

THE DEVELOPMENT OF CARIBOU ESKIMO CULTURE

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THE DEVELOPMENT OF CARIBOU ESKIMO CULTURE

by



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A Thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts

Department of Anthropology
Memorial University of Newfoundland

May 1975

St. John's

Newfoundland

ABSTRACT

Archaeological and ethnohistorical evidence is used to explicate a theory of the origin and development of the Caribou Eskimo culture. Historical accounts of Inuit-European contact over the past 300 years along the west coast of Hudson Bay are summarized. Archaeological excavations at the Meliadine-1 site are reported, and the artefact assemblage from this site and other collections from the Caribou Eskimo area are described. A model is offered regarding population expansion and culture change along the west coast of Hudson Bay from the end of the classic Thule phase to the Caribou Eskimo period.

The thesis presented here refutes Birket-Smith's theory of cultural antiquity which he used as an explanation for the "primitive" appearance of Caribou Eskimo material culture. It is proposed that the Caribou Eskimo culture developed from a local variant of the Thule culture over the past 200 years. Contact with Europeans during this period has had a profound effect on the value systems and exploitative patterns of the Caribou Eskimos, accelerating the deterioration of the material culture which had been on-going since the end of the classic Thule phase.

ACKNOWLEDGEMENTS

The archaeological fieldwork for this thesis was made possible by grants from Canada Council and the Institute for Northern Studies, University of Saskatchewan, Saskatoon made to Dr. Urve Linnae of the Department of Anthropology and Archaeology, University of Saskatchewan. The Institute for Northern Studies further contributed to our project through the Arctic Research and Training Centre in Rankin Inlet. I extend thanks for the many pleasant hours that were spent at ARTC during the 1973 and 1974 field seasons, and for the transportation assistance and loan of camping equipment afforded us by ARTC. I am greatly indebted to Dr. Urve Linnae for her guidance in the field and for allowing me to use the Rankin Inlet Thule and Caribou Eskimo material for my thesis.

A grant from the Institute of Social and Economic Research, Memorial University of Newfoundland assisted my fieldwork in 1974 and I appreciate their kindness. The Archaeological Survey of Canada and the Ethnology Division of the National Museum of Man were most helpful in permitting me to study and describe several collections during my visit in January 1975.

Finally, I want to thank Donna Fitzpatrick who produced the final manuscript. She relieved a great deal of pressure at the end with her speedy, high quality work. ETV at Memorial University capably handled the photographic reproductions.

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INTRODUCTION

Members of the Fifth Thule Expedition (1921-24) gave the name "Caribou Eskimos" to the Inuit inhabiting the southern barren grounds region stretching inland from the west coast of Hudson Bay (fig. 1). The Caribou Eskimos were named for the animal that they depended upon - the barren ground caribou. The subsistence adaptations of these people was based almost entirely on the caribou, and they lived out most if not all of the year on the interior barren grounds. The Fifth Thule Expedition was struck by this contrast to the characteristic coastal settlement patterns and sea-mammal orientation of other Inuit groups. In fact, only among the Alaskan Nunamiut is there a similar resource adaptation and interior habitation.

Birket-Smith believes that the Caribou Eskimos were the prehistoric inhabitants of the interior barren grounds. He studied the distribution and subsistence patterns of the recent Caribou Eskimos and noted the "primitive" appearance of their material culture. His observations led him to propose that they were the sole survivors of an old interior "proto-Eskimo" culture, some of whom had recently moved northward to the central arctic coast simultaneously with the decline of the Thule culture, thereby replacing the Thule population in that area. (Birket-Smith 1929b, 1959). He felt that this group could not be traced from the Thule culture since several elements of their material culture were obviously at an earlier stage of development. To his mind the Caribou Eskimos had, generally, a more primitive culture.

Recent studies of the prehistory of other central arctic Inuit populations have acquired evidence supporting a different scheme (Mathiasen 1928, Vanstone 1962, McGhee 1972). Harp (1961), Irving

(1968) and Taylor (1972) have suggested that the Thule people were the direct biological and cultural ancestors of the modern central arctic Inuit including the Caribou Eskimos, and that the Caribou Eskimo occupation of the barren grounds was a recent (19th century) phenomenon.

Until recent studies, arctic prehistorians regarded Mathiasen's work on the central arctic Thule culture as definitive and neglected further research. Archaeological efforts were concentrated on problems related to the palaeo-Eskimo occupation of the arctic region, specifically the Dorset and pre-Dorset phases of the Arctic Small Tool tradition. However, when questions were raised regarding culture change within the Thule period, the development of regional variants of the Thule culture, and the origin of modern central arctic Inuit populations, it became apparent that Thule culture was not clearly understood. Concentration of field work in the archipelago and on the arctic coast of mainland Canada, with no emphasis on the more peripheral areas of Thule occupation, has added to the problem.

We are surely correct in the belief that the Thule people are the biological and cultural ancestors of the central arctic Inuit including the Caribou, Iglulik, Netsilik and Copper Eskimos. This belief has been supported by archaeological evidence from the latter three groups, as well as by evidence from physical anthropology and linguistics. Although the hypotheses put forth by Harp, Irving and Taylor regarding the development of the Caribou Eskimos from a variant of the Thule culture have been generally accepted, the actual transition from a Thule to a Caribou Eskimo way of life has not been demonstrated, mainly due to a lack of archaeological work in the relevant area.

The change from Thule to modern Inuit cultures suggests several exciting problematical aspects of Thule archaeology concerning the nature

of the transition, when it occurred, why it occurred and the rate of culture change. The answers to these problems lie in the investigation of the transitional phases of the Thule culture. Very little is known about the Thule culture in the Caribou Eskimo area. The present study presents the archaeological and ethno-historical evidence pertaining to the late Thule period and the following Caribou Eskimo period, and involves an investigation into the origin and cultural development of the Caribou Eskimos.

Habitat and Resources

A knowledge of the land and the plants and animals that it supports is of utmost importance in the day-to-day existence of aboriginal peoples. The Inuit are certainly no exception. The following section describes the ecological setting for the events that have occurred along the west coast of Hudson Bay during the past seven centuries.

The Caribou Eskimo culture area extends south to the tree line, west to approximately longitude 100° at the junction of the Dubawnt and Thelon rivers, north to the watershed between the Back River and the Thelon River-Baker Lake area, and east to Connery River and Hudson Bay (Birket-Smith 1929a). This territory is found partly within the physiographic region referred to as the West Coast Lowland and partly within the Northwest Hills region to the north and west of Chesterfield Inlet-Baker Lake (Robinson 1968). The Baker Lake-Quoich River uplands, north of Baker Lake, belong to the latter physiographic region. The sub-region is composed of low hills covered with coarse gravel and the sparse tundra vegetation causes it to be a poor hunting territory. Rugged hills and outcrop ridges lie in the lower and middle Thelon River drainage system, which is also part of the Northwest Hills region. The West

Coast Lowland, south of these rocky uplands, is a poorly drained, low-lying plain. Between 60°N latitude and Rankin Inlet, the outer coastal plain forms a strip roughly 85 miles wide which narrows down to about eight miles wide to the north of Rankin Inlet, disappearing at the entrance to Chesterfield Inlet. The coastline between Dawson Inlet and Churchill is very regular but north of Dawson Inlet there are more indentations, numerous bays and islands. The offshore waters are shallow. The inner coastal plain differs from the coastal strip by having many glacial features such as linear eskers. There are numerous streams, full at spring run-off but shallow in summer, and the tundra is dotted with small lakes and ponds. Behind the coastal plain there is greater relief but the altitude is still under 500 feet. Many of the glacial features of the inner coastal plain are found in this sub-region as well, but there are more rock outcrops. On the interior barren grounds the usual land form features are bare-rock hills and ridges. During the winter, these ridges are wind-swept and free of snow, however there is always sufficient snow in low-lying areas for snow house-building and sled travel (ibid.). The Kazan and Dubawnt are the main rivers flowing through this region, and there are several sizeable lakes along their courses, such as Yathkyed, Dubawnt, and Kaminuriak. The hills in the Kazan River area reach an elevation of about 650-750 feet, and in the Dubawnt River area rise to 1100-1300 feet (ibid.). The whole region is bordered on the south by the tree line, which begins near Churchill and angles westward to the east end of Great Slave Lake.

Climatically, the year may be divided into four seasons which, with the exception of winter, are of short duration:

- | | |
|------------|---|
| Nov - May | cold winter |
| May - June | lengthening days, melting snow - spring |

July - Aug.	summer
Sept - Nov	short, stormy autumn.

Ice plays an important role, especially in the exploitation of aquatic resources, and ice conditions were an important part of seasonal environmental changes:

Sept	small lakes freeze over
end Oct - early Nov	rivers frozen; a narrow ice-shelf closes coasts
2nd - 3rd week Nov	Churchill and Hayes rivers closed
May - June	ice on shallow, coastal waters begins to break up, ice on rivers breaks up
July	ice usually cleared.

The landfast ice is more extensive off the south and west coasts of Hudson Bay than off the east or northwest coast. At the mouths of the larger rivers along the west coast a rough barrier of broken ice and pressure ridges is built up against the shore, extending about one-half mile out. Beyond this barrier lies the smooth, landfast ice that is best for hunting and travelling; however it is said to be almost impossible to reach the smooth ice on account of the broken ice barrier (Larnder 1968:324-25).

Once the snow is off the land, there is quite a luxuriant growth of vegetation over the barren grounds, with the exception of rock outcrops and gravel beaches. Mosses and lichens are the predominating flora but there are several flowering plants. Berries are also available in season but these have never been an important part of the Inuit diet (Birket-Smith 1929a). Dwarf birch and willow are used for burning, and in the more southern and interior Caribou Eskimo area there are small stands of stunted trees and the closed forest is within easy distance. Driftwood for burning and tool-making was obtainable from the Thelon River

and at places south of McConnell River where the rivers draining into Hudson Bay flow from wooded areas.

The caribou has probably been the most important resource animal to historic Inuit populations of the barren grounds and southwest coast of Hudson Bay. Some caribou winter on the barrens and therefore they are available throughout the year (Kelsall 1968). Tundra wintering areas occur in the highlands between the Back and Thelon rivers and west of Roës Welcome Sound. The most important herd to the Inuit inhabiting the Caribou Eskimo area has been the resident Kaminuriak herd (named for the Kaminuriak Lake region, on the height of land between the Kazan River, Hudson Bay coast and Chesterfield Inlet-Baker Lake areas). Seasonal movements of the caribou were important in the exploitation of this resource.

mid-March - April	formation of aggregations
April - June	move from winter range to calving grounds
June - early July	bulls and young animals move to summer range
July	cows and calves move to summer range
August	dispersal - insect harassment - poor meat and skins
late Aug - Sept	aggregation, move to winter range
Oct - Nov	move to winter range
Nov - Dec	arrive winter range

(Kelsall 1968)

The principal caribou hunt occurred during the fall migration when the animal was in prime physical condition for meat and skins. Caribou were, however, hunted at all times of the year.

The Inuit relied on several varieties of fish including whitefish, sturgeon, lake trout, tom cod and char. Organized fishing was centred around the autumn char run. There are actually two runs but the spring

run from the lakes to the coastal feeding grounds is so rapid that it affords little opportunity to fishermen. The upstream migration in the fall lasts longer and enabled the Inuit to carry out large-scale fishing at weirs. More recently, quantities of char were caught in nets at the coast while they fed offshore.

The ringed seal, found all along the west coast of Hudson Bay, was economically important to some Inuit groups. The habitat of ringed seals requires stable landfast ice, as it is the nature of the animal to pup in dens beneath the ice. Good ice occurs along complex coastlines, whereas unstable ice occurs along straight coastlines. This seal is most abundant, therefore, north of Eskimo Point (Mansfield 1967). Bearded seals, harp seals and harbour seals inhabit the west coast waters. The latter are found at isolated places: northern Roes Welcome Sound, Daly Bay, Chesterfield Inlet, Wilson, Ferguson, Maguse and McConnell rivers and Churchill, as well as in lakes on the Thlewiaza River. Harp seals are only found north of Whale Cove and were apparently caught only incidentally to other seals. Walrus do not generally inhabit the southwest coast of Hudson Bay, but a small group in the Chesterfield Inlet area was important to some coastal Inuit groups.

Whales migrate annually to Hudson Bay. The belugas or white whales are present along the coast from June to September, when they often enter the estuaries of rivers and inlets to feed and calve in the shallow coastal waters. The right or bowhead whale (Balaena mysticetus) occurs north of Marble Island, most commonly in the Roes Welcome Sound area.

Musk-oxen were formerly common on the barrens and were hunted by the Inuit occupying these regions. Musk-ox hunting has been prohibited by law since the 1920's. Migratory birds such as swans, geese, ducks

and plovers fly north in the spring and return in autumn and are therefore available as resources in the summer. Ptarmigan, gulls, hawks, owls and various other birds are resident to the area. Ptarmigan, the most important wild fowl, were hunted in the spring when food was scarce. Fox and other fur-bearing animals originally played only a small part in the Inuit economy, until historic times when the pelts became valuable for trading purposes.

The above description relates to the ecological setting for the Caribou-Eskimo culture of the past century. Although changes in climatic conditions may have influenced the relative abundance and availability of various animal resources over the last few centuries of the prehistoric period, our knowledge of these changes is very meagre.

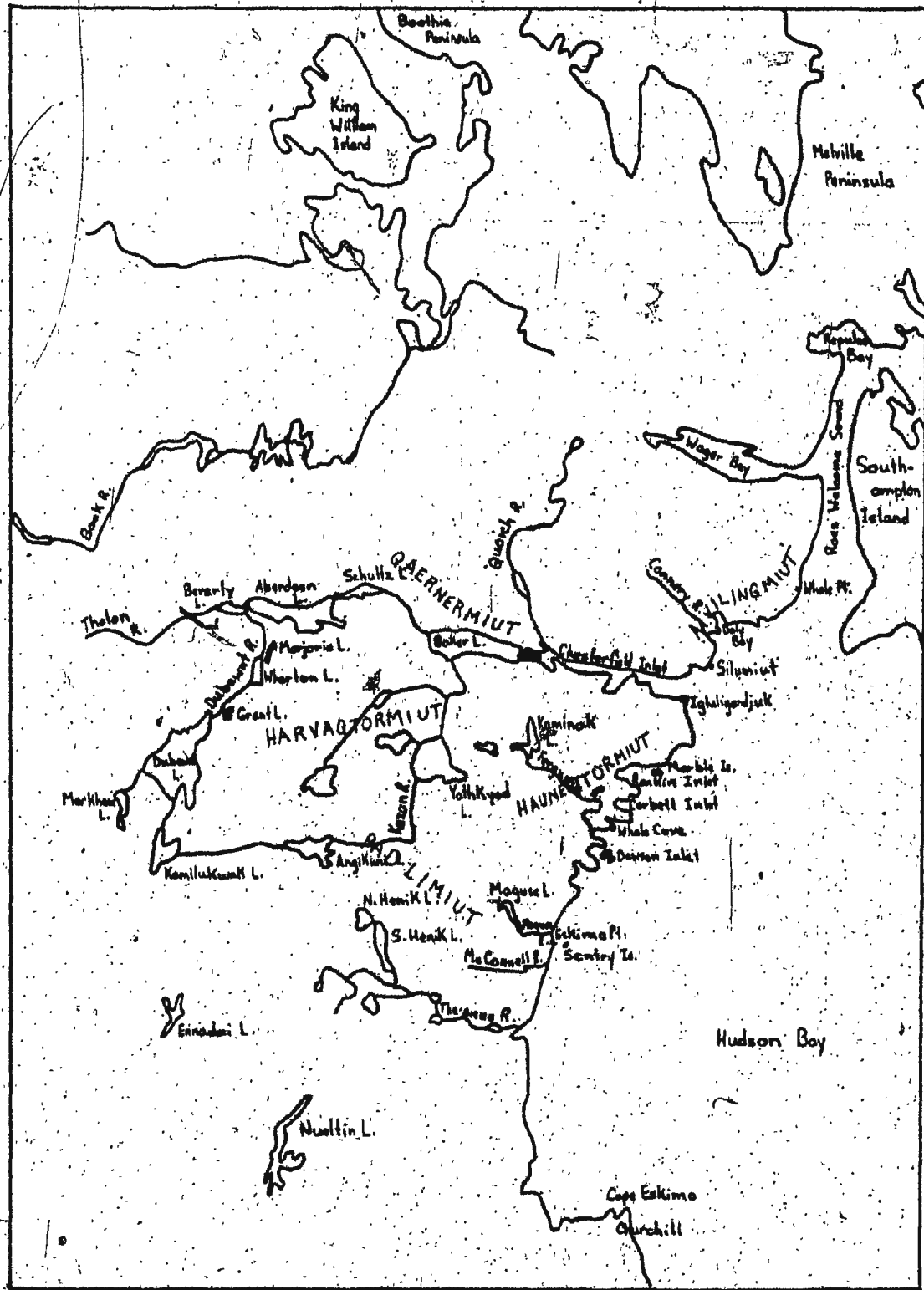


Figure 1: Map showing the Caribou Eskimo culture area.

CHAPTER 1

HISTORIC AND ETHNOGRAPHIC BACKGROUND

The thesis proposed in following chapters sees the distinctive Caribou Eskimo way of life developing during the period of European contact, and being greatly influenced by that contact. It is therefore necessary to summarize the major developments of European-Inuit relationships in the area over the past three centuries.

The 17th Century

Hudson Bay has been known to Europeans since the early 17th century when expeditions were initiated by the great sea-faring nations to search for the Northwest Passage. This search led many vessels astray in unknown arctic waters, and some reached the southwest coast of Hudson Bay.

Thomas Button, in 1612-13, was the first to sail near the Caribou Eskimo area, but there are no known records of his voyage. He wintered on an island near the mouth of the Nelson River, and before his return to England was forced to abandon his ship Resolution in this area.

A Danish expedition under Jens Munck suffered through a tragic winter in 1919-20 at Munck Haven in the Churchill River area. His poorly kept "Relations" gives no indication that he ever saw Inuit during his stay here. On a trip to the mainland, however, he saw traces of a former campsite (Hansen 1965) which James Knight was later to describe. All but three of Munck's crew perished that winter. Historians have attributed the deaths to scurvy, privation, lack of fuel, etc. but interestingly enough, there is the likelihood that the men contracted trichinosis from improperly cooked bear meat (Young 1973). Probably the most significant

aspect of Munck's visit, from our point of view, was the abandonment of his ship Unicorn which provided a source of iron, a highly prized possession to the natives of Hudson Bay. Jérémie, in 1694-1714, recounts that the Indians were the first to move in for the spoils left behind by Munck (Douglas and Wallace 1926). Upon entering a small hut that had been erected by the Danes on the mainland, the Indians accidentally set fire to a keg of gunpowder and blew everything, including themselves, to pieces. Later, several other Indians came to salvage the iron which was all that survived the explosion. According to Jérémie, "The Eskimos of Hudson strait sometimes come too for the same purpose, crossing Hudson bay in the biscayners made of walrus skin..." (ibid.:21). Although this account probably refers to East Main or Hudson Strait people, it is possible that some of these Inuit may have been from the west coast of Hudson Bay or the Roes Welcome Sound area.

The next expedition to sail along the west coast of Hudson Bay was that of Luke Foxe in 1631-32. Foxe visited an island thought to be Silumiut just north of the entrance to Chesterfield Inlet, described the Thule period burials that Merbs and McCartney have recently excavated (McCartney 1971), and noted and described other surficial features (Christy 1894). At Marble Island, further down the coast, Foxe noted habitation remains and the presence of a number of whales in the waters around the Island and a few caribou on the Island. On another island, which was in all likelihood Sentry Island off the coast from Eskimo Point, some artefacts were found including "...the reliques of a birch Cannowe, the footings and hornes of Deere, both small and greate, and of fowle, an Arrow headed with a nayle, the head beaten broad and put into a shaft of 18 inches long" (Christy 1894:332). Foxe also noted some remains on another island south of this, which may possibly have been Egg Island.

It may be significant that during his journey along the coast in July and early August, Foxe apparently did not meet any natives. During the same year Thomas James discovered James Bay, but he had dealings only with the East Main Inuit.

Hudson Bay was essentially abandoned by Europeans from 1635-1668. In 1668, Fort Charles was built at the mouth of Rupert River for trade with the Cree who lived at "the bottom of the Bay". This was the beginning of continuous European occupation and exploitation in Hudson Bay, but the Europeans at this time were more interested in exploiting the trapping and hunting abilities of the forest Indians and paid virtually no attention to the Inuit situated further to the north along the west coast of Hudson Bay. This situation is reflected in ethnographic data from this period, which deals almost entirely with the Indians.

The chartering of the Hudson's Bay Company in 1670, giving it sovereign rights over all of Rupert's Land, afforded that organization a very solid operating base in Hudson Bay, one which has persisted to the present day.

The 18th Century

The building of Fort Prince of Wales at Churchill River was the initial step towards the expansion of the Hudson's Bay Company in the 18th century. The fort seems to have been built mostly for trade with the Athapaskan Indians who did not frequent the more southerly posts at Fort Charles and Fort Albany (Rich 1949). From Churchill the Company pursued a number of varied activities during the 18th and 19th centuries including northern exploration for lands, riches, and the still undiscovered Northwest Passage. The latter search was not avidly pursued, in fact it has been argued that the Company avoided exploration and trade north of Churchill for some time because they were afraid of

discovering the Passage and thus opening trade and losing their monopoly (Dobbs 1967). Trade with the Inuit and a black (bowhead) whale fishery were also carried out from the Churchill base.

Trading and Exploration

According to early sources, the area of the Churchill River was frequently visited by the Inuit before the establishment of Fort Prince of Wales in 1717 (Kenney 1932, Robson 1965). Fort Albany's governor, James Knight, sent to choose a site for the new fort, noted a campsite near Munck's wintering place.

"I Observ'd upon the Outer point of the River as wee came in abundance of Iskemays tents standing that it looked like a Town; & our people as put up ye Beacon Sayth that they be very Large Tents; bigg Enough to hold 50 people; And that thare Tents was made so thick with turf, Dirt & Driftwood that they beleive they had Wintred thare as our Norhtern Indians did meet them; & that their Could not be less than 3, or 400 of them by their Tents & Warehouses, finding above 200 of the Latter where they had kept thare Provisions, they being built with Stones and Driftwood. & that they See the Place Where they had built thare Great boats, where it is full of Slipps & blocks as they had howd and Dubbd their Timber to build with, & 4 or 5 ways standing where they had built thare Great boats on: & they found by them a Dead man Lyeing with his Small Canoo by his Side." (Kenney 1932:115-116)

It is unlikely that Knight actually saw the skin tents (*ibid.*:117, footnote). He probably refers to the foundation remains of qagmaq structures or autumn dwellings like those described from Rankin Inlet in Chapter 2. In his journal, Knight also relates that he saw Inuit in boats off Eskimo Point (the point on the north side of the Churchill River often called Cape Eskimo). He stated that the boats were very large and according to the Indians, the Inuit built these boats at a sandy cove almost at the river mouth. This description appears to refer to the large skin boats or umiak used by Thule and some recent Inuit.

groups. After the fort was built however, the Inuit abandoned the Churchill area and were rarely seen south of Whale Cove. Joseph Robson spent six years as a surveyor with the Hudson's Bay Company (1733-36, 1744-47) and he observed that the retreat of the Inuit to the area north of Whale Cove and Eskimo Point was reinforced by the presence of Athapaskans at the fort. The Company had enticed these Indians from their northern area to establish trade relations at Churchill, and had supplied them with fire-arms (Robson 1965).

