# A STUDY OF SOUTHERN VARIANT, MARITIME ARCHAIC SITES FROM THE NORTHERN PENINSULA AND STRAIT OF BELLE ISLE, NEWFOUNDLAND AND LABRADOR

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# A Study of Southern Variant, Maritime Archaic Sites from the Northern Peninsula and Strait of Belle Isle, Newfoundland and Labrador

by

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## ABSTRACT

In this thesis, a typology is determined for the southern variant of the Maritime Archaic from the Strait of Belle Isle and Northern Peninsula, dating from 5500 BP to 3200 BP. This typology includes blade-like flakes, bifaces, retouched flakes, side-notched, expanding based bifaces, and artifacts made from a ground stone technology, such as gouges, celts, and ground slate bifaces. Common raw materials used in this area during this time include white weathered chert, slate, and fine-grained dark and mottled cherts. Upon comparison, the artifacts from this place and time show little regional or chronological variation, and the artifacts types found within the studied sites remain consistent throughout the 2300 year time period. However, a regional variation of raw material is somewhat suggested by this study, as white, weathered chert appears in sites situated closer to the Strait of Belle Isle and around a probably source for this white weathered chert (Beaton 2004). Upon comparison, the classes and types of artifacts from this place and time are similar to other southern variant sites in Newfoundland and Labrador. However, differences can be seen in their stylistic attributes. Finally, microscopic examination of raw material supports the hypothesis that the southern variant of the Maritime Archaic had been in Newfoundland and Labrador since approximately 6500 BP.

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# CHAPTER 1
# Research Questions and Culture History of the Maritime Archaic Tradition

## 1.1 Research Questions

The purpose of this thesis is to study southern variant Maritime Archaic archaeological sites dating from approximately 5500 to 3200 BP[1] located in the Strait of Belle Isle and on the Northern Peninsula of Newfoundland and Labrador. Throughout this thesis the following questions will be examined.

1) How can the southern variant Maritime Archaic Tradition on the Northern Peninsula and in the Strait of Belle Isle be archaeologically characterized?

2) Can temporal and intra-regional variations for the Southern Variant of the Maritime Archaic in this region be detected from the artifacts studied in this thesis?

3) How does the Maritime Archaic in this region compare with the southern variant Maritime Archaic in the rest of Newfoundland and Labrador?

It is important to note that the archaeological sites studied in this thesis are occupation sites only, such as habitation and workshop sites, as opposed to burial or ceremonial sites. Burial sites are valuable tools in learning about the social and spiritual identities of past peoples (Robinson 1996: 96), but do not always reflect everyday life. For example, much of the cultural material found in the Port au Choix Cemetery site on the west coast of Newfoundland was non-utilitarian (Tuck 1970: 110). Jelsma (2000: 1) states that cultural material from cemetery sites is the result of intentional behaviour,

[1] BP means radiocarbon years before present.

whereas the cultural material from occupation sites has often been lost or discarded. In this thesis, the research questions outlined above pertain to the everyday cultural material of the Maritime Archaic.

This thesis begins by giving a brief overview of the Maritime Archaic Tradition. Chapter 2 outlines the methodology used to study and describe the collections presented in this thesis. Chapter 3 presents descriptions of archaeological sites and artifacts from the study area. Chapter 4 addresses the three research questions by comparing site assemblages from the study area using artifact frequencies and the presence or absence of artifact types and raw materials and by comparing these sites with other Maritime Archaic sites from Newfoundland and Labrador. Chapter 5 is a concluding chapter summarizing the findings of this thesis and discussing the earliest possible evidence for the southern variant of the Maritime Archaic Tradition in Newfoundland and Labrador.

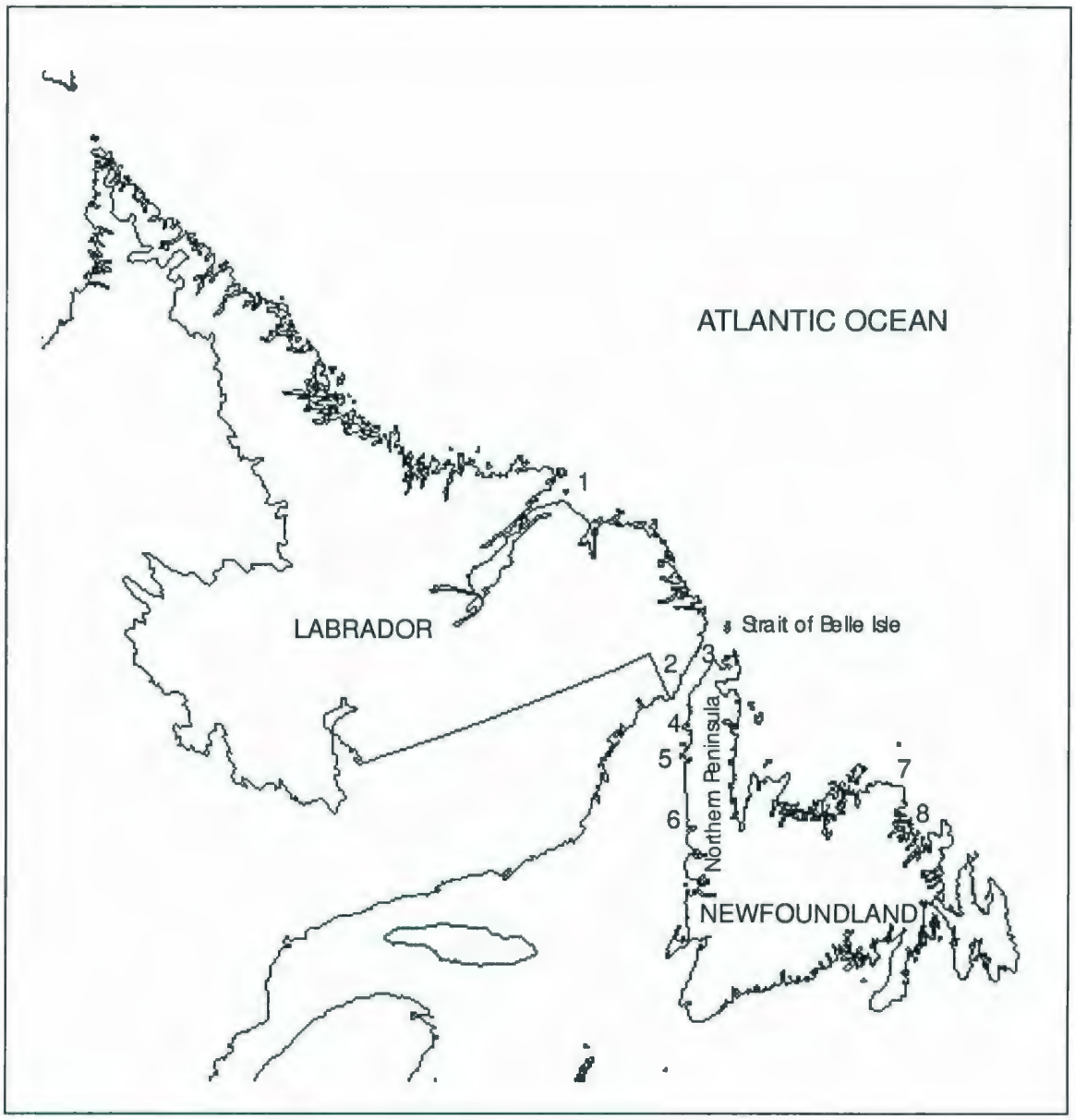



**Figure 1.1 Map of Newfoundland and Labrador showing site locations**

1. Black Island – 2
2. Forteau Point, Graveyard, L'anse Amour
3. Big Brook-2
4. Big Droke – 1, Caines
5. Gould
6. Cow Head
7. Cape Cove – 1
   Cape Cove - 3
8. Beaches

## 1.2 The Maritime Archaic Tradition

The culture history of the Maritime Archaic Tradition has been extensively reviewed elsewhere (Jelsma 2000; Hood 1981; Austin 1981; Carignan 1975; McGhee and Tuck 1975). Initially, researchers such as Strong (1930), Wintemberg (1930) and Harp (1951; 1963) speculated that Amerindian artifacts collected within insular Newfoundland and mainland Labrador pre-dated the Palaeo-Eskimo culture. They first referred to this archaeological tradition as an "Old Stone Culture" (Strong 1930) and then the Boreal Archaic (Harp 1963). However, with the discovery of a series of burial sites in Port au Choix (EeBi-2), on the north west coast of insular Newfoundland, dating from 3230±220 BP (I-4380) to 4290±110 BP (I-3788) (CAA Radiocarbon Database 2001), Tuck (1970; 1976) re-named this culture the Maritime Archaic Tradition. The artifacts from the burial sites in Port au Choix, reveal a way of life that was largely marine oriented. This analysis has been supported by chemical bone analysis of the Maritime Archaic human remains from Port au Choix (Jelsma 2000).

Maritime Archaic sites are found as far south as Maine in the United States (Tuck 1982; 1991). Evidence of a Maritime Archaic presence in Maine, and to a lesser degree, in the Maritime Provinces, exists mostly as burial sites, such as the Nevin Shellheap (Byers 1979) and the Turner Farm site (Bourque 1995; 1976; 1975). Characterized by a lack of bone preservation these burial sites contain artifacts such as gouges, celts, plummets, and ground slate points of ceremonial quality, with red ochre spread upon the human remains and artifacts. Stylistic similarity between artifacts and the presence of red ochre between New England sites and the Port au Choix Maritime Archaic burials

"suggest a strong degree of affinity" between the occupants of these sites (Tuck 1991: 36).

These cemetery sites are part of the Moorehead Burial Tradition, (not to be confused with the Moorehead phase) (Bourque 1995; 1976), and regional and temporal variations are apparent (Robinson 1996). Robinson (1996: 98) emphasizes that the Moorehead Burial Tradition is a "broadly defined burial pattern" which extends over several cultures or complexes and is not affiliated with any one cultural tradition. However, Tuck argues that most cemeteries of the Moorhead Burial Tradition are "products of the Maritime Archaic Tradition" (1991: 43). Furthermore, the types of artifacts found in cemetery sites and habitation sites, such as ground slate points, barbed and toggling harpoons and plummets, as well as settlement practices of the Maritime Archaic throughout New England and the Atlantic Provinces suggest a similar subsistence economy based on ocean resources, although the species of animal changes according to location of the site (1991: 36-38). Some of the Maritime Archaic habitation sites from New England include Occupation 1 of the Turner Farm site, dating between 4555±95 BP and 4390±55 BP, and the Goddard site, dating 3910±90 and 3700±130 BP (Tuck 1991).

With respect to non-ceremonial Maritime Archaic sites, Sanger argues that cultural concepts like the Maritime Archaic and Laurentian Traditions are "over-arching culture types" with "a heavy dependence on ecosystems as the bases" (1996: 24-25). Instead, Sanger (1996: 25) suggests that the Middle Archaic in the Gulf of Maine has a

more localized, technological tradition independent of the Maritime Archaic, which he tentatively labels the Gulf of Maine Tradition after Robinson (1996).

### 1.3 The Maritime Archaic in Newfoundland and Labrador

As more Maritime Archaic sites have been uncovered in Newfoundland and Labrador, differences between Maritime Archaic assemblages have become apparent. For example, Fitzhugh (1975; 1978) defines many regional and chronological variants of the Maritime Archaic Tradition in the Hamilton Inlet area in Labrador, including the Black Island complex. The Black Island complex is named for the Black Island-2 site (GcBk-13) and artifacts from the Black Island-2 site differ in form and material from other sites in Hamilton Inlet. Three of the six radiocarbon dates from the site place the Black Island complex at around 4200 BP, chronologically between the Sandy Cove complex, (6000-4500 BP) and the Rattlers Bight complex, (4100-3800 BP) (1978: 62). Fitzhugh explains the complex as a "brief northern intrusion" by a "southern variant" or "from the south" and argues that this complex shows "regional diversity in the Newfoundland-Labrador Maritime Archaic" (1975: 122; 1978: 62). This was the beginning of the idea that two major variations of the Maritime Archaic Tradition can be recognized archaeologically in Newfoundland and Labrador.

#### 1.3.1 The Northern Variant

Tuck (1982: 204-205) reluctantly uses the terms "northern" and "southern" branch or variant to refer to two Maritime Archaic variants in Newfoundland and

Labrador. Evidence for a northern variant dates from 7500 BP (McGhee and Tuck 1975) to approximately 3500 BP (Tuck 1982: 204). . Northern variant sites are distributed from Labrador's far north in Saglek Bay and Ramah Bay (Tuck 1975: 44) to the southern shore of Labrador (McGhee and Tuck 1975). Presently, no site within insular Newfoundland has been incontestably identified as from the northern variant of the Maritime Archaic, although artifacts such as projectile points diagnostic of the northern variant have been found.

The northern variant has been divided into several phases and complexes, such as Rattlers Bight and Sandy Cove mentioned above (Fitzhugh 1972; 1975a; 1978; Hood 1981). Characteristic artifacts of the northern branch include *pièces esquillés*, bipoints, ground stone celts, tapering stemmed projectile points, biface knives, ground slate lances, and *ulus*. Characteristic raw materials include quartzite, quartz, slate, and Ramah chert (Tuck 1982: 204). In northern variant sites, evidence of dwellings, such as longhouses, has been uncovered in Labrador (Fitzhugh 1985). A comprehensive description of the northern variant can be found in Hood (1981).

### 1.3.2 The Southern Variant

The northern limit of the southern variant is Black Island in Hamilton Inlet and the southern limit is Bonavista Bay within insular Newfoundland (Carignan 1975). Tuck (1982: 205) discusses the possible relatively early origin of the southern branch by referring to radiocarbon dates from sites such as the Forteau Point site and Area 10 of the L'Anse Amour site (Table 1.1), both of which contained some of the characteristic

artifacts and raw material noted below (Tuck and McGhee 1975). The Gould site (EiBf-42), located in Port au Choix, now has some of the latest dates for the southern variant, dated at 3200±100 BP (Beta 132364) and 3450±50 BP (Beta 134148) (Renouf and Bell In Press). The southern branch is defined by "large broadly side-notched or expanding stemmed projectile points, leaf-shaped bifaces, occasional end scrapers and other unifaces, and linear or blade-like flakes all made from a now-heavily weathered greyish chert" (Tuck 1982: 205).

**Table 1.1 Earliest Radiocarbon dates for Southern Variant of the Maritime Archaic (Harp and Hughes 1968; Tuck 1982; CAA Radiocarbon Database 2001)**

| Site | Radiocarbon Date | Lab. Number | Associations |
|---|---|---|---|
| Forteau Point (EiBf-2) | 5035±65 | SI-2311 | Charcoal |
| Forteau Point (EiBf-2) | 5399±80 | P-691 | Charcoal |
| L'Anse Amour (EiBf-4) | 6435±95 | SI-2305 | Hearth, charcoal |

Similarities between the two variants include the use of ground slate artifacts such as axes, adzes, gouges, and the use of hafted and non-hafted bifaces. Based on this evidence, as well as similarity in the choice of site location and indications of a marine focused existence for both variants, Tuck (n.d.a.: 52) suggests that the subsistence economies of the northern and southern branches were "very similar, if not identical".

There is an overlap of the geographical boundaries of the two variants between Hamilton Inlet and the southern shore of Labrador, and so the northern and southern variants cannot be entirely distinguished by the location of archaeological sites. The two variants also cannot be distinguished by their chronology. The earliest possible southern

variant site is Area 10 of the L'Anse Amour site in southern Labrador, dated at about 6400 BP. If this is the case, the archaeological existence of northern and southern branches overlaps for approximately 3000 years. The geographical overlap of the northern and southern variants of the Maritime Archaic in Newfoundland and Labrador reveal inaccuracy in using the terms northern and southern variant or branch. However, since these terms have been used in the past, they will hesitantly be used in this thesis in order to avoid any risk of miscommunication between this author and the reader.

This thesis will concentrate on Maritime Archaic sites that have been identified as southern variant sites, and specifically on sites dated between 5500 and 3200 BP located on the Northern Peninsula and Strait of Belle Isle. It is hoped that an in-depth comparison of the artifacts from these sites will help to archaeologically define the southern variant Maritime Archaic of this time and place and will reveal any regional or chronological variations within the Maritime Archaic Tradition.

# CHAPTER 2
# Research Methodology

## 2.1 Research Methodology

The purpose of this chapter is to outline the methodology used to describe and classify the artifacts described in this thesis. This material culture is entirely lithic in nature and it is necessary to construct a classification system to organize the data for interpretation. The artifacts are first classified by method of manufacture and then put into classes based on the morphology, for example bifaces or flaked tools. The artifacts may then be further broken down into artifact types, or artifacts sharing a set of attributes (Sharer and Ashmore 1993: 288) such as contracting or expanding based hafted bifaces.

This methodology is influenced by the morphological classification system used by Andrefsky (1998: 59-83). Andrefsky (1998) attempts to group artifacts into classes based on their morphological similarity rather than other attributes such as the assumed function of the artifact. Andrefsky uses nominal and ordinal attribute scales to classify the artifacts. With nominal scales, "no state of the attribute is greater or better than any other state." (1998: 63). Examples of nominal scales include recording the type of raw material an artifact is made from or the presence or absence of particular attributes, such as basal thinning. Ordinal or ranked scales involve ranking artifact attributes along a continuum where the state of the attributes are relative to each other although "the distance between each state is unknown." (Andrefsky 1998: 63). For example, in this thesis, a finished biface is differentiated from a preform based on the amount of flaking

that has been done on the artifact. Andrefsky (1998) stresses that researchers can study the same data and still generate many different classification systems and typologies, even when the same attributes are studied.

It should be noted that some of the terms defined here have functional connotations, such as projectile point or scraper. It is not this author's intention to imply function by using these terms and the morphological definitions of these artifacts are given. Such terms are used in this thesis because they are a common part of archaeological discourse and are therefore easily recognizable to the reader.

In summary, the research methodology used in this thesis is based on grouping together classes of artifacts based on morphology. This is done to study the presence and absence and the frequencies of these classes within the artifact collections of Maritime Archaic sites dating from approximately 5500 -3400 BP and located in the Strait of Belle Isle and on the Northern Peninsula.

## 2.2 Classification System of Artifacts

### CHIPPED STONE ARTIFACTS

### BIFACE

Bifaces are artifacts that are flaked or chipped on both sides. They may be made from a flake or a core of raw material. If an artifact shows no other modification than bifacial flaking, then it is simply called a biface. Bifaces with further modifications are defined below.

**Biface Preform**

In this thesis, a biface preform is defined as a biface that is not flaked around the entire edge of the biface. It is often assumed that preforms were unfinished tools, although it should be noted that a preform can be fully functional for some tasks.

**Bi-pointed Biface**

Bi-pointed bifaces are modified to form points at both ends of the biface.

**Lanceolate Biface**

Bifaces which are twice as long as they are wide are referred to as lanceolate.

**Hafted Biface**

Hafted bifaces have been modified at one end to create a haft or stem. It is commonly assumed that the hafting element allows the biface to be attached to a handle, such as an arrow or spear shaft. An alternative term to hafted biface is a projectile point.

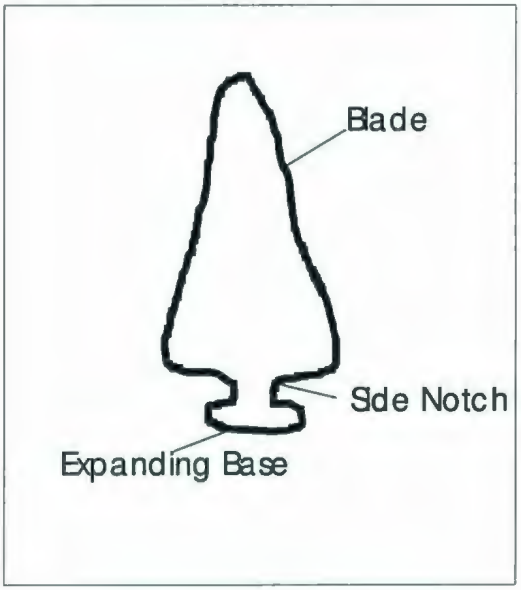
Expanding Based Biface

Expanding based bifaces are hafted bifaces in which the base of the stem expands. These bifaces may be side-notched or corner-notched.

Contracting Stemmed Biface

Contracting stemmed bifaces are hafted bifaces in which the stem of the artifact contracts or becomes narrower towards the base of the biface.

**Figure 2.1 Side-notched, expanding based biface**




**Awl**

A relatively long, sharp, pointed tool frequently interpreted as used to punch holes in leather.

**FLAKE TOOLS**

Flake tools are artifacts fashioned out of flakes chipped from a core of raw material. However, some flaked tools may not be recognized as such because the flake characteristics, such as a bulb of percussion, striking platform, and so forth, are no longer present (Andrefsky 1998). The following tool types are considered flake tools.

**Blades**

Owen (1988: 2) defines macroblades as "long narrow stone flakes with more or less parallel lateral edges ... which when complete would have been at least twice as long

as wide" (Owen 1988: 2). Flakes fitting this description are sometimes made from the successive, unidirectional removal of such flakes from prepared cores. If cores showing such evidence are found on a site and at least 25% of the blades are non-triangular, the macroblades are considered to be part of a "true blade technology" (Sanger *et. al.* 1970).

**Blade-like Flakes**

In this study, the term blade-like flake is used to define flakes with more or less parallel lateral edges, and when complete would have been at least twice as long as wide (Owen 1988) but cannot be determined to belong to a true blade technology.

**Microblades**

A variety of definitions cited by Owen (1988: 2) describe microblades as ranging from eight to twelve millimeters in width (Taylor 1962: 425-426; Bordes and Gaussen 1970: 321; Tixier 1963: 36-39). This definition will be used here.

**Linear Flakes**

Linear flakes do not differ morphologically from blade-like flakes. The term linear flake will be used here if the artifact is classified as such by another author. However, linear flakes will be combined with blade-like flakes in the analyses sections of this thesis.

