hammerstone, one core fragment, hundreds of small flakes, fire-cracked rock, hundreds of calcined bone fragments, 11 shell fragments, red ochre, seven nodules of iron pyrite, and a possible slag fragment. Several Dorset Palaeoeskimo artifacts were also found within Feature 280. These tools include: one endblade, seven burin-like tools and burin-like tool fragments, three microblades, one chert end-scraper, and four ground stone scrapers similar to the one found in Feature 216. Finally, 19 pieces of beaver skin were associated with Feature 280 as well. They

were found predominately around the periphery of the depression.

In addition to Features 3, 21, 216, and 280, Occupation Area One contained several small, root-filled holes that appeared singly or in multiples throughout the peat at the level of Recent Indian occupation (Level 2). Several of the holes were found along the eastern edge of Feature 280. In some cases the holes appeared as natural pockets of loose, thin, roots, and in other cases, they contained fire-cracked rock and/or their sides were lined with a thin layer of ash and charcoal.

Occupation Area Two

This 45 m² area (Area 98-1) is located approximately 30 m northeast of Occupation Area One. It consists of Features 4, 7, 9, 13, and 53.

Feature 4 is a small irregular shaped concentration of fire-cracked rock that measured 35 cm north-south and 69 cm east-west. It was associated with a number of small flakes.

Feature 7 is another irregular shaped concentration of fire-cracked rock located about one metre northeast of Feature 4. It measured 53 cm north-south and 70 cm east-west. Flakes were also found with Feature 7.

Feature 9 is a large, charcoal-lined pit (Figure 2.10). A test trench from 1997 had cut through part of the east side of the feature and it was not completely recovered, but the remaining portion of Feature 9 measured approximately 150 cm east-west by 200 cm north-south, and reached a maximum depth of about 60 cm. Many pieces of fire-cracked rock and hundreds of small flakes were scattered in and around the pit. In addition, Feature 9 also contained one linear flake, four linear flake fragments, one retouched flake, and a small concentration of highly



Figure 2.10 – Northern perspective of Feature 9.

Photo: M.A.P. Renouf

fragmented calcined bone. Charcoal from Feature 9 was radiocarbon dated to 1950 +/- 60 B.P. (Beta-120796) (cal B.P. 2038 to 2029 and 2005 to 1731) (Renouf and Bell 1999).

Feature 53 is a large concentration of fire-cracked rock contained within a shallow, irregular shaped depression (Figure 2.11). It measured 100 cm east-west by 130 cm north-south, and reached a maximum depth of 18 cm. Approximately 15 cm southeast of Feature 53 was a second, smaller depression that appeared to be part of the same event; consequently, it was not given a separate feature number. A biface, a small fragment of animal skin similar to those already found, and several small flakes were found near the northern edge of Feature 53. Charcoal from the feature was radiocarbon dated to 2080 +/- 40 B.P. (Beta-134147) (cal B.P. 2140 to 1945).



Figure 2.11 – Outline of Feature 53.

Photo: M.A.P. Renouf

Occupation Area Three

This area (Area 98-07) is 11 m². It is located approximately 17 m south of the first occupation area and about 40 m southwest from the second area. A single pit feature was found; Feature 26.

Feature 26 is a charcoal-lined pit similar to Feature 9 (Figures 2.12a, b). The northern section of the feature was excavated in 1998 and the remaining southern half was excavated in 1999. Unfortunately, the top 10 to 15 cm of the northern section was partially removed before it was identified so the dimensions of the entire feature are approximate: 132 cm east-west, by 154 cm north-south, and 46 cm in depth. Separately, the northern section measured 70 cm east-west, 92 cm north-south, and 46 cm deep, and the southern section measured 132 cm east-west, 62 cm north-south, and reached a maximum depth of 41 cm. Artifacts associated with Feature 26



Figure 2.12a – Northern section of Feature 26, excavated in 1998.

Photo: M.A.P. Renouf

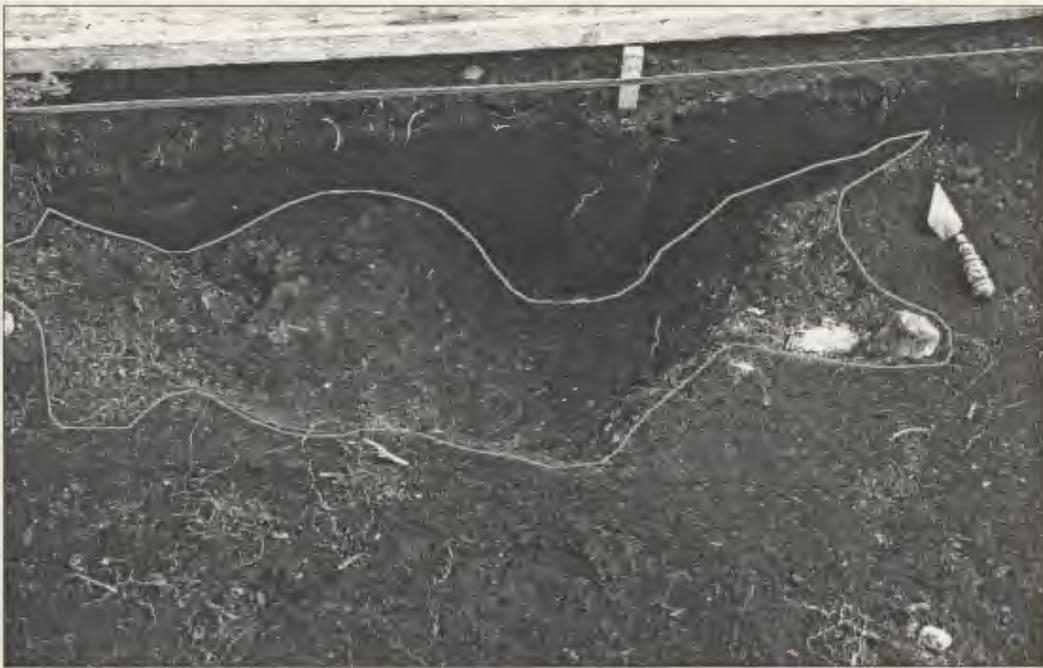


Figure 2.12b – Southern section of Feature 26, excavated in 1999.

Photo: M.A.P. Renouf

include two biface bases, a single triangular end-scrapers, flakes, and several pieces of fire-cracked rock. Charcoal from Feature 26 was dated to 1870 +/- 60 B.P. (Beta-134149) (cal B.P. 1930 to 1690).

Occupation Area Four

A 6 m² test trench (Test Trench 99-6) revealed Occupation Area Four, which is located near Field Pond, approximately 120 m south of the other areas. It contained three features, including a small hearth⁴, Feature 255, and Feature 257.

The small hearth is composed of a circular cluster of fire-cracked rock measuring 55 cm north-south by 42 cm east-west (Figure 2.13). It is associated with two linear flakes, two quartz crystals, and a few small flakes.

Feature 255 is a thin concentration of charcoal that extended into the north and east walls of the test trench (Figure 2.14). It measured 64 cm by 42 cm.

Feature 257 is a linear arrangement of five large fire-cracked rock, located approximately one metre south of Feature 255 (Figure 2.14). The concentration measured 16 cm by 32 cm.

Summary

The Gould site contains both a Recent Indian component (ca. 2000 to 1500 B.P.) and a Maritime Archaic Indian component (ca. 5500 B.P. to 3200 B.P.). The Recent Indian material, which is the focus of this thesis, is characterized by four occupation areas. Occupation Area One

⁴ This hearth was excavated in 1997. The area it was found in was recorded separately from the other areas on the site. By coincidence it shares the same feature number as Feature 3 in Occupation Area One, so to avoid confusion it is simply identified here as "small hearth".



Figure 2.13 – Small hearth found in Occupation Area Four near Field Pond.

Photo: M.A.P. Renouf



Figure 2.14 – Outline of Feature 255 extending into the northern wall of unit. Feature 257 is shown just south of the trowel.

Photo: M.A.P. Renouf

centres on a relatively large, shallow depression (Feature 280) that is associated with both Recent Indian and Dorset stone tools, Native American pottery, and organic and inorganic materials. Occupation Areas Two and Three contain large charred pits (Features 9 and 26) and Occupation Area Four is primarily composed of a small hearth. In comparison to Occupation Area One, these areas were associated with a much smaller, and less diverse collection of artifacts. The cultural material from all four occupation areas is an important addition to the poorly understood Cow Head complex and provides new information about Recent Indian technology, housing, settlement patterns, and cultural interaction. Chapter 3 provides a more detailed description of the cultural material recovered from these areas.

CHAPTER 3 – ARTIFACT DESCRIPTION AND ANALYSIS

Introduction

This chapter comprises the description, analysis, and discussion of all cultural material recovered from the four Recent Indian occupation areas at the Gould site. To facilitate this, the assemblage is divided by raw material: lithics, ceramics, faunal material, and inorganic material. Each component is introduced with a summary of the artifacts within it, as well as a short overview of the methodology used for their identification and/or description. A short discussion follows each descriptive section.

Lithic Material

Introduction

Lithic material includes both stone tools and debris, each of which is treated separately (Table 3.1). The stone tools are divided into diagnostic Recent Indian (58%) and Dorset (19%) artifact types, as well as ambiguous or culturally undetermined items (23%) (Table 3.2). Artifact description within each of these cultural components focusses on size (length, width, thickness), shape, form, material type, condition (complete, broken, burnt, etc.) and method of construction. Maximum length, width, and thickness measurements were recorded to the nearest half millimetre. A summary of the stone tool measurements is provided in Appendix A.

Stone debris includes flakes, cores, and raw material fragments. The flakes from each occupation area were counted separately and the proportion of primary, secondary, and tertiary flakes were calculated. This provides a way to estimate the various lithic activities conducted in

Table 3.1 – Gould Site Lithic Material

Form	Chipped Stone	Ground Stone	Unmodified	Total
Tools and Tool Fragments	57	29	2	88
Debris	2697	0	0	2697
Total	2752	29	2	2783

each area since primary, secondary, and tertiary flakes, respectively, represent the initial, medial and final stages of stone tool production. Flakes were also organized into common lithic types to identify the predominate raw materials within each occupation area.

Recent Indian Stone Tools

Projectile Points

Eleven Recent Indian projectile points were recovered, including three complete points, one near-complete point, six stemmed bases, and one large medial fragment. All of the specimens were found in and around Feature 280 (large depression) of Occupation Area One.

Based on blade, shoulder, and stem characteristics the points can be divided into two different forms. One point form is distinguished by a broad triangular blade with convex edges, shoulders angled slightly less than 90°, and a short contracting stem with a convex base. It is represented by two complete examples, two base fragments, and one medial fragment (Plate 1). The two complete points are made of white rhyolite with grey bands, and black chert. One of the bases and the medial fragment are made of grey rhyolite with small pits. The second base fragment is made of dark grey rhyolite. All but two of the specimens are burnt. The points

Table 3.2 – Summary of Recent Indian, Dorset, and Culturally Undetermined Stone Tools and Tool Fragments.

Culture	Tool Type	Frequency	% of All Lithic Tools
Recent Indian	Projectile Points	11	12.5%
	Bifaces	25	28.4%
	Scrapers	1	1.1%
	Linear Flakes	10	11.4%
	Retouched Flakes	2	2.3%
	Hammerstones	2	2.3%
Total		51	58.0%
Dorset	Endblades	1	1.1%
	Burin-like Tools	7	8.0%
	Microblades	3	3.4%
	Chert End-Scrapers	1	1.1%
	Ground Stone Scrapers	5	5.7%
Total		17	19.3%
Culturally Undetermined	Bifaces	3	3.4%
	Whetstones	2	2.3%
	Ground Stone Fragments	15	17.0%
Total		20	22.7%
Total		88	100.0%

exhibit fine random flaking, as well as marginal retouching on both surfaces. They are biconvex in cross-section, and their stems are basally thinned, presumably to facilitate hafting. One complete point measures 60.5 mm in length, 28.5 mm in width, and 6.5 mm in thickness. The other is slightly smaller, measuring 47.0 mm in length, 27.0 mm in width, and 5.5 mm in thickness.

The other point form is characterized by a leaf-shaped blade with convex edges, and wide rounded shoulders that lead down to a contracting stem. In comparison to the previous style, its blade is narrower and slightly thicker, and it has a longer stem. This second form is represented by one complete example, one near-complete example, and four stemmed base fragments (Plate 2). The complete point and three of the bases are made of grey rhyolite with small pits, the near-complete point is made of mottled greenish-grey chert, and the material of the fourth base fragment is undetermined. All are biconvex in cross-section and exhibit random flaking on both sides; however, it is not as fine as it is on the other point form. The complete point is composed of two separate pieces, one from near Feature 21, and the other from Feature 280. It measures 44.0 mm in length, 22.0 mm in width, and 7.0 mm in thickness. Five of the projectile points are burnt.

Bifaces

A total of 28 artifacts are classified as bifaces; however, 21 of these are small fragments and thus the sample is likely over-represented. Nearly all specimens came from Occupation Area One, with the exception of one near-complete biface from Feature 53 (fire-cracked rock concentration) in Occupation Area Two, and two fragments from Feature 26 (large charred pit) in

Occupation Area Three.

The four complete or near-complete bifaces are relatively small, and can be divided into four distinct forms, which likely reflect functional variation. One is a small triangular example made of white rhyolite with small pits (Plate 3). It has convex lateral edges, a straight base, and one of its bottom corners is broken, along with a tiny fragment of the tip. The biface measures 32.0 mm in length, and its biconvex cross-section reaches a maximum thickness of 8.0 mm. Flake scars are difficult to see on the biface because it is completely burnt and its surface is now matted or dulled and covered with many small heat fractures.

The second biface form is broken along one of its lateral edges, but was probably tear-drop shaped (Plate 3). It is made from white rhyolite with small pits, and measures 36.5 mm in length, and 8.0 mm in thickness. In cross-section it is biconvex, and it exhibits random flaking completely on both sides.

The third biface form is a stemmed specimen with an asymmetric, triangular blade (Plate 3). It may be a point preform, but is considered a biface here because the asymmetry of its blade suggests a cutting function. It is made of white-to-light-grey rhyolite with thin grey bands and measures 20.5 mm in width and 7.5 mm in thickness. The length of the biface was not measured because the base of its stem is fractured. Both sides of the artifact show complete random flaking, and its left distal edge is marginally retouched.

The fourth biface form is a linear example with a flat base and parallel sides, and is near-complete except that a small portion of its tip is missing (Plate 3). It is made of white, fine-grained chalky chert that has patches of brown-beige, medium-grained chert on its surface. The biface is crudely made and has relatively deep secondary flaking scars that occur randomly on

both of its sides. This indicates an unfinished tool; however, there is some evidence of use along its edges suggesting that it is finished. The biface measures 18.0 mm in width, 8.0 mm in thickness, and approximately 55.0 mm in length.

The 21 biface fragments consist of eight tips or distal ends, five bases, and nine medial or unknown fragments. All pieces were found in Feature 280 (large depression) with the exception of two base fragments from Feature 26 (large charred pit) and one tip fragment from Feature 3 (hearth). They are made from various materials including white and grey rhyolite with small pits, dark grey rhyolite, brown chert, and Ramah chert. Fourteen of the fragments are burnt and exhibit discolouration, heat fractures, and/or pot-lid scars.

Scrapers

A single tear-drop shaped scraper was found near Feature 26 (large charred pit) in Occupation Area Three (Plate 4a). It is made from a dark brown chert with light beige to white bands and it measures 50.5 mm in length, 27.0 mm in width, and 16.0 mm in thickness. The scraper is fashioned from a thick secondary flake that is triangular in cross-section. The left lateral side and working edge or bit of the scraper are completely retouched on their dorsal side while all other edges are unmodified. The bit end is steeply angled, almost forming a right angle with the ventral surface.

Linear Flakes

Ten linear flakes were recovered, including three complete examples and seven fragments (Plate 4). One of the complete linear flakes and two of the fragments are from Feature 280 (large

depression) in Occupation Area One. One of the complete linear flakes and four of the fragments are from Feature 9 (large charred pit) in Occupation Area Two, and the remaining examples are from the small hearth in Occupation Area Four.

The complete linear flakes are made of grey rhyolite with small pits, dark grey-black chert, and brown, white banded chert. They have a single arris or ridge on their dorsal sides and show no signs of use or modification. The grey rhyolite example measures 24.0 mm in length, 8.5 mm in width, and 3.0 mm in thickness. The dark grey-black linear flake measures 14.0 mm in length, 5.5 mm in width, and 1.5 mm in thickness, and the other measures 16.5 mm in length, 9.0 mm in width, and 2.5 mm in thickness.

The linear flake fragments include two proximal ends, two distal ends, and three medial fragments. The proximal pieces are made of dark grey-black chert and light grey chert, the distal fragments are made of dark grey-black chert, and the three medial bits are made of the brown chert. Double arrises appear on the proximal fragments and one of the medial fragments, and single arrises occur on the remaining pieces. None of the linear flake fragments appear to have been used or modified, but one of the distal fragments has two pot-lid scars on its dorsal side indicating that it is burnt.

Retouched Flakes

Two retouched flakes were uncovered (Plate 4). One is a lateral fragment that was found in Feature 280 (large depression) of Occupation Area One. It is made of dark grey rhyolite with several whitish-blue patches that suggests it is burnt. The tool fragment is retouched on its dorsal side and reaches a maximum thickness of 6.0 mm.

The other retouched flake is a secondary flake from Feature 9 (large charred pit) in Occupation Area Two. It is made of brown chert and is dorsally retouched on its distal end showing no other signs of modification. The dimensions of the artifact measure 14.5 mm in length, 14.0 mm in width, and 4.5 mm in thickness.

Hammerstones

Two hammerstones were recovered from Occupation Area One (Plate 7a-b). Given the high number of flakes in the area they are probably Recent Indian. The first was found in Feature 280 (large depression) and the second was associated with Feature 3 (hearth). Both hammerstones are smooth, oval shaped quartzite beach cobbles that are about the size of small potatoes. Signs of use for both tools is exhibited in the form of minor pitting at one end.

Dorset Palaeoeskimo Stone Tools

Endblades

One near-complete triangular Dorset endblade was found within Feature 280 (large depression) in Occupation Area One (Plate 5). It is missing its base, exhibits fine, co-lateral flaking patterns on both its surfaces, and it is biconvex in cross-section. Two fragments, one of which is burnt, fit together to form the endblade. The material of the endblade is light grey, fine-grained Cow Head chert, which was commonly used by Newfoundland Dorset groups (LeBlanc 2000; M.A.P. Renouf, personal communication). Although its full length and width could not be determined it measured 5.0 mm in thickness.