In 1718, David Vaughn, master of the Success, sailed north from Churchill and initiated trade with the Inuit (Davies 1965). This seems to be the first contact between Europeans and the Inuit of the west coast of Hudson Bay for the purpose of trading. In July of 1719, Henry Kelsey, who was at that time the governor of York, Churchill, Albany, Moose and Rupert's factories, sailed to latitude $62^{\circ}40'$ (the vicinity of Marble Island) and continued the trade with the Inuit established by Vaughn the previous year. On this trip the trade goods included people as Kelsey traded two Indian boys for two Inuit boys (Davies 1965).

Also during that year, James Knight who by that time was an old man approaching an age of 80 years, set off from England in the Albany and Discovery to search for gold and other riches that he felt were attainable in the northern areas of Hudson Bay. He had previously held Henry Kelsey's position and he and Kelsey were antagonistic toward each other (Williams 1962). For this reason apparently, he was given strict orders by the Company to keep north of latitude 64° . Knight was unsuccessful in his pursuit and no authentic record of his trip is available. However, it is known that he and his men perished on Marble Island, the white quartzite island at the mouth of Rankin Inlet. For several years no one knew what had become of Knight. Information came to light on

northward trading voyages in 1720 and 1722 that Knight had wintered at Marble Island and had traded with the residents there (Davies 1965). One of the better accounts of Knight's tragic ending is found in Samuel Hearne's introduction to his Journey to the Northern Ocean (Hearne 1971). In 1769, Hearne was at Marble Island on a whaling expedition and is accredited with learning the story behind the misfortune from the Inuit who had been in contact with Knight and his crew. Apparently, the Inuit had visited them in the fall of 1719 when the crew had begun to set up winter quarters. "As soon as the ice permitted, in the following summer, (one thousand seven hundred and twenty) the Esquimaux paid them another visit..." (Hearne 1971:xlii). The people related to Hearne that in the winter of 1721 some of their group remained on the island on the opposite side of the harbour to where the Europeans had set up quarters. During the course of the winter they supplied Knight's crew with provisions such as whale blubber, seal meat, and oil. The Inuit went to the mainland in the spring and returned to Marble Island that summer (1721). The few remaining crew members did not survive the second winter. The relics of the Knight expedition were a good source of wood and iron for the Inuit who returned to Marble Island frequently in years to come to avail themselves of this resource (Hearne 1971).

Hudson's Bay Company Records indicate that the Company took little interest in the land north of Churchill, and in the Inuit population, during the 1720's and early 1730's. Finally, in July 1737, Richard Norton, governor at Churchill, sent a trading and exploring sloop to Whale Cove "....and from the success of their expedition to the northward we find no encouragement to send the sloops there next year, the coast being perilous, no rivers navigable that they could meet with nor no woods, and the trade trifling and inconsiderable, the particulars of which being

as follows vizt. 100 lbs. whalebone, 20 lbs of ivory, some unicorns' horns, and three barrels of blubber..." (Davies 1965:242). This attitude was doubtlessly also a reflection of the relationship that had existed since first contact between the English and the Inuit. The English neither liked nor trusted these natives and preferred to deal with their traditional enemies, the Indians. James Knight in 1716 expressed his opinions about the Eskimos: "Them natives to the northward are more savage and brutelike than these [i.e. Cree at Fort York] and will drink blood and eat raw flesh and fish and loves it as well as some does strong drink" (*ibid.*:60-1). A Company letter to Churchill, 18 May 1738, expressed disappointment with the result of the 1737 expedition to Whale Cove and ordered that the Inuit should be encouraged to come to the fort, trade (*ibid.*). But Churchill representatives replied in August 1738, commenting on the antagonism existing between the Northern Indians and the Inuit and the danger of attempting to draw the latter down to trade at Churchill:

" 19th and 20th In answer to these paragraphs it was always our opinions little success can be expected from a trade with such savages, whose manner are so rude and barbarous as to leave no hope of cultivating a correspondence with; and with submission to your honours we think there may be danger of drawing them to Ascomay Point, if we could, while so mortal an enmity is subsisting between them and the Northern Indians." (*ibid.*:245)

Joseph Robson was one of few men to have spoken favourably about the Inuit when he wrote about their retreat after the establishment of Fort Prince of Wales: "Thus we have consented to the depopulation of both the east and west coasts of the Bay, by suffering the inhabitants, perhaps the most useful of all the natives, to be banished to Hudson's straits on one side, and to Whale-cove on the other. But a people do not easily lose their characteristic virtues: that art and industry

for which the Eskimaux are distinguished, they still retain even in a state of flight and dispersion;..." (Robson 1965:64).

Other situations further indicate the hostility between the Inuit and the Northern Indians. In July 1742, Christopher Middleton sailed north from Churchill with two Northern Indian guides, in search of the Northwest Passage (Dobbs 1967). Later, he wanted to leave these two on Marble Island while he sailed for England. The Indians, however, became terribly frightened "...and these Indians, when they were put ashore on Marble Island, tho' much nearer their own Country, thought they were undone, and would be sacrificed to their Enemies the Esquimaux, who were upon that Coast, between them and their own Country" (*ibid.*:118). Hearne noticed in particular the hostile intentions of the Athapaskans, who apparently took every opportunity to do violence to the Inuit. Hearne related as a footnote in his journal that "In the summer of 1756, a party of Northern Indians lay in wait at Knapp's Bay till the sloop had sailed out of the harbour, when they fell on the poor Esquimaux and killed every soul..." (Hearne 1971:338). He later told that, on his journey across the barrens, "...during our stay at Glowey a great number of Indians entered into a combination with those of my party to accompany us to the Copper-mine; and with no other intent than to murder the Esquimaux,..." (*ibid.*:114). It is little wonder that the Inuit population chose to retreat to safer country further north when the Churchill River area became popular for Athapaskan visitors.

It may be assumed that the Inuit had similar hatred for the Indians, and likely would have initiated malicious action toward this group had it not been that the Indians had one considerable advantage over them. By 1717, the Hudson's Bay Company had supplied the Athapaskans with fire-arms and it was not until the early 1770's that the Inuit acquired these

weapons and skill in their use (Williams 1969). This will be discussed in further detail presently.

As already mentioned, the Hudson's Bay Company representatives tried to keep a distance between the Athapaskans and the Inuit, and when regular trading between the Company and the Inuit was established it was in the form of a sloop-sent northward to trade at Whale Cove, instead of bringing the Inuit to Churchill as the London Office had desired. Joseph Robson gives a good account of trading activities from 1738-1747 (Robson 1965). The Company was primarily concerned with trading whale products from the Inuit, but after studying the records, Robson concluded that most of the "whale-finn" must have been gotten from the inhabitants of Hudson Strait as the ships entered the Bay from England since the trade during the seasons that a vessel was sent to Whale Cove did not equal the trade during the years that no vessel was sent (ibid.). In the years 1745, 1746, and 1747 the Company did not send a vessel to Whale Cove "...and all the whale-finn that the Company brought to England was procured in the straits:..." (ibid.:65):

1745 - 303 lbs
1746 - 1314 lbs
1747 - 226 lbs

When compared to what was obtained during the years that a vessel was sent to Whale Cove, Robson's conclusion appears to be valid:

1738 - 207 lbs
1739 - 518 lbs
1740 - 630 lbs plus 123 gallons of oil
1741 - 149 lbs plus one ton of oil
1742 - 679 lbs
1743 - 496 lbs plus oil and blubber - 5 tons 234 gals.
1744 - 302 lbs plus oil and blubber - 3 tons 218 gals.

This unprofitable trade was to cause the Company to cease sending the sloop northward by 1790, at which time the Inuit began frequenting the Churchill post during the summer months. However, Robson was convinced

that trade might have been more profitable had the Inuit been able to rely upon the arrival of the sloop in July. As it was, the trading vessel was sometimes sent for a few days in the summer and in other seasons it was not sent at all so that the Inuit, left in a state of uncertainty, did not exert themselves to obtain more provisions than their own needs required (Robson 1965:65).

During Moses Norton's term as governor at Fort Prince of Wales (1761-1773) the Company sent sloops to trade north of Whale Cove, mostly to Knapp's Bay and Marble Island; the latter being the northern limit of the sloop's journey (Rich 1949). In his Observations on Hudson's Bay 1767-91, Andrew Graham recognized the continuation of the problem that Robson had noted. The sloop usually left Churchill after July 5 because of the ice season, and the Inuit, not being able to rely on its arrival, often did not come to the coast at all (Williams 1969:240). Sometimes, they came to the coast in anticipation of trade but went inland again before the sloop arrived. In 1771-72 a man brought to Churchill from Marble Island related that his people killed black whales and that two had been killed two years previous but the sloop was late and "...his friends were gone to the Main on their way to their winter quarters" (Williams 1969:241). The Inuit referred to in this account may have originally come from north of Chesterfield Inlet, belonging to the Aivilingmiut group, since baleen whales were more abundant in the Roes Welcome Sound region than along the coast to the south.

Graham also felt that the element of uncertainty involved in the trade inhibited the Inuit in their pursuit of furs and whale products. The Company relied mostly on the Athapaskans for furs, the Inuit providing only caribou hides and some wolf as well as oil and whalebone (Williams 1969). Graham regarded this situation as being responsible for the Inuit

having not obtained fire-arms and other "expensive" commodities.

Towards the last half of the 18th century, the Hudson's Bay Company began to realize that the trading ventures northward were not profitable. Some effort was made to bring the Inuit down to the fort to trade. Hearne noted that by about 1770 the relationship between the Inuit people of the west coast Hudson Bay area and the Northern Indians was improving (Hearne 1971:6) and this may have influenced the change in Company policy. In 1765, two men were persuaded to come to Churchill and in 1767, two more came (Williams 1969). Late spring and/or summer trading journeys to Churchill were beginning to be an annual occurrence for the west coast Hudson Bay Inuit, and had an important consequence as the following quotation relates:

"However we must say in praise of the Esquimaux that they are less given to war. We may charitably imagine this to proceed from a peaceable disposition; though perhaps it may be out of fear, for their southern neighbours, having the use of fire-arms, attack the Esquimaux to a great advantage; for the latter until a few years since were not permitted to trade any guns or ammunition. But when their young people began to winter at Churchill Settlement, they were initiated into the use of them, and a few of them are now annually bartered. When I commanded Churchill Factory Anno Domini 1773, 4 and 5 I trained up four young Esquimaux to use fire-arms,..." (Williams 1969:236)

Perhaps in the acquisition of fire-arms we may see the cause of the "improving relationship" between the Indians and Inuit peoples around this time.

In 1790, the Company ceased the annual northern trading voyages and the Inuit were compelled to travel to Churchill to seek out the many European goods on which they had become dependent.

Although the main effort of the Hudson Bay Company in the 18th century was trade, a few expeditions were initiated to carry out exploration. Christopher Middleton had been sent by Arthur Dobbs to search

for the Northwest Passage in 1742. Middleton was unsuccessful in his quest. At the end of July, ice was present in the bays and river mouths, and ice north of Roes Welcome was still not broken up by August so that Middleton was only able to survey the area south of Cape Dobbs (Ellis 1748). Ellis remarked that Middleton went no further north than latitude $62^{\circ}15'$ "...and returned without seeing anything worthy of notice, except a great many Islands, abundance of black Whales, but no very great Tides..." (ibid.:83). Middleton made observations on the faunal life of Marble Island during the summer season (July-August) "...the Land is very mountainous and barren with Rocks of the marble kind; in the Vales are a great many Lakes, with some Grass, and Numbers of large Deer, as big as a small Horse, twelve or thirteen hands high; upon Islands not half a Mile in Circuit, they generally saw a small Herd" (ibid.:89). There were also bear, geese, and swans present at that season. It was on this voyage that Middleton's lieutenant, John Rankin, discovered the bay west of Marble Island which is now known as Rankin Inlet.

Dobbs was displeased with Middleton's results, and remained convinced that the Passage was to be found somewhere along the northwest coast. In 1746-47, he outfitted another expedition consisting of two ships, the Dobbs-Galley and the California. Swaine, clerk of the California, and Ellis aboard the Dobbs, both wrote accounts of the voyage. On the trip from England to their wintering quarters at the mouth of the Hays River, the only natives they saw were those from the Hudson Strait area although the California's longboat was expecting to encounter natives on one of its excursions to test the tides at Marble Island (August): "In the Long-Boat were the Lieutenant, the Clerk, six Hands and a Boy; the Long-Boat about Seven Tun, rigged with Sloop Mast and Sails, well provided with Provision and all Necessaries, and those in

her well armed; their Arms were a Defence for them against the Eskimaux, who are also in those Parts at this Season..." (Drage 1748:88). In July of 1747, the expedition set off to Pistol Bay, Rankin Inlet or Wager Bay to search for the Passage. On this journey, they did meet with the Inuit: "The Esquimaux who inhabit the Sea Coasts to the Northward of the Company's Settlements, appeared from Time to Time in small Bodies of forty or fifty together, upon the Eminencies of the Islands on that Shore, shouting, and making Signals for us to approach, but we proceeded on our Course without minding them,..." (Ellis 1748:218-19). Indeed, these people may have been anxiously awaiting the trading sloop from Churchill that had not arrived the previous year and would not arrive this year either (Robson 1965). Ellis (1748:238) remarked that the Inuit were numerous in these parts; this was noted during the month of July. The Dobbs-Galley anchored at Marble Island and was visited by "...two Canoes, full of Esquimaux came off to us from the West Coast, and upon our signifying that we wanted Whalebone, they immediately left us, but quickly returned with a considerable quantity of that, and a large Parcel of Bladders filled with Train Oil" (Ellis 1748:219-20). From the phrasing of this passage, it would seem that Ellis used the term "canoes" to refer to skin boats, and the description suggests that these were umiak. Several longboat excursions were sent out from the Dobbs to test tides and the crews encountered the Inuit frequently; in all cases they desired to trade whalebone. Meetings occurred at Bibby's Island, Nevill's Bay, and Whale Cove: "...we arrived at Whale Cove, in the Latitude of 62° 30' North. We discovered to the Westward of the Place a Bay, in which there were many Islands, from whence there came off a few Savages to visit us; for it is to be observed, that they always make it their Choice, to fix themselves, in the Summer Season, upon the most desolate Islands, for the

Convenience of Fishing" (Ellis 1748:237). They went ashore on one of these islands and met with "...about twenty Esquimaux, but most of them Women and Children, for the Men were gone a fishing;" (ibid.).

Ellis made some interesting ethnographic observations on the inhabitants of the west coast of Hudson Bay, noting differences between them and the groups from Hudson's Straits.

"It will in some Measure justify this Observation to remark that the Borders of their Habits are commonly fringed with cut Leather, and are sometimes hung with Fawns Teeth; and the Women do not stick out the Sides of their Boots with Whalebone, as the other Esquimaux do,...There is also another Circumstance in which these People likewise differ from those formerly mentioned, and that is in wearing a Cap made of the Skin of a Buffalo's Tail; which, tho' it has a horrid Appearance, yet it is very useful in keeping off the Muskatoes, which in this country are excessively troublesome." (Ellis 1748:232)

He mentions that they made use of train oil for the lamps "...which are made of Stone, hollowed out with some Difficulty, and as artificially as can be well expected, considering the Tools they work with; and for the Wick, instead of Cotton, which we use, they have recourse to dried Goose Dung,..." (ibid.:234). He describes the use of the fire drill and remarks that: "It will be proper to add, that what little Timber they have, is entirely Drift Wood; and this failing them in the Winter, they are obliged to make use of their Lamps..." (ibid.:234-35).

Ellis also gives an account of the California's discovery of Chesterfield Inlet and "...that they met in their Passage, with many of the Esquimaux, who at a light Expence had supplied them with a considerable Quantity of fresh Venison, and would have procured them more, as well as Trail-Oil, of which they had Abundance, if they could have spared Time" (ibid.:246).

The Dobbs-Galley and California did not succeed in finding the

Northwest Passage but the voyage did contribute some ethnographic data on the Inuit inhabiting the area.

Having discussed European-Inuit interaction on the coast in the 18th century, it is time to look at the barren grounds area to the west, and to a journey which sheds considerable light on the problem of Caribou Eskimo prehistory. Samuel Hearne was the first European to traverse the barren grounds, in three attempts to reach the mouth of the Coppermine River from Fort Prince of Wales between the years 1769 and 1772. Before he successfully completed his journey, he saw a large part of the southern barren grounds. Travelling with Chipewyan companions, on several occasions he met with Northern Indians on their way to or from Fort Prince of Wales. In April of 1770, during his second attempt to reach the Coppermine River, he met such a group in the Seal River area.

"On the twenty-fourth, early in the day, a great body of Indians was seen to the South West, on the large lake by the side of which our tent stood. On their arrival at our tent we discovered them to be the wives and families of the Northern Indian goose-hunters, who were gone to Prince of Wales Fort to attend the season. They were bound toward the barren ground, there to wait the return of their husbands and relations from the Fort, after the termination of the goose season." (Hearne 1971:25)

"...on the thirtieth of June [1770] arrived at a small river, called Cathawhachaga, which empties itself into a large lake called Yath-kyed-whole, or White Swan Lake. Here we found several tents of Northern Indians, who had been some time employed spearing deer in their canoes, as they crossed the above mentioned little river." (ibid.:35).

Having broken his quadrant, Hearne was forced to return to Fort Prince of Wales in August 1770. He had reached latitude $63^{\circ}10'N.$, longitude $10^{\circ}40'W.$ from Churchill River. "Early in the morning of the nineteenth I set out on my return,...In our way we frequently met with other Indians, so that scarcely a day passed without our seeing several smokes made by other strangers" (ibid.:50). On other occasions Hearne came upon hunting

camps. "...we arrived at a large tent of Northern Indians, who had been living there from the beginning of Winter, and had found a plentiful subsistence by catching deer in a pound." (ibid.:77) This camp was at Wholdiah Lake in the month of March. Hearne described this method of procuring deer and remarks that often it is a very successful method of hunting and "...many families subsist by it without having occasion to move their tents above once or twice during the course of a whole winter; and when the Spring advances, both the deer and Indians draw out to the Eastward; on the ground which is entirely barren..." (ibid.:80). On his several journeys from Fort Prince of Wales, Hearne saw the barren grounds at all seasons of the year. Thus he was able to remark that "Our Northern Indians who trade at the Factory, as well as all the Copper tribe, pass their whole Summer on the barren ground, where they generally find plenty of deer;" (ibid.:320). During the winter months, apparently, Hearne encountered few people. Located at approximately latitude $60^{\circ}45'$ N. and longitude $102^{\circ}25'$ W., Hearne wrote on January 22, 1771: "...in the afternoon spoke with a stranger, an Indian,... Those people were the first strangers whom we had met since we left the Fort, though we had travelled several hundred miles; which is a proof that this part of the country is but thinly inhabited" (ibid.:73).

Briefly summarizing the movements of these people as Hearne observed them, we find that during the summer they were hunting caribou on the barren grounds; with the onset of winter most of the Indians, along with the caribou, retreated to the woods; in spring (by April and May) groups were crossing the barrens on their way to Fort Prince of Wales to hunt wild fowl and trade or to Knapp's Bay to meet the trading sloop (ibid.:298). It is notable, and in view of Birket-Smith's thesis intriguing, that Hearne saw neither an Inuit population nor any traces of

their having occupied these regions. The only natives he encountered were the Athapaskan Indians.

Contact with Europeans in the 18th century had a tremendous influence on the Inuit of west Hudson Bay. In particular, one can cite the acquisition of fire-arms by the Inuit as being probably the most important result of this contact. This put the Inuit on an equal footing with the Indians, and had a marked effect on the exploitative pattern of these people as will be later discussed. There are two other events toward the close of the 18th century which also, indirectly, had an important effect on the Inuit population. First, in 1775 Cumberland House was built as the first inland trading post. This and the subsequent establishment of other interior trading posts made it possible for the Athapaskans to avoid the long trip across the barrens to Fort Prince of Wales. Secondly, the decimation of the Chipewyan population by a small-pox epidemic in 1781-82 almost emptied the barren grounds of its Indian occupants. The importance of these three events to local Inuit populations has been previously recognized (Williams 1969). I believe that we can extend this argument and see the almost simultaneous occurrence of these events as initiating the evolution of the Caribou Eskimo way of life.

The 19th Century

The initial impact of contact between the Europeans and the Inuit along the west coast of Hudson Bay was felt most strongly in the middle to latter part of the 18th century. The effects of this impact were observed in the 19th and 20th centuries. The Hudson's Bay Company had ceased sending ships northward to trade by 1790, so that after this time the Inuit frequented Churchill on an annual basis as Robert Hood, midshipman on the first Franklin expedition, noted in 1819: "As the

Esquimaux visit Churchill every year in the spring, hopes were entertained that he might be prevailed on to accompany us,..." (Houston 1974:21). Hood was referring to the possibility of finding an interpreter to come on the inland expedition searching for the Northwest Passage. In July 1846, Dr. John Rae met Inuit in kayaks going to Churchill; in fact, during the summer months of both 1846 and 1847 he noticed the presence of these people along the coast from Chesterfield Inlet to Churchill (Rae 1970).

More historical data from this area is available from the last quarter of the 19th century. In the years 1878-80, Frederick Schwatka led an expedition to search for the records of the lost Franklin expedition. William Gilder and Henry Klutschak were members of Schwatka's crew and both made several observations on the Inuit. Schwatka made his headquarters on the mainland across from Depot Island, just below the mouth of the Connery River. The native inhabitants of these parts were the Aivilingmiut among whose numbers were a few Netsilingmiut (Stackpole 1965). According to Gilder's Inuit informants, these lands had formerly been occupied by Caribou Eskimos (Gilder 1966).

That winter Schwatka surveyed the coast between Cape Fullerton and Marble Island. In January, 1879, Gilder and Klutschak journeyed to Marble Island, and Schwatka followed in February. Gilder undertook a trip to a Qaernermiut (Kinnepetoo) village situated some 50 miles to the north and west of Marble Island. The purpose of the trip was to purchase dogs which he managed to do although "He found the natives loathe to part with them owing to their plans for the regular musk-ox hunts to the northward later in the spring." (Stackpole 1965:45). Gilder found the Qaernermiut "in igloos, upon a large lake on the western shores of Hudson Bay, and was the first white man who had been there. Many of this tribe had never seen a white man before,..." (Gilder 1966:41). This is the first account

of a Caribou Eskimo winter camp not situated at the coast. Gilder describes the igloo at this camp:

"I found their igloos to be much larger and better built than those of the northern natives. The entrance would usually be by a narrow passage-way, excavated from a snow-drift, six to eight feet below the surface, and perhaps twenty-five or thirty feet long. They had no fires for heating the igloos, and, consequently, there was a clammy, vault-like atmosphere indoors that was anything but pleasant. They use oil only for light, and, even in the depth of winter, cook what little food they do not eat raw with moss" (*ibid.*).

Further observation by Schwatka in February 1880 during the return trip from King William Island to their headquarters gives an idea of the northern boundary of the Caribou Eskimo area at that time. At approximately 64°30' to 64° latitude he saw signs of where the Kinnepetoo had been drying fish, and at approximately latitude 64°N. started meeting these people daily. This would have been roughly 50 miles from the coast and just north of Chesterfield Inlet.