**Flake Point**

Flake points are flakes in which one end is pointed or tipped. The flake points in the collections discussed here may be bifacially or unifacially flaked. More specific types of flake points are defined below.

Notched Flake Points

Notched flake points are flake points which have been notched at one end and tipped at the other, creating a stemmed projectile point. The notching is only present on one side of the point in some cases. This category includes notched flake points with expanding based stems.

Asymmetrically Notched Flake Points

Asymmetrically notched flake points are flake points which appear more crudely made than the other points. Many are broken, highly asymmetrical, with shoulders and stems ambiguous, sometimes to the point where classification of the specimen as a asymmetrically notched flake point or a retouched flake becomes problematic.

**Retouched Flake**

A flake which has intentionally been chipped or flaked on its edges is called a retouched flake. The flake scars along the flake edge are usually small, although macroscopic, and can be caused by either pressure or percussion flaking (Andrefsky 1998: xxvi).

Bifacially Flaked Flake

A flake that has been retouched, through the removal of very small flakes, on the edge of both the dorsal and ventral surface.

**Uniface**

A uniface is a flake tool that has been modified on one side only (Andrefsky 1998: xxvii). Used by some researchers to refer to unifacially retouched flakes (Carignan 1975).

**Scraper**

A scraper is an artifact with unifacial retouch or flaking along one edge at an angle of approximately 60-90 degrees (Andrefsky 1998: xxvi).

## GROUND STONE TOOLS

Ground stone tools are artifacts that have been modified and shaped by chipping and abrading or grinding.

**Ground Stone Fragment**

A ground stone fragment is a piece of stone material with evidence of grinding or abrading.

**Celt**

A celt is a relatively large, heavy, ungrooved, symmetrically sharpened, ground stone artifact that is generally accepted as used for wood-working.

**Ground Stone Axe**

A ground stone axe is a relatively large, heavy, symmetrically sharpened ground stone artifact that is grooved on one end, for hafting purposes. Axes may have a beveled edge on one or both ends.

**Adze**

An adze is a ground stone tool with at least one beveled edge but is asymmetrical from a side view.

**Gouge**

Maritime Archaic gouges are ground stone tools usually twice as long as they are wide. They have a channel on one side of the artifact, making the tool U-shaped or V-shaped in a cross sectional view at the distal end.

**Plummet**

A plummet is a ground stone artifact that is usually tear-drop shaped and rounded on all sides. A groove is usually present around the narrowest end.

**Ground Slate Bayonet**

This term is not used by the author of this thesis. It is mentioned here because it is used in Newfoundland and Labrador archaeological literature referenced in this thesis (McGhee and Tuck 1975). Ground slate bayonets can vary greatly in morphology. They are usually at least twice as long as wide and can be rounded on all sides or be relatively flat. The ends can be ground to a point and some bayonets are multifaceted in cross sectional view. Some ground slate bayonets have stems.

**Whetstone**

Whetstones are flat stones that may have use-wear attributable to grinding actions. Whetstones are sometimes called abraders.

## CORES

A core is a piece of raw material with evidence of flake removal.

### Cobble

A cobble is a piece of lithic raw material that shows characteristics of having been fragmented from a larger core.

### Quartz Cobble

A quartz cobble is an unaltered nodule of quartz.

### Pièce Esquillée

Pièces esquillées are nodules of stone with bipolar battering. They can be square or wedge shaped.

## 2.3 Classification System of Raw Material

### Quartz/Quartzite

Quartz is defined as a "crystalline silica, an important rock-forming mineral that can occur either as transparent hexagonal crystals or as macrocrystalline or microcrystalline grains in rocks; the major mineral in chert" (Luedtke 1992: 153). Quartzite is metamorphosed sandstone composed mainly of quartz. It is usually medium to course grained and is white, grey, or reddish in colour (Hamilton *et.al.* 1976). Most of the quartzite objects found in these collections were small, rounded nodules found in association with other artifacts.

**Slate**

Slate is composed of metamorphosed sediments, such as shale or mudstone. It is fine-grained and varies from black to blue, green, and brown in colour (Hamilton *et.al.* 1976). Slate is commonly found in Maritime Archaic sites as a raw material for ground stone artifacts.

**Chert**

Chert is defined by Luedtke (1992: 149) as a "sedimentary rock composed primarily of micro-crystalline quartz along with lesser amounts of quartz crystals, opals, and impurities." Chert is considered sedimentary because it is formed at the earth's surface "either by the accumulation and cementation of fragments of rock, minerals, and organisms, or by precipitation from seawater and other surface solutions" (Luedtke 1992: 153). It is mostly comprised of quartz crystals that are not seen with the naked eye. Included within the category of chert is flint, chalcedony, agate, and jasper. It is the most frequent raw material found in the Maritime Archaic sites studied in this thesis and the commonly found types of chert found in these sites are described below.

**Fine-grained, blue/grey laminated chert**

The chert labeled in this thesis as fine-grained, laminated chert is blue to brown to dark grey in overall colour with laminations which are sometimes green and sometimes brown. Furthermore, light blue rounded inclusions are apparent in some artifacts. It

dominates the assemblage and waste flakes found in Area 99-2E of the Gould site in Port au Choix. The variability of this chert was apparent when several of the core fragments, flakes, and blade-like flakes were reconstructed to what looked like part of a sub-angular beach cobble.

The source for this material is most probably near Cow Head. Hartery (2001: 26-27) describes finding cobbles of identical looking chert on the beaches of the Cow Head Peninsula and matches this chert with the raw material of several bifaces and cores in the Recent Indian Cow Head collection. Visually the material from the Recent Indian Cow Head collection appears to be the same raw material as at Gould Area 99-2E. Cow Head chert is often characterized by microscopic radiolari inclusions (Hartery 2001: 26).

**Fine-grained, dark and mottled chert**

These cherts are fine-grained and dark in colour, ranging from dark blue to black. Some are mottled, where laminations or spots of different colours run through the piece. Almost all the artifacts found in the Cow Head site were made from this type of chert, suggesting, Cow Head is the most probable source site for them. However, they are not to be confused with the high-quality, waxy, and colourful "Cow Head Chert" used by the Palaeo-Eskimo cultures of Newfoundland and Labrador (Renouf 1994).

**White weathered chert (Bird Cove Chert; Big Brook Chert)**

This white chert with a weathered appearance is found in many of the sites discussed here, such as the Forteau Point and Graveyard sites. It varies in appearance from entirely white to white with grey bands and is sometimes pitted. Common names for this lithic material are "Bird Cove" chert (Reader 1999) and Big Brook chert (Beaton 2004). Reader (1999: 13), with assistance from geologist Ian Knight from the Department of Mines and Energy for Newfoundland and Labrador, sources the material as local to the Bird Cove and surrounding area, while Beaton (2004) sourced visually similar white weathered chert in Big Brook river located at the tip of the Northern Peninsula.

**Red/grey/brown chert with radiolari (Turnip Chert)**

This very fine grained, multi-coloured chert is most present in the Big Droke-1 and Caines sites, although a blade made from this material is present in a private collection near Area 99-2E of the Gould site. The colour varies from purple/red to grey, green, and brown and is commonly called "Turnip Chert". Radiolari are visible under a microscope, which suggests that the source of this material may be from the Cow Head formations.

**Ramah Chert**

Ramah chert is a high quality, fine-grained chert found only in a formation in the far north of Labrador. It is semi-translucent and, typically, is light grey in colour with black laminations and small black inclusions (McAleese 2002).

# CHAPTER 3
# Site And Artifact Descriptions

This chapter describes southern variant Maritime Archaic sites and their associated artifacts dating from 5500 BP to 3200 BP, located along the Strait of Belle Isle and the Northern Peninsula. The sites are presented in geographic order from north to south. All radiocarbon dates cited in this thesis are the normalized or conventional age.

## 3.1 L'Anse Amour, Area 5 (EiBf-4)

The L'anse Amour site is a multi-component site with fifteen excavation areas ranging in date from 1115±70 BP (SI-1798) to 7530±140 BP (I-8099)(McGhee and Tuck 1975). The site is located on the north shore of Forteau Bay within sand dunes and covers approximately 50 hectares. Formally known as the FB-3 site (Harp 1963) (McGhee and Tuck 1975), flake scatters, fire-cracked rock, and artifacts on the surface of the sand blowouts lead to the re-discovery of the site (McGhee and Tuck 1975: 76-94). A number of datable occupation horizons were found throughout the L'Anse Amour site. Area 5 is dated at 4105±95 BP (I-7544) and is located at an elevation of 10 m asl (above sea level).

### 3.1.1 Stratigraphy and Chronology

Only some of the material found in Area 5 is able to be associated with undisturbed levels. An eroding profile contained *in situ* archaeological material, most of

which was found in the stratified black occupation layers within Level V (Table 3.1). Some of these occupation horizons were radiocarbon dated (Table 3.2). Cultural layer 2, dated at 4105±95 falls within the time range of this thesis.

**Table 3.1 Stratigraphy of L'Anse Amour, Area 5 (EiBf-4) (McGhee and Tuck 1975: 59)**

| Stratigraphic Level | Description of Level |
|---|---|
| Surface Level | A surface level of beach grasses, lichens or scrub forest |
| Level I | A thin humus layer |
| Level II | Aeolian sand ranging from a few centimetres to over three metres in depth |
| Level III | A peat layer |
| Level IV | Aeolian sands ranging from 5-10 centimetres |
| Level V | A sand layer extending to cobble and boulder beaches with thin black occupation layers running through it |

**Table 3.2 Radiocarbon dates for L'anse Amour, Area 5 (EiBf-4)(McGhee and Tuck 1975: 79-80, CAA Radiocarbon Database 2001)**

| Cultural Layer | Radiocarbon Date (BP) | Lab. Number |
|---|---|---|
| 2 | 4105±95 | I-7544 |
| 3c | 6080±110 | I-7506 |
| 3d | 6200±160 | I-7607 |

### 3.1.2 Raw Material

Raw material for Cultural Layer 2 of Area 5 consists primarily of slate. Flakes of chert, mica and quartz were also found.

### 3.1.3 Artifacts

Associated artifacts include a slate celt fragment and a slate gouge (McGhee and Tuck 1975: 79,233).

### 3.1.4 Site Function and Technology

Very few artifacts and no features were found and so site function is difficult to determine. McGhee and Tuck (1975: 79) describe L'Anse Amour, Area 5 site as a "single small camp occupied during a short length of time." Artifacts from this site are made by ground stone technology.

### 3.1.5 Summary

L'Anse Amour, Area 5, cultural layer 2 is a small site with few artifacts and no archaeological features. However, this component of the L'Anse Amour site shows that ground stone technology was being used at around 4100 BP in this area.

## 3.2 The Graveyard Site (EiBf-6)

The Graveyard site is situated on an ancient beach, 300 m inland from the

northern shore of Forteau Bay at an elevation of 10 m asl. The area excavated measured 25 $m^2$ and the site was "no farther than 10 m in any direction" (McGhee and Tuck 1975: 56).

### 3.2.1 Stratigraphy and Chronology

The stratigraphy of the Graveyard site is outlined in Table 3.3. Two occupation layers were uncovered within Level IV described as "very close and occasionally merging" (McGhee and Tuck 1975: 56). These layers contained flakes, artifacts, and charcoal.

**Table 3.3 Stratigraphy of the Graveyard site (EiBf-6) (McGhee and Tuck 1975: 59)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Surface Level** | Vegetation |
| **Level I** | A layer of sand humus, 2-5 centimetres in depth |
| **Level II** | A thin layer of aeolian sand |
| **Level III** | A peat zone approximately 2 centimetres thick |
| **Level IV** | An aeolian sand layer with one to two dark bands containing flakes, artifacts, and charcoal. |

**Table 3.4 Radiocarbon dates for the Graveyard site (EiBf-6)(Tuck 1978; CAA Radiocarbon Database 2001)**

| Radiocarbon Date (BP) | Lab. Number |
|---|---|
| 4450±85 | SI-2307 |
| 4285±85 | SI-2308 |

### 3.2.2 Raw Material

Raw material consists of white weathered chert, dark fine-grained chert, and slate.

### 3.2.3 Artifacts

Artifacts excavated *in situ* from the two occupation layers in Level IV are treated as a single unit by McGhee and Tuck (1975) and by this author. These artifacts include seven projectile points, six of which are classified as "Graveyard" style points. A Graveyard style point is defined by McGhee and Tuck (1975: 57) as " tip pointed; lateral edges convex; blade cross-section biconvex; complete edge and surface retouch, and no edge serration." In addition, a Graveyard style projectile point has rounded shoulders forming right or obtuse angles. The stem expands at its base and the lateral margins of the stem are concave and ground. The stem base is straight with no basal thinning.

The six Graveyard style points found at the Graveyard site are made from white, weathered chert. The seventh projectile point found is a flake point made of dark chert. Five biface fragments were found, three made of white weathered chert and two made from dark chert. One of these biface fragments is lanceolate. Four retouched flakes, six chert linear flakes, and two ground slate fragments were also found (McGhee and Tuck 1975: 56-58, 221)(Plate 1).

### 3.2.4 Site Function and Technology

No features were uncovered from the Graveyard site. Approximately 1400 flakes were found, suggesting that site function was a short term campsite where tool manufacture took place.

A ground slate and chipped stone technology is present within the site. A flake tool technology is also present in a flake projectile point, retouched flakes, and linear flakes.

### 3.2.5 Summary

The stemmed bifaces found within the Graveyard site were used to define the Graveyard style projectile point (McGhee and Tuck 1975). Since its conception, this definition has become less rigid and a Graveyard style projectile point is usually equivalent to a side-notched, expanding based biface, sometimes but not necessarily made of white, weathered chert. The Graveyard site is characterized by 1) the use of white weathered chert, 2) the use of a flake technology, and 3) the presence of side-notched, expanding based projectile points.

## 3.3 Forteau Point Site (EiBf-2)

Forteau Point is situated on a sandy point near Forteau Bay and the town of Forteau (McGhee and Tuck 1975: 59). Its elevation is 10 m asl and was once known as FB-1 (Harp 1963). It was re-discovered when archaeological material was found eroding

from sand dunes (McGhee and Tuck 1975).

### 3.3.1 Stratigraphy and Chronology

Most of the artifacts from the Forteau Point site were collected from the surface. However, Level IV, the stratigraphic layer from which the archaeological material originated, was uncovered and dated.

### 3.3.2 Raw Material

Raw material from the Forteau Point site consists of white, weathered chert, quartzite, and slate. The chipped stone artifacts are made from chert and quartzite and the ground stone artifacts are made of slate.

**Table 3.5 Stratigraphy of the Forteau Point site (EiBf-2) (McGhee and Tuck 1975: 59)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Surface Level** | Scattered vegetation |
| **Level I** | A thin surface humus layer |
| **Level II** | Aeolian sand, 1-20 centimetres in depth |
| **Level III** | A compressed buried peat zone, 1-5 centimetres in depth |
| **Level IV** | Aeolian sand up to 10 centimetres below peat zone, poorly defined dark layers containing charcoal fragments; cultural level |

**Table 3.6 Radiocarbon dates for Forteau Point site (EiBf-2) (Harp 1951; 1963; CAA Radiocarbon Database 2001)**

| Cultural Layer | Radiocarbon Date (BP) | Lab. Number |
|---|---|---|
| Unknown | 5399±58 | P-691 |
| Unknown | 5035±65 | SI-2311 |

### 3.3.3 Artifacts

The chipped stone artifacts from the Forteau Point site include two Graveyard style projectile points made from white weathered chert. Ten bifaces are described, five made of white weathered chert and three of other types of chert and two of quartzite. Two of these bifaces have pointed tips and are ovate to lanceolate in shape with the rest being biface fragments. One retouched flake and three linear flakes where recovered (McGhee and Tuck 1975: 59-60; 223).

Ground slate artifacts from the Forteau Point site include two incomplete ground slate bayonets, a gouge fragment, two celts and a celt blank, and a ground slate fragment (McGhee and Tuck 1975: 61-62, 223)(Plate 2).

### 3.3.4 Site Function and Technology

No features were found within the Forteau Point site. The artifacts described above were found in a series of concentrations a few metres in diameter each, and aligned in a linear fashion. It is suggested that this site may have functioned as a ceremonial site because of this arrangement of the artifacts, the high percentage of ground stone artifacts found, and the shortage of debitage (McGhee and Tuck 1975).

Chipped stone, ground stone, and flake tool technologies are found in this site.

### 3.3.5 Summary

The Forteau Point site contains Graveyard style projectile points and is dated between approximately 5400 BP and 5000 BP. The site is characterized by 1) a chipped, biface technology, 2) a ground slate technology, 3) flake technology, and 4) side-notched, expanding based bifaces.

## 3.4 Big Brook –2 (EjBa-2)

The Big Brook – 2 site is described in detail in a master's thesis by Gregory Beaton (2004). Big Brook – 2 is located in the Strait of Belle Isle region in the community of Big Brook, 95 metres from Big Brook River, and is 6.5 metres asl (Figure 1.1). Palaeoeskimo, Intermediate Indian, and Maritime Archaic components were found within the site. Ten features were documented, including three activity areas and five hearths.

### 3.4.1 Stratigraphy and Chronology

Stratigraphy of Big Brook – 2 consists of three levels with level 1 being a disturbed level containing Palaeoeskimo material, level 2 containing Maritime Archaic Intermediate Indian material, and level 3 with little cultural material that appeared "trampled" into the level (Table 3.7) (Beaton 2004: 61-63).

Maritime Archaic components of the site are dated between 3820 and 4090 BP. A late Maritime Archaic/Intermediate Indian component is dated at 2830 BP (Table 3.8).

**Table 3.7 Stratigraphy of the Big Brook - 2 site (EjBa-2) (Beaton 2004: 61-63)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Level 1** | Upper level, blackish to dark brown soil with lighter brown and reddish portions |
| **Level 2** | Gray sand |
| **Level 3** | Brown clay mixed with underlying bedrock |

**Table 3.8 Radiocarbon dates for Big Brook - 2 site (EjBa-2) (Beaton 2004)**

| Radiocarbon Date | Lab. Number | Associations with Sample |
|---|---|---|
| 4090±40 BP | Beta-177106 | Feature 14, linear flakes, cores, preforms, hammerstone, pumice, charcoal |
| 3820±40 BP | Beta-171715 | Feature 7, flakes, pumice, blade, charcoal |
| 2830±40 | Beta-1171714 | Feature 4, flakes, preforms, core, raw material |

### 3.4.2 Raw Material

Beaton (2004) divides the raw material found at Big Brook-2 into three grades of chert which varies from a white, pitted chert (Grade 1) to a gray, banded fine grained chert (Grade 3) which he calls "Big Brook chert". A source for Grades 1 and 2 is located in Big Brook river in the form of cobbles. A source for Grade 3 of this chert is found in

nearby coastal rock cliffs (Beaton 2004: 88, 105). Other types of chert are found on the site, as well as slate and pumice, and a biface fragment made of ramah chert was found.

### 3.4.3 Artifacts

Artifacts associated with the Maritime Archaic component of this site include blades and blade like flakes, called linear flakes by Beaton (2004)(Plate 3), cores, preforms, abraders and two expanding stemmed biface fragments

**Table 3.9 Artifact Frequencies, Maritime Archaic Component of Big Brook - 2 site (EjBa-2) (Beaton 2004:81-89)**

| Artifact Class | Frequency | Percentage |
|---|---|---|
| **Blade-like flakes** | 218 | 46.3 % |
| **Cores** | 110 | 23.4 % |
| **Preforms** | 91 | 19.3 % |
| **Abraders** | 20 | 4.3 % |
| **Hammerstone** | 19 | 4.0 % |
| **Retouched flake** | 8 | 1.7 % |
| **Biface fragment** | 2 | 0.4 % |
| **Gouge** | 1 | 0.2 % |
| **Projectile point (slate)** | 1 | 0.2 % |
| **Scraper** | 1 | 0.2 % |
| **Total** | **471** | **100 %** |

### 3.4.4 Site Function and Technology

Beaton (2004: 95-104) interprets Big Brook-2 as a workshop where linear flakes

were manufactured as expedient tools and biface preforms were manufactured for transport. Utilized cores are found in context with the linear flakes and there are no formalized or finished tools within the site. The site also functioned as a quarry for the predominant "Big Brook chert", with local sources found nearby.

### 3.4.5 Summary

Big Brook-2 can be characterized by 1) the use of 3 grades of locally sourced "Big Brook chert", and 2) linear flake and biface preform production from stone cobbles.

## 3.5 Big Droke-1 Site (EgBf-11)

Big Droke-1 is located within the town of Bird Cove on the northwest coast of the Great Northern Peninsula and was excavated throughout three field seasons (Reader 1998, 1999)(Hartery and Rast 2000, 2001). It is situated on an ancient beach at an elevation of 8-10 m asl (Reader 1999).

### 3.5.1 Stratigraphy and Chronology

The stratigraphy of Big Droke-1 consists of roots and grass lying over a cultural level described as a "leached, light-medium grey coloured soil with a chalk-like consistency" (Reader 1998, 1999: 3). Level 2 contained very little cultural material. In some areas of the site, a limestone bedrock lay beneath Level 2 (Table 3.10).

Radiocarbon dates from the site range from 3470±50 BP (Beta-129398) to

4230±60 BP (Beta-108561) (Table 3.11). Big Droke-1 contains various dated features, allowing associated artifacts to be treated as several discrete units.

