THE PARTY SITE (EeBi-30) AND BEYOND: AN INTERPRETATION OF GROSWATER MOBILITY AND LANDSCAPE FROM PORT AU CHOIX, NL

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by
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Abstract

For over 1000 years Groswater Paleoeskimo groups occupied the Port au Choix region of Newfoundland. Archaeological research in this region has focused on harp seal hunting sites along the northern shores of the Point Riche peninsula. Other sites in more sheltered, inner coast zones have received little analysis. The Party site (EeBi-30), a small Groswater site located on the southwestern shore of Back Arm, was excavated in order to better understand the inner coast zone as well as the entire region of Port au Choix. The site was occupied at least twice in two separate locations. Area 1 is interpreted as a summer residential base camp, reliant on a multitude of faunal and floral resources that are found in this location. Area 2 is interpreted as a late spring/early summer residential base camp with a faunal focus on harbor seal hunting.

The site scale interpretation is expanded to the zone scale (inner and outer) as well as the region scale (Port au Choix) with a focus on interpreting landscape and mobility. Barrett (1991:8) describes landscape as "a form constructed from natural and artificial features, [which] become a culturally meaningful resource through its routine occupancy." Mobility provides mechanisms for cultural construction and physical occupation demonstrating the intricate role mobility has in a group's landscape. In order to investigate the relationship between Groswater mobility and landscape, six mobility dimensions (Chatters 1987) are examined at three different spatial scales (site, zone, and region). Analyses of these dimensions and scales suggest how mobility shaped the Groswater landscape, and what this landscape may have been like for Groswater people.

Acknowledgements

Writing a thesis is like most things in life; although I am ultimately responsible for its content, it is others that color the experience with various insights and actions. First and foremost it is to my supervisor, Dr. Priscilla Renouf, that I must extend an immeasurable amount of thanks. She allowed me the freedom to explore every nook and cranny of whatever aspect of archaeology I was interested in, all the while directing my focus to what in turn became this thesis. Thank you.

Secondly, the 2003 field excavation was made possible through generous financial support from the Institute for Social and Economic Research, the Newfoundland Archaeological Heritage Outreach Program, the Provincial Archaeology Office and the Port au Choix Archaeology Project. In addition great appreciation is forwarded to my fantastic all-girl "Party" field crew including Ainslie Cogswell, Dominique Lavers, Mindy Pitre and Sarah Player; and our field cook Bradea Billard who made it a joy to come home every day.

To the people who kept me sane by running, eating lunch, drinking coffee and participating in general office powwows, you are all part of what this is and who I am. In addition I think you will understand when I say, "Yippee! I'm done! Who wants a drink?"

To my family who are always there. And finally, to the peoples of Newfoundland, thanks for your past mysteries and your present friendliness. You have made this place my home.

Table of Contents

List of Tables

List of Figures

Chapter 1

Beginnings

If the Palaeo-Eskimos were to be understood, it would have to be on the basis of archaeology alone.
-Robert McGhee

The goal of this thesis is to investigate the relationship between Groswater mobility and landscape in the Port au Choix region of Newfoundland (Figure 1.1). The majority of archaeological studies relating aspects of mobility to landscape focus on roads (Witcher 1997), transportation (Sheets and Sever 1991; Southerland and Brown 1989), communication (Sheets and Sever 1991; Baldia 1998; Raetzel-Fabian 2000) and politics (Vivian 1998). Little archaeological research attempts to study this relationship in a prehistoric and/or hunter-gatherer context (for exceptions see: Barker 1981; Kelly 1995; Brück and Goodman 1999; Bamforth and Woodman 2004).

This thesis adopts the perspective that mobility is more than simply the way in which humans move or moved across the landscape and that landscape is more than where people organized their subsistence (Evans 1985). Instead mobility is interpreted as part of landscape. In this fashion studying aspects of mobility allows archaeologists to infer parts of the cultural landscape of ancient peoples. Barrett's (1991:8) definition of landscape as a "form constructed from natural and artificial features, [which] become a culturally meaningful resource through its routine occupancy" expresses the rationale by which I connect mobility with landscape. Mobility provides mechanisms for both cultural construction and physical occupancy demonstrating the intricate role it has in a group's landscape. These sentiments build on recent developments in landscape

archaeology that suggest that landscape is a cultural construct, shaped by myth, history, memory and tradition, and invested with social meaning (e.g. Bradley 1991; Bender 1993; Tilley 1994; Barrett 1994; Schama1995; Brück and Goodman 1999). This new tradition of archaeological theory and discussion promotes the importance of human perception in the understanding of spatial relations at the landscape level (Brück and Goodman 1999:1).

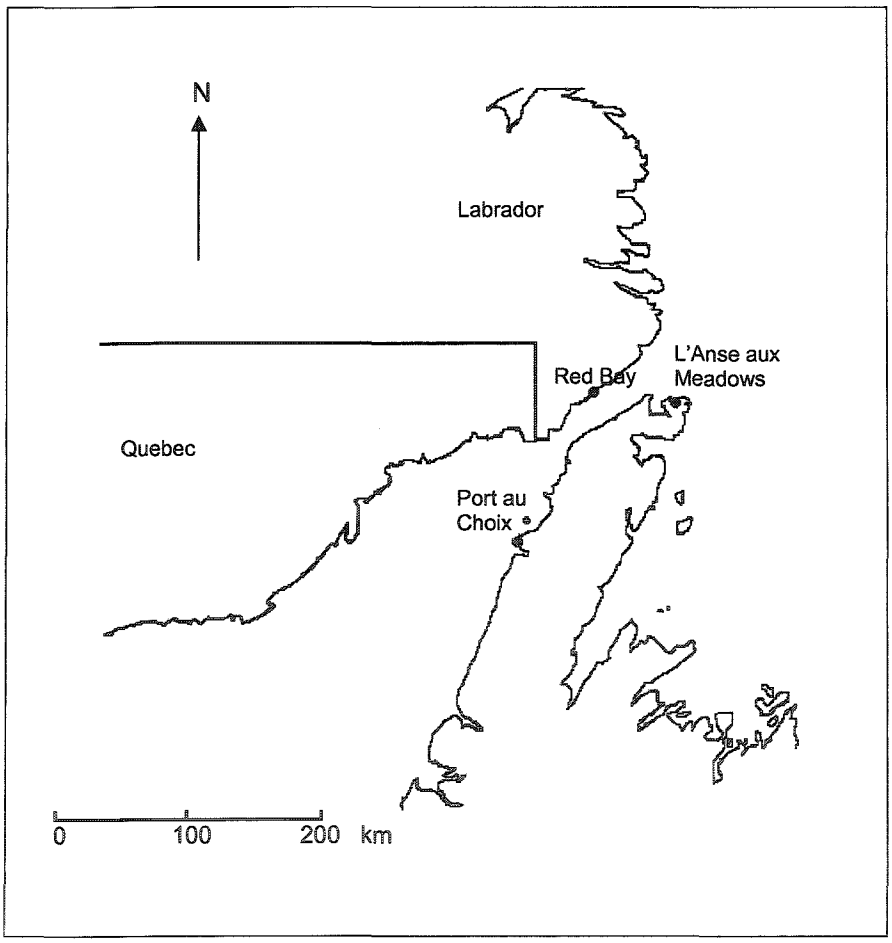


Figure 1.1: Location of Port au Choix

Archaeological investigation at Port au Choix, Newfoundland has uncovered 12 Groswater Paleoeskimo sites. These sites represent a variety of seasonal occupations in two different geographic zones: the inner and outer coast. The outer coast sites are better documented and have received more archaeological analysis. This is due to the fact that they are located in protected Parks Canada land and have not been disturbed or destroyed by cultural or natural formation processes. In contrast, very little substantial data exist pertaining to the inner coast sites which are located in the modern town and therefore have been subject to much disturbance.

One of the main focal points of this thesis is to describe the excavation at an inner coast site in Port au Choix: the Party site (EeBi-30). Chapter 2 briefly examines Groswater research in northeastern North America. This provides a methodological and historical background to Groswater investigation in the larger region. Chapter 3 introduces the site setting and resource structure to assess subsistence potential at the inner coast zone. Chapter 4 outlines the methods and results from the 2003 excavation. Chapter 5 is an intrasite analysis that suggests the variations observed between the two areas excavated at the Party site are due to economic functional differences based on the Groswater Paleoeskimo's mobile seasonal round. Mobility is expanded at the site scale by applying Chatters' (1987) concepts of different mobility dimensions. These descriptions allow a better overall interpretation of the Groswater occupation at Port au Choix.

Up to this point, traditional interpretive frameworks which relate mobility to subsistence are employed in order to standardize past with present research. However,

there is one Groswater site in Port au Choix that is difficult to interpret within this framework. Phillip's Garden West (EeBi-11) is hypothesized to be a ritual site with important but indirect relations to food-getting activities (Wells 2002; Renouf in press). This is not to classify Groswater sites as either "subsistence" or "ritual", as most sites likely have aspects of both. Instead, analyzing sites that appear to predominantly have only subsistence or ritual purpose allows research to identify specific aspects of each type of behavior. Once this information is attained, aspects of both ritual and subsistence can be better identified on single sites. It is unrealistic and detrimental to the study of Groswater archaeology to continue to separate the ritual and the subsistence aspects of Groswater society. It is in this vein that Phillip's Garden West is investigated in terms of its role in Groswater mobility and landscape. This analysis is part of Chapter 6.

Chatters' (1987) six mobility dimensions are applied to all sites in the Port au Choix region (Chapter 6). One of the problems of simplifying a complex concept such as mobility is that it limits our understanding of the past (Bamforth and Woodman 2004). For this reason, the six mobility dimensions are investigated at three different scales in an attempt to augment the lines of evidence. These scales are predominantly a spatial construct and fall in the "micro" to "meso" scale range (Dincauze 1987). Although these scales may not represent all Groswater movements, they do go from the site-scale (Chapter 6) to the zone and regional scales (Chapter 7) and overall provide an effective scalar model for Port au Choix.

Each time a mobility dimension is discussed, attempts are made to move from static two dimensional data (i.e. points on a map), to a perspective of how humans might

experience and relate to space. This methodology endeavors to preserve an objective approach to archaeological data while at the same time recognizing an archaeological landscape imbued with cultural meaning. As the scales of interpretation move from site to region, trends in landscape occupation and cultural construction are discussed for each mobility dimension. By actively embedding mobility dimensions in each landscape scale, the intricate relationship between mobility as it is perceived archaeologically and landscape becomes apparent.

In terms of the relationship between humans and landscape it is difficult to move away from environmental or economic interpretations. This thesis does not intend to forget the subsistence goals that motivated Groswater groups; instead it attempts to link the economic goals of a hunting and gathering society with a socially and culturally constructed landscape. Mobility and landscape can no longer be considered distinct entities. Movement does not happen separate from landscape; rather it happens as part of landscape.

Chapter 2

Past Ideas

If you would understand anything,
observe its beginning and its development.
-Aristotle

Introduction

This chapter presents an overview of Groswater Paleoeskimo research in eastern North America. From this it moves to a more specific discussion of the Groswater work done in Port au Choix, Newfoundland. In particular, settlement, mobility and lithic material culture are explored. Finally, the Party site is introduced including its archaeological history and relevance to understanding the Groswater occupation at Port au Choix.

The Groswater Paleoeskimo – In General

Settlement Patterns

Fitzhugh (1972) proposed the first Groswater settlement model and based it on a 'modified-maritime' adaptation strategy. This further developed with Pastore (1986), Schwarz (1994) and Holly (1997), all of whom draw general conclusions regarding the settlement patterns of the Paleoeskimo cultures on the island of Newfoundland. Other researchers such as Renouf (1994), Pintal (1994) and LeBlanc (2000) describe settlement in a more localized fashion, whereby different potential strategies emerge depending on the environment that is present in a particular area. Overall, the importance of the coastal resources is clear; a theme present from Fitzhugh (1972) to LeBlanc (2000).

A "Groswater Dorset" lithic variant was first identified by Fitzhugh in 1972 in Groswater Bay, Labrador. He proposed a "modified maritime" settlement system which was coastally restricted with a specialization in marine resources (Fitzhugh 1972:158). The potential for land-based resources was mentioned, but this was done without the benefit of archaeological evidence from the interior. Although the significance of seal and walrus are predominant in Fitzhugh's "Groswater Dorset" subsistence description, he also suggested the importance of other seasonally available foodstuffs such as fish, birds, certain plants and small mammals. He suggested that Groswater site location may have shifted from inner and outer coast locations in accordance to seasonal shifts of resource acquisition.

Following Fitzhugh's (1972) observation that different settlement locations are related to physical landscape, Pastore (1986) investigated the use of space on the island of Newfoundland. The inner coast includes sites "located on the bottom of bays and inside sheltered areas of complex coastlines" while outer coast sites are "on islands and exposed headlands and coastlines" (Pastore 1986:131). Pastore (1986) listed 16 early Paleoeskimo (Groswater) sites located in the inner or outer coast. The sample indicated little difference between the number of sites located in the outer coast (n=10) and in the inner coast (n=6) (Pastore 1986:133).

Further developing Pastore's (1986) model, Schwarz (1994) included sites from the interior region. His model included Fitzhugh's (1972) hypothesis that land-based resources were important to Groswater subsistence. From his observations, Schwarz (1994) noted that there were more Paleoeskimo sites located in the outer coast zone than

in the interior, although this may be the result of excavation and survey bias, since the interior was rarely surveyed. Based on these data Schwarz (1994) proposed a Paleoeskimo settlement model for Newfoundland. This model predicts that Paleoeskimo groups occupied the outer coast during the winter and spring to hunt harp seal. During the summer, they would move to the inner coast where a variety of coastal and riverine resources could be harvested. Lastly, during the autumn Paleoeskimo groups would move to the interior for caribou. Schwarz (1994) expanded previous models and reinforced the idea that Paleoeskimo groups' focus remained for the most part on the coast and was heavily reliant on the rich seasonal marine resources, in particular seal.

Holly (1997) continued the evolution of the Paleoeskimo settlement model. He split the Newfoundland landscape into four zones: the inner and outer coast and the near and deep interior. Again, it was apparent that there were a greater number of Paleoeskimo sites located in the two coastal zones as opposed the two interior zones. Specific to the maritime adaptation, there were slightly more sites located in the inner coast zone (n=36) than the outer coast zone (n=31). Holly (1997:49) described the inner coast as an intermediate zone between the headlands of the exposed outer coast and the barrens and forests of the interior. He speculated that inner coast resources would have contributed as much to the Paleoeskimo diet as seals and/or caribou depending on the season. Inner coast resources include harbor seal; various fish: capelin, arctic char, brook trout, shellfish, salmon, smelt, and inshore groundfish; small mammals and birds: ducks, geese and other migratory birds. Holly (1997) also noted that the majority of these resources would normally be acquired during late spring to late summer.

Based on this research, Holly (1997) proposed a more detailed version of Schwarz's (1994) model indicating both a location's resource potential and associated site types. The outer coast continued to be interpreted as an important location due to the winter and spring harp seal migration. Sites included larger, more semi-permanent base camps. The inner coast's resource potential consisted of a variety of resources, and sites types included spring satellite camps, summer occupations and potential autumn occupations. The interior continued to play a minimum role in Paleoeskimo settlement with potential occupation during the autumn caribou hunt or occasional winter foray.

The above models have generalized Groswater and Dorset Paleoeskimo cultures into one category. However, although both the Groswater and Dorset groups do have similar settlement patterns, there are differences in their site types. In Newfoundland, Groswater sites are often smaller and lack large, semi-permanent occupations that occur at Dorset sites (Renouf in press). These models also communicate an overall pattern of Groswater settlement at a relatively large area scale. Other researchers working at more regional scales prefer to observe Groswater groups as adapting to different environments and responding to this variation with different settlement strategies (LeBlanc 2000).

In terms of spatial scales, this thesis adopts Dincauze's (1987) definitions with a few minor variations made in accordance with the present research (Table 2.1). The smallest scale is 'micro' or 'occupation' or 'site'. At this scale single occupations, specific activities and individual habits can be seen. The next scale is called 'meso' or 'zone'. Specific to this research this scale is used when discussing the inner and outer coast zones. Following is another meso-scale or 'region'. This is predominantly Port au

Choix throughout this research. Lastly, there is the macro-scale or 'area'. This refers particularly to Newfoundland through most of this thesis, although periodically it may refer to, or include, Labrador and part of Quebec.

Table 2.1: Spatial scales

Spatial scale (after Dincauze 1987)	**Archaeological unit**	**Examples from present research**
Micro	Occupation; Site	Area 1; Party site
Meso	Zone	Inner coast; Outer coast
Meso	Region	Port au Choix
Macro	Area	Newfoundland

Mobility

Binford (1980) argues that hunter-gatherer mobility operates in predictable ways depending on the spatial and temporal location of resources and describes two types of mobility: residential and logistical. Classically, Groswater mobility is defined based on one of these two mobility types. Residential mobility is the movement of all members of the group from one residential base to another. Logistical mobility is the movement of special task groups in and out of the residential base on temporary, focused excursions. Two subsistence-settlement patterns emerge based on Binford's (1980) mobility types: forager systems and collector systems. Foragers have high residential mobility and low logistical mobility while collectors have high logistical mobility and low residential mobility (Habu and Fitzhugh 2002).

Chatters (1987) expands Binford's ideas by introducing a multidimensional component to mobility and uses archaeological data to investigate each dimension. He

defines mobility as "the nature of the movements of people across the landscape" (Chatters 1987:339). The six dimensions of mobility are: type, frequency, stability, demography, scheduling and range. Groswater research normally describes mobility type and if the other dimensions are discussed it is within the concept of type, not separate from it (LeBlanc 1996; Renouf 1994, in press).

LeBlanc's (1996) model of Groswater mobility proposes that the way people move around the landscape is largely dependent on the resource makeup of the specific region. In particular this model proposes that when resources are spatially and temporally predictable the Groswater practiced a more logistical mobility strategy. This type of model is proposed in order to explain the mobility strategy employed by the peoples of the Cornick site (EeBi-29) and Phillip's Garden East (EeBi-1), two Groswater sites in Port au Choix.

Renouf (1994, in press) develops other mobility dimensions including frequency, demography and range, although she does not use these terms. Most Groswater sites are small which may have resulted from either short term occupations (frequency) or small groups of people (demography). In general Groswater mobility frequency is interpreted as high, based on the observation the sites appear small, as well as on the homogeneity of raw material and material culture throughout the Groswater groups in Newfoundland, Labrador and the Quebec lower north shore (Pintal 1994, 1998). Mobility range is further illustrated by the presence of Ramah chert from northern Labrador in Newfoundland Groswater artifact collections and Newfoundland cherts found in Labrador collections (Pintal 1994, 1998; Anton 2004).

Lithic Material Culture

Fitzhugh (1972: 148) describes 'Groswater Dorset' as having a highly refined bifacial industry which included sideblades, corner-notched and single notched knives and burin-like tools. Other characteristics of the lithic assemblage include a high number of microblades, the use of flake scrapers and a moderate amount of slate (Fitzhugh 1972). In general, high quality cherts are the predominant choice for the stone tools (Fitzhugh 1972). Twenty years after Fitzhugh first described "Groswater Dorset" material culture Renouf (1994:172) summarizes the same industry (also Auger 1985; Kennett 1990):

> Groswater material culture is characterized by plano-convex side-notched endblades, chipped and ground chert burin-like tools, a low proportion of true burins, a high proportion of microblades, circular and ovate side-blades, rare use of soapstone for lamps, finely made bifaces, the use of high quality cherts.

The Groswater were selective in what types of raw material they used for stone tool production. High quality Cow Head cherts, found on the west coast of Newfoundland were the main lithic type in Newfoundland sites. Cow Head cherts can be a variety of colors including white, black, blue-greens, beige and grey. Patterns such as swirls, lines or dots may also be present. Another variety of Cow Head chert is a brown or grey translucent chert. Cow Head chert may also have radiolaria present in its cortex. These are small microfossils that can be visually, or microscopically, observed. Ramah chert, quarried on the northern coast of Labrador at Ramah Bay is also common (Auger 1985; Robbins 1985; Renouf in press). The situation is similar on the other side of the Strait of Belle Isle in both Quebec and Labrador (Loring and Cox 1986; Pintal 1994,

1998), although the presence of Ramah chert in Groswater collections becomes more predominant the closer the sites are to the Ramah Bay (Loring and Cox 1986; Anton 2004).

LeBlanc (2000:34) interprets the Groswater technological organization "as a strategy that allowed for mobility and flexibility in foraging patterns." She bases this on four different points. First, Groswater tools were made in stages, in a production system that transports unfinished tools from one site to another until they were needed. This method reduces the carrying cost of the material (Shott 1986) while also reducing the risk of breakage (LeBlanc 2000). Second, the production system also allowed a considerable amount of flexibility and reliability. Examples of this include biface blanks and endblade preforms which can be quickly and efficiently made into whatever tool is necessary (LeBlanc 2000). This would allow a group to maintain high mobility with a certain degree of uncertainty since their toolkits allow for variation. Third, the Groswater were highly selective regarding their raw material. Although this practice limited raw material acquisition to two locations, the Groswater did not practice much tool recycling. In other words when a tool was broken or no longer needed it was discarded. This lack of concern for acquisition cost is linked to the quality of raw material (LeBlanc 2000). Since high quality raw materials are more reliable and easier to use (Kelly and Todd 1998) less material is needed (LeBlanc 2000:34). This may also be related to the characteristics of a lithic resource. The Groswater people were aware of where to get raw material, as well as the fact that this particular raw material is static (does not move) and plentiful. This results in a resource that is certain and predictable which may have

allowed Groswater groups to be lenient in terms of raw material conservation. LeBlanc's (2000) fourth point is that the Groswater have a mobile lithic industry since it includes many easily modified bifaces and blanks and microblades. The bifaces and blanks are reduced so that less material needs to be transported, while at the same time allowing for last minute modifications. Microblades are made from microblade cores which are very portable since one core can produce many serviceable blades quickly and efficiently (Kooyman 2000). LeBlanc (2000:34) summarizes that these points indicate Groswater lithic technology demonstrates adaptability, reliability and portability.

The Groswater Paleoeskimo – Port au Choix Research

Groswater Sites

There are 12 sites in the Port au Choix area that have a Groswater component (Figure 2.1).

Two zones in the Port au Choix region were used by Groswater Paleoeskimo groups. These are the open expanses along the northern coast of the Point Riche Peninsula (outer coast zone) and the more sheltered locations along the coastline of Back Arm (inner coast zone). Extensive research has been done at the sites that run along the Point Riche Peninsula (Wintemberg 1939, 1940; Harp 1951, 1964; Renouf 1985a, 1985b, 1985c, 1986, 1987, 1987, 1988, 1991a, 1992, 1993, 1994, in press; Kennett 1990; LeBlanc 1996; Wells 2002). However, very little information is available regarding the sites surrounding Back Arm, except in mandatory provincial reports, local museum collections and with local collectors. In fact, of the 12 sites only two are published:

Phillip's Garden East and Phillip's Garden West, both located on the Point Riche Peninsula. This results in a incomplete interpretation and understanding of the Groswater occupation at Port au Choix.

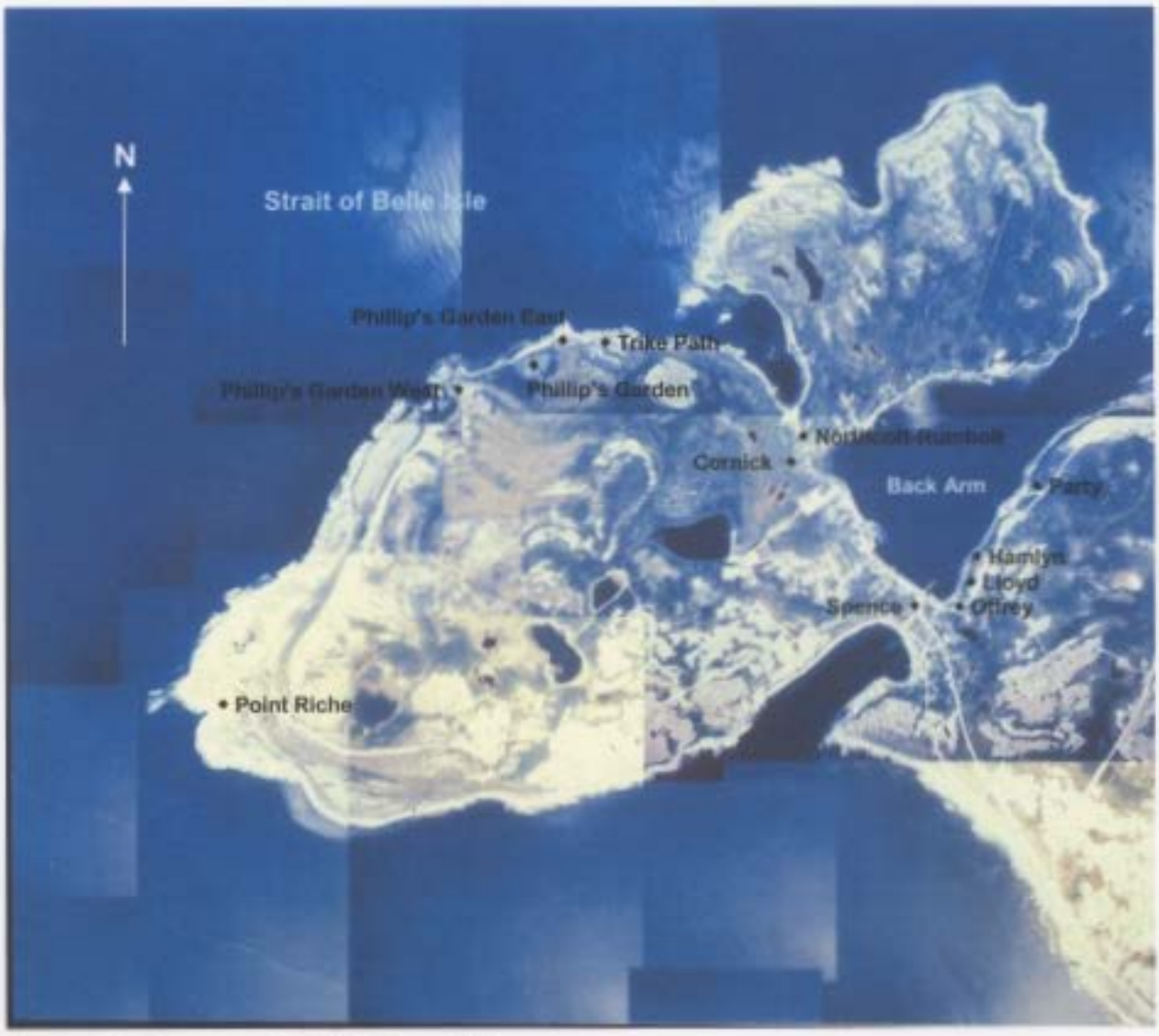


Figure 2.1: Groswater sites in Port au Choix

Phillip's Garden East (EeBi-1)

Phillip's Garden East is located on the Point Riche peninsula at an elevation of approximately 12.5 m above sea level and covers an area of approximately 1500 m^2 (Renouf 1993b,1994). It was first discovered in 1982 by Fitzhugh (1983:121) and further investigated in 1984, 1986, 1990 and 1991 (Renouf 1994). The range of dates for this site is between 2760 ± 90 BP[1] (Beta 23979) and 1930 ± 140 BP (Beta 19085), and is it the oldest dated Groswater site at Port au Choix (Renouf 1993b). Phillip's Garden East resembles a habitation site, which is not surprising since it is located adjacent to a rich and predictable harp seal hunting location.

Two structures have been identified on this site. The first (F2) is a round depression and is virtually free of debris. The function of this structure is unclear, but it may be a large pit or a dwelling structure. This structure appears to date to an earlier occupation of the site, 2800-2300 BP (Renouf in press); although in a recent paper Renouf (2004) suggests that it might relate to the adjacent Dorset site, Phillip's Garden. If this is the case, it would have been constructed into the Groswater levels dating to 2800-2300 BP. The second feature (F12) is different from the first in many regards and is associated with later occupation, 2500-2200 BP. It was constructed on the surface of the ground and is larger than F2. It is also filled with various sorts of debris including fire-cracked rock, lithic artifacts, lithic debitage and faunal remains. Inside the structure (F12) there was a rock-capped storage pit containing bird bone and seal cranial elements.

[1] uncalibrated years before present

A large amount of material was found at Phillip's Garden East including 2700 lithic artifacts, 74 organic artifacts, 75 000 bones and 35 000 flakes (Renouf 1994). Of particular interest are thirteen harpoon heads. Many of them are self pointed with an open-socketed base, and no two are alike. The lithic raw material is predominantly brown-gray and gray-blue cherts from the Cow Head chert beds, but also includes pieces of quartz crystal and Ramah chert. Some of the lithic artifacts (endblades, bifaces, sideblades, and burin-like tools) display small or large areas of surface grinding. Endblades are predominately plano-convex in cross-section with side notches and all have a straight base. In addition to the artifact classes already mentioned, other types that were found at Phillip's Garden East include scrapers, a range of axes, ground slate, a large number of microblades and possible fragments of soapstone vessels. The soapstone may be the result of the Dorset occupation.

Phillip's Garden West (EeBi-11)

Phillip's Garden West is approximately a fifteen minute walk west of Phillip's Garden East. It consists of an area approximately 500 m^2 at 13 m elevation (Renouf 1993b, 1994). Dates range from 2540 ± 160 BP (Beta 49759) to 2090 ± 70 BP (Beta 49757), thus showing a temporal overlap with Phillip's Garden East.

One structure was found on this site. It has been interpreted as a tent, 3 m in diameter with five postholes marking its circumference, and a centrally located hearth (Renouf 1993b, 1994). There were also two outdoor hearths, as well as an external workshop area.

Like Phillip's Garden East there is excellent faunal preservation at Phillip's Garden West, although at the latter site it occurred on the hillside not the terrace. In addition to the large amount of seal bone, there is also fish, bird and terrestrial mammal in the faunal collection (Renouf 1993b; Wells 2002). Cut marks on some of this material have been interpreted as evidence for bone tool making at Phillip's Garden West, although there were few organic tools found at the site (Renouf 1993b).

The occupants of Phillip's Garden West also availed of the same cherts as the occupants of Phillip's Garden East. However, they used a higher percentage of colorful chert varieties as well as mottled chert (Renouf in press). There was no soapstone found at this site, which has led to the interpretation of Phillip's Garden West as a possible warm weather occupation site (Renouf 1994); however results of faunal analysis (Wells 2002) indicates late winter/early spring. A number of differences can be noted between the lithic artifacts at this site and those from other Groswater sites (Table 2.2). The reasons for these differences is at present unknown. However, Renouf (in press) hypothesizes that Phillip's Garden West may have been some sort of ritual site associated with the harp seal hunt.

Table 2.2: Phillip's Garden West lithic tool characteristics

Tool	**Difference**
Endblade	Elongated, fine serration, concave base, some basal corners are tanged, narrower side notches
Sideblade	Serrated, crescent or semi-lunar shape, smaller
Biface	Narrower side notches
Burin-like tool	More likely to be rectangular
Microblade	Less (6% of all tools at Phillip's Garden West)
Scraper	More likely to be rectangular

Settlement Strategies

Based on the information from Phillip's Garden East and Phillip's Garden West, the Point Riche headland has been interpreted as a Groswater harp seal hunting location. Indeed, even today seal hunters regard the coastline off of the Point Riche headland (i.e. where Phillip's Garden East and Phillip's Garden West are located) to be a prime harp seal hunting area. Following settlement models like those outlined by Pastore (1986), Schwarz (1994) and Holly (1997), the Point Riche headland is an outer coast resource zone that was occupied during the winter/spring seal hunting season. This is adequately demonstrated by both the Phillip's Garden East and Phillip's Garden West sites. Extensive faunal analysis, in particular Wells (2002) shows that Groswater groups came to the Point Riche headland to hunt the harp seal populations that arrived in the spring. However, she does note that other species also contributed a small part to Groswater diet.

The most comprehensive look at settlement in the Port au Choix area is a thesis that explicitly looks at Groswater mobility in the Gulf of St. Lawrence (LeBlanc 1996). LeBlanc (1996) acknowledges the importance of local environments and how resources are spatially and temporally distributed. In particular she stresses resource predictability. When resource predictability was high the Groswater implemented a logistical type of mobility, implying that they would purposely move to a certain location to procure a resource (Binford 1980). When resource predictability was not high, or that the precise location or timing of resources were not assured, the Groswater would adopt a more residential type of mobility pattern that would have been based on an encounter based hunting strategy (Binford 1980). LeBlanc (1996) discusses two sites in the Port au Choix

region: Phillip's Garden East and Cornick. She describes these sites as part of a logistical mobility pattern based on the predictability of the harp seal both spatially and temporally. This hypothesis is tested in the present thesis.

An Incomplete Picture

There is an incomplete picture of the Groswater occupation in Port au Choix. The sites located on the coastline of Back Arm represent over 60 per cent of Groswater sites in Port au Choix. However, little research has investigated any aspect of their function, seasonality, length of occupation, size, type, or their relationship with other sites in the region.

Holly (1997) and others (Pastore 1986, Schwarz 1994) comment on the importance that inner coast resources played in the settlement strategies of Paleoeskimo populations. Most of the west coast of Newfoundland does not have the complex coastline of the east coast of the island or the coast of Labrador. However, the Port au Choix region is an exception since it has two peninsulas extending out into the Strait of Belle Isle (Figure 2.2). This creates an outer coast zone where sea mammal hunting, in particular the harp seal, would have been advantageous to residents of the area. Other areas have inner coast characteristics which are more sheltered and offer different resources. One of these areas is Back Arm. This sheltered region of Back Arm may have offered the Groswater more than one reason to come to Port au Choix. In order to understand the Groswater occupation at Port au Choix, the inner coast zone of Back Arm needs to be investigated.

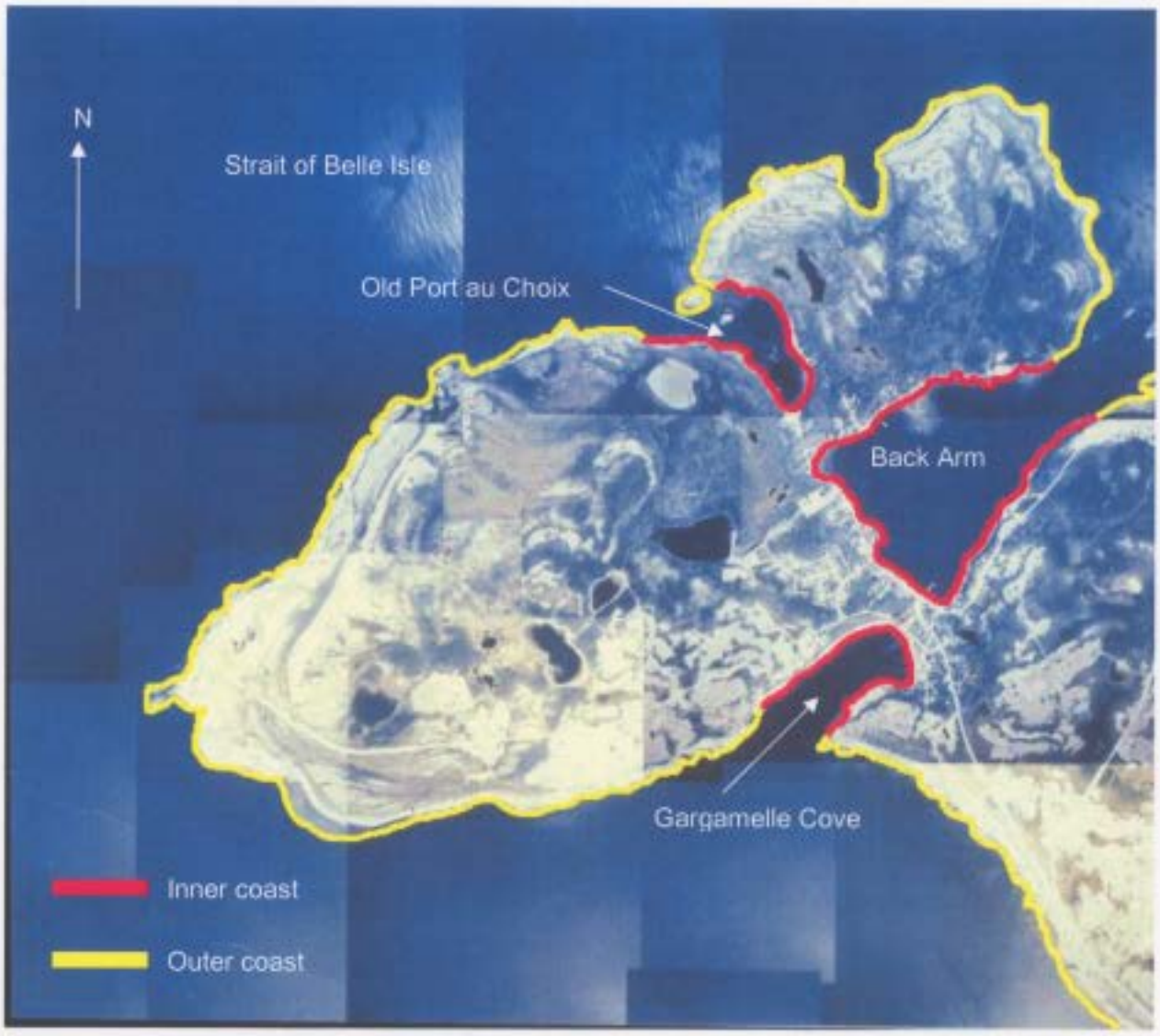


Figure 2.2: Inner and outer coast zones (meso-scale)

Present Research

As the above sections detail, most of our information about the Groswater occupation of Port au Choix comes from Phillip's Garden East and Phillip's Garden West. Both of these sites are located on the northern shore of the Point Riche peninsula. Although both of these sites have been well investigated, little is known about other sites

in the inner coast zone of Port au Choix. The Party site (EeBi-30) is an inner coast site that was excavated in order to rectify this imbalance.