Schwatka and his crew were the first to meet the inland Caribou Eskimos but 13 years after their expedition, the Tyrrell brothers travelled across the southern barren grounds, the first Europeans to do so since Samuel Hearne. Where 150 years previous Hearne had encountered only Athapaskan Indians, the Tyrrells met only Inuit. Upon reaching the outlet of Markham Lake, J.W. Tyrrell remarked:

"It is worthy of note that at this point some very old moss-grown "teepee" poles and fragments of birch bark were found, indicating that in days gone by the spot had been visited by Indians, though it was now known to them only in legends. We had seen no traces of Indians since entering the Dubawnt, but at sometime they had descended thus far, and had camped on the same bald hill which we now occupied." (Tyrrell 1908:84)

"At the second rapid [on the lower Dubawnt] the first unmistakable signs of the recent habitations of Eskimos were discovered. They consisted of rings of camp stones, an old bow, several broken arrows, a whip-stock and numerous broken or partly formed willow ribs of a "kyack" or canoe." (*ibid.*:94)

At the mouth of the Chamberlain River flowing into Grant Lake they saw more signs of Inuit and were pleasantly surprised to find a considerable quantity of driftwood. Further along their traverse (10 miles above Wharton Lake) they came upon an Inuit family including a man, his two wives and six children who were hunting musk-oxen. These people were living in a caribou/skin tent. There were a number of European trade goods in this camp which had been obtained from other Inuit, since they informed Tyrrell that they had never been out to the coast.

The Tyrrells discovered that there was an abundance of driftwood in the area because the Thelon River, flowing into the Dubawnt, brought the wood down from the forested interior. They understood that further up the river the Inuit came to build kayaks (Tyrrell 1908:102). At Aberdeen Lake, more Inuit remains were discovered - at the west end landing an old encampment and some skeletal remains, and at the east end a row of inukshuks, signs of caribou hunting. Finally, upon their arrival at Chesterfield Inlet in early September 1893, they noted "sailboats" in Chesterfield Inlet manned by Inuit who were moving from the coast to winter in the interior (ibid.:167). These "sailboats" were likely the wooden boats that American whalers had introduced to the natives of the northwest coast of Hudson Bay.

Whaling

In the 18th century, 1765 to 1772, the Hudson's Bay Company attempted to establish a black whale fishery based on Marble Island, however the attempt had ended in failure. In 1860, American whaling crews from New England began a successful exploitation of the baleen whales along the northwest coast of Hudson Bay. From 1860 to 1865, 30 voyages were made to Hudson Bay and 400 whales killed (Ross 1973). During a typical voyage,

the whalers sailed to Roes Welcome sound, as the whales were most abundant in this region, chased the whales until September and then set up winter quarters in nearby harbours including Marble Island and Fullerton Island. In spring they did flow edge whaling, then cruised the Welcome again in summer and sailed for New England with the catch by early September (ibid.:41).

In 1866, the Hudson's Bay Company became anxious over the American whaling industry and sent a whaling vessel to oppose it. The Company assumed that the presence of the American whalers was hindering the trade at Churchill, the Inuit being diverted to Marble Island and the other whaling stations to trade with the wintering whalers. However, it has been pointed out, and quite justifiably so, that "...virtually all the Eskimos who came into contact with American whalers at Marble Island, Depot Island, and Repulse Bay lived from 300 to 600 miles from Churchill - too far to develop regular trading connections" (Ross 1973:47). That the northern coastal Inuit groups used to go to Marble Island to trade was noted by Schwatka in January 1879. He saw the Inuit from Whale Point pass his headquarters en route to winter trade at Marble Island. These people were likely Alvilingmiut. The Caribou Eskimo sub-groups that may have been involved directly in this trade connection were the Qaernermiut from Chesterfield Inlet and possibly Hauneqtormiut from the Rankin Inlet area.

The Hudson's Bay Company's second attempt at the whale fishery in 1866-67 also ended in failure, and the supplementary trade with the Inuit was not highly successful. In fact, the Company's agents found that the nature of the drifting pack ice effectively isolated Marble Island from the mainland throughout most of the winter, therefore making it a poor base for trade (ibid.:46).

In 1882, the Company once again sent trading vessels north as far as Marble Island. This time the trade was in furs and skins - fox, caribou, musk-ox and arctic hare (ibid.). In order to compete in trade more effectively with the American whalers, the Company once again endeavoured to succeed at whaling. In 1892, the Perseverance was sent on a dual purpose voyage to hunt whales and to trade with the Inuit. By this time however, the number of baleen whales had been greatly reduced as a result of intensive commercial whaling. With the decline in the whale population in Roes Welcome Sound, and a waning market for whale-products, the whale fishery in Hudson Bay started drawing to a close by the end of the 19th century (ibid.).

The presence of American whalers in Hudson Bay was anything but inconsequential:

- a) it initiated an attempt by the Hudson's Bay Company to start a black whale fishery, thereby extending the Company's trade among the Inuit;
- b) there were now two sources of European goods available to the Inuit;
- c) the Inuit must have placed a greater emphasis on procuring furs and skins for trade as these things became more desirable to the Europeans;
- d) it attracted the more northern Inuit to the coast to trade and to get jobs with the whalers either as whalers or as hunters to supply food for the ships' crews.

The 20th Century

Whereas in the previous centuries European influence was more or less restricted to the introduction of European weapons, utilitarian

objects and food, and with only one Hudson's Bay Company post at Churchill in close proximity to the Caribou Eskimo area, the 20th century saw the expansion of permanent trading posts (Chesterfield Inlet 1912, Baker Lake 1916, Nueltin Lake 1920, Eskimo Point 1924) and the arrival of Christianity and the R.C.M.P. to finally impose European ideology upon the Inuit.

During the years 1921-24, members of the Fifth Thule Expedition carried out monumental studies of the central arctic Inuit. Among these is the great ethnographic work on the culture of the Caribou Eskimos by Kaj Birket-Smith. The observations of the people made by Birket-Smith in the 1920's, and his conclusions regarding their culture, are discussed in following chapters.

In the years after the Fifth Thule Expedition, and particularly since 1950, the Caribou Eskimos were subjected to government organized resettlement and job placement programmes centred around places like Rankin Inlet. In 1957 and 1958 some 320 Inuit were moved from Chesterfield Inlet and Eskimo Point to work in the Rankin nickel mine (Harper 1964), which subsequently closed down in 1961. The recent lifestyle of the Caribou Eskimos offers us little insight into their traditional culture origins.

TABLE 1

ACCOUNTS OF INUIT-EUROPEAN CONTACT

Spring

Summer

Autumn

Winter

July 1717: Knight:
Inuit in umiak off
Cape Eskimo

July 1718: Kelsey:
trading in Marble Island
vicinity

July 1719: Knight:
Inuit visit camp on
Marble Island

late August:
Inuit leave
Marble Island

July 1719: Kelsey:
trading in Marble
Island vicinity

July 1720: Knight
Inuit return to Marble
Island

1720-21:
Some Inuit spend
winter on Marble
Island

1721: Inuit
go inland

July 1722: Scroggs:
trading in Marble Island
vicinity

July 1737-44:
trading at Whale Cove

TABLE 1 (Cont'd)

Spring

Summer

Autumn

Winter

July 1747: Ellis:
coast Churchill to
Marble Island

: Inuit
from mainland at
Marble Island

: Bibby Island
: Neville's Bay

: Pistol Bay
islands - men were fishing

: end July:
Chesterfield Inlet

July 1756: Knapp's
Bay: Inuit killed by
Indians

1790: to
Churchill:
annual occurrence

annual trading trips
to Churchill

1819: Hood:
annual trading
trips to
Churchill

July 1846: Rae:
Inuit in kayaks to
Churchill

: Knapp's Bay
: Whale Cove
: Daly Bay

TABLE 1 (Cont'd)

Spring

Summer

Autumn

Winter

Aug. 1847: Rae:
Corbett Inlet, Whale
Cove, coast to
Churchill

1860: summer whaling
season: Marble Island
(Qaernermiut, Aiviling-
miut): trading and jobs
Annual occurrence.

1879: musk-ox
hunting interior
and northward
(group seen by
Gilder in Jan.)

1893: Tyrrell: Lower
Dubawnt (former camp);
Chamberlain R. into
Grant L.; 10 miles above
Wharton L. (musk ox hunt-
ing); Aberdeen L.

1878: Schwatka
Depot Island: Inuit
returning from Churchill

Tyrrell: Chester-
field Inlet:
Caribou Eskimos
moving inland from
the coast.

when ice conditions allowed
Inuit would come to winter
harbour on Marble Island to
trade with whalers. Annual
occurrence.

Jan. 1879: Gilder:
Qaernermiut camp: 50 miles NW
of Marble Island
: Schwatka : Camp Daly :
Aivilingmiut to winter trade
at Marble Island

1880 : Schwatka:
64°N, 50 miles from coast;
encountered Qaernermiut daily

CHAPTER 2

INUIT OCCUPATION OF WEST COAST HUDSON BAY SINCE A.D. 1200

In this chapter, an attempt will be made to determine aboriginal population movements in the west coast Hudson Bay region and to reconstruct the seasonal round of activities characteristic of the various phases of local prehistoric and historic development. The settlement and subsistence patterns of the west coast Hudson Bay Inuit cultures can be partially reconstructed through analysis of archaeological site locations and artefact assemblages, but a paucity of archaeological evidence creates difficulties.

Substantial archaeological reconnaissance has been undertaken in the interior of the barren grounds (Harp 1961, Merbs and Irving 1964, Gordon n.d.). Based on work done along the lower and middle Thelon River, Harp (1961) has proposed four cultural traditions for the barren grounds: "Interior Hunting Tradition", including Palaeo-Indian after c. 3000 B.C. and Archaic Indian c. A.D. 0-1000; "Prehistoric Eskimo Tradition", that is, the pre-Dorset phase of the Arctic Small Tool tradition; "Proto-Historic Eskimo Tradition" or the Thule Eskimo Tradition; and finally, the "Historic Eskimo Tradition".

The barren ground sites which are of greatest importance to this investigation are those representing the transitional Thule and Caribou Eskimo culture. Except for the work done in the Thelon River-Baker Lake region, most of the data regarding these cultures come from sporadic collecting that has gone on over the past 50 years. During a visit to the National Museum of Man, the author was able to study some of the collections from this area. All but one of the known sites from the barren grounds are burial sites or tent ring sites with related surficial

features; little, if any, bone refuse; and a paucity of artefacts, especially of diagnostic artefacts that could be used to distinguish between Thule and Caribou-Eskimo components. The exception is a site on Baker Lake which has seven semi-subterranean dwellings.

All of the major artefactual evidence comes from coastal sites belonging to the Thule period. McCartney (1971) suggests a dating scheme for the division of the Thule period of the northwest coast of Hudson Bay, with classic whale hunting Thule occurring c. A.D. 900-1200 and modified Thule occurring c. A.D. 1200-1610. In the Caribou Eskimo area, however, I would suggest that there is also an historic Thule phase occurring c. A.D. 1610-1775 (thus supporting Taylor's opinion that in some areas the Thule culture lasted until the mid-18th century). This historic phase, together with the modified phase, form the transition from classic Thule to the 19th and 20th century Inuit cultures.

Although the accounts of explorers, whalers and traders relate the distribution and activities of the historic Inuit, this evidence is limited by the fact that European contact with the native inhabitants occurred only at the coast and, for the most part, in the summer season (Table 1). Detailed accounts of the people in the interior or during the winter are lacking until the 20th century studies of the Fifth Thule Expedition (1921-24). The discussion of the economic and settlement patterns of the historic Thule and Caribou Eskimos is largely based on Birket-Smith's ethnography and on the accounts of early European inhabitants of Hudson Bay.

The Thule Period

Classic Thule

No archaeological material known from the west coast of Hudson

Bay south of Repulse Bay, and the barren grounds to the west can be ascribed to the early or classic Thule period. We may probably assume that this area was not occupied by early Thule people.

Modified Thule (A.D. 1200-1610)

There is some evidence to indicate a Thule occupation of the interior but since very few artefacts have been recovered from the sites, it is impossible to determine whether occupation was during the modified phase or the historic phase or whether it spanned the entire Thule period. The latter possibility is the most likely. This occupation was probably on a seasonal basis although in some cases settlement may have continued longer than a single season (Harp 1961, Gordon n.d.). Along the reaches of the lower and middle Thelon River are several former campsites that have been related to Thule and later historic Inuit occupations (*ibid.*). Distinction between these two occupations has been made on the basis of architectural styles rather than artefactual evidence. The Thule assemblages from Sites BL-8, CH, SL-9, BvL-2, SL-2c and SL-4 (Harp 1961) and from LbLa-13 (Gordon n.d.) consist of quartzite flakes, spalls and choppers with few recognizable tool categories and no bone artefacts. The lack of diagnostic material required that sites be designated culturally on the basis of a tent ring typology, with heavy stone rings being thought to belong to the Thule period and the lighter rings to belong to a later historic Inuit period. Such a typology must be considered unreliable, to say the least.

Seven semi-subterranean house ruins were discovered at site LbLa-13 in the Baker Lake area. Preliminary testing showed that the houses were all roughly round in plan with rear sleeping platforms, except for house 4 which was oval to rectangular in plan and had side platforms. Only

flaked quartzite material was recovered in the test excavations. According to Gordon, the presence of a brass plate associated with the stone chips suggests that at least one house had both prehistoric and historic occupations. Gordon has also proposed that the size and permanency of the houses indicated that they were used in winter. Although no bone refuse or hunting tools were recovered, he suggests that caribou hunting and fishing were the main economic activities at the site. These house ruins appear to be similar to the ones excavated at the Meliadine-1 site; the suggestion might be made that the Baker Lake structures were qaqmat used only in early winter.

Harp (1961) has tentatively dated the Thule occupation of the Thelon River area at A.D. 1200-1400. Gordon (n.d.) has suggested a date of A.D. 1200-1600, which is coincident with the modified Thule phase as defined by McCartney (1971). The paucity of artefacts from this site hinders any attempt at a more precise temporal placement.

There has been no systematic archaeological work, other than that in the Rankin Inlet area, done along the coast between Chesterfield Inlet and Churchill, Manitoba. The presence of Thule period sites along the coast between Repulse Bay and Eskimo Point has been known since the Fifth Thule Expedition (Mathiassen 1927a). Recently, McCartney has excavated semi-subterranean house ruins at some of the more northern sites (McCartney 1971). Radio-carbon dates from Igluligardjuk, at the settlement of Chesterfield Inlet, and from Silumiut and Kamaryik, north of Chesterfield Inlet, place the Thule occupation of these houses at c. A.D. 1200. The excavations have revealed the potential of Thule sites along the west coast of Hudson Bay, and a good deal of evidence pertaining to the beginning of the modified Thule phase (A.D. 1200-1610) including the abandonment of whale bone architecture at this time. Some of this evidence will

be referred to in the discussion of the Meliadine-1 site.

Coastal sites of this phase are characteristically found on islands or on promontories jutting out from the mainland, apparently because these locations give easy access to marine hunting grounds (McCartney 1971). Whaling had declined by A.D. 1200, as is implied by the lack of winter whale bone houses, and instead there was a greater reliance on smaller sea-mammals and caribou. In fact, it is probable that these Thule people had a seasonal round quite similar to that of the Aivilingmiut and coastal Qaernermiut of the historic period. Winter was likely spent on the ice living in snow houses, mauliqtug (breathing-hole) sealing being the main activity; some walrus hunting was also done. Spring brought a return to the coast and, when the weather became too warm for snow houses but still too cold for tents, the Thule people moved into qagmaq structures with heavy stone and turf foundations and skin roofs. This was the season for uuttug sealing (hunting basking seals). Musk-oxen and ptarmigan may also have been hunted. Perhaps during this season, when sled travel was still possible, the people made wood-fetching and hunting forays to the interior along the lower and middle Thelon River or southward to the Churchill area. In the summer, open water hunting of seals and walrus was carried out from umiak or kayaks. Skin tents were lived in at this time of the year. The caribou migrations attracted the Thule people to the interior in the fall. They lived in skin tents at concentrated settlements and the presence of qagmaq foundations at one Baker Lake site may indicate a long seasonal occupation for several years, from fall to early winter before returning to the coast to exploit sea-mammal resources. Gathering at weirs for the autumn char run was probably an important event of the seasonal round in the modified Thule phase, extending into late autumn. People may then have moved back to the

favourite coastal locations and lived in qagmat until the snow and ice conditions permitted habitation of snow houses on the sea ice in preparation for mauliqtuq sealing.

Historic Thule (A.D. 1610-1775)

Most of the available information about the Thule culture in the Caribou Eskimo area, especially the early historic phase, comes from Rankin Inlet (Linnaeae and Clark n.d.). An extensive survey of the area was undertaken in 1973, and in the following field season work was continued in the form of excavations at an early historic Thule site located on the Meliadine River. The survey showed that the transitional Thule culture and the more recent Caribou Eskimo culture are substantially represented in this area. Several tent ring sites and two sites with semi-subterranean house ruins were found. Excavations at one of the latter sites gave some insight into the nature of the subsistence economy, dwelling construction and material culture of the transitional Thule people. A report on the excavation of this site follows.

1. Meliadine-1 site (KfJm.3) - Site Description

The Meliadine River flows into Rankin Inlet north of Kudlulik Peninsula. This area is typical of the inner coastal plain of the Hudson Bay west coast lowlands (Robinson 1968). It is a poorly drained region with the flatness of the landscape broken by glacial deposition features such as linear eskers. An esker follows the southerly side of the Meliadine River and as one walks along the sandy esker top one notices many small lakes and ponds scattered in the low-lying plains between the three main streams of the Rankin Inlet area. In late spring (middle to end of June), the Meliadine is at its fullest in depth and

width, but as the ice slowly disappears the water level drops dramatically and leaves a wide, dry channel on either side of the stream.

The Meliadine-1 site is located 3 km. from the river mouth. The site is at an elevation of between 17-25 m. asl. It is a large site and extends approximately .4 km. along the river edge and back along the south bank of what was probably an old channel of the river. At this location there is a nick point in the river where a major change in gradient and a constriction of the river occurs. Rapids are formed here; above them there is wide, quiet water and below are broad gravel bars and shallow rushing water.

The tent rings, caches, traps and other surficial structures are mostly located on and around a broken ridge on the flats at the edge of the river just below the rapids. A rocky, dry channel separates this broken ridge from the east-facing slope of a sandy esker on which a row of five house depressions are situated (fig. 2a,3). This grassy slope is quite gentle and somewhat soliflucted resulting in slumped areas and drainage cracks. In some cases the lower lying area (depressions, drainage cracks or frost cracks) are filled with water. There are some rocks of varying sizes found on the top and slopes of the esker.

There is a rather luxuriant growth of vegetation here, with the exception of the dry river channels. Some of the more common plants are: avens (Dryas integrifolia); arctic poppy (Papaver nudicaule); Rhododendron sp.; arctic blueberry (Vaccinium alpinum uliginosum); crowberry (Empetrum nigrum); bear berry (Arctostaphylos alpina); willow (Salix arctica); and birch (Betula nana). Several grasses also grow in the area such as: Dupontia fisheri var. psilosantha; Agropyron latiglume; Festuca baffinensis; and Alopecurus alpinus. Mosses and lichens predominate, however, particularly the yellow ground lichen and a black "hairy" ground lichen growing



a

Figure 2: a. general view of Meliadine-1 site. The semi-subterranean dwellings are on either side of the ladder.

b. House 1 excavation.



b

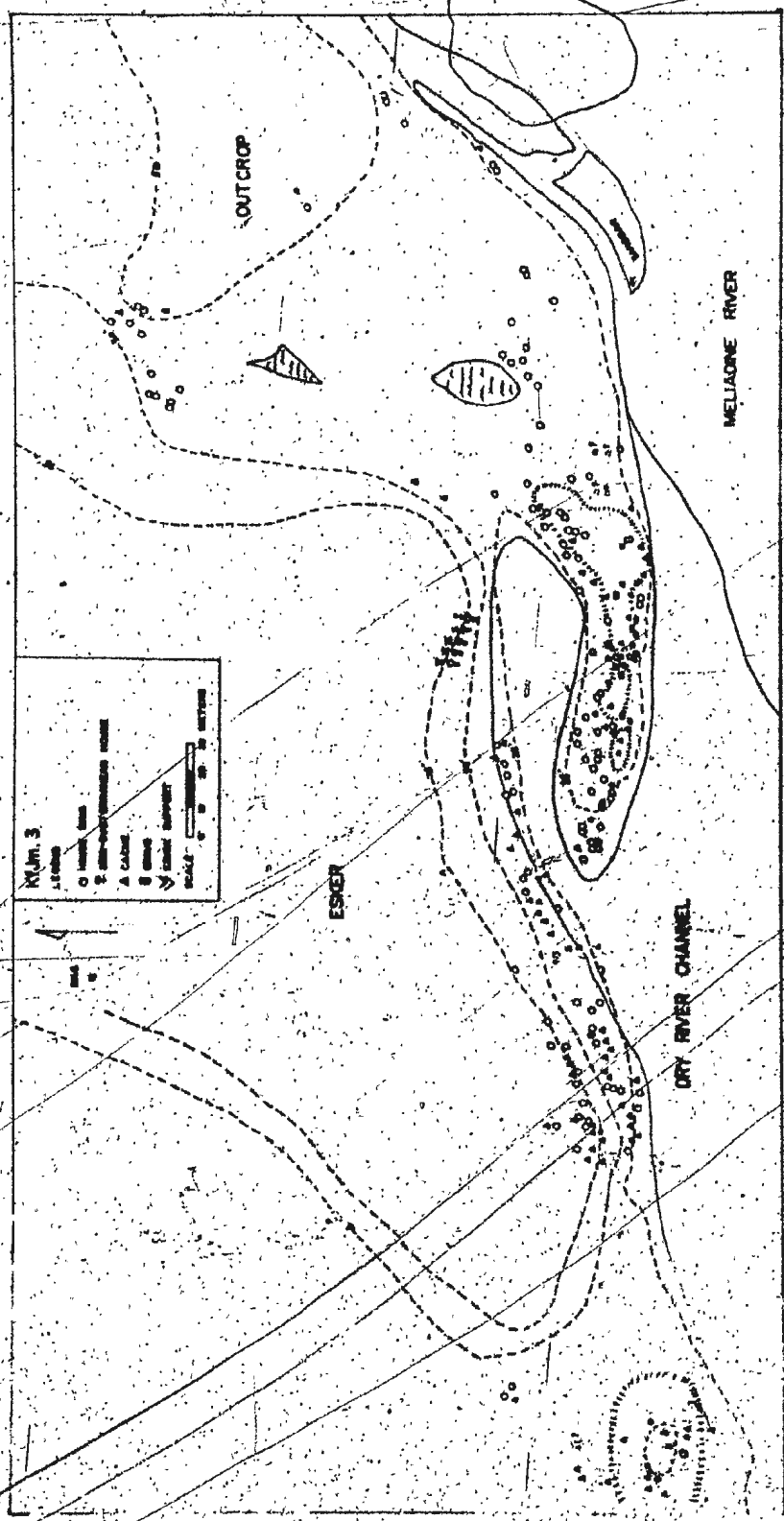


Figure 3: Meliadine-1 (Kfjm.3) site map.

in the moss-turf covering the land.