Burin-Like Tools

A total of seven nephrite burin-like tools was recovered from Feature 280 (large depression) (Plate 5). Only one of the burin-like tools is complete; it is trapezoidal in shape and measures 23.0 mm in length, 24.5 mm in width, and 2.5 mm in thickness. Both its surfaces are ground flat, including its right lateral edge, which is also notched near the bottom. The left lateral edge and the distal and proximal ends are bifacially bevelled. The surface of the burin-like tool is whitish in colour and dull or matted in appearance suggesting that it is burnt.

All six burin-like tool fragments are ground flat on both sides and have at least one bifacially bevelled edge. All but one of the fragments are burnt.

Microblades

A total of three microblades was discovered in Feature 280 (large depression)(Plate 5). They are different from the Recent Indian linear flakes because they are made from distinctive Cow Head cherts which the Palaeoeskimo from Port au Choix commonly used (M.A.P. Renouf, personal communication). One is complete and the remaining two are fragments. The complete specimen is made from blue-green Cow Head chert and measures 36.0 mm in length, 12.0 mm in width, and 6.0 mm in thickness. It has a single arris that runs parallel to its lateral edges which are partially retouched on both their dorsal and ventral surfaces.

The two microblade fragments are distal and proximal ends respectively. The distal fragment is made from tan, chalky chert and measures 11.0 mm in width and 2.0 mm in thickness. It has two arrises and signs of minor retouching on both lateral edges. The proximal fragment is composed of dark brownish-grey chert, has a single arris, and no signs of

modification. It measures 5.5 mm in width and 2.0 mm in thickness.

Chert End-Scrapers

A single chert end-scraper was uncovered in Feature 280 (large depression) (Plate 5). It is tentatively identified as a Dorset artifact because it is made from mottled bluish-grey chert, which is different from the lithic raw materials the Recent Indian artifacts at the Gould site are predominately made from (i.e. white and grey rhyolite). The scraper is trapezoidal in shape and measures 22.0 mm in length, 28.0 mm in width, and 11.0 mm in thickness. The artifact is made from a secondary flake with a convex dorsal surface and a concave ventral surface. On its dorsal side, marginal retouching occurs along the distal and lateral edges, while on its ventral surface, retouching occurs at the distal end, and on the left proximal side. The distal, or working edge, is thicker and more heavily retouched than the other edges. Two pot-lid scars on the dorsal surface of the scraper indicate that it is burnt.

Ground Stone Scrapers

A total of five ground stone scrapers of two slightly different forms was recovered from Occupation Area One (Plate 6). Ground stone scrapers are an uncommon Dorset tool type occasionally found in Newfoundland and Québec-Labrador (Pintal 1998:162-164; Tuck 1972; M.A.P. Renouf, personal communication). One scraper form is represented by three complete examples from Feature 280 (large depression) and one distal fragment from Feature 216 (shallow depression). They have broad, thin, rectangular blades with tapered proximal ends that are thinned on their dorsal surface to facilitate hafting. All surfaces have been ground smooth and

the edges of the scrapers are bifacially bevelled except for the bit or working edge which is bevelled only on the ventral surface. It is interesting to note that the bit of each scraper exhibits a different degree of bevelling or wear which suggests either they were used for different tasks or some had a longer period of use before they were discarded. The first complete scraper, which is composed of two fragments that fit together, measures 65.0 mm in length, 51.0 mm in width and 8.5 mm in thickness, the second measures 61.0 mm in length, 55.0 mm in width, and 7.0 mm in thickness, and the third measures 51.0 mm in length, 50.0 mm in width, and 9.0 mm in thickness. All of the scrapers are made from nephrite and exhibit traces of red ochre, and all but the distal end of one are burnt, which has turned the nephrite soft, chalky, and whitish-grey in colour.

The other scraper form is represented by a single example from Feature 280 (large depression). It too is rectangular in shape, but has two wide rounded corners that give it an ulu-like appearance; consequently, it may be a knife. One lateral edge and the distal end of the scraper are bifacially grounded; however, they do not form bevelled edges like those found on the other specimens. The remaining two sides are blunt and unworked. This scraper is also made of nephrite, and like the others it is burnt which, gives it a white chalky appearance. It measures 81.5 mm in length, 40.0 mm in width, and 7.0 mm in thickness.

Culturally Undetermined Stone Tools

Bifaces

Three triangular bifaces with concave bases could not be culturally determined (Plate 5). All are missing small portions of their tips and/or bases, have plano-convex cross-sections, and exhibit random flaking patterns on both surfaces; two are composed of fragments which fit

together. Two of the bifaces are burnt, which makes identifying their raw material difficult, but the third is made of dark black chert. Complete measurements could not be recorded; however, the burnt bifaces were 19 mm and 18 mm in width, and 3.5 mm and 3 mm in thickness. The biface made of black chert measured 4.5 mm in thickness.

The fact that the artifacts are incomplete makes it difficult to determine if they are Recent Indian or Dorset. They are similar to examples of triangular Recent Indian bifaces found at the Beaches site in Bonavista Bay (Carignan 1975), and to Dorset endblades found throughout the Island. However, the bifaces do not exhibit the fine flake patterning, or tip-fluting characteristic of Dorset endblades in Newfoundland (LeBlanc 2000; M.A.P. Renouf, personal communication).

Whetstones

A total of two partially complete schist whetstones was discovered in Occupation Area One (Plate 7). The first whetstone is from Feature 216 (shallow depression). It is rectangular in shape with a single rounded or smoothed edge, while all other edges are fractures. The tool has a wide shallow groove running the length of its dorsal and ventral surfaces, making it biconcave in cross-section. Furthermore, faint striations are visible in each of the grooves, and a thin cut mark occurs near one of the ends.

The second whetstone was found in Feature 280 (large depression). It too is rectangular in shape and is rounded at one end and along one of its lateral edges. The other edges of the whetstone are broken. The whole tool is ground smooth on most of its dorsal and ventral sides; however, small striations are still visible.

Ground Stone Fragments

Fifteen ground stone fragments were recovered from Occupation Area One. One was associated with Feature 21 (charcoal concentration), and the rest were from Feature 280 (large depression). The fragments are made of slate or perhaps burnt nephrite and exhibit at least one ground surface. The pieces are likely from ground stone tools such as axes, adzes, or gouges that have broken off as the tools were used and/or maintained.

Lithic Debris

Flakes

In all, 2697 flakes were recovered from the four areas of Recent Indian occupation. Their distribution and composition across the site is presented in Table 3.3.

In Occupation Area One, 1547 flakes were recovered, with the highest concentration occurring in and around Feature 280 (large depression). The sample is predominated by small tertiary or retouch flakes which make up 69.6% of the total, followed by secondary flakes (29.8%), and primary or undeterminable flakes (<1%). Lithic materials are diverse in Occupation Area One, but most flakes are made of white rhyolite (66.8%), which often contains small pits, Ramah chert (14.7%), and grey rhyolite with small pits (12.6%).

In Occupation Area Two, most flakes were from Feature 9 (large charred pit). The sample totals 1013 flakes, of which 53.2% are secondary, 17.5% are tertiary, 6.3% are primary, and 23% are undeterminable. The high percentage of undeterminable flakes in Occupation Area Two is likely a consequence to the fact that many of the flakes are burnt and fragmented to the point that they could not be classified. The predominate lithic materials from the area include

Table 3.3 – Flakes recovered from the Gould site by Area and flake type.

Area	Flake Type				Total	%
	Primary	Secondary	Tertiary	Undetermined		
One	8	461	1076	2	1547	57.5%
Two	64	539	177	233	1013	37.7%
Three	0	30	44	3	77	2.9%
Four	0	13	39	0	52	1.9%
Total	72	1043	1336	238	2689	100.0%
%	2.7%	38.8%	49.7%	8.8%	100.0%	

medium-grained brown chert (23.3%), black Cow Head chert with tiny white radiolari (22%), medium-grained beige chert (19.6%), and grey semi-transparent chert (11%).

In Occupation Area Three, flakes were less abundant. A small sample of 77 flakes were recovered in which 57.1% are tertiary, 38.9% are secondary, and 3.9% are undeterminable. The most common lithic materials in Occupation Area Three are quite similar to those in Occupation Area Two; they include medium-grained beige chert (37.3%), medium-grained brown chert (32%), and grey semi-transparent chert (21.3%).

Fifty-two flakes came from Occupation Area Four, of which 75% are tertiary, and 25% are secondary. Again, the lithic material is similar to that found in Occupation Area Two, including black Cow Head chert with tiny white radiolari (38.5%), grey semi-transparent chert (21.1%), and medium-grained brown chert (11.5%).

Cores and Raw Material Fragments

One irregularly shaped core fragment and four raw material fragments were found in Feature 280 (large depression). The difference between a core fragment and raw material fragment is that the former exhibits flake scars produced by the deliberate removal of material (i.e. flakes) while the latter does not. The core fragment is composed of dark grey to black rhyolite and all of its sides have had flakes removed. Flakes composed of similar material were found in Feature 280 in minor amounts (1.5% of flake total).

Three of the raw material fragments are composed of small angular pieces of white rhyolite, one of which is burnt, and the fourth is a small piece of mottled light grey chert.

Ceramics

Introduction

All ceramics came from Occupation Area One. In total, the sample includes 290 pottery sherds, of which six were found near Feature 21 (charcoal concentration), and the remainder were recovered from Feature 280 (large depression). All the pottery is composed of a grit tempered clay that varies in condition from highly deteriorated and crumbly, to quite solid; most pottery sherds fall somewhere between these two extremes. Also, several sherds are encrusted with a hard black substance which is presumably related to food preparation.

Sixty-one of the 290 sherds could be identified to sherd type, and these pieces constitute the sample that will be described and analysed in this section. They include: 15 rim sherds, 10 neck sherds, and 36 body sherds (Table 3.4). Rim sherds form the opening of a vessel and are identified by the presence of the lip or margin. Neck sherds are transitional pieces that compose

a constricted area between the rim and the body of a vessel. They can frequently be identified by a concave profile. Body sherds form the main portion of a vessel and, consequently, are often the most numerous sherd type in a ceramic assemblage. They are commonly distinguished by convex profiles.

Description of the ceramics is by sherd type and focusses on sherd form and decoration. These attributes were chosen because they are readily recognizable and commonly described in other pottery collections due to their sensitivity to both temporal and spatial change

Table 3.4 – Gould Site Ceramics.

Sherd Type	Frequency	%
Rim	15	24.6%
Neck	10	16.4%
Body	36	59.0%
Total	61	100.0%

(Marois 1984; Petersen and Sanger 1991), and are thus useful for comparative purposes.

Form, in this case, relates to the general shape and curvature of the sherds, and it is used where possible to determine the overall morphology of the original vessel or vessels. In most cases, rim sherds provide the most information about vessel size and shape. By fitting the curve of a rim sherd to a standard diameter-measurement template it is possible to calculate the orifice diameter. Furthermore, variations in rim angle and lip form can provided additional information about the morphology of the top of a vessel. Neck, body, and base sherds can also be used to determine vessel size and shape, but they are generally less informative because they often show

little variation which makes it difficult to orient them on a vessel. One of the disadvantages of using sherd forms to establish vessel morphology is that it is limited by the size of the sherds. The smaller the sherd, the less information it provides.

Description of sherd decoration focusses the types of decoration that are present, the methods or techniques by which they were applied, and the patterns or configurations in which they occur. In all, there are four different types of decoration, each of which is applied using different techniques. The decoration types or styles include: dentate stamped, dentate rocker stamped, lines, and appliqué. Dentate stamped is a linear type of decoration that appears as a series of small holes or depressions. It is produced by pressing a toothed or combed tool into the wet clay of an unfired vessel. Dentate rocker stamped is essentially the same as dentate stamped except that it is applied in a slightly different manner. Instead of simply stamping the toothed instrument into the side of a vessel, it is rocked back and forth forming a zig-zag pattern of fine holes. Lines are a simple form of decoration that can be created through incising or stamping the surface of an unfired clay vessel. Finally, appliqué decoration refers to the application of additional pieces of shaped clay to the surface of a vessel before it is fired. Examples of this type of ornamentation appear in a variety of forms and sizes that can be functional as well as decorative, such as in the case of an elaborate handle.

Rim Sherds

Form

There are five different rim shapes or forms: squared, rounded, in sloping, concave, and

collared (Figure 3.1). Four of the rim sherds are squared, three are rounded, two are in sloping, two are concaved, two are collared, and two have undeterminable rim forms. The differences seen in the rim sherds indicate that there is a range of stylistic and/or functional variability within the Gould site ceramics. Furthermore, they also provide a means to estimate the minimum number of vessels (MNV) within the assemblage. The MNV is calculated by grouping all of the sherds that could represent a single vessel. Based on rim shape, the ceramics have a MNV value of five. However, by accounting for decorated and undecorated varieties of the same rim form, the MNV value increases to seven.

Unfortunately, only two of the rim sherds are large enough to provide additional information about vessel morphology. In profile, these sherds angle outward suggesting that they came from a vessel with a slightly flared or everted opening. Furthermore, the curvature of the rims indicates that the orifice of the vessel was between 14 to 15 cm in diameter.

Decoration

Ten of the fifteen rim sherds are decorated with at least one of three types of decoration: dentate stamping, dentate rocker-stamping, and incised linear lines (Plate 8). Dentate stamping is the most common type of decoration on the rims, and is found in horizontal rows on all ten sherds. The dentate rocker stamping is found on two of the rim sherds immediately below the rows of dentate stamping. The zig-zag pattern appears to form closely spaced vertical columns

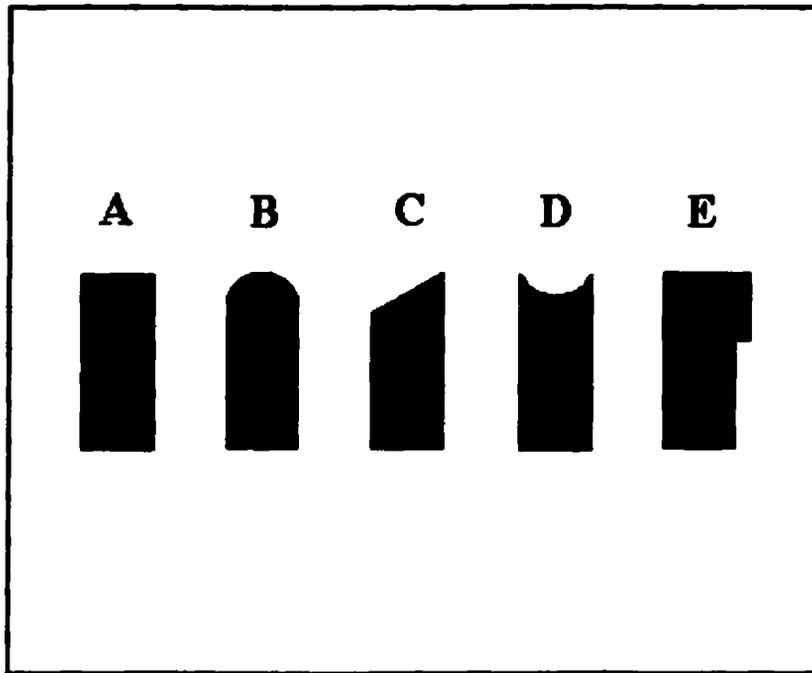


Figure 3.1 – Rim shapes in the Gould site ceramic assemblage; (A) squared, (B) rounded, (C) in sloping, (D) concave, and (E) collared.

that extend down into the neck region of the vessel. Finally, incised linear lines also occur on two rim fragments, one of which also exhibited the dentate stamping and dentate rocker stamping. The lines are incised into the top or lip of the sherds in a diagonal direction.

Neck Sherds

Form

None of the ten neck fragments are large enough to assess vessel morphology specifically. However, in general the presence of neck sherds in the assemblage indicates that the vessels they were once a part of had some degree of constriction between their bodies and their openings to help retain their contents.

Decoration

Nine of the ten neck sherds were decorated with one of two types of decoration. The first and most predominate decoration is dentate rocker stamping. It is found on six of the sherds, and like the rim fragments, the zig-zagged pattern of dots form vertical columns that extend the whole length of the sherds (Plate 8). The second type of decoration is a variety of appliqué decoration that appears as a plain, raised, vertical line that is approximately 3 cm in length, and 0.7 cm in width (Plate 8c). It is found on three of the neck sherds, two of which have been mended together at Memorial University.

Body Sherds

Form

Body sherds are also too fragmented to determine specific morphological characteristics of the vessels. However, given the likelihood that the vessels were used for cooking activities, as suggested by the black encrusted material on several of the sherds, it is suggested that they had rounded or ovate bodies. These shapes are often used for cooking vessels because their structure is well suited for withstanding thermal damage, and it also exposes the greatest surface area to heat for more efficient cooking (Rice 1987:237).

Decoration

Sixteen of the 36 body fragments were decorated with dentate rocker stamping. The decoration only occurs on a small portion of each sherd suggesting that the body section of the vessels was not as heavily decorated as the rim and neck sections.

Faunal Material

Introduction

The faunal collection consists of bone fragments, shell, and the remains of animal skin. The bone was examined by Dr. Lisa Hodgetts, Memorial University Archaeology Unit, and Kathlyn Stewart of the Museum of Nature in Ottawa. Despite a heavily fragmented sample, many pieces of bone were identified through comparative bone collections to element (eg. rib, femur, phalanx), class (eg. mammal, fish, bird), and where possible, family (eg. seal, caribou, trout, goose), and species (eg. harp seal, lake trout, Canada goose). Unfortunately, more in-depth analyses were not possible because of the fragmented condition of the collection.

Drs. Roger Pickavance and Bob Hooper, Memorial University Biology Department, examined the shell fragments. Under low levels of magnification they were able to see ring patterns which allowed them to identify most of the shell to the species level.

The animal skin was analysed and identified by Dr. Michael Deal, Memorial University Archaeology Unit, and Ruth Whitehead of the Nova Scotia Museum. Identification of the skin was done by comparing samples of its hair to the hair of various animal species. This method works on the basis that each mammal species has a distinct hair structure that is recognizable under relatively low levels of magnification.

Bone

Due to the natural acidity of peat there was not a high expectation of recovering faunal remains. Nevertheless, two concentrations of bone were discovered, the first from Feature 9 (large charred pit) in Occupation Area Two, and the second from Feature 280 (large depression)

in Occupation Area One. Both concentrations were likely preserved because they were highly fragmented and burnt; however, their condition also severely reduced the number of identifiable elements in each collection.

Of the 432 bone fragments from Feature 9, one could be identified, a phalanx fragment from a juvenile beaver. The second concentration is composed of about 1650 bone fragments and of these, 90 were identifiable. Appendix B provides the identification results for the second collection of bones. Mammal bones comprise 88% of the identifiable elements, while the remaining 12% is accounted for by a small number of bird (10%), and fish (2%). None of the bird or fish elements could be identified to the family level, with the exception of a scapula and phalanx fragment of the Anatidae family which includes duck, goose, and swan. Three families of animals could be identified in the mammal elements, including canine, seal, and caribou. The majority of mammal bones are seal which compose 66% of the elements, followed by canine and caribou each of which account for about 1%. One third (33%) are unidentifiable mammal. Species identification in the collection was limited to five elements: one Canada goose phalanx, two harp seal teeth, one harp seal metatarsal, and one caribou metapodial. A sixth bone was identified as a mandible fragment that could have come from either a harp or ringed seal.