The Party site is located on the southern shore of Back Arm, a sheltered cove created by the Port au Choix peninsula and the Northern Peninsula mainland (Figure 2.3). The site was initially located because various Paleoeskimo and prehistoric Amerindian cultural material was eroding out of a bank at the site's location. The Party site has been surveyed three times in the past fourteen years (Renouf 2002; Renouf and Bell 2001, 2002). The first survey was in 1990 as part of the on-going site survey of Port au Choix. The cultural material recovered during this survey indicated a Dorset Paleoeskimo and a prehistoric Amerindian occupation.

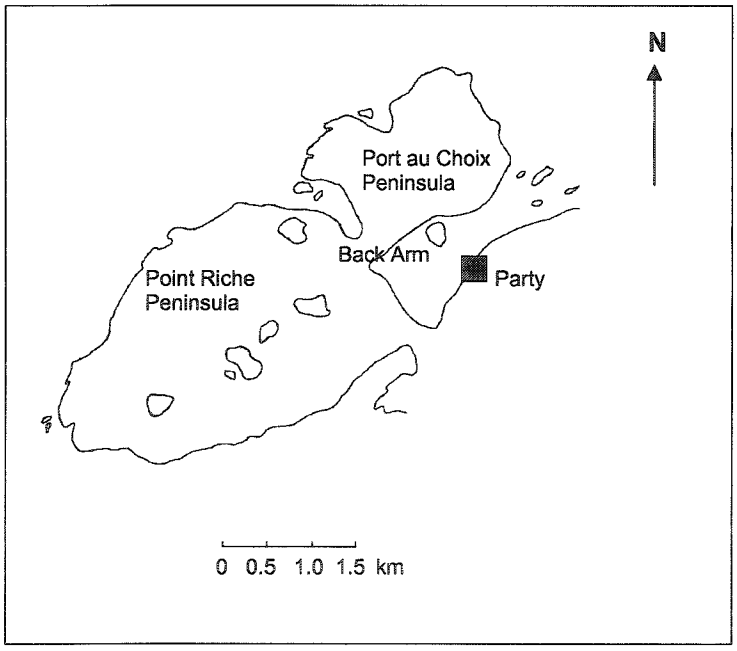


Figure 2.3: Location of the Party site in Port au Choix

The second survey of the Party site was in 2000 (Renouf and Bell 2001). During this field season a large number of flakes was found as well as some Groswater artifacts. Test units in the eastern end of the site revealed two distinct levels: a Groswater Paleoeskimo level (radiocarbon dated to 2570±60 BP; Beta 146666) below which was an Amerindian level.

The third survey of the Party site was done in 2001 (Renouf and Bell 2002). This time the goal was to investigate the Paleoeskimo component of the site and to identify and assess the extent and density of the possible prehistoric Amerindian component (ibid: 2). This survey extended the Paleoeskimo component of the site to a minimum of 700 m^2. It also identified cultural material on two terraces on the site: an upper at an elevation of 8-10 m and a lower at an elevation of 6-8 m. The terraces' stratigraphies are described in Table 2.3 including the location of cultural material.

Table 2.3: Description of the Party site's stratigraphy based on survey work. (Adapted from Renouf and Bell 2002:40)

	Description	**Lower Terrace**	**Upper Terrace**
Level 1	Peat, up to 90cm thick. Becomes increasingly compact with depth.	Cultural material	Cultural material
Level 2	Black muck, 2-3cm thick (upper terrace) Speckly loam, 2-3cm thick (lower terrace)	Cultural material	Cultural material
Level 3	Coarse brown sand, 1-10cm thick	Cultural material	No cultural material
Level 4	Rounded gravel substrate	No cultural material	No cultural material

Although the three surveys resulted in information about site size and cultural components, they did not indicate site function, seasonality and detailed culture history.

The information from the surveys was partial and incomplete, a regular consequence of survey work. Other work done in the Port au Choix area revealed numerous other Groswater sites around Back Arm. However, they are disturbed, in contrast to the Party site. This is the reason for continued focus at the site. The Party site also provides an opportunity to study sites in the inner coast zone of the Port au Choix region and therefore better understand the Groswater occupation at Port au Choix. The inner coast has a different setting from the classic outer coast, harp seal hunting Groswater site; therefore it may have provided different resources for Groswater people at different times of the year.

Chapter 3

The Setting

Ye who love the haunts of nature...listen to these wild traditions...
-Henry Wadsworth Longfellow

Introduction

This chapter reviews the location of the Party site and the resources that could have been harvested from its location. Faunal resources in the wider region (the Strait of Belle Isle and the Great Northern Peninsula) are described in detail elsewhere (McGhee and Tuck 1975; Pastore and Tuck 1985; Kroll 1987; Murray 1992). Therefore, this study primarily focuses on the faunal resources available directly at the Party site with a brief introduction to the Newfoundland maritime ecosystem in general.

Since no faunal material was recovered from the Party site, the site's subsistence function and its seasonality are inferred partially from its location which is described in this chapter. In order to further assess the resource potential at the Party site, faunal remains found at Phillip's Garden East and Phillip's Garden West (Wells 2002) are assessed and species available at the Party site are highlighted. In addition, species not recorded in previous faunal lists are also considered.

Newfoundland Maritime Environment

The Newfoundland ecosystem and its effect on prehistoric Paleoeskimo hunter-gathering populations has been studied in terms of population extinction (Tuck and Pastore 1985; Renouf 1999), settlement strategies (Renouf 1984, 1991; Pastore 1985;

Schwarz 1994; Holly 1997, 2002) and culture change (Renouf 1993b). Recurring themes in these studies include the seasonality and geographic distribution of resources across Newfoundland. Subsistence resources could be predicted both spatially and temporally which allowed prehistoric groups to position themselves at specific locations at particular times of the year. However, the lack of a diverse resource base, in particular terrestrial resources, coupled with potential environmental calamities has led some researchers to regard the Newfoundland environment as facilitating the extinctions of human populations (Tuck and Pastore 1985). However, this model places prehistoric groups in a bounded universe which is unlikely since hunter-gatherers are mobile populations. Mobility allows groups to maintain a working knowledge of larger areas including what resources are present as well as access to other groups of people (Kelly 1995). Interaction across the Strait of Belle Isle is reflected in the cultural similarities between groups in Newfoundland and those on the mainland (Renouf 1999). Also, although resources would have been unpredictable due to fluctuations in weather, these situations were likely to be local and not island-wide (Renouf 1999:410).

An important theme that has emerged from settlement models is that Paleoeskimo people were maritime specialists (Fitzhugh 1972; Pastore 1986; Schwarz 1994; Holly 1997). Yesner (1980:728) describes maritime hunter gatherers as a "specialized subset of hunting and gathering peoples" with certain general characteristics. These characteristics can be used to describe Groswater settlement in Newfoundland including the occupations at the Party site (Table 3.1).

Table 3.1: Characteristics of maritime-adapted populations (Yesner 1980)

Characteristic (page referenced in brackets) *Notes regarding the Party site*
1) High resource biomass – coastal and intertidal zones can be highly productive (728) *Party site is located in an intertidal zone*
2) Resource diversity – coastal areas often have greater species diversity resulting in alternate forms of subsistence (729) *Party site has resource diversity (especially during the warmer months)*
3) Environmental stability – Maritime environments are often characterized by greater ecological stability than corresponding terrestrial environments within the same latitude (729)
4) 'unearned' resources (after Birdsell 1957): a large portion of maritime resources are migratory and are exploited with a high maximum yield (729) *Party site has numerous migratory species, or species that can only be exploited during a specific season*
5) Coastal settlement: tend to favor certain areas such as complex coastlines with protective bays and/or good areas for launching boats (729-730) *Party site is located in a protected bay, and boat launching is possible*
6) Lower dependency ratios: some maritime resources such as shellfish, or capelin in Newfoundland (author's note), can be collected by all people including children and the elderly, thus are able to support themselves for part of the year putting less stress on the group as a whole (730) *Resources available at the Party site meet this criteria (mollusks and capelin for examples)*
7) Technological complexity and cooperation in resource exploitation: sea-mammal hunting requires complex technologies such as composite tools (730) *Portions of composite tools were found at the Party site*

Site Location

The Party site is situated on the southern shore of Back Arm, a sheltered cove created by the Port au Choix peninsula and the Northern Peninsula mainland. The beach

is accessible from the site and it is reasonable to assume that this would have provided important resources for the Groswater at this location. Most of the cove is clearly visible from the site. However, you cannot see out the mouth of the cove unless you are down on the beach during low tide. This makes the Party site an unlikely candidate for a lookout site for the harp seals that move through the waters of the Strait of Belle Isle twice a year. In addition harp seals are not known to go into coves, like Back Arm. Given its location it is unlikely that the Party site had the same harp seal focus that Phillip's Garden East and Phillip's Garden West had.

The Party site is a short walk from all other Groswater sites in Port au Choix (Table 3.2). Many of the Groswater sites located around the circumference of Back Arm are visible from the Party site. It is unknown whether or not the other Groswater sites are

Table 3.2: Groswater sites in Port au Choix

Site Name
Phillip's Garden
Phillip's Garden East
Phillip's Garden West
Trike Path
Point Riche
Cornick
Northcott-Rumbolt
Spence
Party
Hamlyn
Loyd
Offrey

contemporaneous. However, it appears that the area visually accessible at the Party site was an active Groswater area. The larger sites on the other side of the Point Riche peninsula, Phillip's Garden East and Phillip's Garden West are not visible from the Party site, but are one hour's walk away.

It also appears that Groswater groups may have chosen Back Arm for reasons other than subsistence resources, or its proximity to other sites. Back Arm is one of the most sheltered marine areas in Port au Choix. The two peninsulas that make up part of Port au Choix, the Point Riche and Port au Choix peninsulas, face the Strait of Belle Isle on one side. On the other side of these two peninsulas is Gargamelle Cove and Back Arm respectively. Gargamelle Cove is shallow and is not as sheltered. Back Arm is deeper and is relatively sheltered. In fact, no Groswater sites are known to be located at the mouth of Back Arm, instead they are all located in the head, or more sheltered, region of the Bay.

Resources that may have been available at the Party site include various species of mammals, fish, birds, mollusks and crustaceans. Many of these would have been available during the spring, summer and fall months. During the winter the coast is blocked with ice and according to local residents Back Arm is the first place to cover over in ice and the last place to thaw. So, although it is a sheltered location, any resources that rely on open water would not be accessible during the winter months, which can last from November to May, depending on the yearly conditions.

Presently, a small fresh water stream runs to the east of the site and empties into Back Arm. It does not continuously run, but can be torrential after heavy rains (Figure

3.1). According to local residents, this stream used to run more continuously in the past. No cultural material has been located to the east of the stream, although the banks are covered in deep peat. The topography of the land at the eastern edge of the site indicates that another possible stream may have once emptied into Back Arm. Running through the site area is a visible channel, 1-2 m deep

Figure 3.1: Stream near the Party site **Photo: K. Wheatley**

and 5 m wide. This area has now become forested, but the forest floor in this area is composed primarily of mosses indicating a continuous moist sub-floor. If this area had been a river or substantial stream at the time of Groswater occupation it would have been an influential aspect to why people may have decided to settle at the site. Besides providing fresh water, it would have also attracted a variety of fish and possibly birds.

Site Resource Structure

This section reviews the faunal resources that the Groswater used at other sites in Port au Choix, notably Phillip's Garden East and Phillip's Garden West. These include various species of bird, mammal, fish, mollusk and crustacean. It is then determined which of these resources may have been available at the Party site and at what times of the year. This information leads to a hypothetical model of seasonality and subsistence function for the Party site based on resource availability. These hypotheses are further tested in subsequent chapters using the tools found at the site and the relationship this site may have with other Groswater sites in the area.

Avian Resources

Newfoundland and Labrador has the largest gathering of seabirds in the northern hemisphere and modern numbers indicate that every year 35-40 million marine birds travel to the province (Snow 1996). Many can be found in large colonies at locations off the north-eastern tip of the Avalon Peninsula, Cape St. Mary's, on the islands southeast of Fogo Island, Witless Bay, Funk Island and on the islands just off Main Brook and Goose Cove on the eastern half of the Northern Peninsula (Snow 1996). No large bird colony is known at Port au Choix, although many different species do migrate through the area. The bird species that may have been available to the residents of the Party site are summarized in Table 3.3. This table includes when the particular species was most likely hunted in the Port au Choix area, based on when the species migrates through the area, and/or when the birds are nesting.

Table 3.3: Possible avian resources at the Party site

Scientific Name	Common Name	Season
Somateria spectabilis	King eider	Spring and Fall (Burrows 1989)
Somateria mollisima	Common eider	Spring and Fall (Burrows 1989)
Mergus merganser	Common merganser	Spring, Summer and Fall (Wells 2002)
Melanitta sp.	Scoter	Spring, Summer and Fall (Godfrey 1966)
Uria aagle	Common murre	Spring and Summer (Threlfall 1983)
Uria lomvia	Thick-billed murre	Spring and Summer (Nettleship and Birkhead 1985)
Cepphus grille	Black guillemot	Spring, Summer, and Fall (Godfrey 1966)
Alca torda	Razorbill	Spring, Summer (Nettleship and Birkhead 1985)
Alle alle	Dovekie	Fall (Wells 2002)
Larus sp.	Large gulls	Year round (Wells 2002)
Lagopus lagopus	Willow ptarmigan	Year round (Wells 2002)

The eiders are species of ducks that once numbered in the tens of thousands, before modern hunting brought their numbers down. It is also the largest duck found off the shores of Newfoundland making it a worthwhile endeavor for a hunter. Their migration pattern would take them past Port au Choix. Mussels and small crabs are their preferred subsistence. Back Arm is known for populations of both of these species so it is possible that the eider may have been one resource available to the inhabitants of the Party site. The mollusk resources of Back Arm may also have lured other sea birds into Back Arm including the scoter, another sea duck that consumes mussels; and the mergansers, who are also known as "shell duck" or "shell bird" due to their known love of shellfish (Snow 1996).

Murres would be easiest to hunt during their nesting season in the summer months. However, both species build their nests along flat cliff edges. There are no such

locations at or near the Party site, so it is unlikely that these species were exploited from the site. The same can be said about the razorbill which also nests in areas other that those found at the Party site.

The ptarmigan are not marine birds and prefer grassy, more open expanses (Wells 2002). Thus this bird species is an unlikely resource at the Party site since it does not have a suitable topography.

The remainder of species mentioned in Table 3.1 may or may not have been exploited at the Party site. The main reason that these birds may have been in the area would be for the capelin that come ashore in early summer. This easy prey most likely attracted many bird species, as well as other animals to the area. This is further discussed below.

There are other potential avian resources that may have been available at the Party site. These include other varieties of duck, including the black duck (*Anas rubipes)*, and the Canada Goose (*Branta Canadensis)*. Both of these species are available in the Port au Choix region today (Burrows 1989, Chapman 1966). However, the Party site is not known for its modern avian resources in any large number, primarily because there are no suitable nesting and roosting areas in the area of the site.

In conclusion the avian species that may have been available to the residents of the Party site would probably been the eiders and the scoter, or other species that rely on a diet of shellfish or capelin.

Mammal Resources

A variety of marine and terrestrial mammals were found in the faunal assemblages from Phillip's Garden East and West (Wells 2002). The species that may have been available at the Party site are summarized in Table 3.4. Again it is noted when each species may have been available at the site, or when they would have been the most desirable. This is based on migration patterns, environmental conditions and social conditions of the animals.

Table 3.4: Possible mammal resources at the Party site

Scientific Name	**Common Name**	**Season**
Rangifer tarandus	Caribou	Winter (Northcott 1974)
Canis lupus	Wolf	Year round (Forsyth 1985; Wells 2002)
Castor Canadensis	Beaver	Year round (Seton 1974)
Vulpes vulpes	Red fox	Year round (winter) (Northcott 1974; Wells 2002)
Phoca groenladicus	Harp seal	Spring and Fall (Sergeant 1991)
Erignathus barbatus	Bearded seal	Spring and summer (Northcott and Phillips 1976)
Phoca vitulina	Harbor seal	Spring – fall (Northcott and Phillips 1976)
Balaenoptera acutorostrata	Minke whale	Spring and summer (Templeman 1966)

From the above list it is apparent that the Groswater used a number of mammal resources. Although many species are listed, it is the harp seal that outweighs all other recovered faunal material combined from archaeological contexts. Phillip's Garden East and Phillip's Garden West are on the Point Riche headland which is known as a prime

harp seal hunting location, therefore it is no surprise that the harp seal is predominant in their faunal collections.

Of the listed terrestrial mammals, only the caribou is known to congregate in large numbers. Caribou only come to the coast in the winter, a time of dispersal for this animal (Northcott 1974). Thus, only small groups would have been available to hunters directly from the Party site. Other possible land mammals, which are not listed include Arctic fox (*Alopex lagopus*), ermine (*Mustela erminea*), hare (*Lepus arcticus*), lynx (*Lynx lynx*), marten (*Martes Americana*), otter (*Lontra Canadensis*) and polar bear (*Ursus maritimus*). These animals are either solitary or travel and/or live together in small numbers and can be highly mobile. Instead of one species enticing prehistoric occupation it appears the potential variety may have been one draw to the inner coast zone.

Marine mammal availability in the Port au Choix region is noticeably different from the terrestrial mammal availability. Wells (2002:26) states that "the harp seal was by far the most important resource to the Groswater Palaeoekimo economy at Port au Choix." However, these seals are not known to come into sheltered bays like Back Arm. Along with the enormous populations of harp seal that migrate through the waters off Port au Choix, a variety of other seals, walrus and whales were also exploited (Wells 2002). Table 3.4 indicates two possible marine mammals that may have played a role in subsistence at the Party site. First, the bearded seal is known to the shores of Port au Choix in the spring of the year (Northcott and Phillips 1976). It prefers shallow coastal waters and gravel beaches, both are present on the coast of Back Arm.

Second, is the harbor seal (Figure 3.2). This species is common to quiet coves, bays and inlets around Newfoundland including Back Arm. According to Northcott and Phillips (1976), observations from early in the twentieth century indicate that the harbor seal was quite numerous on the beaches at Port au Choix and were easily hunted from

Figure 3.2: Harbor seal *(Phoca vitulina)* Source: Internet 1

late spring to early fall. Harbor seals are also well known to areas where freshwater runs into marine waters. If there was a stream or river near the Party site at the time of Groswater occupation then this increases the likelihood of a harbor seal resource. The harbor seal would make a logical resource for the Groswater to hunt. Groswater hunters' expertise at harp seal hunting, demonstrated at Phillip's Garden East and Phillip's Garden West, may have been applied to harbor and grey seals as well.

Fish Resources

Although Newfoundland is known for its excellent fish resources, only a few cod (*Gadus morhua*) fish bones were found in the faunal collections from Phillip's Garden East and Phillip's Garden West (Wells 2002). However, given the Groswater peoples' knowledge of their environment, and since they do not appear to be overly selective, it is probable that they did extract fish resources at the Party site if they were available. Table 3.5 lists the possible fish resources that may have been available to residents of the Party site from the waters or shoreline of Back Arm. Also included are species that may have been located near the site if there was a freshwater stream near by.

Table 3.5: Possible fish resources at the Party site

Scientific Name	Common Name	Season
Salvelinus alpinus	Arctic char	Spring and Fall (Grant and Lee 2004)
Mallotus villosus	Capelin	June-July (Russel 1970)
Hippoglossus hippoglossus	Atlantic halibut	Summer (Based on capelin availability)
Clupea harengus	Herring	Late Spring (Templeman 1966; Grant and Lee 2004)
Gadus morhua	Cod	Summer (Based on capelin availability)
Salmo salar	Atlantic salmon	May-September (Grant and Lee 2004)
Osmerus mordax	Rainbow smelt	Mid-April – mid-June

Capelin are a small fish that live most of their lives in deep waters but come to shore to spawn in Newfoundland during June and July (Figure 3.3). At this time large numbers can be trapped on shore and are easily gathered. In the early 19th century Rev. Louis Anspach reported the capelin landing as such:

> It is impossible to conceive, much more to describe the splendid appearance, on a beautiful moonlit night, at this time. Then, the cast surface of the Bay is completely covered in myriads of fishes, of various kinds and sizes, all activity engaged, either in pursuing or avoiding each other…the capelins, hurrying away in immense shoals, to seek a refuge on the shore… an easy prey to the women and children (Russel 1970:92).

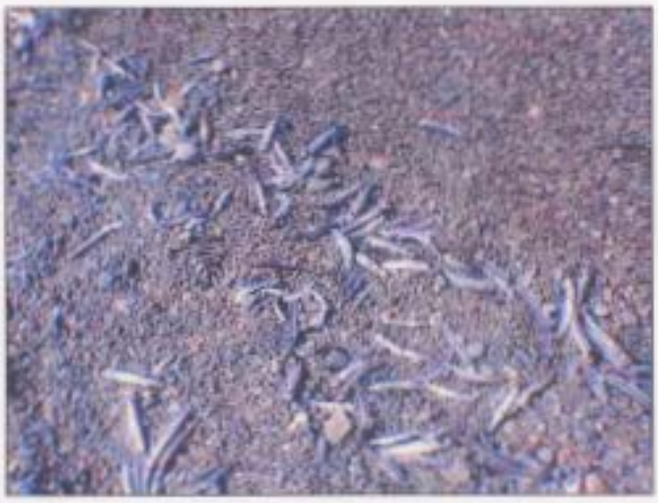


Figure 3.3: Capelin *(Mallotus villous)* washed up on a beach Source: Internet 2

Both historic and modern reports of the capelin spawning season indicate that they come in great numbers for a short time. During this time other prey species come to shorelines and shallower waters in search of capelin for their own consumption. Even deep water fish such as cod are known to "hurl itself clear of the water in mad pursuit of capelin" (Russel 1970:94). Various bird species, marine and terrestrial mammals, as well as other fish could have been taken from a beach where the capelin were spawning. This would create a very lucrative resource area for a group of hunter gatherers, and may have well been exploited by the Groswater. Local residents report that capelin are known to come into Back Arm to spawn so it is conceivable that they may have been in the area throughout prehistory.

Halibut and cod are mostly deep water fish. However, they are known to move into shallow waters in pursuit of prey or to spawn. Spawning usually happens at least 5 m below the surface and even at this depth may not have been available to Groswater fishers. So, it is most likely that if any deep water fish were available at the Party site it would have been at the time when the capelin were coming to shore.

Salmon and smelt may have been occasional visitors to Back Arm or, if there was a healthy stream, they may have used it during their spawning time. If this is the case then the Party Site would have been ideally located to catch these fish as they moved into fresh water in order to lay their eggs.

Mollusk and Crustacean Resources

No species of mollusk or crustaceans have been reported from other sites in the Port au Choix area. However, this is not surprising since the sites on the outer coast are not ideally located for acquiring mollusks or crustaceans, and the other sites located around Back Arm have not reported any faunal preservation. However, Back Arm is quite rich in these resources. Table 3.6 identifies the possible mollusks and crustaceans that may have been available from Party site.

Mussel beds are observable at low tide from the Party site (Figure 3.4). This cold water mollusk is usually found in high numbers in intertidal and shallow waters on rocky shores (Gordon and Weeks 1982). It is an edible species that has been used by prehistoric native populations all along the northeastern coast of North America. Mussels are also well adapted to cold waters and are predictable since they are found in the same

area one year to the next. They also draw other species of animals such as eiders and harbor seals.

Table 3.6: Possible mollusk and crustacean resources at the Party site

Scientific Name	**Common Name**	**Season** (most dependent on open-water)
Mytilus edulis	Common blue mussel	Late spring-early fall (when the ice cover leaves)
Mercenaria mercenaria	Northern quahog	Summer-early fall (Collins 1993)
Mya arenaria	Soft-shell clam	Summer-early fall (Collins 1993)
Littorina littorea	Common periwinkle	Summer (Gordon and Weeks 1982)
Artica islandica	Black clam	Summer (Collins 1993)
Homarus americanus	American Lobster	Late spring-early fall
Cancer irroratus	Common rock crab	Late spring-early fall (Collins 1993)
Pagurus species	Hermit crab	Late spring-early fall (Collins 1993)

Figure 3.4: Mussel beds *(Mytilus edulis)* observable from the Party site
Photo: K. Wheatley

Quahogs and clams (black and soft-shell) are important mollusk resources (Gordon and Weeks 1982, Collins 1993). Both are present in the modern waters off Newfoundland, and the soft-shell clam is harvested by local residents of Port au Choix. The common periwinkle is also an edible variety of mollusk although not very popular in modern diets. It is plentiful to Back Arm shorelines where it is found most often on rocks and seaweed below the high tide mark.

Lobsters are found off coastal areas and are distributed from the Straits of Belle Isle to Cape Hatteras (Squires 1995). According to local residents of Port au Choix lobster could always be taken from Back Arm. Although these decapods were likely to be in water too deep for the Groswater to catch, they would entice other species such as seals, otters and birds to the Back Arm area. Both species of crab that are listed in Table 3.5 are found up to the intertidal zone and therefore could have been gathered by hand.

Summary

There are various faunal species that may have encouraged the Groswater to come to the Back Arm area. Especially noteworthy are the harbor seals, capelin and mussels. These three resources would have provided adequate subsistence for a small group of hunter-gatherers during the warmer season (May-October). All would have been available in the summer, although the capelin would have had a shorter presence of approximately two weeks. Other species may have also been procured at sites along Back Arm, although these would have been more occasional resources.

Although data on resources and seasonality allow hypotheses about the Groswater occupation at the Party site, it is excavation that permits actual inferences on what people were doing at the site. Artifacts, structures, spatial organization, specific location, and dating can account for what resources were being procured and when, and offer deeper insights into various aspects of Groswater life.

Chapter 4

The Excavation

No! those days are gone away,
And their hours are old and gray,
And their minutes buried all
Under the down-trodden pall
Of the leaves of many years
-John Keats

Introduction

This chapter outlines the 2003 excavation at the Party site including the methods, the results from these excavations and the data recovered from the site. However, before detailing the description and analysis of the 2003 excavations, the results of the survey work are briefly summarized. In particular, the survey work done in the clearing is highlighted, because it is close by and on the same terrace as Area 1.

Previous Survey Work

The Clearing

Location

The clearing is an area at the Party site that had been deforested sometime in the recent past. Residents of Port au Choix use the area as a camp, or 'party' spot. Its borders extend approximately 11 m from the path in the south to the cliff's edge in the north, and approximately 15 m east-west. This cutting can be seen on the community maps of the Port au Choix region (Figure 4.1).

Results

During the 1990 survey six units were excavated in the clearing totaling approximately 5 m^2. The location of four of these units were surveyed in 2000 and labeled TP[1]90-01 through TP90-04. The locations of the other two are estimated based on the field maps and notes from 1990. These excavations uncovered a possible Dorset Paleoeskimo and prehistoric Amerindian occupation. Based on the field notes from that

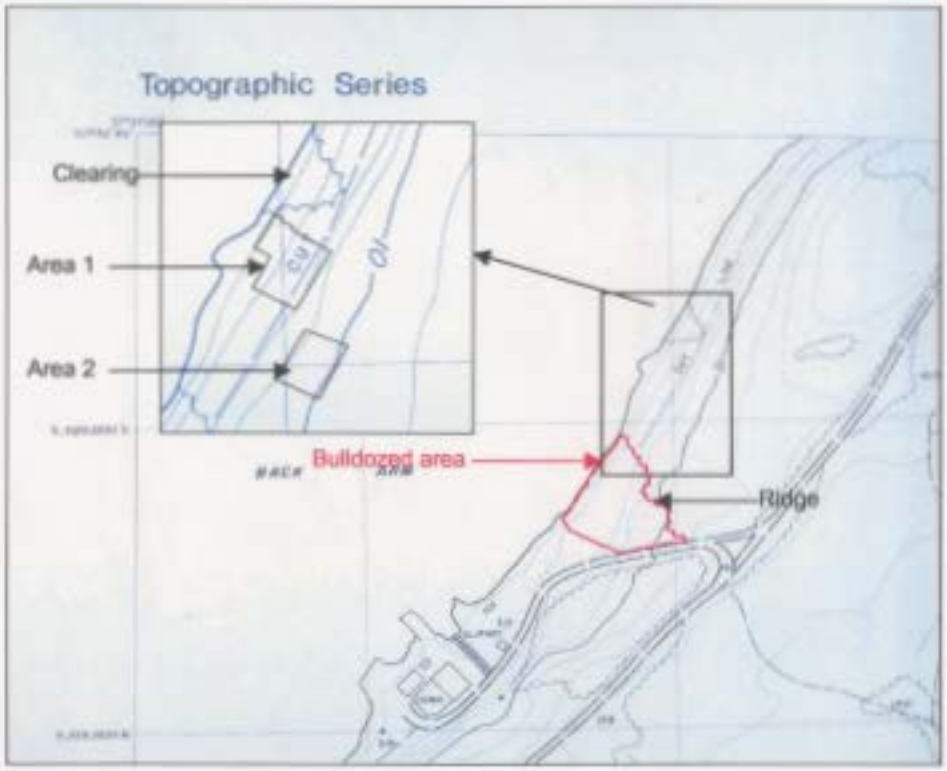


Figure 4.1: Location of the Party site on 1:2500 community map with areas mentioned in text

year, it appears that the Amerindian occupation was below the Paleoeskimo occupation. According to the culture history of the area, this would indicate that the Indian material

[1] TP = test pit

was either Maritime Archaic, or possibly Intermediate Indian. Numerous pieces of debitage were also collected that are described as made from both Cow Head cherts as well as Ramah chert. The only potential feature reported is a possible hearth in TP90-04, which is described as a small pit lined with charcoal. This pit was found in association with a flake end scraper as well as other lithic debitage.

In 2000, a field crew returned to the clearing to continue the survey and excavated three 1 m x 3 m trenches. They also investigated the eroding cliff face and identified two 'test stations' in this area: test station B and test station C. Unlike the previous survey, most of the cultural material excavated in 2000 indicated a primarily Groswater Paleoeskimo occupation at the site. This was based on artifacts and the raw material. One potential feature was identified in TT[2]00-01. It is described as an oval pit with steep walls and a round bottom. Charcoal was found within the pit as well as around it. In addition to this, several flakes and a quartz crystal microblade (EeBi-30:100)[3] were found in the pit.

The last test pit excavated in the clearing was TP01-12, excavated in 2001. This test pit did not reveal any cultural material indicating a possible eastern extent for the site.

[2] TT = test trench
[3] From here on the Borden number (EeBi-30) will be dropped and only the catalogue number will be referenced, e.g. #100

Other Survey Locations

Location

Besides the work done in the clearing, other areas tested include the woods, the bull-dozed area and the ridge between the woods and the bull-dozed area (Figure 4.1).

Results

Eight test pits were excavated in 2000 along the southwestern ridge that borders the woods and the bull-dozed area. There was no cultural material in the first four test pits (TP00-01 – TP00-04). TP00-05 contained a few flakes in the peat, but the majority of the cultural material, lithic debitage and part of a biface (#114) was located under the peat in a black mucky layer over the beach. The debitage is described as mostly flakes of black chert with white specks. TP00-07, located slightly south of TP00-05, produced a large number of flakes and a microblade (#124) in the peat. At the time of excavation, it was noted that there appeared to be two cultural levels in the peat in TP00-07. The first included lithic materials, while the second appeared to include lithics, charcoal and animal hide. The charcoal from this second level is dated to 2570±60 BP (Beta 146666). Finally, TP00-08 had only one cultural level in the peat, and this was identified as the same as the lower peat level in TP00-07. A few flakes, animal hide, charcoal and sporadic occurrences of red ochre were found at the cultural level in TP00-08.

In addition to the eight test pits excavated in 2000, test station A was also investigated. This test station is a section of the bank that is exposed along the

southwestern border of the Party site. A small amount of cultural material was collected here in the level just below the peat.

Twelve test pits were excavated in 2001. Six did not reveal any cultural material (TP01-02, TP01-04, TP01-05, TP01-08, and TP01-10). TP01-03 and TP01-09 were located beside each other and had cultural material in the grey-black level below the peat. TP01-01, TP01-06 and TP01-07 were all located in the woods and had cultural material in the peat. In particular, TP01-06 had a high frequency of artifacts including six microblades, a preform and numerous flakes. Further down the slope, in the woods and closer to the water, TP01-11 also revealed cultural material. However, instead of being in the peat like above, it was located in the compact, black, clay-rich sediment that covered the limestone beach. Test station A was also further investigated and revealed numerous flakes, as well as two fire-cracked rocks and charcoal in the dark grey level over the beach.

2003 Excavation Methodology

Based on the previous survey work, two areas of excavation were opened during the 2003 field season (Renouf 2002; Renouf and Bell 2001, 2002). Both areas were heavily forested and so the first task was to remove the trees and stumps. Site stratigraphy indicated that cultural material was buried under a thick layer of peat (50-70 cm), so the possibility of disturbing the site by the action of removing the trees was assessed as minimal.

First we roughly marked off the areas planned for excavation, and then we identified the trees in the two excavation areas that needed to be removed. Next we cut down the tress with a chainsaw, saw or axe. Then we removed them by hand and later transported them to the beach where we burned them[4]. Once the trees were moved we removed the stumps using a chainsaw and hand saw.

Once the areas were cleared a more definitive excavation area was strung out. Both areas began as 4 m x 5 m squares. A 50 cm baulk was left in place through the middle of the square. The entire area was strung in four quadrants to facilitate digging. A test trench was also excavated in association with Area 1 (TT03-01) and was later joined to the area. A test pit (TP03-02) was excavated in association with Area 2. See Figure 4.2 for a presentation of the two excavation areas.

We chose to use the system of 4 units and a baulk instead of the standard 1m grid units for ease of excavation since the cultural material was overlain by thick peat and 1 m^2 units would have been awkward. This set up was easier to establish and maintain since there were fewer strings and pegs that needed to be considered. This also allowed the excavators more freedom in movement in and around the excavation. In order to maintain the provenience of artifacts and other cultural material a large majority of them were recorded electronically with the total station in order to ensure that all data were provenienced relative to site datum, as well as being collected according to their quadrant unit.

[4] A bonfire permit was obtained.

The areas were first dug by shovel to just above the known cultural level. This was based on a depth below surface recorded by previous survey. Once this was attained the areas were dug by trowel until the cultural level was exposed. At this time all material was surveyed using a total station theodolite. All artifacts, features and other relevant topographical information were surveyed. A large portion of the debitage was also surveyed. A modified version of MapInfo (Excavation Manager) was used to

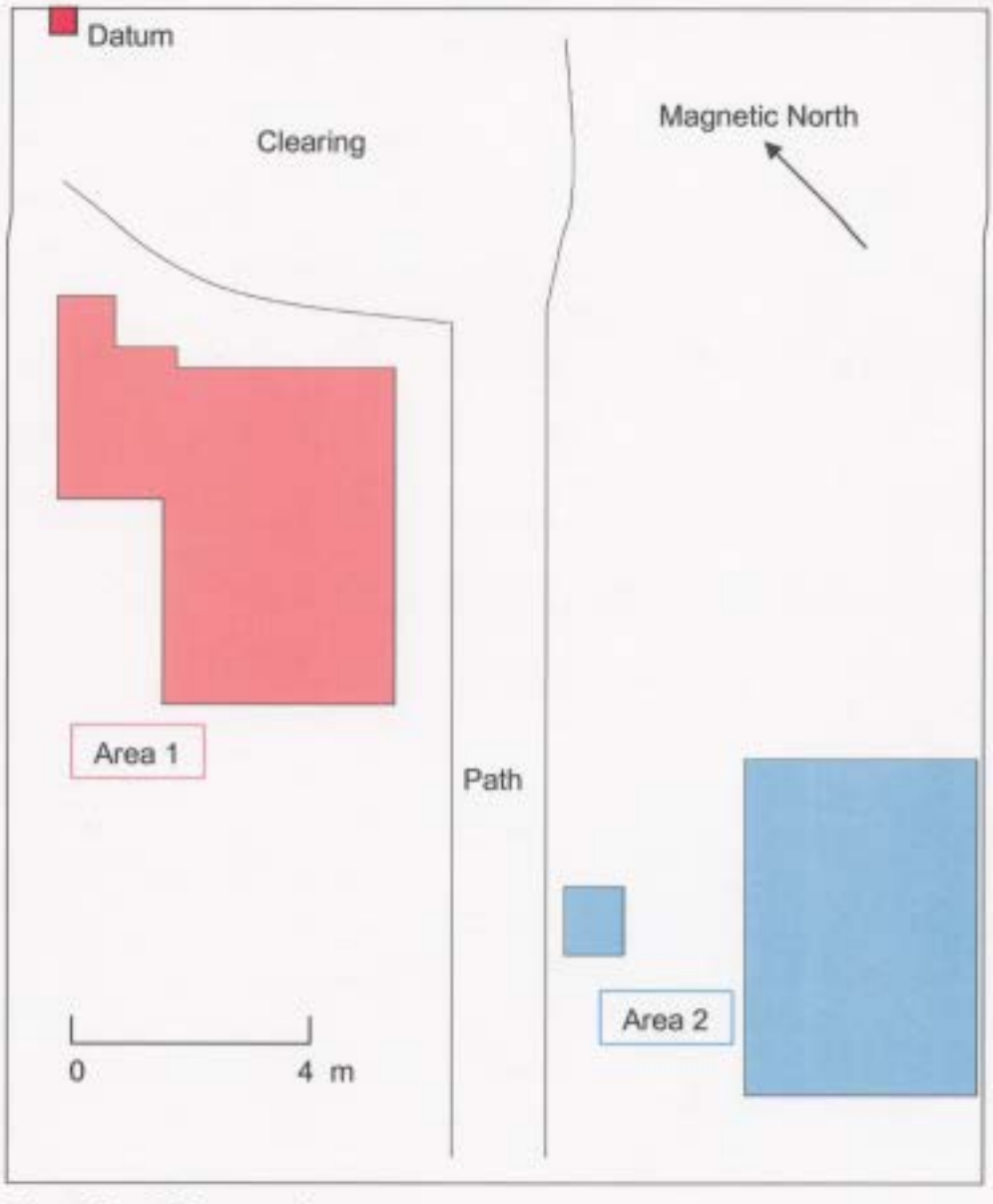


Figure 4.2: 2003 excavation areas

analyze and store the information attained from the survey. We did not screen any of the sediment because most was compact, wet peat that did not sift well through a screen. Since rock is not found naturally in peat, all lithic material found in peat levels was assumed to be cultural and was collected.