Structures

semi-subterranean house ruins. Five circular depressions are situated in a row on the east-facing slope of the esker (fig. 4). Several of the rocks which formerly made up the walls of these dwellings have fallen into the depressions since their abandonment and have subsequently been overgrown by a dense moss-turf layer and lichen cover. The entrance passages are discernable for all, except House 1, appearing as trenches going downslope from the main chamber. The view looking out from the entrances is of the open inlet and the river mouth. The dimensions of the depressions are: House 1, 5 m x 7 m; House 2, 4.5 m x 5.5 m; House 3, 4 m x 5 m; House 4, 5 m x 7 m; House 5, 5 m x 5 m. It seems probable that House 5 was not the same type of dwelling as the other four. Unlike the others, there are no large rocks in the depression. Surrounding the hollow is a low ridge of gravel; the entrance is suggested by a break of 1.4 m in width in this ridge. The ridge may be the fill from digging out the interior depression. Although this ruin was called a semi-subterranean house during the field season, it might be similar to the hollows found on Smith Island that have been described by Manning (1951). Manning offers the hypothesis that these hollows are not winter house remains but are homologous with strong tent rings and have never had more than low gravel walls upon which skin tents were erected in summer (or perhaps late spring and fall as well). During the field season, the author had proposed that this ruin was formerly a storehouse, however, as minimal amounts of bone refuse were recovered from tests made in this hollow the hypothesis becomes suspect. Presently, Manning's hypothesis projected to House 5 is more acceptable. Excavation of House 1 was undertaken and will be described in greater detail below.

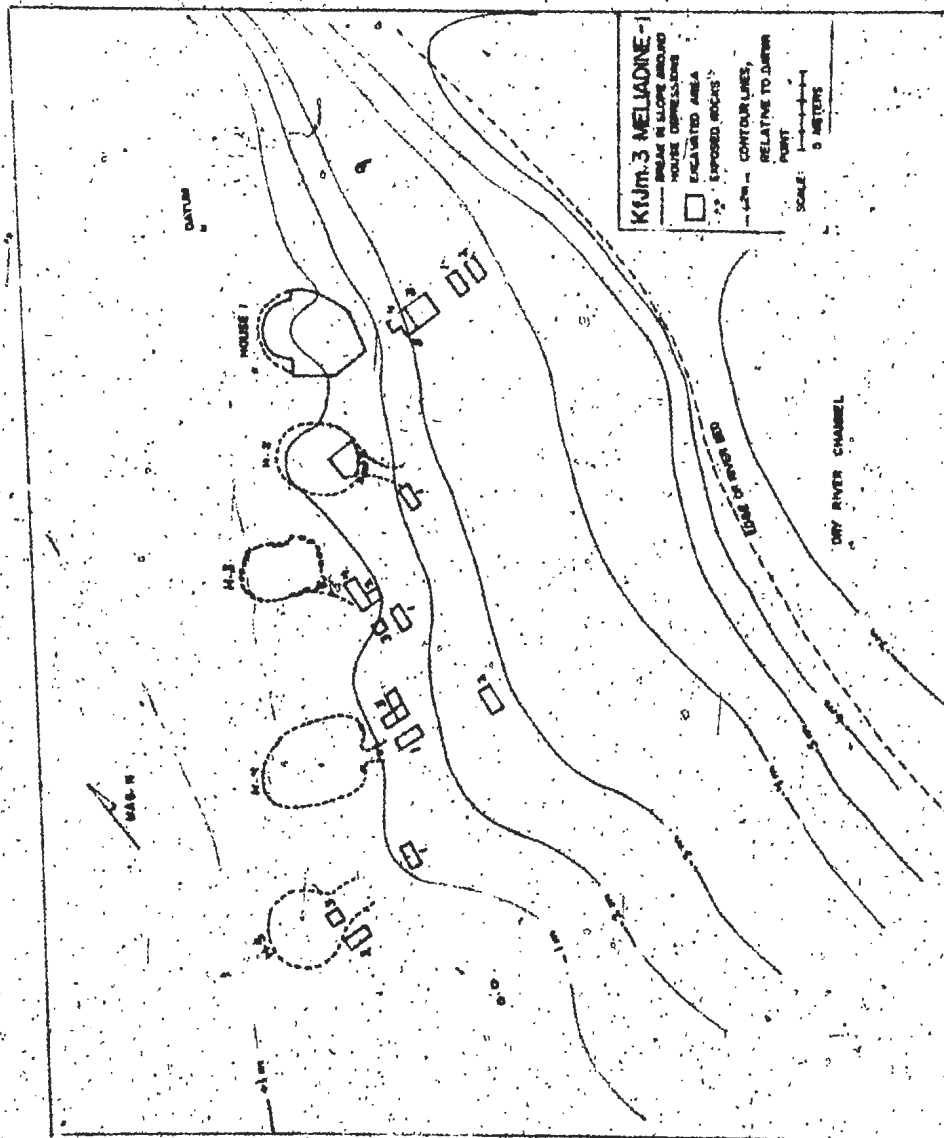


Figure 4: House locations and midden excavations.

tent rings. There are 89 single and 15 "bilobate" tent ring structures at the site. Although detailed descriptions are not yet available for these structures, preliminary examination of them leads the author to propose that the rings represent occupation by Thule and historic Caribou Eskimo groups. Presently, we cannot adequately separate the single tent rings into types belonging to either one group or the other. Possibly, in some cases, some sort of relative dating could be attempted on the basis of lichen cover or depth of the stones. Perhaps the size and shape of rocks and the manner in which they have been used in construction (on the side, on end, etc.), the presence or absence of a hearth feature and style of hearth could be used as criteria to form tent ring typologies. However, there has not yet been enough data collected to do such a typology.

Perhaps more light can be shed on the chronological position of the so-called "bilobate" tent rings at Meliadine-1. These structures range in size roughly from 3 m x 5 m to 4.2 m x 6 m. They are oval in shape and have a line of boulders across the centre of the short axis which probably delineates the sleeping platform. McGhee (1972:67) has defined the Intermediate Interval in the Copper Eskimo area (that is, between the Thule and historic periods or A.D. 1600-1771) as "...the period of time during which structures of the qarmat type and heavy tent rings with stone platform edge were built and occupied...". Several structures are almost identical to the type illustrated by McGhee (ibid: 66). Perhaps, these structures at Meliadine-1 can be identified as belonging to an Intermediate Interval in the Caribou Eskimo area and possibly extending into the Historic Period. One of these structures was tested in 1973. The identifiable bone refuse was that of caribou. Artefacts consisted of pieces of wood, a fragment of iron, an iron

"spring-like" article, and a fragmented Kaolin pipe bowl with the initials TD engraved on it. All these artefacts would tend to place the tent ring within the Historic Period.

caches and traps. In many cases, no distinction could be made between caches and collapsed traps. One good example of what the caches were like is the following: the inside storage box was almost square in shape being 30 cm x 40 cm at the top and only slightly broader at the bottom. The box was 70 cm deep and the exterior rock pile which covered it was about 2 m in diameter. These structures were found all over the site, occasionally inside tent rings.

burials. There are four burials at this site. One was a badly destroyed burial crypt of a long, narrow box type which was more or less diamond-shaped. A large, flat, broken slab, probably the cover, was found lying near one end. The others were more ovate stone graves with a single rock wall made of flattish rocks set on end. These were also covered by piles of rocks. The burials were all situated fairly closely to each other on the ridge by the river edge. No skeletal remains were recovered. These graves resemble typical Thule "stone-box" burials.

2. Excavations

House 1 (fig. 5)

House 1 was tested in the summer of 1973 and excavated in 1974 (fig. 2b). On the surface, the house was seen as a rounded depression 1.25 - 1.5 m deep. The presumed platform area was higher and made up slightly over half the area of the hollow. Large rocks that made up the walls of the structure had collapsed into the depression and the entrance passage. These rocks had subsequently been covered by a dense moss-turf

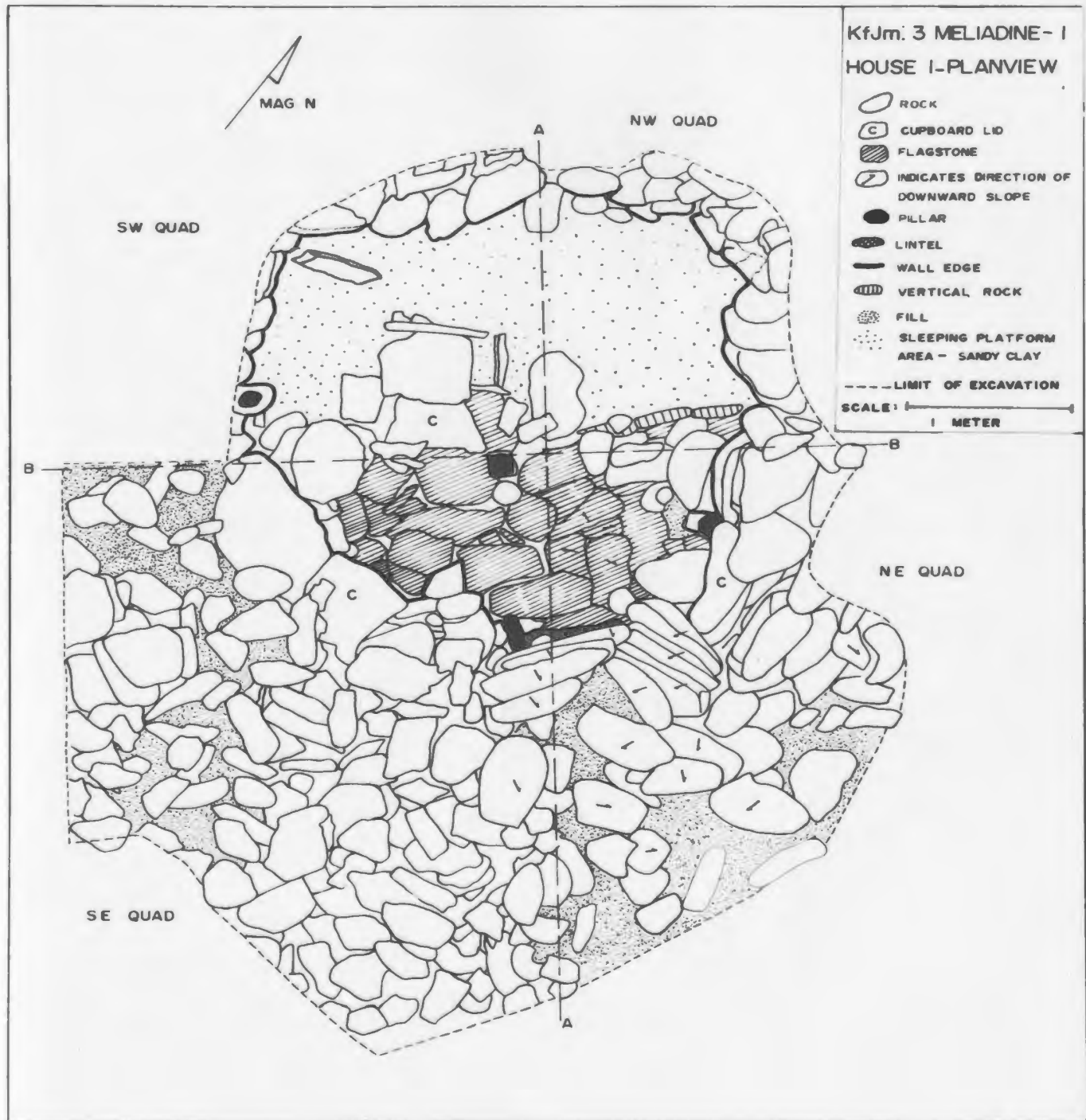


Figure 5: House 1 planview

layer and a few low willow bushes. A few rocks showed above this near the door and passage and at the edge of the sleeping platform. Dwarf willows and some grasses were growing along the edge of the depression at the front wall.

The 1973 test was done in the SE quadrant in front of a cupboard in the wall. The area was excavated down to the first floor level and a few artefacts including a wooden drum handle, a fragment of a drum rim, wood fragments, quartzite detritus and flakes were recovered.

The 1974 excavation proceeded according to the following methodology. The house was divided into quadrants with the two axes intersecting at approximately the middle of the structure and aligned so that one axis corresponded to the edge of the sleeping platform (about N45°E). The moss-turf was stripped from the surface and all the rocks exposed. Photographs were taken and planviews drawn according to normal procedure. The rocks were discarded after their position had been recorded. Bone refuse and artefactual material was separated by relation to flooring levels, that is, on top of the last level, between the two levels or below the last level. Material from the sleeping platform area was kept separate. Horizontal provenience was also recorded.

Stratigraphy

Figure 6 illustrates the stratigraphic profile of House 1. Over the sleeping platform there were four horizons: 1) a moss-turf stratum which also covered most of the collapsed rocks; 2) a fill stratum composed of sandy loam with lenses of dark organic soil; those two horizons together were about 24 cm thick; 3) an intermittent stratum of matted and badly rotted organic material 1 - 10 mm thick, likely the remains of a moss-heather mattress which once covered the platform; 4) a sterile

KfJm. 3 MELIADINE - I

HOUSE 1 PROFILES








PROFILE A A

HOUSE
DATUM

PROFILE B B

HOUSE
DATUM

LEGEND

-  ROCK
-  FLAGSTONE
-  MOSS-TURF STRATUM
-  FILL STRATUM - DARK SANDY LOAM
-  FILL STRATUM - DARK ORGANIC SOIL
-  CLAY
-  --- LIMIT OF EXCAVATION


SCALE:  1 METER

Figure 6: House 1 stratigraphic profiles.

horizon of fine clay marking the original surface. The stratigraphy over the floor area is the same except that the third horizon mentioned above is missing and in its stead there are two levels of flagstone flooring. The artefacts and bone refuse came mostly from the fill stratum and between the flagstones of the double floor levels. Horizontal distribution was noted to have been mostly at the edge of the sleeping platform and along the south and east walls. See Table 2 for artefacts belonging to House 1.

Entrance Passage

The entrance passage was badly collapsed, in fact, a structureless pile of boulders and slabs. Nothing can be said about the dimensions of the passageway and little about its construction. The walls were made of stone. The roof may also have been constructed from slabs but not many were found in that area. The interior entrance to the passage was outlined by a pillar and four lintel stones, the lower one having fallen into the base of the pillar. If this area were reconstructed the walls would be surprisingly high, about 80 cm above the doorway. Presence of a cold trap feature is indeterminable since the area is still covered by fallen rock. The large passage rock which is usually situated at the terminus of the entrance passage was not found.

Floor

The floor of the structure between the doorway and the sleeping platform was covered by thin flagstones which were carefully fitted together and lying flat except for frost heaving in the NE quadrant. The area immediately in front of the sleeping platform has two layers of flags as did the area by the front and side walls of the SE quadrant.

We concluded that this signified two floors and that the house was likely reoccupied at least once.

Sleeping Platform

The sleeping platform made up just over half of the total inside area of the house (3 m x 1.75 m or 5.25 m²). The floor area had been dug deeper than this back section so that the platform was raised about 20-25 cm above the floor surface. There were no flagstones found on the sleeping platform but only, as mentioned above, the remains of a plant mattress placed over the original clay surface.

The front edge of the platform was bordered by upright vertical slabs and a cupboard had been built into this edge in the SW quadrant. This feature may also connect to a stone-lined storage box built into the floor of the sleeping platform. This box structure contained a few bones (non-human) and a tooth and was filled with gravel.

Walls

The walls were presumably constructed from stones and turf. For the most part, the wall rocks had tumbled down from their original position. Several of those that formed the base of the wall were still in tact. These were fairly thick, rounded rocks that had been laid horizontally in layers at this front section of the house. The back wall was very disturbed with only two bottom slabs, set in a vertical position, still standing. Some horizontal slabs above this were still in place but the obvious large slabs that were once a part of the wall had collapsed into the platform area. Three large (50 - 60 cm) vertical, elongated, squared-off rocks which are presumed to be pillars were situated roughly in a line; one placed at the wall in the NE quadrant, one at the edge of

the sleeping platform near the middle of the house and one at the side wall at the edge of the sleeping platform in the SW quadrant. It may be that these functioned as the bases for some type of supports.

Roof

No whalebone or wooden rafters were found in association with this house so we have no evidence to support suggestions as to the nature of the superstructure. Likewise there is no stratigraphic evidence for a turf roof which would have tumbled into the depression. It may be that a less substantial roof of skins covered the dwelling. The use of a skin tent roof was common in the construction of autumn habitations or qaqmaq structures, which, although not usually semi-subterranean, in many cases had substantial stone foundations.

McCartney (1971:323-25) has outlined the general characteristics that typify Thule Eskimo constructions along the northwest coast of Hudson Bay. His analysis is based on archaeological investigation undertaken at eight sites in the Chesterfield Inlet-Wager Bay area. The reader is referred to this description. On the basis of the House 1 excavation, we can hypothesize that the Thule Eskimo construction techniques along the west coast of Hudson Bay are similar to those of the northwest coast as described by McCartney. Some of these characteristics, as revealed by the excavation of House 1, can be mentioned here also:

a) stones were never altered to fit together, "fitting of stones together in any pattern was a trial and error procedure" (ibid.:323). Small stones and gravel were used to hold large rocks in place and to chink the gaps between the larger rocks.

b) "Balancing of stones was the primary device of building" (ibid.).

In House 1 at Meliadine-1 no whalebone or wood rafters, buttresses or

braces were recovered.

c) "Boulders are commonly set on edge to form wall bases,..."
(ibid.:324).

d) "Stones laid in tabular courses rather than on edge are also common in multiple-stone structures. If those are relatively flat and angular, the stones form tight, neatly fitting layers. But if the stones are subangular to rounded, it is more difficult to erect tight courses and the wall might appear as a somewhat jumbled pile of stones" (ibid.). The latter was the case with House 1.

e) use of suspended, flat rocks, in this case, those used as door lintels.

f) flagstones used as flooring is a popular construction technique. McCartney mentions that flags were often used to pave the sleeping platform (ibid.:325) but probably were not used in House 1.

The source of the building material for these structures must have been the boulders and rocks from the river flats as there are no large outcrops of bedrock on the esker top. As the houses are located on the grassy slopes of the esker these heavy rocks were hauled, somehow, from the river flats up to the building site, no easy chore.

When these five dwelling remains were first examined, we decided that they were formerly substantial semi-subterranean winter dwellings with walls and roof built of stones and turf. However, this investigator has since changed her opinion. As previously stated, no whalebone or wooden rafters or other kinds of roof supports were recovered from the excavation of House 1. Neither did we find a lot of flat rock slabs which may have been used as substantial roofing material, nor stratigraphic evidence for a collapsed turf roof. It might be suggested, therefore, that these dwellings were qagmaq structures. Long wooden

poles, subsequently carried off by the inhabitants for future use, could have been used to support a skin roof.

The qaqmat built by historic Eskimos in the central arctic area are surficial features with strong foundations but are not semi-subterranean (Boas 1964, Mathiassen 1927, McCartney 1971, McGhee 1972). The structures found at Meliadine-1 would appear to be modified whale-bone or stone-turf houses, which are still being dug into the ground, roofed with skin tents. An alternate suggestion is that is these later Thule people did not dig out the foundation themselves then they were re-occupying an older Thule semi-subterranean winter house, roofing it with skins (McCartney 1971). It would seem that this type of structure may have developed into historic Eskimo stone qaqmaq, which was not dug into the ground.

McCartney also mentions the problem that if qaqmat were built in an older Thule house depression, it would be difficult to distinguish between primary house artefacts and secondary qaqmaq artefacts. The Meliadine-1 assemblage does not suggest a two component site (that is, earlier Thule and a transitional Thule). In fact, the assemblage supports a transitional Thule period occupation. Perhaps this also supports the speculation that these people dug out the foundations for their qaqmat.

House 5 is not included in the above discussion. It was previously stated that House 5 was likely homologous with a strong tent ring having low gravel walls to hold down the tent skins.

House 2 was also tested. Only the top layer of sod and fill from a small area of the interior directly in front of the entrance was removed. This excavation was too brief to produce anything of significance.

Excavations outside dwelling structures

Test excavations were made outside of the dwelling structures in what was assumed to be the midden area of each house. Middens were formed by an accumulation of bone refuse from meals, broken tools and utensils and other waste material and rejectage which had been swept up off the interior house floor and tossed out the entrance passage. The association of a midden to a particular house was made on the assumption that the garbage directly in front of an entrance passage belonged to that house. We were interested in recovering an artefact sample from the middens and also in attempting to define the perimeter of the midden area for each house.

Since the middens were not raised above the surface, the test trenches were placed rather arbitrarily but favoured the proximity of the entrance passages. The excavation units were laid out along a north-south axis downslope from the dwelling remains (fig. 4). Excavation was carried out in arbitrary levels of 3 - 5 cm since there was only one horizon in which refuse material and artefacts were found.

Stratigraphy

House 1 - (fig. 7) is an example of the general stratigraphy found in all the midden areas: 1) there is a moss-turf layer on top, of variable thickness. The thickness seems to vary with the amount of organic refuse (that is, bone, etc.) found in the underlying stratum and consequently with the distance from the end of the entrance passage; 2) next is a black sandy layer which is the cultural horizon. The bottom of this stratum exhibits solifluction folding; and finally 3) a sterile gray-green clay, shell and gravel horizon. Test trench 1 which

Kfjm. 3 MELIADINE - I
HOUSE 1 MIDDEN PROFILE
TRENCH 38.4

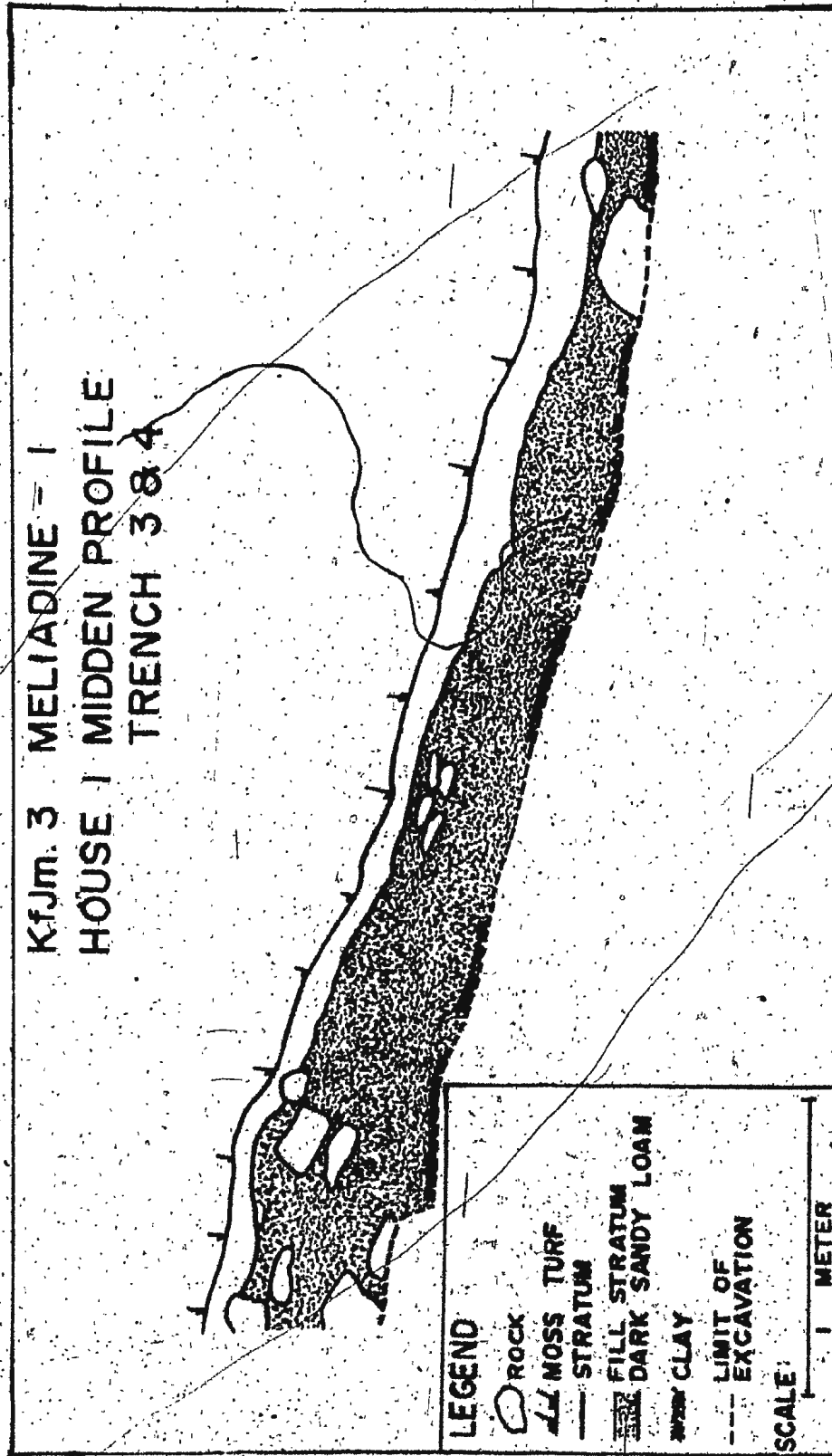


Figure 7: House 1 midden profile.

is located furthest away from the entrance was dug to a depth of 30 - 34 cm, whereas test trench 3 which was in closest proximity to the entrance was dug to a depth of 45 - 50 cm. Veins of permafrost were encountered at 15 cm below surface.