The faunal assemblage contains several different bone elements, but phalanges are the most predominate bone type composing about 40% of the sample. This is more a product of preservation than cultural selection because burning (calcination) fragments most bones and leaves only small dense bones, such as phalanges, identifiable (Lisa Hodgetts, personal communication). Other larger and/or more fragile bone elements are more likely to fracture into unrecognizable fragments.

Although, the percentage of identified bones is just over 4% of the entire assemblage, the sample does provide an indication of the types of animal resources Recent Indian groups were exploiting.

Shell

Eleven pieces of mollusc shell were uncovered from Occupation Area One. Nine of the fragments were collected from the peat matrix surrounding Feature 280, while the remaining two fragments came from the sandy layer of the feature. The pieces of shell recovered from the peat have been reduced to a thin, brown, leaf-like material known as the periostracum, which is the protein-rich outer layer found on clams (Roger Pickavance, personal communication) (Plate 9); the hard calcium-carbonate part of the shell has been dissolved by the acidic peat. Based on the size of the periostracums and their ring patterns, the species of clam is most likely a freshwater river variety known as *Margaritifera margaritifera*; however, there is a chance that they could also be *Anodonta cataracta*, a lake-dwelling clam species (Clarke 1973; Thorp and Covich 1991). Unfortunately, it is difficult to distinguish between the two species in the absence of some of the calcareous part of their shells (Roger Pickavance, personal communication).

The two mollusc fragments from within Feature 280 were the calcareous remains of shell. These pieces were preserved because the sandy bottom of the feature likely neutralized the acidity of the peat. Unfortunately, they were too small to identify to species.

Animal Skin

The discovery of animal skin was a fortunate occurrence made possible in part by the peat matrix in which it was found. In most cases soft organic materials like animal skin are

decomposed by micro-organisms soon after death; however, the damp peat at the site created a unique anaerobic condition that prevented the destructive activity (Stambolov 1969).

In all, 21 fragments of animal skin were recovered. With the exception of one fragment from Feature 53 (fire-cracked rock concentration) in Occupation Area Two, all the pieces of skin were recovered from around Features 280 (large depression) and 216 (shallow depression) in Occupation Area One. The fragments range in size from a few square centimetres to several hundred square centimetres, and all retain short, straight, brownish coloured hairs. Hair samples from all of the skin fragments were identified as beaver. The beaver skin is too fragmented to determine if it was part of some manufactured item such as clothing.

Inorganic Non-Artifactual Material

Introduction

Description and analysis of the inorganic materials from the site involved identification and quantification. Some inorganics were identified in the field, such as red ochre, which is a commonly recognized natural pigment that is often derived from iron-rich minerals. Other inorganic materials that were more difficult to identify were analysed by Lisa Lee, Memorial University Biology Department, and Pam King, Memorial University Earth Sciences Department. A key step in identifying these inorganic materials was to determine their elemental compositions using a scanning electronic microscope (SEM).

Two specimens underwent rudimentary analysis by Lee, and the results were interpreted by King who tentatively identified them as a fragment of iron pyrite, and a piece of slag-like material.

Red Ochre

Both nodule and residual forms of red ochre were identified in the field. They were recovered from Feature 280 (large depression) in Occupation Area One. Red ochre is a common material, obtainable from a variety of sources including clays high in iron oxide, and various forms of iron ore like hematite and limonite (Velo and Kehoe 1990:101). These materials are often ground to produce a natural rusty or blood red powder, and in some cases, the colour of the ochre can be intensified or deepened by heating it in a fire (Schmandt-Besserat 1980:129-130; Velo and Kehoe 1990:101).

Iron Pyrite

Seven pieces of what appeared to be oxidized metal were found throughout Feature 280 (large depression) in Occupation Area One (Plate 10). To identify the pieces, one fragment was analysed under a SEM to determine its basic elemental composition. The SEM is an instrument that is probably best known for its ability to produce very detailed three-dimensional images of objects at extremely high levels of magnification. However, the SEM can also be used to determine the elemental composition of desired specimens by measuring the X-rays they emit while being struck by a beam of highly focussed electrons. In general, each chemical element gives off a unique X-ray spectrum, and a specimen composed of several different elements emits the X-rays of each in proportion to the relative amount present (Freestone 1985). Thus by measuring the X-ray spectrums emitted from samples the SEM can indicate what elements are present, and whether they are in high or low concentrations.

The result of the analysis was interpreted as the elements composing iron pyrite (FeS_2),

which is a common mineral that can be found in many geological environments (Manson and Berry 1968:258; Pam King, personal communication).

Slag-Like Material

Another unidentified material found in Feature 280 was an amorphous, greenish-grey object with a glassy or plastic-like appearance (Plate 10). It too was sent to the SEM lab for analysis and the results indicated that it contained fairly high amounts of aluminum, silicon, indium, calcium, titanium, and iron. Based on the appearance of the object and its basic elemental composition it is tentatively identified as slag (Pam King, personal communication). Slag is a byproduct of fused material that is formed during the reduction of metal from its ore, and is commonly associated with sites containing metallurgical activity such as casting or blacksmithing (Tylecote 1980).

Quartz Crystals

Two small quartz crystal fragments were found with the small hearth in Occupation Area Four (Plate 10c-d). Quartz crystals are known to have been used as microblade cores; however, the fragments from Occupation Area Four are too small, and although broken, appear unaltered, suggesting that they were not cores in this case. Perhaps because of their unusual crystalline structure or transparent appearance they were picked up by an individual for some magical or non-utilitarian purpose, and once broken were disposed of near the fire.

Summary

The artifact assemblage from the Gould site includes lithics, ceramics, faunal material, and inorganic material. Lithic material predominates the collection and consists primarily of Recent Indian stone tools, including several contracting stemmed projectile points, various forms of bifaces, a scraper, several flake tools, and two hammerstones. In addition, smaller amounts Dorset Palaeoeskimo and culturally undetermined tools were found. The Dorset tools include an endblade, several burin-like tools, three microblades, and various chipped and ground stone scrapers. Three bifaces, two whetstones, and a variety of ground stone fragments comprise the culturally undetermined tools. Ceramics from the site are characterized by numerous grit-tempered sherds that are estimated to represent the remains of seven different vessels. Many of the sherds exhibit dentate stamping, dentate rocker-stamping, incised lines, or appliqué decoration. The faunal material consists of two concentrations of calcined bone, several fragments of beaver skin, and nearly a dozen freshwater clam shells. Most of the bone is calcined and heavily fractured so only a small portion was identified to element, class, family, and/or species. Finally, the inorganic materials from the collection included red ochre, iron pyrite, and a possible slag fragment.

CHAPTER 4 – SUMMARY AND DISCUSSION

Introduction

In this chapter the four Recent Indian occupation areas from the Gould site are summarized, interpreted, and compared to other relevant data. Information from the site adds to our understanding of Cow Head Recent Indian technology, housing, settlement patterns, as well as social and cultural interaction.

Cultural Affiliation

The Recent Indian occupation areas at the Gould site are affiliated to the Cow Head complex. This connection is established on the basis of stylistic similarities to projectile point forms from the Cow Head site on the west coast of the Northern Peninsula, and early radiocarbon dates that range between 2080 +/- 40 B.P. (Beta-134147) (cal B.P. 2140 to 1945) and 1480 +/-70 B.P. (Beta-134150) (cal B.P. 1525 to 1280) (see Table 4.1).

The Cow Head complex is currently defined by Recent Indian material from two deeply stratified terraces (an upper and a lower) at the Cow Head site (Hartery, in prep.; Tuck 1978). This material includes broad bladed, stemmed projectile points, widely notched projectile points, large ovate, lanceolate and bi-pointed bifaces, large flake side-scrapers, smaller flake end-scrapers, linear blade-like flakes, bipolar cores, pièces esquillées, and small side-scrapers (Hartery in prep.; Tuck n.d). These artifacts were associated with a series of cobble hearths and flake concentrations from the top three layers of the lower terrace (Bands 1, 2, and 3), and a single hearth in Layer 2 of the upper terrace (Tuck 1978). Two hearths from the lower terrace, one from Band 2 (Feature 8) the other from Band 3 (Feature 32), were radiocarbon dated to

**Table 4.1 – Summary of Radiocarbon Dates
from Recent Indian Occupation Areas at the Gould Site**

Area	Source	Cat. No.	Lab No.	Conventional ¹⁴C age (yr B.P.)	Calendar age (cal yr B.P.)
One	Charcoal near edge of shallow depression (Feature 216).	EeBi-42:1357	Beta-134150	1480 +/- 70	1525 - 1280
One	Charcoal from large shallow depression (Feature 280).	EeBi-42:1738	Beta-134156	1500 +/- 40	1505 - 1310
One	Charcoal from small hearth (Feature 3).	EeBi-42:63	Beta-108552	1520 +/- 60	1530 - 1300
Two	Charcoal from charred pit (Feature 9).	EeBi-42:500	Beta-120796	1950 +/- 60	2038 - 2029 2005 - 1731
Two	Charcoal from fire-cracked rock concentration (Feature 53).	EeBi-42:977	Beta-134147	2080 +/- 40	2140 - 1945
Three	Charcoal from charred pit (Feature 26).	EeBi-42:1254	Beta-134149	1870 +/- 60	1930 - 1690

1695 +/-110 B.P. (DAL-273) and 1995 +/-90 B.P. (DAL-275) respectively (Hartery in prep., Tuck 1978). The hearth from the upper terrace (Feature 44) produced two radiocarbon dates: 1600 +/-95 B.P. (S-1953) and 995 +/-85 (DAL-324) (Hartery in prep.; Tuck 1978).

The broad bladed, stemmed projectile points from the Cow Head site are comparable to the stemmed examples from the Gould site. The stylistic similarities between the points suggest the Gould site is affiliated to the Cow Head complex. The stemmed points from the Cow Head

site consist of straight, slightly expanding, and contracting stemmed varieties (Figures 4.1 and 4.2). The contracting stemmed points were found on the upper terrace in Feature 44 along with several bi-pointed bifaces and a relatively large quantity of lithic debris indicative of workshop activities (Hartery, in prep.). The points are relatively thick, suggesting that they are preforms; however, it is clear that they have broad, triangular blades with short contracting stems (Figure 4.1). Some variation exists in shoulder form. Some have wide, rounded shoulders, while others have narrower, more angled shoulders. The contracting stemmed projectile points from the Gould site are very similar in shape to the Cow Head examples. Although slightly thinner than the Cow Head points both the triangular, broad bladed forms (see Plate 1) and the narrower, convex bladed forms (see Plate 2) fit well within the variation expressed at the Cow Head site.

The straight stemmed points from the Cow Head site were found in Bands 2, and 3 of the

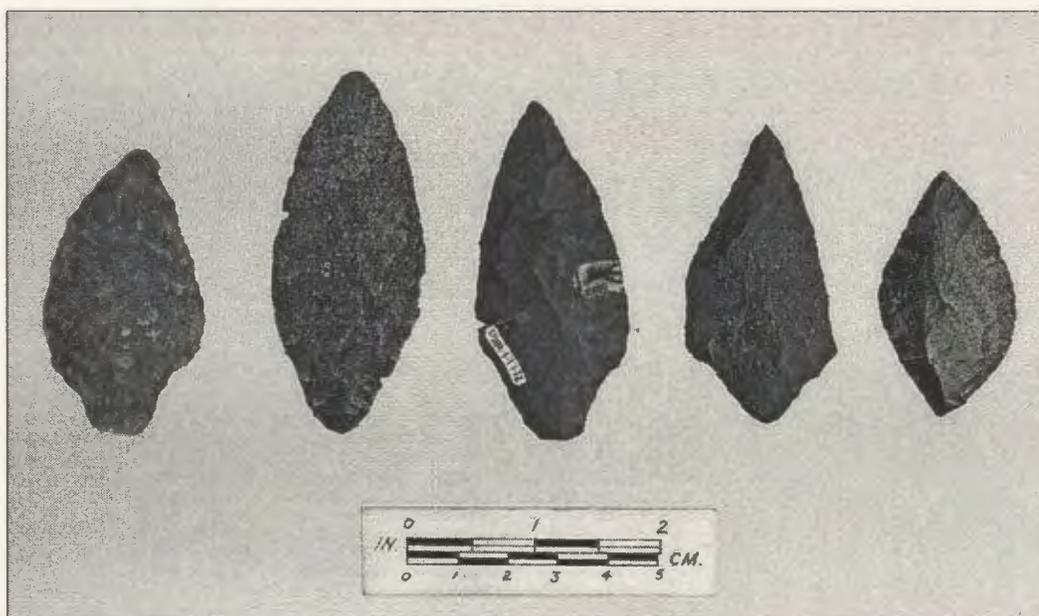


Photo: by kind permission of J.A. Tuck.

Figure 4.1 – Broad bladed, contracting stemmed Cow Head projectile points and bi-pointed bifaces from the Cow Head site.

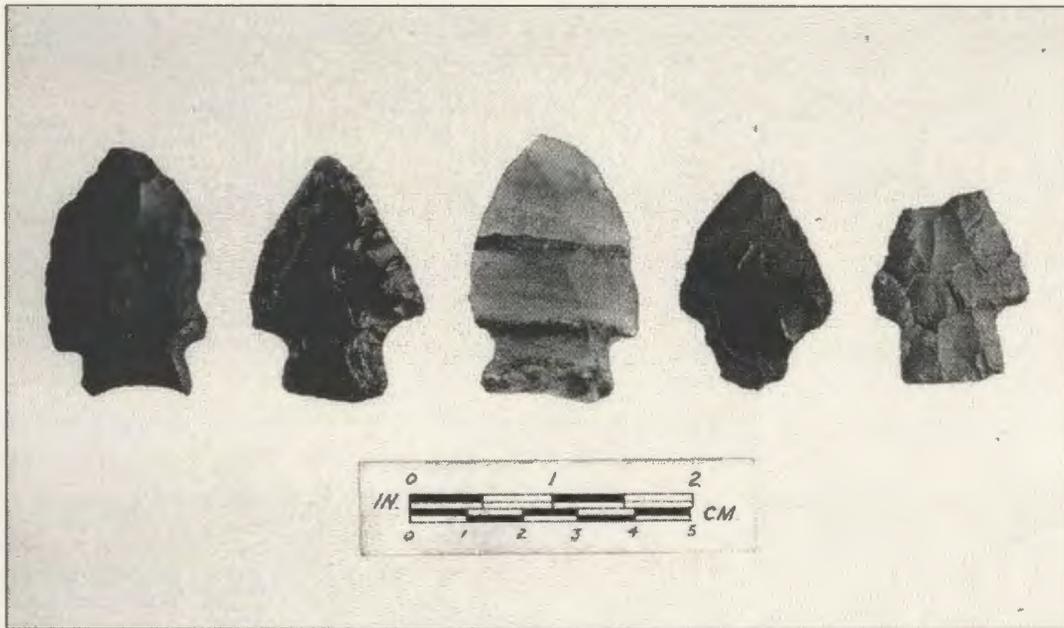


Photo: by kind permission of J.A. Tuck.

Figure 4.2 – Broad bladed, stemmed Cow Head projectile points from the Cow Head site.

lower terrace. They are characterized by broad triangular blades and wide straight stems, which occasionally have slightly expanding bases (Figure 4.2). The Gould site points have less in common with these points than those with contracting stems, but are generally comparable since they too have broad blades and are stemmed.

Functional Interpretation of Occupation Areas

Occupation Area One

The focal point of this area is Feature 280, a 2 m by 3 m shallow depression defined by a gritty black cultural layer in the peat. At the bottom of the depression was a burnt sandy layer that was compacted with, and surrounded by, cultural material. Feature 280 was dated to 1500 +/- 40 B.P. (Beta-134156) (cal B.P. 1505 to 1310), which is consistent with dates of 1520 +/-60

B.P. (Beta-108552) (cal B.P. 1530 to 1300) and 1480 +/- 70 B.P. (Beta-134150) (cal B.P. 1525 to 1280) that, respectively, come from a small hearth (Feature 3) and a small, shallow depression (Feature 216) on the eastern periphery of Occupation Area One. These dates overlap almost completely suggesting all three are attributable to a single event. A charcoal concentration (Feature 21) next to the small hearth and shallow depression is also part of the area, as are several root-filled holes that were predominately found along the eastern edge of Feature 280. Some of the holes were empty, while others contained fire-cracked rocks and/or were lined with a thin layer of charcoal and ash.

Occupation Area One appears to have been part of a living area composed of a small dwelling (Feature 280) and three exterior features (Features 3, 21, and 216). Three lines of evidence support this interpretation: 1) the distribution of cultural material in Occupation Area One, 2) similarities between Feature 280 and other archaeological and historical descriptions of late prehistoric Indian and Beothuk houses, and 3) the activities inferred from the cultural material.

The distribution of cultural material in Occupation Area One corresponds to the disposal patterns expected to be found within a structure rather than outside a structure. Studies of hunter-gatherer site formation processes among Nunamiut Eskimo of north-central Alaska (Binford 1978, 1983), !Kung Bushmen of the Kalahari (Yellen 1977), and Alyawara of central Australia (O'Connell 1987) have demonstrated that the distribution of artifacts and debris within a structure are distinctly different from those outside a structure (see also Sobolik *et al.* 1997; Leroi-Gourhan and Brézillon 1966). Inside a structure, activities are typically conducted around a central hearth, and debris from these activities falls to the ground forming what Binford (1978,

1983) defines as the *drop zone* (Figure 4.3). As the intensity or duration of activities in the structure increases, material accumulates and the *drop zone* must be cleared to allow continued use of the area (Schiffer 1972:161-162). This may involve throwing debris into the hearth or collecting the debris and discarding it in an area outside the structure (Binford 1983:190; Leroi-Gourhan and Brézillon 1966; Yellen 1977). These activities would create distinct concentrations of material either within the interior hearth and/or in adjacent exterior areas. Despite cleaning, the *drop zone* inevitably collects small pieces of debris, which are overlooked because of their size (McKellar 1983), and over time define the extent of the living surface or floor within the structure (Metcalf and Heath 1990).