**Table 3.10 Stratigraphy of Big Droke-1 (EgBf-11) (Reader 1998: 4; 1999)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Surface Level** | "virtually non-existent, with …root mat covering the immediate soil level below surface" |
| **Level I** | A white leached, fine-grained sandy soil matrix ranging from 10-30 centimeters depth below surface (DBS) |
| **Level II** | A coarser –grained, brown-orange soil matrix averaging approximately 10 centimeters |
| **Level III** | A limestone bedrock ranging from 10-40 centimeters DBS |

**Table 3.11 Radiocarbon dates for Big Droke-1 (EgBf-11) (Reader 1998: 5; 1999: 30, Table 2).**

| Radiocarbon Date | Lab. Number | Associations with Sample |
|---|---|---|
| 3470±50 BP | Beta-129398 | Feature 8, hearth, wood charcoal |
| 3500±60 BP | Beta-108560 | Ground slate knife; unfinished slate gouge; base of side-notched/expanding stem projectile point, wood charcoal |
| 3560±50 BP | Beta-113158 | Feature 19, midden, wood charcoal |
| 3600±50 BP | Beta-129399 | Feature 6, hearth, wood charcoal |
| 3820±50 BP | Beta-129400 | Feature 15, hearth, wood charcoal |
| 3920±50 BP | Beta-113159 | Feature 1, Limestone rock concentration, |
| 4230±60 BP | Beta-108561 | Feature 3, hearth, wood charcoal |
| 4530±60 BP | Beta-108599 | White chert flakes, wood charcoal |

### 3.5.2 Raw Material

The artifacts from Big Droke-1 are made from various types of dark and light grey cherts that are thought to be locally available (Reader 1998; Hartery and Rast 2000). Core fragments of these dark and light grey cherts were found within the site. Some of the darker coloured cherts have laminations and/or lighter inclusions.

Two distinct types of raw material used within Big Droke-1 are also found on other Maritime Archaic sites located on the Northern Peninsula and Strait of Belle Isle. One of these materials, referred to as "Bird Cove" chert by Reader (1998; 1999: 13), is a white chert of local origin. Visually identical material was recovered, for example, from the Graveyard site and Forteau Bay site and is usually referred to as white weathered chert by McGhee and Tuck (1975), while Beaton (2004: 105) refers to this same chert as "Big Brook chert".

The other distinct material is used to make blade-like flakes and is described by Reader as a rhyolite or volcanic tuff (1999: 11, 18-20). The material varies from brown to red to green and has been called "turnip" chert. However, when viewed microscopically, radiolari can be seen within its fine-grained matrix. This suggests that the geographic area of Cow Head could be a place of origin (LeBlanc 1996: 19). Identical material is found in a private collection near the Gould site (EeBi-42) in Port au Choix and in the Caines site (EeBi-15) described below.

### 3.5.3 Artifacts Associated with Radiocarbon Dated Features

The Big Droke-1 collection is described here as it existed when borrowed from

the Newfoundland Museum, St. John's, Newfoundland, during research for this thesis (Table 3.12). It should be noted that utilized flakes are not included in the artifact frequency counts in this study because this author feels the macroscopic detection of use-wear tends to have little consistency between researchers and that microscopic detection can only be undertaken with a certain level of expertise.

**Table 3.12 Artifact Frequencies, Big Droke-1 (EgBf-11)**

| Artifact Class | Frequency | Percentage |
|---|---|---|
| **Blade-Like Flake** | 14 | 24.5 % |
| **Core Fragment** | 8 | 14.0 % |
| **Slate Fragments** | 8 | 14 .0% |
| **Blade-Like Flake Fragment** | 6 | 10.5 % |
| **Biface Fragment** | 6 | 10.5 % |
| **Biface (chert)** | 5 | 8.8 % |
| **Biface (slate)** | 4 | 7.0 % |
| **Bifacially Flaked Flake** | 3 | 5.3 % |
| **Core** | 1 | 1.8 % |
| **Side-notched, expanding based point** | 1 | 1.8 % |
| **Gouge** | 1 | 1.8 % |
| **Total** | **57** | **100 %** |

Features and associated artifacts from Big-Droke-1 are discussed in chronological order, starting with the youngest dated feature. Artifacts not associated with dated features will be discussed secondly. This information is compiled using site reports (Reader 1999; 1998), site catalogue sheets, and the study of Big Droke-1 artifacts.

Feature 8

Charcoal from Feature 8 is dated at 3470±50 BP (Beta-129398). This feature is described as a "thin charcoal staining". Artifacts associated with Feature 8 include blade-like flakes, two of which are made from the distinctive brown/red/green fine-grained material dubbed "turnip" chert. Both blades have two arises. Another blade-like is made from a dark, fine-grained, laminated chert, and another is made from a dark grey chert with white inclusions and has one aris. A blade-like flake fragment is present made from a light/medium grey chert and has one aris. Another blade-like flake is made of the white, weathered chert and has two arises (Reader 1999: 6-7; Big Droke-1 catalogue sheets) (Plate 4).

Feature 19

Feature 19 is described as a secondary midden measuring at least 9 $m^2$, and containing a large degree of flaked debitage (Reader 1999: 9)(Plate 5). Charcoal collected along the edge of the feature produced a date of 3560±50 BP (Beta-113158). Feature 14 is an accumulation of calcined bone identified as avian and was located within the boundaries of Feature 19 (Reader 1999: 9). Artifacts whose proveniences are within any of these units are assumed to be associated with Feature 19. These artifacts include three blade-like flakes.

One of these blade-like flakes is retouched and is made with dark, fine-grained, laminated chert. Another is made of a dark grey/black chert. Both artifacts have one aris.

The other blade-like flake is made of a fine-grained grey/black chert. Two blade-like flake fragments, also associated with Feature 19, are made of grey/green mottled fine-grained chert.

Biface fragments within this feature include the tip of a biface and a biface fragment, both made from white, weathered chert. A bifacially flaked flake is present, also of white weathered chert. Six core fragments are associated with Feature 19; two of white weathered chert, one of dark grey laminated chert, one of dark grey/black chert, one of waxy, laminated chert, light to medium grey/blue in colour, and one of a dark grey/black chert with white inclusions.

Ground stone artifacts associated with Feature 19 include a broken ground slate point, a slate knife with markings, and a slate bayonet fragment illustrated by Reader (1999: Plate 8, figure 3, p. 27).

Feature 6

Feature 6 is described as a hearth containing charcoal with burnt pink-coloured soil underneath (Reader 1999). Dated at 3600±50 (Beta-129399), associated artifacts include a blade-like flake of medium/dark grey chert and with one aris, a blade-like flake fragment of white, weathered chert, and slate flakes (Plate 6).

Feature 15

Feature 15 is described as charcoal over pink soil and is dated to 3820±50 BP

(Beta-129400) (Reader 1999: 8). Associated artifacts include a biface and a flake that is rectangular in shape with bifacial retouch. Both artifacts are made from white weathered chert. A ground slate fragment is also associated with Feature 15 (Plate 7).

Feature 1

Charcoal associated with this natural limestone concentration (Hartery and Rast 2000: 11-13) is dated to 3920±50 BP (Beta-113159). Associated artifacts include a large gouge measuring 263.5 mm long, 41.68 mm wide, and 38.5 mm thick (Plate 8). It was found approximately 1 metre from the limestone concentration and is of potentially locally sourced diabase (Reader 1998: 12). The gouge is channeled for approximately one-third of its length and is triangular in cross-section at its base end. A side notched projectile point base, made of white weathered chert was also found, but could not be located within the collection by this author (Reader 1998).

Feature 3

Feature 3 is described as a well-defined hearth mounded up to 10 centimetres in thickness on top of Level 1 and contained a charcoal stained lens approximately two centimetres thick. Fragments of wood charcoal present within the charcoal lens dated to 4230±60 (Beta-108561) (Reader 1998: 9; 1999: 30). White, chert flakes were associated with Feature 3.

### 3.5.4 Artifacts Not Associated with Radiocarbon Dated Features

Artifacts which this author could not confidently associate with the above dated features are discussed below.

Bifaces

The bifaces found at the Big Droke-1 site were predominantly fragmented or broken (Plate 9). Three bifaces are present in the collection at this time and two are of white, weathered chert. One of these bifaces has gently sloping convex lateral edges, is widest at mid-point and is slightly side-notched. The other white chert bifaces is widest below mid-point with a straight-convex cross-section. Broken bifaces include one made of a purple-reddish slate, broken with only the distal end present. It is asymmetrically side-notched with a slightly convex base. However, no provenience is given for the artifact, except that is was found at the Big Droke-1 site. Another broken biface is made of white chert and is leaf shaped, and another is made of a dark, fine-grained chert.

Blade-Like Flakes

Seven blade-like flakes from the Big Droke-1 artifact collection could not be associated with any dated features (Plate 9). Two blade-like flakes are of "turnip" chert. One has two arises and another has one aris. Another blade-like flake fragment is made of fine-grained chert which varies in colour from grey to green to brown. One of the blade-like flakes has retouch and appears broken. It is of light to medium grey, fine-grained chert with light grey laminations. Another blade-like flake is of grey/brown fine-

grained chert. Also two blade-like flake fragments are present, one of a very white fine-grained chert with one aris and another a small fragment of dark grey/black fine-grained chert.

Biface Fragments

Three biface fragments are present that are not associated with any dated features. One is of ramah with bifacial retouch along both lateral edges. Another is a medial fragment and is of local white chert and is very porous. Another biface fragment is of coarse-grained, light beige chert with some pitting. It is made on a flake and is broken on at least one end. The other end appears broken although it may be the striking platform with no bulb of percussion.

Bifacially-Flaked Flakes

One unassociated bifacially-flaked flake is within the Big-Droke-1 collection and is of white weathered chert.

Cores and Core Fragments

One core and two core fragments are present. The core is of fine-grained chert ranging in colour from black to grey to beige. One of the core fragments has some battering present and is of a bluish fine-grained chert with dark laminations. The other is of a brown fine-grained chert.

Ground Slate Artifacts and Fragments

Four ground slate fragments are present in the Big Droke-1 collection, as well as a ground, reddish brown, slate lance.

### 3.5.5 Site Function and Technology

In total, nineteen features were recorded at the Big Droke-1 site, including twelve hearths, one post-hole, two lithic concentrations, one calcined bone lens, and one midden (Reader 1998; 1999). These features were dated from approximately 3500 to 4500 BP. Charcoal lenses and/or charcoal staining, sometimes over pink coloured soil, identified the hearths. Reader has interpreted the site as a habitually used "domestic camp for predominantly small groups, where a variety of activities were performed." (Reader 1999: 2). Indeed, there are many hearth features and the production of bifacially flaked, blade-like tools, as well as ground stone tools is apparent. As Reader (1999) discusses, the midden feature, Feature 19, suggests a more extended stay at some point during the use of the site.

Technology consists of a bifacially flaked chipped stone technology, a ground stone technology, and a flake technology which includes bifacially flaked flakes and blade-like tools.

### 3.5.6 Summary

The presence of several distinct, dated features with associated artifacts allows the Big Droke-1 site to be interpreted diachronically. Reader (1999: 10-11), discusses a shift in raw material and artifact use evident in the Big Droke-1 site, where from 4530 to 3820 BP, local white and grey cherts are utilized, whereas from 3600 to 3470 BP, dark, laminated, fine-grained chert and the distinctive "turnip" chert is used and a "macro-

blade" and ground stone technology is present. This study does not oppose Reader's interpretation (Table 3.13). Furthermore, it should be pointed out that side-notched bifaces, dated at 3920 BP and 3500 BP, overlap this general trend in technology and raw material use.

**Table 3.13 Trends in Raw Material and Technology for Big Droke-1 (EgBf-11) (Reader 1998: 5; 1999: 30, Table 2).**

| Radiocarbon Date/Feature | Lab. Number | Raw Material | Technology |
|---|---|---|---|
| 3470±50 BP / Feature 8 | Beta-129398 | "turnip" chert;<br>dark, fine-grained chert,;<br>light/medium grey chert;<br>white weathered chert | Flake-tool |
| 3500±60 BP | Beta-108560 | Slate; | Ground stone - gouge<br>Side notched, expanding based biface |
| 3560±50 BP / Feature 19 | Beta-113158 | Dark, fine-grained laminated chert;<br>White weathered chert; | Ground stone;<br>Flake-tool |
| 3600±50 BP / Feature 6 | Beta-129399 | Dark grey chert;<br>White weathered chert | Flake-tool |
| 3820±50 BP / Feature 15 | Beta-129400 | White weathered chert;<br>Slate | Flake-tool;<br>biface |
| 3920±50 BP / Feature 1 | Beta-113159 | White weathered chert | Ground stone;<br>Side notched biface |
| 4230±60 BP / Feature 3 | Beta-108561 | White weathered chert | flakes |
| 4530±60 BP | Beta-108599 | White chert | flakes |

Overall, the Big-Droke-1 site is characterized by, 1) a flake tool technology including blade-like flakes and bifacially flaked flakes, 2) the predominant use of white chert in earlier dated features and a use of white, grey, and "turnip"chert in later dated features, and 3) a ground stone technology indicated by a gouge and many ground slate fragments.

## 3.6 Caines Site (EgBf-15)

The Caines site is located in the town of Bird Cove approximately 60 m away from Big Droke-1 at 8-10 metres asl (Reader 1999: 3). Ten features were excavated, including seven hearths, two biface caches, and one flake concentration.

### 3.6.1 Stratigraphy and Chronology

The stratigraphy of the Caines site consists of a peat layer over Level 1, a cultural level with "scattered granite and quartzite slabs and cobbles throughout." (Reader 1998: 12). A charcoal lens was found on top of Level 1 throughout most of the excavated areas. Where hearths were located, this charcoal lens appeared "fire-reddened" (Reader 1999: 4)(Table 3.14). Two dates were attained from hearth features (Table 3.15).

**Table 3.14 Stratigraphy of the Caines Site (EgBf-15) (Reader 1998: 12; 1999)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Surface Level** | Peat, ranging from 10-25 cm below surface |
| **Level I** | A white leached, fine-grained sandy soil matrix |
| **Level II** | A coarser –grained, red/brown sandy |
| **Level III** | Limestone cobble beach |

**Table 3.15 Radiocarbon dates for Caines site (Reader 1999: 30, Table 2)**

| Radiocarbon Date | Lab. Number | Associations with sample |
|---|---|---|
| 3490±80 BP. | Beta-113405 | Feature 1, wood charcoal |
| 3600±60 BP. | Beta-108562 | Feature 2, wood charcoal |

3.6.2 Raw Material

Much of the raw material from the Caines site was visually similar to raw material from Big Droke-1. Blade-like flakes of "turnip" chert and grey and white cherts, including white weathered chert, are present. However, a mottled brown/white chert was found at the Caines site and not at Big Droke-1. Two caches were found containing bifaces made from this material as well as a flake concentration, suggesting the artifacts were manufactured on site.

### 3.6.3 Artifacts Associated with Radiocarbon Dated Features

Feature 1

Feature 1 is a charcoal hearth with pink, fire cracked rocks dated to 3490±80 BP (Beta-113405). Associated artifacts include slate flakes, a biface preform, two quartz crystals, two blades, and the distal portion of a contracting based projectile point made of white chert with heat produced colouring and fractures (Reader 1999: 15; Caines Site catalogue sheets) (Plate 10).

Feature 2

Feature 2 is dated to 3600±60 (Beta-108562). It is a hearth consisting of a charcoal lens containing the three features described below (Plate 11). Artifacts associated with it include two retouched flakes, a scraper, and biface fragments, one made of white local chert, and one of light to medium grey laminated chert. A ground stone gouge is also associated with Feature 2. It is broken at both ends, is channeled for three quarters of its length and is triangular in cross-section. In addition, a Graveyard style projectile point was found. The point is made from white, weathered chert, is slightly asymmetrically side-notched, with marginally rounded shoulders at 90 degree angles. However, unlike the "typical" Graveyard form defined by McGhee and Tuck (1975: 57), the base of this point is beveled.

**Table 3.16 Artifact Frequencies of Caines site (EgBf-15)**

| Artifact Class | Frequency | Percentage |
|---|---|---|
| Biface Fragment | 13 | 18.1 % |
| Blade-Like Flake | 12 | 16.7 % |
| Biface and Biface Preform (chert) | 9 | 12.5 % |
| Blade-Like Flake Fragment | 8 | 11.1 % |
| Retouched Flake | 8 | 11.1 % |
| Quartz Cobble | 4 | 5.6 % |
| Slate Fragments | 4 | 5.6 % |
| Core | 3 | 4.2 % |
| Core Fragment | 2 | 2.8 % |
| Microblade and Microblade Fragment | 2 | 2.8 % |
| Scraper | 2 | 2.8 % |
| Biface (slate) | 1 | 1.4 % |
| Side-notched Expanding Based Biface | 1 | 1.4 % |
| Awl (?) | 1 | 1.4 % |
| Contracting Stemmed Biface | 1 | 1.4 % |
| Gouge | 1 | 1.4 % |
| **Total** | **72** | **100.3 %** |

Feature 5

Features 5 and 6 were artifact caches and interpreted as contemporaneous with Feature 2 (Reader 1999: 15). Feature 5 is a biface cache composed of four biface preforms (Plate 12), and two biface blanks (Reader 1999: 15; Caines Catalogue Sheets). All artifacts are made of white/brown mottled chert which is sourced by Ian Knight, Provincial Geologist, to the Great Northern Peninsula (Reader 1999: 16).

Feature 6

The artifacts making up this feature include a leaf shaped biface and a biface preform, both made from the same white/brown mottled chert found in Feature 5. In addition, a biface fragment of ramah, a scraper of dark grey laminated chert, a blade-like flake fragment of light grey chert, and a quartz cobble were found in Feature 6 (Plate 13).

Feature 9

Feature 9 consists of a concentration of flakes of the same white/brown mottled chert as the artifacts in Features 5 and 6. Reader (1999: 16) suggests that it is associated with the production of artifacts recovered from these features.

3.6.4 Artifacts Associated with Undated Features

Feature 7

Feature 7 is a hearth consisting of a charcoal lens with pink coloured soil below it. The edges of Feature 7 were blended into Feature 1 (Reader 1999: 16). Artifacts associated with Feature 7 include flakes two blade fragments of turnip chert (Plate 14).

Feature 8

Feature 8 is a hearth whose northeastern margins were positioned a few centimetres under Feature 1. It was identified by charcoal staining, charcoal flecks, and fire-cracked rocks over a burnt discoloured soil. Artifacts associated with Feature 8

include a retouched flake and two biface preforms, one made of a rhyolitic chert with a very coarse-grained matrix and light circular inclusions. It is broken, has a beveled base, and a patina present on one side. The other biface preform is made of white, local chert and has one concave side while the other is concave/convex, giving the artifact an asymmetrical appearance. Additional associated artifacts include a ground slate fragment, six blade fragments, four made from "turnip" chert, and two made of grey/brown chert with black laminations and part of a broken ground slate celt with large flake scars and a rounded end (Plate 14). The catalogue sheets also indicate a red ochre nodule was associated with Feature 8.

Feature 10

Feature 10 is a hearth defined by a thin charcoal lens over a discoloured subsoil. Associated archaeological material includes debitage flakes, a chert cobble, two slate flakes, and biface fragments (Reader 1999: 17). One fragment is either the tip or contracting stem of a biface and is made of white quartzite (Plate 14).

### 3.6.5 Artifacts Not Associated with Radiocarbon Dates or Features

The following artifacts could not be associated for certain with any feature, dated or otherwise, by this author based on the information available (Reader 1998; Reader 1999; Caines site Catalogue Sheets).

Microblades and Blade-like Flakes

A lanceolate microblade and a small microblade fragment is included in this collection, both made of a translucent grey chert. Raw material and characteristics of the blade suggest a Palaeo-Eskimo rather than a Maritime Archaic origin.

Seven of the blade-like flakes are made of "turnip" chert. One is complete and the others are broken. The remaining blade-like flakes are of white weathered chert and the white/brown chert found in Features 5 and 6. Two blades catalogued separately, made of a reddish fine-grained chert, can be reconstructed to one artifact with a single aris and retouch on both lateral edges. A blade-like flake of light grey chert with black inclusions is also present (Plate 15).

Cores

Three cores and two core fragments are not associated with any features or radiocarbon dating. These cores are all nodules of raw material with flakes scarring. A core and a core fragment are of dark grey, laminated, fine-grained chert and another core is made of a light grey, fine-grained chert and has a cortex present on about 50% of its surface. Another core is of white, local chert. A core fragment made with dark grey chert with light inclusions has a flaked, protruding edge and may be an awl.

Biface and Biface Fragments

Two biface fragments and a biface tip were found made from the same white/brown mottled chert found in Feature 5 and 6. Two biface fragments and an eroded, pitted biface are of white, local chert. A biface fragment is present in the

collection, of dark grey/brown laminated chert, as are two biface tips, one made of quartzite with a pink band, and another of light grey chert. A biface fragment of medium-grained, laminated chert with black inclusions is also present (Plate 16).

Retouched Flakes

There are six retouch flakes present, one of dark fine-grained chert one of light beige chert, and three of white, local chert (Plate 17).

Quartz cobble

There are two quartz cobbles in the collection (Plate 17).

Ground Slate fragments

Three slate fragments could not be associated with datable features (Plate 17).

### 3.6.6 Site Function and Technology

The Caines site is interpreted by Reader (1999: 14) as a "specialized lithic tool production area [with] evidence for initial to tertiary stages of chert biface production incorporating the heat treating of bifaces". This interpretation is based on the numerous hearths uncovered in the Caines site and the associated bifaces in many different stages of production. Most notably, two biface caches, Features 5 and 6, were situated within hearth Feature 2 (Reader 1999: 14,16). Furthermore, a pink coloured contracting stemmed biface found in Feature 1 appears to be discoloured due to heat. Similar to Big Droke-1, a chipped biface technology, ground stone technology, and blade technology is found within the Caines site.

### 3.5.7 Summary

The two dated hearth features at the Caines site are Features 1 and 2, with Features 5 and 6 and 9 associated with Feature 2. These features are dated to approximately 3500 BP and 3600 BP respectively. Notably, a contracting stemmed biface is associated with Feature 2. In summary, the site is characterized by, 1) blade-like flakes, 2) biface and biface production, 3) retouched flakes, and 4) ground slate technology.