House 2 - Stratigraphy is similar to that described above. The midden deposit is thicker for this house. One test trench located outside the passage was excavated to a depth of 70 cm.

House 3 - Trench 4 was the test area located closest to the house entrance passage, and the midden deposit here was 48 cm deep. The bottom of the deposit was marked by a horizon of coarse yellow sand and gravel with pockets of the marine clay and shell deposit.

House 4 - Stratigraphy of the test trenches is generally the same as that from House 3. The deposit was 26 - 33 cm deep, being shallower at the south side of the trench, which may indicate the outer edge of the midden. Permafrost was encountered at 17 cm in the NW quadrant of the trench. Test trench 2 was placed about 6 m away from the entrance of the house. Very little was found in the way of artefacts or bone refuse and the deposit extended only to a depth of 15 - 17 cm. Test trench 3 had the deepest deposit for this house, 37 - 44 cm.

House 5 - House 5 was not tested extensively. Test trench 1 showed that the deposit was shallow, only 13 cm. The other test trenches were sterile.

From the thickness of the midden deposits at Melfadine-1, it can be concluded that these dwellings were occupied over several years rather than just one or two. Except for House 5, the deposits approach and sometimes exceed half a metre in thickness (House 2). From the limited excavation that has been done, we can suggest that some of the houses (House 2 for example) were occupied longer or used more intensively than

others. It is doubtful that House 5 was occupied more than once, and then not extensively.

The midden deposits were thickest just outside the entrance passage and decreased in thickness relative to the distance away from the house. Test excavations more than about 5 or 6 m away from the house were found, in most cases, to be unrewarding. It seems that the house garbage was handily dumped immediately outside the passage, to either side and in front of it, rather than heartily tossed down the slope.

3. Artefact Description

The functional categories in the following description follow conventional usage.

A) SEA HUNTING EQUIPMENT

Sealing Harpoon Heads: 2 specimens.

There are two types of sealing harpoon heads represented in this collection. One specimen is a variant of the Thule 2 type (plate 1a). Its length is 164 mm and it is made from antler, the dorsal surface being flat and cancellous and the ventral surface rounded and cortical. This specimen is self-bladed (blade perpendicular to linehole) with two asymmetrically opposed barbs and an open rectangular socket. The line hole is drilled. On the dorsal surface there are two opposed pairs of lashing grooves and one pair consisting of one hole and one groove but it could not be determined whether these lashing grooves used to be holes. The butt end is cut obliquely and has a left lateral spur. The other specimen, made of antler, seems to be a variant of the Thule 3 type (plate 1b). It is broken at the drilled line hole. There is a rivet hole at right angles to the blade with part of an ivory rivet present.

The specimen bulges out at either side near the base of the blade slot then narrows down considerably towards the base and is carved very close to the socket; the socket is 7 mm wide and the neck of the harpoon head at that point is only 10 mm wide. There are no lashing grooves or holes apparent, but the base is missing and there may have been lashing holes.

B) LAND HUNTING EQUIPMENT

Lance Heads: 1 specimen (plate 1c).

This specimen is a fixed lance head 98 mm in length and made of antler. The tip is slotted with the slot extending down both lateral edges to within 10.5 mm of the shoulder of the tang, probably to accommodate side blades as well as an end blade. The slot is thin and likely held metal blades. The blade slot is at right angles to the line hole and there is a rivet hole near the top. One drilled lashing hole is located on the body just above the tang and there is one smaller lashing hole on the body to the shoulder. The tang has a trianguloid cross-section and cut, roughened surfaces for lashing.

Arrowheads: 13 specimens.

The arrowheads in this collection have been divided into two types based on the tang style: conical tang and oblique cut tang.

conical tangs. (plate 1, h-j) 3 antler specimens. One specimen has two asymmetrical spurs on the tang and a flat, parallel sided blade. The distal end is broken but it seems unlikely that the arrowhead was barbed. The best preserved and most complete specimen (155 mm in length) was found in the House 1 structure and has one spur on the tang. The lanceolate blade has two asymmetric barbs and a medial ridge along one surface above the barbs. The cross-section of the blade below the barbs

is conical. There is a cut mark or groove just above the shorter and higher barb which may be an owner's mark. The skill and care involved in the manufacture of this arrowhead plus the possible presence of an owner's mark is notable. The remaining specimen has no spurs on the tang and the cross section of the blade is conical. The distal end of this specimen has been broken and it may have been barbed.

oblique cut tangs. (plate 1, e-g) 7 bone/antler specimens. Three specimens can be categorized as definite arrowheads. Two have flat lanceolate blades and the third has a parallel-sided blade which comes to an abrupt point. Their lengths are: 154 mm, 119 mm, and 115 mm. Four of these specimens are only considered as possible arrowheads. Their lengths are: 92 mm, 71 mm, 62 mm, and 139 mm. They are round in cross-section, two specimens ending in a blunt point and one in a flat pointed blade. The fourth specimen has a broken tip. The tangs have been roughened for hafting.

In addition to these, there are also three lanceolate blade sections with broken tangs.

Bird Dart Side Prongs: 1 specimen (plate 1d).

There is a single basal section of a side prong for a bird dart made of antler. The hafting element is carved onto the side of the prong such that it was inset into a slot (roughly 7 mm deep) on the shaft. The opposite side has a flat, inward slanting bed. The prong is 10 mm wide above the hafting element.

Bola Ball: 1 specimen (plate 6, g)

This is an eroded antler specimen, egg-shaped with a drilled hole

Plate 1:

- a. Thule 2 harpoon head
- b. Thule 3 harpoon head
- c. lance head
- d. bird dart side prong
- e-j. arrowheads



near the constricted edge. Its length is 39 mm; maximum width is 34 mm, and thickness is 22 mm.

C) FISHING EQUIPMENT

Fish Barbs: 11 specimens (plate 2, a-j)

Six of these are generally like the standard Thule fish barb and have a "sway-backed" or flattened surface slightly indented inwards above a lobe at the top (hafting end) of the barb to facilitate hafting to the side prong. They are made from antler or bone and all of these barbs come to a very sharp point at the distal end. The lengths of the specimens range from 77 mm to 96 mm. All the barbs but one have drilled lashing holes, generally two, one of which is consistently found at the widest area on the barb; two specimens also have drilled grooves on the lobe. The other barb has a rectangular slot, rather than holes, for lashing. Four other specimens have drilled lashing holes but no lobes. Their lengths range from 49 mm to 87 mm. All but one are made of antler or bone; this exception is a wooden barb (plate 2i). These barbs all have one edge scarfed from the area of the maximum width to the end for fitting to the prong. There is also one tip fragment, with evidence of a drilled lashing hole, in the collection.

Fish Needle: 1 specimen (plate 2, k)

The fish needle is made of antler and is 144 mm long and 10.5 mm wide. The distal end comes to a point and there is a drilled hole at the proximal end with a groove for the line above the hole on both surfaces. The needle is flat in cross-section.

Plate 2:

a-j. fish barks
k. fish needle



Plate 2

D) TRANSPORTATION EQUIPMENT

Sled Shoes: 2 specimens (plate 4, g, h).

Both fragments are made of whalebone. The larger fragment has friction striations observable on one surface and is definitely placed in this category. There is also evidence of drilled lashing holes. The other specimen is smaller with remains of drilled lashing holes observable and has been placed in this category as a possible sled shoe on the basis of what also appear to be striations on one surface.

E) MEN'S TOOLS

Knife Handles: 6 specimens.

There is one specimen of a complete side bladed knife (plate 3a). Its length is 135 mm. and is made of antler or bone. The knife is lanceolate in form, coming to a point at the proximal end and flattened at the distal end. There is a drilled hole for suspension at the proximal end. The handle is concave-convex in cross-section. The thin iron side blade is crescentic in shape and is 18.5 mm long.

There are three complete knife handles. One is made of antler with lateral edges that are relatively parallel but which flare slightly at the distal end where there is a slot for the blade (plate 3c). There is the remains of an iron end blade present in the slot. The proximal end of the handle has been roughened by cut marks. Its length is 113 mm. Another handle of antler or bone is in a poorly preserved state with the proximal end being broken and eroded (plate 3d). The distal end is also eroded and the blade slot is not apparent. The handle expands outwards towards the distal end and there is a triangular hole where the expansion

begins which likely functioned as a lashing hole. It may have been a handle for an adze. There is also a complete whalebone snow knife handle (plate 3e). It belonged to a two-piece snow knife. It is 154 mm long. The handle forms a unilateral shoulder on the bottom edge above the hafting section; there is also a proximal knob on the handle. The blade had been scarfed onto the handle into a bed which was made by cutting away half the thickness of the handle. There is one drilled lashing hole on this bed and half of a drilled hole at the extreme distal end.

There are also two knife handle fragments in this collection. One appears to be part of another side-bladed knife (plate 3b). It is 15 mm wide and 5 mm thick and has the bottom part of what was likely a lateral blade slot. The specimen has rough lashing marks. The other is the proximal end of a whale bone snow knife handle (plate 3k). This specimen would likely have been similar to the complete handle described above.

Snow Knife Blade: 1 specimen (plate 3, g)

The blade is made from whalebone and consists of approximately the distal one-third of the blade. From the section of the blade that remains it appears that the cutting edge was convex and the other edge was straight. It is a thin blade (4 mm thick at the top edge) and probably belonged to a two-piece snow knife.

Snow Probe: 1 specimen (plate 4, f)

This specimen is made of bone and is a midsection fragment of a snow probe.

Plate 3:

- a. side bladed knife
- b. side bladed knife handle, distal end
- c. man's knife handle
- d. knife handle
- e. snow knife handle
- f. ulu handle
- g. snow knife blade
- h. composite ulu handle, grip section
- i. composite ulu handle, intermediate section
- j. slate ulu blade
- k. snow knife handle, proximal end



Plate 3

Mattock Head: 1 specimen (plate 4a).

The mattock head is whalebone with a total length of 260 mm. The lateral edges are parallel and the distal end is convex. There are two pairs of bilateral notches at the proximal end for hafting. The specimen is plano-convex in cross-section and the socket for the handle is on the flat surface. Mattocks were used as digging implements.

Pick Heads: 4 specimens.

There are two specimens which undoubtedly were used as pick heads. One is made of ivory (plate 4c) and the other of antler (plate 4b).

The ivory pick is 50 mm long but appears to be broken at the proximal end. It is trianguloid in cross-section with one surface flatter than the other two, although it is generally symmetrical. It comes to a sharp point at the distal end. All the surfaces are roughened by cut marks.

The antler pick is also trianguloid and comes to a sharp point at the distal end. It is 108 mm long. The hafting surface is flat and the rounded cortical surface has been bevelled on two surfaces to form a medial ridge. Both of these surfaces are roughened by cut marks. At the hafting end this ridge is not present. These specimens concur with Mathiasen's statement (1927b:29) that the antler specimens have, as a rule, a flat side and a convex side whereas those of ivory and whalebone are more symmetrical. Picks probably had several functions, for example they may have been part of the hunting kit, hafted to the proximal end of the harpoon shaft to facilitate picking ice for breathing hole sealing or ice hole fishing. Otherwise, they may have functioned as excavating tools, along with mattocks, in digging out the foundations for semi-subterranean houses and for cleaning ice out of houses (Murdock 1892; McCartney 1971: 415).

Plate 4:

- a. mattock head
- b. pick head, antler
- c. pick head, ivory
- d. pick head (?), antler
- e. pick head (?), antler
- f. snow probe section
- g. whalebone sled shoe
- h. whalebone sled shoe



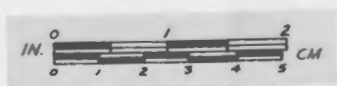
a



b



c



d



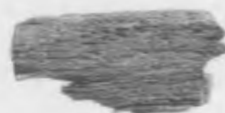
e



f



g



h

There are also two antler specimens in the collection which may have functioned as ice picks (plate 4d, e). Their lengths are 126 mm and 125 mm. The cancellous surface of both specimens is slightly concave and the distal end comes to an abrupt point and has been bevelled on the cancellous surface. Both of these possible picks have tangs for hafting onto the end of a harpoon or a handle of some sort.

Wedges: 2 specimens.

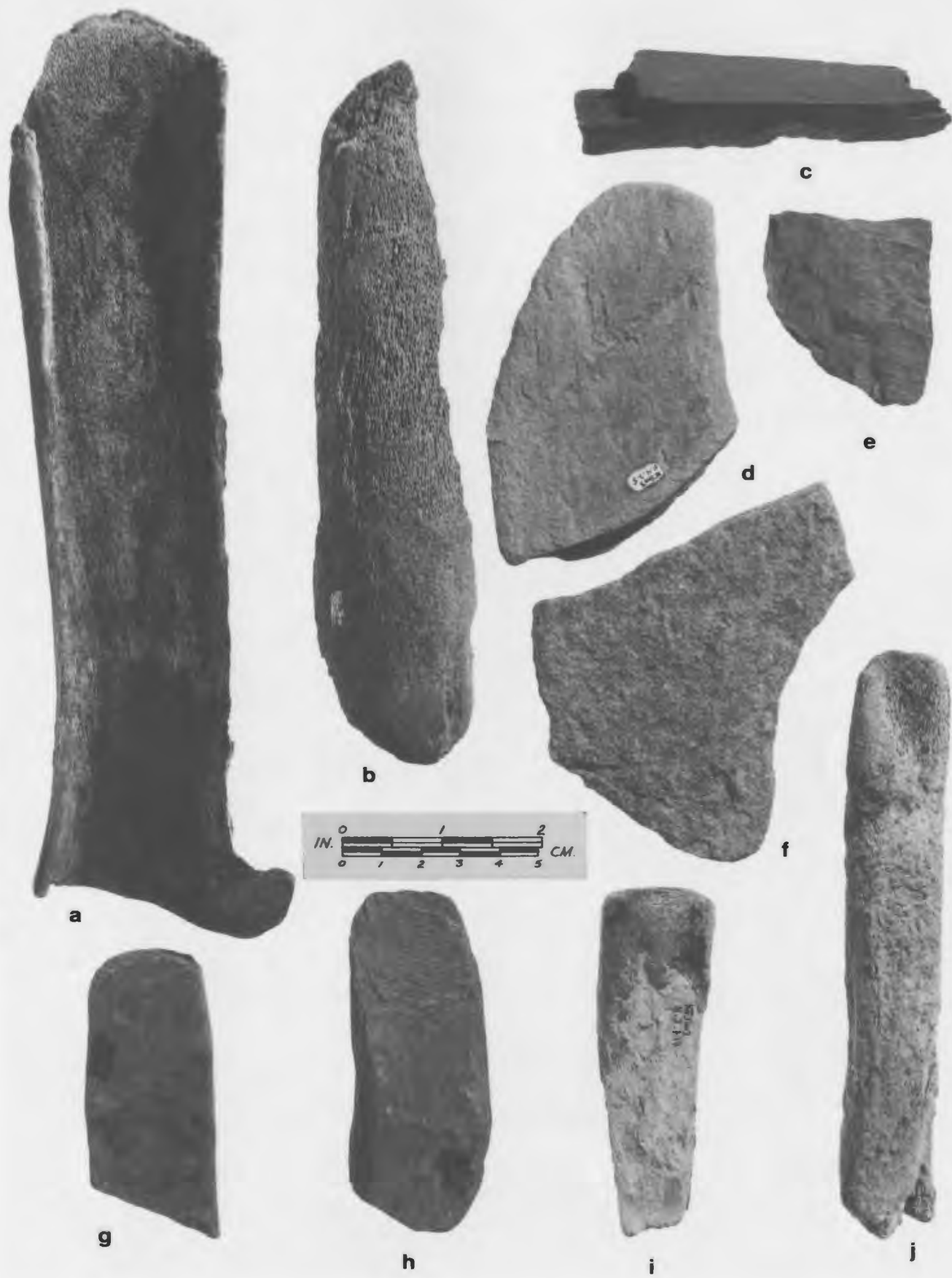
Both of the specimens are made of antler. One is 162 mm long (broken at the proximal end) (plate 5j). It is conical in cross-section and cut obliquely at the distal end to form a thin working edge. The other specimen is 99 mm long and is made on a split antler (plate 5i). It is concave-convex in cross-section; the cancellous surface is slightly concave at the proximal end. It is rectanguloid in shape with the straight sides contracting towards the distal end which is partially broken and is very thin (3 mm). The cancellous surface is also worn at this end.

Rough Stone Chisels or Whetstones: 3 specimens.

Two specimens are long, narrow and rectangular in form. They have one flat surface (ground on both specimens and one scarfed surface so that the implement is thinner at the distal end. One specimen (plate 5h) is bevelled on both surfaces at the distal end; the other (plate 5g), which has grinding over both surfaces and lateral edges, is chipped bifacially at the distal edge. These implements are thought to be whetstones or, more unlikely, chisels. The remaining specimen is a thicker, roughly rectangular piece of stone. One narrow, flat surface shows extensive grinding and this may be a fragment of a whetstone.

Plate 5:

- a, b. bone skin working tools
- c, d. stone skin working tools
- e. ulu blade blank (?)
- f. stone skin working tool
- g, h. rough stone wedges or whetstones
- i, j. bone/antler wedges



Drill Mouthpiece: 1 specimen (plate 6, f).

The specimen is made from a caribou astragalus. The area around the shaft socket hole is blackened from friction.

Carved Pegs: 10 specimens (plate 6 h, i, j, k)

McCartney (1971:412) mentions small bone pegs used as nails in holding wooden timbers together, that is, those used as part of the framework for supporting the house roof. He found the pegs in situ. In the collection from KfJm.3, there are several bone pegs which, although different from the styles illustrated by McCartney, Mathiasen and Holtved, likely are pegs used in repairing or riveting functions. The pegs in this collection have not conformed to any particular style. All are wider at the striking end, with the straight sides converging toward the distal end. They are all more or less rectangular in cross-section.

Carved Plugs: 3 specimens.

These are larger and thicker than the pegs. All specimens have cut marks on them. One has a square hole in its top end and there appears to be rust stains inside the hole as if an iron rivet was once lodged within it. The function of these plugs is unknown.

Bifacial Flaked Stone Tools: 3 specimens.

Two specimens are missing their distal halves; striking platforms are present. They are made from white quartzite. One biface is retouched completely over both surfaces and edges (plate 9b). The other has only the edges retouched on both surfaces (plate 9a). These may have functioned as knives or other such cutting edges but we don't know whether to

Plate 6:

- a. unidentified
- b. reworked harpoon head (?)
- c. unidentified
- d. arrow shaft (?)
- e. unidentified
- f. drill mouthpiece
- g. bola ball
- h-k. bone/antler pegs
- l. sewn bark
- m. marrow extractor



Plate 6

attribute them to Dorset or Thule manufacture. There is also a rough pebble chopper made from red sandstone.

Unifacial Flaked Stone Tools: 1 specimen (plate 9, c).

This specimen is a white quartzite end scraper with dorsal surface retouch on all edges. It is quadrangular in shape with sharp distal corners and the distal end is skewed to the right. The working edge has a steep bevel. This artefact is likely of Dorset origin.

Core Tool (?): 1 specimen (plate 9, e).

The artefact is 33 mm in length, conical and elongated with long, narrow blade-like flakes having been removed. It is made from white quartzite. This specimen tapers to a sharp point which is crushed, perhaps suggesting that it was used as an awl or punch.

Retouched Flakes: 9 specimens.

There are two chert flakes (plate 9 h, i). One has steep unifacial retouch along one edge on the dorsal surface and on the ventral surface of the same edge. There is retouch around a notch. The other chert specimen has a small amount of retouch along the dorsal surface at one spot and the ventral surface at another. There are six white quartzite specimens from House 1. These include one blade-like flake (plate 9f) with a shallow notch retouched on the dorsal surface of one edge. Another specimen is a thick flake with unifacial retouch along the dorsal surface of one straight edge (plate 9d). The other two flakes (plate 9g, k) have light retouch along one edge. These may have functioned as simple cutting edges. There is also one lightly retouched quartzite flake from House 2.

F) WOMEN'S TOOLS AND HOUSEHOLD EQUIPMENT

Ulu Handles: 3 specimens.

Two types of ulu handles are represented in this assemblage. One handle of whalebone (plate 3f) has an arched hand rest or grip at the top which is thicker and wider than the section of the handle into which the blade is set. The two are separated by a shoulder. There was a slot for the end blade, likely iron, which has subsequently been broken leaving an open, crescentic bed. The opposite surface at the distal end is bevelled. The lateral edges are straight but converge slightly. The maximum width of 76 mm occurs at the hand rest and the maximum length is 57 mm. The other two specimens are parts of composite handles. One is made of whalebone (plate 3i) and the hand rest part of this specimen is missing except for a hinge which is carved from the hafting section. Apparently there were two drilled holes in this hinge section, likely for fastening on the other part of the handle. The hafting section is 77 mm wide with two drilled holes, one at either edge. There was a blade slot which has subsequently been broken in a manner much like the other specimen, leaving an open crescentic bed with a very small, rusted fragment of an iron blade remaining. On the opposite surface to the broken slot is a groove between the drilled holes, possibly a lashing groove. The other example of a composite ulu handle is made from bone/antler and is part of the hand rest section (plate 3h). The cancellous surface is flat becoming slightly concave at one end. The cortical surface is convex. Both surfaces have been roughened for lashing. The sides are parallel with rounded knobs at both ends. The length of the specimen is 94 mm.

Ulu Blades: 3 specimens

There was only one broken black slate ulu blade recovered with part of the cutting edge and part of one lateral edge present (plate 3j). It cannot be determined whether or not it was tanged. There are two cruder specimens which may have functioned as ulu blades. One is a triangular gray piece with a broken proximal end. The distal end is bifacially retouched into a cutting/scraping edge. The lateral edges converge proximally. There is also a tanged, shale-like piece which is plano-convex in cross-section. The lateral edges converge to a tang. There is a bevel on the dorsal surface at the distal end and it may be retouched on the opposite surface but it is difficult to tell with this material.

Ulu Blade Blanks: 2 specimens.