2003 Excavation

The location, results and stratigraphy of each area is discussed separately.

Area 1

Location

Area 1 (Figure 4.3) is on the 4-6 m above sea level terrace. From the edge of this terrace, the ground slopes sharply down to a rocky beach. This slope is in the process of eroding, exposing artifacts and flakes. There is a small clearing approximately 2 m east of the area and there is a path to the south. The path roughly follows the 6 m contour interval and runs through the entire site bisecting it into an upper and lower terrace. Numerous test pits and test trenches were excavated in the clearing during the 1990 and 2000 field seasons (see above).

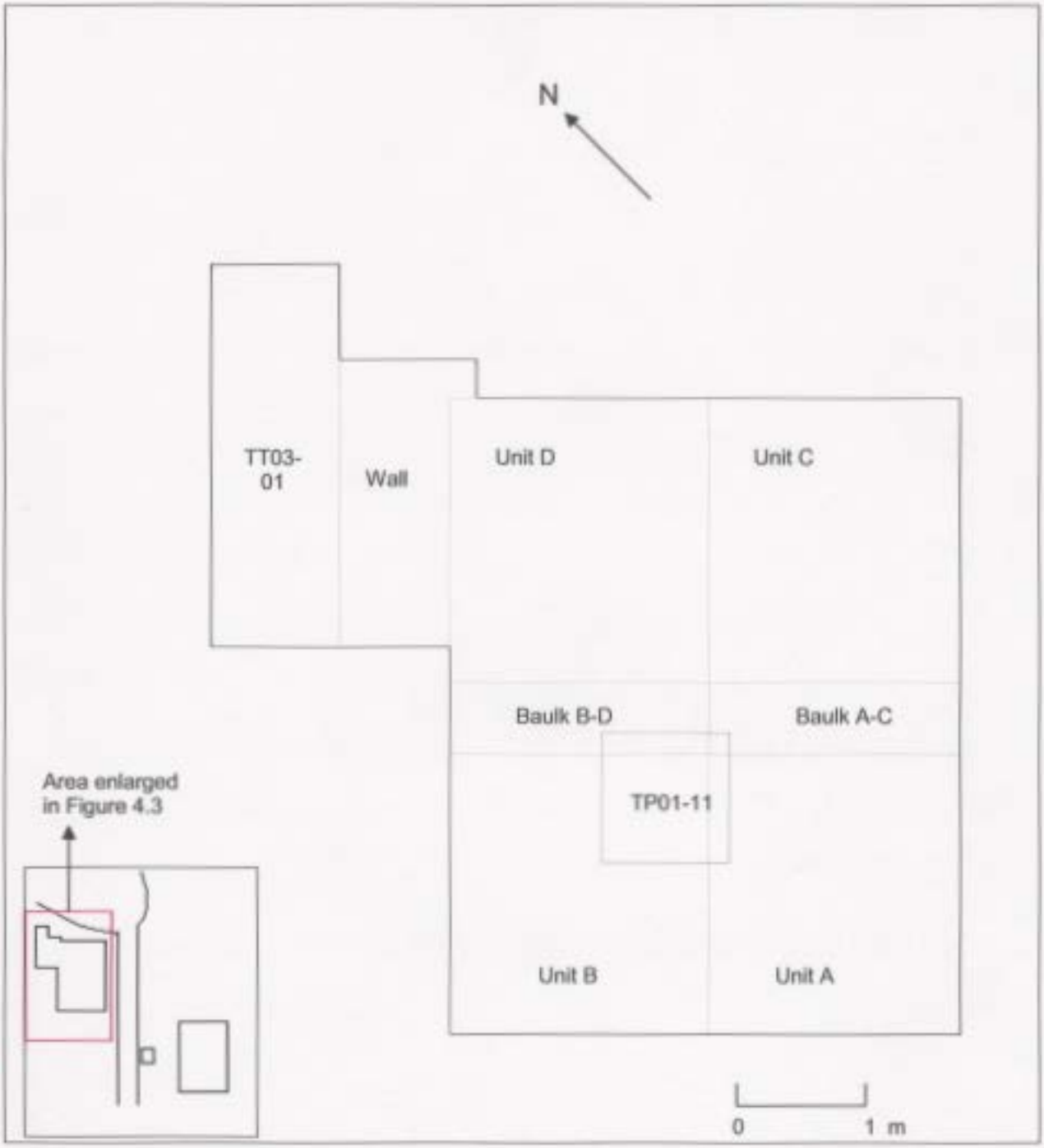


Figure 4.3: Layout of Area 1

Results

The 2003 season at the Party site commenced with the excavation of Area 1. In order to interpret the horizontal distribution of data across the site, the excavation area

was dug down simultaneously in 2-4 cm increments. The first aim of this excavation was to understand the cultural activity uncovered in a 2001 test pit (TP01-11). By opening a larger area at one time, it was hoped that a better view of any possible activity could be seen.

Results include the location of lithic artifacts and associated debitage, charcoal samples, and two features. One of these features (Feature 1), a hearth or burning area, is dated to 2710 ± 40 BP (Beta 183603).

Feature 1: This is a hearth or burning area, found in the wall between Unit D and Test Trench 03-01 (Figure 6). It is comprised of a ¾ circle of rocks, many of which show the effects of fire (Figure 4.4 and 4.5). A significant amount of charcoal was also found in association. Very few flakes were found within the borders of the hearth. A Groswater chipped and ground chert burin-like tool rested directly on top of one of the hearth stones. Although the majority of the hearth rocks were granitic, three small limestone rocks and one large limestone rock also appeared to have been part of the hearth. Two other large limestone rocks were found nearby. Small amounts of red ochre were found at the hearth's northeastern border.

Figure 4.4: Feature 1

Feature 2: This is a flake concentration located 3 m to the west of Feature 1. It is located at the northwestern border of Unit A, throughout most of Unit B and extends into the Unit B's western and northern walls (Figure 4.6). It is comprised of over 3000 flakes, which is approximately three quarters of the total flakes found in Area 1. The majority of the flakes are small (>1 cm). A small number of artifacts was also located in this feature as well as charcoal, and a small number of small fire cracked rocks.

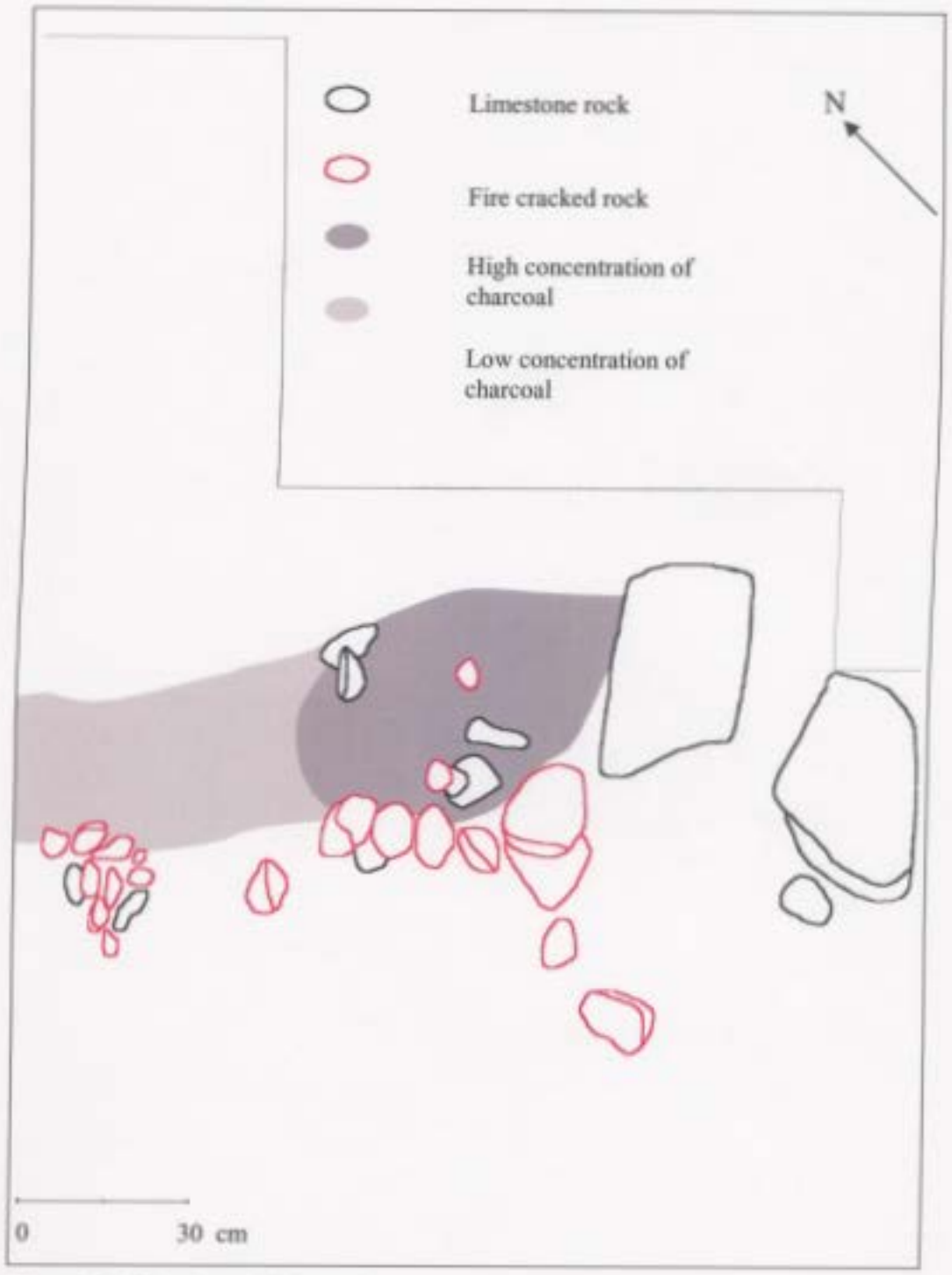


Figure 4.5: Plan view of Feature 1

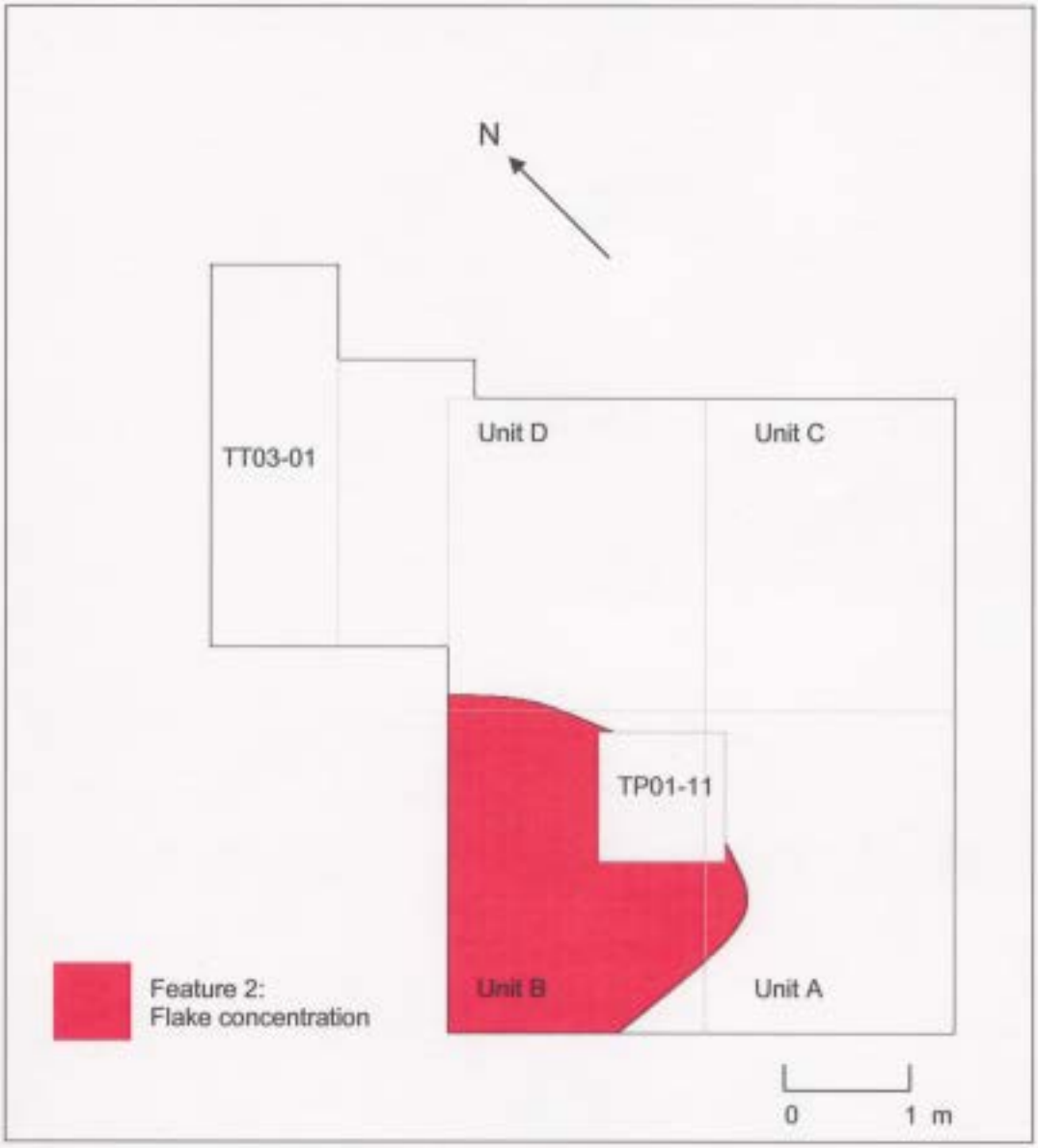


Figure 4.6: Location of Feature 2

Stratigraphy

In previous field notes, the site is reported to have various strata according to both natural and cultural formation processes. In particular the varying densities of peat were considered separate natural layers. For the 2003 excavations, the stratigraphy at Area 1

and Area 2 are considered separately. Area 1 is interpreted as having three different levels (Figure 4.7).

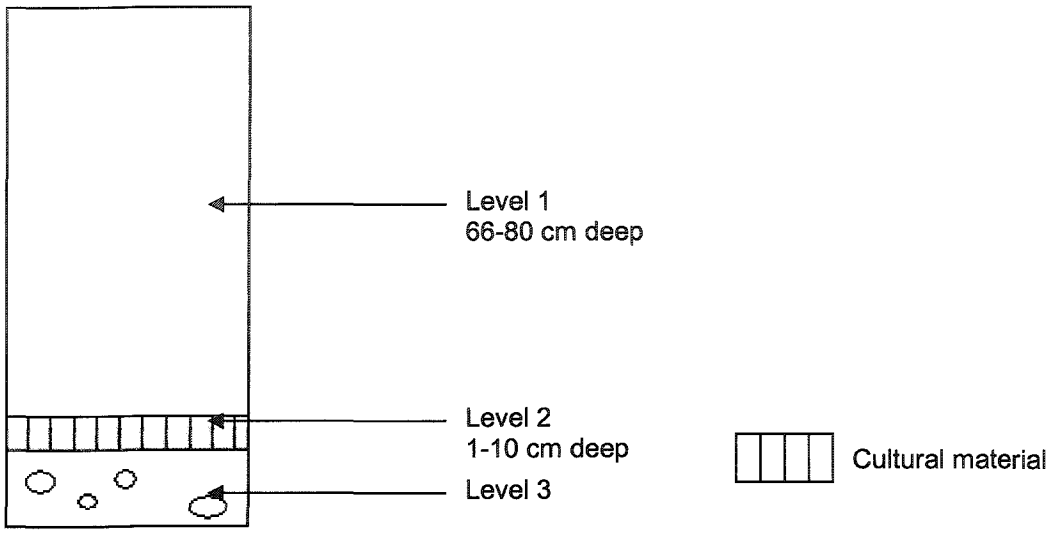


Figure 4.7: Area 1 stratigraphy

Level 1 is the uppermost level. It is composed of surface litter and a thick layer of peat (66-80 cm) that overlies the cultural deposits. The peat goes from loose and crumbly in the upper 30 cm to compact to very compact at 80 cm. The color also changes from a lighter red-brown to a darker brown the deeper the sediment is located and the more compact the sediment becomes. There are also orange stains throughout the level which are due to decomposing organic matter such as roots. The only rock particles found in this level are small sand particles that most likely were brought up by root or insect action. Insects were noted by small amounts of exoskeletal remains. There were also

scattered amounts of charcoal throughout level 1. However, no cultural material was found associated with it.

Level 2 is primarily identified by the presence of cultural material including flakes and other debitage, lithic artifacts, fire cracked rock and features. It is found in a band that ranges from 1-10 cm and covers the entire area. The majority of level 2 is associated with thick, dark grey, clay-like sediment, which is continuous throughout the entire area. All of this sediment is considered to be part of level 2. Flakes were also found in the very compact peat just above the clay-like sediment, as well as on the underlying limestone beach. Due to the presence of cultural material, these sediments are also considered part of level 2.

Level 3 is the limestone beach under the cultural level and has no cultural material associated with it. The majority of the rocks are between 1 and 6 cm in diameter. A small number of rocks are not limestone and may be associated with the cultural activity of level 2. There are many holes and ridges throughout this level which are natural areas where water sinks down and runs off (Renouf 2003 personal communication).

Area 2

Location

Area 2 is on the 6-8 terrace, 5 m southeast of Area 1. It is located approximately 3 m to the south of the path and 15 m southeast of the small clearing (Figure 4.8). See Figure 4.9 for the spatial layout of Area 2. Seven meters to the west of Area 2 is a large

deforested, bull-dozed area where much of the land has been disturbed in recent times. Most of this disturbance is from locals acquiring peat for their gardens.

Results

Like Area 1, Area 2 was excavated based on information from previous survey work. A test 2001 pit (TP01-06) revealed numerous artifacts, flakes and a fire-cracked rock. In addition a 1m x 1m test pit (TP03-02) was put in approximately 2 m northwest of the area excavation.

Finds from the area excavation include numerous artifacts and associated debitage, charcoal samples, fire-cracked rock and three features (Feature 3 - 5). Feature 3 is a flake concentration with many associated artifacts. Feature 4 is a midden and is dated to 2460 ± 70 BP (Beta 183604). Feature 5 is a hearth.

Results from the test pit (TP03-02) include minimal cultural material. However, although the test pit did have the same stratigraphy as the rest of Area 2, at the base there were very large (>50 cm^3) limestone rocks. This is unlike any other geological structure found in the area or on the site and it is unclear as to how it relates to the cultural material and occupation at the site.

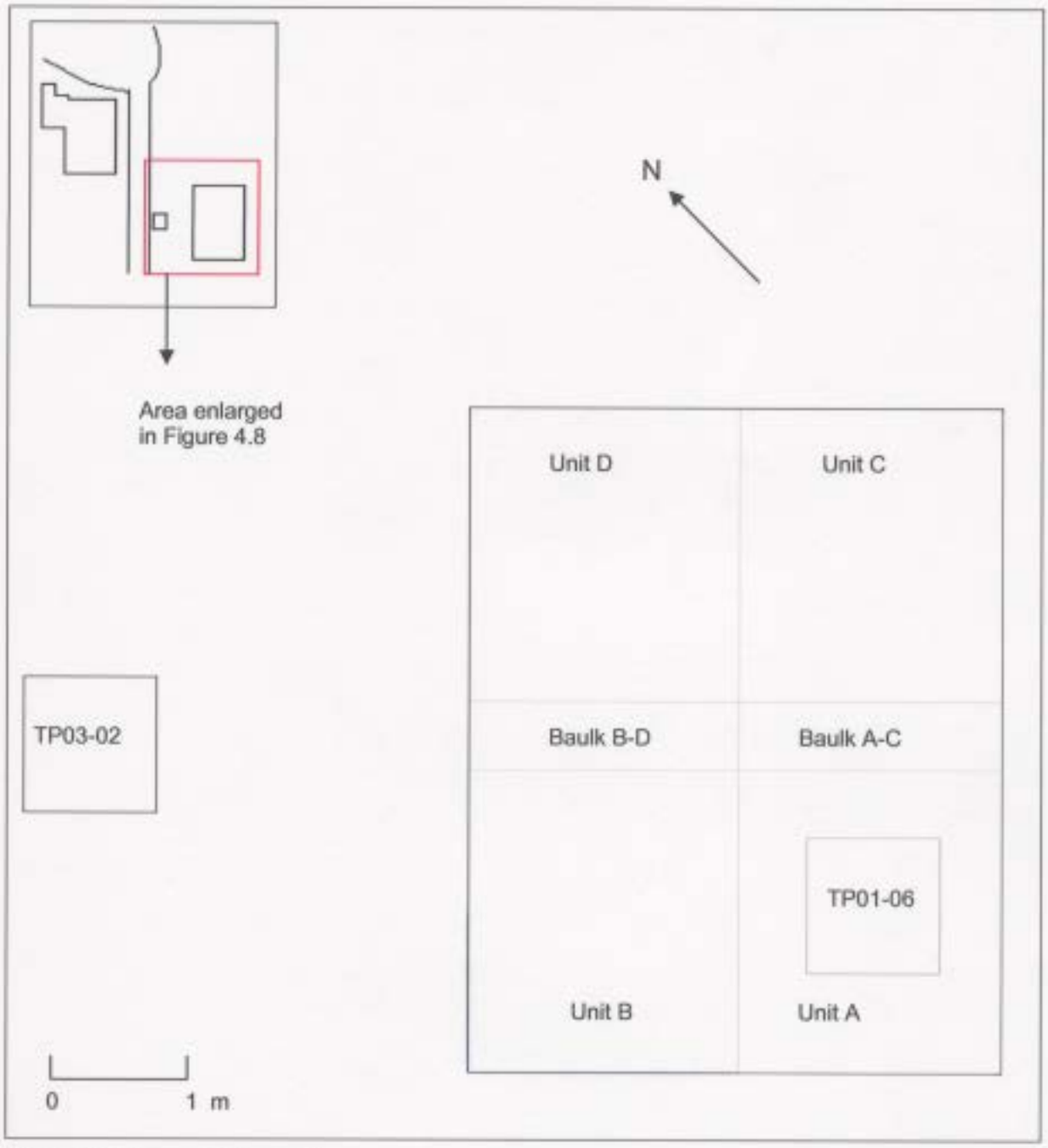


Figure 4.8: Layout of Area 2

Feature 3: This is a flake concentration located predominantly in the baulk between Units A and C and in Unit C along the baulk's wall (Figure 4.9). Compared to the rest of Area 2, a large amount of lithic debitage was recovered from here. This was evident while excavation was underway, as well as from the total station analysis, which showed

more flakes in this region. Microblades, a microblade core, endblades, a burin-like tool, red ochre and a small amount of charcoal were also uncovered within the confines of this feature.

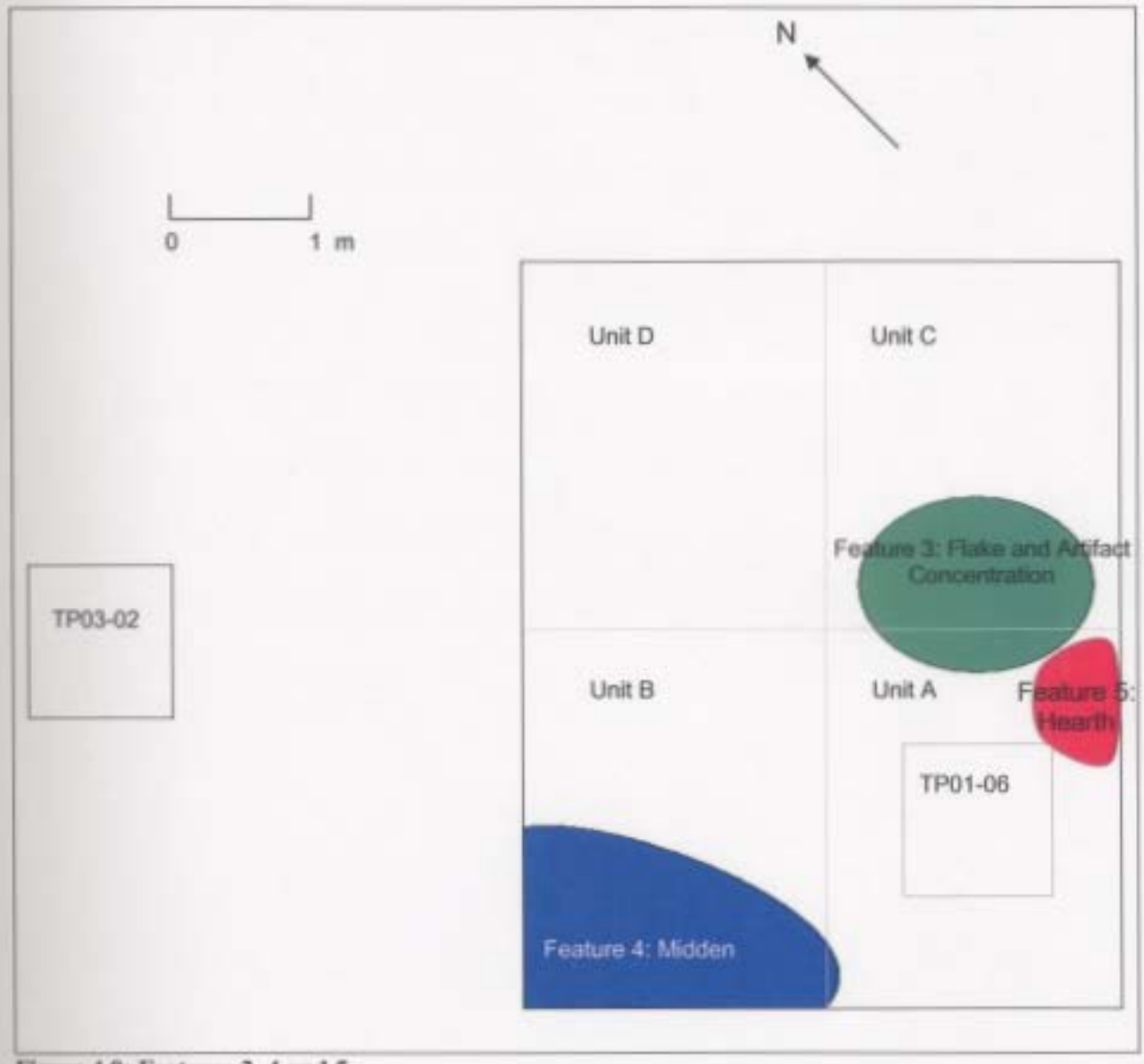


Figure 4.9: Features 3, 4 and 5

Feature 4: This is a midden in Unit B (Figure 4.9). It continues into both the northwest and southwest walls and can be seen in profile along both walls. It has been designated a midden on the basis of its high concentration of debitage, including flakes from various

stages of lithic reduction; broken tools; incomplete tools; a high concentration of fire-cracked rock with no apparent spatial pattern; a high concentration of charcoal; and a sediment matrix that differs in both color and texture from all other sediments found in Area 2. It is most likely not a hearth, or other burning area, since the cherts that were recovered show little or no heat treatment. Nor was it a lithic reduction area since the amounts of both charcoal and fire-cracked rocks found within the feature. All materials were intermixed and the midden itself shows no independent stratigraphy.

Feature 5: This is a hearth feature in Unit A and the baulk between Units A and C (Figure 4.9). It also continues into the southeastern wall and can be seen in profile. The hearth is composed of a rough circle of fire cracked rocks and charcoal. Flakes were within the confines of the hearth, although the flake density within the hearth is less than outside the hearth. No artifacts were in the hearth, and no sediment change was evident, except for the higher levels of charcoal present.

Stratigraphy

Area 2 has a similar stratigraphy to Area 1 in that it has three natural strata and one cultural level. The three natural strata are the same as Area 1: a peat level, a dark grey clay-like sediment, and the limestone beach. As noted above, the cultural material from Area 1 is found in the dark grey clay-like sediment. Area 2 differs in that the cultural material is found predominantly in the peat in all cases except for Feature 3 which has its own localized sediment matrix (Figure 4.10). Since the two areas are

separated by a region that has not been excavated, the strata from Area 2 are labeled independently from those of Area 1. Area 2 has 5 levels labeled 4, 5, 5a, 6 and 7. These labels continue the sequential numbering began in Area 1.

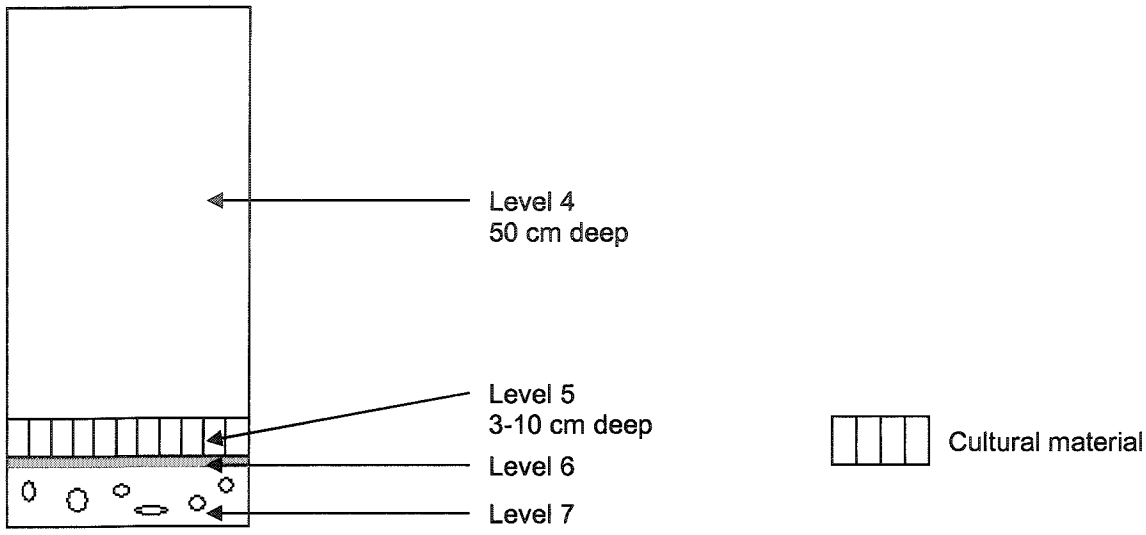


Figure 4.10: Area 2 stratigraphy

Level 4 is the top level. The uppermost part of this level is surface forest litter. Below this is peat that begins as loose poorly humified sediment with various natural inclusions including roots, trees and stumps. The peat becomes denser, darker and more compact the further down it is located. There continues to be remnants of roots and trees and these are marked by orange stains in the brown peat. This level is approximately 50 cm thick although this varies depending on the amount of localized peat build up.

Level 5 is the cultural level. It begins approximately 50 cm below ground surface, although this can range from 50-60 cm below ground surface over the entire area. The level itself is between 3 cm and 10 cm thick. With the exception of the midden

(Level 5a) all of this level is found in medium to compact dark brown peat. At this depth there continues to be numerous roots present. Level 5a is comprised of the midden (Feature 4) and is differentiated by its sediment which is significantly darker and leaves a dark stain on the hands when handled. Cultural material and residue found at Levels 5 and 5a include artifacts, flakes, red ochre, charcoal and fire-cracked rocks.

Levels 6 and 7 are both void of cultural material. Level 6 is a thin dark grey clay-like sediment that covers the limestone beach. Level 7 is the limestone beach. The beach is composed of degrading limestone rocks that are generally small (2-5 cm in diameter).

Artifact Description and Analysis

Survey

This section outlines the artifacts recovered from the survey work at the Party site during the 1990, 2000 and 2001 field seasons. The only exceptions are the artifacts found in TP01-06 and TP01-11. Since these two test pits are located directly within the boundaries of Area 1 and Area 2, they are presented in the 2003 Excavation section below. The survey artifacts are presented in table form according to the year they were excavated. All attempts are made to present the provenience for each artifact. All artifacts were photographed and are presented in Figures 4.11-17 at the end of this section.

1990

Catalogue Number	Artifact Class	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)
TP90-01					
EeBi-30:2	Microblade	26.95	11.38	2.17	0.9
TP90-03					
EeBi-30:11	Biface		28.18	5.89	8.7
TP90-04					
EeBi-30:26	Scraper		22.57	3.21	1.5
TP90-05					
EeBi-30:10	Microblade	12.63	6.90	1.54	0.1
EeBi-30:17	Microblade		8.53	2.43	0.5
EeBi-30:43	Microblade		11.38	3.03	0.7
Beach Slope (Test Station B or C)					
EeBi-30:39	Indian Biface		27.44	11.74	4.4
The Clearing (exact provenience unknown)					
EeBi-30:7	Dorset Endblade	31.05	17.31	3.80	1.6
EeBi-30:6	Microblade	25.38	9.88	3.64	1.0
EeBi-30:25	Microblade	27.83	8.86	1.99	0.7
EeBi-30:29	Microblade		10.64	1.77	0.4
EeBi-30:9	Biface Preform		25.33	6.49	5.3
EeBi-30:15	Biface Preform		28.11	10.52	10.9
EeBi-30:5	Tip Flute Spall	29.31	11.86	2.10	0.7

Blanks indicate the data was unable to be obtained.

2000

Catalogue Number	Artifact Class	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)
TT00-01					
EeBi-30:55	Endblade	29.74	10.04	4.30	1.2
EeBi-30:63	Biface		19.77	4.65	4.2
EeBi-30:80	Blade		19.29	3.13	0.9
EeBi-30:93	Microblade	25.34	7.09	2.29	0.5
EeBi-30:100	Microblade	19.33	8.61	2.67	0.4
EeBi-30:103	Microblade		9.87	2.68	1.0
EeBi-30:104	Microblade		4.06	0.7	0.1
EeBi-30:106	Microblade	15.75	7.00	2.03	0.2
EeBi-30:91	Core Fragment	46.90	14.97	13.53	12.4
EeBi:30-76	Biface Preform			5.08	0.6
EeBi-30:98	Biface Preform			6.84	4.3
EeBi-30:79	Scraper	14.62	14.66	3.63	0.8
EeBi-30:107	Scraper	39.41	27.41	7.91	10.2
EeBi-30:95	Ground Slate Tool Fragment			4.19	1.8
TT00-02					
EeBi-30:73	Endblade	28.82	13.74	3.24	1.5
EeBi-30:84	Knife		32.83	5.11	10.6
EeBi-30:69	Microblade	15.86	4.76	1.21	0.1
EeBi-30:56	Retouched Flake	57.17	31.95	5.12	8.5
TP00-05					
EeBi-30:124	Microblade	40.77	0.51	3.94	1.0
EeBi-30:140	Microblade		9.06	3.03	0.5
EeBi-30:114	Biface Preform			8.98	3.8
West Bank (Test Station A)					
EeBi-30:51	Biface		26.16	4.83	3.8
EeBi-30:128	Scraper	16.77	20.78	4.34	1.6
EeBi-30:119	Core Fragment	48.19	22.32	17.40	19.7
EeBi-30:129	Microblade Core	54.08	18.78	16.35	20.8
EeBi-30:131	Core Fragment	52.85	27.83	15.61	27.3
EeBi-30:131a	Core Fragment	66.64	46.77	27.43	104.6

Blanks indicate the data was unable to be obtained.