## 3.7 The Gould Site (EeBi-42)

The Gould site is located on the western side of the Northern Peninsula in Port au Choix, slightly southeast of an isthmus which intersects the harbours of Back Arm and Gargamelle Cove. The site elevation is 6-10 m asl and was excavated over four field seasons, from 1997-2000 (Renouf and Bell 1998; 1999; 2000; 2001). It contains evidence for both Maritime Archaic and Recent Indian occupations.

There are two main areas of excavation within the Gould site. The first is located on and near the property of John Gould (Figure 3.1). This part of the site has three major excavation areas: Area 98-1, Area 99-1, and Area 99-11. Numerous test trenches were also dug on this part of the Gould site. Area 99-1 contained a Maritime Archaic component dated between 3200-3450 BP.

The other major excavation area is Area 99-2 (Figure 3.2). It is located on an ancient beach terrace at 10 m asl and within the properties of Mr. Ben Ploughman and of Mr. and Mrs. Greg and Patricia O'Keefe (Renouf and Bell 1998) A small pond, known

as Field Pond, is located nearby. Totaling 82m$^2$, Area 99-2 consists of five excavation areas; Area 99-2A, Area 99-2B, Area 99-2C, Area 99-2D, and Area 99-2E, and seven test trenches; Test Trench 99-01, Test Trench 00-07, both on the Ploughman property, and Test Trench 99-12, Test Trench 00-13, Test Trench 00-26, Test Trench 00-27, and Test Trench 00-28, on the O'Keefe property. Twelve test pits were excavated on the O'Keefe property. This area of the Gould site contained an older Maritime Archaic component dated at about 5440 BP.

### 3.7.1 Stratigraphy and Chronology

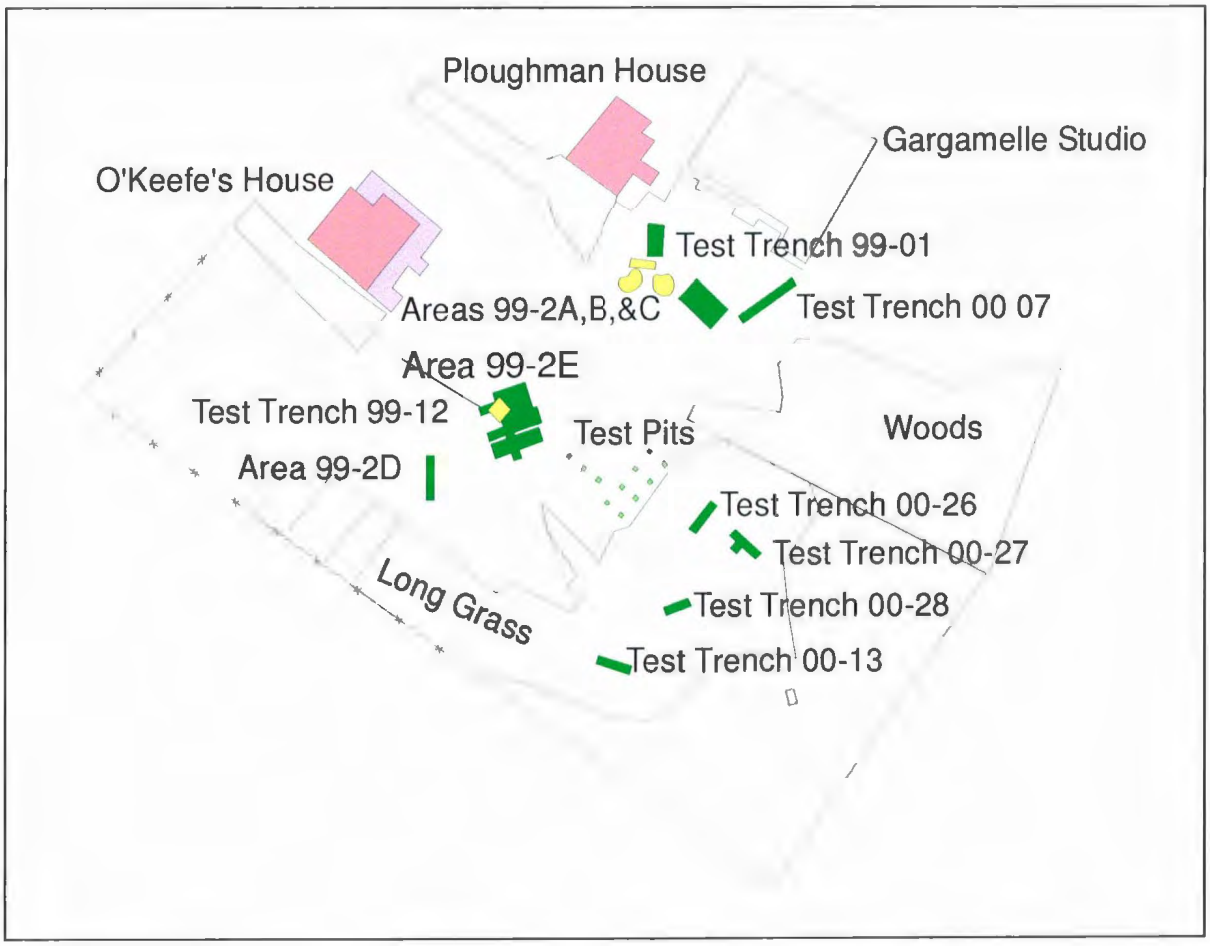
Area 99-1

The uppermost levels of Area 99-1 were heavily disturbed by modern activity. Undisturbed levels are described in Table 3.17. Maritime Archaic cultural levels for Area 99-1 are Levels 5-7 (Renouf and Bell 1999: 7-8; Renouf and Bell 2000: 3).

**Table 3.17 Stratigraphy of the Gould Site, Area 99-1 (EeBi-42)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Surface Level** | Grass |
| **Level 3c** | A sterile peat level |
| **Level 4** | A soft, almost clayey brown/black layer. |
| **Level 5** | A mix of white sand and/or disintegrated limestone. In some areas this level is patchy while in other areas it is extremely hard-packed. |
| **Level 6** | A fine brown sand grading into sticky clay |
| **Level 7** | A rounded gravel substrate |


**Figure 3.1 Site Map of Gould Site showing Area 99-1**




**LEGEND**

**1999 Excavation**

**2000 Excavation**

**Figure 3.2 Site Map of Gould Site showing Area 99-2E**

**Table 3.18 Radiocarbon dates for the Gould Site, Area 99-1 (Renouf and Bell 1999; CAA Radiocarbon Database)**

| Radiocarbon Date | Lab. Number | Associations with sample |
|---|---|---|
| 3200±100 BP | Beta-132364 | charcoal |
| 3450±50 BP. | Beta-134148 | charcoal |

Charcoal samples from level 6 of Area 99-1 have produced dates of 3200±100 BP (Beta 132364) and 3450±50 BP (Beta 134148) (Renouf and Bell 1999; CAA Radiocarbon Database).

Area 99-2E

Area 99-2E is the location of the earlier Maritime Archaic component at the Gould site. Much of the original upper soil layers were removed by modern landscaping prior to archaeological excavations. Level 3c of the Gould site is originally defined as "a compact layer of brown/orange peat that becomes darker, more compact, and wetter approaching Level 4" (Renouf and Bell 1999: 7). Thus, the uppermost soil layer of Area 99-2, fitting this description, is also named Level 3c.

The cultural level in Area 99-2 is the interface between Level 3c and Level 4, and within Level 4. Scattered charcoal was collected from Level 4 and submitted for radiocarbon dating. A few flakes also were present on the top of Level 5, but are not considered a separate cultural layer.

Three scattered charcoal samples were taken from Level 4 of Area 99-2E and analyzed for AMS radiocarbon dating producing dates of 2850±40 BP (Beta-148517), 5400±40 BP (Beta-148519), and 5440±50 BP (Beta-148518). Two of these results are

comparable to the sample from level 5 of Area 99-2B (Figure 3.20) dated at 5440 ± 50 BP (Beta 134153).

**Table 3.19 Stratigraphy of the Gould Site, Area 99-2 (EeBi-42)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Surface Level** | Grass |
| **Level 3c** | Peat, much of which is removed by modern landscaping |
| **Level 4** | A thin, discontinuous layer of black clay sediment. Most cultural material found in Area 99-2 was |
| **Level 5** | A grey, gravel layer intermixed with rock varying from pea to baseball size. It is hard-packed and very dry, and is measures up to |
| **Level 6** | A brown sandy soil, sometimes loose, especially in root-disturbed areas with very little stones or rocks intermixed. Hair-like roots are |
| **Level 7** | Angular pebbles loosely within golden/brown sand and the substrate of Area 99-2. |

**Table 3.20 Radiocarbon dates for the Gould Site, Area 99-2 (Renouf and Bell 1999; 2000; In Press)**

| Radiocarbon Date | Lab. Number | Associations with sample |
|---|---|---|
| 5440±50 BP. | Beta-134151 | Area 99-2B, scattered charcoal |
| 2850±40 BP | Beta-148517 | Area 99-2E, scattered charcoal |
| 5400±40 BP. | Beta-148519 | Area 99-2E, scattered charcoal |
| 5440±50 BP. | Beta-148518 | Area 99-2E, scattered charcoal |

### 3.7.2 Raw Material

Area 99-2

All the artifacts found in Area 99-2 are of fine-grained cherts with the exception of one ground slate artifact. The vast majority (80.5%) of artifacts are of a visually distinctive medium to dark grey/brown chert with beige/green, roughly parallel laminations running through it. In some areas the laminations are mottled, rather that parallel (Table 3.21).

**Table 3.21 Number of artifacts from Area 99-2, defined by raw material**

| Raw Material | Number of Artifacts | Percentage |
|---|---|---|
| Grey Laminated/Mottled Chert | 33 | 80.5 % |
| Blue/Grey Chert | 2 | 4.9 % |
| Dark Chert with Light Inclusions | 2 | 4.9 % |
| Translucent Brown Chert | 1 | 2.4 % |
| Green/Grey Chert with Black Inclusions | 1 | 2.4 % |
| Blue/Grey Speckled Chert | 1 | 2.4 % |
| Slate | 1 | 2.4 % |
| **Total** | **41** | **99.9 %** |

Area 99-1

The predominant material from Area 99-1 is a dark grey-to-black chert with light coloured felsitic mineral inclusions, some of which are deteriorated. All four biface fragments are made from this material as are numerous core fragments uncovered from this area (Renouf and Bell 2000).

### 3.7.3 Artifacts

Area 99-2

The following is a description of the artifacts, flakes, and debitage from Area 99-2 of the Gould site, although 95.7 % of the artifacts found in this Area were uncovered in Area 99-2E. Stratigraphic and temporal associations can only clearly be made within Area 99-2E, but two artifacts from Area 99-2B and Test Trent 99-01 are included in this description.

Macroblades

Two macroblades were found in Area 99-2E. One macroblade is of a fine-grained, banded brown chert. It is the distal portion of a broken blade, has a single aris, and is unifacially flaked on both lateral edges and the distal end. Another macroblade is of a dark grey chert with white/beige inclusions. It has double arises which combine to form a single aris at approximately mid-point which continues along its distal end. A striking platform with some degree of battering is present (Plate 18).

Blade-Like Flakes

In total, nine blade-like flakes are identified of varied raw material (Plate 19). Six are made of fine-grained, grey chert with green laminations, one of a medium brown, fine-grained chert and one of a dark chert with light coloured inclusions. Another blade-like flake is of a light greenish/grey chert although it appears as though made from laminations of the grey banded chert mentioned above. Two blades have a single aris.

Cores/Core Fragments

Twenty-two core fragments were found, 18 of which were made of the distinctive fine-grained, grey chert with green laminations, identical to that of the six blade-like

flakes described above. The other core fragments are made from translucent brown chert, blue/grey chert, brown/beige laminated fine-grained chert, and blue/grey speckled coarser grained chert (Plate 20).

*Pièces Esquillées*

Two *pièces esquillées* are present in this collection. One has flake scaring and is made of a light grey chert, and the other is of a solid coloured, blue/grey chert. These artifacts are square in shape and defined by bipolar battering (Plate 21).

Ground Slate Point

A ground slate point was found *in situ*, broken in three pieces (Plate 22). It has a straight edged, narrow blade which measures approximately 127.51 mm long and 30.18 mm wide. The blade is diamond shaped in cross-section and has a thickness of 6.88 mm. The stem is parallel sided and the base is expanding and ground flat at the end. The base appears to have 8 poorly defined facets in cross-section. Stem length is 17.89 mm, making the length of the point 145.40 mm in total.

The point has dark staining on one side, most probably from the peat which lay above it *in situ*. Use-wear is evident on both edges with striations along the length of the blade. The overall appearance of the point is slightly battered and the distal end has a center ridge that does not extend along the entire length of the blade.

Biface Preform

A biface preform was found made from dark, fine-grained, brown chert (Plate 22). No laminations can be seen on the artifact, although the chert does closely resemble non-laminated areas of the distinct chert predominant throughout this part of the site. Cortex is visible on both sides of the artifact, although these areas could be the natural planes

existing within the laminated chert.

Retouch Flakes

Two retouch flakes were also uncovered in Area 99-2E (Plate 23).

Flake Point

A small flake point was found in Area 99-2B (Plate 24). It is asymmetrically stemmed with predominately unifacial retouch along the blade edges, although bifacial retouch is evident in an approximately one cm portion. The raw material is a light green/beige, fine-grained chert with black inclusions that is varying in colour. The edges are rounded and convex. The point is 33.58 mm long, 18.16 mm wide, and 3.82 mm thick.

**Table 3.22 Artifact Frequencies of the Gould Site, Area 99-2 (EeBi-42)**

| Artifact Class | Frequency | Percentage |
|---|---|---|
| Core Fragment | 22 | 53.7 % |
| Blade-Like Flake | 9 | 22.0 % |
| Macroblade | 2 | 4.9 % |
| Retouch Flake | 2 | 4.9 % |
| Pièce Esquillée | 2 | 4.9 % |
| Ground Slate Point | 1 | 2.4 % |
| Biface Preform | 1 | 2.4 % |
| Flake Point | 1 | 2.4 % |
| Scraper | 1 | 2.4 % |
| **Total** | **41** | **100 %** |

Scraper

A scraper, found in Test Trench 99-01, is made of a translucent, brown, fine-grained chert visually identical to flakes found in Area 99-2E (Plate 24). It is

predominantly unifacially flaked except for one small area of bifacial retouch. The scraper is made from a flake with cortex visible on the striking platform.

Area 99-1

A younger Maritime Archaic component was uncovered in Area 99-1 of the Gould site with dates ranging from 3850±50 BP (Beta 132364) to 3200±100 BP (Beta 121295). Artifacts found in Area 99-1 include egg shaped rocks, hammerstones, and a uniface made of a light grey/beige chert with black inclusions. Four broken bifaces were found, all of a dark grey or black chert with light coloured felsitic mineral inclusions. Two of these bifaces are stemmed, one side notched with well defined shoulders and the other asymmetrically stemmed with an expanding base (Plate 25).

### 3.7.4 Site Function and Technology

The predominant technology of the artifacts from the earlier Maritime Archaic component located in Area 99-2E of the Gould site is a chipped stone technology. Several of the core fragments, flakes, and blade-like flakes were refitted by Eric Brink Petersen, University of Copenhagen, Denmark while visiting the Archaeology Unit at Memorial University (Plate 26). When refitted, the combined artifacts form part of a sub-angular chert cobble. The cobble has natural looking abrasions on the corners, indicating that it may have been battered upon other rocks and had originated from a beach setting.

A ground slate technology is also evident in Area 99-2 by the presence of a ground slate point and a small number of slate flakes. This artifact also demonstrates the use of side-notched biface technology. Artifacts from Area 99-1, the younger Maritime Archaic component, also illustrate a chipped stone, side-notched, expanding based biface

technology, as well as a unifacial flaked technology.

3.7.5 Summary

The Gould site in Port aux Choix contains two Maritime Archaic components that are temporally separated by approximately 2000 years. The Maritime Archaic component from Area 99-2 of the Gould site is presently the earliest dated archaeological site within insular Newfoundland. Area 99-2 is characterized by 1) the use of fine-grained, laminated chert, and 2) the manufacturing of flake tools, including blade-like flakes. A ground slate biface also illustrates the earliest evidence for the manufacture of side-notched, ground stone points in Newfoundland, dating to 5500 BP.

Area 99-1, the later Maritime Archaic component, is characterized by, 1) the use of coarser grained chert, and 2) side-notched, expanding based projectile points. The artifacts from the earlier and later components of the Gould site differ in raw material and artifact types. This is not surprising considering their temporal separation. However, a side-notched biface technology is present in both components.

## 3.8 The Cow Head Site (DlBk-1)

The Cow Head site, also sometimes called the Spearbank site (Hartery 2001), is located in the town of Cow Head, which is located within the Gros Morne National Park on the west coast of the Northern Peninsula. Archaeological material from the site was first uncovered by erosion. Although, much of the site was destroyed in 1975 when used as a gravel quarry, the remnants of the site were salvaged in 1977 and 1978 (Tuck 1978: 138; Tuck, n.d.b).

### 3.8.1 Stratigraphy and Chronology

The Cow Head site is stratigraphically and topographically complex, containing many natural and cultural levels and two spatially separated areas of excavation. The site contains the Recent Indian, Palaeo-Eskimo, Maritime Archaic, and historical archaeological remains (Teal 2001; Hartery 2001; Tuck 1978). The Maritime Archaic component of the Cow Head site is the focus of this study.

The site consists of two excavation areas. One is called the upper terrace and comprised of about 1 m depth of fine sand, a bog, and many horizontal and vertical levels (Tuck 1978: 138). This area was at least partly destroyed by gravel quarrying and is separated into 1) a "north zone" containing two occupation layers with a layer of sand between them and a substrate of gravel beach and 2) "a southern zone" with similar stratigraphy to the north zone except "instead of two turf zones there was a single such stratum" (Tuck, Cow Head fieldnotes). The other excavation area is described as the lower profile and contains several cultural occupations, labeled as Bands 1-8 (Tuck 1978; Tuck, n.d.b).

The Maritime Archaic component of the site lies upon an ancient gravel beach and only the upper terrace contained a Maritime Archaic component. Within this component five features were excavated. Features 42 and 43 are hearths consisting of stone cobbles and charcoal. Feature 48 is cautiously interpreted as a hearth consisting of scattered fire-cracked rock and very little charcoal (Tuck, n.d.b). Feature 45 is described as a scatter of rocks with some fire-cracked rocks. Feature 39 measures approximately 5 $m^2$ and is

interpreted as a workshop area. Lithic artifacts such as biface preforms, bipointed biface preforms, flakes, and core fragments were associated with Feature 39 (Tuck, n.d.b).

**Table 3.23 Stratigraphy of the Cow Head Site, Upper Terrace (DlBk-1) (Tuck; Cow Head Field Notes; Tuck 1978)**

| Stratigraphic Level | Description of Level |
|---|---|
| **Surface Level** | Vegetation |
| **Level 1** | Sand |
| **Level 2** | Occupation Layer 1 |
| **Level 3** | Sand |
| **Level 4** | Occupation Layer 2 |
| **Level 5** | Sand |
| **Level 6** | Ancient gravel beach |

A radio-carbon date of 4130±150 BP (Dal 326) was determined from charcoal excavated from Feature 45 (Tuck, n.d.b). A component above the ancient beach, described as Pre-Dorset or Dorset, since then identified as Groswater Palaeo-Eskimo, (Tuck 1978: 140) is separated from the Maritime Archaic component by a layer of sand and is radiocarbon dated to 2145±90 BP (Tuck, n.d.b). However, Tuck argues that the Palaeo-Eskimo occupation is closer to 3000-3200 BP based on the artifact typology (Tuck, n.d.b).

### 3.8.2 Raw Material

The area around the town of Cow Head is noted for the availability of high quality fine-grained cherts suitable for making chipped stone tools (LeBlanc 1996: 22). Hartery (2001: 25-27) describes how 98% of the cherts found in Recent Indian components of the Cow Head site were formed locally within deep water limestone and shale around the Cow Head Peninsula. Cobbles of these cherts can still be found on the beaches around parts of the Peninsula. Upon examination, the Maritime Archaic artifacts from the Cow Head site are made from cherts that are visually identical to the raw material found in the Recent Indian components of the Cow Head site.

The Maritime Archaic artifacts from this site are predominantly of fine-grained cherts, although some are of a coarser-grained brown chert. The colouration of the material is solid, mottled, speckled, and/or laminated and colour varies from dark brown to light beige, dark grey, and light grey. The cortex of these materials is generally varying shades of light grey.

### 3.8.3 Artifacts

The Maritime Archaic artifacts from the Cow Head site include 15 hammerstones, all with bipolar battering (Plate 27), a ground stone plummet, seven ground slate fragments, the tip of a ground slate biface, and a broken ground stone celt of a coarse-grained stone (Plate 28). However, biface preforms and preform fragments make up the majority of the artifacts at 53.8% (Table 3.24).