Activities performed around hearths outside a structure leave different patterns of artifact

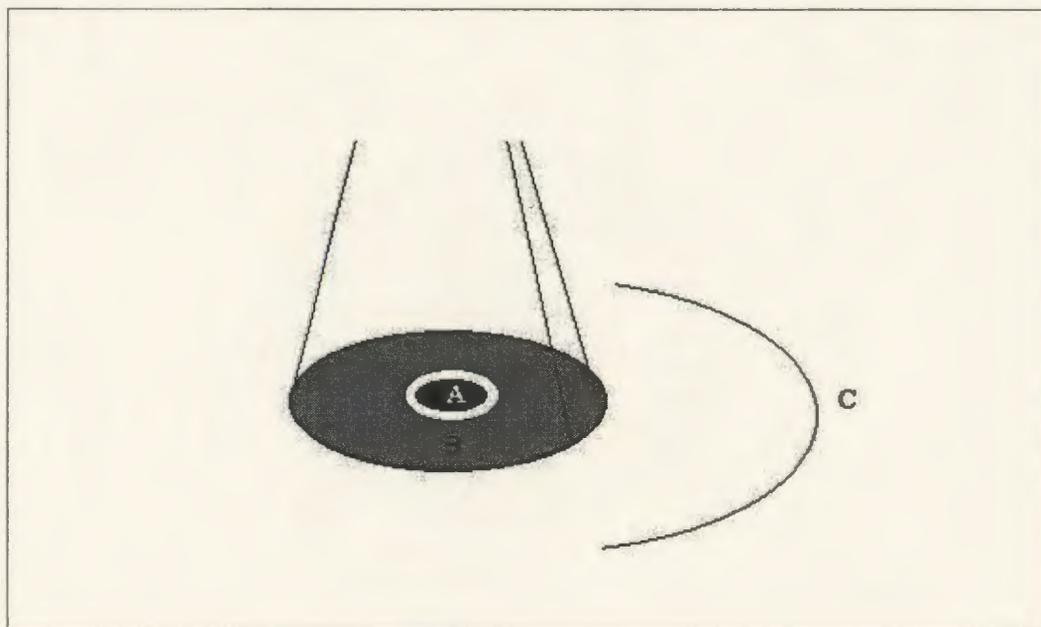


Figure 4.3 – Diagram of the expected distribution of material within a structure. Debris from the *drop zone* (B) is collected and discarded in either the central hearth (A) or in an adjacent area outside of the structure (C). Over time small pieces of debris from the *drop zone* define the extent of the living floor.

disposal (Binford 1983; Stevenson 1991) (Figure 4.4). The *drop zone* forms much the same as it does within a structure, and it too must be periodically cleared over time to allow further use of the area; however, rather than putting debris into the hearth it is discarded in an informal area known as the *toss zone* (Binford 1978, 1983). The *toss zone* typically forms as an arc or ring around the *drop zone* because in outside areas most unwanted materials are simply tossed outside (ie. behind) the occupation area, or in an unused area around the hearth such as in the direction of smoke blown by prevailing winds (Binford 1978; 1983:152-159). Furthermore, outside activities create a *displacement zone*, which forms between the *drop zone* and *toss zone*. The *displacement zone* is an area that collects debris brushed and/or kicked from either the *drop zone* or *toss zone* as a result of the casual nature of refuse disposal in outside areas and a presumed increase in foot

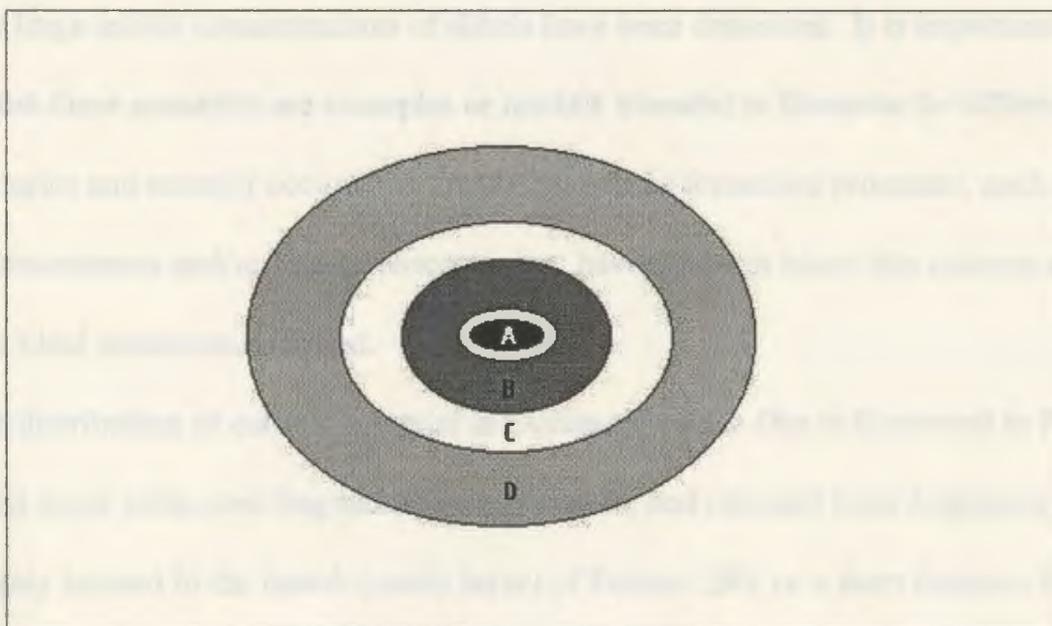


Figure 4.4 – Diagram of the expected distribution of material outside a structure. Debris from the *drop zone* (B) is collected and discarded in either the hearth (A) or tossed outside of the immediate area into the *toss zone* (D). Material from both the *drop zone* and *toss zone* is often brushed and/or kicked into the *displacement zone* (C).

traffic around outside activities (Stevenson 1991). The difference between *toss zones* and *displacement zones* is that the former generally have a higher proportion of large and/or disruptive items, and occur further away from occupation centres than the latter (Stevenson 1991).

To summarize, cultural material within a structure should hypothetically be distributed around the focal point of occupation (ie. hearth), forming a distinct *drop zone* composed predominately of small pieces of debris. Maintenance activities have moved larger pieces of debris, which may be found in an interior hearth or perhaps in a nearby exterior dumping area. Regarding activities that take place outside a structure the distribution of cultural material is likely to form a central *drop zone* where activities take place, surrounded by an inner *displacement zone* containing refuse that has been kicked and/or brushed aside, and an outer *toss zone* where large and/or concentrations of debris have been deposited. It is important to note, however, that these scenarios are examples or models intended to illustrate the differences between interior and exterior occupation areas. Numerous formation processes, such as animal and plant disturbances and/or human reoccupation, have not been taken into account and rarely would such ideal situations be found.

The distribution of cultural material in Occupation Area One is illustrated in Figure 4.5. It shows that stone tools, tool fragments, pottery sherds, and calcined bone fragments¹ are predominately located in the hearth (sandy layer) of Feature 280, or a short distance from its

¹ The distribution of calcined bone fragments is relatively similar to the distribution of pottery and stone tools in Feature 280. However, the calcined bone fragments are not shown in Figure 4.1 because the quantity and density of fragments would obscure the overall disposal pattern in Feature 280.

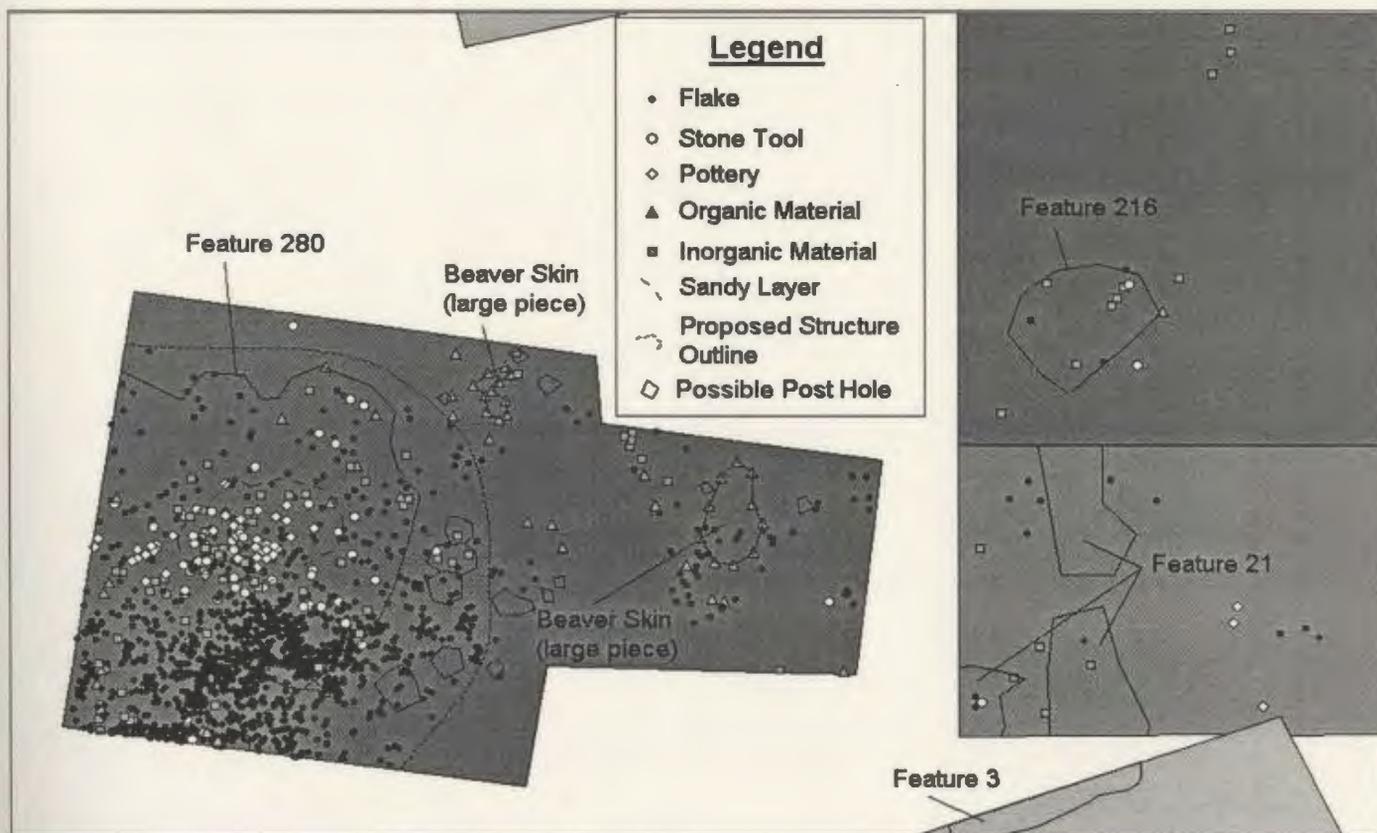


Figure 4.5 – The distribution of cultural material in Occupation Area One is similar to the disposal pattern expected for the interior of a structure. The dashed line around Feature 280 outlines the boundary of the proposed Recent Indian dwelling.

periphery. Outside of the hearth are mostly small pieces of debris (ie. small flakes), which suggests that the *drop zone* was cleared and larger pieces of debris were discarded in the hearth to accommodate work areas. A larger concentration of flakes and other small pieces of debris on the south side of the Feature 280 indicates that this area was more intensively used than the northern side of Feature 280, which contains less debris.

The *drop zone* ends a short distance outside Feature 280, presumably where the walls of the structure were located, and few artifacts were found where a *toss zone* would be expected if this were an outside occupation area. The exception are items around Features 3, 21, and 216.

These features most likely represent minor refuse areas where debris from Feature 280 was dumped. The features were associated with similar artifacts, including pottery sherds, flakes of the same lithic raw material, and projectile point fragments from Features 280 and 21 were refitted to form a complete point.

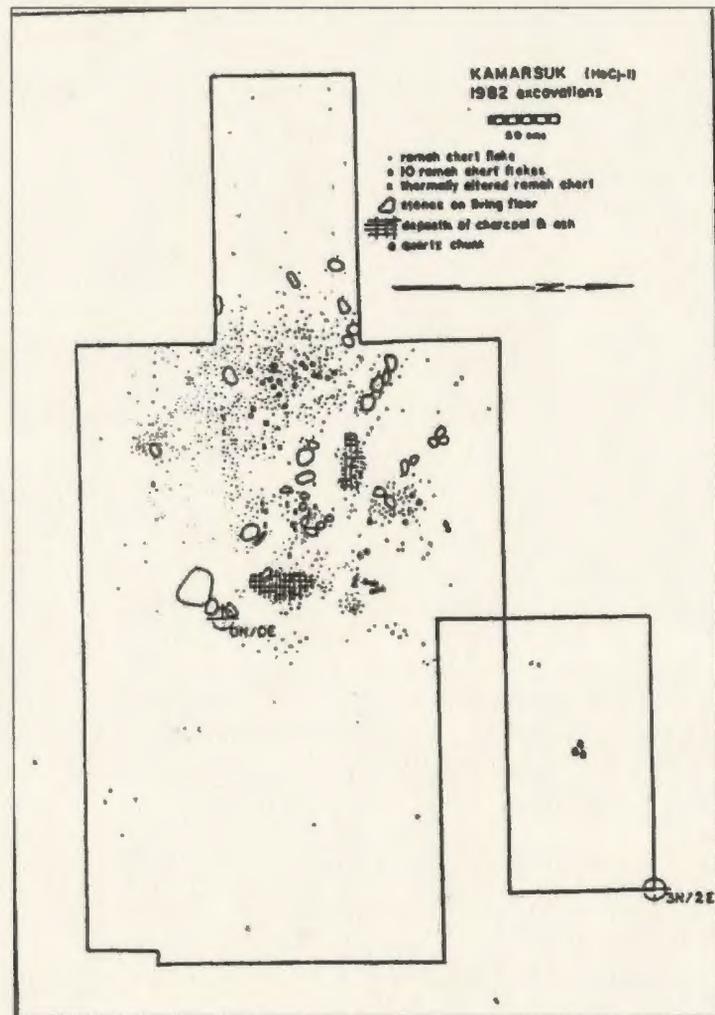
Archaeological examples of the houses used by late prehistoric Indians in Newfoundland and Labrador are rare. This is likely a consequence of the mobile lifestyle of these groups that would have promoted the use of light, temporary living structures, which are difficult to detect in the archaeological record (Pastore 1992; Reader 1998a). Nevertheless, a small number of late prehistoric Indian houses have been identified. Several of these houses, including four associated with the Daniel Rattle complex and one with the Beaches complex, are used as a model for interpreting Feature 280. Feature 280 is similar to all of these structures by size, shape, and the presence of a central hearth within defined wall boundaries.

Houses of late prehistoric Indian groups vary slightly in shape and size but are generally characterized in the archaeological record by a central hearth surrounded by an artifact concentration that defines the living floor, a ring of stones that was used to hold down walls coverings (tent rings), post holes that mark the location of structural supports, and/or, occasionally, a slight depression in the soil. At the Daniel Rattle site in Sango Bay, central Labrador, two Daniel Rattle complex structures (Features 1 and 2) were identified by raised cobble hearths surrounded a concentration of stone debris (Loring 1992:244-245). No tent rings or post holes were associated with the dwellings, but a clear decrease in the density of the debris around their hearths, thought to mark wall boundaries, indicated that they were roughly circular and between three to four metres in diameter (Table 4.2). A short distance north at the

**Table 4.2 – Dimensions of Late Prehistoric Indian Houses
from Newfoundland and Labrador**

Site	Feature #	Culture	Size (Interior Diameter)
Daniel Rattle, GlCg-1, (Area 2)	1	Daniel Rattle	3 - 4 m
Daniel Rattle, GlCg-1, (Area 2)	2	Daniel Rattle	3 - 4 m
Kamarsuk, HbCj-1, (Area 1)	-	Daniel Rattle	2 m
Kamarsuk, HbCj-1, (Area 2)	-	Daniel Rattle	4 by 5 m
Deer Lake Beach, DhBi-6	House 1	Beaches	5 by 10 m

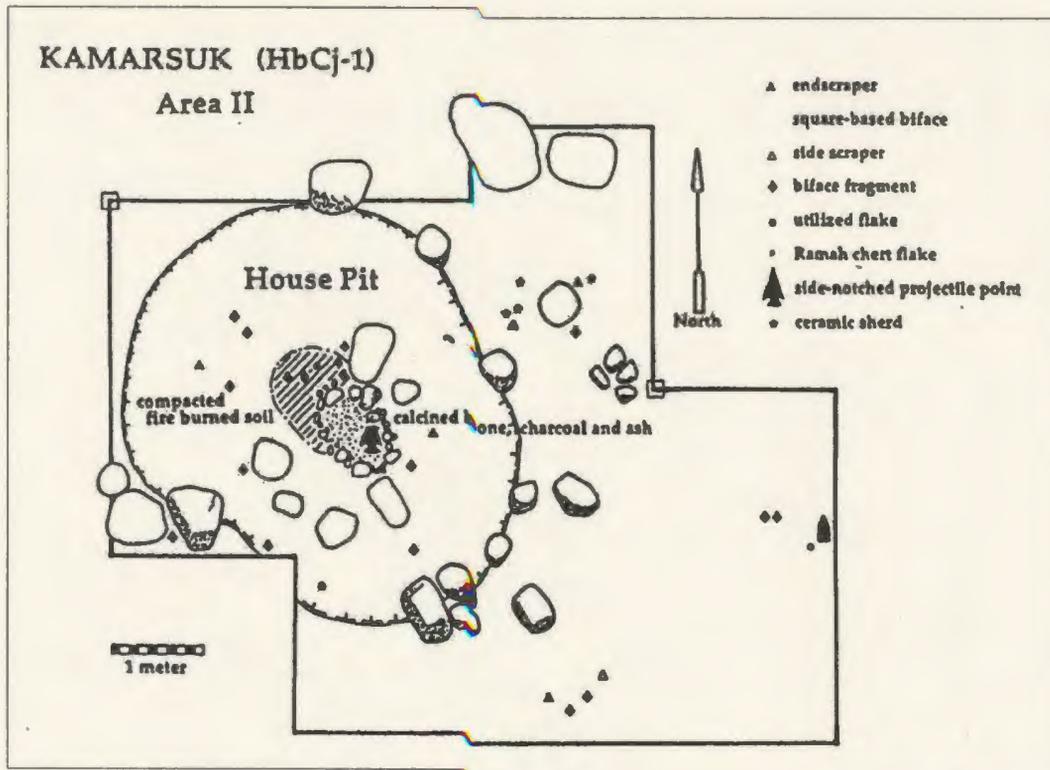
Kamarsuk site in Voisey Bay, two other Daniel Rattle houses were identified with characteristics similar to those from the Daniel Rattle site (Loring 1992). One house (Area 1 house) was identified by a concentration of lithic debris neatly contained within a circular area two metres in diameter and beach cobbles found near the periphery of the debris, some of which likely held the walls of the structure (Figure 4.6) (Loring 1992:265). Two small hearths were also found, one near the centre of the house and the other just inside a possible entranceway. Although the debris was found scattered throughout the dwelling it was mostly concentrated along the west wall, and was relatively scarce around the hearths, suggesting some cleaning of the interior (Loring 1992). The other house (Area 2 house) was defined by a central cobble hearth within a shallow oval-shaped basin surrounded by several large rocks used to secure the structure's walls (Figure 4.7) (Loring 1992:267-268). This house measured 4 m by 5 m in diameter. The hearth was full of