2001

Catalogue Number	Artifact Class	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)
TP01-01					
EeBi-30:157	Endblade	44.49	11.84	3.83	2.2
TP01-07					
EeBi-30:141	Endblade	22.60	9.36	2.25	0.4
EeBi-30:142	Microblade	49.81	13.84	3.74	2.0
EeBi-30:143	Microblade	43.20	13.84	3.74	1.7

Figures 4.11-17: Photos of artifacts from survey

1. EeBi-30:84
2. *EeBi-30:11*
3. EeBi-30:63
4. EeBi-30:39
5. EeBi-30:51

Figure 4.11: Bifaces from survey

Figure 4.12: Core fragments from survey

1. EeBi-30:131a
2. EeBi-30:129
3. EeBi-30:131
4. EeBi-30:119
5. EeBi-30:91

Figure 4.13: Preforms from survey

1. EeBi-30:117
2. EeBi-30:15
3. EeBi-30: 114
4. EeBi-30:98
5. EeBi-30:9

Figure 4.14: Microblades/blades from survey

1. EeBi-30:142
2. EeBi-30:124
3. EeBi-30:143
4. EeBi-30:2
5. EeBi-30:103
6. EeBi-30:93
7. EeBi-30:106
8. EeBi-30:100
9. EeBi-30:25
10. EeBi-30:43
11. EeBi-30:29
12. EeBi-30:140
13. EeBi-30:6
14. EeBi-30:17
15. EeBi-30:80

1. EeBi-30:107
2. EeBi-30:128
3. EeBi-30:26
4. EeBi-30:79

Figure 4.15: Scrapers from survey

Figure 4.16: Endblades from survey

1. EeBi-30:55
2. EeBi-30:157
3. EeBi-30:73
4. EeBi-30:141

Figure 4.17: Dorset artifacts from survey

1. EeBi-30:5
2. EeBi-30:7

2003 Excavation

The following section details the artifacts (tool forms and lithic debitage) excavated during the 2003 field season. The entire collection consists of lithic remains only; no organic material was recovered from the site. Each artifact type is introduced and then the data are presented by area (Area 1, Area 2). Figures 4.19 and 4.20 indicate the location of artifact types found in each area from the 2003 excavation. Only the artifacts identified in the field are included in these figures. Artifacts from TP01-06 are considered part of Area 2 and artifacts from TP01-11 are included in Area 1.

Awl

Awls are classified based on their function to produce holes in an item, such as cloth or skin. In order for this function to be performed part of the artifact must come to an elongated point. Awls, in Groswater contexts, are made on organic materials such as antler and bone, or stone such as chert.

Figure 4.18: Awl from 2003 excavation.

One potential awl (#201) was found in Area 1 (Figure 4.18). It is made from a light brown beige chert. It has a roughly rectangular base with one side forming a point. It may have been reworked from a biface. It does not have much fine flaking and because of this appears expedient.

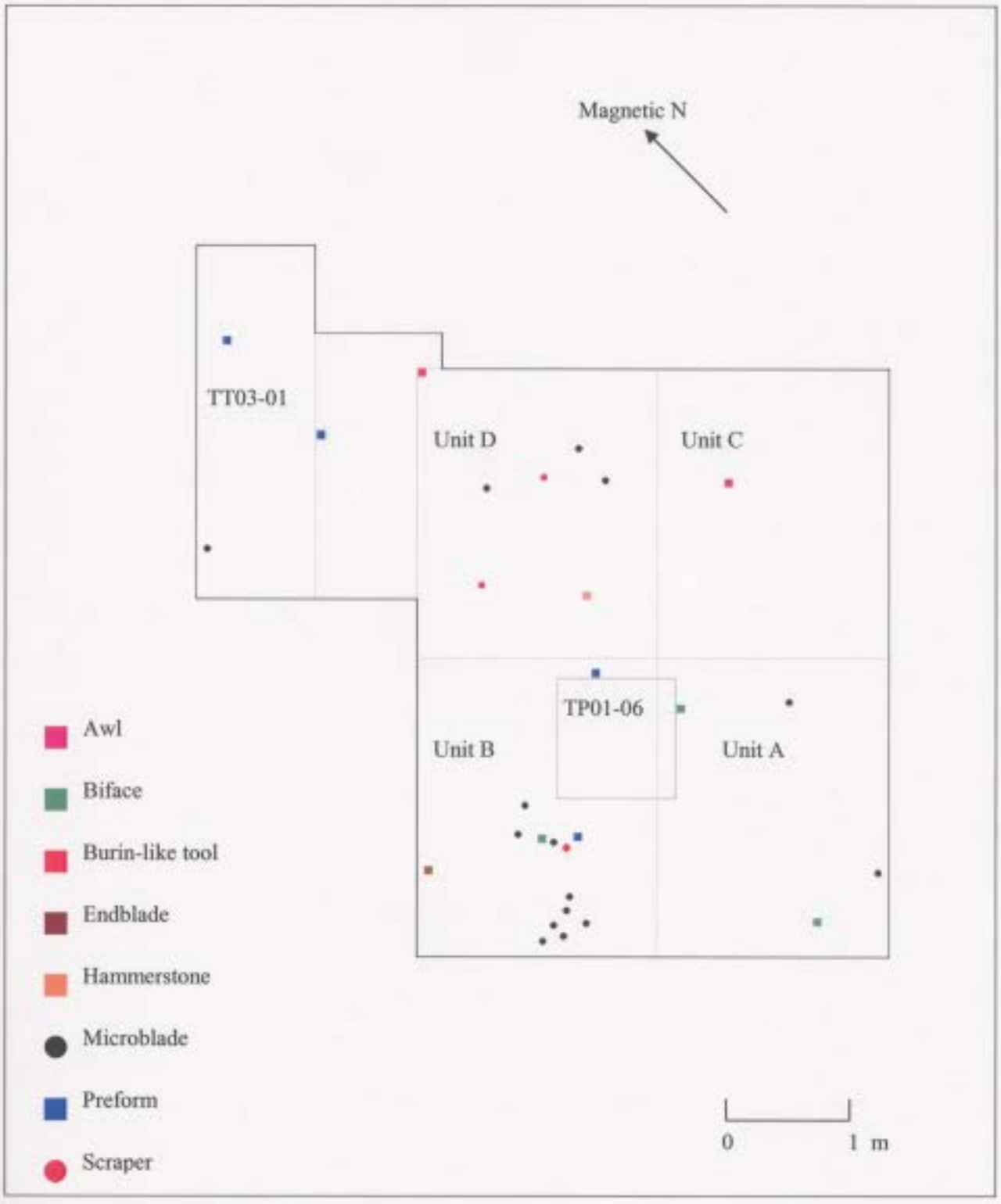


Figure 4.19: Artifact distribution for Area 1

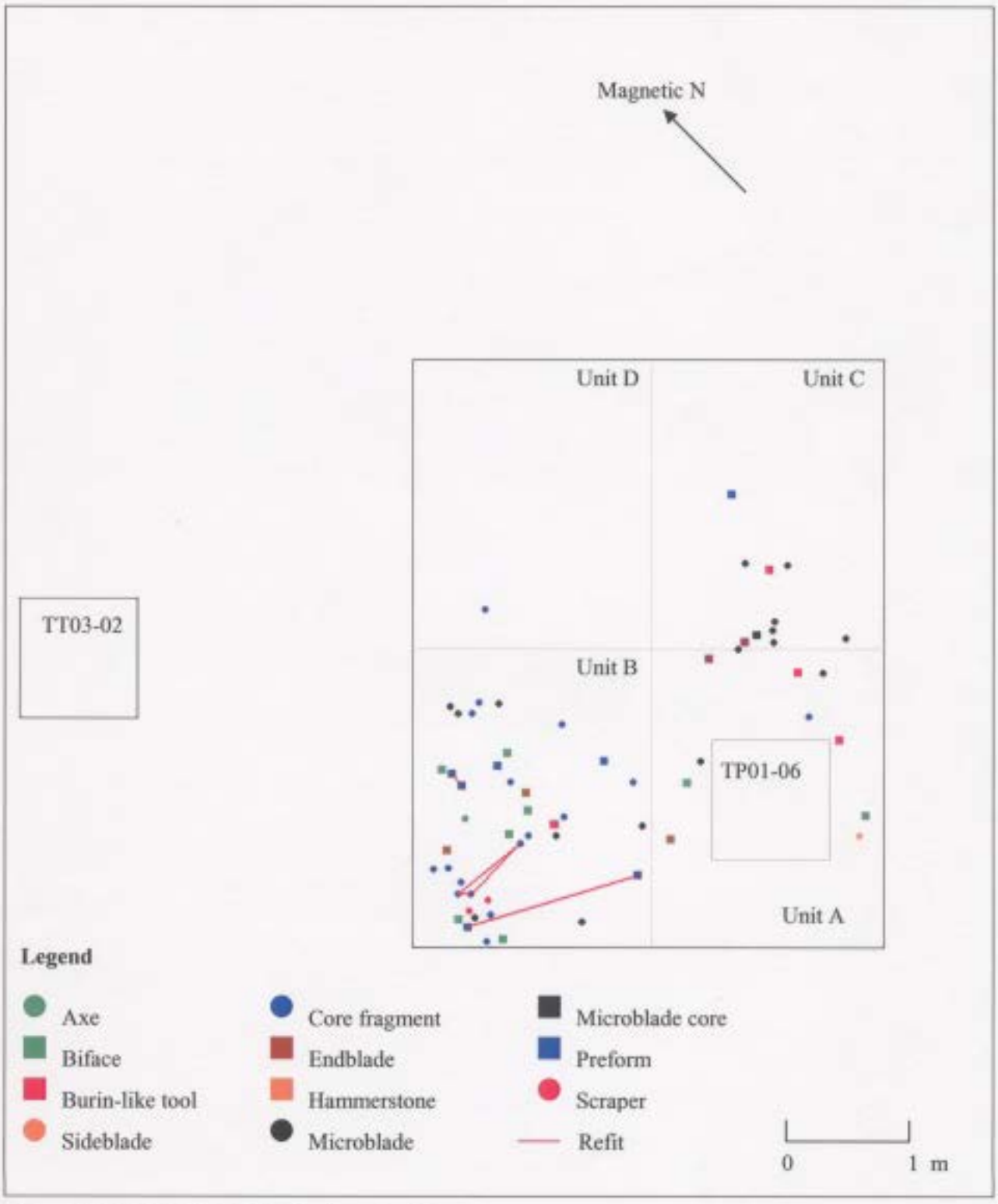


Figure 4.20: Artifact distribution for Area 2

Adze

One adze segment (#326) was found in Area 2 (Figure 4.21). It is made from brown slate that has been ground and polished. It has a bifacially beveled working edge. Based on its beveled edge and its surface treatment this artifact has been designated an adze. Grinding and polishing an adze is logical since if the tool has a smoother surface it offers less resistance so it can penetrate deeper into the material that is being worked (i.e. wood) (Kooyman 2002:11).

Figure 4.21: Adze from 2003 excavation

Bifacially worked tools and bifaces

Generally speaking bifaces are tools that have been bifacially worked. More specific to Groswater archaeological collections, bifaces are considered to be cutting tools. Bifacially worked tools that perform other functions such as piercing are usually specifically labeled such as 'spear-point' or 'projectile-point'. Groswater collections rarely have spear-point as an artifact class, although this does not mean the Groswater did not have spears, they just have not been recognized. This thesis maintains the use of the term 'biface' to refer to cutting tools, although other functions are possible.

LeBlanc (1996:49) describes the various stages in lithic reduction for Groswater biface production. Her reduction process follows four steps. The first step involves removing larger flakes using direct hard hammer percussion. Step two continues the direct hard hammer percussion, but the flakes are becoming smaller and the biface is

becoming thinner. Step three involves the beginning of pressure flaking, while by step four pressure flaking is exclusive. In Groswater tool assemblages the process of bifacial reduction will often involve removing flakes perpendicular to the side of the tool. This results in parallel flake scars along the edge of the tool.

Biface: knife

In the case of the subclassification 'knife', the biface must show distinct morphological traits including one straight side and one concave side.

One complete knife (#217) was recovered from Area 1 (Figure 4.22 #1). It is made on a light beige chert with a small number of radiolaria. It has two wide notches at the base indicating it was hafted. All biface measurements for Area 1 are summarized in Table 4.1.

Two knives were found in Area 2 (Figure 4.22 #2-3). One (#303) is broken and the distal portion was the only section recovered. It is made on a brown and beige chert and radiolaria are present. It has one straight side and one concave side which come to a sharp point at the distal end. The other (#329) is a nearly complete artifact with only a small amount broken off at both the extreme distal and proximal ends. It is made of light and dark grey banded chert and has the knife qualities of one straight side and one concave side. This knife has one side notch on each side approximately 4mm from the base. It was found in the midden (Feature 3) which is dated to 2460 ± 70 BP (Beta 183604). All biface measurements from Area 2 are summarized in Table 4.2.

Table 4.1: Biface attributes from Area 1

Artifact Number	Element	Number of notches	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)
EeBi-30:217	complete	2	82.94	24.36	5.94	12.8
EeBi-30:222	tip	unknown			2.39	0.1
EeBi-30:241	base	0		22.32	3.33	4.5
EeBi-30:244	unknown	unknown		30.19	7.08	9.3
Average				**25.62**	**4.69**	**26.7 (total)**

Blanks indicate the data was unable to be determined

Table 4.2: Biface attributes from Area 2

Artifact Number	Element	Number of notches	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)
EeBi-30:288	Tip	unknown			4.13	5.8
EeBi-30:289	Tip	unknown			3.85	4.0
EeBi-30:292	Tip	unknown			3.40	1.7
EeBi-30:303	Tip	unknown		20.70	3.71	2.5
EeBi-30:329	Complete	2	58.88	23.22	3.75	6.2
EeBi-30:338	Base	2		29.93	5.60	8.7
EeBi-30:344	Base	0		37.14	7.57	14.7
EeBi-30:348	Unknown	1?		28.40	3.85	6.1
EeBi-30:376	Tip	unknown			1.7	0.1
Average			**58.88**	**27.88**	**4.17**	**49.8 (total)**

Blanks indicate the data was unable to be determined

Biface: ground tool

Again, biface refers to a tool type that has been bifacially worked on both sides. However, in this case a significant amount of grinding is present. Many ground tools, such as adzes and burin-like tools are ground so they may cut into wood, stone and bone more easily. It may be that these ground bifaces served a similar function.

The basal portion of an almost fully ground biface (#241) was recovered from Area 1 (Figure 4.22 #4). It is made on a high quality semi-translucent chert. Grinding is present on both the ventral and dorsal surface.

Biface: other

All remaining bifaces are considered 'other'.

Two segments of other bifaces were recovered from Area 1. One (#257) is the distal end of either a knife or an endblade, of a semi-translucent grey chert (Figure 4.22 #6). The other (#244) is an undetermined tool form (Figure 4.22 #5). It is asymmetrical and is broken at one end. It is made of a beige chert and appears to have a slight amount of grinding near the unbroken end on one side.

Seven other bifaces were recovered from Area 2. They are listed in the order they were found. Of these, no two are alike in shape or raw material. The first (#288) is made on a darker grey-blue and light beige chert, heavy with radiolarian (Figure 4.22 #9). The distal end comes to a sharp point and the base has broken off, thus it is unsure if notches were present. The second (#289) is of grey chert with lines of beige chert running throughout the grey matrix in many different directions (Figure 4.22 #12). Radiolaria are

also present. One end is rounded and the other has broken off. Again it is not evident whether or not notches were present. The third (#292) is of grey and red-brown chert

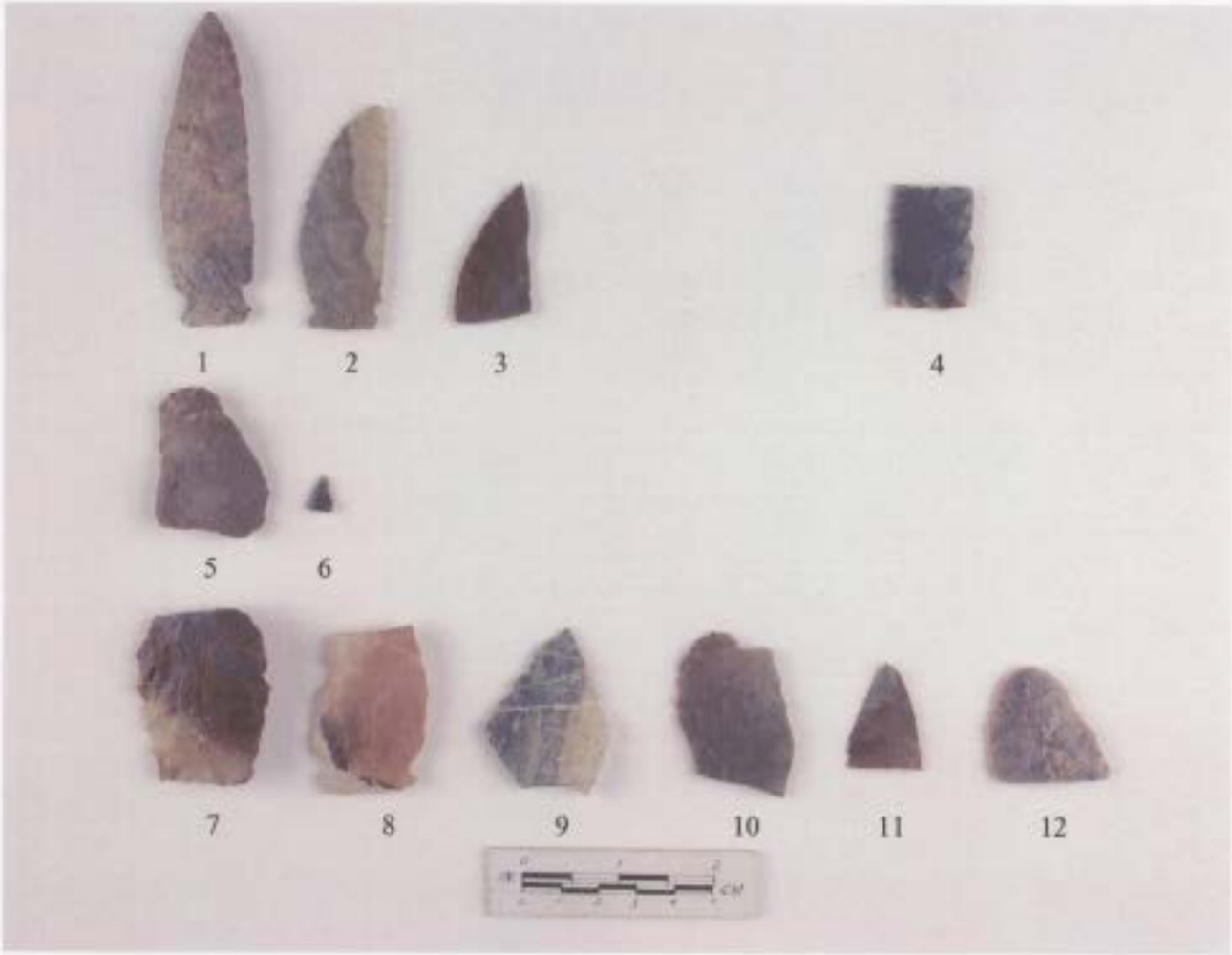


Figure 4.22: Bifaces from 2003 Excavation

1.EeBi-30:217
2. EeBi-30:329
3. EeBi-30:303
4. EeBi-30:241
5. EeBi-30:244
6. EeBi-30:257
7. EeBi-30:344
8. EeBi-30:338
9. EeBi-30:288
10. EeBi-30:348
11. EeBi-30:292
12. EeBi-30:289

(Figure 4.22 #11). It resembles the distal end of an endblade, only it is most likely too large to be an endblade. It has a plano-convex transverse cross section and comes to a sharp point and is flat on the dorsal surface. The presence of notches cannot be

determined. The fourth (#338) is of pink-brown and white chert with a small sliver of red and grey translucent running down one corner (Figure 4.22 #8). It has one notch on each side approximately 5.5mm from the base. It appears to be asymmetrical and is missing its distal end. The fifth (#344) is made on a red and grey/pink and brown chert and may actually be a biface preform (Figure 4.22 #7). It appears to be symmetrical with no notches and its distal end is missing. The sixth #348 is made from grey chert with many radiolaria present (Figure 4.22 #10). It has a 'mitten' shape and is broken off at one end. The indent that creates the mitten appearance may by a notch, but it is uncertain. Lastly (#376) one biface tip was identified after excavation. It is made from a grey and beige chert and has a biconvex cross-section.

Endblade

Endblades are tools that are bifacially worked and thus follow many 'biface' traits. In the case of Groswater endblades, they are usually made on a flake and it may only be the tip that is bifacially worked. Surface treatment can include a variable amount of grinding, although this trait is not a required element for a tool to be considered an endblade. They are considered a separate artifact class due to their function as hunting tools. For the most part, endblades were used to tip the end of a harpoon.

Endblades from Groswater sites have been well described in the literature (Auger 1985, 1986; Fitzhugh 1972; Kennett 1990; LeBlanc 1996, 2000; Loring and Cox 1986; Pintal 1994; Renouf 1994, in press). Generally speaking these researchers characterize Groswater endblades as having plano-convex cross sections, side notches and straight

unifacially beveled bases. Side notches are made by a combination of chipping and grinding and show variability in both their width and depth. Base height, which is the measurement from the base of the endblade to the base of the notch, is characterized as

Figure 4.23: Endblades from 2003 excavation

1. EeBi-30:253
2. EeBi-30:342
3. EeBi-30:296
4. EeBi-30:286
5. EeBi-30:300
6. EeBi-30:353

either low or high. Generally speaking, an average base height of 8.5mm is considered high, while 4.5mm is considered low (Auger 1985; Kennett 1990)

One distal end of an endblade (#253) was recovered from Area 1 (Figure 4.23 #1). Measurements are summarized in Table 4.3. It is made from a high quality dark

brown/black chert. The flaking technique resulted in parallel flake scars running along both sides of the tool on both the ventral and dorsal surfaces. Since there is no base present, notch and base attributes are unknown. Instead of a plano-convex cross-section, it has a bi-convex cross-section. Although this is not the typical cross-section, Kennett (1990) observes many endblades (29 of 149) in her collection at Phillip's Garden East with a bi-convex cross-section.

Table 4.3: Endblade attributes from Area 1

Artifact Number	Element	Number of notches	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)	Box Height (mm)
EeBi-30:253	Tip			10.98	4.46	1.0	

Blanks indicate that data was unable to be determined

Five endblades were found in Area 2 (Table 4.4; Figure 4.23, bottom row). Four (#286, 300, 342, 353) are made from similar grey cherts with light beige bands and radiolaria are present. The other (#296) is made from a comparable chert but is more brown-grey than grey and radiolaria are present. The four that have a base present (# 286, 296, 300, 342) all have a boxed-base, two lateral basal notches, high base heights and a unifacially beveled base. The most proximal edge of the base in this sample has two shapes including a straight base (#296, 342), a straight base with one tang (# 286, 300). In the case of the tangs, they are on opposite corners. All of the endblades have plano-convex cross-sections.

Table 4.4: Endblade attributes from Area 2

Artifact Number	Element	Number of notches	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)	Base Height (mm)
EeBi-30:286	base	2		19.77	4.19	2.2	9.37
EeBi-30:296	complete*	2	32.29	18.12	4.15	2.8	9.26
EeBi-30:300	base	2		17.22	3.90	1.2	9.13
EeBi-30:342	complete	2	34.24	16.23	4.06	2.4	9.64
EeBi-30:353	tip				3.61	0.8	
Average			**33.27**	**17.84**	**3.98**	**9.4 (total)**	**9.35**

*- small amount of distal end not present
Blanks indicate the data was unable to be determined

Burin-like tool

Burin-like tools are another tool class that is manufactured using bifacial reduction. However, these tools were made with the specific purpose of working bone, antler and other such materials. Due to this function various attributes make burin-like tools distinctive.

The manufacturing process of burin-like tools is useful for gaining insight into the morphology of the tool. Auger (1985) and Kennett (1990) describe this process well, and it is reiterated here. Once a burin-like tool had been chipped to its intentional shape, it was ground. In order to achieve the shape, the tool was further chipped and/or ground. The amount of grinding on each tool is variable, and may cover only a portion ofthe tool or the entire surface. Every burin-like tool has two distinctive edges. The thicker edge is assumed to be the back edge which would have rested against the wall of the haft. The

opposite edge, the working edge, is thinner and bifacially beveled. The distal end often shows a similar bevel and forms a sharp corner where it meets the working edge. Burin-like tools are grouped in four different shapes: rectangular, triangular, angle-tipped and windswept (Auger 1985). These shapes do not appear to indicate a different function.

One chipped and ground burin-like tool (#271) was recovered from Area 1 (Table 4.5; Figure 4.24 #1). It is nearly fully ground on both sides and has two notches at the base. It is triangular and asymmetrical. It was found directly on top of one of the rocks from Feature 1, dated to 2710 ± 40 BP (Beta 183603).

Figure 4.24: Burin-like Tools from 2003 excavation

1. EeBi-30:217
2. EeBi-30:308
3. EeBi-30:317
4. EeBi-30:347
5. EeBi-30:374
6. EeBi-30:294

Table 4.5: Burin-like tool attributes from Area 1

Artifact Number	Element	Number of notches	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)
EeBi-30:271	complete	2	17.81	13.84	2.76	0.9

Blanks indicate the data was unable to be determined

Five burin-like tools were recovered from Area 2 (Table 4.6). These are presented in the order that they were excavated. The first (#294) is fully ground with very little chipping evident (Figure 4.24 #6). It is made on a red and grey chert and the distal end has a rectilinear shape while the proximal end is missing. The second (#308) is also fully ground, but has more chipping along the sides (Figure 4.24 #2). It is made of grey chert with lines of beige chert running throughout the grey matrix in many different directions.

Table 4.6: Burin-like tool attributes from Area 2

Artifact Number	Element	Number of notches	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)
EeBi-30:294	Tip	unknown			2.98	2.3
EeBi-30:308	Medial	unknown			3.41	3.2
EeBi-30:317	Base	2		19.22	3.18	1.8
EeBi-30:347	Base	0		24.50	5.30	7.0
EeBi-30:374	Medial	unknown		18.26	3.85	3.2
Average				20.66	3.74	17.5 (total)

Blanks indicate the data was unable to be determined

Radiolaria are also present. The third (#317) is made on the same grey chert as #308 (Figure 4.24 #3). Only the base is present but a small amount of grinding can be seen. Two notches are also present. Unusually, as opposed to the notches being on the side of the artifact they are located at the corners of the base. The fourth (#347) is made of grey chert with radiolaria present (Figure 4.24 #4). It is a rectangle and is most likely the base of the tool based on the pattern of grinding. It is both ground and chipped and its transverse cross-section is thinned at one end. The last burin-like tool, (#374) has been refitted from five separate pieces found in the midden (Feature 4) (Figure 4.24 #5). It is nearly fully ground on one side and only slightly on the other. It is made on a red and grey chert similar to #294.

Microblade/blade

Microblades/blades are long, narrow flakes removed from a specialized core. In general, blades are defined as having generally parallel sides and being relatively thin (ventral-dorsal). When these blades are less than 5 cm long and/or 1cm wide they are considered microblades (Kooyman 2000).

Following Kooyman's definition (2000), 4 blades and 14 microblades were recovered from Area 1 (Table 4.7; Figure 4.25). They were made from both quartz crystal as well as chert. It is worth noting that this is the only artifact class that includes tools made of quartz crystal. Due to the small overall number of blades and microblades, and their probable similar function, they are considered together here. Three show signs of edge retouch and only one has been modified for hafting. All microblades/blades were

examined under a low power microscope and 13 show signs of use wear based on small angular flake scars on one or both edges of the blade.

Area 2 has 11 microblades and 5 blades (Table 4.8; Figure 4.26). As with Area 1, all blades and microblades are considered together. All of the microblades/blades were of chert except one microblade (#351) that was made from quartz crystal. EeBi-30:355 is most likely a blade that was taken off the core in order to prepare the core for further microblade manufacture, also known as a core-preparation flake. This would account for its larger size. Six microblades were found in the earlier test pit (TP01-06) (Table 9; Figure 4.26 top row).

Figure 4.25: Microblades/blades from Area 1

1. EeBi-30:265
2. EeBi-30:255
3. EeBi-30:266
4. EeBi-30:270
5. EeBi-30:274
6. EeBi-30:361
7. EeBi-30:214
8. EeBi-30:236
9. EeBi-30:216
10. EeBi-30:209
11. EeBi-30:263
12. EeBi-30:234
13. EeBi-30:245
14. EeBi-30:206
15. EeBi-30:239
16. EeBi-30:269
17. EeBi-30:196
18. EeBi-30:224

Table 4.7: Microblade/blade attributes from Area 1

Artifact Number	Raw material or chert type	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)	Edge use or retouch
EeBi-30:196	Grey-green translucent		8.33	2.33	0.7	Yes
EeBi-30:206	Grey translucent and white; rl	41.23	13.51	3.13	1.6	Yes
EeBi-30:209	Pink; rl		11.67	2.93	0.4	No
EeBi-30:214	Quartz crystal	11.19	3.94	1.25	0.1	No
EeBi-30:216	Grey translucent and beige cortex		11.97	2.41	0.3	Yes
EeBi-30:224	Light brown and grey; rl		7.65	1.98	0.4	Yes
EeBi-30:234	Light grey; rl		6.86	1.46	0.1	No
EeBi-30:236	Grey-brown fuzzy translucent	24.60	7.93	2.03	0.2	No
EeBi-30:239	Grey translucent and grey; rl	39.74	9.77	3.05	0.9	Yes
EeBi-30:245	Beige; rl		19.25	4.68	3.4	Yes
EeBi-30:255	Quartz crystal	17.47	10.06	2.25	0.3	Yes
EeBi-30:260	Quartz crystal		5.87	1.46	0.1	Yes
EeBi-30:263	Grey translucent		4.83	1.48	0.1	No
EeBi-30:265	Quartz crystal	23.07	4.85	0.86	0.1	Yes
EeBi-30:266	Quartz crystal	17.57	5.57	1.74	0.2	Yes
EeBi-30:269	Grey translucent; rl		9.61	2.35	0.6	Yes
EeBi-30:270	Quartz crystal		5.55	3.04	0.2	Yes
EeBi-30:274	Quartz crystal	15.80	7.44	1.47	0.2	Yes
Average		**23.83**	**8.59**	**2.22**	**9.9 (total)**	

Blanks indicate the data was unable to be determined rl –radiolaria present in cortex

Table 4.8: Microblade/blade attributes from Area 2

Artifact Number	Raw material or chert type	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)	Edge use or retouch
EeBi-30:293	Grey and pink-brown banded; rl	28.76	8.08	1.07	0.4	No
EeBi-30:299	Grey and some beige; rl	42.11	14.01	4.70	2.2	No
EeBi-30:304	Grey and beige banded; rl		8.16	2.59	0.8	Yes
EeBi-30:305	Pink-brown; rl		8.95	2.59	0.3	No
EeBi-30:306	Grey and pink-brown banded; rl			2.39	0.9	No
EeBi-30:312	Grey and beige banded; rl		9.63	4.28	0.7	No
EeBi-30:314	Grey and pink-brown banded; rl		11.96	2.22	0.7	No
EeBi-30:316	Pink-brown; rl		11.47	3.18	1.1	No
EeBi-30:320	Grey and beige banded; rl		7.47	3.02	0.3	No
EeBi-30:324	Grey and beige banded; rl		8.74	2.37	0.5	No
EeBi-30:351	Quartz crystal	13.77	4.46	1.05	<0.1	No
EeBi-30:352	Grey and beige banded; rl		8.45	3.29	0.7	No
EeBi-30:354	Red-brown-grey; rl	20.37	10.64	2.86	0.5	No
EeBi-30:355	Pink and grey; rl	58.52	19.39	6.32	5.4	No
EeBi-30:359	Grey and beige banded; rl		13.87	4.30	1.9	No
EeBi-30:360	Grey and red; rl	32.36	8.13	3.17	0.6	No
Average		**32.65**	**10.23**	**3.01**	**17.0 (total)**	

Blanks indicate the data was unable to be determined
rl –radiolaria in cortex

Table 4.9: Microblade/blade attributes from TP01-06

Artifact Number	Raw material or chert type	Length (mm)	Width (mm)	Thickness (mm)	Mass (g)	Edge use or retouch
EeBi-30:135	Light beige and some grey; rl		7.88	1.52	0.4	No
EeBi-30:147	Light grey and pink; rl	12.44	4.88	0.87	0.1	No
EeBi-30:148	Red and grey; rl	30.60	7.73	2.26	0.6	No
EeBi-30:149	Grey and beige banded; rl	36.11	11.78	2.21	0.8	No
EeBi-30:150	Grey beige banded; rl		12.27	4.09	1.9	No
EeBi-30:159	Grey and beige banded; rl	41.78	13.69	4.23	2.3	No
Average		**30.23**	**9.71**	**2.53**	**6.1 (total)**	

Blanks indicate the data was unable to be determined
rl –radiolaria in cortex

1. EeBi-30:150 2. EeBi-30:159
3. EeBi-30:149 4. EeBi-30:148
5. EeBi-30:135 6. EeBi-30:147

7. EeBi-30:314 8. EeBi-30:324
9. EeBi-30:293 10. EeBi-30:360
11. EeBi-30:312 12. EeBi-30:354
13. EeBi-30:351 14. EeBi-30:305
15. EeBi-30:320

16. EeBi-30:355
17. EeBi-30:299 18. EeBi-30:316
19. EeBi-30:359 20. EeBi-30:304
21. EeBi-30:306 22. EeBi-30:352

Figure 4.26: Microblades/blades from Area 2 and TP01-06 (top row)

Core fragments

Cores are "any large piece of lithic material from which a flake or flakes have been removed" (Kooyman 2000:14). Cores are not the primary tool of intent and are a byproduct of tool manufacture. Core fragments are cores that appear to have been broken, or have become so small they no longer function as cores.

Table 4.10: Core fragment attributes from Area 1

Artifact Number	Raw material or chert type	Cortex present	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
EeBi-30:362	Light beige	Yes	44.07	22.52	13.25	12.6
EeBi-30:363	Light beige	No	44.62	16.35	14.64	11.4
EeBi-30:364	Light beige and grey	No	47.42	36.50	1.57	26.7
EeBi-30:365	Light beige and grey	Yes	62.71	32.9	14.03	21.9
EeBi-30:366	Medium beige and grey	No	56.72	41.86	13.67	28.1
EeBi-30:367	Brown and Black	Yes	43.00	35.26	14.56	17.9
Average			**49.76**	**30.90**	**11.95**	**118.6 (total)**

1. EeBi-30:367
2. EeBi-30:362
3. EeBi-30:363

4. EeBi-30:366
5. EeBi-30:365
6 EeBi-30:364

Figure 4.27: Core fragments from Area 1

Six core fragments were found in Area 1 (Table 4.10; Figure 4.27). All were recovered from the northern half of the area in units B and D, as well as in the baulk between these two units.

Area 2 has 17 core fragments (Table 4.11; Figure 4.28). One of these fragments has been refitted from three separate pieces (#340, 341, 346). This is called 'refit 1'. All core fragments were found in Unit B, either in the midden or nearby. The only exception is one core fragment found in the baulk between Units B and D.

Figure 4.28: Core fragments from Area 2

1. EeBi-30:373
2. EeBi-30:369
3. EeBi-30:368
4. EeBi-30:343
5. EeBi-30:370
6. EeBi-30:336
7. EeBi-30:350
8. EeBi-30:297
9. EeBi-30:307
10. EeBi-30:345
11. EeBi-30:349
12. EeBi-30:330
13. EeBi-30:318
14. EeBi-30:refit 1
15. EeBi-30:290
16. EeBi-30:331
17. EeBi-30:309

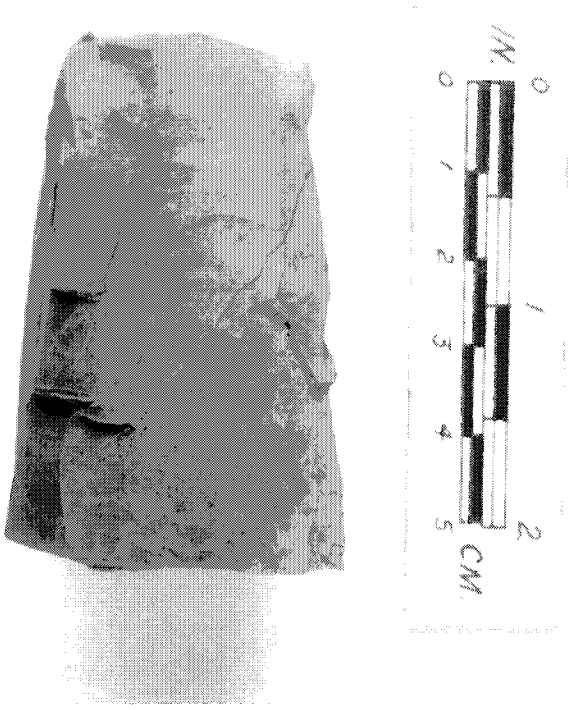
Table 4.11: Core fragment attributes from Area 2

Artifact Number	Raw material or chert type	Cortex present	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
EeBi-30:290	Red and grey; rl	Yes	58.83	28.18	21.02	32.5
EeBi-30:297	White	No	31.40	28.01	12.99	7.9
EeBi-30:307	Grey	Yes	38.16	35.45	13.10	21.2
EeBi-30:309	Red and grey; rl	No	57.62	41.28	16.53	28.4
EeBi-30:318	Grey and beige; rl	Yes	65.01	69.32	19.99	82.0
EeBi-30:330	Grey and beige; rl	No	54.84	39.60	11.55	27.5
EeBi-30:331	Red and grey; rl	Yes	48.10	39.56	13.66	37.7
EeBi-30:333	Grey-brown, rl	No	37.41	32.11	12.94	16.4
EeBi-30:343	Red and grey; rl	Yes	44.87	22.11	17.38	13.3
EeBi-30:345	Grey; rl	Yes	39.20	33.39	8.34	13.1
EeBi-30:349	Red and grey; rl	Yes	46.08	16.86	12.95	8.7
EeBi-30:350	Red and grey; rl	Yes	57.22	20.02	12.55	13.7
EeBi-30:368	Red and grey; rl	No	34.06	24.78	13.35	7.6
EeBi-30:369	Red and grey; rl	No	33.07	31.67	9.29	11.1
EeBi-30:370	Light brown and black	No	40.99	33.7	5.62	9.2
EeBi-30:373	Grey and red; rl	Yes	37.60	26.31	10.07	8.7
Refit 1	Pink and brown; rl	No	75.93	41.85	15.90	39.0
Average			**47.08**	**33.19**	**13.37**	**378 (total)**

rl –radiolaria present in matrix

Core: Microblade

A microblade core is a specialized core prepared to remove microblades. Long parallel flake scars normally run up and down this type of core, with striking platforms at one or both ends.