**Table 3.24 Artifact Frequencies for the Maritime Archaic collection of the Cow Head site**

| Tool Class | Number | Percentage |
|---|---|---|
| Biface Preform Fragment | 51 | 31.9% |
| Biface Preform | 26 | 16.3 % |
| Blank | 26 | 16.3 % |
| Hammerstone | 15 | 9.4 % |
| Bi-pointed Biface | 10 | 6.3 % |
| Flake Preform | 9 | 5.6 % |
| Ground Slate Fragment | 7 | 4.4 % |
| Cobbles | 4 | 2.5 % |
| Flake Blank | 4 | 2.5 % |
| Retouched Flake | 2 | 1.3 % |
| Scraper | 1 | 0.6 % |
| Plummet | 1 | 0.6 % |
| Ground Slate Biface Tip | 1 | 0.6 % |
| Ground Stone Celt | 1 | 0.6 % |
| Lanceolate Biface Preform | 1 | 0.6 % |
| Biface | 1 | 0.6 % |
| **Total** | **160** | **100.1 %** |

As a biface is chipped from a piece of raw material, the shape of the artifact changes, ending in what may or may not be a usable, or used, tool. The artifacts at the Cow Head site range from raw material blanks to nearly finished preforms that might be interpreted as finished tools on other archaeological sites. For example, many of the cores from the Cow Head site have only a few flakes removed (Plate 29). The more an artifact is flaked, the more it takes on the appearance of a finished tool, especially as flakes are taken more toward the centre of the artifact on the dorsal and ventral faces. In the Cow

Head artifact collection, bifaces made from flakes are more finished looking, perhaps because the flakes already have the appropriate, symmetrical shape of finished biface. (Plate 30). The most finished or formal looking tools in the Cow Head collection are 11 bi-pointed bifaces (Plate 31), and two ovate or leaf-shaped bifaces (Plate 32). Although some of these artifacts are not flaked to the centre of their dorsal or ventral faces, they are still classified as biface preforms. Seven broken bifaces are present which have been flaked to the centre of the artifact but do not create a continuous flaked edge around the artifact (Plate 32). Thus, only one artifact is classified as a finished biface within this collection.

### 3.8.4 Site Function and Technology

The artifacts from the Maritime Archaic component of the Cow Head assemblage represent a continuum of biface production, made from locally available high-quality cherts. The presence of possibly four hearth features and a lack of "finished" tools within this component suggests that the site may also have been used as a short-term camp site and workshop site where local chert was worked into bifacially flaked tools (Tuck 1978: 139; Tuck, n.d.b).

Two types of lithic technologies are evident within the Maritime Archaic component of the Cow Head site. A ground stone technology is depicted by the presence of ground slate fragments and a tip of a bifacially grounded stone tool. The predominant technology however is a chipped stone technology focusing on biface reduction and manufacture made from flake and cobbles.

### 3.8.5 Summary

In conclusion, the Cow Head site can be characterized by 1) the use of fined-grained, mostly dark coloured cherts with combinations of mottling and laminations, and 2) biface preform production from flake and cobbles, including bi-pointed biface preforms. A lack of formal or finished looking tools may suggest that artifacts were transported from the site in preform manner.

## 3.9 Chapter Summary

This chapter summarizes non-ceremonial southern variant Maritime Archaic sites located on the Northern Peninsula and Strait of Belle Isle dating from approximately 5500 BP to 3200 BP. Interestingly, the Gould site contains the oldest and youngest Maritime Archaic components discussed in this thesis. Most of the sites described above appear to represent short-term campsites where tools were made. Several dated features found within the Big Droke-1 site show that this location was used repeatedly over a period of one thousand years. Big Brook-2 and the Cow Head site also represent quarry sites, where raw material was procured and made into tools. In the next chapter, these sites will be compared and analyzed to create an archaeological definition for the Maritime Archaic of this time and place. In addition, the artifacts described in Chapter 3 are studied to see if any chronological or intra-regional variations can be detected and to compare the studied sites with other southern variant Maritime Archaic sites in Newfoundland and Labrador.

# CHAPTER 4
# Analysis and Discussion

The purpose of this chapter is to comparatively analyze the data presented in Chapter 3. The comparisons are then used to examine the three research questions presented in this thesis: 1) How can the southern variant Maritime Archaic Tradition in the Great Northern Peninsula and southern Labrador be archaeologically characterized? 2) Can temporal and intra-regional variations for the southern variant of the Maritime Archaic in this region be detected from the artifacts studied in this thesis? 3) How does the Maritime Archaic in this region compare with the southern variant Maritime Archaic in the rest of Newfoundland and Labrador? These questions will be addressed through a site comparison of the presence or absence of artifact types and the frequencies of artifact types, as well as a site comparison of common types of raw material.

## 4.1 Artifact Typology

In this section the presence or absence and frequency of artifact types are examined for the sites presented in Chapter Three (Tables 4.1 and 4.2). Please note that in this section, the dated features from the Big Droke and Caines sites are separated, all sites and features are arranged in chronological order, and the sites and features will hereafter be collectively referred to as "sites". In addition, biface is a collective term for all complete and fragmented biface as well as biface preforms, and within the tables below, side-notched, expanding based biface are abbreviated as S.N.E.B. biface.

**Table 4.1 Presence/absence of artifact types from Maritime Archaic sites on the Strait of Belle Isle and Northern Peninsula, dating from 5500 BP to 3200BP.**

| Artifact Class / Site | Gould,, Area 99-2E, 5500 BP | Forteau Point, 5000 – 5400 BP | Graveyard, 4200 – 4450 BP | Cow Head, 4100 BP | L'anse Amour, 4100 BP | Big Brook-2, 3820-4090 BP | Big Droke-1, Feature 1, 3900 BP | Big Droke-1, Feature 15, 3800 BP | Big Droke-1, Feature 6, 3600 BP | Caines, Feature 2, 5, 6 , 3600 BP | Caines, Feature 1, 3500 BP | Big Droke-1, Feature 19, 3500 BP | Big Droke-1, Feature 8, 3500 BP | Gould, Area 99-1, 3200-3400 BP | **Total Number of Sites** | **Percentage of sites artifact type present** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biface | X | X | X | X | | X | | X | | X | X | X | | X | **10** | **71.4%** |
| Blade-like flake | X | X | X | | | X | | | X | X | X | X | X | | **9** | **64.3%** |
| S.N.E.B. biface | X | X | X | | | | X | | | X | | | | X | **6** | **42.9%** |
| Retouched flake | X | X | X | X | | X | | | | X | | | | | **6** | **42.9%** |
| Ground slate fragment | | | X | X | | X | | X | X | | X | | | | **6** | **42.9%** |
| Core/core fragment | X | X | | X | | X | | | | | | X | | | **5** | **35.7%** |
| Gouge | | X | | | X | X | X | | | X | | | | | **5** | **35.7%** |
| Ground slate biface | X | | | X | | | | | | | | X | | | **3** | **21.4%** |
| Celt/Axe/Adze | | X | | | X | | | | X | | | | | | **3** | **21.4%** |
| Bifacially flaked flake | X | | | | | | | X | | | | X | | | **3** | **21.4%** |
| Scraper | | | | X | | | | | | X | | | | | **2** | **14.3%** |
| Quartz cobble | | | | | | | | | | X | X | | | | **2** | **14.3%** |
| Lanceolate biface | | X | | X | | | | | | | | | | | **2** | **14.3%** |
| Flake point | X | | X | | | | | | | | | | | | **2** | **14.3%** |
| Bi-pointed biface | | | | X | | | | | | | | | | | **1** | **7.1%** |
| Macroblades | X | | | | | | | | | | | | | | **1** | **7.1%** |
| Pièces esquillées | X | | | | | | | | | | | | | | **1** | **7.1%** |
| Contracting stemmed biface | | | | | | | | | | | X | | | | **1** | **7.1%** |
| Plummet | | | | X | | | | | | | | | | | **1** | **7.1%** |

**Table 4.2 Total number of artifact types from Maritime Archaic sites from the Strait of Belle Isle and Northern Peninsula, dating from 5500 BP to 3200BP.**

| Artifact Class / Site | Gould,, Area 99-2E, 5500 BP | Forteau Point, 5000 – 5400 BP | Graveyard, 4200 – 4450 BP | Cow Head, 4100 BP | L'anse Amour, 4100 BP | Big Droke-1, 4500-3500 BP | Big Brook-2, 3820-4090 BP | Caines, 3500-3600 BP | Gould, Area 99-1, 3200-3400 BP | **Total** |
|---|---|---|---|---|---|---|---|---|---|---|
| Blade-like flake | 9 | 3 | 6 | | | 20 | 218 | 20 | | **276** |
| Biface | 1 | 10 | | 101 | | 13 | 93 | 23 | 2 | **243** |
| Core/core fragment | 22 | 2 | | 4 | | 9 | 110 | 5 | | **152** |
| Retouched flake | 2 | 1 | 4 | 2 | | | 8 | 8 | | **25** |
| Ground slate fragment | | 1 | 2 | 7 | | 8 | | 4 | | **22** |
| Ground slate biface/biface fragment | 1 | | | 8 | | 4 | 1 | 1 | | **15** |
| S.N.E.B. biface | 1 | 2 | 6 | | | 1 | | 1 | 2 | **13** |
| Bi-pointed biface | | | | 10 | | | | | | **10** |
| Scraper | 1 | | | 1 | 1 | | | 2 | | **5** |
| Gouge | | 1 | | | 1 | 1 | 1 | 1 | | **5** |
| Quartz cobble | | | | | | | | 4 | | **4** |
| Celt/Axe/Adze | | 3 | | 1 | | | | | | **4** |
| Bifacially flaked flake | | | | | | 3 | | | | **3** |
| Lanceoloate biface | | 2 | | 1 | | | | | | **3** |
| Macroblade | 2 | | | | | | | | | **2** |
| Pièces esquillés | 2 | | | | | | | | | **2** |
| Flake point | 1 | | 1 | | | | | | | **2** |
| Contracting stemmed biface (chert) | | | | | | | | 1 | | **1** |
| Plummet | | | | 1 | | | | | | **1** |

As illustrated in Table 4.1, the most commonly found artifact class in the sites described in Chapter 3 is the bifaces/preforms/fragments. It is present in ten out of fourteen, or 71.4 % of the studied sites. The second most common artifact type is the blade-like flake and it is present in nine of fourteen, or 64.3% of the studied sites. The third most common artifact types are the side-notched, expanding based biface, retouched flake, and ground slate fragment, all at 42.9%, or six of the fourteen sites. Fifth is core/core fragment and gouge at 35.7%, or five of the fourteen sites.

Table 4.2 illustrates that artifacts that appear most often in the studied sites are blade-like flakes, bifaces/preforms/fragments, cores and core fragments, retouched flakes, and ground slate fragments. Notably, although side-notched, expanding based projectile points are present in almost half of the sites studied, they are relatively low in frequency. The high frequency of bifaces/preforms/fragments found within the Cow Head site and of blade-like flakes, bifaces/preforms/fragments, and core/core fragments is reflective of site function, as both are quarry/workshop sites. Interestingly, the artifact types found most frequently within the focus sites are also the artifacts found most present.

The presence or absence and frequency of artifacts classes from Maritime Archaic assemblages on the Strait of Belle Isle and Northern Peninsula, dating from 5500 BP to 3200 BP, suggests that artifact assemblages of this time and area are typified by blade-like flakes, bifaces, retouched flakes, side-notched, expanding based projectile points, and artifacts made from a ground stone technology, such as gouges, celts, and ground slate bifaces. Since most of these artifacts, such as bifaces and retouched flakes, are not stylistically diagnostic, radiocarbon dates and a combination of several of these artifact

types within a site will be most useful in determining the cultural affiliation of an archaeological site.

### 4.2 Raw Material

Archaeologists have most often used the visible properties of the lithic raw material as a means of identification. It is not an accident that the observation of visible properties is also the most easily determined and inexpensive traits available to researchers, as opposed to, for example, chemical analysis and testing of mechanical properties (Luedtke 1992: 63). The macroscopic visual properties of several types of lithic raw material are used in this thesis to argue for their common presence among Maritime Archaic sites in the Strait of Belle Isle and Northern Peninsula between 5500 BP and 3200 BP.

Fifteen sites and features were studied for the presence or absence of raw material. A date of 4530±60 BP was associated with a scatter of white chert flakes at the Big Droke-1 site and is included in this section. White, weathered chert is the most common raw material and is found in ten of the fifteen sites studied (Table 4.3). Slate is found in nine, fine-grained dark and mottled cherts are found in eight, and quartz is found in five of the fifteen sites studied. The distinctive laminated chert found in Area-99-2E and the turnip chert found in the Big Droke-1 and Caines sites are only in two of the fifteen sites. This suggests that the white weathered chert (also known as Bird Cove chert and Big Brook chert), slate, and the fine-grained dark and mottled cherts are typical of southern variant, Maritime Archaic sites from Strait of Belle Isle and Northern Peninsula,

dating from 5500 BP to 3200 BP. Coarser-grained cherts and ramah are uncommon among these sites.

**Table 4.3 Presence/absence of common raw materials in Maritime Archaic sites from the Strait of Belle Isle and Northern Peninsula, dating from 5500 BP-3200BP.**

## 4.3 Chronological and Regional Variations

| Raw Material / Site | Gould, Area 99-2, 5500 BP | Forteau Point, 5000 – 5400 BP | Big Droke-1, 4500 BP | Graveyard, 4200 – 4450 BP | Cow Head, 4100 BP | L'anse Amour, 4100 BP | Big Brook-2, 3820-4090 BP | Big Droke-1, Feature 1, 3900 BP | Big Droke-1, Feature 15, 3800 BP | Big Droke-1, Feature 6, 3600 BP | Caines, Features 2, 5,6 3600 BP | Caines, Feature 1, 3500 BP | Big Droke-1, Feature 19, 3500 BP | Big Droke-1, Feature 8, 3500 BP | Gould, Area 99-1, 3200-3400 BP | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **White weathered chert** | | X | X | X | | | X | X | X | X | X | | X | X | | 10 |
| **Slate** | X | X | | X | | X | X | | X | X | | X | X | | | 9 |
| **Fine-grained dark and mottled chert** | X | | | X | X | | | | | X | X | | X | X | X | 8 |
| **Quartz/Quartzite** | | X | | | X | X | | | | | X | X | | | | 5 |
| **Grey/Brown/Blue, Fine-Grained, Laminated chert** | X | | | | X | | | | | | | | | | | 2 |
| **Course-medium grained dark chert** | | | | | X | | | | | | | | | | X | 2 |
| **Turnip chert** | | | | | | | | | | | | X | | X | | 2 |
| **Ramah chert** | | | | | | | X | | | | X | | | | | 2 |

Chronological Variation

There is very little chronological variation in the common types of raw material found in the studied sites. Table 4.3 illustrates that grey/brown/blue, fine-grained, laminated chert is found in earlier sites, dated at 5500 BP and 4100 BP, and turnip chert is found in later sites, dated 3500 BP. However, Table 4.3 also shows that the white, weathered chert, fine-grained mottled cherts, and slate are found in sites throughout most of the period between 5500 BP-3200 BP.

Chronologically, artifact typology also does not appear to vary over time throughout the focus sites (Table 4.1). Biface and biface preforms, side-notched, expanding based biface, and blade-like flakes are found throughout the 2300 year time period. The same is true for ground slate bifaces, ground slate fragments, celts and gouges. The only variation illustrated by Table 4.1 is that lanceolate bifaces, flake points, bi-pointed bifaces, macroblades and pièces esquillées appear in sites older than 4100 BP. Artifact assemblages for the Maritime Archaic on the Northern Peninsula and Strait of Belle Isle stay consistent from 3200 to 5500 BP.

Intra-Regional Variation

Evidence of a regional variation of artifact types with these Maritime Archaic sites is not suggested by the data presented here (Table 4.5). For this comparison, the Big Droke-1 and Caines sites are treated as whole units, rather than as many dated features.

**Table 4.4 Presence of artifact classes within sites arranged from northern to southern sites**

North ← → South

| Artifact Class / Site | L'anse Amour, 4100 BP | Graveyard, 4200 – 4450 BP | Forteau Point, 5000 – 5400 BP | Big Brook-2, 3820-4090 BP | Big Droke-1, 3900-3500 bp | Caines, 3500-3600 BP | Gould,, Area 99-2E, 5500 BP | Gould, Area 99-1, 3200-3400 BP | Cow Head, 4100 BP |
|---|---|---|---|---|---|---|---|---|---|
| **Biface** | | X | X | | X | X | X | X | X |
| **S. N. E. B. biface** | | X | X | | X | X | X | X | |
| **Blade-like flake** | | X | X | | X | X | X | | |
| **Retouched flake** | | X | X | | | X | X | | X |
| **Core/core fragment** | | | X | | X | X | X | | X |
| **Ground slate fragment** | | X | | | X | X | | | X |
| **Ground slate biface/fragment** | | | | | X | X | X | | X |
| **Gouge** | X | | X | | X | X | | | |
| **Scraper** | | | | | | X | | | X |
| **Celt/Axe/Adze** | X | | X | | | | | | X |
| **Bifacially flaked flake** | | | | | X | | X | | |
| **Contracting stemmed point** | | | | | | X | | | |
| **Quartz cobble** | | | | | | X | | | |
| **Bi-pointed biface** | | | X | | | | | | X |
| **Lanceolate biface** | | | X | | | | | | X |
| **Flake point** | | | | | | | | | |
| **Macroblades** | | | | | | | X | | |
| **Pièces esquillés** | | | | | | | X | | |
| **Plummet** | | | | | | | | | X |

The most common artifact classes are seen throughout the entire region. These types include bifaces, side-notched, expanding based projectile points, blade-like flakes, and retouched flakes.

However, differences can be seen in the stylistic traits of the blade-like flakes found at the Gould, Big Droke-1, and Caines sites (Figure 4.1; Figure 4.2). The Gould site blades and Big Droke-1 blades are very similar in the range of lengths. The Caines site has the shortest blade-like flakes. The widths of blade-like flakes from these sites overlap with the Gould site having the widest and Caines site having the narrowest blade-like flakes. In summary, many of the Gould site blade-like flakes are larger than those found at Big Droke-1 and the Caines site, although the size of the blade-like flakes from all three sites overlap.

**Figure 4.1 Length of blade-like flakes from the Gould, Big-Droke-1, and Caines sites**

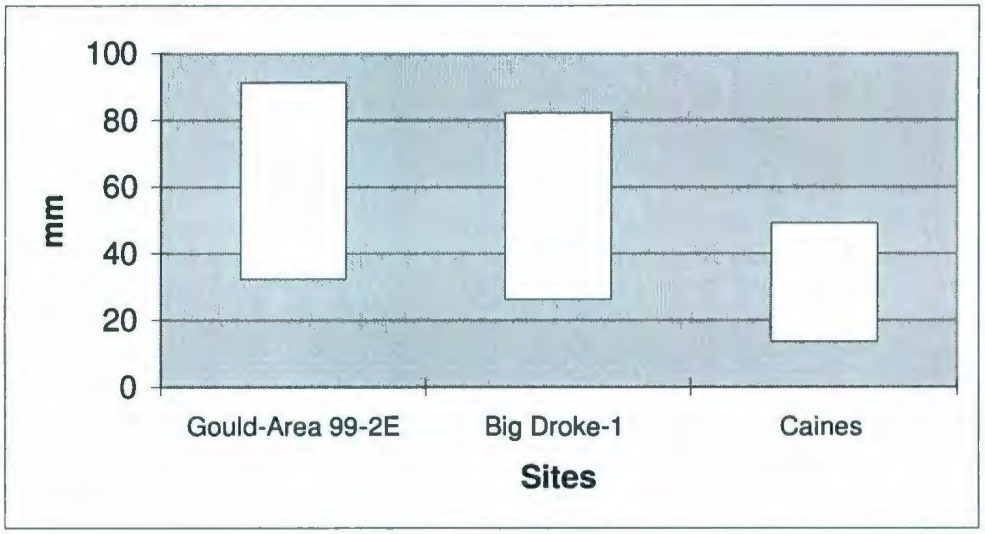
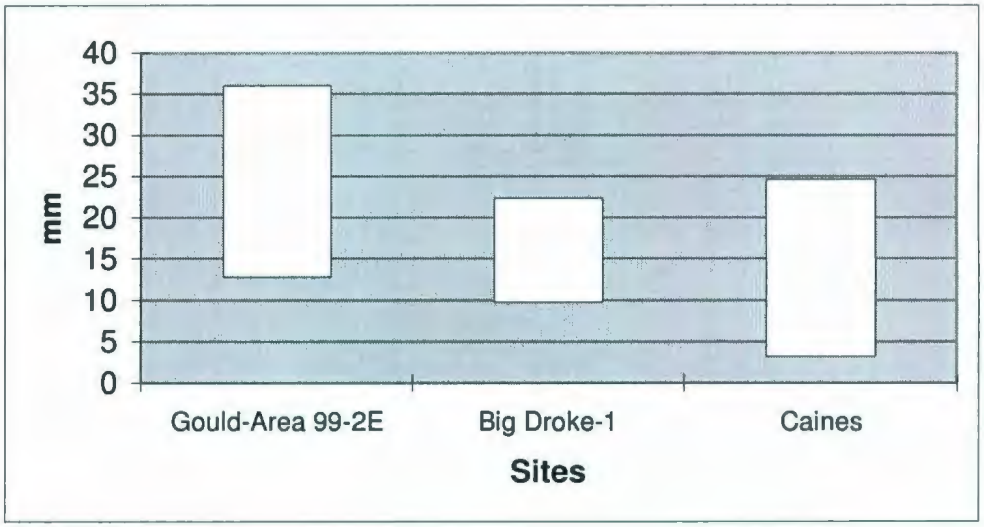


**Figure 4.2 Width of blade-like flakes from the Gould, Big Droke-1, and Caines sites**




A regional variation of raw material is somewhat illustrated in Table 4.5. Quartz, quartzite, fine-grained, dark laminated and mottled cherts, and slate are seen throughout the entire geographical region of the Strait of Belle Isle and Great Northern Peninsula. However, white, weathered chert appears in sites situated close to the Strait of Belle Isle. In light of Beaton's (2004) evidence of a source for white weathered chert, or Big Brook chert, in the Big Brook area, this suggests that white weathered chert is found in sites closest to the source. However, in contrast to this, if the source of the fine-grained dark and mottled cherts is the Cow Head area, then these cherts traveled a much farther distance from the source.