There is one piece of gray slate which is partly ground on one surface and is roughened out on one side to form an arc. (plate 5e). A piece of the same shale-like material as the possible ulu blade seems to be chipped around the edges and may have been an ulu blade.

Marrow Extractor(?): 1 specimen (plate 6,m)

It is similar to a specimen illustrated in Birket-Smith (1929a: 145 fig. 44f) from the Caribou Eskimos. It is 147 mm long and is a split metacarpal with the distal end coming to a rounded point and a slightly concave cancellous surface.

Skin Working/Scraping Tools: 6 specimens.

The category of scraping or skin softening tools is rather ill-defined. Numerous different shapes and sizes of tools have been used to

work skins and these specimens merely look like they fall into a hide scraping category. One specimen is a split bone scraping tool about 240 mm in length (plate 5a). The lateral edges expand slightly toward what would seem to be the working edge. The implement is concave-convex in cross-section. The working edge is eroded somewhat but is convex in shape. The proximal end is cut straight across and there is a flat projection out to one side which may have facilitated ease of handling or maybe hafting. Another tool is made of whalebone and is 200 mm in length (plate 5b). It is broken along one lateral edge. It appears to have been convex at both ends. It is concavo-convex in cross-section and slightly bevelled at the working edge. The concave cancellous surface seems to be smooth, perhaps from rubbing.

There are two pieces of gray stone material which have bifacial chipping along some lateral edges (plate 5d, f). They may have functioned to scrape, stretch or soften caribou and other skins as did the crooked scraper blades discussed by McCartney (1971). There is also a piece of ground and polished green slate (plate 5c). One edge, which is now chipped and battered, looks like it was the working edge and may have been used for cutting and/or scraping. The grinding and polishing occurs on either side of this edge. The final specimen in this category is a cortical pebble scraper made of half a pink quartzite pebble. There is evidence of chipping along the edges, likely to form a scraping plane (plate 9j).

Bone Needles (?): 5 specimens.

One definite needle was found from House 1 but has subsequently been lost. It was an eyed bone needle. There are four small, pointed bone slivers which, although they are not eyed, may have functioned as needles. This cannot be determined positively.

Carved Stone Vessels: 11 specimens.

There were no complete vessels found, only discarded fragments of broken vessels. These people were using varying grades of soapstone as raw material for their lamps and pots. The smooth, nicely finished pieces, as might be expected, were made of the better quality soapstone. Rim sherds from some of these vessels showed an incised line decoration along the middle of the rim surface and/or two incised lines around the exterior circumference of the rim. Pots made from poorer quality of soapstone (green or gray with a high mica content) were much cruder, thicker, and not decorated. There are ten sherds of soapstone pots recovered from the site, six of which are rim sherds. Most of these sherds are small. One large piece exhibited the rim decoration mentioned above and also has three drilled holes (plate 8b). Two of these were likely for suspension however the other one has a deep groove extending from it to a broken edge and this may indicate a formerly mended break. The only corner sherd that is present in the collection suggests that the vessels and lamps of these people had rounded corners (plate 8c). There is only one fragment that can be identified as more likely belonging to a lamp (plate 8a). The rim is curved, signifying an oval shape. The side of the fragment is shallow, roughly 27 mm from the interior rim surface to the point where the floor of the lamp begins. The sherd is encrusted on both exterior and interior surfaces with carbonated oil or blubber.

Soapstone Fragments: 8 specimens.

Seven of these are rough lumps and one is a rough rim fragment.

G) MISCELLANEOUS

Ivory Bead: 1 specimen (plate 7, c)

This bead is barrel-shaped with one hole drilled through the centre of the longitudinal axis and a smaller hole drilled at right angles in the middle emerging on the same surface. This surface is flat. The length is 20 mm and diameter is 9 mm.

Ivory Pendant: 1 specimen (plate 7, f)

It is one variant of the standard Thule chain-linked pendant. This specimen has one link. The bayble is spherical and there is a tiny drilled suspension hole.

Tooth Pendant: 1 specimen (plate 7, d)

This specimen is a polar bear (?) canine with a drilled hole at the proximal end for suspension. It probably functioned as a decorative pendant.

Pipe: 1 specimen (plate 7, e)

From House 1 a fragment of a Kaolin pipe bowl was recovered. This is the only artefact that definitely reflects the historic period.

Drum Handle: 1 specimen (plate 7, a)

This specimen is wooden with a length of 230 mm and a width of 32 mm. The notch, for attachment onto the drum rim, is 26 mm long x 32 mm wide x 13 mm deep. There are two pairs of bilateral drilled holes on the lateral surfaces behind the rim notch. It cannot be determined whether these holes are drilled through completely as there are remains of wooden

pegs inside all four holes. The handle is rectangular with rounded edges. The maximum thickness occurs where the notch has been cut. Above the notch, the handle tapers, and there is a spherical knob at the end.

Drum Rim: 1 specimen (plate 7, b)

The wooden fragment is only a broken curved segment of the whole. It has been broken at both ends and also split through the width, therefore no measurements are meaningful except thickness: 16 mm. There is one drilled hole through the section that was found presumably used as a lashing hole.

Sewn Bark: 1 specimen (plate 6, 1)

There is a piece of bark (?) which is the rim or edge portion of something, possibly a cup or bowl bottom like that illustrated in Mathiassen 1927a, Pl. 53-3. It is 96 mm wide where it is broken and very thin. There are rectangular perforations around the outer edge of the specimen 5.5 mm in from the edge that are 1.3 mm wide and 2.06 mm long. On the outer edge, of the same spacing as the perforations, are notches in the specimen. These perforations and notches were for passing the thread through.

Bone/Antler Awls or Probes (?): 16 specimens

These are minimally retouched tools which have one thing in common in that they have been retouched to a rather sharp or slightly rounded point at one end such that they may have functioned as perforating or probing tools. Their shapes are irregular otherwise and the lengths range from 57 mm to 156 mm.

Plate 7:

- a. drum handle
- b. drum rim fragment
- c. ivory bead
- d. tooth pendant
- e. Kaolin pipe bowl fragment
- f. ivory pendant



Plate 7

Plate 8:

- a. soapstone lamp fragment
- b. soapstone vessel, rim sherd
- c. soapstone vessel, corner rim sherd



Plate 8

Plate 9:

- a. biface
- b. biface
- c. end scraper
- d. retouched quartzite flake
- e. core tool (?)
- f. g. retouched quartzite flakes
- h. i. retouched chert flakes
- j. pebble scraper
- k. retouched quartzite flake



a



b



c



d



e



f



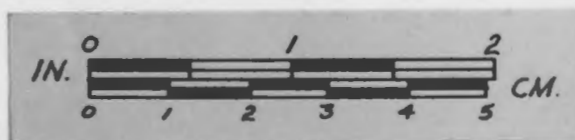
g



h



i



j



k

Hammerstones: 1 specimen.

This is a small, rounded granitic pebble that exhibits pecking and battering pits on several of its surfaces.

Flake Core, Quartzite: 1 specimen.

This is a roughly blocky core with one flat striking platform. At least two major flakes and several smaller ones have been struck from this core.

Sandstone Lamp Blank (?): 1 specimen

This rectanguloid piece of sandstone with rounded corners measures 190 by 120 mm. and has a maximum thickness of 40 mm. One surface is hollowed to a depth of about 12 mm and two of the edges are partly polished or ground. This specimen shows no evidence of having been used as a lamp.

H) UNIDENTIFIED TOOLS: 7 specimens

From House 1 structure and midden, four of these unidentified tools were recovered. One is a split bone/antler broken at a centrally drilled hole (plate 6c). It has straight, parallel sides and an oblique straight end slightly concavo-convex in cross-section. There is an eroded artefact with a partial slot at the distal end at right angles to a drilled hole in the proximal end (plate 6b). There is a small unilateral barb. The specimen is likely a reworked harpoon head. A possible scraping tool is a tanged, rectangular antler specimen with incised lines on the cortical surface (plate 6e). The cancellous surface at the distal end is concave and worn smooth. There is also a broken artefact which

comes to a point. The break occurs at a drilled hole.

There were three unidentified bone/antler tools from House 2 structure and midden. One specimen is cut antler with one straight end and one end with a V-shaped notch at the bottom of which is a drilled hole (plate 6a). It is plano-convex in cross-section and function is uncertain. There is also a flat, peg-like bone with a groove cut in one end whose function is uncertain. Another specimen worth describing is a conical antler artefact which may be the base of an arrow shaft (plate 6d). It is broken at the distal end. The proximal end is cut obliquely on one surface and there is a lashing groove which runs three-quarters of the way around the shaft. There is a basal notch which is worn. Incomplete length is 136 mm and the width, which is uniform along the length is 8 mm.

Crescentic Tools: 4 specimens

These four bone specimens all have the same morphological configuration and probably had the same function which is unknown. They are all flat and crescentic in shape, that is, one edge is straight and the other arched with the ends having sharp points. Lengths: 61 mm, 40 mm, 53 mm, and 51.5 mm.

There are six other minimally retouched bone/antler tools about which nothing can be said as regards function.

There are 13 pieces of cut wood which may have been tools but they were recovered in such poor, waterlogged condition that their functions cannot be determined. One such piece has two drilled holes but the specimen is very splintered. Several pieces of wood were excavated. Some have been used for C-14 samples, others were in such poor condition that they could not be excavated without destroying the shape and were therefore not retained.

1) CUT BONE AND ANTLER

See Distribution Table.

J) LITHIC FLAKES AND DETRITUS

This category includes non-functional, unretouched lithic material which is thought to be rejectage. One hundred and fourteen pieces of white quartzite fragments plus three dark gray quartzite pieces have been recovered. Their distribution includes: 89 from House 1 structure; 16 from House 1 midden; four from House 2 midden; and five from House 4 midden. This group includes one core from House 1 midden and 73 cortex fragments. The remaining specimens are shattered quartz/quartzite fragments. There are 17 chips (i.e. small flakes under 13 mm in dimension), all of white quartzite, which were found in House 1, ten from the structure and seven from the midden.

Flakes exhibiting no retouch total 44. They are all of quartz/quartzite material (white and gray shades) and include six cortex flakes. See Table for distribution.

House 5 has a collection of very poor quality white quartz lithic material including eight flakes, five fragments plus 20 small pieces of chipping detritus (under 18 mm in dimension).

K) METAL: 2 specimens

One of these is a small badly corroded piece of iron that was found in the interior fill of House 1. The second specimen is a long, thin hook-like piece of copper, square in cross-section but tapering towards one end. It was found in the midden in front of House 3.

Neither of these pieces have yet been analysed metallurgically although the iron is thought to be of European origin.

Artefact Distribution: Meliadine-1

Implement Types	W.1	H.1 midden	H.2	H.2 midden	H.3	H.3 midden	H.4	H.4 midden	H.5	H.5 midden	TOTAL
Thule type 2 harpoon head	1						1				1
Thule type 3 harpoon head						1					1
Lance head: fixed		1									1
Arrowheads: conical tang	2	1									3
oblique tang	5					2					7
tip fragments	2	1									3
Arrowhead shaft (?)			1								1
Bird dart side prong	1										1
Bolas Ball		1									1
Fish barbs: w/drilled holes	4	4	1					1			10
with slot	1										1
Fish needle								1			1
Sled shoes	2										2
Knife handles:	1	2		1							4
snow handles		2									2
Snow knife blade		1									1
Ulu handles	1	1	1								3

TABLE 2

Implement Types	H.1	H.1 midden	H.2	H.2 midden	H.3	H.3 midden	H.4	H.4 midden	H.5	H.5 midden	TOTAL
Ulu blades	2	1									3
Ulu blade blanks (?)	1							1			2
Mattock head		1									1
Pick heads	1+2(?)	1									2 + 2 (?)
Pegs	5	1						4			10
Plugs	2										2
Drill Mouthpiece								1			1
Marrow extractor (?)								1			1
Skin working tools: bone	1							1			2
stone	3							1			4
Wedges (bone)	2										2
Rough stone chisels or whetstones											
Snow probe	1										1
Needles (?)	5										5
Carved stone vessels: lamps (sherd)						1					1
vessels (sherds)	2	2		1		3		2			10
Ivory bead								1			1

TABLE 2 (Cont'd)

Implement Types	H.1	H.1 midden	H.2	H.2 midden	H.3	H.3 midden	H.4	H.4 midden	H.5	H.5 midden	TOTAL
Ivory pendant								1			1
Tooth pendant				1							1
Pipe	1										1
Drum handle	1										1
Drum rim	1										1
Sewn bark				1							1
Awls or probes (?)	9	5	1	1						1	17
Crescent-shaped bones	3	1									4
Other min. retouch bones	1	2		3							6
Misc. unidentified tools	1	3	1	2							7
Bifacial flaked stone tools		2						1			3
Unifacial flaked stone tools								1			1
Core tool (?)		1									1
Retouched flakes	2	5		1				1			9
Quartz/Quartzite fragments	89	16		4				5	5		119
Flakes	19	10		2		3		1	8		44
Chips	10	7							20		37

TABLE 2 (Cont'd)

Implement types	H.1	H.1 midden	H.2	H.2 midden	H.3	H.3 midden	H.4	H.4 midden	H.5	H.5 midden	TOTAL
Flake core		1									1
Hammerstones	1										1
Soapstone fragments	5	1		1							7
Soapstone rim fragments	1										1
Sandstone lamp blank (?)	1										1
Cut bone and antler	57	18	1	9		12		11		4	112
Cut whale bone	1	2		2				2			7
Cut ivory	1					1					2
Cut wood										1	1
Metal-iron fragments	1										1
Metal-copper hook fragments						1					1
Cut Walrus Bone (?)	1			1							2

TABLE 2 (Cont'd)

4. Interpretations

Artefacts: discussion

A search through the literature reveals that the Meliadine-1 assemblage does not, in totality, closely resemble any other single Thule assemblage. The total assemblage does not place the site with the "early" Thule sites such as Naujan and Silumiut in the Northwest coast Hudson Bay area (dated c. A.D. 1200) nor does it suggest a specific link to the recent period in the Caribou Eskimo area. Many of the artefact categories in the assemblage have little spatial or temporal meaning for the following reasons: 1) some are widespread in the arctic with little or no change or modification through the Thule period and up to historic times - bola ball, fish needle, drill mouthpiece, snow probe, carved bone and ivory pendants and beads; 2) other elements lack standardization of form - skin-working tools, awls or probes, wedges, pegs and plugs and other easily fabricated tools; and 3) others which are broken or badly eroded and cannot be used for stylistic comparison - bird dart side prong, Thule 3 harpoon head.

There are some standard artefact types linking the assemblage to the Thule culture period. The Thule 2 type harpoon head and its variants are common finds on Canadian Thule sites (Mathiassen 1927, Vanstone 1962, McCartney 1971, McShee 1972, Taylor 1972). They are found at "early" sites (ca. A.D. 1100-1200), for example, Malerualik (Mathiassen 1927a: Pl. 82-1), Lady Franklin Point (Taylor 1972: Pl. VI a) and the Vaughn Site (*ibid.*:Pl. 1d). There is also a specimen similar to the Meliadine-1 head from a burial dated to historic times by McCartney (1971:Pl. 114J) - Burial 84 from Kamarvik. It seems that this form was retained up until the early or mid-nineteenth century (*ibid.*:333). The specimen from the

Meliadine-1 site does not have "early" attributes like lashing slots (it has lashing holes) or face-incised decoration and is therefore considered to be of a later Thule period.

The lance head from our assemblage seems to be morphologically similar to the small types found at Silumiut (McCartney 1971) except that the Silumiut lance heads had no side blade slots. The use of side blades is relatively rare in the Thule culture.

There is an arrowhead from Naujan that resembles our barbed specimen (Mathiassen 1927a:Pl. 9-I). Barbless arrowhead forms are found at early Thule sites (Silumiut, Naujan, Crystal II, Resolute, NW Greenland) and right up to the historic period in the central arctic. Most of our arrowheads (7/10 complete specimens) have obliquely cut tangs. Arrowhead tang style is not a particularly good criterion to use for chronological placement of a Thule assemblage. Both conical and obliquely cut tangs occur together throughout the Thule period but conical tangs predominate in early assemblages, while oblique tangs are more characteristic of later periods.

The knife handle types in the assemblage are also related to the Thule culture period. The snow knife handles from Meliadine-1 belong to two piece snow knives but this is not useful as a temporal indicator - they are found from early sites like Naujan as well as from ethnographic collections. Unilaterally-shouldered and two-shouldered types are found together at Silumiut so this attribute is also a poor temporal indicator. The specimen here is a square-ended type which was the type most popular at Silumiut and is also present at Naujan in low frequency. A man's knife handle with a flared distal end, something like the specimen in our collection, was found in an historic (1905-1910) grave in the Boothia Peninsula area (Vanstone 1962:Pl. VI 19). Ulu handles having a thick hand

grip with a lower tabular section and a carved blade slot are found from Thule sites such as Naujan, Silumiut, Pond Inlet, Cape Smith, Boothia Peninsula, NW Greenland, Barter Island and Pt. Barrow (McCartney 1971) and have also been mentioned by Jenness (1946:81) in the Copper Eskimo area and Rasmussen, (1931) from Malerualik. Two of the three ulu handles from Meliadine-1 are parts of composite ulu handles; one specimen is the grip section and the other is the intermediate part that the blade fits into. Counterparts of the former are illustrated from Ruin Island (Høltved 1944I:Pl. 22-6) and Kittigazuit (McGhee 1974a:Pl. 14, n). There are no illustrations in the literature of an intermediate piece similar to the specimen in Plate 31. The presence of composite ulus at the site place it in a "late" Thule period. "Generally compound ulus with bone or ivory intermediate pieces become more popular following Thule times and before metal occurred in such abundance that large metal blades could be attached with metal intermediate strips or tangs" (McCartney 1971:387).

Mattock heads are also generally present throughout the Thule culture. The style of mattock head with bilateral notching from Meliadine-1 is found from several sites - Naujan, Southampton Island, Comer's midden (Mathiassen 1927), Thule district (Høltved 1944I), Silumiut (McCartney 1971). There is one mattock head illustrated from Boothia Peninsula which is almost identical to the Meliadine-1 specimen (Vanstone 1962:Pl. III - 1). That site (Levesque Harbour) is thought to be the same age as Naujan (ca. A.D. 1200). Whalebone sled shoes are associated with the Thule culture and Boas (1964:122) reports them in use in the Central area at the end of the 19th century.

There are certain artefacts in the assemblage which suggests a more recent post-Thule date for the occupation of the houses at the site, for

example the iron blades, the copper and iron fragments and the Kaolin pipe bowl fragment. These artefacts intimate the historic period in the Caribou Eskimo area but, bearing in mind the Thule elements of the assemblage, the chronological placement would be during the historic Thule phase c. A.D. 1610-1775.

Regarding the lithic material found during excavation, all flakes and detritus, other than two chert flakes, are made of a white quartz or quartzite. It seems that these Thule people were chipping stone and using the unmodified flakes as cutting or scraping edges. This raw material is common on the Barrens (Harp 1961, Irving 1968, McCartney 1971) and McCartney (*ibid.*:539) has hypothesized that the quartzite pieces that he found at sites in the Chesterfield Inlet-Wager Bay region were carried out of the interior from hunting or trading expeditions. McCartney also found Dorset artefacts in the Thule component. He attributed all chert artefacts to Dorset manufacture and also found some diagnostic Dorset material made from white quartzite. In the Meliadine-1 collection there are two retouched chert flakes and a white quartzite end scraper that I hesitate to call Thule, and suggest that they belong to the Dorset culture. The Thule occupants probably picked these up from Dorset sites in the Rankin Inlet vicinity. The other flaked stone tools are not diagnostic enough to be called Dorset. Their occurrence on Thule sites is presently inexplicable. They are not generally thought of as Thule phenomena. Large quantities of flaked stone material are not reported from Thule sites except in the northwest and west coast Hudson Bay region.

On the basis of the artefacts recovered from the excavations at the Meliadine-1 site, we may consider that occupation of the houses occurred within the period A.D. 1610-1775, probably in the first half of the 17th century.

Subsistence and settlement patterns

Bone refuse from the midden excavations was predominantly that of caribou (87.0%). There was also some seal (4.1%), canids (2.9%), bird (4.2%), whale (1.2%), unidentified sea mammal (0.3%) and musk ox (?) (0.12%). The small amount of fish remains found is undoubtedly due to the cartilaginous nature of the fish skeleton rather than assuming that very little fishing was being done at the site, as many fishing tools were found in the artefact assemblage. The number of land mammal hunting and fishing weapons compared to harpoon heads used for sea mammal procurement is significant: 13 arrowheads, 11 fish barbs, one bird dart side prong and one lance head (which may have been used for caribou or seal hunting) and two harpoon heads. Although Mathiasen (1927a:27) suggests that the Thule 2 harpoon head with a blunt bone point and large barbs was used for animals like seal and beluga, it cannot be concluded that it was used only for marine mammal hunting. There is the possibility of this older form having been retained for use in a specific manner, in this case as a fishing harpoon since fishing seems to have been the main subsistence activity at the site. Mathiasen (1927b:14) notes that the Inuit at Iglulik were using type AIIa (thin, closed socket, no barbs or blades) for fishing.

From the artefacts and bone refuse, it would appear that the occupants of the qagmat were engaged in fishing near the mouth of the Meliadine River (at the time of occupation the river mouth may have been closer to the site or at the site) and in caribou hunting. Birds also played a role in the economy of the group and sealing must have been a marginal activity. The occasional musk ox may also have been hunted.

The nature of the economic pursuit of these late Thule people,

and the type of dwellings they were inhabiting, indicates that the site was occupied during the autumn season. Mathiassen (1927b:133) suggests that this kind of structure would only be occupied for a month or two in the autumn, after which suitable snow for snow house construction would be available. However, the possibility of a spring occupation, at which time the same resources could be exploited, in addition to the autumn occupation, should not be overlooked. I also suspect that the people would have stayed in these dwellings at the Meliadine River as long as it was economically feasible. Certainly, at times, this may have meant until January or February when an empty larder provoked movement to snow houses on the ice.

The dwellings themselves were probably re-occupied several times. This idea seems very reasonable since these were substantial structures and a lot of labour went into their construction. Rather than build new qaqmat upon their return to the fishing camp, the Thule people raised their skin tents over the old foundations.

Perhaps at this time it should be mentioned that the use of qaqmat supports the chronological placement of this component of the Meliadine-1 site during the transitional Thule phase. Qaqmat are recent features and do not appear in classic Thule times (McCartney 1971:319). The presence of snow knives and the snow probe section on the site indicates that snow houses were built and inhabited, perhaps, in the interior, after the fishing camp was left.

5. Summary

The Meliadine-1 site is a multi-seasonal site as evidenced by the types of dwelling remains - summer tent rings and autumn qaqmaq structures. The main economic pursuit at this camp was fishing. Caribou

hunting was also important with seals, birds, fox and musk oxen acting as supplementary food resources. The type of dwelling remains and the artefacts that have been recovered indicate that the site has been a favourite camp possibly from Thule times to recent historic times, including a transitional historic Thule phase. The heavy oval summer tent rings with sleeping platform area, and the qagmat, likely belong to this phase which we may date at ca. A.C. 1610-1775 in the Caribou Eskimo area.