One microblade core was found in Area 2 (Figure 4.29). It is 54.87mm high and has a mass of 110.4g. Numerous microblades appear to have been taken off this core based on the flake scars. It is composed of white and grey chert with radiolaria present.

Figure 4.29: Microblade core from 2003 excavation

Preform

A preform is an artifact that has been modified in some fashion, but has not reached the final stages of manufacture (Kooyman 2000). Various stages of preforms exist along the tool making continuum. In the case of the bifacial reduction outlined above, there would be different stages of bifacial preforms. Thus a preform can appear very preliminary, or very near completion. If the type of tool that was ultimately going to be produced from the preform can be determined then the tool type is specified.

Five artifacts from Area 1 are designated preforms (Table 4.12). All have been bifacially worked. Two of the five (#240, 262) are similar in form, although they appear to represent two stages of bifacial reduction. Both were also found in close proximity to Feature 1. The first (#262) is made on light beige and has a rounded end (Figure 4.30 #4). The other end is broken off. The second similar artifact (#240) is made on dark black chert and is thinner than the previous artifact, indicating a later stage in reduction (Figure 4.30 #5). Again it is rounded at one end and is broken at the other. The rest of the preforms are discussed in the order they were excavated. The third preform (#256) is an edge piece with a small amount of base (Figure 4.30 #2). Based on its size and bifacial reduction, it appears to have been intended to be a biface of some form. It is made on a blue-grey and light grey chert. The fourth preform (#257) is the distal end of a potential biface made from grey chert (Figure 4.30 #3). The fifth (#264) is an edge piece from what was most likely intended to be a biface of some form (Figure 4.30 #1). Again, this conclusion is based on the bifacial reduction present on its edge, as well as its size and shape. It is made on brown chert.

Table 4.12: Preform attributes from Area 1 and TP01-11

Artifact Number	Cortex present	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
EeBi-30:240	No		34.12	8.07	10.6
EeBi-30:256	No			6.09	4.3
EeBi-30:257	No			4.14	1.0
EeBi-30:262	No		46.23	10.82	25.5
EeBi-30:264	No			4.23	1.9
EeBi-30:170	No		32.92	4.31	3.1
Average			**40.18**	**6.67**	**46.4 (total)**

Blanks indicate the data was unable to be determined
rl –radiolaria present in matrix

1. EeBi-30:264
2. EeBi-30:256
3. EeBi-30:257

4. EeBi-30:262
5. EeBi-30:240
6. EeBi-30:170 (from TP01-11)

Figure 4.30: Preforms from Area 1 and TP01-11

Nine preforms are identified in Area 2 (Table 4.13). Two are refitted together from two pieces found in the Area (#295, 298 and #302, 328), these preforms are referred to as 'refit 2' and 'refit 3' respectively. Two of the preforms (#321 and 'refit 2') appear to have been cores that were reduced down so that the exhausted core could be further developed into a tool (Figure 4.31 #1, 2). It is unclear what type of tool these preforms were intended to be.

Three of the preforms (#285, 372 and 'refit 3') are long and roughly rectangular in shape (Figure 4.32 #1-3). One of the longer edges is tapered while the other has a steep edge to facilitate a certain type of flaking. This flaking technique involves removing long thin flake from across the entire ventral and dorsal surface. This flaking also appears to have been done to intentionally thin the one edge. It is suggested here that these may be burin-like tool preforms. This is because they have the same transverse

cross-section, a thinning 'working' edge as finished burin like tools and the flaking technique may facilitate grinding which is a Groswater burin-like tool attribute (Rast 2004, personal communication). One side of 'refit 3' is almost flat which may also aid grinding.

The final three preforms appear to be nearly finished bifaces of some sort. They have been thinned and shaped, but appear to have broken at some time during the final stages of manufacture (Figure 4.31 #3-5).

Table 4.13: Preform attributes from Area 2

Artifact Number	Raw material or chert type	Cortex present	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
EeBi-30:285	Red and grey; rl	No	67.03	26.87	5.61	11.7
EeBi-30:291	Red and grey; rl	Yes			4.67	2.3
EeBi-30:321	Grey and light grey lines	Yes	78.90	60.32	12.47	65.1
EeBi-30:327	Pink and white; rl	No	47.80	33.78	6.12	8.9
EeBi-30:371	Grey; rl	No			5.00	5.1
EeBi-30:372	Grey; rl	No		26.40	7.17	10.2
EeBi-30:377	Pink, white and grey; rl	No		43.16	5.00	8.7
Refit 2	White and grey and pink; rl	Yes	72.31	45.67	12.18	51.9
Refit 3	Red and grey; rl	No	68.66	29.38	6.14	15.0
Average			**66.94**	**37.94**	**7.15**	**178.9 (total)**

Blanks indicate the data was unable to be determined
rl –radiolaria present in cortex

Figure 4.31: Preforms from Area 2

1. EeBi-30:321
2. refit 2
3. EeBi-30:327
4. EeBi-30:371
5. EeBi-30:291

Figure 4.32: Burin-like tool preforms from Area 2

1. refit 3
2. EeBi-30:285
3. EeBi-30:372

Hammerstone

Figure 4.33: Hammerstone from 2003 excavation

Hammerstones are used to remove flakes from a core. This technique is referred to as "hard hammer percussion" (Kooyman 2000). They are usually made on hard, unyielding material such as granite (Kooyman 2000).

One hammerstone (#197) was recovered from Area 1 (Figure 4.33). It is an elongated oval piece of pink quartzite and has a mass of 105.9g. It is unlike the beach substrate and thus may have been brought in to the site.

Scraper

Scrapers are normally made from flakes that have a concave ventral surface. This concavity results in a natural 'scraper's edge' that is typically more pronounced at one end of the flake. This end becomes the working edge. In order to steepen this edge flakes are removed from the dorsal surface perpendicular to the working edge. Some flake or 'expedient' scrapers may be no more than a flake with retouch at the dorsal surface at the working edge. More formalized scrapers exhibit a greater degree of production. This often results in the scraper having a particular shape such as: rectangle, triangle, trapezoid and eared.

Three scrapers were found in Area 1 (Table 4.14). Two of these (#191, 215) are expedient flake scrapers (Figure 4.34 #2, 3). The other (#200) is a complete triangular end scraper (Figure 37 #1).

Two formalized scrapers (# 310, 325) were recovered from Area 2 (Table 4.15; Figure 4.34 #5, 4). One flake scraper was recovered from the test pit (TP01-06). It may have been modified for hafting and is included in Table 4.15 and Figure 4.34 (#6).

Table 4.14: Scraper attributes from Area 1

Artifact Number	Raw material or chert type	Shape	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
EeBi-30:191	Dark grey and black with white specks	Rectangle flake		20.28	3.74	2.3
EeBi-30:200	Grey and light beige	Triangle	23.15	20.24	4.04	1.9
EeBi-30:215	Brown translucent and beige cortex	Flake	23.01	17.22	2.03	1.0
Average			23.08	19.25	3.27	5.2 (total)

Blanks indicate the data was unable to be determined

Table 4.15: Scraper attributes from Area 2 and TP01-06

Artifact Number	Raw material or chert type	Shape	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
EeBi-30:310	Grey-brown and grey; rl	Rectangle		21.01	5.11	2.9
EeBi-30:325	Grey-brown; rl	Eared	26.46	27.00	7.67	5.9
EeBi-30:158 From TP01-06	Grey; rl	Flake	29.07	16.83	2.42	1.5
Average			27.77	21.61	5.07	10.3 (total)

Blanks indicate the data was unable to be determined
rl –radiolaria in matrix

Area 1
1. EeBi-30:200
2. EeBi-30:191
3. EeBi-30:215

Area 2
4. EeBi-30:325
5. EeBi-30:310
TP01-06
6. EeBi-30:158

Figure 4.34: Scrapers from 2003 excavation and TP01-06

Unidentified tool fragments

Unidentified tools are those artifacts that do not meet the description of standard tool forms and their functions are uncertain. Area 2 has one unidentified tool fragment (Figure 4.35). It is made on a light grey chert that has radiolaria present. It roughly resembles a blade in its linear outline, with two parallel sides. It has eight notches, four on either side, and has a rounded tip. The other

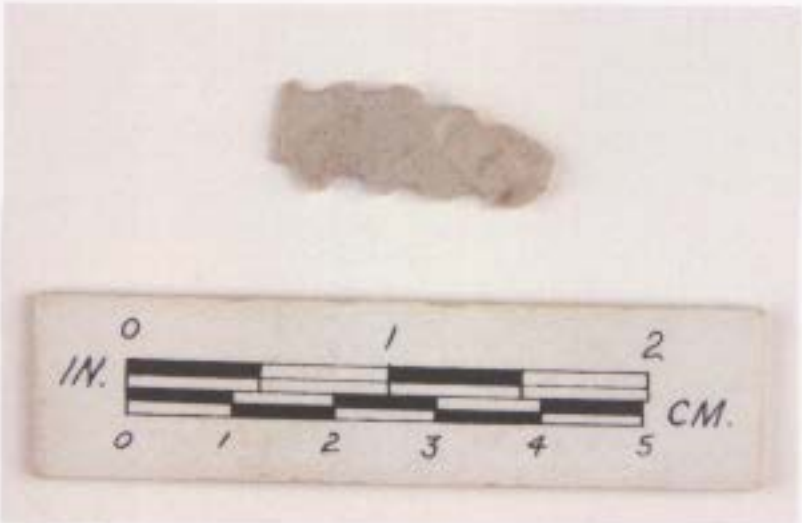


Figure 4.35: Unidentified tool fragment from 2003 excavation

end appears to be broken. It is very thin (1.97mm) and light (0.6g). Its function is unknown.

Sideblade

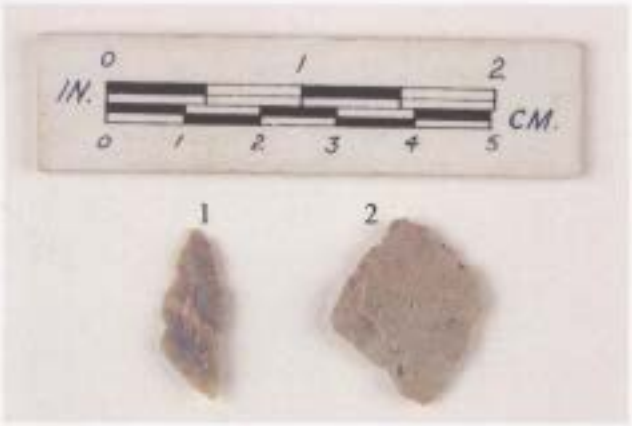
Sideblades are considered a hunting tool class since they were attached to the sides of harpoons. A great deal of variability is observed in sideblades and they are often categorized based on their shape. These shapes include semi-lunate and ovate (Auger 1985; Kennett 1990).

Two sideblades were recovered from the site (Table 4.16; Figure 4.36). Both were located in Area 2 in the southwestern region (Unit A and the Baulk A-C).

Table 4.16: Sideblade attributes from Area 2

Artifact Number	Raw material or chert type	Shape	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
EeBi-30:277	Grey and white chert; rl	Semi-lunate	22.40	9.00	2.00	0.4
EeBi-30:375	Light grey/beige; rl	Ovate	24.38	19.97	3.28	1.3
Average			**23.39**	**14.49**	**2.64**	**1.7**

rl –radiolaria in matrix



1. EeBi-30:277
2. EeBi-30:377

Figure 4.36: Sideblades from 2003 excavation

Artifact Summary

Table 4.17 summarizes the artifacts excavated in the clearing throughout the three surveys done at the Party site. Table 4.18 presents the rest of the artifacts from the other areas of the site that were surveyed. Tables 4.19 and 4.20 summarize the artifacts recovered from Area 1 and Area 2 during the 2003 field season. The artifacts from TP01-06 and TP01-11 are included in these tables. Only the possible Groswater Paleoeskimo artifacts are presented in these tables. Thus, the potential Indian biface, the Dorset Paleoeskimo endblade and the Dorset Paleoeskimo tip flute spall are not presented.

Table 4.17: Summary of artifacts from survey in the clearing

Type	**Frequency**	**Percentage**
Biface –knife	1	3.6
Biface –other	3	10.7
Endblade	2	7.1
Blade	1	3.6
Microblade	13	46.4
Core fragments	1	3.6
Preform	4	14.3
Scraper	3	10.7
Total	**28**	**100.0**

Table 4.18: Summary of artifacts from survey excluding the clearing

Type	Frequency	Percentage
Biface –other	1	8.3
Preform	1	8.3
Endblade	2	16.7
Microblade	4	33.3
Core fragments	3	25.0
Scraper	1	8.3
Total	**12**	**99.9**

Table 4.19: Summary of artifacts from Area 1 and TP01-11

Type	Frequency	Percentage
Awl	1	2.5
Biface –knife	1	2.5
Biface –ground tool	1	2.5
Biface –other	2	4.9
Endblade	1	2.5
Burin-like tool	1	2.5
Blade	4	9.6
Microblade	14	34.1
Core fragments	6	14.6
Preform	6	14.6
Hammerstone	1	2.5
Scraper	3	7.3
Total	**41**	**100.1**

Table 4.20: Summary of artifacts from Area 2 and TP01-06

Type	Frequency	Percentage
Axe	1	1.3
Biface –knife	2	2.7
Biface –other	7	9.3
Endblade	5	6.7
Burin-like tool	5	6.7
Blade	5	6.7
Microblade	17	22.7
Microblade core	1	1.3
Core fragments	17	22.7
Preform	9	12.0
Scraper	3	4.0
Unidentified tool fragment	1	1.3
Sideblade	2	2.7
Total	**75**	**100.1**

Debitage

This study adopts Kooyman's (2000:15) definition of debitage as "all discarded lithic debris from stone tool manufacturing... [including] flakes, shatter, exhausted cores, and broken core fragments." Only flakes and shatter are discussed in this section.

Debitage is organized based on chert types which are defined using a combination of factors including color, degree of transparency and relative quality. In general this is a highly subjective method of classification. However, one individual did all the labeling, thus keeping any discrepancies to a minimum. Each piece of debitage has been counted

and weighed, and organized according to where it was found on the site and what type of chert it made from.

Area 1 has 4259 pieces of debitage weighing a total of 1009.6g. This represents 32 different types of chert. Each unit excavated during the 2003 field season uncovered a certain amount of debitage. See Table 4.21 for a breakdown of how many pieces of debitage were found in each unit as well as the density of debitage per m^2. The large amounts of debitage in both Unit B and in Baulk B-D are due to Feature 2: a flake concentration area, or dump. Table 4.23 highlights the types of cherts that were found in Area 1 and where they were located within the Area.

Table 4.21: Debitage from Area 1

Unit	Unit A	Unit B	Unit C	Unit D	TT03-01	Baulk A-C	Baulk B-D	TT03-01/ Unit D Wall	**Total**
Pieces of Debitage	474	2909	84	102	125	7	399	43	**4143**
Pieces of Debitage/ m^2	105	646	19	23	42	7	399	48	**173**

Area 2 has a total of 10083 pieces of debitage, weighing a total of 2147g. This represents 28 different types of chert. Every unit excavated in Area 2 produced some amount of lithic debris. Table 4.22 denotes the exact lithic counts as well as the density of lithic debitage per m^2. The high numbers and density of debris in Unit B is related to the midden feature identified in this unit. The high numbers in Baulk A-C is associated

with the artifact and debitage concentration. Table 4.24 highlights the types of chert found in Area 2.

Table 4.22: Debitage from Area 2

Unit	Unit A	Unit B	Unit C	Unit D	Baulk A-C	Baulk B-D	TP03-02	**Total**
Pieces of Debitage	1953	5441	1467	128	990	80	16	**10075**
Pieces of Debitage/m^2	434	1209	326	28	990	80	16	**480**

Summary

The primary goal of the Party site's 2003 excavation was to investigate the Groswater occupation of an inner coast site. Data from previous surveys at the site and the 2003 excavation are included in this chapter. Data includes artifacts, debitage, stratigraphy, scientific samples and features. In addition, horizontal and vertical distribution of cultural material provides an overall view of the site and how it was occupied. These data provide the foundation for further interpretation and analyses regarding Groswater occupation at the site, of the inner coast, and at Port au Choix.

Table 4.23: Debitage varieties from Area 1

Type	A1UA	A1UB	A1UC	A1UD	A1 BAULK A-C	A1 BAULK B-D	A1 TTO3-01	A1 TT03-01/UD WALL	Total
brown with white specks	0	4	0	3	0	0	0	0	7
brown/grey bands	2	0	0	0	0	0	0	0	2
dark cherts with some swirls, specks	2	0	3	10	0	0	11	0	26
dark grey	2	0	0	0	0	7	0	0	9
dark grey/grey-brown with cortex	0	0	0	0	0	2	0	0	2
dark grey/mottled bands	3	1	5	2	0	0	0	0	11
dark pure cherts	12	214	1	1	0	26	10	0	264
dark swirly bands	0	0	0	0	0	0	3	3	6
green/grey swirly	2	11	17	0	0	0	0	0	30
green/grey/biege heavy rl	22	244	7	15	2	83	10	2	385
greys	0	13	0	1	0	0	1	0	15
greys with lines	14	45	3	1	0	8	0	0	71
grinding	1	1	0	0	0	1	0	0	3
light brown	4	7	2	0	0	0	19	2	34
light brown and pure dark	0	0	0	1	0	0	0	0	1
light grey	1	10	0	0	0	3	3	0	17
light grey with swirls	0	0	0	0	0	0	1	0	1
light swirly bands	0	7	0	2	0	0	8	2	19
mottled chert	2	34	0	0	0	0	0	0	36
pink-brown with rl	1	45	1	2	1	0	2	2	54
quartz crystal	0	5	7	0	0	0	0	0	12
ramah/iceberg	0	5	0	0	1	3	0	0	9
red jasper chert	0	4	1	0	0	5	0	0	10
straight chocolate bands	0	0	0	0	0	0	13	4	17
translucents 'flints'	97	1062	20	35	1	129	31	10	1385
translucents 'flints' w. l. grey cortex	0	0	0	1	0	0	0	0	1
white with thin grey bands	0	56	0	1	0	24	2	8	91
white/light grey some rl	309	1141	17	27	2	108	11	10	1625
Total	**474**	**2909**	**84**	**102**	**7**	**399**	**125**	**43**	**4143**

rl –radiolaria in matrix

Table 4.24: Debitage varieties from Area 2

Type	A2UA	A2UB	A2UC	A2UD	A2 BAULK A-C	A2 BAULK B-D	TP03-02	Total
blue tint	12	0	15	0	0	0	0	27
brown	1	0	2	0	0	0	0	3
dark brown trans	5	0	0	0	0	0	0	5
dark red-brown, rl	59	66	17	6	20	0	0	168
green/grey/biege heavy rl	93	475	102	5	60	9	0	744
grey and pink	0	13	6	0	2	0	0	21
grey purple chert	2	0	0	0	0	0	0	2
grey swirly	4	0	0	0	0	0	0	4
grey with grey like cortex	32	67	4	0	20	1	0	124
grey with lines	72	265	54	11	33	5	0	440
greys	0	21	36	0	4	1	0	62
grinding	6	8	3	0	2	0	0	19
light beige and grey	3	0	3	0	0	0	0	6
light grey 2	0	18	0	1	4	4	0	27
light grey w. yellow cortex	0	15	0	1	2	0	0	18
pink	0	0	0	0	0	3	0	3
pink/brown; rl	72	156	134	13	79	0	3	457
quartz crystal	0	2	2	0	1	0	0	5
red (burnt)	0	0	0	0	1	0	0	1
red jasper	20	108	3	1	5	1	1	139
red, grey trans; some cortex, rl	0	1	0	5	0	0	0	6
translucents 'flints'	831	1786	818	69	627	29	8	4168
white and pink	60	48	0	0	0	7	0	115
white/l.grey	90	372	62	7	67	0	2	600
white/l.grey some rl	139	373	204	9	53	17	2	797
yellow tinted	8	15	2	0	10	3	0	38
miscellaneous not sorted	444	1632	0	0	0	0	0	2076
Total	**1953**	**5441**	**1467**	**128**	**990**	**80**	**16**	**10075**

rl –radiolaria in matrix

Chapter 5

The Site

It's not what you find,
it's what you find out.
-David Hurst-Thomas

Introduction

This chapter proposes that the variations observed between the two areas excavated at the Party site are due to economic functional differences based on the Groswater Paleoeskimo's seasonal round. Area 1 is proposed to be a short-term, mid-late summer residential camp. In contrast, Area 2 is a longer-term residential camp used during late spring/early summer. The different interpretations are based on the exact location of each area, the raw material differences, the artifact frequencies and types, and the spatial layouts of each area.

First it is determined that the two areas[1] are not contemporaneous. Then the economic function of each area is determined. The differences in location, spatial layout, raw materials and artifacts are discussed and expanded in order to show how they relate to the economic function of each area. Lastly, mobility is introduced and it is shown that both areas are base camps used by residentially mobile populations. Since mobility variables show little variation between both areas, economic function is hypothesized to be the factor that results in the observed differences between the two areas.

[1] Area 1 refers to the 2003 excavation, TP01-11 as well as the clearing, unless otherwise noted. Area 2 refers to the 2003 excavation and TP01-01, 06, 07 and TP00-05, 07, 08 unless otherwise noted.

Time of Occupations

It is proposed that Areas 1 and 2 are not contemporaneous. This is based on differences in location within the site, stratigraphy, raw materials, and radiocarbon dating.

Location

Each area is on a different terrace (Figure 5.1). Area 1 is on the 2-6 m terrace while Area 2 is on the 6-10 m terrace. It appears that the occupants of the site chose two different locations to set up camp. The complete horizontal distribution of material is not known, as the two areas were not joined during excavation. However, based on other differences, such as stratigraphy and raw material, it appears that the two areas are separate occupations.

Stratigraphy

The cultural levels at each area occur in different sediments. The cultural material found at Area 1 is in a thick, dark clay-like sediment over the limestone beach. In contrast, the cultural material from Area 2 is found in the peat above the clay-like stratum. This strengthens the hypothesis that the two areas are not contemporaneous since the vertical location of the cultural materials is not the same.

Figure 5.1: Location of Area 1 and Area 2 on 1:2500 community map

Raw Material

Both areas show a predominance of chert use over any other lithic raw material. In particular, the use of high quality Cow Head translucent chert is prevalent at both areas. This Cow Head chert variety represents just over 45 per cent of the total number of pieces of lithic debitage found at the site in 2003 (Table 5.1). In total 42 different

Table 5.1: Chert varieties from 2003 excavation

Chert Variety	**% at Area 1**	**% at Area 2**	**% of site total**
Cow Head Translucent	33.5	52.2	45.8
Cow Head Others	64.8	47.8	53.4
Ramah/Iceberg	0.2	0	<0.1
Quartz Crystal	0.3	<0.1	0.1
Unknown Cherts	1.6	0	0.6

varieties of chert were identified at the Party site (2003 excavation only). Of these types only 12 occurred at both areas, indicating that in general different cherts were being used at the two different areas. Of these different cherts, Area 1 has darker cherts some with distinctive swirling and banding patterns, while Area 2 has more grey, yellow or pink cherts. This trend is consistent with the artifacts. For example, Area 1 has eight artifacts made from darker cherts, while Area 2 has none. In contrast, Area 2 has three artifacts made from pink cherts, Area 1 has none. So, although both areas do show a strong preference for high quality translucent cherts, there are differences in the other varieties of cherts found at each area.

Radiocarbon Dating

Three radiocarbon dates are available for the Party site (Table 5.2). All three analyses were performed on wood charcoal. Two come from Area 2 (upper terrace) and one from Area 1 (lower terrace). Area 2 is discussed first. The first tested sample was

Table 5.2: Radiocarbon dates for the Party site

Area	Sample no.	Laboratory no.	Conventional C^{14} age (yr BP)	Calendar age (cal yr BP)
2	EeBi-30:311	Beta 183604	2460±70	2750-2340
2	EeBi-30:142	Beta 146666	2570±60	2780-2470
1	EeBi-30:268	Beta 183603	2710±40	2870-2760

Calibrated dates represent 2 sigma (95% probability)
Calibration based on Stuiver et. al. (1998) and plotted by Oxcal v.3.5 (Bronk Ramsey 1995)

recovered from TP00-07 during the 2000 survey work (Sample 142). It was found in association with lithic debitage and possible animal hide. The second date is from the

midden excavated in 2003 (Sample 311). Since both the 2000 test pit and the 2003 midden are part of the upper terrace, and since their cultural material is located in the same strata, there is a strong possibility that the two are part of the same occupation. This is strengthened by the similarity of their raw material and their overlapping radiocarbon dates Figure 5.2).

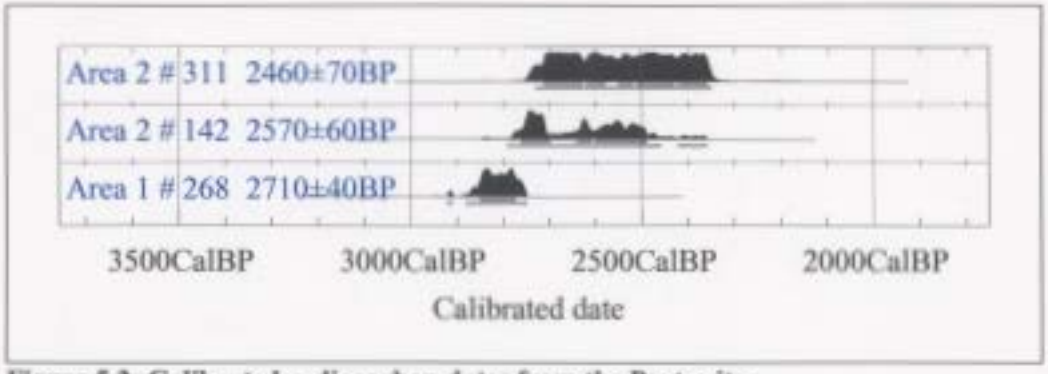


Figure 5.2: Calibrated radiocarbon dates from the Party site
Calibrated dates represent 2 sigma (95% probability)
Calibration based on Stuiver et. al. (1998) and plotted by Oxcal v.3.5 (Bronk Ramsey 1995

The earliest date is from the hearth in Area 1 (Sample 268). There is an overlap of 20 years between this date (2870-2760 BP) and a date from Area 2 (sample 142 – 2780-2470 BP) based on their calibrated calendar ages. This suggests a slim possibility that the two areas are contemporaneous. Overall the trend from the radiocarbon dating suggests that the two areas are most likely not contemporaneous. This argument is strengthened when location, stratigraphy and raw material are considered.

Economic Function

This section discusses how the variations between Area 1 and Area 2 relate to economic function. These variations include the location of the two occupations, the spatial organization of each occupation, as well as the features and artifacts present at each occupation.

Location and Spatial Organization

The site is situated on the shore of a sheltered bay indicating that both Areas 1 and 2 may have had the same or similar economic function. However, the two areas are located on different terraces and this may point toward a difference in why or when the Groswater peoples occupied the site.

Area 1 is located on the lower 2-6 m terrace which is closer to the shoreline. The artifact, debitage and feature density is higher closer to the shoreline in this area. It also appears that the occupation was either on the beach or very near the edge of the beach. This is based on where the cultural material was found in the stratigraphy: in the dark clay material directly over the limestone substrate or beach. This layer is likely the result of the acidic peat reacting with the basicity of the limestone rocks. Also, the hearth stones from Feature 1 are sitting for the most part directly on the beach.

Based on conversations with local residents of Port au Choix, the winter ice remains in Back Arm until April, or even as late as May. Studies based on fossil pollen (MacPherson 1981) and ice cores (Hammer *et al.* 1980) indicate that the period of Groswater occupation was during a cold period that would have affected Newfoundland

and Labrador climatic conditions. If this was the case during the Groswater occupation at Area 1, it is unlikely this is a cold weather site since the beach would have been covered in snow and ice. This would have made it difficult to have a hearth on the beach. It is possible that the hearth originally sat on top of the snow. After the snow melted the hearth would shift to the beach. However, the hearth remains relatively intact suggesting it was originally built on the beach, implying that Area 1 was most likely occupied during the warmer months of summer or early fall. It is during this time that many foodstuffs would have been available such as mollusks, fish, birds, crustaceans and harbor seal.

Area 2 is located farther up the slope, away from the beach on a 6-10 m terrace. Both Feature 3 (an activity area) and Feature 5 (a hearth) are located at the upper edge of this area indicating where the residents of this campsite chose to spend their time engaging in domestic activities such as tool making, hide production and food consumption. In contrast the midden is located slightly farther down the slope. Although, as argued below, the midden indicates a certain amount of organization and longevity to the site, it is not an area where people most likely spent their time. This intrasite spatial patterning indicates that "living areas" were located farther from the coastline than "non-living/refuse" areas. This may be a reflection of when the site was occupied. As outlined in Chapter 3, very few resources were available directly at the site during the winter. Harbor seal is a warm month resource that would have been available at the Party site. The best time to hunt this species was during the late spring and early summer, when pups are born on shore. If the residents of the Party site were there to hunt harbor seal they would not want to be too close to the beach and inadvertently frighten

their prey. This may be the reason why Area 2 is located on a higher terrace than Area 1. The harbor seal hunting hypothesis is further expanded below.

Artifacts

Artifacts found on a site can indicate what sorts of activities the site's occupants were participating in. The Party site has a small assemblage; therefore it is inherently difficult to generalize trends (Sinclair 1997). However, smaller assemblages often represent smaller, short-term occupations and are important to our understanding of the archaeological record (Whalen 1986; Petraglia 1993). Information about the material culture in general, and the assemblages from other sites can help to elucidate how smaller collections were formed and under what circumstances (Dillehay 1973; Mytum 1989; Logan and Hill 2000; Spiess and Hedden 2000).

Area 1 has a total of 69 artifacts and Area 2 has a total of 82 artifacts (Figure 5.3). LeBlanc (1996:51) separates artifact classes into one of four functional categories: (1) procurement, (2) processing, (3) maintenance and (4) manufacturing. Her model is followed here, but with minor variations (Table 5.3; Figure 5.4). Procurement tools are directly involved with hunting, such as endblades and sideblades. Processing tools are used to process skin and meat. Maintenance tools are used to maintain the working state of other objects. For instance a scraper can be used to maintain a hide's suppleness, or a hammerstone can be used to resharpen a stone tool. Manufacturing tools either make

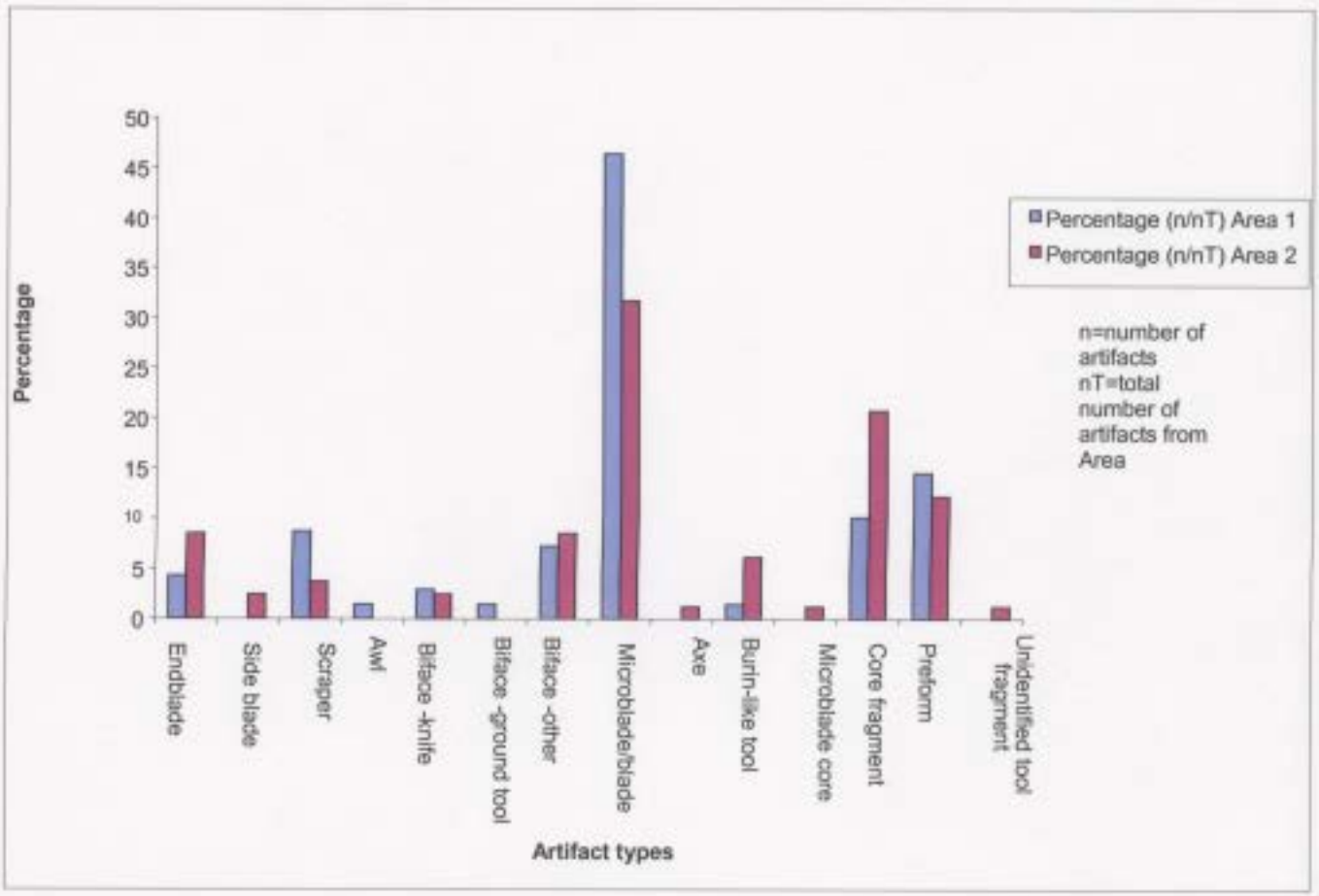


Figure 5.3: Relative artifact frequencies from Area 1 and Area 2

Table 5.3: Artifact functional categories

Procurement *Hunting tools*	**Processing** *Skin/meat processing tools*	**Maintenance** *Tools used to maintain the working state of other objects*	**Manufacturing** *Items that are used to make tools; tools that are in the process of being made*
Endblades	Scrapers	Scrapers	Axe
Sideblades	Awl	Axe	Burin-like tool
	Biface (all types)	Awl	Microblade core
	Blade/microblade	Biface (all types)	Core fragment
		Blade/microblade	Preform
		Burin-like tool	Hammerstone

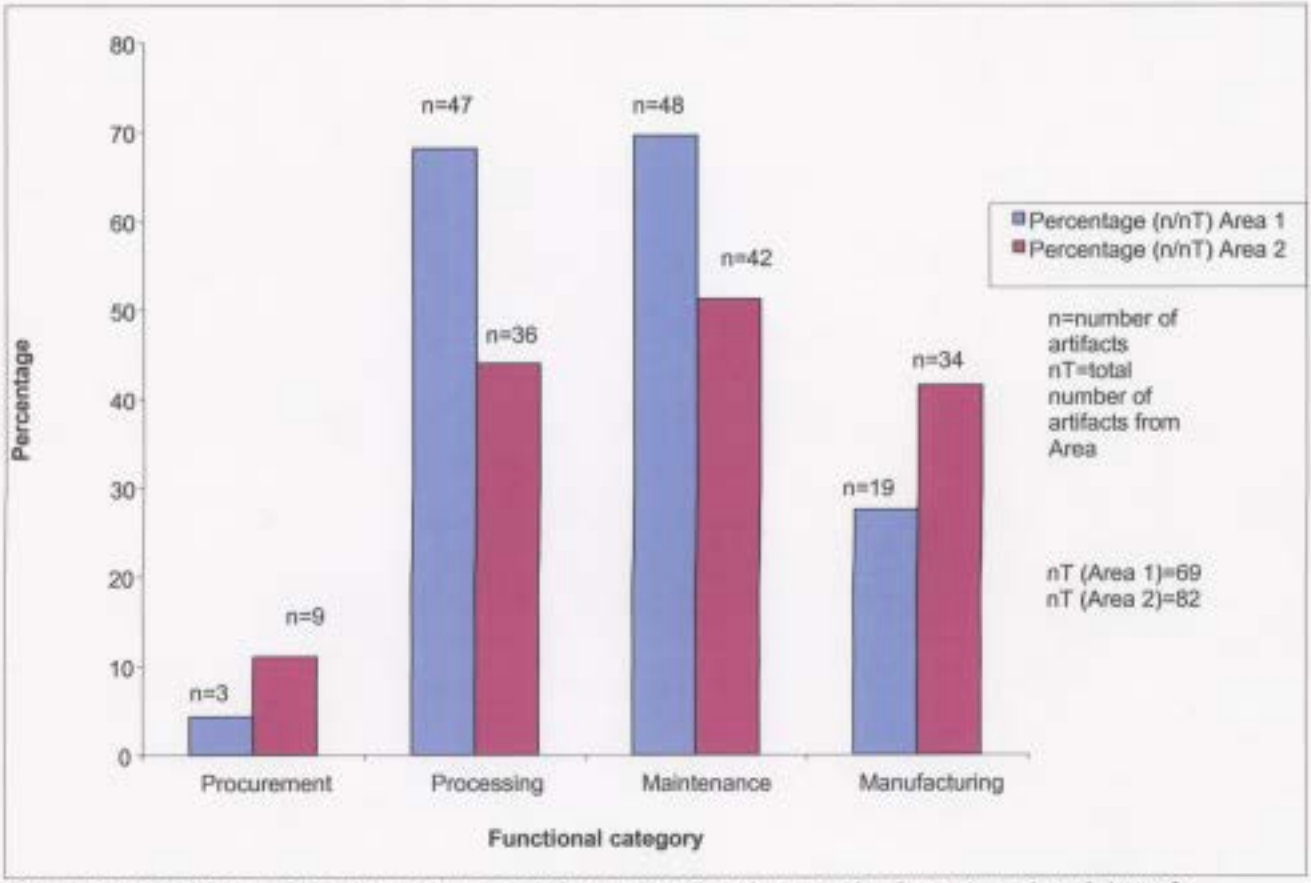


Figure 5.4: Relative artifact frequency according to functional categories from Area 1 and Area 2

other stone, wood or bone tools; or they are unfinished tools. Certain artifacts are classified in two different functional categories, because they are multi-functional. For example it is not known whether the awl found at Area 1 was used to process a new hide, or maintain one brought to the site.