(Loring 1992)

Figure 4.6 – Remains of Daniel Rattle House 1 from the Kamarsuk site.

calcined bone fragments as well as burnt lithic material. Several artifacts, pieces of red ochre, six undecorated pottery sherds, and more lithic debris were found throughout the living floor of the structure, as well as just outside the structure (Loring 1992). Finally, at the Deer Lake Beach site in western Newfoundland an oval-shaped house related to the Beaches complex was identified by an artifact distribution that abruptly ended at inferred wall boundaries, a patch of compact clay interpreted as an entranceway, the location of several peripheral post holes, and a long central



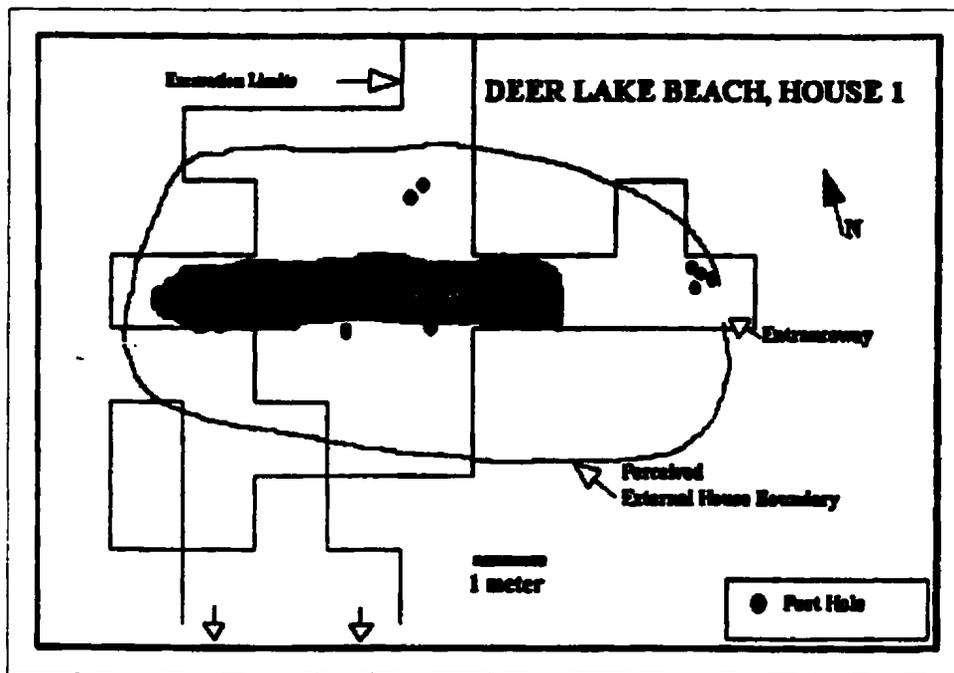
(Loring 1992)

Figure 4.7 – Remains of Daniel Rattle House 2 from the Kamarsuk site.

linear hearth (Figure 4.8) (Reader 1998a:50). The dwelling measured approximately 5 m by 10 m in diameter.

Like the five houses just described, Feature 280 is characterized by a central hearth (burned sand layer) within a slight depression, and surrounded by a roughly circular distribution of cultural material, which as discussed above is very similar to the expected distribution of material within a structure (see Figure 4.5). Feature 280 measures approximately 2 m by 3 m abroad² and 0.24 m in depth, which is comparable to the dimensions of the other houses, albeit on the smaller side of the scale (see Table 4.2). Feature 280 is further defined by the root-filled

² Although Feature 280 was not completely excavated, it is felt that most of it was exposed and the dimensions of the whole feature are likely not much larger.



(Reader 1998a)

Figure 4.8 – Remains of a Beathuk house from the Deer Lake Beach site.

holes found near its eastern periphery. These appear to be post holes where supports may have been placed. If this is true, then the posts appear to have been removed because there is no evidence of preserved wood within the holes. The holes likely remained open until debris, and later, hair-like roots filled them in. Not all of the holes, however, were necessarily part of a dwelling. Some may have been from other facilities such as drying racks. Alternatively, the holes may be natural features in the peat, perhaps created from old tree roots.

Little is known about the appearance of late prehistoric Indian houses; however, it is suggested that they may have resembled the temporary conical tent-like structures built by the Beathuk (Pastore 1992). In historical records these houses have been described by a number of Europeans as relatively small dwellings composed of a framework of logs that were typically covered with animal skins or bark. For instance, in 1612 John Guy reported seeing several

Beothuk conical houses and noted that: "Theire housen theare weare nothing but poules set in a rownde forme, meeting all together alofte, wh[i]ch they cover w[i]th deere skinnes. They are about tenne foote broade³, and in the middle they make their fire. One of them was covered w[i]th a sayle, wh[i]ch they had gotten from some Christian." (Marshall 1996:350).

In 1768 John Cartwright gave a more detailed description of these structures from those he had seen during an expedition on the Exploits River:

The whigwam is a hut in form of a cone. The base of it is proportioned to the number of the family, and their beds form a circle around a fire that burns in the centre. The beds are only so many hollows in the earth, lined with the tender branches of fir and pine. Several straight sticks like hoop-poles, compose the frame of the whigwam, and covering is supplied by the rind of the Birch-tree. This is overlaid sheet upon sheet, in the manner of tiles and perfectly shelters the whole apartment except the fire place, over which there is left an opening to carry off the smoke. The birch rind is secured in its place by outside poles, whose weight from their inclined position is sufficient for that purpose. The central fire spreading its heat makes it quite warm; and notwithstanding one of the habitations where materials are plentiful, may be completed in less than an hour, yet they are extremely durable; for being always in the woods they are defended from the force of the wind, that would otherwise very soon overturn such slender fabrics (Howley 1915:29-30).

Finally, in the early 1800s a settler from Bonavista Bay, having seen several conical Beothuk houses, remarked that: "They were built round, and about thirty to forty feet in circumference⁴. The frame consisted of small poles, being fastened together at the top and covered with birch rind, leaving a small opening for the escape of the smoke." (Howley 1915:277).

As a means for comparison the historical descriptions of temporary conical Beothuk houses are quite similar to Feature 280 in terms of size, shape, and the presence of a central

³ This estimate converts to slightly over three metres.

⁴ This circumference would require a house diameter of approximately three to four metres.

hearth surrounded by a framework of poles. All appear to be circular in shape and between three to four metres in diameter. Furthermore, the reference to a dwelling covered with deer skins (presumably caribou skins given there are no deer populations on the Island) is very interesting because this could account for the several pieces of beaver skin found throughout Occupation Area One. Perhaps Feature 280 was covered in a similar manner with beaver skins rather than caribou.

A variety of cultural material was recovered from Occupation Area One, including: dozens of stone tools and tool fragments (see Appendix A), 290 pottery sherds, 11 freshwater clam shells, hundreds of calcined bone fragments, 19 pieces of beaver skin, hundreds of small flakes, fire-cracked rock, red ochre, seven nodules of iron pyrite, and a possible slag fragment. Several Dorset Palaeoeskimo stone tools were also recovered from Occupation Area One that were intermixed with the Recent Indian material (see Appendix A). The cultural material from Occupation Area One is indicative of several domestic activities, including cooking and/or food processing, hide processing, tool maintenance, and red ochre production, which suggests the area was part of a base camp rather than a specialized extraction and/or processing site where a narrower range of activities would be found. Before these activities are discussed, however, it is important to determine the exact context of the Recent Indian and Dorset artifacts in the area. Given the temporal overlap of both cultures not only in Newfoundland (ca. 2000 to 1200 B.P.) but in Port au Choix (ca. 2000 to 1300 B.P.) the artifacts could have been deposited separately or at the same time. The difference between separate or contemporaneous occupations has an obvious effect on the interpretation of the occupation area.

Based on a thorough examination of the provenience of the Recent Indian and Dorset

stone tools it is clear that they are part of the same deposit. The tools from both cultures were mixed together, and most are burnt indicating that they were in the hearth of Feature 280 at the same time while it was still active. The possibility that the Dorset artifacts came from either a previous or subsequent occupation is slim. First, the hearth in Feature 280 had a distinct sandy bottom, thus if the tools came from a previous occupation (lower level) then they could have only been deposited in the hearth if they had been dug up before the sand was deposited and then were tossed into the fire. This is unlikely, especially given the fact that there was no indication of a lower Dorset occupation when the hearth was completely excavated. Second, if the tools came from a later Dorset occupation that shortly followed the Recent Indian occupation (same level or slightly higher), then it is likely that they would have been found outside Feature 280 too; however this was not the case, except for the single ground stone scraper in the shallow depression at the edge of the area. Furthermore, the Dorset artifacts in Feature 280 would have been on top of the Recent Indian material, but again this was not the case. The scenario that is best supported by the available evidence then is that the Recent Indian and Dorset artifacts were deposited at the same time, and should therefore be interpreted as pertaining to the same event.

The calcined bone fragments and remnants of freshwater mollusc shell are perhaps the most direct evidence of cooking and/or food processing. They indicate that the diet of the inhabitants included harp seal, grey seal, caribou, Canada goose and other birds, fish, and fresh water clams. Furthermore, the fragments of beaver skin suggest that beaver were also utilized. The bifaces, microblades, and linear flakes⁵ are indicative of butchering and food processing

⁵ In the absence of retouching or signs of use-wear the linear flakes from Occupation Area One must technically be considered only as potential tools for butchering and/or food processing.

activities (Jones 1980; Schick and Toth 1993:162-169). The small retouch flakes in the Occupation Area One are also indicative of food processing because they are commonly produced as butchering tools (i.e. bifaces) are re-sharpened (Schick and Toth 1993:99). Finally, the pottery sherds also reflect cooking activities (Deal *et al.* 1991). Many of the sherds are encrusted with a black material which is presumably the remnants of food that boiled or spilled over the rim and burnt to the side of the vessel. Alternatively, the pottery may have been used to store and/or prepare food (Deal *et al.* 1985).

In addition to the beaver skin and skinning tools mentioned previously (bifaces, microblades, and linear flakes), evidence of hide processing is suggested by the ground stone and chert scrapers, which are commonly associated with the cleaning and working of skins (Schwarz 1994:62-63). Interestingly, the bit end of each ground stone scraper exhibits a different degree of bevelling or wear which suggests they were used for different tasks, perhaps different stages of hide processing. However, it is equally possible that the variation in wear reflects that some were used longer than others before they were discarded.

Tool maintenance activities are indicated by the two small hammerstones, and the predominance of small tertiary and secondary flakes produced during the re-sharpening or finishing of stone tools (Crabtree 1972; Schick and Toth 1993:99). The projectile points and endblades in Feature 280 are also indicative of tool maintenance. All of these artifacts are finished – that is to say they are not preforms – yet most of them are broken, perhaps with use (i.e. hunting). This suggests that they represent the discarded remains of re-hafting activities, or they were broken during the final stage of manufacture. However, not all of the projectile points are broken; two examples are complete. Perhaps they were forgotten or lost when the site was

abandoned.

Finally, the red ochre and oxidized fragments of iron pyrite found within the hearth of Feature 280 suggest that this was an area of red ochre use and/or production. As mentioned previously, red ochre is a pigment that is obtained from clays high in iron oxide, or iron ores such as hematite and limonite. Interestingly, when iron pyrite is oxidized (burnt) it turns into iron sulfates, which further alter to limonite (Manson and Berry 1968:259). Thus it is possible that the iron pyrite in Feature 280 was used to make red ochre. Alternatively, the iron pyrite in Feature 280 may have been used in a fire-starting kit. As a point for comparison, several historical accounts indicate that the Beothuk used iron pyrite to make fire (Marshall 1996:302; Howley 1915: 193-194, 214-215, 230, 291). By striking two pieces of iron pyrite together a spark is created, which is in turn used to ignite some flammable material; the Beothuk commonly used bird down as tinder (Marshall 1996:302).

The iron pyrite may also explain the curious slag or slag-like material found in the sandy layer of Feature 280. Typically, slag is associated with activities (e.g. smelting) that were beyond the level of technology attained by North American prehistoric populations. Therefore, the slag in Feature 280 is either an intrusive element pushed down into the Recent Indian cultural layer from the surface, or it was created through some non-metallurgical activity. The former case is unlikely because the slag was found inside Feature 280 which was capped by an apparently undisturbed layer of peat. As a possible example for the latter case, perhaps some of the iron in the iron pyrite was unintentionally extracted by the heat of the fire, consequently producing the slag. However, this too is unlikely because most open fires do not reach temperatures hot enough to melt iron (1100 to 1500° C) (Schmandt-Besserat 1980:130). Therefore the slag remains

unexplained.

Occupation Area Two

Occupation Area Two is located approximately 30 m northeast of Occupation Area One. It is characterized by a large charcoal-lined pit feature (Feature 9) surrounded by several concentrations of fire-cracked rock; one to the east (Feature 7), two to the south (Features 4 and 53), and one to the northwest (Feature 13). Cultural material recovered from the area was predominately small flakes but also included one biface, one retouched flake, five linear flake fragments, a fragment of beaver skin, and a small concentration of calcined bone from which a single juvenile beaver phalanx was found. With the exception of the biface and beaver skin, which were found near the northern edge of Feature 53, all other cultural material was recovered from the interior of Feature 9 or along its southwestern border. The bone and many of the lithic materials were burnt. Two radiocarbon dates were obtained from Occupation Area Two: 1950 +/- 60 B.P. (Beta-120796) (cal B.P. 2038 to 2029 and 2005 to 1731) from Feature 9, and 2080 +/- 40 B.P. (Beta-134147) (cal B.P. 2140 to 1945) from Feature 53. These date ranges overlap substantially, which suggests a single period of occupation for the area.

Occupation Area Two appears to have been a cooking area in which fire-heated stones were used for roasting in a pit (Feature 9). This interpretation is based on the similarities between the attributes of Occupation Area Two (i.e. the charred interior of Feature 9, the concentrations of fire-cracked rock, the fragments of calcined bone, the beaver skin, and the lithic artifacts and debris from the area) and the attributes of ethnographically known roasting pits.

Roasting pits, also known as cooking pits or earthen ovens, are recognized in many areas of the world, including the American southwest (Dering 1999; Gasser 1982; Greenhouse *et al.* 1981:228-232), the western Plateau region of North America (Downing and Furniss 1968:50-51; Turner and Kuhnlein 1983:212-214), Australia (Binford 1983:165-169; O'Connell 1987:83), and Polynesia (Wandsnider 1997). In North America, roasting pits have a long history of use from as early as 8000 to 7000 years ago, up to and including the historic period (Frison 1983:82-83; White and Hannus 1983:53). In general, they are constructed by lining a pit with fire-heated stones, followed by a protective layer of vegetation, the food to be cooked, and another layer of vegetation (Frison 1983; Gasser 1982). More fire-heated stones are often added before the pit is capped and insulated with a top layer of soil. The food is left to cook from the heat stored in the stones for a few hours or up to a few days, depending on the size of the pit and the food to be cooked (Wandsnider 1997:21-23). During the cooking process many rocks break due to the heat, and often they are found surrounding the pit when it is opened to obtain the cooked food (Binford 1983:165-169; Frison 1983; Gasser 1982).

Features 9, in connection with Features 4, 7, 13, and 53, looks like an opened roasting pit (Figure 4.9, Figure 2.10). The fire-cracked rock from these features is distributed in a northwest-southeast direction across Feature 9 as if they had been tossed out from either side. The calcined bone fragments and lithic artifacts from Feature 9 are a further indication that Occupation Area Two was used for cooking. However, caution must be taken in inferring function from these materials because a pit's content does not always relate to its primary function (Dickens 1985; Green and Sullivan 1997). One of the main factors contributing to this problem is that pits frequently become convenient locations for site refuse once they have served their original

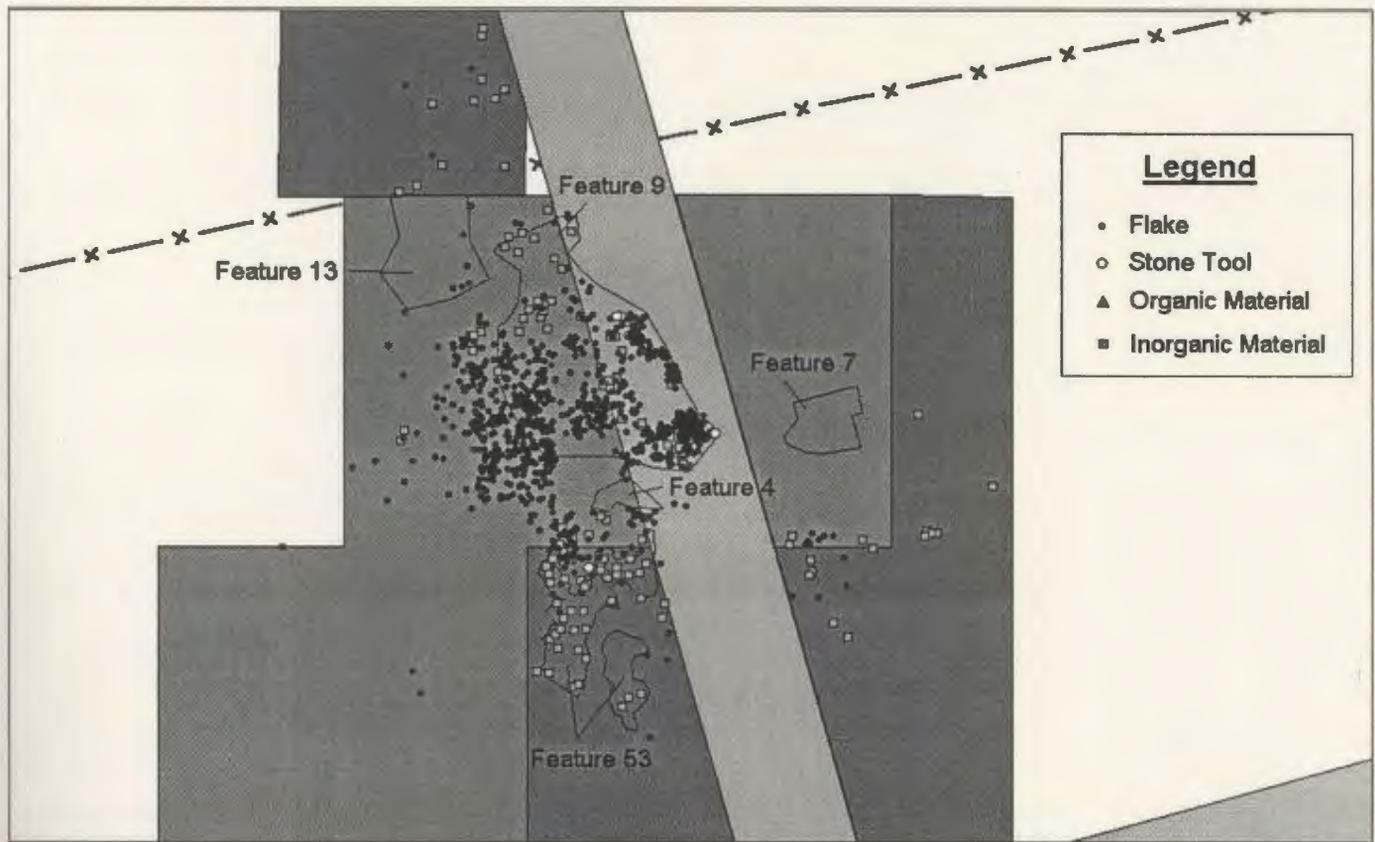


Figure 4.9 – The distribution of fire-cracked rock in Occupation Area Two (identified as inorganic material), is similar to the distribution of fire-cracked rock around an opened roasting pit (Feature 9). The fire-cracked rock from Features 4, 7, and 13 was not digitally recorded, yet outlines of these features show where the fire-cracked rock was approximately located.