2. Eskimo Point Collection

The National Museum of Man has small collections from the McConnell and Ferguson Rivers and the Churchill area. Very limited work has been done at Churchill; recent burials were excavated by Merbs (1964) and structures related to the Thule period are known from the area (Kenney 1932, Merbs 1964). The Ferguson River artefacts reflect caribou hunting and fishing as the main resource exploitation, but it cannot be definitely determined whether these artefacts belong to the historic Thule or recent Inuit culture: an antler fish spear side prong; a fish spear centre prong with multiple barbs on both lateral edges and drilled lashing holes; and three arrowheads. The arrowheads have conical knobless tangs; two have lanceolate blades and the third has a parallel-sided blade. There are no available descriptions of any associated surficial features.

Sentry Island, offshore from Eskimo Point, has been a popular habitation site in historic times. Birket-Smith observed recent Padlimut tents here as well as many former tent rings, qagmat, and four semi-subterranean house ruins. (Mathiasen 1927a). These ruins, as they are described, seem to be similar to the Meliadine-I ruins, especially with regard to the lack of whalebone and wood. Seal and walrus bones but no artefacts were recovered, although only one house was tested. The only

sizeable collection known from the southern coastal area of Hudson Bay may be derived from this site. The collection, reportedly made in 1914 by E.W. Hawkes, is labelled "Eskimo Point", and possibly comes from Sentry Island. A description of this collection, examined by the author in the National Museum of Man, Ottawa, follows.

A) SEA HUNTING EQUIPMENT

Harpoon Heads: 3 specimens.

Two of the specimens belong to Mathiassen's Thule type 4 category with closed sockets and dorsal spurs. The ivory specimen has a blade slot parallel to the line hole. The line hole is square and there are two pairs of bilaterally drilled lashing holes. The iron end blade is held in place by an iron rivet. Total length is 108 mm. The other Thule 4 harpoon head is made of antler. It is very thin and the dorsal surface forms a ridge. The line hole is square with lashing grooves running down to the socket and no lashing holes. The blade slot is at right angles to the line hole and a triangular iron end blade is held in place by an iron rivet. Blade length is 55 mm and head length is 90 mm. The third harpoon head is a bipointed bone/antler specimen, 215 mm long, with two gouged holes. Its designation as a harpoon head is questionable.

Harpoon Foreshafts: 3 specimens.

These are all bone/antler specimens, of rather crude manufacture, more or less conical in cross-section. All taper to rounded points at the distal end. One specimen has a single lateral line hole which is broken; another has two tiny lateral line holes, one above the other;

the third has a small central line hole and is scarfed at the proximal end. Lengths: 287 mm; 265 mm; 200 mm.

B) LAND HUNTING EQUIPMENT

Lance Heads: 3 specimens.

These are fixed lance heads of bone/antler material. One is a split piece of bone or antler with straight, parallel sides. The iron end blade is riveted onto the cancellous surface of the bone using two iron rivets. The blade is tanged and lanceolate and the sides of the tang converge toward the base. Blade length is 92 mm with a maximum width of 32 mm. There is a small lashing hole at the proximal end of the bone. Total length is 176 mm. The largest lancehead - 235 mm long and 22 mm wide - has a tapering tang. A lateral line hole is located just above the tang. Part of an iron end blade, that was likely triangular in shape, is held in place by an iron rivet. The third specimen is 135 mm long and has a wedge-shaped tang. There is a lashing hole at approximately the centre of the lanceolate body. The end blade is iron and part of the rivet hole is present.

Arrowheads: 5 specimens.

These are all bone/antler specimens with lengths ranging from 132 mm - 250 mm. Only one specimen has an oblique cut tang, straight parallel sides and no barbs. The others all have conical tangs but are slightly different in other attributes. There is one specimen having no spurs on the tang and a barbless blade. Another has no spurs but has one barb. A third specimen has one unilateral spur and is barbless but is fitted with an iron end blade 45 mm long. Finally, there is a multi-barbed arrowhead with two symmetrically opposed spurs on the tang. The

three pairs of bilateral barbs are symmetrically opposed.

Bows: 1 specimen.

C) FISHING EQUIPMENT

Fish Spear Centre Prongs: 2 specimens.

Both centre prongs are pointed at the distal end and have tapering wedge-shaped tangs for fitting between the side prongs. There is a drilled lashing hole in the centre of the specimens where the tang begins to taper. One is barbless (length: 205 mm) and the other has three lateral barbs, two on one side and one on the other (length: 244 mm).

Fishing Line Holder: 1 specimen.

This line holder is typical of Caribou Eskimo specimens described by Birket-Smith (1929a).

D) TRANSPORTATION EQUIPMENT

There is a fragment of a wooden kayak frame.

E) MEN'S TOOLS

Knife Handles: 2 specimens.

One specimen is an antler knife handle 110 mm in length and 25 mm in width, rectangular in shape with a suspension hole at the proximal end. The blade slot dimensions are 21 mm by 5 mm. The other specimen is made of wood and has an irregular shape at the proximal end but conforms to a more rectangular form at the distal end. It is 89 mm long and has rust stains in the blade slot.

Grooving Tools: 2 specimens.

Both specimens have rectangular bone/antler handles. Small, thin; iron blades are fitted into the distal ends of the handles. The tool is a type of grooving or carving implement. Blade lengths: 38 mm and 35 mm; blade widths: approximately 10 mm.

Snow Knife Blades: 1 specimen.

The blade is made of whale bone and belongs to a two-piece snow knife. There is an iron plate attached to the blade by two iron rivets. Four other tiny, drilled lashing holes are present. This plate was likely used to fix the blade to the handle.

Harpoon Ice Picks: 1 specimen.

This specimen is a harpoon ice pick made of bone. It is a triangular head with a rounded, blunt distal end. A shoulder separates the head from a wedge-shaped tang which has four drilled lashing holes. Length: 242 mm.

Snow Goggles: 1 specimen.

The pair is broken. They are fashioned from wood in the typical central arctic manner. The eye slits are fairly wide - 5.5 mm.

Snow Goggle Blanks: 2 specimens.

Both specimens are of wood and represent two stages of construction before completion. One blank has not been carved at all. For the other specimen, the nose facet is formed and the area behind the right eye is carved out. At this point in the construction the wood became too thin and broke. The blank was likely rejected.

F): WOMEN'S TOOLS AND HOUSEHOLD EQUIPMENT

Skin Working/Scraping Tools: 2 specimens.

Both tools are split antler, rectangular in shape, with rounded cortical surfaces and flat to slightly concave cancellous surfaces. These latter surfaces are worn. One specimen has four drilled holes, the other has a single hole in the centre.

Snow Beater: 1 specimen.

This specimen is made of wood. The distal tip is broken and the incomplete length is 410 mm. It has a unilateral knob at the proximal end for hafting.

Ladles: 3 specimens.

Two of these ladles are made from musk-ox horns and one is wooden. All three are made along the same style of those described in Birket-Smith (1929a). These specimens are small ladles.

Vessel Fragments: 2 specimens.

One fragment is very small and tells nothing of the shape or size of the vessel. The other is nearly complete but in poor condition. The vessel consists of an oval bark wall piece or retainer rim with square perforations along one edge. The bottom of the vessel is wooden, oval in shape and slightly hollow. There are two square ivory pegs in situ in two of the perforations, designed to hold the wall piece to the base. The length of the vessel bottom is approximately 80 mm.

G) MISCELLANEOUS

Drum Stick: 1 specimen.

The handle section of this wooden specimen is 142 mm long and has a knob at the proximal end. The head of the drum stick is 182 mm in length.

The collection also included a few unidentifiable pieces which will not be discussed. The obvious problem with this collection is that the provenience of the artefacts is not known and therefore assigning the collection to one culture is difficult and perhaps not justifiable. However, the overall appearance of the specimens in the collection indicates a temporal placing at c. A.D. 1700-1900. Although there are a few elements which tend to link the collection to the Thule period (such as the Thule style of harpoon heads, the two-piece whale bone snow knife blade, and arrowhead styles) there are reasons for ascribing it to the late historic Thule or recent Caribou Eskimo period. First, iron is used often and in various ways. Secondly, the styles of certain artefacts and the presence of implements not found in a typical Thule assemblage serve to bear out this hypothesis. The harpoon heads, although basically belonging to the Thule type 4, have square line holes and are of a more recent style. The musk-ox horn ladles and the wooden fishline holder are also later elements in the collections. Some of the specimens described here are manifested in other central arctic historic Inuit sites. From the Netsilik River Graves on Boothia Peninsula there is a grooving tool of the same style as the one in the Eskimo Point collection (Vanstone 1962:53-10). This tool is also found in the Copper Eskimo area (McGhee 1972:90h). Arrowheads with iron end blades occur in historic assemblages (Vanstone 1962:52-9, 11, 16; 57-3, 7; McGhee 1972:82f).

as do centre prongs very similar to the Eskimo Point specimen (McGhee 1972:87b). It seems reasonable to assume a date of c. A.D. 1700-1900 for this collection.

The archaeological evidence, especially that from Meliadine-1, suggests that at the beginning of the historic Thule phase, subsistence and settlement probably continued closely along the pattern of the modified Thule phase. Thus far, however, the best evidence for this phase is found in documentary sources of the early 18th century. These sources reveal that there seems to have been a reinstatement of whaling, at least on a small-scale and possibly only for the purpose of trading to the Hudson's Bay Company, or possibly to broaden the resource base.

The presence of Inuit living on the coast in the summer has been documented since 1717. In that year Knight saw people in umiak off Cape Eskimo and he reported that they came annually to build their boats. This trip must have been made during a period of open water. It is doubtful that the Inuit would have wintered at Churchill because the nature of the sea ice along the coast south of Eskimo Point is very poor for ice hunting methods. After the building of Fort Prince of Wales, the Inuit population was distributed north of Whale Cove. Summer trading voyages north from the fort after 1718 established the presence of these historic Thule people between Whale Cove and Marble Island. As during the modified Thule phase, the favourite coastal locations were on islands and promontories. Open water whaling and sealing from umiak, or "fishing" as Ellis (1748) put it, were the main activities at this time. The period during which these summer coastal activities were carried out appears to have been rather abbreviated. In 1747, Ellis noted that Inuit were numerous along that coast in the month of July. However, travelling down the coast to Churchill in August 1746, no natives were sighted.

Apparently, they had gone inland for the productive fall caribou hunt. Inland resources seem to have had a substantial role in the subsistence of the historic Thule Inuit. The people who wintered on Marble Island with James Knight in 1720-21 left the island to go inland in the early spring, before the ice broke up, presumably to hunt caribou and musk-ox. The Inuit encountered by Swaine at Chesterfield Inlet in July 1747 had quantities of fresh venison as well as an abundance of sea mammal oil (Ellis 1748).

Although the historic Thule people were doing some open water whaling, they did not pursue this activity in a particularly enthusiastic manner. From all accounts, the trade in whale products with the west coast Hudson Bay Inuit seems to have been inconsequential to the Hudson's Bay Company (Robson 1965, Williams 1969). Robson and Andrew Graham attributed this to the irregular arrival of the Company's trading sloop to Whale Cove and other coastal places. The Inuit were never anxious to wait long for the vessel, and by the beginning of August had usually left the coast in order to hunt caribou in the interior as previously mentioned. Presumably, fishing for char at stone weirs was still an important part of the annual round.

There is no evidence to substantiate the kinds of winter subsistence activities at this period, but it may be assumed that these were similar to the winter cycle of the modified Thule phase; concentrated settlement on the sea ice exploiting sea-mammal resources.

Dwellings were probably similar to those of the modified Thule phase - skin tents, snow houses and qagmat with substantial foundations in the intermediate seasons.

Trapping had not yet become a dominant aspect of the seasonal round by the end of the historic Thule phase. As mentioned in Chapter 1,

the Hudson's Bay Company relied on the Athapaskans for furs at this time, and the Inuit supplied only caribou hides and some wolf skins as well as oil and baleen. At the end of the historic Thule phase, a few Inuit had begun to travel to Churchill where they were taught to use fire-arms, and annual trading journeys were initiated.

The Caribou Eskimo Period

Sites representing the Caribou Eskimo period in the Thelon River-Baker Lake area are poor in artefactual remains. Those artefacts which have been found do not add significantly to the range of materials known from ethnographic collections. The evidence of a chipped stone technology at these sites is notable, but probably made up only a small part of the total assemblage, which has now largely disappeared because of poor preservation conditions.

In 1964, Merbs (1964) carried out a survey in southern Keewatin and northern Manitoba with the intent of increasing the collection of Caribou Eskimo and Northern Indian skeletal remains. Twelve Inuit graves were located from four main focal areas: North Henik-Oftedal Lake, Baker Lake, Ferguson River, and Fort Prince of Wales. In the North Henik-Oftedal Lake regions, two burial sites consisting of five recent (within the past 100 years) Padlimiut graves were excavated. There were also surface features such as caches and tent rings. The associated artefacts included many European objects: a brass telescope with four extensions; a brass brow band; a needle case made from a brass rifle casing; a brass thimble; an enamel cup; and rifle shells. More traditional artefacts included: wooden hair sticks; wooden snow goggles; a bone bow drill shaft; a wooden snow beater; a man's knife with a wooden handle and an iron blade; a fishing line handle; and a wooden pipe bowl and stem

fragment. The Baker Lake site has one grave which probably belongs to a Qaernermiutaq. There were no associated artefacts.

Other scattered finds are reported from Griffin Lake, Dimma Lake, Kaminak Lake, and Ennadai Lake. This material was examined at the Archaeological Survey of Canada, National Museum of Man in Ottawa. Artefacts are few but again have a strong European element - iron lance point, a metal tube with flat spatulate ends, a drill shaft with a square nail bit, china fragments and a saw blade fragment. Other artefacts found in these areas are a wooden snow probe, an antler lance head, a wooden knife handle, a wooden fishing line holder and some flaked quartzite material.

Essentially, all of the information concerning Caribou Eskimo culture comes from historical accounts and the work of Kaj Birket-Smith, a member of the Fifth Thule Expedition. From these sources, the chronological placing of the Caribou Eskimo culture period and the nature of the seasonal round of activities can be determined.

Sometime near the end of the 18th century or the beginning of the 19th century, some groups of the west coast Hudson Bay Inuit population, began to inhabit the interior barren grounds on a year-round basis. This, according to our definition mentioned previously, was the beginning of the Caribou Eskimo culture period. Four geographic sub-groups were recognized within the major grouping of Caribou Eskimos (Birket-Smith 1929a), Qaernermiut, Hauneqormiut, Harvaqormiut and Padlimiut. As Birket-Smith points out, it is difficult to designate clear boundaries between these sub-groups. Nor is it desirable to do so on account of the social structure and exploitative pattern of aboriginal Inuit hunting groups. Membership may easily have fluctuated from one group to another with few if any, social repercussions.

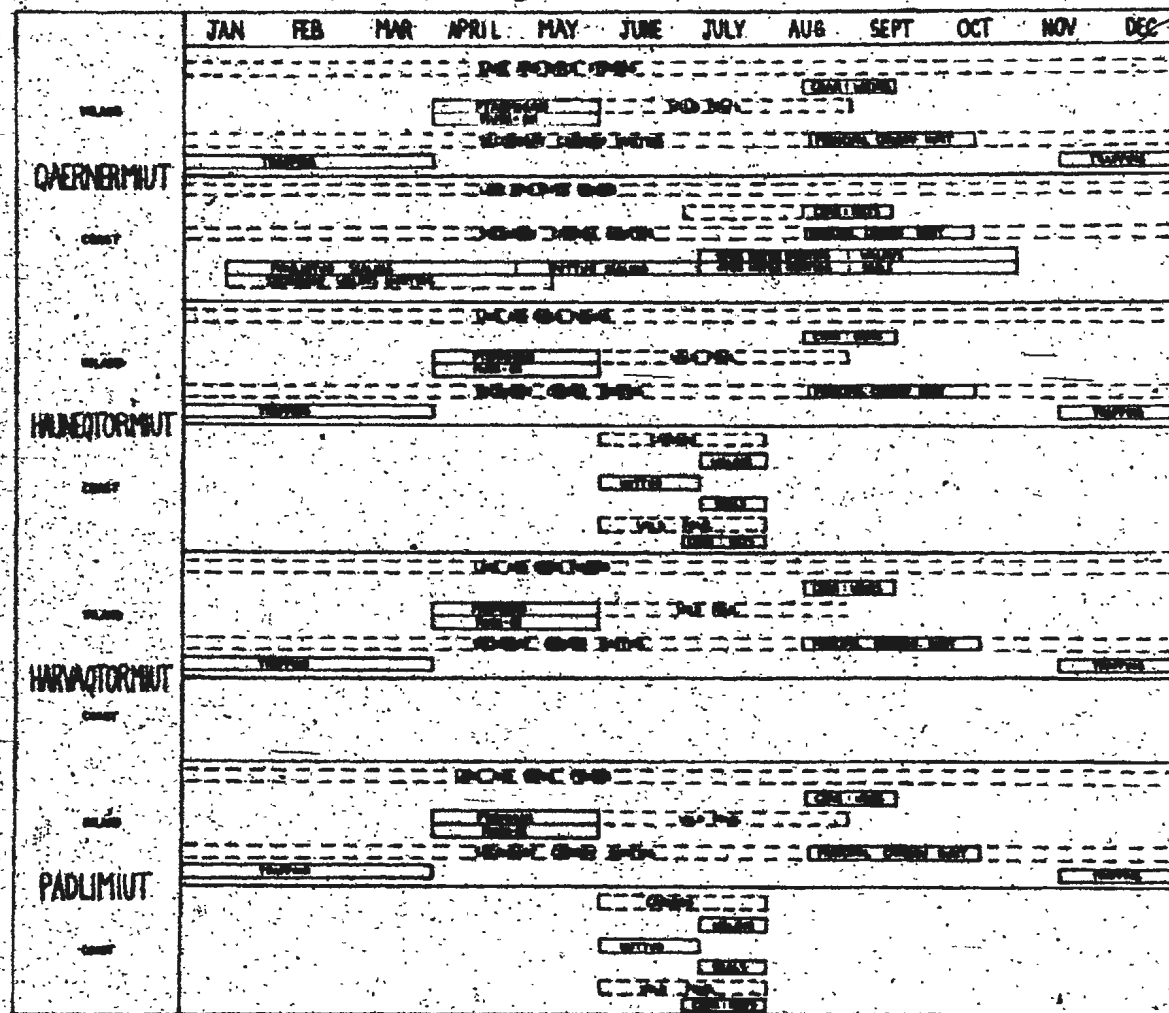


Figure 8: Caribou Eskimo seasonal round of activities.

Some families or bands of each of the sub-groups likely remained in the interior all year round, whereas others of these minor groupings would spend limited time at the coast and the remainder of the year inland. Among the Qaernermiut, one or two families would even spend the entire year at the coast. Figure 8 shows a simplified schematic representation of the seasonal round of economic activities for the four Caribou Eskimo sub-groups. The exploitative pattern for the coastal Qaernermiut is based on the seasonal round of the Iglulingmiut (Damas 1969).

The Qaernermiut, "dwellers of the flat land", were referred to as the Kinnepatoo in the early literature on Hudson Bay. They inhabited the area north and north-west of Rankin Inlet around Baker Lake and Chesterfield Inlet. Boas (1907) placed their numbers at 146 individuals in 1898. By the early 1920's, the population was counted at 90 individuals (Birket-Smith 1929a). "Dwellers where bones abound", the Hauneqtormiut, inhabited the area west of the coast between Rankin and Dawson Inlets towards the Kazan River. The Hauneqtormiut had a population of 54 in the early 1920's (*ibid.*). The territory of the Harvaqtormiut, "dwellers where rapids abound", was on the barrens in the region of the lower Kazan River. A population of 76 individuals had been estimated for this sub-group by Birket-Smith. The Padlimiut formed the largest of the Caribou Eskimo sub-groups with an estimated population of 212. They were found along the coast from Dawson Inlet to Churchill, inland to the tree line and in the upper reaches of the Kazan River. Inuit camps are rare, however, south of the Thlewajaza River (*ibid.*).

The seasonal round of the Caribou Eskimos seems to have been centred around hunting caribou and trapping. An account from 1879 states that "The Kinnepatoos, who inhabit the shores of Hudson's Bay in

the vicinity of Chesterfield Inlet and its tributaries, are the only tribe I know of who live almost exclusively upon the reindeer. Indeed, they only kill a sufficient number of walrus and seal to provide them with shoes and gloves for summer wear (Gilder 1966:181). This statement is, indeed, applicable to all the Caribou Eskimos. The winter was spent in the interior. Some bands or family groups of the Qaernermiut, Haunqormiut, and Padlimiut came to the coast for uuttuq sealing in the late spring, remaining for the open water hunting of seals and walrus in the summer. It was probably such a group reported in July 1846 when John Rae saw tents on an island in Knapp's Bay and saw smoke from fires at Whale Cove (Rae 1970). Walrus may have been less important south of Chesterfield Inlet. When Birket-Smith was in the area, open water hunting was done from canoes using rifles (Birket-Smith 1929a). Caribou hunting may have been carried on to some extent, as caribou were found at the coast, although the meat and skins at this time of the year are of poor quality. Wild fowl played a minor part in the subsistence but some birds were available in the summer months. Collecting activities such as egg gathering and berry-picking were pursued to a limited extent. At the beginning of August, the summer coastal groups left for the fall caribou hunt in the interior. In September 1893, the Tyrrells met a boatload of Qaernermiut in Chesterfield Inlet, moving inland from the coast for the caribou hunt (Tyrrell 1908). This was the principal hunt of the year and likely lasted until the end of autumn. The major char run also occurred during the autumn and intensive fishing at stone weirs, similar to the preceeding phases, was an important event. In the winter months, trapping for fox and other fur-bearing animals was avidly pursued, as winter pelts were valuable for trading. As for direct subsistence activities, caribou were hunted throughout the winter and freshwater

fishing, which played a stable role throughout the seasonal round, was heavily relied on. Although there does not seem to have been a particular season during which the Inuit sought musk-oxen, it may have been in spring, during times of food shortage, that this animal was hunted. The Qaernermiut whom Gilder met near Baker Lake in January 1879 hunted musk-oxen annually in the spring. The Tyrrells traded for musk-ox skins on their trip across the barrens in the summer and met a family of Harvaqtormiut, or possibly Qaernermiut, who were hunting musk-ox near Wharton Lake. Due to legal restrictions, musk-oxen have not been hunted since the 1920's.

Among the Qaernermiut were one or two families who lived year-round at the coast in a similar manner to the neighbouring Aivilingmiut and the former Thule population. These people had a heavier reliance on sea-mammal resources, mauliqtuq sealing during the winter, uuttuq sealing in spring and open water hunting of seals and walrus from boats in the summer. Secondary walrus hunting was also carried out during the season of mauliqtuq sealing. More recently, nets were set for char feeding offshore in the summer. Presumably caribou were also hunted as a secondary subsistence activity.

Trade with Europeans was always important to the Caribou Eskimos. Between 1790, when the Hudson's Bay Company ceased its northward trading voyages, and the early 1900's when other coastal and inland posts were established, the Caribou Eskimos had to journey to Churchill in order to trade. Most groups likely made this trip either in the late spring, when sled travel was still possible, or during the open water period for boat travel. Some of the more southerly Padlimiut found it convenient to travel 300 miles to Reindeer Lake in Saskatchewan, however these visits were discontinued after 1914 (Harper 1964).

The presence of whalers at Marble Island after 1860 attracted the Aivilingmiut from north of the Caribou Eskimo area, as well as some Qaernermiut, to trade and work at the ships in summer and winter, but it was predominantly the Aivilingmiut who came. In January 1878, Aivilingmiut from as far north as Whale Point on Roes Welcome Sound passed Schwatka's camp on Depot Island on their way to winter trading at Marble Island. Winter trading was common in years when the ice conditions were stable between the mainland and Marble Island. An important consequence of the contact with whalers was the introduction of wooden whaling boats which became a substitute for the umiaq. Umiaq were abandoned in this area either previous to the whaling contact or as a result of it; whichever the case, Ellis' report of 1748 is apparently the last to mention the skin boats.