**Table 4.5 Presence/absence of common raw materials arranged from northern to southern sites**

| Raw Material / Site | L'anse Amour, 4100 BP | Graveyard, 4200 – 4450 BP | Forteau Point, 5000 – 5400 BP | Big Brtook-2, 3820-4090 BP | Big Droke-1, 3900-3500 bp | Caines, 3500-3600 BP | Gould,, Area 99-2E, 5500 BP | Gould, Area 99-1, 3200-3400 BP | Cow Head, 4100 BP |
|---|---|---|---|---|---|---|---|---|---|
| **Quartz/Quartzite** | X | | X | | | X | | | X |
| **Slate** | X | X | X | X | X | X | X | | X |
| **Grey/Blue, Fine-Grained, Laminated Chert** | | | | | | | X | | X |
| **Fine-grained dark and mottled cherts** | X | X | | | X | X | X | X | X |
| **White, weathered chert** | | X | X | X | X | X | | | |
| **Turnip chert** | | | | | X | X | | | |
| **Ramah chert** | | | | X | | X | | | |

## 4.4 Comparisons with other Maritime Archaic Sites in Newfoundland and Labrador

Southern variant Maritime Archaic sites within Newfoundland and Labrador that are located outside of the study region of the Northern Peninsula and Strait of Belle Isle but are within the time frame of 5500 to 3200 BP are discussed below for comparative purposes.

### 4.4.1 The Beaches Site (DeAk-1)

The Beaches site is located in Bonavista Bay approximately 10 miles from the mouth of the Terra Nova River. One area of the site is located in a tidal flat where excavation could only take place when it was not covered with water. The Beaches site contains two cultural layers, both containing Maritime Archaic material. Cultural Layer 2 exclusively contains Maritime Archaic remains and is the earlier of the two components.

Radiocarbon dates from features within Layer 2 are 4900±230 BP (SI-1384), 3690±100 BP (I-6761), and 3840±100 BP (I-7509). Cultural Layer 1 is found above Layer 2 and is determined to be a later component, although no samples for radiocarbon dating were collected. Cultural Layer 1 contained Maritime Archaic as well as Beothuck and Dorset Palaeo-Eskimo material (Carignan 1975; CAA Radiocarbon Database 2001). The Maritime Archaic components of the Beaches site are interpreted as workshop areas, where flakes, cores, and pieces of raw material make up much of the assemblage.

**Table 4.6 Radiocarbon dates for the Beaches Site (DeAk-1) (Carignan 1975; CAA Radiocarbon Database 2001)**

| Radiocarbon Date | Lab. Number | Associations with sample |
|---|---|---|
| 3690±100 BP | I-6761 | Cultural Layer 2, Feature 2, charcoal |
| 3840±100 BP | I-7509 | Cultural Layer 2, Feature 3, charcoal |
| 4900±230 BP | SI-1384 | Cultural Layer 2, Feature 1, charcoal |

The raw material of the artifacts identified as Maritime Archaic in the Beaches site consists of a light grey, banded rhyolite, dark grey rhyolite tuff, chert, quartz,

quartzite, and slate. In Cultural Layer 1, 91.1 % of the artifacts found are made of rhyolite, 3.4% from chert, 3.7 % from quartz or quartzite, and 5.5 % from slate (Carignan 1975: 47). In Cultural Layer 2, 84.7% of Maritime Archaic artifacts are made from rhyolite, 1.8 % are from chert, 10.5% are from slate, and 4.8% are from granite (Carignan 1975: 48).

The assemblages from both Cultural Layers are characterized by the use of a flake tool technology, where large flakes are used to create retouched flakes and bifaces. Many of the biface preforms in the collection retain flake characteristics, such as the striking platform (Carignan 1975: 124.). Furthermore, in total, forty-four macroblades were found, twenty-two from each Cultural Layer (Table 4.7 and Table 4.8), with lateral retouch evident on some of the blades (Carignan 1975: 125) (Plate 33 and Plate 34).

**Table 4.7 Artifact Frequencies from the Beaches Site (DeAk-1), Cultural Layer 1, Maritime Archaic Component (Carignan 1975: 64, Table 9)**

| Artifact Class | Frequency | Percentage |
|---|---|---|
| **Preform Biface** | 85 | 37.0% |
| **Uniface Series (Retouched** | 55 | 23.9% |
| **Miscellaneous Biface** | 29 | 12.6% |
| **Blade** | 22 | 9.6% |
| **Lanceolate Biface** | 17 | 7.4% |
| **Stemmed Biface** | 9 | 3.9% |
| **Celt** | 8 | 3.5% |
| **Gouges** | 3 | 1.3% |
| **Miscellaneous** | 2 | 0.9% |
| **Total** | **230** | **100.1%** |

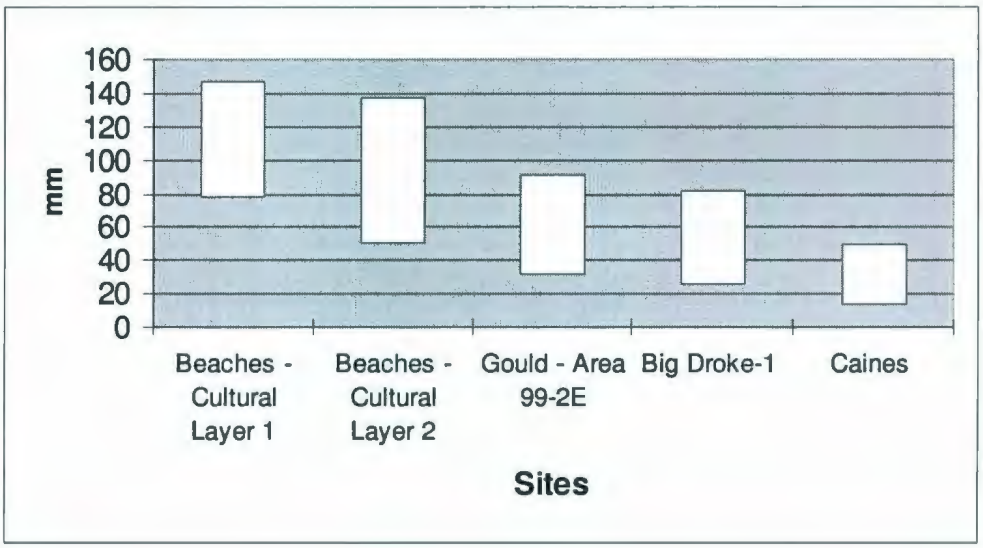
**Table 4.8 Artifact Frequency, the Beaches Site (DeAk-1), Cultural Layer 2, Maritime Archaic Component (Carignan 1975: 49, Table 8)**

| Artifact Class | Frequency | Percentage |
|---|---|---|
| **Preform Biface** | 50 | 29.8% |
| **Miscellaneous Biface** | 36 | 21.4% |
| **Blade** | 22 | 13.1% |
| **Uniface Series (Retouched Flakes)** | 19 | 11.3% |
| **Miscellaneous Ground Stone** | 10 | 6.0% |
| **Bi-pointed Biface** | 10 | 6.0% |
| **Stemmed Ground Artifacts** | 7 | 4.2% |
| **Lanceolate Biface** | 5 | 3.0% |
| **Hammerstone** | 3 | 1.9% |
| **Stemmed Biface** | 2 | 1.2% |
| **Celt** | 1 | 0.6% |
| **Gouges** | 1 | 0.6% |
| **Blade Core** | 1 | 0.6% |
| **Quartz Crystal** | 1 | 0.6% |
| **Total** | **168** | **100.3%** |

There is a high frequency of biface and biface preforms in the Beaches collections, no doubt due to the site's function as a workshop area, as well as a relatively low number of stemmed biface. Furthermore, some of the artifacts from the Beaches site are made from dark, fine-grained chert. Bi-pointed and lanceolate biface are also present (Plate 35 and Plate 36), as well as a ground stone technology. All of these artifact types are consistent with collections from the focus sites.

However, there are differences between the Beaches collection and those found on the Northern Peninsula and Strait of Belle Isle. Most obvious is the size differences between the macro-blades of the Beaches site and the blade-like flakes found in the study area (Figure 4.3). The blades of the Beaches site are larger than those found in the Gould, Big Droke-1 and Caines sites.

**Figure 4.3 Inter-site comparison of lengths of blades and blade-like flakes**




### 4.4.2 Cape Cove-1 and Cape Cove-3

Cape Cove-1 (DhAi-5) and Cape Cove-3 (DhAi-7) are also in Bonavista Bay. Cape Cove-1 is exclusively a Maritime Archaic assemblage (Austin 1984: 115). Feature 1, Layer 2 from this site is dated to 3620±120 BP (S-1860) and associated artifacts

include a biface, unifacial scraper, and linear flakes (Austin 1980: 207-208). Feature 1, Layer 5 is dated to 4540±140 BP(S-1859).

Associated artifacts include a linear flake and large stemmed biface described as a lance or spearhead by Austin (1981: 110, 209-210) measuring 153 mm long. Artifacts from undated features include a biface tip, blade-like flake, adze, and celt, (Austin 1981: 211-212). Unfortunately, not much comparison can be made from these limited number of artifacts, but the stemmed lance/spearhead is unlike anything found on the Northern Peninsula or Strait of Belle Isle.

### 4.4.3 Black Island-2 (GcBk-13)

Black Island-2 is situated on Black Island at an elevation of 14 m asl, about 50 m along a beach terrace (Fitzhugh 1975: 122-123). The site is described as "a series of seven loci of tools and debitage spaced equidistantly eight to ten meters apart" (Fitzhugh 1975: 123). Each group of artifacts, except one, was associated with a hearth, with each hearth averaging 5-6 m in diameter and containing red ochre stains, burned bone and fat, and lithic artifacts and debitage (Fitzhugh 1975: 123). All artifacts recovered from the Black Island-2 site areas are treated as a single unit in this thesis.

Archaeological material was found *in situ* within 15-30 cm of windblown sand. Of the six radiocarbon dates for Black Island-2, three place the Black Island-2 occupation at around 4200 BP.

**Table 4.9 Radiocarbon dates for Black Island-2 site (GcBk-13)(Fitzhugh 1975: 123; CAA Radiocarbon Database 2001)**

| Radiocarbon Date | Sample Identification |
|---|---|
| 3125±55 | SI-1275 |
| 4115±120 | SI-1273 |
| 4140±90 | SI-1788 |
| 4260±75 | SI-1274 |
| 4580±95 | SI-1789 |
| 4890±90 | SI-1787 |

Ninety-eight percent of the artifacts are made of a blue/grey rhyolite, which Fitzhugh describes as a "felsitic chert", "imported material ...from the south" (1975: 124-125), and as "southern Labrador rhyolitic chert" (1978: 70). The colour of the material varies from light blue/grey to dark brown/grey and light beige laminations and squarish blue inclusions are present within some artifacts. The Black Island-2 rhyolite is visually very similar to the rhyolite found at the Beaches site in Bonavista Bay, although they are not exactly alike (Laurie McLean pers. comm.).

The majority of artifacts in the Black Island-2 collection are classified as flake points (Plate 37 and Plate 38). Most of the points are unifacially flaked, on either their dorsal or ventral surface. Some have bifacial retouch along the blade edges

Seven hafted bifaces are present in the Black Island-2 collection (Plate 39). Five are complete or restored, one is broken at the tip and another appears to be broken at the base. Six of these have expanding based stems. All have well-defined shoulders, ranging in angle from about 90 degrees to obtuse. Three of the points have flat bases, appearing

to be striking platforms rather than ground flat or broken, and so, at least these three points were probably made from flake blanks. The other three points with intact stems contain beveled bases. Three of the points are asymmetrical, or appear to curve to one side. In summary, the hafted bifaces in the Black Island-2 collection show some degree of variation. Five expanding based stems are also present in the collection.

**Table 4.10 Artifact Frequencies from Black Island-2 (GcBk-13)**

| Artifact Class | Frequency | Percentage |
|---|---|---|
| Biface Fragment | 90 | 39.6 % |
| Notched Flake Point | 47 | 20.7 % |
| Flake Point | 19 | 8.4 % |
| Bifacially Flaked Flake | 18 | 8.0 % |
| Asymmetrically Notched Flake | 17 | 7.5 % |
| Retouched Flake | 8 | 3.5 % |
| Hafted Biface | 7 | 3.1 % |
| Hafted Biface Stem | 5 | 2.2 % |
| Scraper | 4 | 1.8 % |
| Core Fragment | 4 | 1.8 % |
| Biface Preform | 4 | 1.8 % |
| Flake Point Fragment | 3 | 1.3 % |
| Biface | 1 | 0.4 % |
| **Total** | **227** | **100.1 %** |

Five complete biface preforms and one complete biface are present in the Black Island-2 collection. A complete biface preform is made from a dark grey variation of the

rhyolite common on the site. Another restored biface is missing the extreme tip and is made from a pinkish quartzite.

Black Island-2 is interpreted by Fitzhugh (1975: 125; 1978) as "represent[ing] a single, relatively brief occupation c. 4200 B.P. by a social group composed of six to seven households...This suggests a pioneering occupation of new territory by southern [Labrador and Newfoundland] folk who either rejected or were not influenced by local cultural traditions in Hamilton Inlet or further north." As Fitzhugh (1975) points out, there is a limited number of artifacts classes within the collection (Table 4.10) which suggests that the occupants were using the locale for a narrow range of purposes. Flake points are the most numerous tool class from the Black Island-2 site, totaling 37.9 % of the collection. Therefore, the function of these points is most probably related to function of the site. Hearth features indicate it was also a probable camp site where, according to the number of broken biface fragments, tool making took place.

The Black Island-2 collection is characterized by the presence of, 1) flake points, 2) side-notched hafted bifaces, 3) biface fragments, 4) retouched flakes, 5) a low number of artifact classes, and 6) the use of a blue/grey rhyolite to make an overwhelming majority of the artifacts. The most similarity this site has with the focus sites is the presence of side-notched, expanding based projectile points and the use of flakes to make stone tools. However, the frequency of hafted biface (n=11) is high in comparison to focus sites. Furthermore, the presence of a high number of small, flake points is unlike any other southern variant Maritime Archaic assemblages in Newfoundland and Labrador.

## 4.5 Chapter Summary

Maritime Archaic assemblages on the Strait of Belle Isle and Northern Peninsula, dating from 5500 BP to 3200 BP are typified by blade-like flakes, bifaces, retouched flakes, side-notched, expanding based projectile points, and artifacts made from a ground stone technology, such as gouges, celts, and ground slate bifaces. With respect to raw material, white weathered chert (also known as Bird Cove chert and Big Brook chert), slate, and fine-grained dark and mottled cherts are typical and coarser-grained cherts and ramah chert are uncommon among these sites.

Chronological variations of artifact classes found within the study area are not obvious. The artifacts found within the studied sites remains consistent throughout the 2300 year time period. The only variation suggested by this study is that lanceolate bifaces, flake points, bi-pointed bifaces, macroblades and pièces esquillées appear in sites older than 4100 BP.

A regional variation of raw material is somewhat suggested by this study. White, weathered chert appears in sites situated close to the Strait of Belle Isle, and most probably sites closest to the source for this white weathered chert (Beaton 2004). However, in contrast to this, although the source of the fine-grained dark and mottled cherts is most probably the Cow Head area, this type of chert is found throughout the entire geographical region of the Strait of Belle Isle and Great Northern Peninsula.

Differences can be seen between Maritime Archaic sites in Newfoundland and Labrador and sites studied in this thesis dated from 5500 to 3200 BP. Most notable are differences in blade sizes between the Beaches site, located in eastern Newfoundland, and

the blade-like flakes found on the Northern Peninsula and Strait of Belle Isle, and the differences in artifact types found at the Black Island-2 site in central Labrador. The differences in blade size between the Beaches site and the studied sites could of course be entirely functional and as a result of the type of activities taking place on the sites. The same could be the said for the number of tiny projectile points found at the Black Island - 2 site. However, regional variation among the Maritime Archaic is also a possibility, where different groups just made things in their own way.

The next Chapter discusses the earliest possible evidence of the southern variant of the Maritime Archaic in Newfoundland and Labrador and provides a summary of this thesis.

# CHAPTER 5
# Earliest Evidence and Thesis Summary

This chapter will examine the earliest known evidence for southern variant sites in Newfoundland and Labrador and provide a concluding section to this thesis.

## 5.1 Earliest Evidence

While doing research for this thesis, it became apparent that some of the sites contained a visually similar raw material, described here as a fine-grained, blue/grey, laminated chert with occasional blue inclusions (see Section 2.3). The majority of the flakes and artifacts found in Area 99-2E of the Gould site are made from this material. One artifact from the Cow Head assemblage and artifacts found in Area 5 and Area 10 of the L'Anse Amour site are made from material visually identical to this chert.

Presently, the oldest dated site containing raw material and artifact types diagnostic to the southern variant of the Maritime Archaic is the L'Anse Amour site (Tuck (1982: 205; n.d.: 50). Charcoal from a hearth in Area 10 of the L'Anse Amour site is radiocarbon dated to 6435±95 BP (SI-2305)(CAA Radiocarbon Database). Artifacts from Area 10 were both surface collected and excavated from a dark cultural layer situated beneath an uppermost layer of aeolian sand, a layer of peat, and another layer of sand. Excavated artifacts include a lanceolate biface with a rounded end, a bi-pointed biface, biface fragments and two retouched flakes (Plate 40). The raw material of these artifacts is described as "high quality dark brown and mottled cherts" (McGhee and Tuck 1975: 81-82, 235).

**Table 5.1 Radiocarbon dates for L'Anse Amour, Area 5 (McGhee and Tuck 1975: 79-80, CAA Radiocarbon Database)**

| Cultural | Radiocarbon Date | Lab. |
|---|---|---|
| 2 | 4105±95 | I-7544 |
| 3c | 6080±110 | I-7506 |
| 3d | 6200±160 | I-7607 |

Area 5 of the L'Anse Amour site contains many Maritime Archaic components with the oldest Cultural Layer, 3d, being 6200±160 (I-7607)(see Section 3.1)(Table 5.1). A flake from Cultural Layer 3b is also made from the visually similar raw material discussed above. The dates of Cultural Levels 2 and 3c place the date of this flake between approximately 4100 BP-6000 BP.

Samples of flakes from selected sites were thin-sectioned and examined macroscopically and microscopically by Sherif A. Awadallah, a Ph.D candidate with the Geology Department of Memorial University. Information on the provenience of the samples is provided in Table 5.2. Questions of interest are 1), are there any distinctive trace elements or organic intrusions present, and 2), is it possible that the samples are from the same source?

The colour of the thin-sections is described as varying from brownish black, brownish grey, olive grey, to light brown. Grain size was aphanitic in all samples, meaning that they are all from fine-grained rock that is so uniform in texture that no distinct mineral crystals are visible to the naked eye. The lighter coloured laminations visible in all of the samples is formed predominantly by crystalline quartz, varying from 50-90 %.

**Table 5.2 Provenience of thin-sectioned flakes made of fine-grained, grey/brown, laminated chert**

| Sample Name | Site Name | Provenience | Associated Radiocarbon Dates |
|---|---|---|---|
| **CH-1** | Cow Head DlBk-1 | Ancient Beach | 4130±150 BP (Dal 326) |
| **G-1** | Gould EeBi-42 | Area 99-2E Level 4 | 2820±40 BP (Beta-148517)<br>5390±40 BP (Beta-148519)<br>5430±50 BP (Beta-148518) |
| **LA-1** | L'anse Amour EiBf-4 | Area 5 Level 3b | Between Level 2, 4105±95 (I-7544), and Level 3c 6080±110 (I-7506) |
| **LA-2** | L'anse Amour EiBf-4 | Area 10 | 6435±95 BP (SI-2305). |

All samples contain possibly distinctive organic intrusions, or radiolari. The radiolari are very small and are deteriorated to a point were positive identification is difficult. In the G-1 sample, foraminifera shell is present and radiolari is possibly present. In sample LA-1, oval shaped particles are visible which may be radiolari. Radiolari are also possibly present in CH-1, as well as an elongated continuous structure which may be fossil replacement. LA-2 has internal structures suggesting fossil replacement. In summary, Awadallah concludes that the samples are visually, macroscopically and microscopically, enough alike that they could be, but are not necessarily, from the same source.

This procedure did not prove for certain that the raw material from these sites is from the same source. However, it does increase the possibility that the Maritime Archaic occupants of these sites, which date from approximately 6500 BP-4100 BP were using the same type of chert to make stone tools. The possible radiolari within the samples, along with the description of similar material by Hartery (2001) suggests

that the source of this chert is the Cow Head Peninsula in Western Newfoundland. In short, similarity between artifacts and raw material excavated from Area 10 of the L'Anse Amour site and the sites outlined in this thesis supports Tuck's (1982; n.d) speculation that the southern variant of the Maritime Archaic Tradition in Newfoundland and Labrador existed as early as 6500 BP.

### 5.2 Thesis Summary

A typology for Maritime Archaic sites from the Strait of Belle Isle and Northern Peninsula of Newfoundland and Labrador, dating 5500 BP-3200 BP is proposed in this study. This typology includes bifaces, side-notched, expanding based projectile points, blade-like flakes, retouched flakes, and a ground stone technology, including gouges and celts. Common raw materials from these sites include a local white weathered chert, fine-grained, dark coloured cherts, some with laminated and mottled appearances, and a minimal amount of quartzite and ramah. This study suggests there was minimal variation in the type of artifacts and raw material found throughout this geographic area during this time.

In comparison with other southern variant sites in Newfoundland and Labrador, although the classes of artifacts found are similar, differences can be seen in the stylistic attributes of some of these artifacts. Most notably, blades or blade-like flakes are bigger from the Beaches site than the blade-like flakes found in the sites studied in this thesis and the numerous small, flake points found at the Black Island-2 site have not been found in that number in any other site. This variation could be

functional or could be evidence of regional variation of the southern variant Maritime Archaic in Newfoundland and Labrador.

However, this regional variation is pale in comparison to the variation found between northern variant and southern variant Maritime Archaic artifacts. If Area 10 of the L'anse Amour site is an early occupation of the southern variant Maritime Archaic in Newfoundland and Labrador, it would mean that the northern and southern variants coexisted for over 3000 years. This begs the question, how were the northern and southern variants related and how did they co-exist, seemingly peacefully, for so long. It does not appear at this time that the southern variant descended from the northern, but that they arrived approximately 6500 years ago to a place already inhabited by people who harvested the same resources that they did. In light of the fact that there is no archaeological evidence of any conflict, it would seem that some social ties at least would have to have been made to keep the peace, if not biological ones. If the northern and southern variant considered themselves culturally different from one another, a peaceful coexistence of two culturally distinct groups, competing for the same resources for 3000 years is a remarkable example of civility for any time in human history.