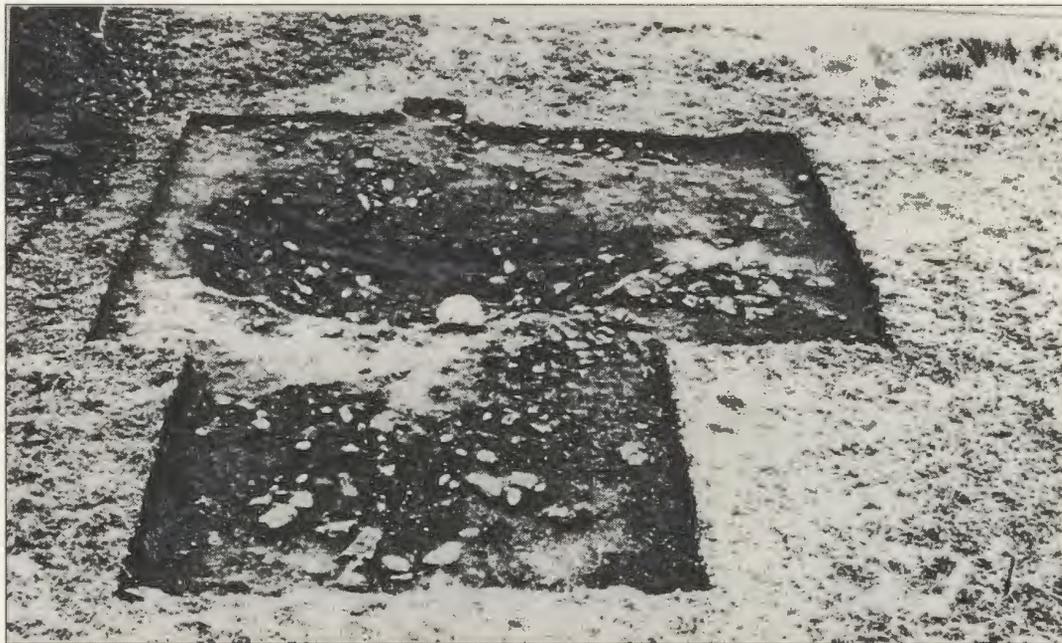
purpose (Dickens 1985). Feature 9 contained most of the cultural material from the Occupation Area Two, therefore it may have served as a minor refuse pit. However, the burnt nature of most of this material in conjunction with the charred interior of Feature 9 suggests that its prime association is with cooking. Although the condition of the bone from Feature 9 prevented most fragments from being identified, the single juvenile beaver phalanx, which coincides with the fragment of beaver skin found near Feature 53, provides some clue of the meal that may have been prepared. The biface, flake tools, and flaking debris are indicative of butchering activities (Jones 1980; Schick and Toth 1993:162-169), which as suggested by the distribution of flakes

took place near the southwestern side Feature 9 (Figure 4.9).

Two inferred roasting pits have also been found in possible Recent Indian contexts at L'Anse aux Meadows. Both are similar to Feature 9. One pit was oblong in shape, measuring 230 cm by 110 cm and 70 cm in depth; the length contracted to 170 cm near the bottom of the pit (Eldjárn 1985:105-107) (Figure 4.10). A layer of charcoal covered the entire interior of the pit above which was a burnt layer of sand followed by a thick layer of fire-cracked rock and more charcoal. The stones extended up over the western edge of the pit where they met another concentration of fire-cracked rock measuring 70 cm by 90 cm. More fire-cracked rock was loosely scattered in areas adjacent the pit, but very little charcoal was found except for a large patch to the northwest measuring 50 cm by 150 cm. No cultural material of any kind was recovered from in or around the cooking pit. Charcoal from inside the feature was dated to 1130 +/- 70 B.P. (T-367) (Eldjárn 1985:107; Ingstad 1985).

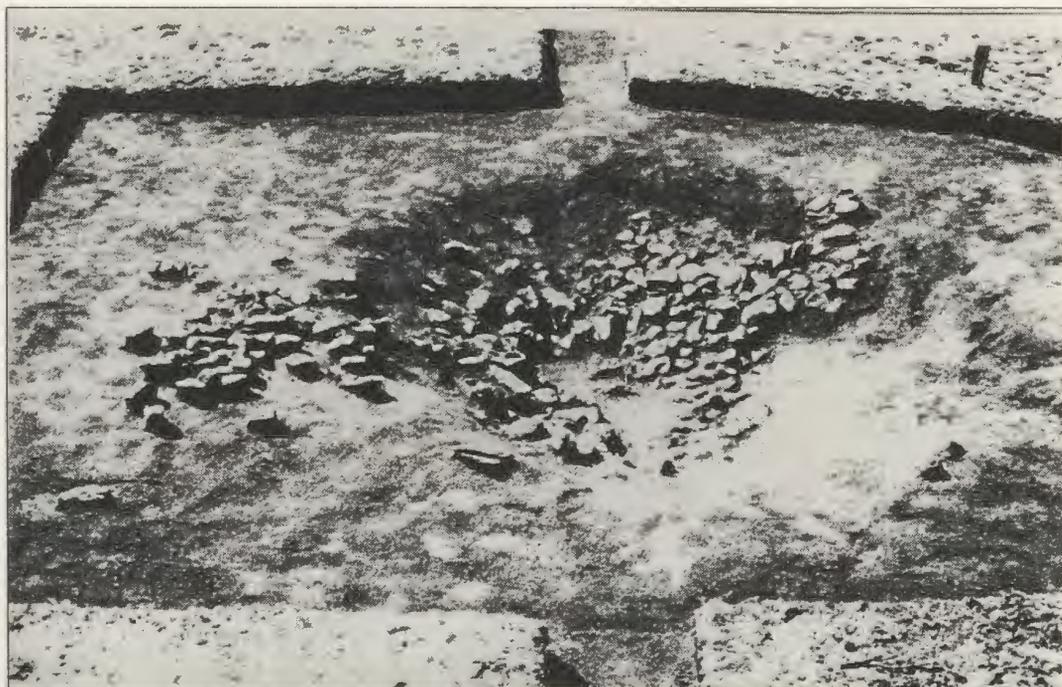
The other cooking pit was circular in shape, measuring 290 to 300 cm in diameter and 70 cm deep (Petré 1985:66-68) (Figure 4.11). It contained two layers of charcoal and fire-cracked rock separated by a layer of sand, testifying that it had been used at least twice. Fire-cracked rocks were also found near the southeast edge of the pit. Cultural material within the pit was scarce; however, several Recent Indian items were recovered next to the southeastern concentration of fire-cracked rock, including two large triangular or tear-drop shaped bifaces, a ground stone axe, two scrapers, a large blade, a flat piece of iron⁶, and several flakes. Charcoal from the cooking pit was dated to 1140 +/- 90 B.P. (T-365) (Ingstad 1985; Petré 1985:68).

⁶ This was presumed to be of Norse origin (Ingstad 1985). However, since Ingstad's (1985) investigations it has been determined not to have come from the feature at all (Birgitta Wallace, personal communication).



(Ingstad 1985)

Figure 4.10 – Possible Recent Indian roasting pit (roasting pit 1) from L'Anse aux Meadows.



(Ingstad 1985)

Figure 4.11 – Possible Recent Indian roasting pit (roasting pit 2) from L'Anse aux Meadows.

Both pits are inferred as cooking pits given the large quantities of fire-cracked rock and charcoal that they contained (Eldjárn 1985:105-107; Ingstad 1985:244-245; Petré 1985:66-70). Their cultural affiliation is somewhat unclear because they were associated with few artifacts but they have been identified as Recent Indian because the bifaces from the circular cooking pit bear some resemblance in terms of size and shape to Cow Head Recent Indian varieties from the Cow Head site. However, the bifaces are also similar to Beaches examples from the dates from the Cape Freels-2 and Beaches sites in Bonavista Bay – thus a Beaches connection can not be ruled out.

An alternative interpretation of Occupation Area Two is that it may have been used for stone-boiling. Like pit roasting, this method of cooking was also widely used prehistorically around the world. It involves heating stones within a hearth or a pit and then placing them into water-filled containers (Wandsnider 1997). The heat from the stones boils the water within a relatively short time. In most cases rocks are fractured from the rapid temperature change from hot to cold, and these fragments are discarded (McDowell-Loudan 1983; White and Hannus 1983).

It is easy to imagine that Feature 9 may have been used to heat stones, which instead of remaining in the pit for roasting purposes, were removed to be placed in containers for boiling. Once finished the rocks were simply discarded in and around the pit along with other pieces of debris (i.e. tool fragments, flakes, and calcined bone).

Feature 9 was used for either pit-roasting or for stone-boiling. It is difficult to clearly determine which activity was actually performed in the feature because both exhibit similar attributes (i.e. a pit, fire-cracked rock, charcoal, and calcined bone fragments) (Lovick 1983; McDowell-Loudan 1983; Wandsnider 1997; White and Hannus 1983). Nevertheless, what is

apparent is that Occupation Area Two was used for cooking with fire-heated stones. Perhaps as additional pits similar to Feature 9 are found their function will become clearer.

Occupation Area Three

Occupation Area Three is located about 17 m south of Occupation Area One and 40 m southwest of Occupation Area Two. It consists of a relatively large charred pit (Feature 26) in association with two biface fragments, a scraper, a few pieces of fire-cracked rock, and a small number of retouch flakes. Charcoal from the pit was dated to 1870 +/- 60 B.P. (Beta-134149) (cal B.P. 1930 to 1690). This date overlaps with the date from Feature 9 in Occupation Area Two, which tenuously suggests that both areas may have been contemporaneous.

With few diagnostic attributes it is difficult to interpret the function of Occupation Area Three with any degree of confidence. Nevertheless, several tentative functions can be proposed based on the charred interior of Feature 26, including cooking (i.e. roasting), smoking, or tanning.

In a general sense Feature 26 is similar to Feature 9 of Occupation Area Two in that it is approximately the same size and its interior is completely charred. This suggests that Feature 26 may have been used for cooking like Feature 9. One distinction between the two pits, however, is that Feature 26 is associated with substantially fewer fire-cracked rocks than Feature 9. In some cases, for example among the Alyawara of central Australia (O'Connell 1987), coals were used instead of heated stones in cooking pits. Perhaps Feature 26 was used with coals instead of fire-heated stones.

It is also possible that Feature 26 was used for smoking hides or perhaps meat. Pits were

commonly used to smoke hides throughout North America (Binford 1972; Stambolov 1969:15). In general, a smouldering fire was set at the bottom of a pit and then covered loosely with damp bark or some other vegetation. Prepared hides were arranged over the pit to be exposed to the smoke for several hours. Aldehydes from the smoke would tan the hides producing a brown-black waterproof leather (Stambolov 1969:13-15). Meat hanging on racks over pits could have been smoked in a similar manner.

Occupation Area Four

Occupation Area Four is located near Field Pond approximately 120 m south of Occupation Areas One, Two, and Three. It is a small, undated area composed of a hearth, a thin charcoal concentration (Feature 255), and a small collection of fire-cracked rock (Feature 257). Some flakes were recovered from around the features, but no artifacts were found.

Little seems to have happened in Occupation Area Four beyond the burning of a small fire as well as some flaking activity (i.e. tool maintenance). The material uncovered demonstrates that Recent Indian occupation at the Gould site is distributed over a relatively large area, and appears to be oriented towards Field Pond and the stream leading down to Gargamelle Cove.

Duration of Occupation

The composition and distribution of cultural material within the occupation areas indicates that the duration and intensity of occupation varied at the site. Ethnoarchaeological studies of site formation processes among !Kung Bushmen of the Kalahari (Yellen 1977),

Nunamiut Eskimo of north-central Alaska (Binford 1983), and Alyawara Aborigines of central Australia (O'Connell 1987) indicate that the distribution and composition of cultural material is a general indicator of the duration and intensity of site occupation. Cross-culturally it has been found that, as the intensity of activities in an area increases, debris is removed to allow continued use of the area, which subsequently produces deposits of secondary refuse (Binford 1983:190; O'Connell 1987:81-82; Schiffer 1972:161-162; Yellen 1977:82). However, the degree to which this is true depends upon the duration of occupation, such that areas intensively used for short periods of time are cleaned less than areas used for longer periods of time (Binford 1983). Thus, as the duration of occupation increases there should be an increase in evidence of site maintenance and secondary deposits in intensively used areas (Binford 1983:190; Schiffer 1972:161-162; Yellen 1977:82). Moreover, it was found that the longer an area is occupied, the more diverse are the activities which are likely to be conducted. Consequently, there should also be a correlation between the duration of occupation and the number of activities within an area (Binford 1983:190; O'Connell 1987:81; Schiffer 1983:685-686; Yellen 1977:82).

The intensity and duration of occupation at each occupation area is discussed chronologically from oldest (Occupation Area Two) to youngest (Occupation Area One). The concentrations of fire-cracked rock and flakes from Occupation Area Two indicate that it was intensively used, but the scattered distribution of the material and the absence of secondary deposits attests to a lack of maintenance (see Figure 4.5). This suggests that the occupation of the area was relatively short.

Occupation Areas Three and Four both contained small amounts of cultural material suggesting that they were only briefly occupied. Alternatively, the lack of material could indicate

that the areas were highly maintained and thus occupied for longer periods, but this is unlikely because tiny pieces of debris would have remained despite thorough cleaning (McKellar 1983; Metcalfe and Heath 1990).

In Occupation Area One the large amount of material culture from Feature 280 demonstrates that it was intensively used. Tools and tool fragments, pottery sherds, and other inorganic materials were predominately recovered from within or near the central hearth, while mostly small flakes were around the hearth (see Figure 4.5). Larger objects appear to have been removed from the *drop zone*, which indicates that Feature 280 was maintained and suggests that Occupation Area One was occupied for an extended period. Evidence of secondary deposits (Features 3, 21, and 216) outside Feature 280 provides additional support for this interpretation. Comparable dates, the presence of similar materials, and re-fitting argue that the deposits are likely debris removed from Feature 280 during cleaning. Finally, the diverse range of activities in Occupation Area One also suggests that it was occupied comparatively longer than the other areas.

Settlement and Seasonality

The Gould site is located within the near-coastal zone⁷, which includes areas set back from the immediate coast that offer relatively easy access to the interior. Schwarz (1994) defines the near-coastal zone as those areas within 30 km of the sea, but this is subject to regional variations in geography since not all areas within this zone necessarily provide access to the coast.

⁷ Also known as the near-interior (see Holly 1997).

The near-coastal zone is hypothesized to be a favoured Recent Indian fall-winter base camp area because its centralized location provides access to both coastal and interior resources (Holly 1997; Rowley-Conwy 1990; Schwarz 1994). During the late fall and winter, marine and terrestrial resources are relatively scarce and/or easily over-exploited (Schwarz 1994; Tuck and Pastore 1985). On the coast, harbour seals are available, but would be prone to over-hunting (Schwarz 1994). Also harp seals are present for a short period as they migrate south to the Gulf of St. Lawrence (Tuck and Pastore 1985). In the interior, caribou, bear, and beaver could be taken; however since they are often solitary and dispersed in the winter they would be difficult to find (Schwarz 1994). Rowley-Conwy (1990), Schwarz (1994), and Holly (1997) believe that one way the Recent Indian people could have optimized the availability of late fall and winter resources would have been to settle in the near-coastal zone where both the coast and the interior could be exploited from a base camp by small logistical groups.

The Recent Indian near-coastal settlement hypothesis remains untested. Surveys of the near-coastal zone have identified several Little Passage complex sites (Penney 1980, 1987, 1988; Schwarz 1989, 1994); however, direct evidence of fall and/or winter occupations (i.e. seasonal faunal material) remains evasive. Whether the near-coastal zone was occupied by Beaches and Cow Head groups is unknown.

The Gould site is the first known example of a near-coastal settlement by Cow Head complex peoples. Located approximately 400 m back from the coast on a wooded, peat-covered terrace the site provides excellent shelter, but is only a few kilometres from the exposed headlands around Port au Choix where marine resources (e.g., harp seals) can be monitored. It is also not far from the interior of the Northern Peninsula where local land resources can be

exploited (e.g., caribou, bear, beaver). Transportation to the site from either the coast or the interior is facilitated by the stream next to it, and by a series of ponds, rivers, and marshes that extend into the interior, which provide open areas for travel either by canoe or by foot when frozen.

Unfortunately, evidence of seasonality at the site is poor. It is unclear if the site was occupied during the fall and/or winter as Rowley-Conwy (1990), Schwarz (1994), and Holly (1997) suggest. For instance, although many bone fragments from Occupation Areas One and Two were identified (see Appendix B), there are too few to suggest seasonality because they represent just over 4% of the entire bone sample (Lisa Hodgetts, personal communication). Also, the beaver skin from Occupation Areas One and Two is a poor seasonal indicator because it can be obtained during most times of the year and can be curated (Tuck and Pastore 1985:75). Likewise, the freshwater clam shells from Occupation Area One would have been available throughout most of the year, except during the winter when ponds, rivers, or lakes are frozen (Tuck and Pastore 1985:75).

Additional sites are needed to answer questions about the seasonal use of the near-coastal zone by Recent Indian peoples. Already there is some indication that Newfoundland's near-coast will produce more Recent Indian sites. At Savage Cove on the Northern Peninsula, a small Recent Indian occupation was recently found about 400 to 500 m back from the coast. Here, preliminary excavations revealed an undated scatter of large flakes, two cores, and a projectile point fragment of the same grey chert with square holes found in Occupation Area One at the Gould site (Erwin 1999). Additional sites will undoubtedly be discovered with further surveying in near-coastal areas.