Both areas have artifacts from all four functional categories. This range of activity indicates that the two areas were residential sites, as opposed to functionally specific sites where specific extractive tasks were carried out (Binford 1980). Since the two areas appear to be similar types of occupations, the differences that are present may be the result of different economic foci based on subsistence availability.

Area 1 has a greater number of processing and maintenance tools. According to chi-square tests, the difference between Area 1 and Area 2 with respect to proportions of maintenance tools has limited significance ($x^2 = 2.115$, $.20 > p > .10$), and the difference between the proportions of processing tools is significant ($x^2 = 3.997$, $.05 > p > .02$). These statistics are hampered in two ways. First the overall sample is small (151 total artifacts). Second, the overlap between categories may cause certain tool categories to be unrealistically inflated.

If both the difference between processing and maintenance tools is real, this indicates a variety of situations, all of which may all have occurred at the area. One situation is the technology used to exploit the faunal resources (procurement tools) did not remain in the archaeological record. For instance, if the people were birding and/or fishing with nets, these nets may no longer be present since no organic material has survived. Something as simple as a piece of cloth may have been used to collect shellfish, but would not remain in the archaeological record. If this is the case then procurement tools are underrepresented and the processing and maintenance tools overrepresented.

A second situation is the people living at Area 1 were not producing new lithic tools, perhaps due to a short stay at the site. Few cores were found at this part of the site indicating a lack of primary manufacture. One hammerstone was found, but it was not used extensively. Also the majority of manufacturing artifacts from Area 1 are preforms. It may be that the people carried preforms to the site, as opposed to cores, to be worked further into a more functional tool.

The above argument furthers the suggestion that the Groswater people occupying Area 1 were there during a time when mollusk, fish, bird, and crustacean resources would have been available. The low number of endblades indicates that seal hunting was not likely a focus at Area 1.

Area 2 has a greater percentage of procurement tools then Area 1; however according to the chi-square test the difference between the two areas with respect to proportions of procurement tools is not very significant ($x^2 = 2.0712$, $.20 > p > .10$). Instead of focusing on the overall number, it is more informative to observe the morphological differences between the endblades at the two areas (as noted in Chapter 4). The endblades from Area 2 at the Party site are virtually identical to the endblades from Area 2 at Phillip's Garden East, a harp seal hunting site (Kennett 1990). This identifies known seal hunting technology being present at Area 2 of the Party site (Northcott and Phillips 1976). Both modern and historical accounts indicate that harp seals do not regularly come into Back Arm. However, harbor seals were quite numerous at the turn of the century and can still be spotted in the area of the Party site. The harp and harbor seals are approximately the same size, so it is likely that the type of tool used to hunt harp seals could also be used to hunt harbor seals.

Area 2 also has a greater percentage of manufacturing tools; although these proportions do not have strong statistical significance according to the chi-square test ($x^2 = 2.0707$, $.20 > p > .10$). The increased number of core fragments indicates a larger amount of primary lithic manufacture at this area. There are also more burin-like tools at Area 2. Both finished burin-like tools are present as well as preforms indicating that this

tool class is being manufactured and used by the occupants of the site. Use is greater accentuated by the fact that all of the burin-like tools found at this area are broken.

If the above hypothesis is correct and the people occupying Area 2 were hunting harbor seal with 'harp' seal hunting technology, then they were using harpoons. A harpoon is a composite tool made from various organic components and often tipped with a stone endblade. The stone endblades are present at the site. Although the organic components are not present, the tools that would have made the organic components are burin-like tools. Thus the presence of burin-like tools and their production at the site further strengthens the hypothesis that the people occupying Area 2 were hunting seal, presumably harbor seal.

Mobility

The purpose to this chapter is to understand the differences between the two occupations at the Party site. These differences may be the result of different mobility dimensions that the Groswater people were practicing at the time of occupation. Chatters (1987) describes six dimensions of mobility: type, frequency, stability, demography, scheduling and range (Chatters 1987). The entire spectrum of Groswater mobility cannot be understood when viewed from one site. However, attempting to understand a site's mobility dimensions is possible and can add to the goal of this chapter. The lithic technology used at the site is also investigated to assess further details about the mobility of the people at the Party site (Shott 1986; Cowan 1999).

Type

Type refers to residential and logistical mobility as described by Binford (1980). At the site scale these can be determined by identifying specific site types (Table 5.4) and are interpreted using two measures: tool and feature diversity. Chatters (1987) uses two

Table 5.4: Site types and their measures according to mobility type (Binford 1980; Chatters 1987)

Residential	
Base camp	Central place of activity. Where most processing, manufacturing and maintenance activities occur. *Tool and feature diversity is high.* *High interassemblage variability between base camps of similar season.*
Location	A place where extractive tasks are carried out. *Artifacts should be specific to the task being carried out.* *Features would be few.*
Logistical	
Base camp	Central place of activity. Preparation location for a diverse range of activities. *Tool and feature diversity is high.* *Low interassemblage variability between base camps of similar seasons.*
Location	A place where extractive tasks are carried out. *Artifacts should be specific to the task being carried out.* *May have higher archaeological visibility than residential locations in terms of features.* *Low interassemblage variability between base camps of similar seasons.*
Field camp	A temporary operational center for a task group. *Artifacts should be specific to the task being carried out.* *Features are discrete, and potentially diverse.*
Station	A place where game, people etc can be observed. May have no archaeological signatures. *Tools and features are few.*
Cache	A place of field storage. *No other features.* *Artifacts reflect what is being stored.*

other measures, bone fragmentation and anatomic part distribution, which are not applicable to the Party site since there are no faunal remains. Another measure, interassemblage variability, requires more than one occupation and compares artifact assemblages between base or field camps. Thus this is used to compare Area 1 to Area 2

Procurement, processing, maintenance and manufacturing tools are present at both areas of the Party site. Due to this range, tool diversity is considered high at both areas. Both areas appear to be organized into 'living' (hearth and activity area) and 'debitage' (dump and midden) areas. This organization has resulted in more than one feature at each area. Although this does not suggest high feature diversity, it does indicate some spatial organization was happening at both locations. Both the artifact and feature diversity indicate that both areas are likely base camps (residential or logistical).

Residentially mobile groups are mapping onto their resources (Binford 1980). This means that the entire group moves to the location where the primary resource is being procured. Therefore the groups at two occupations may have procured different resources which may result in two different tool kits, one for each occupation. This results in greater overall interassemblage variability. Logistical mobility involves setting up a base camp and bringing various resources back to this central location. Therefore, at one base camp many different toolkits may be present. Although many different tools may be present at one site, this would be that case for all logistical base camps; therefore the interassemblage variability is low.

The two occupations at the Party site have different toolkits from each other indicating that interassemblage variability exists. Therefore both occupations at the Party

site are interpreted as residential (based on interassemblage variability) base camps (based on feature and artifact diversity).

Frequency and Demography

Mobility frequency measures the duration of site occupation to ascertain how long a site was occupied (Chatters 1987). The two measures used to investigate frequency are debris accumulation and feature discreteness. Demography is difficult to ascertain from the archaeological record, but it is difficult not to discuss artifact accumulation or space use without commenting on the number of people that may have occupied the site. This is why it is included here, and it will be discussed in relation to its impact on the archaeological visibility of mobility frequency.

Debris accumulation can be the result of various factors including the number of people present at the site (demography), the length of a site's occupation and the number of times a site is reoccupied. Artifact density, area size, feature depth and feature discreteness are the measures used to ascertain mobility frequency and demography.

Area 1 had a total of 37.9 m^2 excavated and the artifact density is approximately two artifacts (1.8) per m^2 and it appears that the occupation of Area 1 was evenly spread out over at least 50 m^2. Area 2 had a total of 30 m^2 excavated with an artifact density of approximately three artifacts (2.7) per m^2. However the artifacts appear to be concentrated in the area of the 2003 excavation (Figure 5.5). Table 5.5 summarizes these observations.

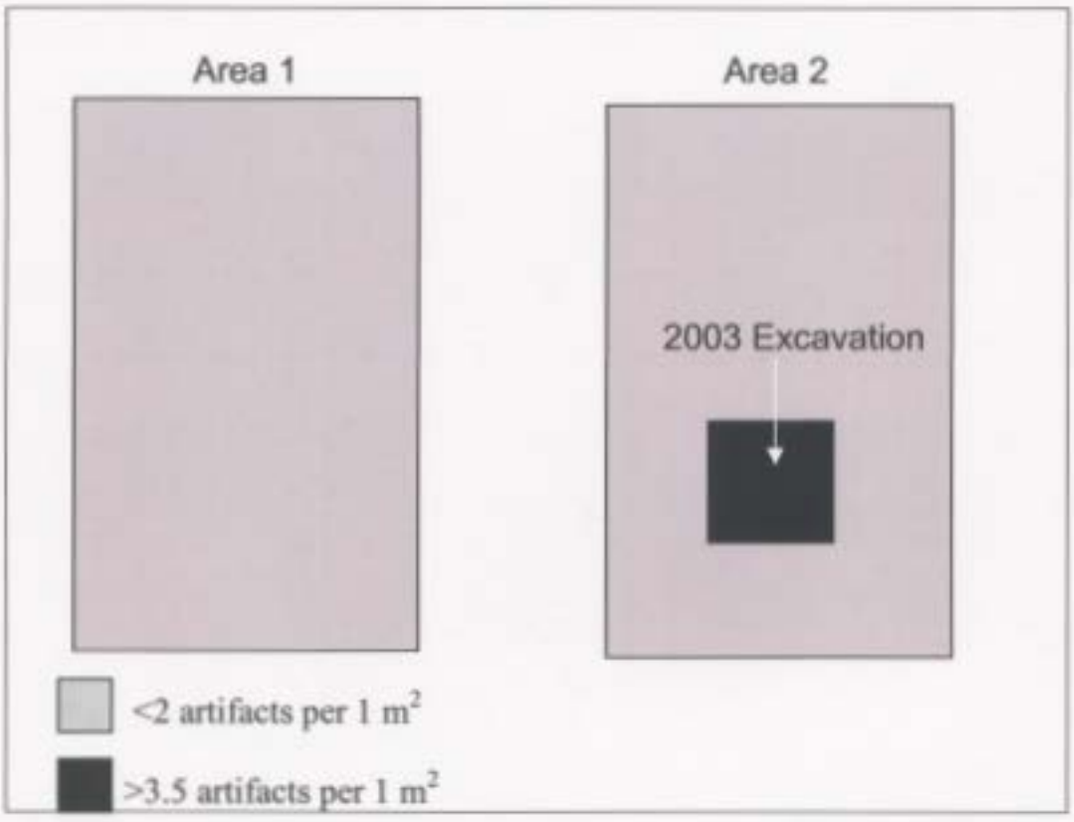


Figure 5.5: Artifact density model for the Party site

Table 5.5: Observations relating to mobility frequency

Trait	Area 1	Area 2
Overall artifact number	Less	More
Overall artifact density	Less	More
Occupied space	More (i.e. occupation is evenly spread out over larger area)	Less (i.e. occupation is concentrated to one area)

It is possible that the lower artifact number and density observed at Area 1 resulted from fewer people occupying the area (i.e. fewer people=less stuff). However, it appears that this may not be the full story. Since more space appears to be evenly occupied at Area 1 it may be that there were more people, but they stayed for less time.

Conversely, the higher number and density of artifacts at Area 2 could represent a smaller group that occupied the site longer.

These concepts are further tested by investigating the features found on the site. According to Chatters (1987:346), "a feature created as people perform one activity a single time should be discrete and easily discerned...as the same activity is performed in the same site areas during continuous occupancy feature boundaries will become smeared." The first situation indicates less time, the second more time. Area 1 has a hearth feature that is still intact and very easily seen on the ground surface, an observation that corresponds with the first situation above. Area 2 also appears to have a hearth, although it is not as discrete. The fire-cracked rocks are more spread out and the charcoal is not as confined to the margins of the hearth. These observations correspond better with Chatters' (1987) second situation of a longer occupancy. From this measure it appears that Area 1 was occupied for a shorter period of time.

Other feature attributes substantiate this conclusion. Feature 4 is a midden feature in Area 2. No middens were found at Area 1. The presence of a midden indicates two things. First, the people occupying Area 2 created a special area for refuse including fire-cracked rocks, lithic debitage, and charcoal (most likely from old hearths). This purposeful spatial partitioning indicates a longer occupation. Second, the build-up of waste that created the midden also indicates a significant occupation beyond one or two days.

Stability

Stability refers to the geographic stability that a mobility pattern annually follows. In other words, do the people retain the same pattern, visiting the same locations year after year? The Party site, as one location, may be used to investigate mobility stability by determining how often it was reoccupied. The two measures used to approach mobility stability are site organization and site permanence. These are measured by analyzing structures and artifact location. The next chapter will address mobility stability from the viewpoint of 'same *type* of locations' and will look at Groswater spatial patterning at both the zonal and regional scales.

Overall the Party site indicates low mobility stability. The Groswater occupied Newfoundland for approximately 1000 years during which the Party site appears to have been occupied twice. When groups expect to return to a site, features may reflect this intention. For instance, structures may reflect a larger input of energy since they were constructed with the intent of multiple uses (for example: Savelle 1987). None of the structures present at the site would have required large amounts of energy expenditure. People may also cache certain items (artifacts, raw material, and foodstuffs) for future use (Chatters 1987). No visible caching activity occurred at the Party site. Nothing at the Party site indicates that the Groswater occupied, or were intending to occupy, the location on a regular seasonal or annual basis.

The fact that the Party site was occupied twice likely has little to do with mobility stability at the site scale. Instead, the double occupation is likely the result of a

residential mobility pattern that is more connected with the general location of seasonal resources instead of the exact location of a previously occupied camp.

Scheduling

Scheduling is how a group organizes itself around seasonably available resources. Chatters (1987) uses demography and seasonality to investigate this dimension. Instead of analyzing demography (difficult to calculate) and seasonality (limited interpretation in this case), the Party site is put in the context of various models of Groswater seasonal behavior.

Various definitions and assumptions need to be highlighted before the Party site can be placed within the framework of these models. First, it is assumed that Area 1 was occupied during the warmer months of summer (June-September) and that Area 2 was occupied at the end of spring and/or the beginning of summer (May-June) based on arguments made in Chapter 3 as well as the results of the excavation highlighted in Chapter 4. These hypotheses are further explored in the section on Economic Function below.

Second, the Party site is located in the inner coast zone (Pastore 1986; Schwarz 1994). The west coast of Newfoundland does not have deep bays or a multitude of coastal islands, so most often the entire coast line is considered to be part of the outer coast. This is not the case at port au Choix where the coast is more. In this case, the outer coast comprises the sections directly facing the Strait of Belle Isle, while the margins of Gargamelle Cove, Old Port au Choix and Back Arm are considered to be

inner coastal (Figure 5.6). Of these three inner coastal locations, Back Arm is the deepest and most sheltered.

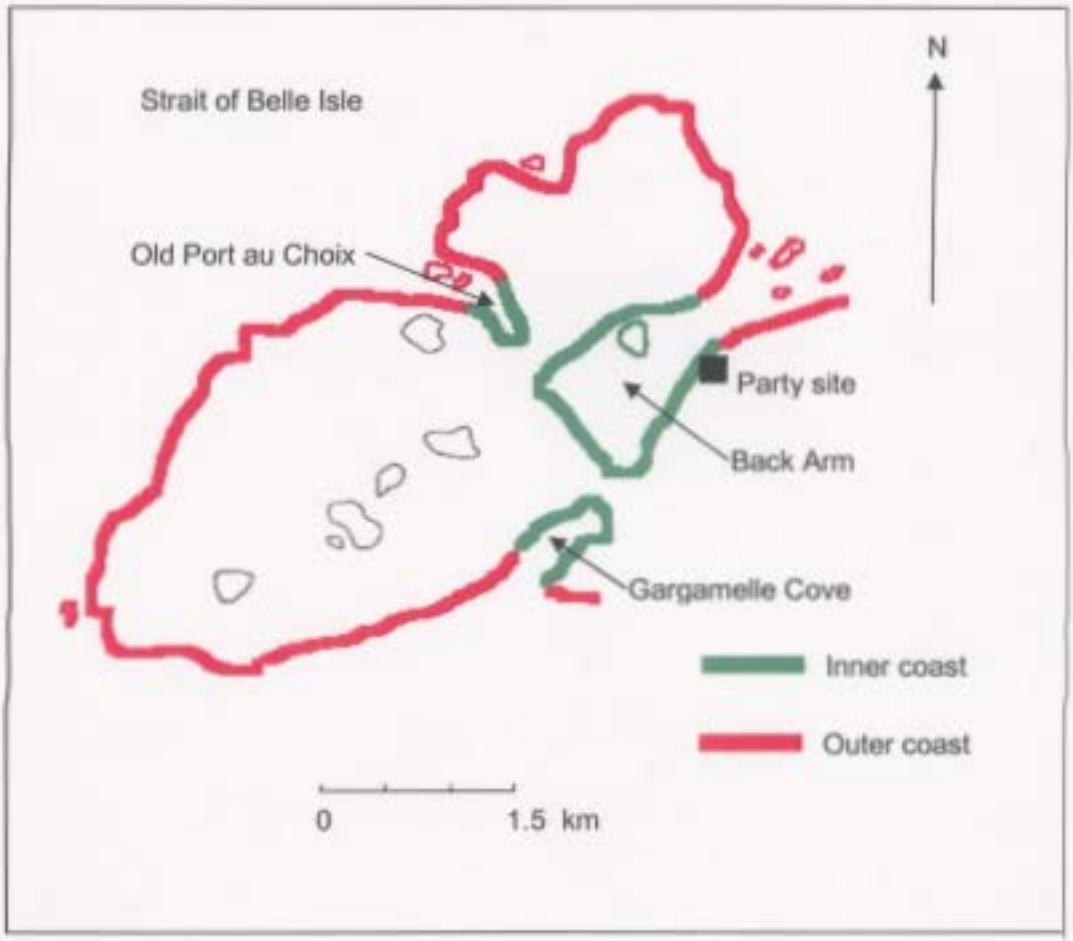


Figure 5.6: Inner and outer coast zones

Schwarz (1994) proposes a Paleoeksimo subsistence and settlement model based on general geographic location: outer coast, inner coast and interior. Although he groups all Paleoeskimo populations together, his original data include both Groswater and Dorset sites. In this model he assumes that the inner coast is used by Paleoeskimo groups during summer for a variety of resources (e.g. fish, mollusks, and birds). Holly (1997:27) builds

on this model and proposes that Paleoeskimo populations used the inner coast for some spring satellite camps, extensive summer camps and a potential autumn occupation.

The Party site's two occupations appear to echo Schwarz (1994) and Holly's (1997) models in terms of resource scheduling. The location and season appear to be the same (innercoast/warm season). However, Holly (1997) implies a logistical mobility type as evidenced by the terms 'satellite camp' and sedentary base camp'; which does not appear to be the case at the Party site. This difference in mobility type does not affect the point that the Party site is generally consistent with both the Schwarz (1994) and Holly (1997) models.

Range

Range refers to the area that a group uses over a period of time. Binford (1983) notes that one of the motivating factors to sustain mobility is that it allow a group to acquire information about a range of resources. Kelly (1995:151) furthers this by suggesting that the total range a group is interested in relates to "the degree of temporal and spatial variation in resources." Therefore, hunter-gatherers in Newfoundland, where most resources are seasonal and therefore varied in time and space, may have had an extensive mobility range. Groswater research has indicated that this is the case based on subsistence and lithic resource location and availability (Kennett 1990; LeBlanc 1996). This is based on Groswater sites located near known seasonal migration paths of faunal resources (e.g. Phillip's Garden East – harp seal) and the presence of Newfoundland cherts in Labrador (Loring and Cox 1986; Anton 2004) and along the Quebec lower north

shore (Pintal 1994, 1998). In addition, Ramah chert is found on Groswater sites in Newfoundland (Auger 1985; Kennett 1990; LeBlanc 1996). The measure used to identify mobility range for the Party site is the use and origin of raw materials.

The present understanding of raw material sources in Newfoundland and Labrador is incomplete. Although numerous chert outcrops have been identified little lithological study has been done linking cherts found at archaeological sites to chert sources. It is a generally assumed that the Groswater restricted their raw material use to colorful fine-grained cherts (Cow Head), Ramah chert and quartz crystal (LeBlanc 1996). However, looking at the debitage and artifacts from the Party site, this may not necessarily be the case.

It appears that the occupants of Area 1 and Area 2 were using cherts from the Cow Head area. From a purely visual inspection many of these cherts appear the same including the translucent and the green/grey/beige varieties many of which contain radiolaria. In fact, when combined, these two varieties of chert account for 55 per cent of all the lithic debitage found at the Party site during the 2003 excavation. The closest outcrop of the Cow Head group to Port au Choix in located on the northern side of Parsons Pond, approximately 60 km to the south of Port au Choix (LeBlanc 1996).

Area 1 and Area 2 have 12 similar varieties of chert which account for 92 per cent of all raw material debitage found on the site during the 2003 excavation. Area 1 has 16 varieties that are not found at Area 2. Of these different cherts, there are numerous varieties that appear to come from Labrador (Hull 2004 personal communication; Tuck 2004 personal communication). Included is 'Iceberg chert' which is very similar to

Ramah chert, only it contains more black fleck inclusions and has a slightly different texture. Iceberg chert is named for the Iceberg site (EjBe-19) on the southern shore of Labrador near L'Anse au Loup. It is an Amerindian (Maritime Archaic and Intermediate) habitation site (Madden 1976; Nagle 1978) and is located approximately 120 km from Port au Choix. The actual source for the chert is unknown, but it is assumed to be of Labrador, or mainland origin.

Other cherts found in Area 1 that do not look like Cow Head cherts include dark cherts with swirly bands and dark cherts with straight bands. However, their exact source is unknown. Many of these cherts also appear more 'Amerindian' but given their provenience and the overall lack of Amerindian cultural material, they are presumed to be associated with the Groswater occupation. Another chert that is present in Area 1 but not in Area 2 is mottled chert. This chert is present on other Groswater sites including Phillip's Garden East.

Area 2 has a typical Groswater Cow Head chert assemblage with one exception. Over a quarter of the chert is a white/light grey variety. It is a high quality chert, but is not the typical 'colorful fine-grained cherts' that LeBlanc (1996) uses to describe Groswater collections. This does not mean that it did not come from Cow Head, only that it is not colorful. It is most likely that all the cherts present at Area 2 originated from Cow Head.

From the above assessment of chert varieties and possible origins, it appears that the people occupying Area 1 may have had a larger mobility range than the people occupying Area 2. Both groups were using Cow Head cherts, but those at Area 1 seem to

have a stronger tie to Labrador. This based on the presence of Ramah chert and other non-Newfoundland looking chert in the Area 1 assemblage.

Mobility and Technology

Another way to investigate mobility is through technology. Shott (1986) argues that there is a relationship between mobility and technology and that the type of mobility strategy a group employs places restraints on technology since it imposes carrying costs on the group. Shott presents two ways to measure the mobility of a group: mobility magnitude and mobility frequency. Mobility magnitude relates to the distance that the group covers in residential moves in a year, which is similar to Chatters' (1987) range. Mobility frequency follows Chatters' definition and is how often a group moves in the course of a year. Since the Party site is only one site with two occupations, mobility frequency is difficult to interpret.

Shott (1986) also describes the morphology of tools in terms of complexity or diversity. Tool complexity is measured by how many distinct parts a tool has, the greater the number of parts, the more complex the tool. Tool diversity relates to "the number of distinct tool types included in the technological inventory" (Shott 1986:22). He draws two major inferences from this study: (1) there is an inverse relationship between tool diversity and mobility frequency and (2) there is an inverse relationship between tool complexity and mobility magnitude. Both of these conclusions are used to discuss mobility patterns at the Party site relative to Area 1 and Area 2. Although Shott's (1986) intentions for his models were to describe region and area scale mobility patterns (see

Table 2.1), they may be useful at the site scale when used in conjunction with other variables.

Area 1 has 10 and Area 2 has 12 different tool types. Since both areas have very similar tool diversities, little can be said about the mobility frequency differences between the two areas. However, if both sites were occupied by the Groswater during the warmer months these numbers may suggest a general pattern for mobility frequency at this time of year. If the Groswater had a different mobility frequency during the winter, this may be reflected in the tool diversity at colder month sites.

The most complex tool that has been identified in Groswater collections is the harpoon. This is a multicomponent tool that is made of both inorganic and organic elements. The inorganic parts are endblades and sideblades which are hafted to the harpoon head. Hafted tools are "stone implements (or bone, metal, etc.) that have been inserted into or attached by some other means to another element, usually a handle or a shaft" (Keeley 1982:799). Other possible hafted tools at the Party site include bifaces, scrapers and microblades. One hafting technique which is highly visible is notching. This technique aids in wrapping or tying the implement to the handle/shaft (Keeley 1982). Other techniques that may leave visible proof of hafting include mastic where a resin is used to glue the implement to the handle/shaft, or wrapping may leave evidence of rubbing on the implement.

Overall only 21 artifacts from the Party site collection may have been used as a hafted tool. This small number is due to numerous factors. First, the original assemblage is small and consists of only 151 artifacts. Second only certain artifact classes would

have been hafted, so this further reduces the number. Lastly, many items are broken and the base, the element usually associated with hafting, is not present.

Both the overall number and relative frequency of hafted tools found at Area 2 indicates that the people occupying this area may have been using more complex tool kit (Table 5.6). This has two potential implications. First, Keeley (1982:804) suggests that "longer-term occupation sites in any particular settlement system would yield assemblages with high frequencies of once-hafted tools." Applied to the Party site this would suggest that Area 2 had a longer residency. This echoes previous observations based on Chatters' (1987) mobility frequency. Second, if Shott's (1986) arguments are correct and there is an inverse relationship between tool complexity and mobility magnitude, then the people at Area 2 had a lower mobility magnitude (or range) than the people at Area 1. This also complements earlier comments on range.

Table 5.6: Hafted artifacts

Tool type	**Area 1** (n=69)	**Area 2** (n=82)	**Total** (n=151)
Biface (all types)	1	3	4
Burin-like tool	1	1	2
Endblade	2	6	8
Scraper	0	2	2
Sideblade	0	2	2
Microblade	2	1	3
Total (% of total for area)	**6** (8.7)	**15** (18.3)	**21** (13.9)

However, another factor may be influencing the numbers. Eight of the hafted artifacts from Area 2 are directly related to harpoons (endblades and sideblades). This

technology is associated with seal hunting, so it may be that the economic function of the site is the greater contributor to hafted artifacts, or is at least working in conjunction with either mobility frequency and/or mobility magnitude (range).

The next way to investigate mobility from the Party site is based on tool-production strategies. Cowan (1999) identifies two different strategies: (1) a flake industry and (2) a biface industry. The flake industry produces unretouched or minimally retouched flakes. These can be used as tools which require little time to make, low raw material quality and little technical skill (Cowan 1999:594). The negative aspects of the flake industry are that the use life of the tool is short and it is consumptive of lithic material (Cowan 1999). In contrast, the biface industry requires more time, better raw materials and more advanced skills but also results in a longer use life of the tool, and it is not as wasteful with lithic material (Cowan 1999). Cowan (1999) argues that flake tools from cores are not appropriate to highly mobile populations (low mobility frequency (Chatters' 1987)). On the other hand, bifacial tools have a low carrying cost and are suited for frequent mobility (or high mobility frequency).

Paleoeskimo lithic technology has another tool-production strategy that Cowan (1999) does not include in his study: the production of microblades. A microblade is basically a specialized flake that is removed from a prepared core (Owen 1988). This results in a tool production strategy that requires specialized skill, a good quality of raw material and preparation work (similar to the biface industry) but it also is somewhat consumptive (they can dull easily) and, once the core is prepared, requires little time to create many microblades (similar to the flake industry). Since microblades are

specialized *flakes*, Cowan's (1999) study may interpret them as an indicator of low mobility frequency. However, it may be that microblades are a technical adaptation created by mobile groups to produce a flake industry that is more portable (one microblade core can produce many useful tools) and less consumptive while at the same time requiring less primary production.

The microblade industry is universal throughout the Groswater culture, and so speaks to Groswater mobility at the larger scale (region and area). Biface and flake core industries may further elucidate aspects of mobility type (residential or logistical), demography and frequency at the site-scale.

Cowan (1999) interprets data from small, interior sites in New York from the Late Archaic, Early Woodland and Late Woodland periods and relates tool production strategy with three mobility dimensions (Table 5.7). Late Archaic sites have a mixed tool production strategy. This is composed of both bifaces and flake tools. These small

Table 5.7: Tool production and related mobility dimensions from the Late Archaic, Early Woodland and Late Woodland (Cowan 1999)

	Late Archaic	**Middle Woodland**	**Late Woodland**
Tool-production strategy	Mixed	Predominance of bifaces	Flake tools from cores at base camps; bifaces at field camps
Type of site	Base camp	Field camp	Base camp and Field camp
Mobility type	Residential	Logistical	Logistical
Mobility demography	Small social groups	Small groups	Larger groups at base camps; smaller at field camps
Mobility frequency	Medium-high	High	Low at base camps; high at field camps

groups practiced residential mobility, moving from base camp to base camp depending on resource availability (Cowan 1999). Mobility frequency is suggested to be medium to high and is interpreted based on technology, mobility type and the demographics of the group (Cowan 1999).

Artifacts found at Middle Woodland sites are predominantly bifaces. These sites are suggested to be logistical field camps. These sites would have been used by small specialized task-groups that would have been there to procure a specific resource and then return to the base camp (Cowan 1999). Since, this was a focused activity both in time and space mobility frequency is interpreted as high.

Two types of Late Woodland sites are found in this region: base camps and field camps. Flake tools and cores are the predominant tool at base camps which were comprised larger groups of people practicing low mobility frequency (Cowan 1999). In contrast, bifaces are predominant at field camps which are composed of less people and have higher mobility frequency (Cowan 1999).

In the case of the Party site, each area's tool classes are separated into four categories: endblades; bifacially worked tools (all bifaces, burin-like tools, awls, and sideblades); core fragments; and microblades. From Figure 5.7 it appears that the people occupying both areas had a strong reliance on microblades, and in general had a mixed tool strategy. This type of tool assemblage best mirrors Cowan's (1999) Late Archaic which is described as small social groups practicing residential mobility with a medium-high mobility frequency. The only major difference is that Area 2 has twice the percentage of cores. These cores were used to some degree in the production of simple

flake tools. This is seen through the refitting of two core fragments found in the midden feature. In each instance at least one flake from each core shows signs of retouch or use.

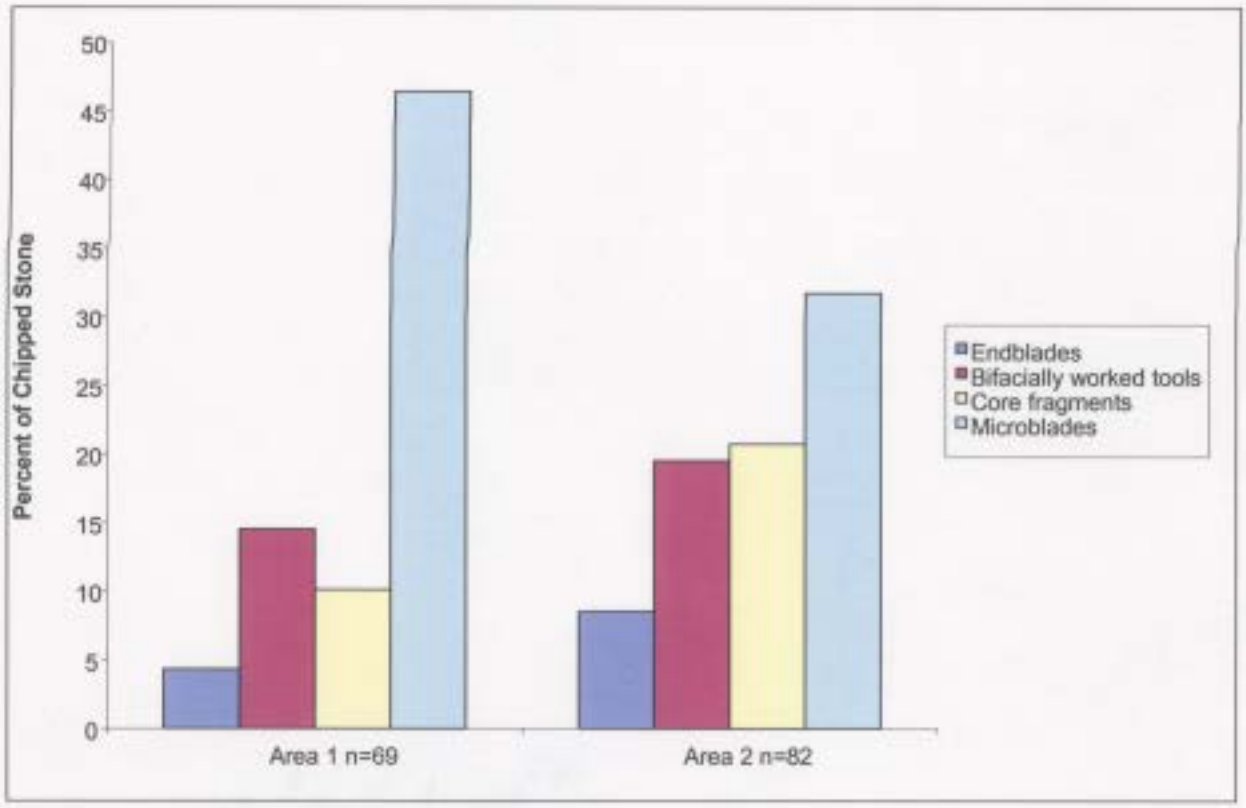


Figure 5.7: Assemblage composition by area

Summary

Both of the Party site's occupations (Area 1 and Area 2) indicate similar, but not exact mobility dimensions (Table 5.8). The mobility type, stability and scheduling all appear to be the same. These patterns are most likely similar because both occupations are the same type of site (residential base camps) and were produced by the same culture.

Table 5.8: Interpretation of mobility dimensions at Area 1 and Area 2

	Area 1	Area 2
Mobility type (site type)	Residential (base camp) -Binford 1980; Chatters 1987; Cowan 1999	Residential (base camp) -Binford 1980; Chatters 1987; Cowan 1999
Mobility frequency	Shorter occupation Short frequency -Keeley 1982; Chatters 1987; Cowan 1999	Longer occupation Short-medium frequency -Keeley 1982; Chatters 1987; Cowan 1999
Mobility demography	More people ?	Less people ?
Mobility stability -exact location or site scale perspective	Low -Chatters 1987	Low -Chatters 1987
Mobility scheduling	Follows Schwarz 1994 and Holly 1997	Follows Schwarz 1994 and Holly 1997
Mobility range	Larger -Shott 1986; Chatters 1987	Smaller -Shott 1986; Chatters 1987

The dimensions that are different between the two areas are frequency, demography and range. The differences in frequency may be related to food getting activities. If two different resources were being procured at the site, then this may have resulted in different lengths of occupation. Mobility demography is highly interpretive, and in the case of the Party site, differences appear to be slight if any. The larger interpreted range for Area 1 is interesting and may suggest different mobility patterns for various Groswater groups, or different social connections. Area 1 appears to have a stronger tie to Labrador and Quebec. This may indicate that the people at Area 1 had recently been north, or had strong ties to more northern parts. In contrast, Area 2 appears to be connected predominantly with Newfoundland with regard to lithic raw materials.

Summary

The two occupations at the Party site were not contemporaneous. This is based on the locations of each occupation on the site, stratigraphy, raw materials, and radiocarbon dating. Besides their time of occupation, other differences observed between the two occupations include the size, type and distribution of artifacts; the size, type and distribution of features; and the intrasite location of the two occupations.

This chapter focused on determining why the two occupations were different. Since the location (inner coast, same site) and the culture (Groswater) is constant then any difference may relate to other aspects of how the Groswater used this particular site.