## REFERENCES CITED


Andrefsky Jr., William
1998 *Lithics: Macroscopic Approaches to Analysis*. Cambridge Manuals in Archaeology, Cambridge University Press: London, England.

Austin, Shaun J.
1981 *Cape Cove Beach (DhAi-5-6-7), Newfoundland: Prehistoric Cultures*. Unpublished M.A. Thesis, Department of Anthropology, Memorial University of Newfoundland, St. John's.

Beaton, Gregory
2004 *A Chip Off the Old Block: Investigations of a Maritime Archaic Lithic Workshop/Quarry Site in Big Brook (EjBa-2), Northwestern Newfoundland*. Unpublished M.A. Thesis, Department of Anthropology, Memorial University of Newfoundland, St. John's.

Bordes, Francois and Jean Gaussen
1970 Un Fond de Tente Magdalénien près de Mussidan (Dordogne). In, *Frühe Menschheit und Umwelt*. Rust-Festschrift. *Fundamenta* A2: 312-329.

Bourque, Bruce J.
1995 *Diveristy and Complexity in Prehistoric Maritime Societies: A Gulf of Maine Perspective.* Plenum Press: New York and London.

1976 Turner Farm: A preliminary Report. *Man in the Northeast* 11: 21-30.

1975 Comments on the Late Archaic populations of central Maine: the view from the Turner Farm. *Arctic Anthropology* 12(2): 35-45.

Byers, Douglas S.
1979 The Nevin Shellheap: burials and observations. Papers of the Robert S. Peabody Foundation for Archaeology 9.

CAA Radiocarbon Database
2001 www.canadianarchaelogy.ca

Carignan, Paul
1975 *The Beaches: A Multi-Component Habitation Site in Bonavista Bay*. National Museum of Man. Mercury Series, Archaeological Survey of Canada. No. 39. Ottawa.

Fitzhugh, William W.
1985 *Early Maritime Archaic Settlement Studies and Central Coast Surveys. In Archaeology of Newfoundland and Labrador, 1984.* Ed Jane Sproull Thompson and Callum Thompson. Newfoundland Museum, Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador: 48-85. St. John's.

1981 *Boulder Pits to Long Houses: Settlement and Community Pattern Development in the Labrador Maritime Archaic.* Paper presented at the Annual Meeting of the Canadian Archaeological Association: Vancouver, Canada.

1978 Maritime Archaic Cultures of the Central and Northern Labrador Coast. *Arctic Anthropology*. 15(2): 61-95.

1975 A Maritime Archaic Sequence from Hamilton Inlet, Labrador. *Arctic Anthropology* 12(2):117-138.

1972 *Environment Archaeology and Cultural Systems in Hamilton Inlet, Labrador.* Smithsonian Contributions to Anthropology 16. Smithsonian Institution Press: Washington, D.C.

Hamilton, W.R., Woolley, A.R., Bishop, A.C.
1976 *The Hamlyn Guide to Minerals, Rocks and Fossils.* Hamlyn. London

Harp, Elmer
1951 An Archaeological Survey in the Strait of Belle Isle area. *American Antiquity* 16 (3): 203-20.

1963 *Evidence of Boreal Archaic Culture in Southern Labrador and Newfoundland.* Paper No. 5. National Museum of Canada, Bulletin No. 193, Contributions to Anthropology, 1961-62. Department of Northern Affairs and National Resources. Ottawa.

Hartery, Latonia
2001 *The Cow Head Complex.* Unpublished Master's Thesis, University of Calgary: Calgary, Alberta.

Hartery, Latonia and Tim Rast
2000 *Bird Cove Archaeology Project 2000 Field Season: Interim Report.* Unpublished report on file at Provincial Archaeology Office, Culture and Heritage Division, Department of Tourism, Culture, and Recreation: St. John's, Newfoundland.

2001 *Bird Cove Archaeology Project 2001 Field Season: Interim Report.* Unpublished report on file at Provincial Archaeology Office, Culture and Heritage Division, Department of Tourism, Culture, and Recreation: St. John's, Newfoundland.

Hood, Bryon Cameron
1981 *The Maritime Archaic Occupation of Nukasusugtok Island, Nain, Labrador.* Unpublished M.A. Thesis, Department of Anthropology, Trent University, Ontario, Canada.

Jelsma, Johan
2000 *A Bed of Ochre: Mortuary Practices and Social Structure of a Maritime Archaic Indian Society at Port au Choix, Newfoundland.* Published Thesis from Rijksunversiteit Groningen, Amsterdam.

LeBlanc, Sylvie
1996 *A Place with a View: Groswater Subsistence-Settlement Patterns in the Gulf of St. Lawrence.* Unpublished M.A. Thesis, Department of Anthropology, Memorial University of Newfoundland, St. John's.

Luedtke, Barbara E.
1992 *An Archaeologist's Guide to Chert and Flint.* Archaeological Research Tools 7. Institute of Archaeology, University of California: Los Angeles.

McAleese, Kevin
2002 Ancient Uses of Ramah Chert. http://www.heritage.nf.ca/environment/landscape_ramah.html

McGhee, Robert, and James A. Tuck
1975 *An Archaic Sequence from the Strait of Belle Isle, Labrador.* Mercury Series, 34. Archaeological Survey of Canada, National Museum of Canada, Ottawa.

Owen, Linda R.
1988 *Blade and Microblade Technology: Selected Assemblages from the North American Arctic and the Upper Paleolitic of Southwest Germany.* Eds. A.R. Hands and D.R.Walker. BAR International Series 441: Oxford England.

Reader, David

1998 *The 1997 Archaeological Survey of the Bird Cove Area, Northwestern Northern Peninsula, Newfoundland.* Unpublished report on file at Provincial Archaeology Office, Culture and Heritage Division, Department of Tourism, Culture, and Recreation: St. John's, Newfoundland.

1999 *The Maritime Archaic Indian Components at Big Droke-1 (EgBf-11) and Caines (EgBf-15): Final Report for the Bird Cove Archaeological Project.* Unpublished report on file at Provincial Archaeology Office, Culture and Heritage Division, Department of Tourism, Culture, and Recreation: St. John's, Newfoundland.

Renouf, M.A.P
1994 Two Transitional Sites at Port au Choix, Northwestern Newfoundland. In, *Threads of Arctic Prehistory: Papers in Honour of William E. Taylor Jr.* Eds. David Morrison and Jean-Luc Pilon. Canadian Museum of Civilization, Mercury Series, Archaeological Survey of Canada Paper 149.

Renouf, M.A.P. and Trevor. Bell
In Press Maritime Archaic Site Locations on the Island of Newfoundland. Sanger, D. and M.A.P. Renouf (eds.) *Archaeology of the Far Northeast*, Orono, Maine: University of Maine Press.

2001 *Gould Site Excavations, Port Au Choix: 2000 Report of Field Activities.* Report for the Provincial Archaeology Office, Government of Newfoundland and Labrador, St. John's.

2000 *Gould Site, Port au Choix: 1999 Report of Field Activities.* Report for the Provincial Archaeology Office, Government of Newfoundland and Labrador, St. John's.

1999 *The Port au Choix Archaeology and Sea Level History Project: Preliminary Report of the 1998 Field Season* Report for the Provincial Archaeology Office, Government of Newfoundland and Labrador, St. John's.

1998 *Searching for the Maritime Archaic Indian Habitation Site at Port au Choix, Newfoundland: An Integrated Approach Using Archaeology, Geomorphology, and Sea Level History.* Unpublished report on file at Archaeology Division, Parks Canada, Atlantic Region, Halifax.

Robinson, Brian S.
1996 A Regional Analysis of the Moorehead Burial Tradition: 8500-3700 B.P. *Archaeology of Eastern North America* 24: 95-148.

Sanger, David, Robert McGee and David Wyatt
1970 Blade Description. Appendix 1, *Arctic Anthropology*, 8(2): 115-117.

Sanger, D.
1996 Gilman Falls Site: Implications for the Early and Middle Archaic of the Maritime Peninsula, *Canadian Journal of Archaeology,* 20, 7-28.

1988 Maritime Adaptations in the Gulf of Maine, *Archaeology of Eastern North America* 16: 81-99.

Sharer, Robert J. and Wendy Ashmore
1993 *Discovering Our Past.* Second Edition. Mayfield Publishing Company: Mountain View, California.

Strong, Duncan
1930 A Stone Culture from Northern Labrador and its Relation to the Eskimo-Like Cultures of the Northeast. *American Anthropologist,* (2): 126-144.

Taylor, William E. Jr.
1962 A Distinction Between Blades and Microblades in the American Arctic. *American Antiquity* 27 (3): 425-426.

Teal, Mike
2001 An Archaeological Investigation of the Gould Site (EeBi-42) in Port au Choix, Northwestern Newfoundland: New Insight into the Recent Indian Cow Head Complex. Unpublished Master's Thesis, Memorial University of Newfoundland: St. John's, Newfoundland.

Tixier, J.
1963 Typologie de l'Epipaléolithique du Maghreb. Mém. Du C.R.A.P.E. Alger II, Paris.

Tuck, James A.
1991 The Archaic Period in the Maritime Provinces. In, Prehistory of the Maritime Provinces: Past and Present Research. Deal, M. and S. Blair (eds). Council of Maritime Premiers: Fredericton, 29-57.

1982 Prehistoric Archaeology in Atlantic Canada Since 1975. *Canadian Journal of Archaeology*. No. 6

1978 Excavations at Cow Head, Newfoundland: An Interim Report. *Études/Inuit/Studies* 2(1): 138-141.

1976 *Ancient People of Port au Choix: The Excavation of an Archaic Indian Cemetery in Newfoundland.* Newfoundland Social and Economic Studies No. 17. Institute of Social and Economic Research, Memorial University of Newfoundland. St. Johns.

1975 *Prehistory of Saglek Bay, Labrador. Archaic and Palaeoeskimo Occupations*. National Museum of Man. Mercury Series, Archaeological Survey of Canada Paper No. 32. Ottawa.

1970 An Archaic Indian Cemetery in Newfoundland. *Scientific American* 222(6): 112-121.

n.d.a *Prehistory of Atlantic Canada.* Unpublished text for undergraduate course Anthropology 3290, Newfoundland and Labrador Prehistory at Memorial University of Newfoundland and Labrador. St. John's

n.d.b Fieldnotes from the Cowhead site (DlBk-1).

Wintemberg, William John

1930 Review of W.D. Strong's "A Stone Culture from Northern Labrador". *Geographical Review* (20): 673.

Plate 1 Artifacts from Graveyard Site
(McGhee and Tuck 1975: 221)

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Plate 2 Artifacts from Forteau Point Site (McGhee and Tuck 1975:223)

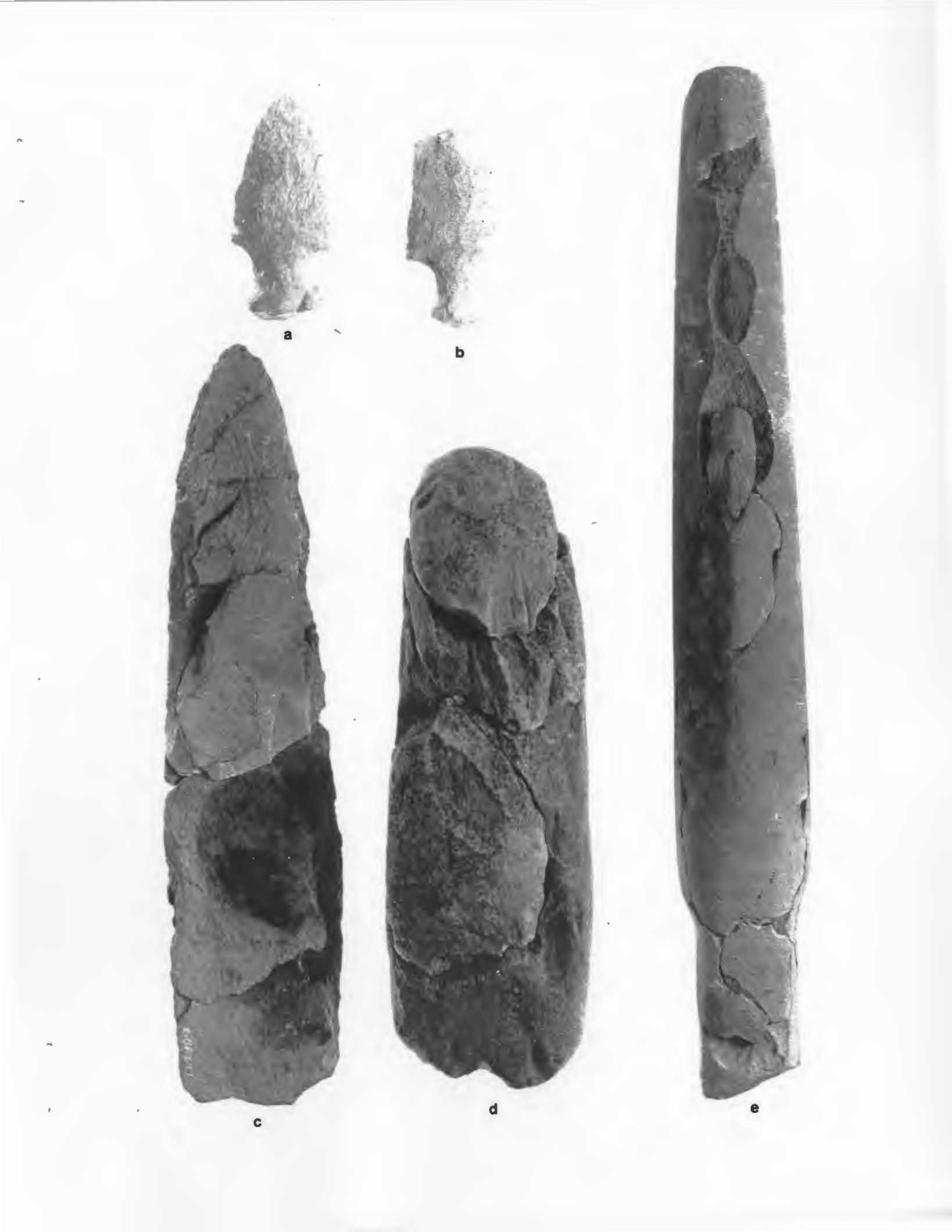
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Plate 3 Blade-like Flakes from Big Brook-2 Site
(Beaton 2004:138)

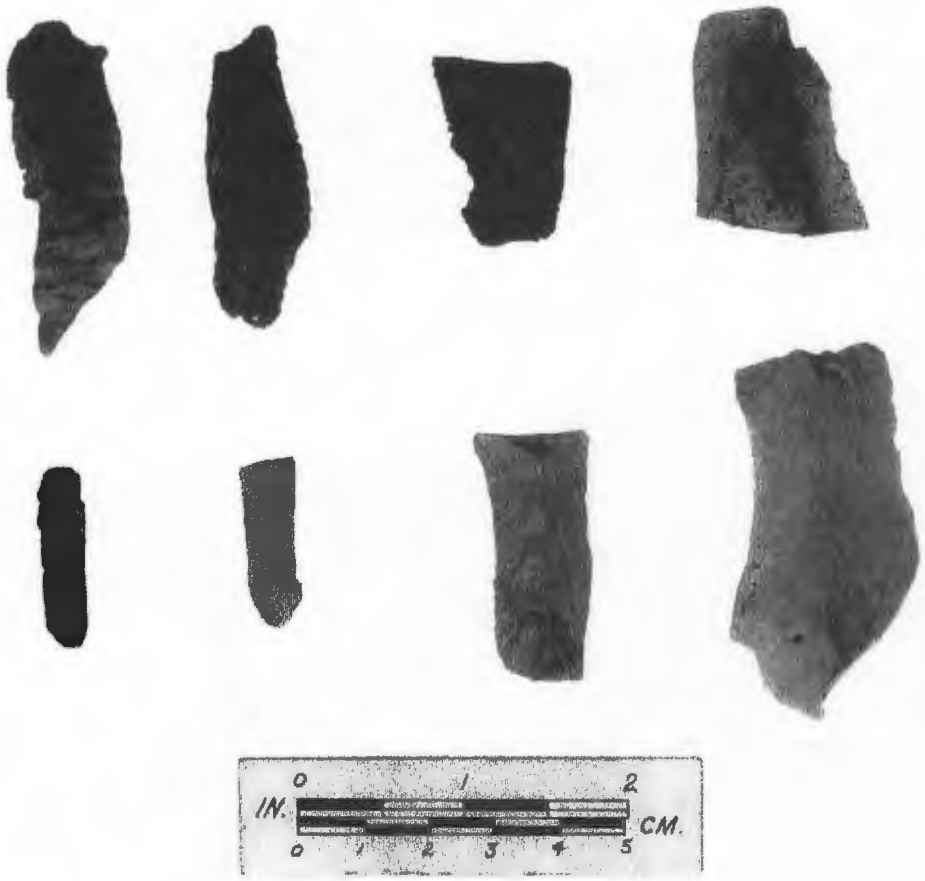
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Plate 4 Blade-like Flakes from Big Droke-1 Site, Feature 8


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Plate 5 Artifacts from Big Droke-1 Site, Feature 19

Top Row: Blade-like Flakes
Middle Row: Biface Fragments
Bottom Row: Core Fragments


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Plate 6 Artifacts from Big Droke-1 Site, Feature 6

Top Row: Blade-like Flake Fragments
Bottom Row: Ground Slate Fragments


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Plate 7 Artifacts from Big Droke-1 Site, Feature 15

First: Biface Fragment
Second: Bifacially Flaked flake
Third: Ground Slate Fragment

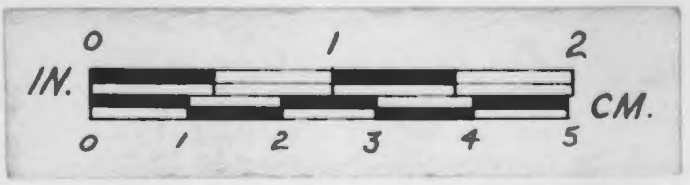
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Plate 8 Gouge from Big Droke-1 Site, Feature 1

Plate 9 Artifacts from Big Droke-1 Site

Top Rows: Bifaces
Bottom Rows: Blade-like Flakes
Blade-like Flake Fragments


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Plate 10 Artifacts from Caines Site, Feature 1

First: Quartz Crystal
Second: Blade-like Flake
Third: Contracting Stemmed Biface

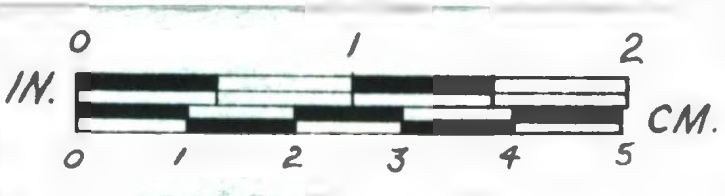
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Plate 11 Artifacts from Caines Site, Feature 2

| | |
|---|---|
| First Row: | Retouched Flakes and Scraper |
| Second Row: | Biface Fragments |
| Third Row: | Gouge |
| Fourth Row: | Side-notched Biface (Graveyard Style) |


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Plate 12 Biface Cache from Caines Site, Feature 5

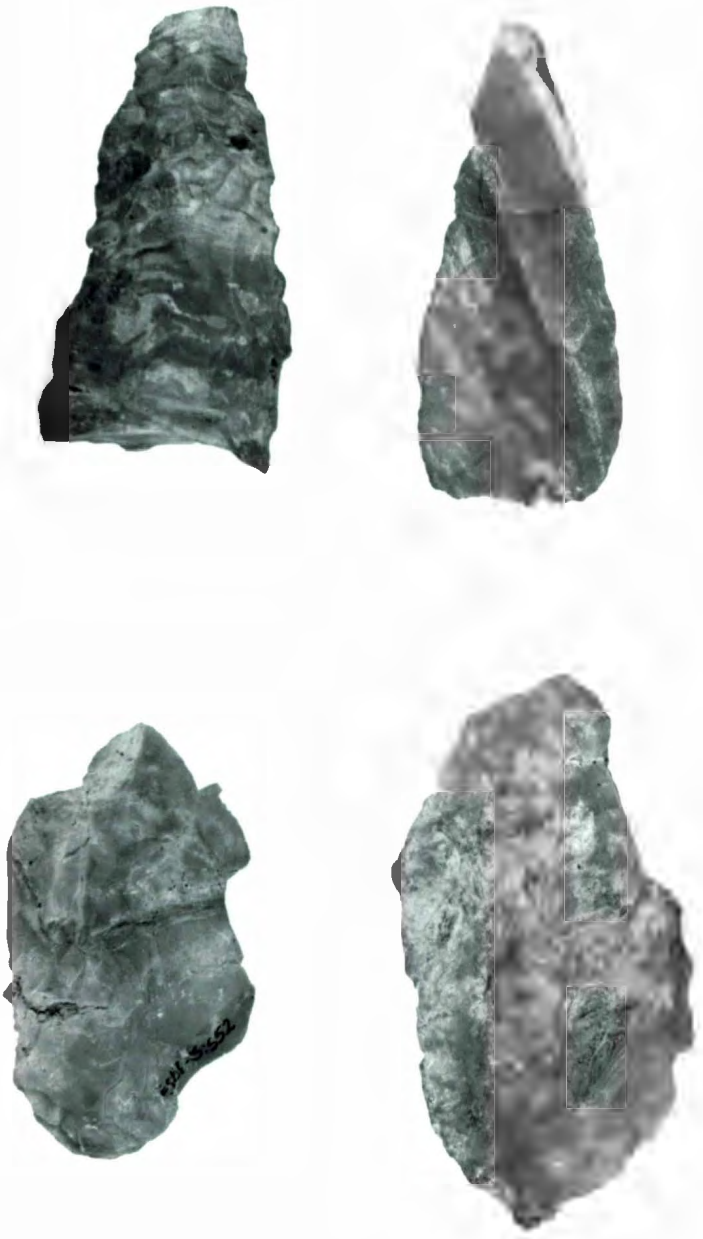
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Plate 13 Artifacts from Caines Site, Feature 2