Recent Indian Interaction

There is general agreement among researchers that Recent Indian peoples interacted on a regional and inter-regional level with other late prehistoric hunter-gatherers from Labrador, Québec's Lower North Shore, and the Maritimes (Fitzhugh 1978:170; Loring 1992; Pintal 1989, 1998, 2000; Renouf 1999; Renouf *et al.* 2000). Evidence of this interaction is expressed at the Gould site by the presence of distant or non-local lithic raw materials, stylistic similarities among tool forms, and the presence of pottery.

The occurrence of Ramah chert on Recent Indian sites is the most evident example of interaction between late prehistoric Indian groups in Newfoundland and Labrador (Loring 1992). The only known source of this distinctive lithic material is Ramah Bay in northern Labrador, yet it is found in large quantities on most late prehistoric sites along the entire Labrador coast (Fitzhugh 1972:40-44; Loring 1992; Nagle 1986). Indeed, Daniel Rattle and Point Revenge groups used Ramah chert almost to the exclusion of other lithic materials (Loring 1992). Ramah chert is also found on Recent Indian sites in Newfoundland and along the Lower North Shore of Québec, although in much smaller amounts than in Labrador. The presence of Ramah chert suggests a connection to groups in Labrador (Loring 1992; Pintal 1990, 1992, 1998; Tuck n.d.). Conversely, cherts from the Cow Head and Port au Port areas of western Newfoundland are found on late prehistoric Indian sites in Labrador and the Lower North Shore of Québec (Pintal 1990, 1992, 1998). These cherts can be visually identified by their distinctive radiolaria, which appear as microscopic spots throughout the material (Renouf 1999:414).

At the Gould site Ramah chert was identified as one of the main lithic materials in Occupation Area One at 14.7%, suggesting Cow Head connections to Labrador. White rhyolite

(66.8%), which often contained small pits (eroded phenocrysts), and grey rhyolite (12.6%) were the other main materials from this occupation area. The grey and white rhyolites appear to be locally available because they are commonly found on several sites on the west coast of the Northern Peninsula, including those at Bird Cove and Savage Cove (Erwin 1999; Reader 1998; Steven Hull, personal communication). Ramah chert was not found in Occupation Areas Two and Three, and Four, which were mostly associated with medium-grained brown and beige cherts (42.9%, 69.3%, 11.5%), black Cow Head chert with tiny white radiolaria (22.0%, 0%, 38.5%), and a type of grey semi-transparent chert (11.0%, 21.3%, 21.1%). These lithic materials appear to be locally available too. The medium-grained brown and beige cherts are found on several sites along the Northern Peninsula, including: Cow Head, Port au Choix, Bird Cove, and L'Anse aux Meadows (M.A.P. Renouf, personal communication). The exact source of these cherts is unknown but their apparent local proximity suggests that they were easily obtainable either through direct quarrying, or during annual seasonal rounds.

Stylistic similarities among tool assemblages from late prehistoric Indian sites in Newfoundland, Labrador and along the Québec Lower North Shore are commonly acknowledged to represent a broad sphere of inter-regional interaction (Loring 1992; Renouf 1999). For instance, a connection is thought to have existed between Little Passage and Point Revenge groups because both have virtually identical corner-notched and expanding stemmed projectile points (Loring 1992, Pintal 1998, 2000). The only distinction is that the former are predominately made from Newfoundland cherts while the latter are mostly made from Ramah chert (Loring 1992). Similarly, Beaches side-notched projectile points and triangular bifaces are comparable to Daniel Rattle examples from Labrador, suggesting some level of interaction

(Loring 1992).

The Gould site provides some stylistic evidence of Cow Head interaction with other coeval late prehistoric Indian groups on the mainland. Contracting stemmed points similar to those at the Gould site have been found along the Québec Lower North Shore near Blanc Sablon, and in central Labrador near Lake Melville. In addition, general similarities exist between Cow Head stemmed points and stemmed points from the Maritime provinces. On Québec's Lower North Shore broad bladed, stemmed projectile points are associated with late prehistoric Indian sites related to the late Flèche Littoral complex (2500 to 1500 B.P.) and the early Petit Havre complex (1500 to 1200 B.P.) (Figures 4.12 and 4.13). The Flèche Littoral and Petit Havre complexes are defined by similar late prehistoric Indian assemblages which generally consist of stemmed, side, and corner notched projectile points, asymmetrical leaf-shaped bifaces, and various forms of scrapers (Pintal 1998:171-189). Slight changes in tool shapes, the introduction of pottery, and a diversification of lithic resources distinguish the two groups. Furthermore, Flèche Littoral sites are frequently located a short distance inland (up to one kilometre) while Petit Havre sites are closer to the shore (Pintal 1998:172). The stemmed points from Lower North Shore are found in both contracting and straight stemmed forms. The contracting stemmed points have broad triangular blades similar to those from the Gould site, and are often found around hearths that date between ca. 2000 to 1500 B.P. However, the exact context of the points is often poor given the eroded condition of many of the sites in the Blanc Sablon area, thus the points could come from either Flèche Littoral or early Petit Havre complex assemblages (Pintal 1998; Jean-Yves Pintal, personal communication). The straight stemmed points are more clearly associated to the Petit Havre complex (Figure 4.13). They too have broad, triangular



Photo: by kind permission of J-Y Pintal.

Figure 4.12 – Flèche Littoral or Petit Havre complex broad bladed, contracting stemmed projectile point from Québec's Lower North Shore.

blades which are quite similar to those from the Cow Head complex (see Figure 4.2).

Near Lake Melville and the North West River area in central Labrador, contracting stemmed points have been recovered from North West River phase (NWRP) sites (Fitzhugh 1972:269-270) (Figures 4.14 and 4.15). The NWRP is a poorly understood component of the late prehistoric Indian period in Labrador. It is defined by Fitzhugh (1972) by a predominately local, coarse-grained, quartzite assemblage consisting of small contracting stemmed, convex bladed projectile points, lanceolate bifaces, oval and asymmetric bifaces, and a series of informal flake tools (ie. knives and scrapers) (Fitzhugh 1972; Nagle 1978). Sites related to the NWRP typically date between ca. 1800 to 1400 B.P. The stemmed projectile points are quite similar to



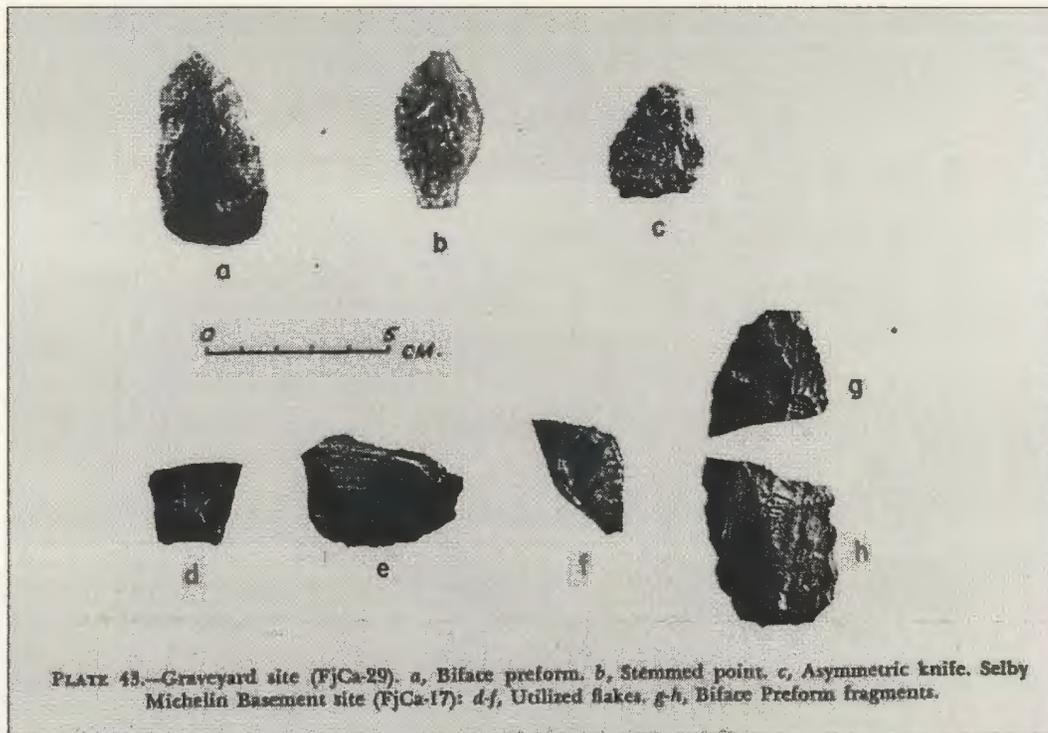
(Pintal 1998)

Figure 4.13 – Broad bladed, straight stemmed Petit Havre projectile points and various biface forms from the EiBg-85 site on Québec's Lower North Shore.

the convex bladed, contracting stemmed points from the Gould site (see Plate 2), suggesting distant connections to Cow Head groups.

Finally, in the maritime Gulf of St. Lawrence area late prehistoric Indian assemblages from the Early to Middle Ceramic Period (ca. 2500 to 1700 B.P.) often contain contracting stemmed projectile points (Allen 1981; Davis 1991:97; Rutherford 1991; Tuck n.d.). The Ceramic Period is a late prehistoric cultural division defined by the use of ceramic technology in the Maritime provinces and the State of Maine (ca. 2500⁸ to 200 B.P.) (Petersen and Sanger 1991). Contracting stemmed points are characteristic of the early Ceramic Period until they are gradually replaced by side and corner-notched varieties around 1000 B.P. (Rutherford 1991:106).

⁸ The Ceramic Period begins slightly earlier in Maine, which was introduced to pottery ca. 3050 B.P. (Petersen and Sanger 1991).



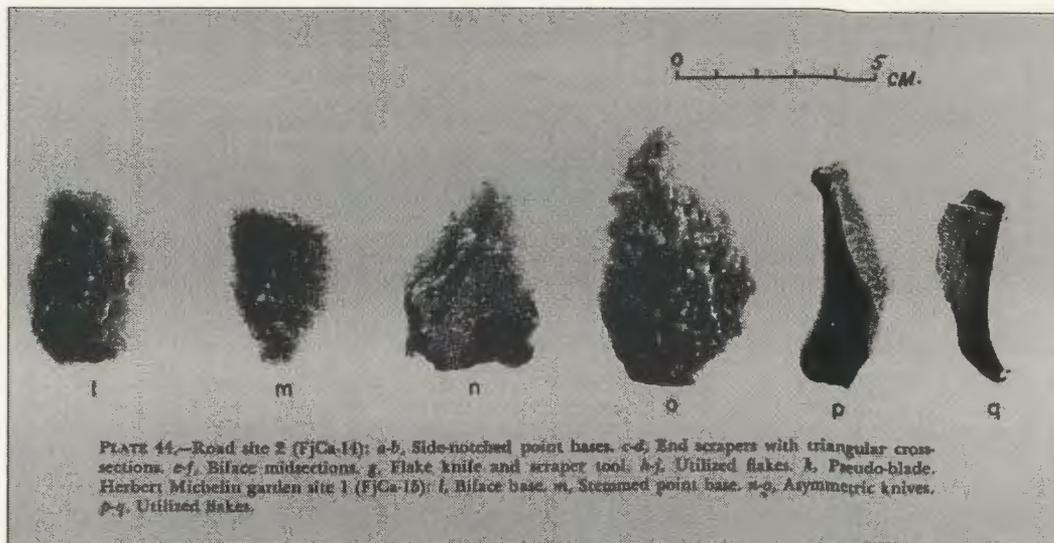
(Fitzhugh 1972)

Figure 4.14 – North West River phase contracting stemmed projectile point (top row, middle) from the Graveyard site (FjCa-29) similar to Cow Head points from the Gould site.

The presence of contracting stemmed projectile points in both early Ceramic Period and early Recent Indian assemblages is indicative of broad spheres of interaction between Maritime and Newfoundland Indian groups. The frequency and nature of this interaction, however, is unclear.

The presence of pottery in Newfoundland and Québec-Labrador also suggests some level of interaction with hunter-gatherer groups in the Maritimes. In Newfoundland, a single rim sherd was found in a Dorset context dated to 1335 +/- 115 B.P.⁹ (S-1977) at the L'Anse à Flamme site (Penney:1981a, 1984). It is decorated with "a sloppy form of dentate stamp that approaches a

⁹ A similar date of 1320 +/- 40 B.P. (Beta-127351) (cal B.P. 1300 to 1175) was also derived from carbonized residue off the sherd (Helen Keenlyside, personal communication).



(Fitzhugh 1972)

Figure 4.15 – North West River phase contracting stemmed projectile point (second from left) from the Herbert Michelin 1 site (FjCa-15) similar to Cow Head points from the Gould site.

pseudo-scallop shell impression even though it superficially looks like cord-wrapped stick. It has an incipient collar with an exterior chevron motif” (Penney 1981a:171). In Québec-Labrador, a handful of sites have revealed pottery. At the Kamarsuk site (HbCj-1) in Voisey Bay, central Labrador six undecorated pottery sherds were found on the floor of Daniel Rattle structure dated to 1670 +/- 80 B.P. (SI-6716) (Loring 1992:271). Further south, near Hopedale, a single dentate stamped sherd, similar to the one from L’Anse à Flamme site, was recovered from the entrance tunnel of a Palaeoeskimo house (Bird 1945:142-143). In southern Labrador a variety of pottery sherds have been found at the Saddle Island West site (EkBc-16) in Red Bay (Loring 1992: 280-281; Tuck 1985:233; Ellen Foulkes, personal communication). The sherds are relatively thick and some are decorated with incised lines and oblique cord-wrapped stick. Along the Lower North Shore of Québec small amounts of pottery have been uncovered on several late prehistoric Indian sites near Blanc Sablon from the Petit Havre complex (Pintal 1998; Pintal personal

communication; Strong 1930:133). The grit-tempered sherds are often small and undecorated. Finally, at the Gould site nearly 300 pottery sherds, from perhaps as many as seven vessels, were found. This is the largest collection of ceramics north of the Gulf of St. Lawrence.

The amount of pottery found in Newfoundland and Québec-Labrador is meagre, and is most likely an indication of interaction with peoples in the Maritimes, where ceramics were more widely adopted during the Ceramic period (2500 to 450 B.P.) (Loring 1992:281; Petersen and Sanger 1991). The ceramics from the Gould site provide some support for this hypothesis. All of the pottery from the site was found in Occupation Area One, which dates to around 1500 B.P. Based on the size, and curvature, of a few key pottery sherds, the grit tempered vessels likely had rounded or ovate bodies, with slightly constricted necks, and everted rims, that measured about 14 to 15 cm in diameter. Some variation in vessel form is noted by the presence of several different rim forms, including squared, rounded, in-sloping, concave, and collared (see Figure 3.1). The decoration found on the sherds in most cases is horizontal rows of dentate stamping along the rims, followed by vertical columns of dentate rocker stamping that extend down onto some neck sections. Occasionally, the lips of rims are incised with diagonal linear lines, and in one instance the neck of a vessel exhibited a vertically embossed or raised line.

In the Maritimes, pottery is divided into seven stylistically, and temporally distinct periods, which define the Ceramic period (Table 4.3) (Petersen and Sanger 1991). The Gould site pottery is most comparable to the pottery from Ceramic Period 3 (1650 to 1350 B.P.). During Ceramic Period 3, pottery vessels are conical in shape, and tempered with grit, instead of shell or plant material, which appear in later vessels. Thickened rims, or low collars, appear for the first time, and rocker dentate stamping becomes the preferred decoration (Petersen and

Table 4.3 – Ceramic Period Subdivisions

Ceramic Period	Temporal Range
Ceramic Period 1	3050 to 2150 B.P.
Ceramic Period 2	2150 to 1650 B.P.
Ceramic Period 3	1650 to 1350 B.P.
Ceramic Period 4	1350 to 950 B.P.
Ceramic Period 5	950 to 650 B.P.
Ceramic Period 6	650 to 400 B.P.
Ceramic Period 7	400 to 200 B.P.

Sanger 1991:129). Pottery from the Gould site and Ceramic Period 3 are both similarly dated to around 1500 B.P. In addition, the ceramics from each area are conical in shape, grit tempered, and exhibit dentate rocker stamping as a predominate type of decoration. The use of low collars is another common attribute.

The general similarities seen between the Gould site and Ceramic Period 3 ceramics should not be used to suggest that they are one and the same. Indeed, one notable difference is the presence of vertically embossed lines on the Gould site pottery, which is not present on Ceramic Period 3 pottery. Instead, the similarities suggest that hunter-gatherer peoples from Newfoundland and the Maritimes were involved in some form of direct or indirect interaction, which most likely introduced ceramic technology to Newfoundland peoples. As stated previously, however, the nature and frequency of this interaction is unclear.

Hunter-gatherer peoples in Newfoundland and Québec-Labrador appear to have used ceramic vessels to some extent. However, the scarcity of pottery in these areas suggests that it

was not as widely adopted as it was by hunter-gatherers in the Maritimes. Ceramics would have presented several advantages over non-ceramic containers (i.e. wood, bark, and skin) for hunter-gatherers (Deal *et al.* 1991). For example, food can be cooked directly on a fire, which is quicker, and needs less attention, than cooking with fire-heated stones in skin and/or bark containers. Cooking in a ceramic pot directly over a fire would also expand the potential range of food resources, because some plant foods are made more digestible and palatable through prolonged cooking (Deal *et al.* 1991). Finally, ceramic vessels provide animal-proof and leak-proof storage facilities, for both wet and dry goods (Deal *et al.* 1991). The small amount of pottery in Newfoundland and Québec-Labrador is likely partly attributable to the mobile lifestyle characteristic of the hunter-gatherer groups in these areas (Deal *et al.* 1991; Loring 1992:281). Ceramic vessels are difficult to transport because they are bulky, fragile, and often heavy. In Newfoundland and Québec-Labrador, it appears that the disadvantages of pottery outweighed its advantages, and more mobile alternatives, such as wood, bark, and skin containers were used instead.

In addition to contact with other late prehistoric Indian groups, it is also thought that Recent Indian peoples had some level of interaction with Dorset Palaeoeskimo groups given the long period during which the two populations are in Newfoundland (Renouf 1999; Renouf *et al.* 2000). However, to date, there is a lack of direct evidence to clearly support a Recent Indian-Dorset connection (Loring 1992; Pintal 2000; Tuck n.d.). Several sites contain mixed Recent Indian and Dorset assemblages but the relationship of the material is unclear. For instance, at the Spence site in Port au Choix, several Palaeoeskimo artifacts, including five Dorset endblades, one Dorset endblade fragment, one Groswater endblade, a possible second Groswater endblade,

and two Palaeoeskimo bifaces were recovered with the Beaches component at the site, which dates between 1400 and 1300 B.P. (Renouf 1992, 1993). The Recent Indian and Palaeoeskimo material was found in a single layer (Level 3), but there was no clear association to determine if it had been deposited at the same time or during separate occupations. Similar scenarios occur at sites on Québec's Lower North Shore near Blanc Sablon (Pintal 1998; Jean-Yves Pintal, personal communication).