First, data indicating seasonality and site economic function (intrasite location of each occupation, the spatial organization of each occupation and the artifact frequencies and types) were compared to identify other sources of difference. From this analysis Area 1 is interpreted as a summer site, reliant on a multitude of faunal and floral resources that are found in this location. Area 2 is interpreted as a late spring/early summer occupation with a faunal focus on harbor seal hunting.

Second, both occupations were investigated using Chatters' (1987) six mobility dimensions. The dimensions that are similar are stability, scheduling, and type. The different dimensions are frequency, demography and range. Frequency and demography describe the length of occupation and how many people were in the group. These attributes directly affect the accumulation, organization and construction of material remains at the site. Range is related to the raw materials at the site and suggests where geographically the group had direct or indirect access.

Mobility and economic function are closely linked. Residential mobility implies that groups move directly to a resource. Economic function implies some sort of resource acquisition. Resources are tied into mobility scheduling, frequency, stability and range. Therefore it is no surprise that both mobility factors and economic factors have influenced the makeup of both occupations at the Party site and their observed differences.

Chapter 6

The Zones

...place is full of the cultural and experiential artifacts that are full of socially constructed meaning – understand place, and we understand more about what it means to be human.
- Francis Violich

Introduction

This chapter expands the geographic focus from the Party site (site scale) to the inner and outer coast (zone scale). Following the pattern established in Chapter 5, Chatters' (1987) six mobility dimensions are considered for each site in Port au Choix (Figure 6.1). Five sites are considered part of the outer coast zone: Trike Path (EeBi-16), Phillip's Garden East (EeBi- 1), Phillip's Garden (EeBi-1), Phillip's Garden West (EeBi-11), and Point Riche (EeBi- 20). Seven Groswater sites are considered part of the inner coast zone: Northcott-Rumbolt (EeBi-5/7), Cornick (EeBi-29), Offrey (EeBi-26), Spence (EeBi-36), Lloyd (EeBi-39), Hamlyn (EeBi-41) and Party (EeBi-30). These analyses provide the data base for interpreting Groswater landscape conception through elements of their mobility (Chapter 7).

The definitions established in Chapter 5 for the six mobility dimensions remain the same. Two dimensions are recorded using ordinal scales. Frequency is recorded as short, medium or long. Short is an individual stay of one night to one month, medium is one month to three months and long is three months or longer. Stability is recorded as low, medium or high. Low is a single occupation. Medium indicates some degree of

reoccupation. High indicates intense reoccupation. All of the measurements are relative to other sites and should be considered approximate.

The outer coast sites are located on land that is protected by Parks Canada, therefore disturbances from looting and development are minimal. Also, the majority of the archaeology in this region has been done by professionals. This has resulted in well recorded sites with written reports. This is not the case for the inner coast sites which are located in the town of Port au Choix. The majority of these sites have been damaged or destroyed by construction, erosion, gardening or looting affecting the quality of analysis and comparison that can be done with these sites. Part of the rationale to excavate the Party site was to gain accurate archaeological data in order to better understand the inner coast zone.

Since the outer coast sites are better documented, their analyses are more detailed and accurate then those for the inner coast sites. This situation results in a better overview of the situation at the outer coast even though there are fewer sites located there. Fortunately, the Party site had two different occupations, thus allowing a broader interpretation of this inner coast zone. Although all the Groswater sites in Port au Choix are discussed, the inner coast is primarily characterized by the Party site.

In order to present a relatively balanced view of both the inner coast zone and the outer coast zone, three sites from the outer coast are heavily detailed. Phillip's Garden East is well represented in the literature, so the majority of the inferences are taken from past research (Kennett 1990; LeBlanc 1996; Wells 2002). Phillip's Garden is better known for its Dorset occupation, and virtually no analysis has been done on the

Groswater component. Thus analyses from this site are preliminary and should be regarded cautiously. Phillip's Garden West is regarded as an anomaly in the literature based on its material culture and faunal collection (Renouf 1994, in press; Wells 2002). Little analysis has been done with regard to how this site relates to Groswater mobility. It is interpreted here as a ritual site and is related to Groswater mobility by linking subsistence relations to ideological relations.

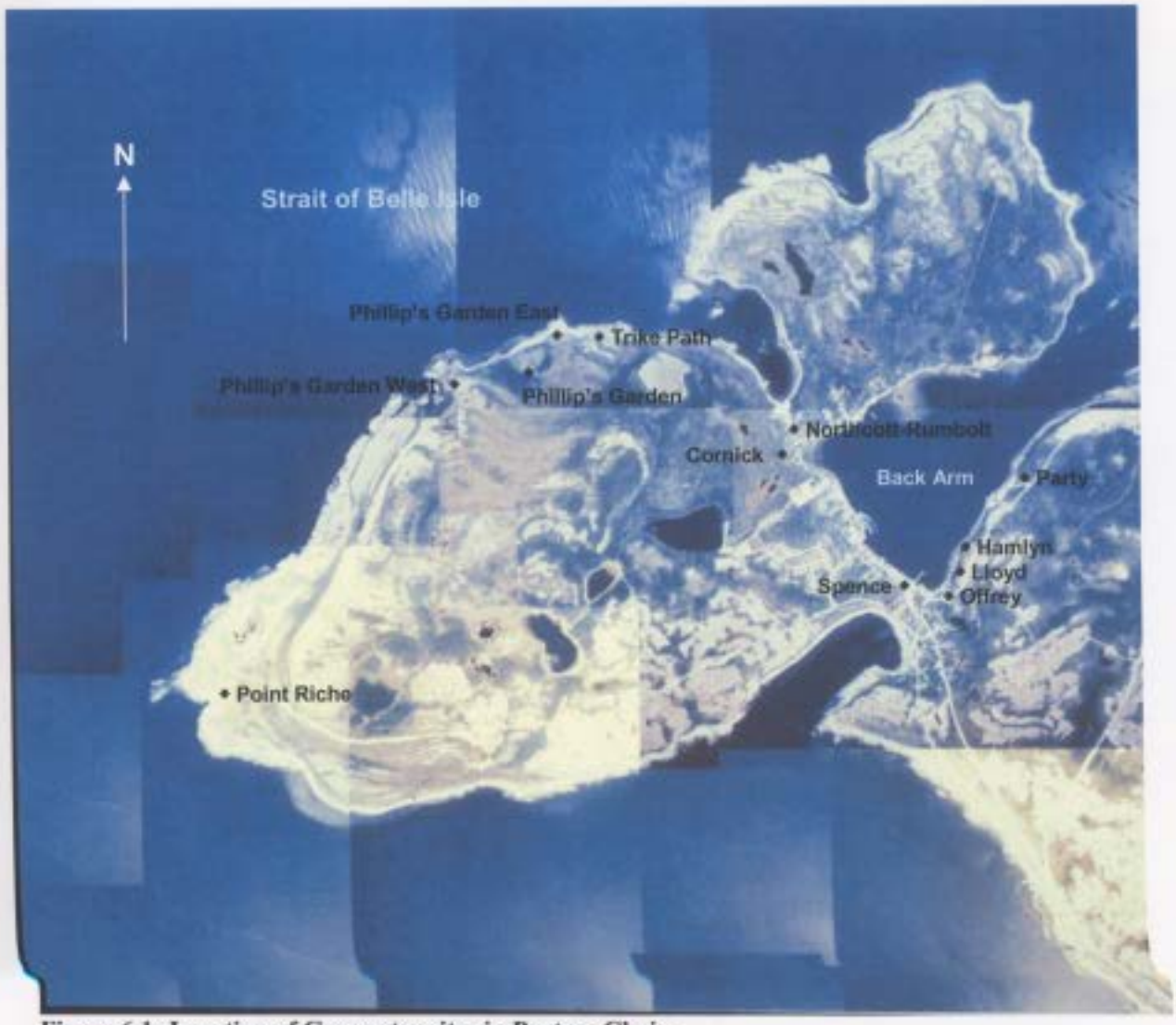


Figure 6.1: Location of Groswater sites in Port au Choix

Outer coast sites

Trike Path (EeBi-16)

This site is comprised of two endblade bases and a limited amount of lithic debitage found along an ATV path just east of Phillips Garden East. The cultural material was found in a disturbed context so it is difficult to offer any definite interpretation. However, it is not surprising that two endblade bases were found in a known harp seal hunting location. Thus their presence only strengthens the area's use as a harp seal hunting location. Unfortunately due to the sparse amount of information this site adds little to the interpretation of any mobility dimensions.

Phillip's Garden East (EeBi-1)

This is one of the two more researched sites in Port au Choix. It is interpreted as a seasonally reoccupied site with a focus on the harp seal hunt (Kennett 1990; Renouf 1994; LeBlanc 1996). The harp seal hunt was most likely to occur during December, or during February-April. Faunal evidence supports the possibility of both times (Renouf 1994; LeBlanc 1996), although Wells (2002) indicates that the spring or February-April hunt was most likely the case at Phillip's Garden East. In either case, Phillip's Garden East is a cold season site located at the outer coast. Kennett's (1990:147) conclusions regarding Phillip's Garden East is "of a temporary base camp at which exploitation, processing and general activities occurred." Kennett (1990:147) also notes that the large

accumulation of artifacts and debris indicate Phillip's Garden East was likely an "intensive or repeated occupation."

Recently Renouf (in press) interprets the radiocarbon dates from the site to distinguish two periods of occupation. The first occupation is between 2800 and 2300 BP and the second is between 2500 and 2200. However, Renouf (in press) does not speculate whether or not the two occupations represent intense or repeated occupations as suggested above by Kennett (1990). An intense occupation suggests that the Groswater would have used the area for a relatively long amount of time for a number of residential tasks. A repeated occupation indicates that the site's occupants would have reused the location for a number of seasons. LeBlanc (1996:80) suggests the latter: "the site was probably re-occupied for short periods of time, on a number of occasions." This analysis is based on the lack of significant structures or spatial organization at the site. Renouf (in press) adds that based on site size and the small number of dwelling features Phillip's Garden East was likely occupied by one or two family groups. See Table 6.1 for a summary of the mobility dimensions for Phillip's Garden East.

Past research appears sound with regard to the interpretations of various mobility dimensions. With one exception: LeBanc's (1996) conclusion that the residents of Phillip's Garden East practiced a logistical mobility pattern. This conclusion does not correspond with other Groswater sites, or other data from Phillip's Garden East itself. LeBlanc's (1996:188) interpretation is based on the "reliable and highly aggregated availability of harp seals in the spring of the year at port au Choix." This is a valid statement, but her reasoning behind a logistic mobility pattern is flawed. First Kennett

(1990) interprets Phillip's Garden East as a base camp. With the sole exception of lithic resources, all other resources that the occupants would have needed were within a day's walking distance leading research to favor a model with a base camps and associated locations. This model is strengthened considering no 'field camp' sites have been identified in the archaeological record that would correspond with Phillip's Garden East. Also the site does not have a visible caching system. All of these observations imply the residents of Phillip's Garden East were practicing a residential mobility pattern (i.e. moving people to resources).

Table 6.1: Interpretation of mobility dimensions at Phillip's Garden East

Mobility Dimension	**Interpretation**	**Reference**
Type (site type)	Residential (Base camp) ⟶ Logistic (Base camp)⟶ -interpreted here as residential	Kennett 1990 LeBlanc 1996
Frequency	Short occupations	LeBlanc 1996
Demography	1-2 family groups	Renouf in press
Stability	Medium	LeBlanc 1996 Renouf in press
Scheduling	Follows Schwarz 1994 and Holly 1997	
Range	Mostly Newfoundland, some connection with Labrador and Quebec lower north shore	LeBlanc 1996

Phillip's Garden (EeBi-1)

Phillip's Garden is better known for its extensive Dorset occupation. However, there is also a significant Groswater component to this site. Although it is unclear how the Groswater material arrived at Phillip's Garden it is most likely that the Groswater people established a camp of some sort here before the arrival of the Dorset. This is

based on the number of artifacts that are present as well as the presence of other Groswater sites in the vicinity.

Five Groswater artifact classes are present at Phillip's Garden: biface, sideblade, burin-like tool, scraper and endblade. This represents a minimum of 178 artifacts from at least 11 different dwelling features on the site (Figure 6.2). Since the collection has not been fully identified and various Dorset and Groswater artifact classes are virtually identical (microblades, some scrapers), this number is most likely larger.

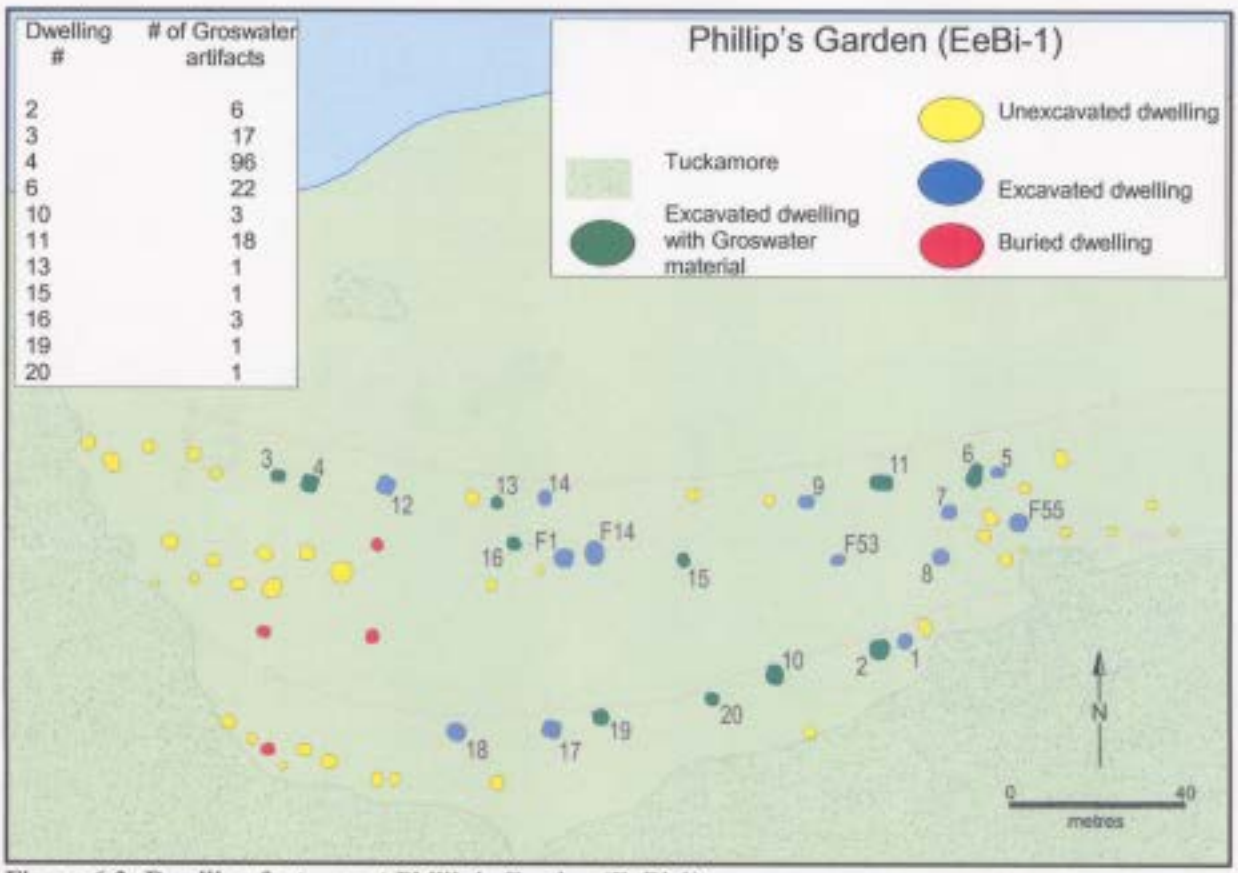


Figure 6.2: Dwelling features at Phillip's Garden (EeBi-1)
Courtesy of the Port au Choix Archaeology Project

The majority of the excavated dwelling features produced little to no Groswater material (0-3 artifacts). These artifacts may simply be the result of scavenging by the

Dorset people. However, four features (Houses 3, 4, 6, 11) have between 17 and 96 Groswater artifacts in their collections accounting for over 85 per cent of all Groswater artifacts identified at Phillip's Garden. This indicates that these Dorset dwelling features may have been built on a previously occupied Groswater site. Another interesting observation is that there are two locations on the site that have the bulk of the Groswater material. These two locations are Houses 3 and 4 (location 1), and Houses 6 and 11 (location 2). It is suggested here that these two locations represent two Groswater occupations at Phillip's Garden. In addition, each Dorset dwelling feature had Groswater seal hunting tools (endblades and/or sideblades). Based on the site's location, hunting tools and proximately to other Groswater harp seal hunting sites, it appears that Phillip's Garden may have been another Groswater outer coast, cold weather, harp seal hunting base camp.

Other tentative interpretations can be made about mobility in light of the material found at Phillip's Garden. The raw materials used at the site appear to be predominantly high quality cherts presumably originating from the Cow Head region. These include cherts of various colors and translucent varieties. Two artifacts were made on Ramah chert: one biface from House 6 and one endblade from House 4. The presence of Ramah chert indicates that the northern parts of Labrador may have been part of this group's range or at least within their communication sphere. The material could have been transported directly or traded from groups in Labrador. Either way it indicates that the Groswater at Phillip's Garden had some sort of contact and knowledge about a large area.

If the Groswater only occupied Phillip's Garden twice, then the site level mobility stability is low. If the site represents a winter harp seal hunting site, then Phillip's Garden adds to the list of sites in this zone with the same seasonality and/or resource focus. This indicates a larger degree of mobility stability for the zone, although the individual sites may not have been reoccupied many times.

Mobility demography and frequency are difficult to interpret. However, there were a significant number of artifacts found within the confines of each of these four Dorset dwelling structures. Although the Dorset did reoccupy the site after the Groswater occupation and may have caused a significant amount of post-depositional cultural disturbance, there are still relatively large numbers of Groswater artifacts in each of the dwelling features. This may be due to a significant population and/or a significant stay at the site.

In summary (Table 6.2) it is suggested that there were at least two seasonal Groswater occupations at Phillip's Garden. There are at least five different Groswater tool classes present at the site which span all four functional categories: procurement, processing, maintenance and manufacturing. Also, the site is located at a prime location to hunt harp seals. All other resources with the exception of lithics are within a day's walking distance. Based on this information it appears that the Groswater occupation at Phillip's Garden represents base camps which are part of a residential mobility pattern. The possible exception is lithic procurement strategies which may have required more than one day of travel and would result in a logistic mobility pattern. Until further work

is done on the Groswater occupation at Phillip's Garden these hypotheses are tentative and are used cautiously and in conjunction with other data whenever possible.

Table 6.2: Interpretation of mobility dimensions at Phillip's Garden

Mobility Dimension	**Interpretation**	**Reasoning**
Type (site type)	Residential (Base camp)	5 tool classes; close to primary resource
Frequency	Medium-high	Number of tools
Demography	Unknown	
Stability	Low-medium?	Unsure about Groswater re-occupation
Scheduling	Follows Schwarz 1994 and Holly 1997	Based on cold season harp seal hunt
Range	Mostly Newfoundland, some connection with Labrador	Artifact raw material; some Ramah chert

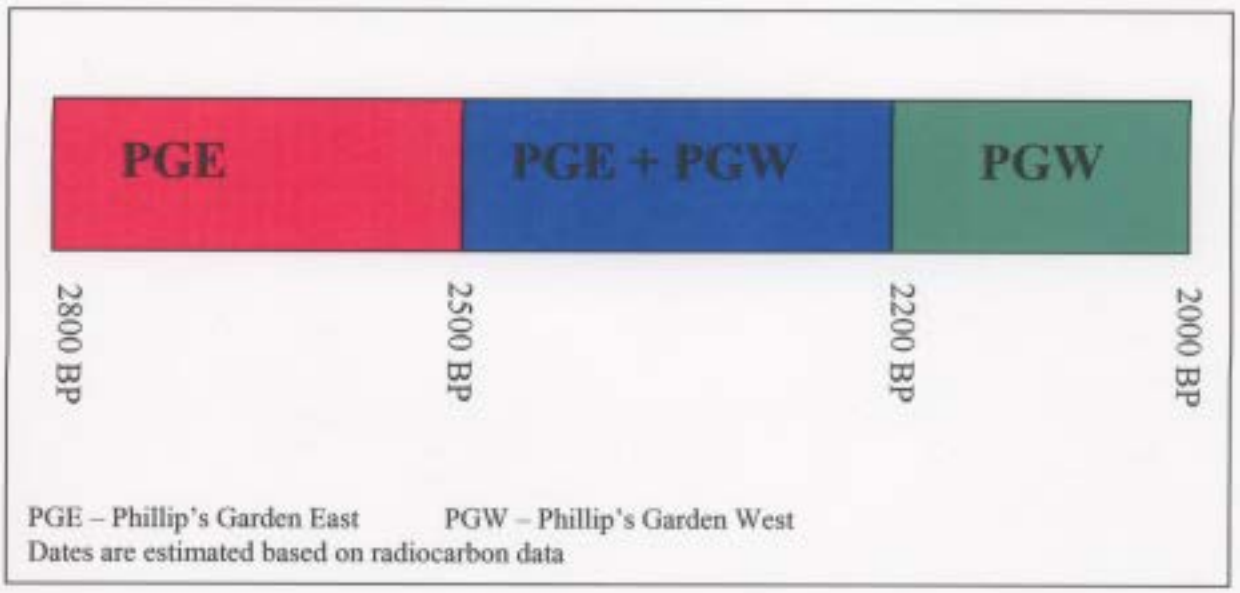
Phillip's Garden West (EeBi-11)

This site was fully excavated by Renouf during the summers of 1990-1992 (Renouf 1991, 1992, 1993). Four papers or theses have interpreted Phillip's Garden West (Renouf 1994, in press; Ryan 1997; Wells 2002) which highlight an important theme: Phillip's Garden West is different from all other Groswater sites in terms of its lithic and faunal material culture. In particular the Phillip's Garden West endblades and sideblades are morphologically distinct from typical forms, although differences have been established for other lithic tool classes as well. Endblades are elongated and have fine serration, concave bases, and have narrower side notches. Sideblades are typically

serrated, semi-lunate or crescent shaped and are smaller and more elongated than sideblades from other Groswater sites.

Faunal material from Phillip's Garden West and Phillip's Garden East, an adjacent site with typical Groswater stone tool morphology, was examined to determine subsistence activities at the two sites (Wells 2002). These two sites provide a good comparison since they are close to one another, sharing a coastline on the Point Riche peninsula, and they both have excellent faunal preservation. Wells (2002) indicates that when the sites may have been contemporaneously occupied (Figure 6.3), seal crania (heads) are virtually absent from Phillip's Garden West but are present at Phillip's

Figure 6.3: Occupation periods at Phillip's Garden East and Phillip's Garden West (Wells 2002; Renouf in Press)



Garden East. This absence is explained as "an intentional exclusion from the site" since cranial elements are some of the densest and well preserved bones (Wells 2002:224). In

addition, few front limbs, front flippers and hind limbs are in the Phillip's Garden East assemblage, while they are well represented in contemporaneous Phillip's Garden West assemblages (Wells 2002:178). These arguments suggest that when the two sites were contemporaneous, there was some sort of cooperation between the sites (Wells 2002).

Both Renouf (in press) and Wells (2002) suggest that the differences at Phillip's Garden West are due to some sort of ritual activity linked to the seal hunt. This idea is explored by following the role of the seal in its subsistence function (a food resource), its social function (the human relationship with the seal) and its ideological function (ritual expression of social relationship). Renouf (in press) uses cross-cultural analysis to show how other hunter-gatherer groups associate places of ritual and items of material culture with the animals they hunt. This is further developed here with a greater focus on the role of the individual, sensuality and the social function of material culture.

Ritual activity and its connection to hunting among hunter-gatherer groups is well documented in ethnographic literature (Speck 1939; Martin 1978; Tanner 1979; Fienup-Riordan 1986, 1990; Harrod 2000; Pelly 2001). Discussing Northern Plains Amerindian populations, Harrod (2000:76) notes that "animal rituals formed a deep layer of practice that was essential to the people's lives" and that ritual objects were collected or made for specific ceremonies. In addition he notes that that specific animal body parts were also used in ritual settings (Harrod 2000:76). Geographically closer to the Groswater, Speck (1935:78) suggests that the entire economic and social world of the Montagnais-Naskapi is involved with the animals they hunt. Tanner (1979) observes that the Cree of northern Quebec have a social relationship with the animals they hunt that extends throughout the

cycle of hunting, from hunting rituals to the hunt itself. After the animal is dead the relationship between the animal and the hunter changes whereby it becomes less social and more sacred (Tanner 1979). These examples show the subsistence, social, and ideological relationships hunter-gatherer groups have with the animals they hunt.

It is apparent that the seal, in particular the harp seal, played an important role in the subsistence activities of the Groswater. This can be observed at sites around Port au Choix as well as in other locations in Newfoundland (e.g. Factory Cove (Auger 1985)). All of the models detailing Groswater settlement and subsistence emphasize the important role that the harp seal hunt played in the location of Groswater sites in Newfoundland, the use of space by the Groswater in Newfoundland (Pastore 1986; Schwarz 1994; Holly 1997) and Groswater mobility patterns (LeBlanc 1996).

Parts of Groswater technology evolved into a highly efficient means to hunt seals. The harpoon with its endblades and sideblades, the chipped and ground burin-like tools used to make the organic components of the harpoon, and butchery tools such as bifaces and microblades all played a part in the technological adaptation to the seal hunt. Sinclair (2000:196) indicates that "technical action parallels social action." These comments mirror earlier ideas voiced by Ingold (1997:107) that "technical relations are embedded in social relations." These statements highlight the use of technology beyond that of subsistence into the role of societal and ideological.

If these ideas can be applied to the Groswater, then they had a social relation with the seal that can be observed through the material record. People made tools (technology) to hunt seals (a social relation). In particular the role of procurement tools,

endblades and sideblades, would have been especially important to social relationships since it is these tools that actually kill the seal and allow the hunter to harvest it. As noted above, these two artifact classes show detailed differences between the Phillip's Garden West assemblage and the assemblages from other Groswater sites.

However, following the above logic all endblades and sideblades would have similar roles to play in the social relationship between human and seal. Therefore social function is not an adequate explanation for the observed differences at Phillip's Garden West. Instead, the differences at Phillip's Garden West may represent an established form of ceremony linked to the seal hunt.

Another line of inquiry follows that artifacts and material culture are not simply objects, but represent creativity and as such, a part of social life (Gosden 2001). In order for a social value to be perceived, the individual must be able to transmit some sort of cultural attributes and values onto the object. The values must in some part derive from the sensory impact of these objects (Gosden 2001). Three attributes on the endblades from Phillip's Garden West are sensed through a combination of visual and tactile perception. These include finely serrated edges, a longer and thinner over-all shape and the use of colorful varieties of the Cow Head cherts.

There is an interesting relationship between the concept of seeing something and the concept of touching something. Most people are able to see an object if it is within their vicinity. However, not everyone may be able to touch the item of interest. This requires the individual to have access to the object. Touch therefore needs a more intimate or closer relationship between the person who has the object and the person who

does not. On the level of basic senses it appears that in order to fully appreciate the workmanship that went into the manufacture of the harpoon endblades at Phillip's Garden West people not only had to see them, but they had to feel them. In order to feel them a person must be able to gain access to the tool.

It is interesting to note that there are not many Phillip's Garden West endblades found outside the confines of the Phillip's Garden West site. Although individual finds of Phillip's Garden West tools occur throughout Newfoundland, for the most part the majority are confined to Phillip's Garden West (Ryan 1997). This may indicate restricted access to certain items of material culture. This may be a condition related to the ritual mentality, or ceremonial purpose, hypothesized above.

Ingold (1997) and Sinclair (2000) both indicate that technology is directly linked to a social relationship. Gosden (2001) indicates that objects represent creativity and thus a part of social life. From this it appears that the Groswater had a social relationship with the seal represented in the archaeological record by the tools used to hunt the seal. Renouf (in press) hypothesizes that the uniqueness of Phillip's Garden West is associated with a ritualistic expression that has to do with the ideology of the seal hunt, based on this social relationship. As mentioned earlier an ideological function is the ritual expression of a social relationship. This form of ideology most likely played an important part in how the Groswater perceived themselves and their role in the world. It is not surprising that in an area known for its harp seal hunting there is a site that expresses this ideology in the form of ritual and ceremony.

Mobility Dimensions at Phillip's Garden West

It is argued above that Phillip's Garden West is a ritual site expressing the ideological relationship Groswater people had with the harp seal. If this is the case, understanding how Phillip's Garden West fits into the Groswater mobility round is difficult to interpret since the classic culture ecological models rarely expand, if they include them at all, the role of ritual sites[1]. However, the answer is not to ignore these sites. Phillip's Garden West is part of how the Groswater people used resources and where they spent time. The use of these resources represents the interconnected nature of subsistence and ritual for the Groswater. This site allows researchers to move beyond simple food-getting mobility strategies and allows a more complete interpretation of how the Groswater moved around their environment, how they used space and how they viewed space.

Mobility is the movement of *people* across the landscape. It is most likely that all hunter-gatherers, whether they practiced residential or logistical mobility had aspects of their lives that involved ritual behavior. More over, ritual behavior would have been embedded in all aspects of their life (Speck 1939; Martin 1978; Tanner 1979; Fienup-Riordan 1986, 1990; Harrod 2000; Pelly 2001). So, Phillip's Garden West could be part of either type of mobility pattern. The type of mobility a group practices may not influence whether or not they had ritual sites, but it may influence where the ritual sites were located. In addition, if Phillip's Garden West was associated with another non-

[1] Chatters (1987) does include cemeteries, or other communal structures, as part of a suggested measure for mobility stability.

ritual seal hunting site (e.g. Phillip's Garden East), then each site would be linked in terms of their mobility patterns.

It is noted above that the harp seal played an important role in the subsistence, societal and ideological lives of the Groswater. If the Groswater were practicing a residential mobility strategy, then this is the place where a harp seal hunting ritual site would be located. The occasional presence of Phillip's Garden West type artifacts at other Groswater sites furthers the importance of this site, and this region in the world of the Groswater people. As such, Phillip's Garden West may represent the harp seal hunting *ideological* resource base linked to other more residential sites. Binford (1980:17) notes that people practicing residential mobility in cold environments "position the group with respect to particular food species that are temporally phased in their availability." This is exactly what the Groswater are doing on the outer coast region of the Point Riche Peninsula: moving people to resources. In the case of the Point Riche Peninsula the subsistence resource (harp seal) played an important part in the ideological world of the Groswater. This ideology may have then been transferred to the place or location of the harp seal hunt and was expressed as a ritual site. Following the residential mobility model, the Groswater as cold weather foragers also moved people to ideological resources (Figure 6.4).

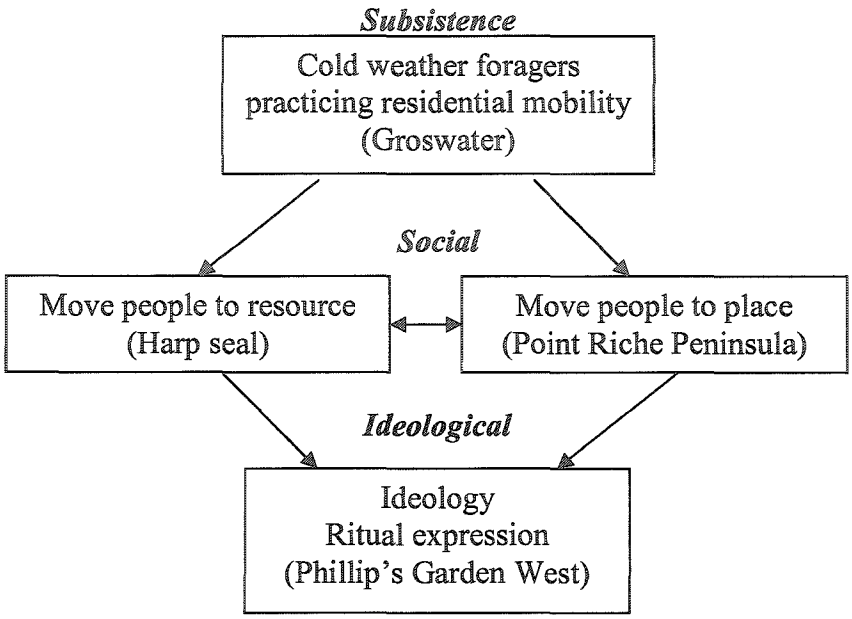


Figure 6.4: Possible relationship between a residential mobility strategy and ritual sites

Phillip's Garden West is interpreted as a cold weather site based on its faunal remains (Wells 2002). This results in some interpretation problems since there does not appear to be any winter type dwelling features present at the site. However, if this is a ritual site then habitation most likely occurred elsewhere. Given the close proximity of at least three other Groswater sites with the same seasonality as Phillip's Garden West (Phillip's Garden East, Phillip's Garden and Point Riche), it is not unlikely that Phillip's Garden West was a specific place to come for ceremony and ritual. There is a significant midden, hearths and fire-cracked rock, as well as artifacts and debitage. This build up of cultural material at a non-habitation cold winter site indicates that it was used often. On this basis stability is interpreted as medium to high.

If Phillip's Garden West is a ritual site without a habitation component then mobility frequency is interpreted as many short occupations. People would have come to

this site for short periods of time to engage in various ceremonial acts such as feasting or reenacting aspects of the seal hunt both of which are feasible considering the amount of faunal and lithic material found at the site.

Lastly mobility range appears to be small. The lack of Ramah chert at this site is interesting since it often shows up on Groswater sites, including the other sites located on the Point Riche Peninsula. This may be due to the ritual focus. Cow Head cherts are more local than Ramah chert. Perhaps the Groswater people chose a local chert (Cow Head) for a localized resource (harp seal) at a specific ritual location (Phillip's Garden West). This interpretation is highly speculative. However, another interesting fact to note is that while there are examples of Phillip's Garden West material on other Groswater sites in Newfoundland, there are no known examples from Labrador or the Quebec mainland. It appears that the Groswater may have initiated some sort of ritual border involving the harp seal, raw material and material culture between the Island of Newfoundland and the mainland. The interpretation of mobility dimensions are summarized in Table 6.3.

Table 6.3: Interpretations of mobility dimensions at Phillip's Garden West

Mobility Dimension	Interpretation	Reference
Type (site type)	(Ritual place) Interpreted as residential	Wells 2002 Renouf in press
Frequency	Short occupation	
Demography	Unsure	
Stability	Medium-High –at least 2 periods of use, hearths, little concrete dwelling remains, midden. If this is a cold weather ritual site, it appears to have been used many times.	Renouf 1994 Wells 2002 Renouf in press
Scheduling	Follows Schwarz 1994 and Holly 1997 -faunal indicates February-April harp seal hunt	Wells 2002
Range	Mostly Newfoundland –no Ramah chert	Renouf in press

Point Riche (EeBi-20)

Point Riche is the last site discussed for the outer coast zone. Although it appears to be a predominantly Dorset site, Eastaugh (2002) describes two Groswater features (Features 49 and 33). Associated with these features include numerous Groswater artifacts (endblades, scrapers, microblades, burin-like tools, bifacially worked knives and core fragments), fire-cracked rock, a single round cake of burnt seal fat, and flake debitage. Feature 49 is radiocarbon dated to 1830±40 BP (Beta-160980). Eastaugh (2002:74) observes that the Groswater assemblage found at Point Riche is similar to other Groswater assemblages in the area.

The Groswater component at Point Riche is interpreted as a cold weather base camp based on the artifacts and features found at the site. These include a range of artifacts, a potential house feature, fire-cracked rock, debitage and cores. The cake of

seal fat further implies that the Groswater occupied Point Riche during one of the two seal hunting periods, both of which occur in the cold season months. This site would fit into the already hypothesized model that the Groswater practice residential mobility. This is indicated by the presence of a base camp in a location that would allow the direct procurement of a major resource.

Interpreting the mobility frequency is based on the possibility of a house as well as the construction of some sort of platform. These two feature elements may indicate that the occupants of Point Riche intended to stay at this location longer that a couple of nights. If this is the case then the mobility demography was likely small since there was not a plethora of stone tools or debitage associated with the Groswater component although this may have become disturbed with the proceeding Dorset occupation.

The mobility stability is interpreted as low based on the lack of evidence for the reoccupation of the site by the Groswater. Also, based on the high percentage of Ramah chert in the assemblage it appears that this was a single, one time occupation of a small group of Groswater with strong connections to Labrador. The significant amount of Ramah chert on the site also indicates a large mobility range for this particular group.

Lastly, based on previous interpretations, mobility scheduling follows Schwarz (1994) and Holly (1997) at Point Riche. This site represents another outer coast, cold weather, harp seal hunting site. Table 6.4 summarizes the interpretations of the Groswater mobility dimensions from the evidence at Point Riche. Eastaugh (2002) does not make these inferences but does supply the data.

Table 6.4: Interpretations of mobility dimensions at Point Riche

Mobility Dimension	Interpretation	Reference
Type (site type)	Residential (cold weather base camp)	Data- Eastaugh (2002)
Frequency	Medium occupation	Data- Eastaugh (2002)
Demography	Small??	Data- Eastaugh (2002)
Stability	Low	Data- Eastaugh (2002)
Scheduling	Follows Schwarz 1994 and Holly 1997	Data- Eastaugh (2002)
Range	Large	Data- Eastaugh (2002)

Inner coast sites

The inner coast sites located along the coast of Back Arm are situated in the town of Port au Choix and are heavily disturbed by construction, gardening and looting. The exception is the Party site. The disturbed nature of the other six sites makes interpretation difficult. However, each site is considered in order to achieve the best possible picture of the Groswater in this zone.