First Row: Biface and Biface Preform
Second Row: Biface Fragment and Scraper
Third Row: Blade-like Flake Fragment and Quartz Cobble


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Plate 14 Artifacts from Caines Site, Features 7, 8, and 10

| | |
|---|---|
| First Row: | Feature 7 |
| Second Row: | Feature 8: Retouched Flake, 2 Biface Preforms, Ground Slate Fragment, 6 Blade-like Flake Fragments |
| Third Row: | Feature 8, Celt |
| Fourth Row: | Feature 10, Biface Fragment |


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Plate 15 Artifacts from Caines Site

First Row: Microblade, Microblade Fragment, Blade-like Flake
Second Row: Blade-like Flakes
Third Row: Blade-like Flakes


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Plate 16 Biface Fragments from Caines Site


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Plate 17 Artifacts from Caines Site

First Row: Retouched Flakes
Second Row: Quartz Cobbles
Third Row: Ground Slate Fragments


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Plate 18 Blades from Gould Site, Area 99-2

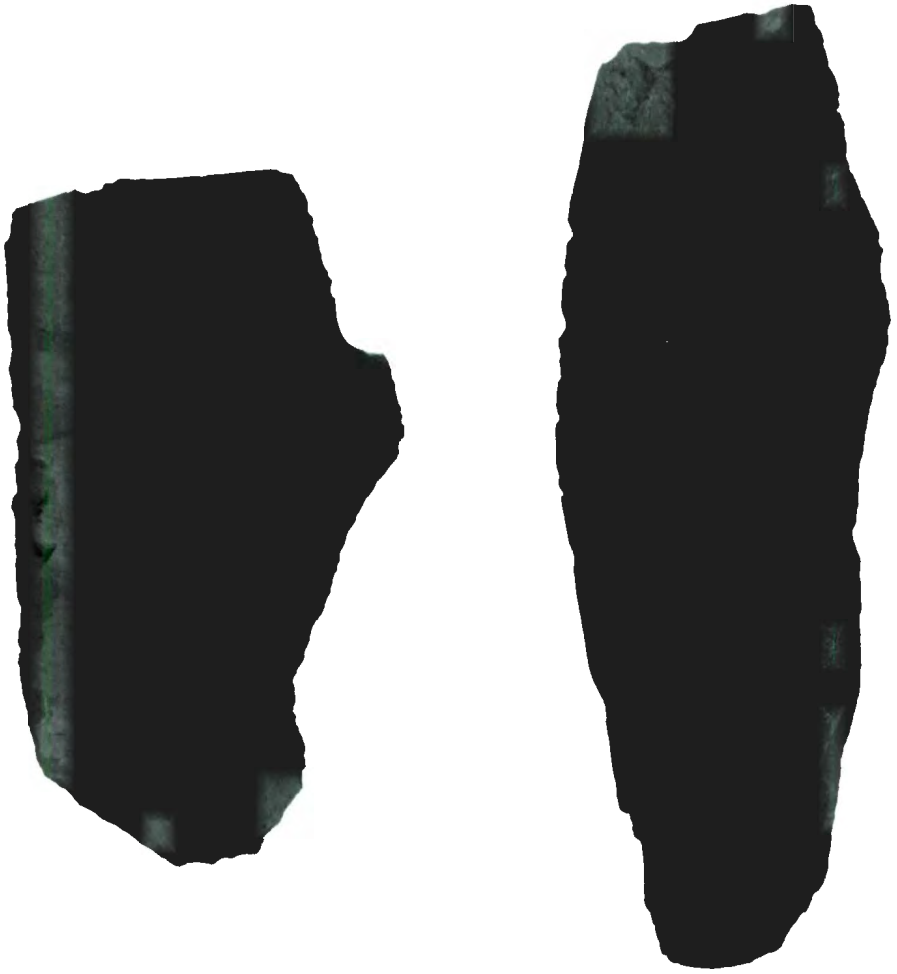


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Plate 19 Blade-like Flakes from Gould Site, Area 99-2

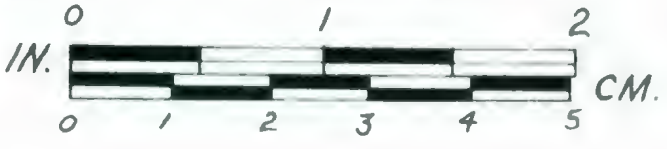
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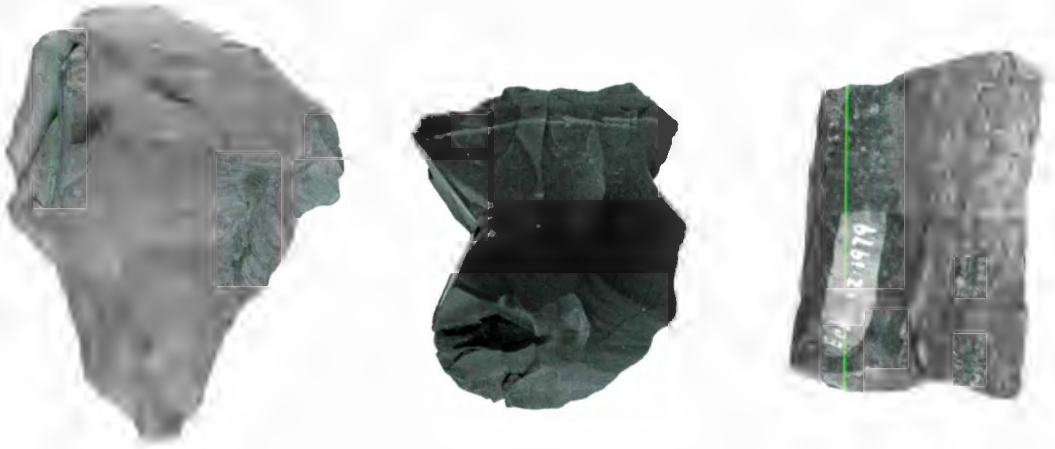
Plate 20 Core Fragments from Gould Site, Area 99-2



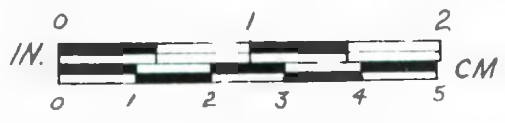

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Plate 21 Pièces Esquillées from Gould Site, Area 99-2

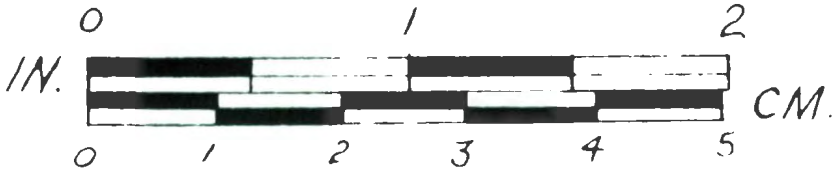
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Plate 22 Expanding Based, Ground Slate Biface and Biface Preform from Gould Site, Area 99-2


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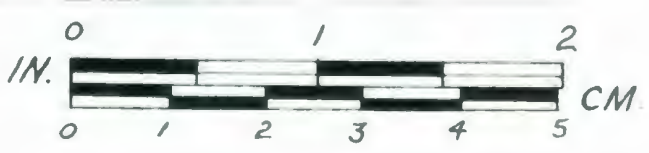
0 1 2 3 4 5

Plate 23 Retouched Flakes from Gould Site, Area 99-2


0
1
2
IN.
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1
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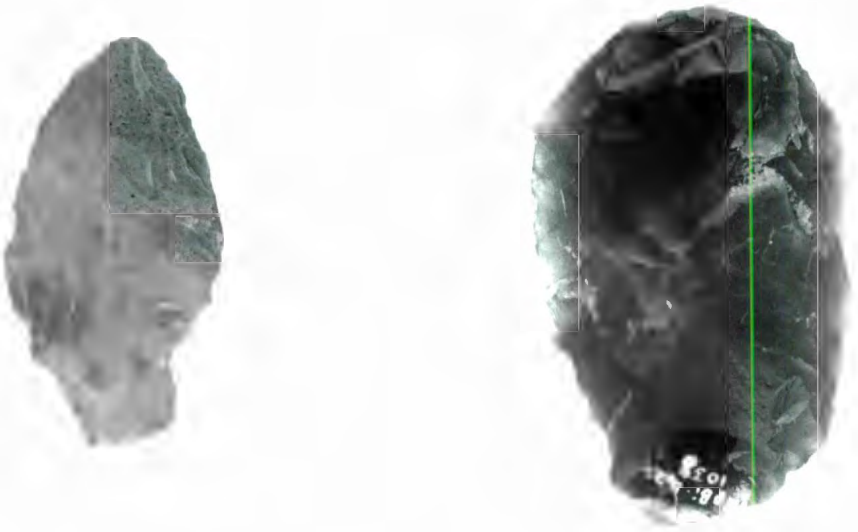
5

Plate 24 Flake Point and Scraper from Gould Site, Area 99-2



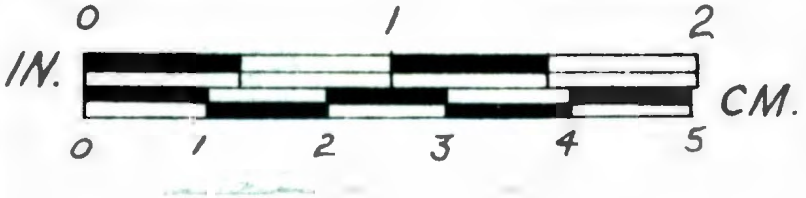

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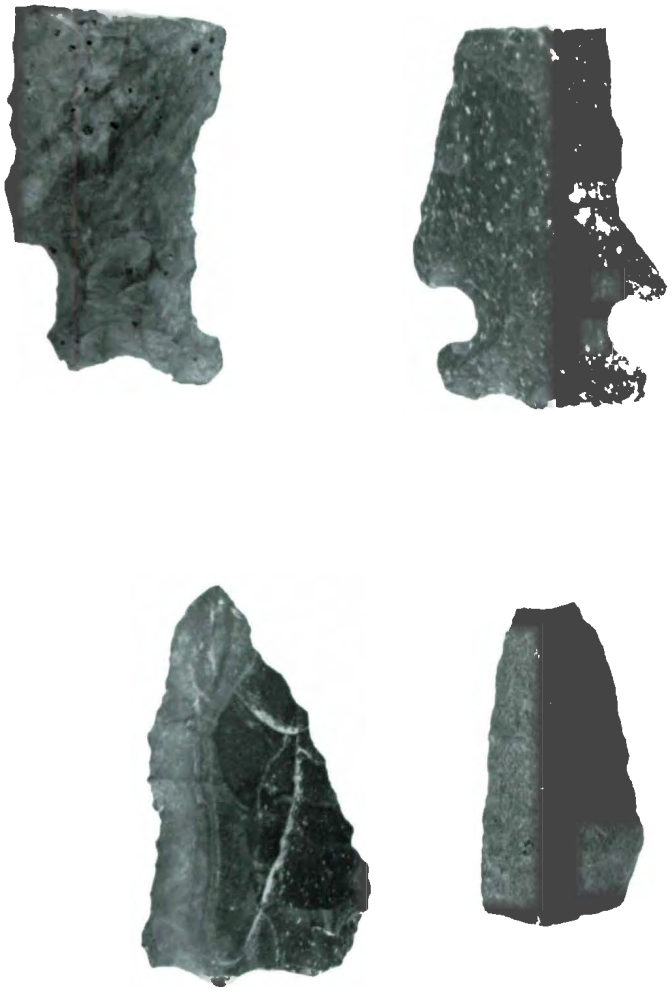
Plate 25 Artifacts from Gould Site, Area 99-1

Top Row: Side-notched, Expanding Base Biface Fragments

Bottom Row: Biface Fragments


0
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2
IN.
CM
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4

Plate 26 Refitted, Chert Cobble from Gould Site, Area 99-2

Plate 27 Hammerstones from Cow Head Site

N 0 1 2 CM

Plate 28 Artifacts from Cow Head Site

| | |
|---|---|
| First Row: | Plummet and Ground Slate Fragments |
| Second Row: | Ground Slate Fragments |
| Third Row: | Ground Slate Fragment and Ground Slate Biface Fragment |
| Fourth Row: | Ground Stone Celt |


0
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IN.
CM
0 1 2 3 4 5

Plate 29 Biface Preforms from Cow Head Site


IN
CM

Plate 30 Biface Preforms from Cow Head Site


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2
IN
CM

Plate 31 Bi-pointed Bifaces from Cow Head Site


IN
0
1
2
CM

Plate 32 Artifacts from Cow Head Site

Top Row: 2 Ovate Bifaces and Biface Fragment
Bottom Rows: Biface Fragments


IN
0
1
CM

Plate 33 Blades from Beaches Site, Cultural Layer 2
(Carignan 1975: 159)


a
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0 1 2 3 4 5
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l
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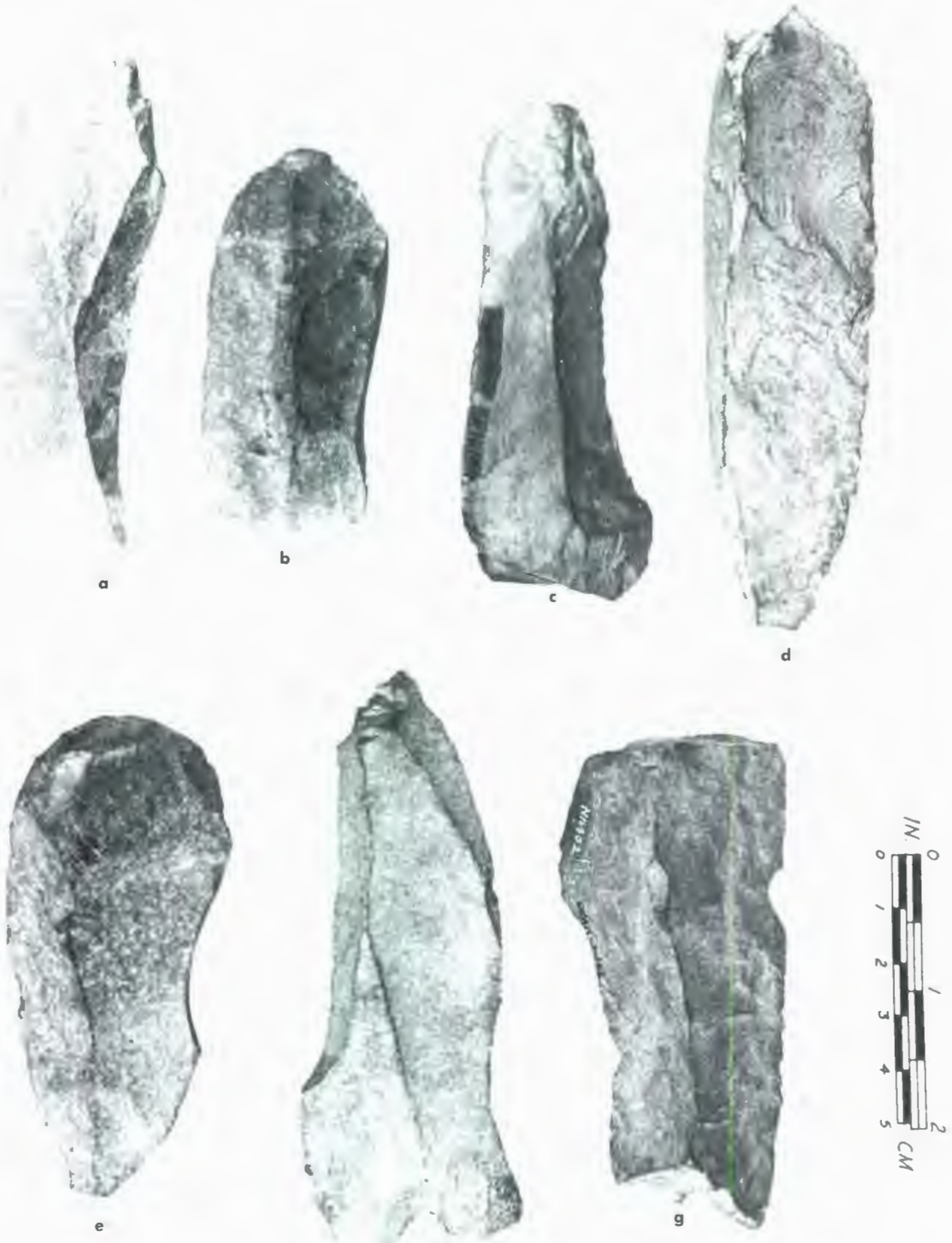
o

Plate 34 Blades from Beaches Site, Cultural Layer 1
(Carignan 1975: 185)


a
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d
e
f
g
IN.
0
1
2
CM

Plate 35 Bi-pointed and Lanceolate Bifaces from Beaches Site, Cultural Layer 2
(Carignan 1975: 151)


a
b
c
d
0 1 2 3 4 5
CM
IN
0 1 2
e
f

Plate 36 Biface Fragments from Beaches Site, Cultural Layer 2
(Carignan 1975: 155)

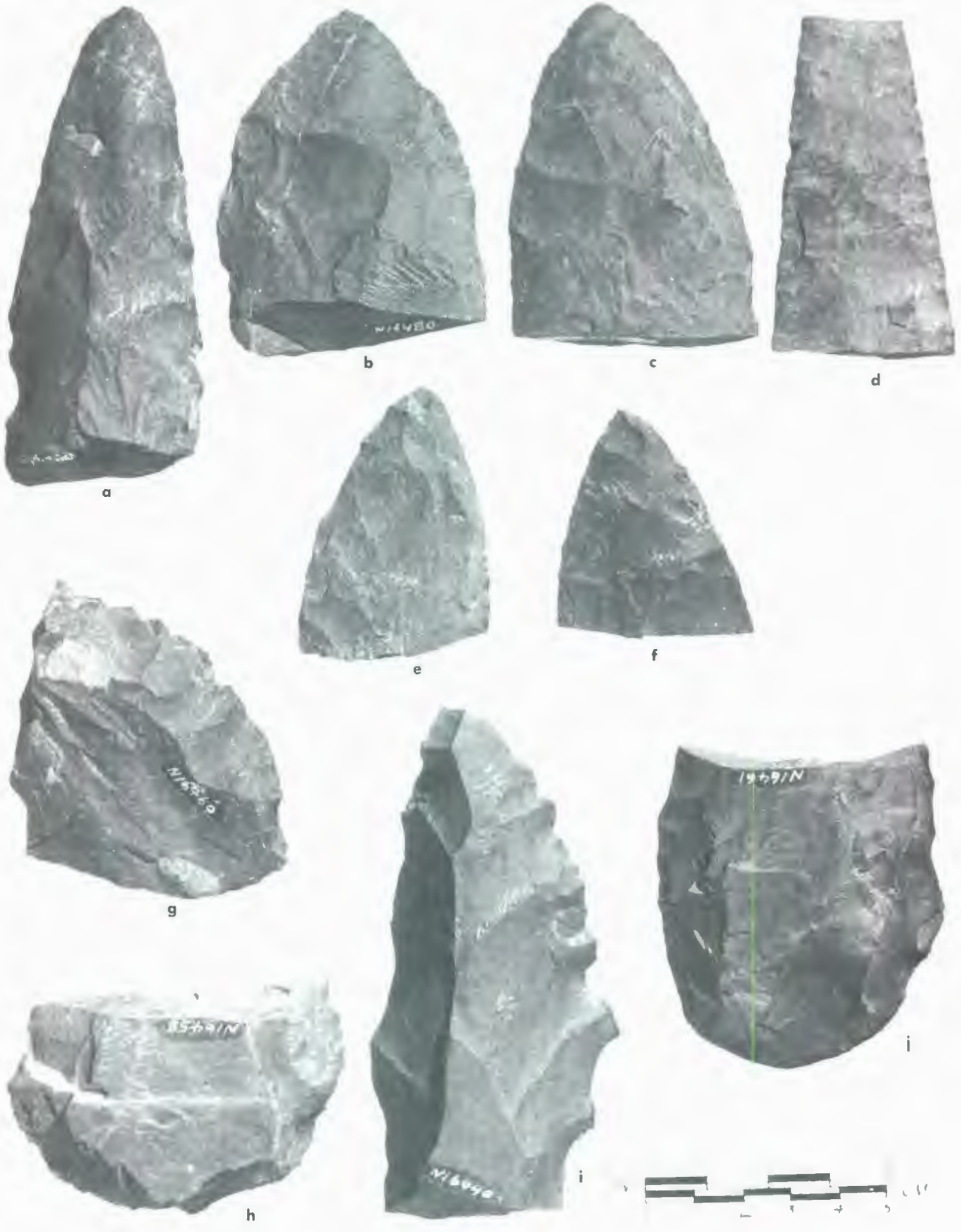
a
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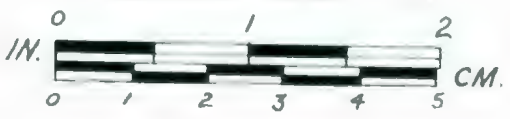
Plate 37 Flake Points from Black Island-2 Site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CM.
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Plate 38 Flake Points from Black Island-2 Site


0 1 2
IN.
CM.
0 1 2 3 4 5

Plate 39 Hafted Bifaces from Black Island-2 Site


0 1 2
IN.
CM.
0 1 2 3 4 5

Plate 40 Artifacts from L'Anse Amour Site, Area 10
(McGhee and Tuck 1975: 235)

c

a

b

d

e

f