Occupation Area One at the Gould site provides clear direct evidence of Recent Indian-Dorset interaction. The nature of that interaction, however, is still unknown. Perhaps encounters were indirect. Recent Indian individuals may have picked up lost or discarded Dorset artifacts and used them, or made them based on Dorset styles they had seen. Alternatively, encounters may have been direct, and the tools were traded or presented as gifts. Finally, Dorset people themselves may have used the tools at the site with the Recent Indians, perhaps as a result of formal relationships established through adoption or cross-cultural marriage.

CHAPTER 5 – CONCLUSIONS

To date, few sites relating to the Cow Head complex have been discovered.

Consequently, there are many questions concerning who Cow Head complex peoples were, where they came from, how they lived, and how they relate to the other cultures of the late prehistory of Newfoundland. The recent excavation of four Cow Head-associated areas at the Gould site in Port au Choix, offers some new insight concerning several of these questions. New artifacts are introduced as elements of the Cow Head tool assemblage, and information is revealed about Cow Head housing and the use of cooking pits. The Gould site also provides information concerning the occupation of near-coastal areas, which contributes to our understanding of Cow Head settlement and subsistence patterns. Finally, evidence from the Gould site suggests that Cow Head groups participated in a relatively large sphere of interaction that involved coeval Indian groups from the Lower North Shore of Québec-Labrador and the Gulf of St. Lawrence, and Dorset groups from Newfoundland and/or Labrador.

Two artifact types, contracting stemmed projectile points and pottery, re-define the Cow Head complex. Previously, the Cow Head tool assemblage was predominantly characterized by large ovate, lanceolate and bi-pointed bifaces, large flake side scrapers, smaller flake end scrapers, and linear blade-like flakes (Tuck n.d). Cow Head projectile points were poorly understood despite the presence of a few broad-bladed examples and preforms from the Cow Head site. However, the 11 points and point fragments from the Gould site indicate that at least two forms of contracting stemmed projectile points were used by Cow Head groups. One has a broad blade and short contracting stem, while the other has a narrower leaf-shaped blade, and a longer contracting stem. These points are distinct from the side and corner-notched styles that

characterize the Beaches and Little Passage complexes.

Finds of pottery provide new information about the use of this material by Cow Head groups. Native American ceramics are virtually lacking from archaeological sites in Newfoundland and Québec-Labrador; however, the pottery from the Gould site indicates that it was not completely absent. However, ceramic vessels do not appear to have replaced wood, bark, and skin containers, which provided greater advantages for the mobile lifestyle of Cow Head peoples.

The Gould site provides the first tangible evidence of Cow Head housing. A single circular structure was uncovered within a broad, shallow depression. Several domestic activities appeared to have been conducted in the dwelling around a small sandy hearth. Based on physical attributes and the distribution of cultural material, the structure is comparable in form and construction to archaeological and historical descriptions of other late prehistoric Indian houses and temporary conical Beothuk dwellings.

The cooking pits from the Gould site, in addition to those found at the Peat Garden site and L'Anse aux Meadows (Hartery in prep.; Ingstad 1985), represent a new feature type for the Cow Head complex. Used with fire-heated stone and/or coals, these features indicate that the cooking technology of Cow Head peoples went beyond simple open fire hearths and included more sophisticated and organized methods.

In addition with providing new information about the artifacts and features associated to the Cow Head complex, the Gould site offers some insight into the settlement and subsistence patterns of Cow Head groups. Previous knowledge about the movement and subsistence of Cow Head peoples was limited to hypotheses concerning the use of marine resources based on a small

number of coastal sites. Tangible evidence concerning what resources were seasonally exploited and the use of interior regions remain to be clarified. The location of the Gould site and the faunal material recovered during excavation (i.e. bone, shell, and animal skin) indicate that, in addition to coastal locations, Cow Head groups established base camps in near-coastal areas where they exploited a variety of marine and terrestrial resources including, harp and grey seal, caribou, beaver, Canada goose and other birds, freshwater clams, and fish. Unfortunately, seasonality could not be determined at the Gould site. A settlement model by Rowley-Conwy (1990) suggests that the location of the Gould site would have been an ideal fall-winter base camp area; however, this proposition could not be supported by the small sample of seasonal data from the site.

Finally, the Gould site provides some indication of the interaction that Cow Head groups may have had with other contemporary hunter-gatherers. Prior evidence of Cow Head interactions is limited to small amounts of Ramah chert from assemblages suggesting vague connections to Labrador through either Indian, or perhaps Dorset peoples (Tuck n.d.). At the Gould site, projectile point styles and the presence of pottery and Dorset artifacts support and clarify Cow Head connections to Indian groups on the mainland and to the Dorset. Contracting stemmed projectile points similar to the Cow Head varieties from the Gould site have been found along the Lower North Shore of Québec, near Blanc Sablon, and also to some degree around North West River in central Labrador. Pottery at the Gould site indicates distant ties to the Maritimes or perhaps the St. Lawrence River Valley from which ceramics were undoubtedly introduced to Newfoundland. Finally, the presence of Dorset artifacts mixed in amongst much of the Recent Indian material from the Gould site offers tangible evidence of Indian-Dorset

interaction. Thus it appears that Cow Head groups were involved in a relatively large and diverse sphere of interaction that included both Indian and Dorset peoples and extended over parts of Newfoundland, the Lower North of Québec, the interior of central Labrador, and the Gulf of St. Lawrence.

The Recent Indian material from the Gould site sheds new light on many aspects of the Cow Head complex; however, it also raises many new questions. In particular, the use of pottery and the nature of Cow Head-Dorset relations offer exciting new avenues for future research. However, more assemblages from the early Recent Indian sites are needed to facilitate comparisons to the Gould site data. Perhaps these sites will be found in similar locations set back from the sea in the near-coastal zone.

APPENDIX A - SUMMARY OF STONE TOOLS

Recent Indian Stone Tools

Projectile Points

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
606+ 1705	1	280, 21	44.0	22.0	7.0	Complete; mended; 606 is burnt	Pitted grey rhyolite
1546	1	280	-	21.0	5.0	Tip missing	Pitted grey rhyolite
1571	1	280	60.5	28.5	6.5	Complete	White rhyolite with thin grey bands
1636	1	-	-	20.0	6.0	Near complete	Moddled greenish-grey chert
1667 +1795+ 1924	1	280	-	22.0	6.0	Distal fragment; mended; burnt	Pitted grey rhyolite
1712	1	280	-	22.0	7.0	Distal fragment; burnt	Pitted grey rhyolite
1778 +1868+ 1906	1	280	-	-	6.0	Medial fragment; mended; burnt	Pitted grey rhyolite
1779	1	280	-	22.5	7.0	Tip and base missing; burnt	Pitted grey rhyolite

1781	1	280	-	23.5	6.5	Distal fragment; burnt	Dark grey rhyolite
1790	1	280	-	-	7.5	Distal fragment; burnt	Undetermined
1847	1	280	47.0	27.0	5.5	Complete; burnt	Black chert

Bifaces

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
66	1	3	-	-	5.0	Tip fragment	Pitted grey rhyolite
697 +701	3	26	-	22.5	4.5	Basal fragment	Brown chert
731	3	26	-	35.5	17.5	Basal fragment	Brown chert
946	2	53	-	18.0	8.0	Near complete	White and brown chert
1668	1	280	36.5	-	8.0	Near complete	Pitted white rhyolite
1734	1	280	-	20.5	7.5	Near complete	White rhyolite with grey bands
1785	1	280	32.0	-	8.0	Near complete; burnt	Pitted white rhyolite
1788	1	280	-	-	7.5	Base fragment	Ramah chert
1799	1	280	-	29.5	9.5	Base fragment	Pitted white rhyolite
1827	1	280	-	23.5	5.5	Medial fragment	Grey-beige chert

1913	1	280	-	-	6.0	Base fragment; burnt	Undetermined
1935	1	280	-	-	6.0	Tip fragment; burnt	Dark grey rhyolite
1629, 1702, 1723, 1725, 1730, 1789, 1794, 1845, 1870, 1900, 1901, 1912, 1914	1	280	-	-	-	6 tip, 7 medial or unknown fragments	Pitted grey and white rhyolite; dark grey rhyolite; undetermined

Scraper

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1417	3	-	50.5	27.0	16.0	Complete	Dark brown chert with light beige/white bands

Linear Flakes

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
42	4	3	16.5	9.0	2.5	Complete	Brown, white banded chert
43	4	3	-	6.0	1.0	Medial fragment	Brown chert

119	2	9	-	9.0	2.5	Proximal fragment	Dark grey-black chert
287	2	9	-	8.0	1.5	Distal fragment; burnt	Dark grey-black chert
460	2	9	14.0	5.5	1.5	Complete	Dark grey-black chert
883	2	9	-	4.0	1.0	Medial fragment	Brown chert
884	2	9	-	3.5	0.5	Medial fragment	Brown chert
1784	1	280	-	8.0	2.0	Proximal fragment	Light grey chert
1837	1	280	24.0	8.5	3.0	Complete	Pitted grey rhyolite
1923	1	280	-	6.0	2.5	Distal Fragment; burnt	Dark grey-black chert

Retouched Flakes

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
341	2	9	14.5	14.0	4.5	Complete	Brown chert
1925	1	280	-	-	6.0	Lateral Fragment; burnt	Dark grey rhyolite

Hammerstones

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
73	1	3	-	-	-	Complete; one battered end	Quartzite
1516	1	280	57.0	48.0	37.0	Complete; one battered end	Quartzite

Dorset Stone Tools

Endblades

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1624 +1848	1	280	-	-	5.0	Tip fragment; mended; burnt	Light grey Cow Head chert

Burin-like Tools

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1693	1	280	-	-	2.5	Medial fragment; burnt	Nephrite
1736	1	280	-	19.0	3.0	Proximal fragment; burnt	Nephrite

1762	1	280	-	-	2.0	Medial fragment; burnt	Nephrite
1777	1	280	-	-	2.5	Medial fragment; burnt	Nephrite
1840	1	280	23.0	24.5	2.5	Complete; burnt	Nephrite
1849	1	280	-	-	3.0	Medial fragment; burnt	Nephrite
1852	1	280	-	22.0	3.0	Distal fragment	Nephrite

Microblades

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1564	1	280	-	5.5	2.0	Proximal fragment	Dark brownish grey chert
1773	1	280	36.0	12.0	6.0	Complete	Blue-green Cow Head chert
1846	1	280	-	11.0	2.0	Distal fragment	Tan, chalky chert

Chert End-scraper

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1869	1	280	22.0	28.0	11.0	Complete; burnt	Moddled, bluish-grey chert

Ground Stone Scrapers

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1379	1	216	-	62.0	7.0	Distal fragment; burnt	Nephrite
1514	1	280	61.0	55.0	7.0	Complete; burnt	Nephrite
1731 +1775	1	280	65.0	51.0	8.5	Complete; mended; 1775 is burnt	Nephrite
1771	1	280	81.5	40.0	7.0	Complete; burnt	Nephrite
1780	1	280	51.0	50.0	9.0	Complete; burnt	Nephrite

Culturally Undetermined Stone Tools

Bifaces

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1713 +1851	1	280	-	-	4.5	Near complete; mended; burnt	Black chert
1732	1	280	-	19.0	3.5	Near complete; burnt	Undetermined
1770	1	280	-	18.0	3.0	Near complete; burnt	Undetermined

Whetstones

Cat. No.	Area	Feature	Length (mm)	Width (mm)	Thickness (mm)	Condition	Material
1412	1	216	-	-	11.0	Fragment	Schist
1600	1	280	-	-	21.0	Fragment	Schist

APPENDIX B – IDENTIFIED BONE ELEMENTS FROM FEATURE 280

Species	Element	Number of Identified Specimens (NISP)
Fish		
Unknown fish	Unknown	2
Total Fish		2
Bird		
Canada goose	Phalanx	1
Anatidae (duck, goose, and swan family)	Scapula	1
Small bird	Scapula	1
Small bird	Phalanx	2
Medium bird	Phalanx	4
Total Bird		9
Mammals		
Canid	Canine tooth	1
Caribou	Metapodial	1
Large terrestrial mammal	Longbone fragment	1
Small mammal	Various	9
Small to medium mammal	Rib	1
Medium-sized mammal	Various	15
Grey seal	Phalanx	2
Harp seal	Canine tooth	1
Harp seal	Post-canine 1	1
Harp seal	Metatarsal	1

Harp seal or ringed seal	Mandible	1
Phocidae (seal family)	Cranium	11
Phocidae	Mandible	1
Phocidae	Femur	1
Phocidae	Tibia	1
Phocidae	Metacarpal	4
Phocidae	Metatarsal	1
Phocidae	Phalanx I	5
Phocidae	Phalanx II	2
Phocidae	Phalanx III	5
Phocidae	Unknown phalanx	14
Total Mammal		79
Total Identified Fragments		90
Total Unidentified Fragments		1650 +

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Plate 1

**Recent Indian Broad Bladed,
Contracting Stemmed Projectile Points**

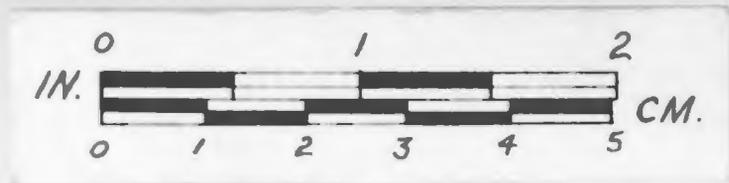


Plate 2

**Recent Indian Convex Bladed,
Contracting Stemmed Projectile Points**

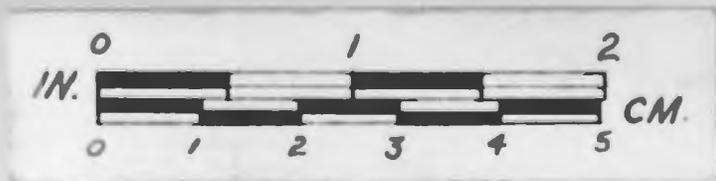
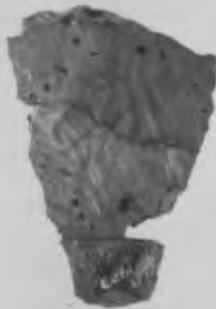


Plate 3

Recent Indian Bifaces.

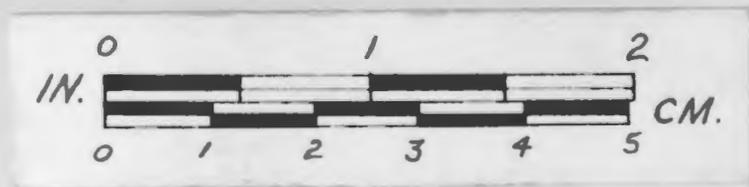
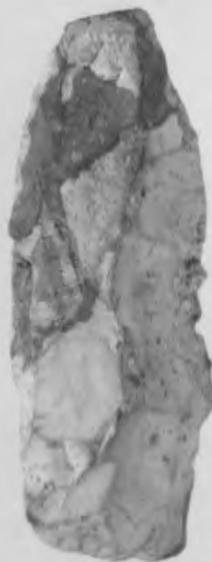


Plate 4

First Row - Recent Indian Scraper

Second Row - Recent Indian Linear Flakes

Third Row - Recent Indian Linear Flakes

Fourth Row - Recent Indian Retouched Flakes

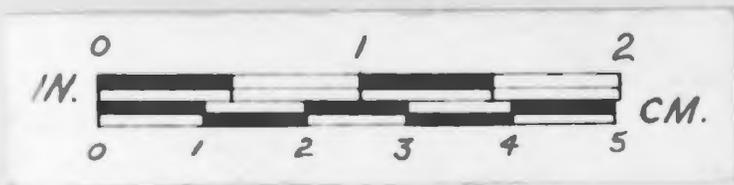


Plate 5

**First Row - Three Culturally Undetermined Bifaces,
and One Dorset Endblade**

Second Row - Dorset Burin-like Tools

Third Row - Dorset Microblades

Fourth Row - Dorset Chert End-scraper



Plate 6

Dorset Ground Stone Scrapers

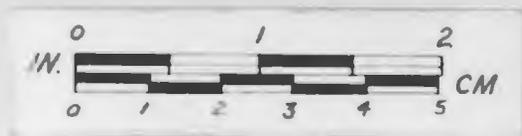


Plate 7

First Row - Recent Indian Hammerstones

Second Row - Culturally Undetermined Whetstones

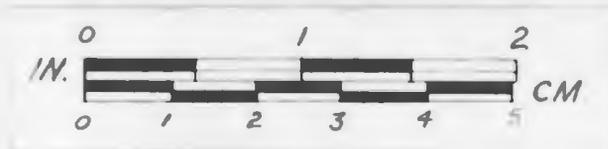


Plate 8

Recent Indian Ceramics

Left - Decorated Rim Sherd

Middle - Decorated Neck Sherd

Right - Decorated Neck Sherd

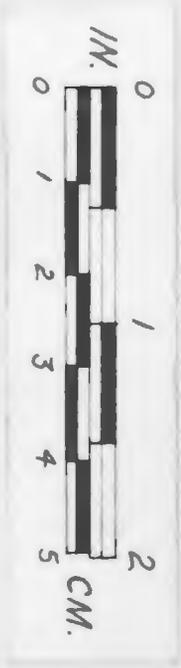
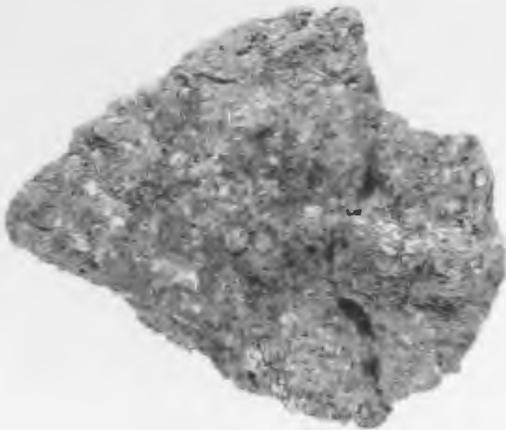
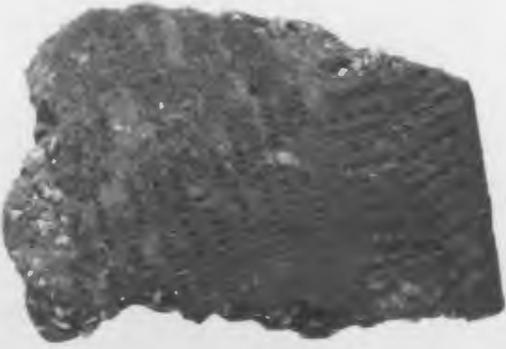


Plate 9

Periostracum of Freshwater Clam



Plate 10

First Row - Iron Pyrite

Second Row - Slag-like Material

Third Row - Quartz Crystal Fragments