Northcott-Rumbolt (EeBi-5/7)

This site is the amalgamation of two sites: Northcott (EeBi-5) and Rumbolt (EeBi-7). Both Paleoeskimo groups occupied this site (Dorset and Groswater). Thus certain artifact classes, such as microblades and scrapers, cannot be assigned a cultural affiliation. Only seven Groswater artifacts are identified in the collection: six endblades and one burin-like tool. All the endblades are small with a short boxed-base and have bi-

convex cross-sections as opposed to the classic plano-convex cross section. The burin-like tool is complete and "angle-tipped" after Auger (1985) and Kennett (1990).

Although this is a sparse collection, some minor inferences can be said regarding its potential subsistence implications. None of the endblades are the typical Groswater type identified by Renouf (1994) that are associated with outer coast, harp seal hunting. This may indicate that the Northcott-Rumbolt site had a different subsistence focus then harp seals, or seals in general. Unfortunately, little can be inferred about mobility from this site.

Cornick (EeBi-29)

This site was found during the construction of a house in 1988 and cultural materials were recovered by screening the dirt from the house foundation's excavation. LeBlanc (1996) interprets the function and lithic organization patterns at the Cornick site as similar to those observed at Phillip's Garden East. That is, the Cornick site was occupied specifically for the procurement of harp seals and the people were coming to the site with an anticipatory knowledge of the technological requirements that were needed for the procurement of a specific resource. LeBlanc (1996) does not specifically name the harp seal as the probable resource at the Cornick site, although she does imply it by associating it with Phillip's Garden East.

Based on the number of artifacts, the amount of debitage, the presence of fire-cracked rock, charcoal and bone it does appear that the Cornick site was a base camp. It also appears that the site was contained to the area excavated for the house, indicating

that the occupation was not overly spread out. Unfortunately the "few hundred bones" recovered from the excavation have not been analyzed, so any firm seasonality and functional analyses is lacking with regards to the faunal material (LeBlanc 1996:85). A small amount of Ramah is in the artifact and the debitage assemblage implying a connection to Labrador.

The endblades recovered from the Cornick site adhere to the classic Groswater type with box-bases and plano-convex cross-sections implying a harpoon industry assumed to be related to seal hunting. Also, nine sideblades were recovered from the site, strengthening the harpoon industry suggestion. The Cornick site is located on Back Arm, but it is also on the isthmus that separates the Point Riche Peninsula and the Port au Choix Peninsula from the mainland. This location would be a better harbor seal hunting location (warm weather location), but harp seal hunting could also be possible (cold weather occupation). It may also be possible that the site was situated to reap the benefit of both seal species. Identification of the faunal material would clarify the situation.

Although the Cornick site is labeled as "small", the amount of cultural material recovered from the site indicates a substantial occupation of some kind. This is one site that warrants further investigation in order to understand the relationship between the outer and inner coast, possible seasonality of the site, as well as the relationship between material culture, site location, seasonality and resource procurement.

Table 6.5: Interpretations of mobility dimensions at the Cornick site

Mobility Dimension	Interpretation	Reference
Type (site type)	Unknown (base camp) -harp seal hunting focus? -harbor seal hunting focus?	LeBlanc 1996
Frequency	Short?? Based on concentrated location	Data- LeBlanc 1996
Demography	Small?? Based on concentrated location	Data- LeBlanc 1996
Stability	Unknown	
Scheduling	May or may not follow Schwarz 1994 and Holly 1997	Data- LeBlanc 1996
Range	Large -some connection with Labrador	Data- LeBlanc 1996

Party (EeBi-30)

As described in Chapter 5, the Party site is two separate occupations of an inner coast location (Area 1 and Area 2). Area 1 is interpreted as a summer occupation, reliant on many faunal and floral resources that are found in this location. Area 2 is interpreted as a late spring/early summer occupation with a focus on harbor seal hunting.

In terms of mobility, Chapter 5 also discusses each of the six dimensions in detail so they are summarized here. Area 1 is interpreted as a base camp resulting from residential mobility. The mobility frequency is seen as a shorter occupation while the mobility demography is cautiously inferred as "more people" relative to Area 2. The mobility stability is interpreted as low and the scheduling appears to follow the models put forth by both Schwarz (1994) and Holly (1997). Range is interpreted as large based on the presence of raw materials from Labrador.

Area 2 is also a base camp resulting from residential mobility and it appears to have been occupied longer than Area 1. Mobility demography is interpreted as fewer people when compared to Area 1. Mobility stability and scheduling are the same as Area 1: low and following Schwarz (1994) and Holly (1997) respectively. Range is interpreted as small since there are no Labrador cherts are present in the assemblage.

Four Other Inner Coast Sites

There are four other inner coast sites located in the southern corner of Back Arm: Spence (EeBi-36), Offrey (EeBi-26), Loyd (EeBi-41) and Hamlyn (EeBi-39). These sites are considered together due to the small amount of diagnostic artifacts collected, the lack of exact provience data for any of the artifacts and since they are all in close proximity to each other.

In total only 16 diagnostic Groswater artifacts have been collected from these four sites (Table 6.6). The bifaces and the burin-like tools are all typical of Groswater. (See Figure 6.5 for example of burin-like tool). However, the endblades are not typical of Groswater assemblages (See Figure 6.6 for exception). Instead, they a have bi-convex cross-section, a longer blade length, and short box bases (See Figure 6.7 for example).

Table 6.6: Groswater artifacts collected from various inner coast sites around Back Arm

	Spence	Offrey	Loyd	Hamlyn	Total
Biface	0	1	0	4	5
Burin-like tool	1	0	2	2	5
Endblade	3	0	1	2	6
Total	4	1	3	8	16

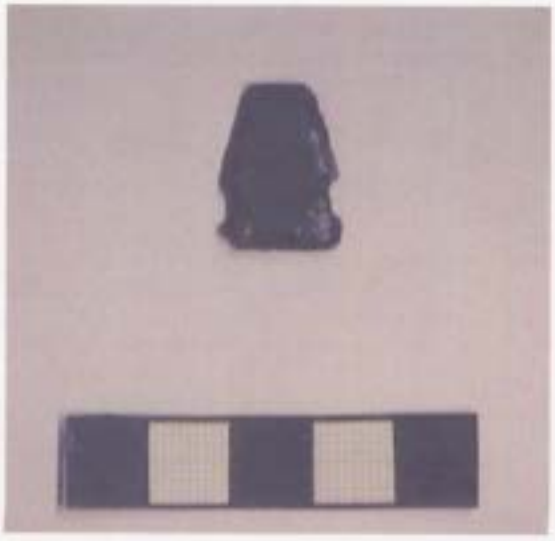


Figure 6.5: Burin-like tool from the Hamlyn site

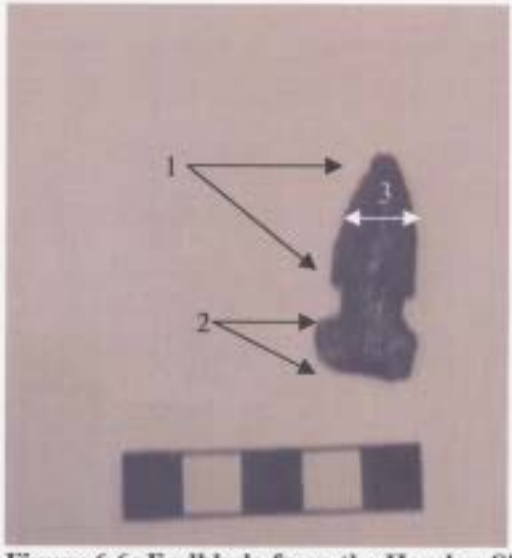


Figure 6.6: Endblade from the Hamlyn Site
1. Typical blade length
2. Typical box height
3. plano-convex cross-section

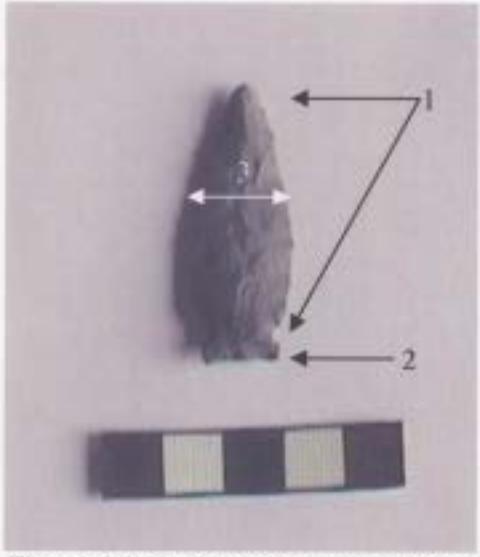


Figure 6.7: Endblade from the Loyd site
1. Long blade length
2. Short box height
3. bi-convex cross-section

Very little information about mobility, settlement, seasonality or function can be infered from these sites. However, the Party site is in the same zone, in a similar location (southern shore of Back Arm) and on comparable terraces as these four sites and

therefore conclusions drawn from Party may be provisionally applied to there other sites. After excavation it appears that Area 1 is most similar to the material culture found at the four sites. However, the Party site also indicates that this area was used for multiple resource purposes during the warm season. Based on the variety of Groswater endblades found from the four sites and the excavation at the Party site, it is hypothesized that the entire southern shore of Back Arm was used by the Groswater during the warm season. This is substantiated by models of settlement (Schwarz 1994; Holly 1997).

Summary

Table 6.7 summarizes the mobility dimensions for all Groswater sites in Port au Choix. The five outer coast sites provide substantial data regarding this zone's Groswater occupation, particularly Phillip's Garden East and Phillip's Garden West. The inner coast is not as well documented with the exception of the Party site. Although at least six other Groswater sites are present in this zone they offer little archaeological insight due to disturbance and a lack of provenience data.

Generally speaking, the data generated in this chapter do three things. (1) They strengthen the hypothesis that the Groswater were a residentially mobile group of hunter-gatherers who moved around in small highly mobile groups (Kennett 1990; Pintal 1994; Renouf 1994, in press). (2) They indicate that both zones have very similar mobility dimensions, with the possible exception of stability which appears to be lower at inner coastal sites. (3) They form the bridge from site-scale analyses to region-scale analyses by providing zone-scale patterns. The next chapter further interprets the mobility

dimensions at the zone and regional scales in order to understand how Groswater mobility and Groswater landscape are related.

Table 6.7: Summary of mobility dimensions for all Groswater sites in Port au Choix

Mobility Dimension / Site	Type R=Residential	Frequency S=Short M=Medium	Demography (Family Groups)	Stability L=Low M=Medium H=High	Scheduling S/H=Follows Schwarz (1994) and Holly (1997)	Range	Site Type
Outer Coast Sites							
Trike Path	?	?	?	?	S/H	?	?
Phillip's Garden East	R	S	1-2	M	S/H	Little Labrador	Base Camp
Phillip's Garden	R	?	?	M	S/H	Little Labrador	Base Camp
Phillip's Garden West	R	S	?	M-H	S/H	NLFD	Ritual Location
Point Riche	R	M	1-2	L	S/H	Lots Labrador	Base Camp
Inner Coast Sites							
Northcott-Rumbolt	?	?	?	?	S/H	NFLD?	?
Cornick	?	S?	?	?	S/H?	Little Labrador	Base Camp
Other 4	?	?	?	?	?	NFLD?	?
Party Area 1	R	S	1-2	L	S/H	Little Labrador	Base Camp
Party Area 2	R	S-M	1-2	L	S/H	NLFD	Base Camp

Chapter 7

Endings

Life is movement.
- LOWA

Introduction

Cultural ecology has guided the majority of prehistoric mobility models in Newfoundland (examples include: Robbins 1985; Renouf 1994; LeBlanc 1996, 2000). This framework is based on "the explicit assumption that any aspect of human behavior can involve direct interaction with the environment" (Jochim 1979:84). This has led to a greater focus on economic aspects of mobility related to resource acquisition such as caloric intakes, optimum foraging strategies and subsistence-settlement models. Other factors must have influenced prehistoric groups' mobility in Newfoundland since different groups had different mobility patterns (Schwarz 1994).

For the past decade there has been an acknowledgement in the archaeological literature of "non-economic perspectives on human-land relations" (Knapp and Ashmore 1999). This has resulted in a reassessment of the use of landscape studies in archaeology. From this has emerged a view of prehistoric landscape as "more than an environment to be exploited" (van Dommelen 1999:284) resulting in various interpretations through studies of social reproduction (Barrett 1991; Taçon 1994), gender (Hastorf 1990; Tringham 1990), power relations (Thomas 1993), language (Gell 1995), and art (Miller 1995). Mobility is another avenue of interpretation in landscape studies (Tilley 1994).

The varied ways landscape is studied in archaeology have resulted in many definitions of landscape in the literature (Crumley 1994 and Johnston 1998 as two examples). Barrett's (1991:8) definition is adopted here and begins as a "form constructed from natural and artificial features, [which] become a culturally meaningful resource through its routine occupancy." Mobility provides mechanisms for both cultural construction and occupancy demonstrating the intricate role mobility has in a group's landscape. Kelly (1992:44) states that "mobility is a property of individuals [and that movement] occurs on daily, seasonal, and annual scales." This range of mobility indicates responses to religion, kinship, trade, art and personal obligations (Kelly 1992:48) and makes the movement culturally valued. If movement is culturally valued, then the space that people are moving through also becomes imbued with cultural meaning (Knapp 1999). As such mobility is part of landscape construction.

Mobility is tied to both physical and cognitive occupation of the landscape. The direct movement of groups of people in and out of space is the physical action of occupation. Cognitively, these movements become part of memory, history and folklore for the group. Knapp and Ashmore (1999:13-14) add to this theory by arguing "landscape is often regarded as the materialization of memory, fixing social and individual histories in space... [linking landscape] to the identity of its inhabitants." This concept strengthens cognitive occupations by linking memory and identity to landscape.

The Groswater moved through Port au Choix. This mobility is investigated using six different dimensions (Chapter 6). By analyzing these dimensions at the zone and regional scales, variability and permanence are interpreted as both environmental and/or

cultural adaptations. These mobility adaptations are considered as indicators of the construction and occupation of the Groswater landscape in Port au Choix.

Mobility Frequency

Both the inner and outer coast zones show similar patterns: both have sites with short or medium mobility frequencies. From this, two observations can be made about Groswater mobility frequency: 1) there is a slight variation between sites within the same zone and 2) there is no variability in the patterns between zones. The slight variation observed between sites in the same zone is probably due to the effects of environmental variables that influence the length of stay at a specific site at a particular moment in time. These specific variables could include how long a resource is present, what resource is present, weather conditions and ice conditions.

The lack of variability in the patterns between zones could also be observed as a consistent regional pattern. The Groswater people did not stay at one site for a long time during one occupation no matter the season. This represents a cultural adaptation, since other cultural groups have adapted to the same environment in different ways. For instance, the large Dorset Paleoeskimo occupation at Phillip's Garden in the outer coast zone is interpreted as a semi-sedentary site (Renouf and Murray 1999). This indicates a long mobility frequency for a Dorset occupation in the same area where the Groswater people practiced short to medium mobility frequency. In addition the Dorset occupation does not appear to have a consistent regional pattern, since no semi-sedentary Dorset sites have been identified in the inner coast zone. The variations between the zonal patterns of

the Dorset and the Groswater indicate that zonal mobility frequency is a cultural construct based on more than just environmental variables.

Although Groswater sites show short to medium mobility frequency, the region of Port au Choix was occupied for a long time though intermittently. Based on radiocarbon dating it appears that the Groswater people moved through this region for the majority of their occupation in Newfoundland (Kennett 1990). This is predominantly based on 26 radiocarbon dates[1] from three outer coast sites: Phillip's Garden East (15 dates), Phillip's Garden West (10 dates) and Point Riche (1 date) (Table 7.1). The three dates from inner coast are all from the Party site (Table 7.1). From these data it appears that the outer coast was occupied over a longer period. However, the low number of dates from the inner coast may be influencing this observation. This sort of long term occupation was likely the result of favorable subsistence resources and a sense of familiarity, a Port au Choix tradition, which may have existed for the Groswater.

Landscape

The pattern of regional mobility frequency indicates that the Groswater maintained a connection to Port au Choix throughout their occupation of Newfoundland. There is little doubt that the massive harp seal migration drew the Groswater to this region since it has one of the best places to hunt harp seal. However, other sites in the inner coast zone show the Groswater chose to come to Port au Choix for resources other than the harp seal; resources that could have been procured elsewhere. The choice to

[1] Only dates from positive Groswater contexts are considered

come to the inner coast zone at Port au Choix must be tied to the subsistence resources, but may also be the result of a general preference for the region. This meaning of place to the Groswater helps shape their view of landscape on the Northern Peninsula. Port au

Table 7.1: Radiocarbon dates for all Groswater sites in Port au Choix

Site	Laboratory no.	Conventional C^{14} age (yr BP)	Calendar age (cal yr BP)
Phillip's Garden East	Beta 23979	2760±90	3170-2730
Phillip's Garden East	Beta 15375	2660±70	2950-2490
Phillip's Garden East	Beta 19086	2510±90	2760-2350
Phillip's Garden East	Beta 50021	2500±60	2750-2360
Phillip's Garden East	Beta 42971	2420±110	2800-2150
Phillip's Garden East	Beta 19089	2370±160	2800-2000
Phillip's Garden East	Beta 42972	2350±100	2750-2150
Phillip's Garden East	Beta 50023	2350±90	2750-2150
Phillip's Garden East	Beta 19087	2320±100	2750-2050
Phillip's Garden East	Beta 42970	2310±90	2750-2050
Phillip's Garden East	Beta 50022	2260±70	2450-2040
Phillip's Garden East	Beta 49755	2240±100	2750-1950
Phillip's Garden East	Beta 19085	1930±140	2350-1500
Phillip's Garden East	Beta 19088	1910±150	2350-1500
Phillip's Garden East	Beta 23980	1730±200	2150-1250
Phillip's Garden West	Beta 49759	2540±160	3000-2150
Phillip's Garden West	Beta 49761	2460±120	2800-2150
Phillip's Garden West	Beta 49758	2350±80	2750-2150
Phillip's Garden West	Beta 49760	2340±100	2750-2100
Phillip's Garden West	Beta 66439	2340±70	2750-2150
Phillip's Garden West	Beta 66437	2240±70	2360-2040
Phillip's Garden West	Beta 42973	2200±110	2500-1850
Phillip's Garden West	Beta 49756	2190±100	2360-1920
Phillip's Garden West	Beta 49757	2090±70	2310-1890
Phillip's Garden West	Beta 66438	1960±80	2120-1790
Point Riche	Beta 160978	1830±40	1860-1690
Party Site	Beta 183603	2710±40	2870-2760
Party Site	Beta 146666	2570±60	2780-2470
Party Site	Beta 183604	2460±70	2750-2340

Calibrated dates represent 2 sigma (95% probability)
Calibration based on Stuiver et. al. (1998) and plotted by Oxcal v.3.5 (Bronk Ramsey 1995)

Choix becomes a place of living; a place of subsistence; a place of ritual; a place of importance in the lives and the culture of the Groswater. This contruction of the regional landscape provides reasons for its physical occupation (subsistence and other resources) and structure for its cognitive occupation (history and memory).

Demography

The same mobility demography pattern occurs at all sites in both zones throughout the Port au Choix region: Groswater people organized themselves in small groups. This is not to say that individuals did not move around from small group to small group, in fact the genetic proliferation of the people would have depended on this. Instead, it appears that the Groswater socially organized themselves into small mobility units regardless of environmental situation.

Unfortunately, it is difficult to infer whether or not any of the sites were contemporaneous either within the same zone or between zones. Therefore the exact zonal and regional demographics are not known.

Landscape

If the larger Groswater population organized themselves in small groups, they would have needed to maintain networks of communication between groups. These networks would have shared information on resources, local environmental conditions, other groups of people, and additional details pertaining to Groswater society. Within

this communication must have been references to Port au Choix. As noted in the section on frequency, Port au Choix was exploited for approximately one thousand years by the Groswater people. This occupation would have involved numerous small groups moving in and out of the region, generation after generation. This repeated use over an extended period indicates that Port au Choix was probably part of Groswater traditions, history and folklore. This memory of Port au Choix stresses the construction of both the physical and cognitive landscapes (Knapp and Ashmore 1999).

Stability

Each zone has its own mobility stability pattern in terms of sites. The outer coast zone sites have higher mobility stability than the inner coast zone sites. This information is a result of a greater number of house structures in the outer coast sites. These house structures are interpreted as a cold season adaptation. Therefore at this scale, environmental variables appear to influence the mobility stability of the sites and thus the zone.

The overall mobility stability of the two zones is actually very similar. Even though the outer coast appears to have fewer sites, they were occupied more often. On the other hand, the inner coast has more sites, but they appear to have only been occupied once. Overall, if both of these assumptions are correct, each zone would have similar mobility stabilities. This could indicate that the two zones were equally important to the Groswater, at least with regard to subsistence potential and resources. However, the presence of more permanent structures and a ritual site at the outer coast does indicate

that the outer coast was more significant to the Groswater. This is most likely due to the subsistence, social and ideological relationships that the Groswater had with the harp seal.

The mobility stability of the Port au Choix region is high. It appears that the Groswater congregated at specific locations along the Northern Peninsula and at other locations in Newfoundland. For instance, 50 km north of Port au Choix in the community of Bird Cove, there are at least three Groswater sites (Hartery and Rast 2001). No Groswater sites have been found between Port au Choix and Bird Cove. There is a similar situation to the south, where there are virtually no Groswater sites for approximately 100 km until the sites at Cow Head (DlBk-1, DlBk-2, and DlBk-3) and Broom Point (DlBl-1)[2]. Other clusters of Groswater sites occur at Burgeo (six sites), Fleur de Lys (four sites), and Eastport (three sites). Single sites do occur, but there also appears to be a trend of clusters across the Island of Newfoundland. This may be the result of bias in the present archaeological sample, but it is an interesting trend that should be explored in future research.

Landscape

The differences observed between the inner and outer coast mobility stabilities can be adequately explained through the need for heat and protection from the elements in the colder months. Structurally, this can be dealt with constructing dwellings and hearths. If exact locations are known and form part of the memories of the Groswater,

[2] one exception is a possible Groswater occupation at Daniel's Harbour 1 (EbBj-6), approximately 50 km south of Port au Choix.

then structures (hearths, pits, dwellings) affirm these memories. That is to say that if the outer coast zone of Port au Choix was part of the Groswater's tradition and history, it would not be necessary to go back every year to confirm its location since it would be part of their cognitive landscape. However, if a person had only heard about the place, but had never been there, features would confirm its use by past peoples. In a sense, they would complete the circle of use to memory to use.

Phillip's Garden West is described as a ritual site located in the outer coast zone. The site itself has relatively high mobility stability. It is also a unique Groswater site in terms of material culture and overall purpose since no other Groswater ritual sites of this sort have been found so far. The presence of Phillip's Garden West material on at least 15 other Groswater sites ranging from the south coast of Newfoundland to the north east coast of the Northern Peninsula indicate that the particular material culture was widespread on the Island (Ryan 1997) . Although the finds are often single, this specific material culture is associated with one site in one region linking the artifacts with the place. This situation may have provided the Groswater with a physical link to an area of ritual and importance, and allowed the Groswater to transport part of the physical landscape with them. If Phillip's Garden West was carried both physically and cognitively and the remainder of Port au Choix was also part of Groswater cognitive landscape, then this helps to explain why Port au Choix was used to a greater extent then other locations in Newfoundland.

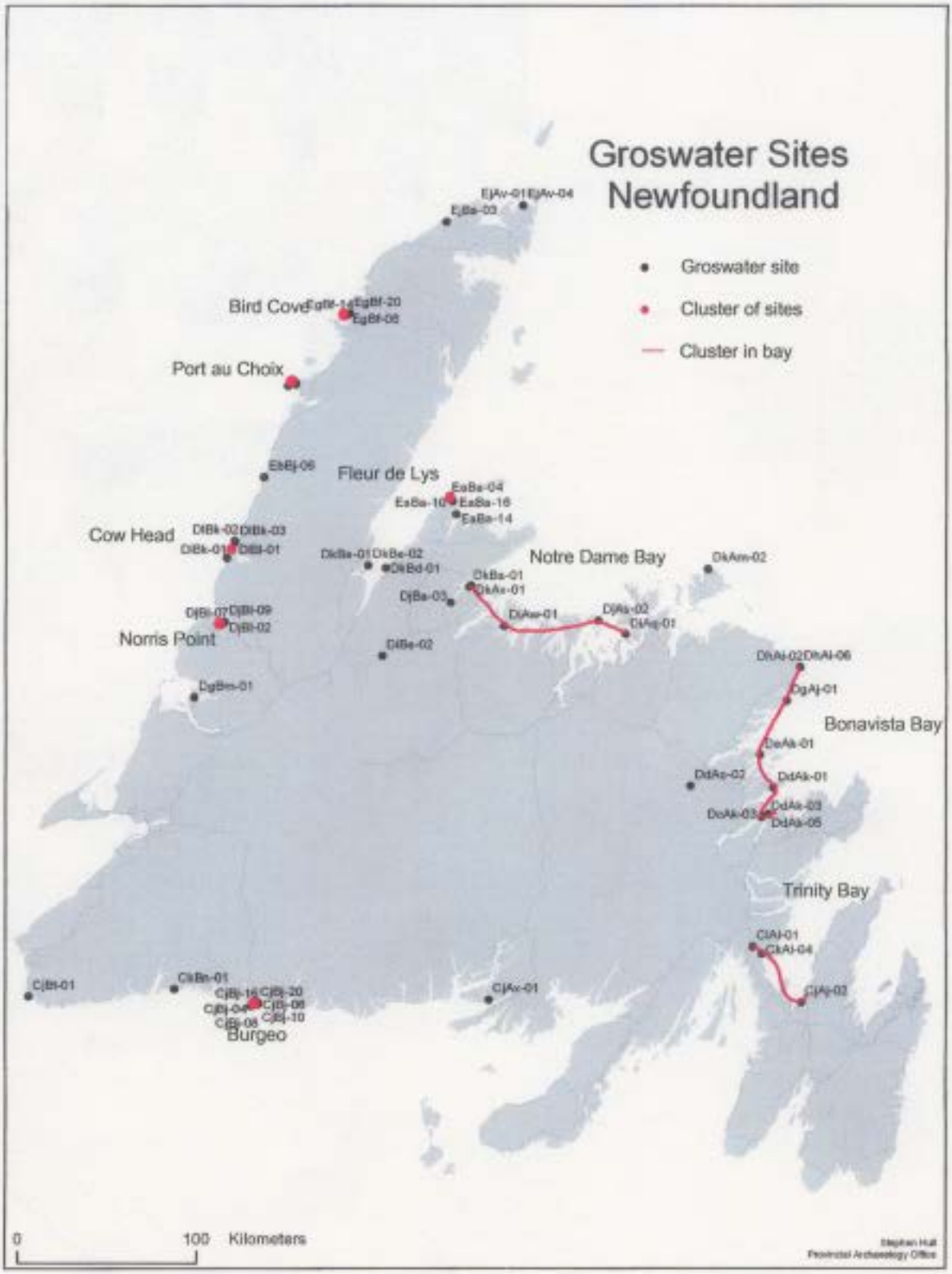


Figure 7.1: Clusters of Groswater sites in Newfoundland (map courtesy of Provincial Archaeology Office, St. John's, NL)

Port au Choix was the most extensively used region by the Groswater. As noted above, other locations around the island also show site clusters. Examples include: Bird Cove (3 sites), Cow Head (4 sites), Norris Point (3 sites), Burgeo (6 sites), and Fleur de Lys (3 sites) (Figure 7.1). Three larger bays also show repeated occupation: Trinity Bay (3 sites), Bonavista Bay (7 sites) and Notre Dame Bay (6 sites) (Figure 7.1). If these regions were occupied more often by the Groswater, then they would have been part of their cognitive map of Newfoundland. This would act as a risk reducing mechanism since these areas would then be easier to discuss, resource potential would be better known and the locations of other groups of Groswater would have been easier to predict.

Hunter-gatherer populations need to assess risk and be able to manage it. One such mechanism is the storage of resources in preparation for a time when such resources may be in demand. Groswater sites do not show evidence of such storage mechanisms. An alternative method is a network of people that have reciprocal sharing obligations located over a larger geographic area (Balikci 1970; Lee 1979; Renouf 1999). This model could fit the Groswater pattern in Newfoundland. The Groswater occupied Newfoundland for generations and would have dealt with the unpredictability of resources throughout their occupation. A cognitive map of where people or resources may be located would have been especially useful for a group dealing with unpredictability. This constructed landscape combines resources, people, land and movement as one method to ensure survival.

Scheduling

Both zones in Port au Choix follow the models proposed by Schwarz (1994) and Holly (1997) indicating that the outer coast was occupied during colder months, predominantly for the procurement of seal and other outer coast resources, and the inner coast was occupied during the warmer months for a variety of resources. This pattern indicates that the Groswater moved directly to the resource they were going to procure. Scheduling is defined as how a group organized its mobility in order to acquire resources at different times of the year, so an environmental determinant is inherent in the definition.

Since two zones are identified in the Port au Choix region, the function of the Groswater occupation in Port au Choix can no longer be interpreted only in terms of a cold season, harp seal hunting region. The Groswater people also occupied this area during warmer months, and/or in a zone that was not as favorable for harp seal hunting.

Landscape

Mobility scheduling is a combination of time, resources and people. It is one of the motivating factors in the occupancy of the landscape by pushing people to certain locations at certain times of the year. This sort of scheduling pattern reflects what people would have seen and what people would have been expecting to see where they were living depending on the season.

People occupying the north coast of the Point Riche Peninsula during the colder months would have seen open expanses of ice and ocean which would have been filled

with hundreds of thousands of harp seals at specific times of the year. If the harp seal hunt was successful, the landscape would have been filled with such images as blood stained snow and butchery, cooking and processing practices. Other sensual elements in this landscape would be smells of fresh seal meat, raw and cooking; the taste of the seal meat; and the feel of new seal pelts. All of these would have combined as part of a particular physical landscape. This is also assumed to be the preferred landscape since it indicates a successful seal hunt. However, this would also be a monotonous, darker landscape since it was occupied during the colder parts of the year, with one primary resource. It may have also been a more spiritual time, rooted in the sacred relationship between the Groswater people and the harp seal.

In contrast, the inner coast zone is a sheltered bay with a number of resources instead of open expanses of water and ice with harp seals. Visually, the landscape was greener with a greater variety of plant and animal life. The air would have been warmer and the days longer. Various meats and floral resources could have been harvested adding a greater assortment of tastes to the palate.

Both the inner coast and outer coast zones were part of a schedule that revolved around certain resources. Both what the resources were and where they were found would have been part of the Groswater physical landscape. This physical landscape is then more than simply where a resource is found, it is also the sensual associations that correspond with the particular places, the occupation season and the types of resources being procured.

The cognitive landscape is the mental understanding of the mobility schedule including what each season brings, what items can be found where, when to move, and what is expected once the movement is in progress. All of these items would be a combination of history, experience, and memories which allow people to make decisions and follow traditional scheduling habits.

Range

Mobility range is based on the type of raw materials found in the assemblage. In particular, Ramah chert is used as an indicator of a connection to Labrador while the majority of other chert types are assumed to come from the Cow Head beds located to the south. No particular pattern is observable between the two zones with regard to the presence of Ramah chert. This indicates that this is not related to where Groswater occupation occurred. However, one Ramah chert artifact does not mean that it was carried by the same person from northern Labrador down the coast to be deposited on a site in Newfoundland. Other situations such as trade and exchange are strong possibilities. In contrast all sites have large amounts of Cow Head chert, indicating that this chert source was both well known and well used by the Groswater occupying Port au Choix.

Generally speaking, small amounts of Ramah are present on sites in Port au Choix. The same trend is observed on other sites in other regions in Newfoundland (Auger 1985; LeBlanc 1996). Whether or not this represents direct procurement or indirect through trade and exchange networks is not clear. This may simply represent the

results of certain communication between groups from region to region from northern Labrador to southern Newfoundland. The specific use of high quality raw materials is a trend that often typifies Groswater collections (LeBlanc 1996; Kennett 1990; Renouf 1993b, 1994) including sites in Labrador (Loring and Cox 1986; Pintal 1994, 1998; Anton 2004). This indicates that there is a larger movement of raw material south-north (from Cow Head) as opposed to north-south (from northern Labrador). The reasons for this are not clear.

Landscape

In terms of landscape construction, raw material can be interpreted as linked to geographic locations. As a result, certain raw materials could have indicated a sort of history (cognitive landscape occupation) for the Groswater. If raw materials did represent geographic locations, then they also represented a combination of where the Groswater had been, were located and were intending to visit. This sense of historical self awareness would have been essential to providing the Groswater with a link to other people in other geographic locations thereby strengthening ties and strengthening their risk reduction strategy.

Type

Groswater mobility type for all sites in both zones is interpreted as residential. This is primarily based on a combination of site type and site location. The majority of sites that can be assigned a type are base camps located next to primary resources such as

harp seals, harbor seals and mollusks. Residential mobility implies that the settlement system will comprise base camps and locations grouped closely together in an area that will accommodate all of the residents' subsistence needs (Binford 1980; Chatters 1987). Base camps are more evident in the archaeological record, where locations are more ephemeral. It is possible that the sites where only a minimum amount of cultural material was recovered (e.g. Loyd and Hamlyn sites) are locations tied to a site in the inner or outer coast.

Phillip's Garden West is labeled a 'ritual location'. This site does not follow the ephemeral pattern for locations mentioned above. Its archaeological abundance is most likely due to its repeated use over time (mobility stability). It is still considered a location since it appears to have a specific role albeit not directly related to domestic activities. The site's location in the outer coast zone is easily accessible to any person living in either the inner or outer coast, although it is most likely associated with the outer coast occupations. This is based on the relative importance of the harp seal to all sites in this zone.

The entire region appears to have a similar mobility type pattern. This pattern does not suggest one occupation, but many occupations. Residential mobility implies that all of the needed resources are within a certain limit of the base camp. This is true for all resources except raw material which appears to have been brought into the region from regions to the south of Port au Choix (Cow Head cherts) and from regions far to the north (Ramah chert).

Foraging settlement systems are composed of high residential mobility and low logistic mobility (Binford 1980; Habu and Fitzhugh 2002). This indicates that foragers practiced both types of mobility. So, instead of labeling the sites in the Port au Choix region as residential in terms of a mobility pattern, it may be better to suggest that they are part of a foraging settlement strategy. This identifies the fact that the majority of the resource procurement was local, or residential. At the same time a foraging settlement system allows for a small amount of logistic mobility in order to procure choice lithic resources outside of the residential mobility region.

Landscape

Generally speaking, the Groswater people at Port au Choix practiced residential mobility. This implies a local focus in terms of resources, domestic activities, and social activities. This direct view of the world around them would have impacted the immediate, or the 'now' in Groswater life. For instance, if a Groswater group were located at Phillip's Garden East during the spring harp seal migration, then the people would have been wrapped up in what was directly in front of them, thereby creating a known landscape which was perceived as bountiful and with little risk. The only resource lacking at Phillip's Garden East was chert. However, chert could be found in an exact location anytime of the year. Its presence would have been as sure as the seals in front of the Groswater group. There was no risk associated with chert and it was a permanent part of the Groswater cognitive landscape.

In reality it appears that the Groswater practiced both residential and logistical mobility as part of a foraging settlement system. Residential mobility allowed the

Groswater to occupy choice areas in Port au Choix. This created a direct and known landscape that was connected to the procurement of subsistence resources. By moving directly to resources associated with risk (i.e. all subsistence resources in Newfoundland) people were able to have direct access to knowledge about the subsistence situation. Logistical mobility allowed the Groswater to move to, obtain and transport a definite lithic resource. This allowed groups to spend more time acquiring less definite food resources.

Summary

Excavation at the Party site broadened the picture of the Groswater occupation at Port au Choix resulting in better interpretations at the site, zone and region scales. The analysis of both occupations at the Party site, coupled with the intrasite analysis, suggests that the site was occupied twice over the period of 500 years during the warmer months. Examination of artifacts, debitage, features and spatial layout indicates that the occupations had different subsistence foci. These data provide the base for interpreting the inner coast zone, and from this, add to the interpretation of the entire region of Port au Choix.

Hunter-gatherer mobility can be studied at various scales including site, zone and region. Although this thesis segments mobility into six different dimensions, they all are part of the same system and therefore influence each other. However, different dimensions are different depending on the scale of investigation. These differences appear to be both culturally and environmentally determined. For instance, Groswater

mobility frequency appears to be determined by the environment at the site level, cultural at the zone level and a combination of both at the regional level. Also, mobility dimensions are not the same at all scales. For example, Groswater mobility stability in Port au Choix is low at the site-scale, medium at the zone-scale and high at the region-scale.

Groswater landscape is constructed via the passage of people. It is not a matter of moving through landscape, this assumes that landscape and mobility are separate entities. Instead, mobility is part of landscape. It provides the means for the physical occupation and cognitive development of an environment resulting in the formation of landscape. Particular to the Groswater landscape is the combination of resources, people, land and movement as part of one continued existence. Examining various dimensions of Groswater mobility reveals its intertwined relationship with landscape through notions of risk reduction, settlement, subsistence, sensuality, time, distance, ritual, dwelling, memory, history and tradition.

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