Some Inuit of the interior had never traded directly with Europeans, although they possessed European items through trade with other Inuit (Tyrrell 1908). The archaeology and ethnography of the Caribou Eskimo reveals that their material culture had a strong European element reflecting a critical dependence on these trading activities.

Population Expansion Along West Coast Hudson Bay

Archaeological sites are known to be scattered along the coast and in the interior from Chesterfield Inlet to Churchill, indicating a continuous occupation of the area from Thule to contemporary times. During the Caribou Eskimo period, since 1775, the whole of this region has been occupied by the Inuit. This is not true for the Thule period (see figure 9).

Evidence based on available collections and a few excavations

	Repulse Bay- Roes Welcome (coast)	Chesterfield (coast)	Baker Lake- Thelon (coast)	Rankin (coast)	Coast Rankin- Churchill	Southern Interior
classic Thule (A.D. 900-1200)	Naujan					
modified Thule (A.D. 1200-1610)	Kamarvik Kulaituifavik Inuksivik	Silumiut Igluligardjuk	LbLa-13, BI-8 Ch, SI-9, BvL-2 SI-2c, SI-4			
historic Thule (A.D. 1610-1775)	Kamarvik Kulaituifavik Inuksivik	Silumiut Igluligardjuk		Meliadine-1 +	Eskimo Pt. +	
Caribou Eskimo	+	+	+	+	+	+

+ indicates presence of archaeological sites and historic accounts (see Table 1)

Figure 9: Archaeological evidence for Inuit occupations of western Hudson Bay.

tends to place the Thule occupation of the Caribou Eskimo area at c. A.D. 1200-1775. Along the coast, early Thule sites are only found in the northern-most Caribou Eskimo area, in fact, there is only one site in this area, Igluligardjuk, dated as early as A.D. 1200. There is no archaeological evidence, so far, to indicate a Thule occupation south of the Chesterfield Inlet area before the century preceeding the historic period which began in 1610. The artefact assemblages and collections from the area do not appear to be as early as those from Igluligardjuk, Silumiut or any of the northwest coast assemblages, but rather show some relationship to the historic period. Unfortunately, the few artefactual remains from both interior and coastal tent ring sites limits interpretations to the fact that people were there, and to hypotheses about the nature and season of the site occupations. We can glean some information about settlement and subsistence patterns but very little else. The paucity of artefactual finds persists from Thule to contemporary Inuit occupations. Excavations of semi-subterranean house ruins from the Thule period are more rewarding and the Meliadine-1 assemblage begins to give us a picture of the material culture of the transitional Thule phase and offers some criteria for relative dating. At any rate, Rankin Inlet supported a Thule population by at least the first half of the 17th century, and sometime before 1700 the Thule people had reached Churchill. It does not seem likely that any evidence of an extensive Thule occupation of the coast south of Eskimo Point will be found. The coastline and ice conditions are not particularly amenable to ice hunting methods and other food resources would not necessarily attract the Inuit down the coast for hunting since the same resources were abundant to the north of Eskimo Point. Perhaps the occupation of this coast before the Caribou Eskimo period took the form of short seasonal forays to Churchill for wood,

rather than long-term hunting activities.

On the barren grounds, the Thelon River-Baker Lake area seems to have been occupied sometime during the modified Thule phase (A.D. 1200-1610). It has been suggested that this occupation occurred on a seasonal basis. The people, representatives of the coastal population, would have entered the region by way of Chesterfield Inlet and Baker Lake for the fall caribou hunt, and in order to collect wood (Harp 1961).

The archaeological evidence from southern Keewatin, taken with the evidence from documentary sources, specifically that of Hearne and Tyrrell which was discussed in the preceeding chapter, suggest that there was no Thule occupation of these parts of the barren grounds, possibly because the Inuit did not find it necessary to go inland to reach the tree line; at Churchill the tree line reached the coast. This suggests that Inuit moved into this area at some time after c. A.D. 1775 and formed the local population whose people came to be referred to geographically as the Padlîmiut.

Speculation, supported by the meagre archaeological remains and some early historical sources, prompts the following model for the expansion of the Thule population into the Caribou Eskimo area. The northern part of the west coast, between Melville Peninsula and Chesterfield Inlet, probably saw a north to south movement of a coastal Inuit population at around A.D. 1200. On the basis of artefact comparisons and chronometric dating, McCartney (1971) has proposed that the people from Nauyas and other contemporaneous northwest coast sites were progenitors of the Silumiut people. It would then appear likely that the population represented by such sites as Igliligardjuk and Silumiut were subsequently the early progenitors of the Thule groups that occupied the Caribou Eskimo culture area. The occupation of the west coast of Hudson Bay south of

Chesterfield and as far as Eskimo Point, therefore came about as the result of a southward migration of people from the Roes Welcome Sound area after A.D. 1200. Causes of this migration can only be speculated upon but may have involved such factors as population pressures or a shortage of food resources.

The occupation of the barrens in the Thelon River area was initiated after A.D. 1200 when the resident coastal people made seasonal trips to the interior to take advantage of food and fuel resources. Extensive occupation of the coast between Eskimo Point and Churchill and year-round habitation of the barren grounds seems to have taken place only since c. A.D. 1775.

Archaeological evidence has shown that the barren grounds have always been a marginal area as far as cultural development is concerned. The interior has never been occupied on a continuous year-round basis except by some bands of Caribou Eskimos (Harp 1961). Nor has any one cultural group continuously occupied the barrens. Harp's four cultural traditions, including Paleo- and Archaic Indian occupations, show the varied and discontinuous habitation of these regions until the late 18th century. According to the archaeological evidence, none of these cultures originated or developed on the interior barren grounds (*ibid.*). Thus, there is no evidence to support Birket-Smith's hypothesis of a "proto-Eskimo" stage of Inuit cultural development in the area; it follows that the Caribou Eskimo cannot be the remnant group of this "proto-Eskimo" stage. Another origin for the Caribou Eskimo culture must be sought. It might be assumed that the Thule culture variant that is known to have occupied the area is ancestral to the Caribou Eskimo culture (Mathiassen 1930, Harp 1961). Archaeological evidence from the west coast of Hudson Bay has shown a continuous occupation from A.D. 1200 to the present.

Classic Thule (A.D. 900-1200) sites are limited to northern Roes Welcome Sound but modified Thule (A.D. 1200-1610), historic Thule (A.D. 1610-1775) and the Caribou Eskimo period are represented on the barrens and coastal region of west Hudson Bay. Because of the paucity of material culture remains from the transitional Thule period in this area, it is difficult to show the links between this Thule variant and the Caribou Eskimo culture. The presence of a strong European element in the material culture of the latter group adds to the problem. However, in the following chapters, I shall attempt to show that the development from the Thule culture to the Caribou Eskimo culture, as defined by Birket-Smith, occurred at a dramatic rate. An explanation will be offered to account for the development of the two major defining characteristics of the Caribou Eskimo culture: a unique economic orientation, and the stylistically "primitive" appearance of the material culture complex.

CHAPTER 3

CHANGE AND CAUSALITY: THE SEASONAL ROUND OF ACTIVITIES

This chapter attempts to define the nature of the cultural transition which occurred between the modified Thule and Caribou Eskimo phases of Inuit occupations along the west coast of Hudson Bay and in the adjacent barren ground area.

Settlement patterns and types of dwellings varied according to the season and pattern of resource exploitation. From the Thule period to the Caribou Eskimo period, several changes in these patterns are observed and are best discussed according to the season in which they occurred. Summer coastal sites have been located on promontories or on islands, from Thule to recent times. Skin tents were the common dwelling structure, used when the temperature was warm enough to make such living comfortable. More recently, canvas tents have been used by the Hudson Bay Inuit. There is one important change through time in the exploitative pattern during the summer season: whaling was not practiced by the Caribou Eskimos, whereas the historic Thule people hunted whales and traded the products to the Europeans. They also subsisted during the winter to a certain extent on their summer stores of whalemeat (Robson 1965).

There does not seem to have been any great change in the exploitative patterns during the autumn or spring seasons from the historic Thule to Caribou Eskimo period. Autumn was probably the time of year when the most permanent and concentrated settlements occurred at caribou crossings on lakes and rivers or at the stone weirs. Campsites were commonly located on high ridges, to serve as a look-out for game and for comfort, being dry and relatively insect free. Autumn was a very productive

season. Spring, to the contrary, has always been a period of food scarcity and settlement was likely very scattered. At times during these seasons qagmaq structures were used by both groups. However, rather than structures with heavy foundations of stone and turf, the Caribou Eskimo qagmat had ice and snow foundations covered by skin roofs (Birket-Smith 1929a).

A considerable change took place between the Thule and Caribou Eskimo periods in the winter cycle of the seasonal round. Concentrated settlement in snow houses on the sea ice, exploiting mainly sea-mammal resources, has been proposed as the winter pattern of the historic Thule people. This is a similar situation to that of the historic Aivilingmiut. With the exception of the coastal Qaernermiut, the Caribou Eskimos inhabited the interior during the winter, the predominant activity being trapping. Snow houses were located in low-lying areas where suitable snow could be found. In 1879, Schwatka commented that they were "...generally built in a deep snowbank, formed by the wind under the lee of a hill and bordering some fresh water lake that the Esquimaux know by certain signs has not frozen to the bottom" (Stackpole 1965:38). High ridges were wind-swept and free of snow. Group size at this time of year may have been small, with one or two families breaking camp occasionally to find better hunting and trapping grounds.

Four factors may be isolated and discussed in attempting to explain the final transition from the economic orientation of the Thule culture to that of the Caribou Eskimo culture: climate; change in dietary preference; trapping and trading; and use of fire-arms.

There is no evidence for major changes in the climate or environmental conditions of Hudson Bay over the past two or three centuries. Climatic change does not appear to have played a major part in the basic

changes in exploitative and settlement patterns between the historic Thule and Caribou Eskimo periods, as it may have done at an earlier time. The end of the classic whale hunting Thule culture, c. A.D. 1200, has been attributed to a climatic deterioration which interrupted whaling because of ice expansion which subsequently caused migration difficulties for the whales. At this time, the Inuit shifted their economic reliance to inland resources, caribou, musk-ox and fish and smaller marine mammals (McGhee 1970, McCartney 1971). The archaeological evidence from the modified Thule phase (A.D. 1200-1610) supports this suggestion. Despite the evidence for a decline in whaling, whales must have entered the area at least sporadically throughout the transitional Thule period. The presence of whales in abundance, including the baleen whales at Marble Island and Roes Welcome Sound and belugas south as far as Churchill River, has been clearly documented during the historic Thule phase (A.D. 1610-1775) and later. Documentary sources also relate that the Inuit population during this phase had, to a limited extent, taken up whaling again. Perhaps the reinstatement of whaling came about as a means of broadening the resource base of the Thule economy which had diversified, and possibly had become unstable, since the classic Thule phase. Otherwise, perhaps the possibility of trading with the Europeans influenced the reinstatement of whaling. Nevertheless, the classic Thule whaling pattern was never fully revived due to European contact and perhaps to what may be referred to as a change in dietary preference.

Although the Thule people have been mainly seen as a marine-oriented group, they have probably always had an interest in the caribou as a food resource at certain times of the year. When the decline in whaling forced a greater reliance on caribou and other land mammals, it

is possible that this economic pursuit was considered more desirable than was whaling. Certainly the physical risk involved in hunting caribou from a kayak or by bow and arrow on land was not as high as that involved in open water whaling. The Inuit may have considered caribou meat more desirable gastronomically, as well. At least among the recent Caribou Eskimos it was preferred. "Sea mammal meat was not too much liked, however, and, when there was caribou meat in the camp, the sea mammal meat was as a rule used as dog feed" (Birket-Smith 1929a:137). Certainly the year-round abundance of caribou on the barrens and coastal area of west Hudson Bay would have facilitated the adaptation to a more intensive pursuit of this resource.

The introduction of fire-arms in the 1770's may have made year-round habitation on the barren ground possible for the first time. Without fire-arms, we might suspect that the Inuit could not have survived the winter on the barrens, although at other seasons of the year subsistence activities in the interior could be effectively carried out using aboriginal technology. The lack of fire-arms before the 1770's may have been the chief cause for the abandonment of the interior during the winter. With snow covering the ground the Inuit found it almost impossible to get close enough to caribou to use the bow and arrow (Gilder 1966). Their bow was not very effective at a distance greater than 20 m and observations indicate that the Aivilingmiut and Iglulingmiut were only 12 paces from caribou when they used a bow (Birket-Smith 1929a). Contrary to the "Kinnepatoo" who lived almost exclusively on the meat of the caribou, Gilder noted that "The Netchillik and Oókjoolik tribes live mostly by sealing, and as they are not provided with fire-arms find it almost impossible to kill reindeer when the snow is on the ground" (Gilder 1966:181). As a consequence of obtaining rifles, the Inuit

eventually gave up the use of kayaks for hunting swimming deer in the interior (Birket-Smith 1929a). John Rae reports a group of Inuit whom he met in 1846, that "consisted of ten families, their hunting grounds being situated on the borders of Chesterfield Inlet, where they spear a great number of deer whilst swimming across in autumn" (Rae 1970:27). This implies that the disuse of kayaks may have occurred in the last half of the 19th century.

The waning animosity between the Indians and the Inuit in the 1770's is probably partly attributable to the Inuit acquiring rifles which put the two groups on an equal footing. This, and the abandonment of the barren grounds by the Chipewyans around this time undoubtedly made the barren grounds a more desirable area for Inuit occupation. The absence of Chipewyan occupation of the barren grounds, and the possibility of subsisting on caribou during the winter months may have been the crucial factors which initiated year-round habitation in the interior by some of the west coast Hudson Bay Inuit.

The Inuit have traded with Europeans in Hudson Bay since the 18th century. Originally, the Hudson Bay Company depended on the Indians for furs; the Inuit providing only caribou and wolf skins and whale products. Towards the end of the 19th century, whale products faced a declining market and became relatively unimportant, in fact the Hudson's Bay Company had ceased its own whale fishery by 1867. A greater emphasis was placed on trapping, and after the introduction of rifles, the Inuit were able to exploit the interior trapping ground during the winter when the pelts were most valuable for trade. Wolf and wolverine were also hunted for their skins.

"The trading companies, in this area practically the Hudson's Bay company alone, have now brought about a change in the economy of the Caribou Eskimos which, without being

revolutionary as yet, has been of far-reaching significance. There has been a decided movement towards giving fox trapping a more prominent position... Intensive fox trapping, without simultaneous production of meat and skins for clothing, would be a curse to the Eskimos..." (Birket-Smith 1929a:101-02).

Indeed, the introduction of fire-arms and the emphasis on intensive trapping led finally to the breakdown of the Caribou Eskimo exploitative pattern. "It is not to be denied that the introduction of the rifle and binoculars have lightened the work of the caribou hunter; whether this is a permanent advantage is, on the other hand, another question. These foreign inventions have also served to make individual hunting more prominent than was previously the case;" (Birket-Smith *ibid.*: 106-07), and probably also affected the settlement patterns and the size of groups found on the barren grounds. In the 20th century, the Padlimiut of the upper Kazan River had an annual range that extended only a few miles along the river and to some lakes close by. Further travel was apparently unnecessary in years of normal caribou abundance (Harper 1964). Trapping probably also limited the range of the barren ground Inuit, restricting small groups to an area where they could regularly check the traplines.

The 20th century saw a probable reduction in the Inuit population on the barren grounds as a result of periodic starvation. The years 1919, 1946-47, and 1950 have been recorded as starvation years (Harper 1964) and it is possible that small local groups suffered from starvation at other times. An example of population reduction can be cited from the upper Kazan River Padlimiut who numbered 40 individuals in 1917, 30 in 1941-42, 27 at the beginning of the 1946-47 winter but by the end of that winter, their numbers were reduced to 19 (*ibid.*:16). As Birket-Smith had foreseen, intensive fox-trapping and neglect of subsistence

pursuits was involved in some of the starvation cases. The upper Kazan River band missed the caribou migration in 1950 (ibid.). Reduction in the numbers of barren ground caribou was a principal factor in starvation. This has been attributed to indiscriminate slaughter, feeding unnecessary dogs on caribou meat, and wolf predation (ibid.:52). Undoubtedly, the availability of greater quantities of ammunition is a causative factor in this reduction of the caribou.

Since 1950, the government has stepped in and relocated the barren ground Inuit at coastal locations to save them from extinction. This step essentially ended the development of the Caribou Eskimo culture.

CHAPTER 4

BIRKET-SMITH AND THE PROTO-ESKIMO THEORY: CULTURAL PRIMITIVITY OR CULTURAL DEGENERATION?

Several schemes of Eskimo cultural development have been suggested by scholars over the past 200 years and have been discussed at length in the literature on arctic cultures (Birket-Smith 1929b, 1959, Mathiasen 1930). Some of these early theories considered the Eskimo culture to have originated on the central barrens to the west of Hudson Bay. Compared to other arctic cultures, the central arctic Inuit had a strong inland orientation and this impressed early scholars as being a primitive characteristic. As time went on, these old developmental schemes were revised and updated in accordance with new archaeological and ethnographic evidence. The most recent version of these theories is the "proto-Eskimo" theory expounded by Birket-Smith (1959). Four stages of development are proposed in this theory:

a) proto-Eskimo: this stage is represented by a population occupying the interior regions from Alaska to Hudson Bay. Birket-Smith places the Denbigh culture of Alaska in this stage.

b) palaeo-Eskimo: an adaptation to the sea emphasizing seal and walrus hunting characterizes the palaeo-Eskimo stage. The culture, which included Ipiutak, Sarqag (including Pre-Dorset), and Dorset, was carried eastward by a population from Alaska.

c) neo-Eskimo: after the palaeo-Eskimo stage, a new culture (Thule) based on intensive whaling spread eastward across the arctic. This adaptation to whaling is said to have occurred due to a warming climate.

d) eschato-Eskimo: an upheaval of the land restricted the migration

of whales and caused a decline in whaling. At this time, the survivors of the inland proto-Eskimo culture advanced to the central arctic coasts, replacing the neo-Eskimo (Thule) populations there.

Of these four developmental stages, the proto-Eskimo and eschato-Eskimo stages are of particular interest to this thesis.

Mathiasen (1930) offered an alternative for the development of the central arctic Inuit cultures. His theory proposed that the recent populations of the central arctic had a Thule ancestry and that their cultures had developed at the coast in situ rather than as the result of population replacement by the advance of an inland group. Such a development has been suggested for the Iglulik, Netsilik and Copper Eskimos (Mathiasen 1928, Vanstone 1962, McGhee 1972). Birket-Smith, however, was particularly concerned with the Caribou Eskimos whose material culture and exploitative patterns, he felt, characterized them as the most primitive group in the circumpolar region. It was obvious to Birket-Smith that the Caribou Eskimos were the "representatives of an ancient culture layer" (Birket-Smith 1959:202), that is, the proto-Eskimo stage. There is no archaeological evidence for a proto-Eskimo occupation of the central barrens and although a Thule culture ancestry for the Caribou Eskimos has been generally accepted, a lack of archaeological work in the area has precluded any definitive statement on the cultural development of the Caribou Eskimos.

A re-examination of the archaeological remains and the ethnographic evidence from the area has provoked new thoughts on the culture of the Caribou Eskimos. No one has attempted to explain just where Birket-Smith went wrong in his interpretations of the Caribou Eskimo culture. His ethnographic work among these people is surely excellent and his observations on the "primitive" appearance of Caribou Eskimo material

culture were, as will be shown, well-founded. However, it would appear that there were two possible explanations to account for the nature of the Caribou Eskimo culture, that is, in terms of cultural primitivity as a remnant of the oldest Inuit culture, or in terms of cultural degeneration. Birket-Smith chose cultural primitivity as a working hypothesis and went on to base his developmental scheme on the Caribou Eskimos.

"If we are to explain the conditions of the culture of the Caribou Eskimos from the situation, we must, however, disregard the penetration of our civilization in post-Columbian times. It is the conditions as they were prior to 1492 that have left the deepest traces in these regions" (Birket-Smith 1929a:33). The present thesis, however, takes the stand that the "primitive" appearance of the Caribou Eskimo culture is a result of rapid cultural deterioration rather than cultural antiquity. I shall attempt to show that three hundred years of culture contact with the Europeans caused major changes in the aboriginal exploitative and behavioural patterns, and has subsequently influenced the degeneration of the traditional elements of the material culture of the west coast Hudson Bay Inuit.

Caribou Eskimo material culture can be discussed from two aspects. One of these is concerned with the characteristic technological elements of the sea-mammal oriented Inuit groups that are missing in the Caribou Eskimo complex, and was quite thoroughly dealt with by Mathiassen (1930). The other aspect involves a deterioration of art and traditional technology.

A continuous decline in art and basic craftsmanship is apparent since the classic Thule phase in the central arctic, and it is particularly interesting that the lowest standards were reached by the Caribou Eskimos. Mathiassen (1930:606) noted "the general degeneration in artistic ability and craftsmanship which has taken place in the central regions since the time of the Thule culture." The following brief

summary of the Thule and Caribou Eskimo periods includes the economic and settlement patterns, as detailed in Chapter 2, and relates this to evidence of technological and artistic decline.

In the Hudson Bay area, the end of the classic Thule phase (c. A.D. 900-1200) is represented at the Repulse Bay site Naujan, dated c. A.D. 1200. During the classic Thule phase there was economic specialization in the intensive exploitation of whales. At this time settlement was more sedentary than in the later transitional phases, with permanent winter whale bone houses characteristic of the phase. The craftsmanship and artwork of this phase, reflected in the carefully worked and often decorated tools is impressive in comparison with that of later arctic Inuit phases. The Y-line decoration is common on harpoon-heads from Naujan. Other designs such as rows of dots, lines and notches were also common on tools and on the finely carved, ivory combs. A large number of ornaments are found in the Naujan assemblage including pierced teeth, ivory and bone beads, well-carved drop pendants, some with several chain links, and slate pendants. Beautiful tingmiujag gaming figures "like swimming birds, flat on the underside, as a rule with a hole in the rear end, some of them with bird's heads, others with human upper body, often handsomely ornamented with rows of dots, are exceedingly numerous at Naujan..." (Mathiassen 1927b:117). Classic Thule culture at Naujan had a well-developed ground stone technology and very little use of metal.

The following modified Thule phase (c. A.D. 1200-1610) was one of diversification of economic activities based on caribou hunting, fishing, seals and walrus and of a more nomadic settlement pattern. The historic Thule phase (c. A.D. 1610-1775) was similar except for the addition of whaling on a small scale. Together, these two phases form a transitional phase throughout which there was a general trend towards

the deterioration of the technological elements of the culture and, it seems, a decline in artistic productivity. Although we must bear in mind the meagreness of artefactual remains from the transitional phase in this area, a comparison of the Silumiut (c. A.D. 1200) assemblage to the Meliadine-1 (c. A.D. 1600) assemblage and the southern Keewatin collections readily illustrates a decline in craftsmanship through this phase.

The Silumiut artefacts show, generally, that greater care was taken in the manufacture of tools. This is especially noticeable in the category of bone/antler arrowheads, which has the largest number of specimens for comparative purposes. The arrowheads from Meliadine-1, Eskimo Point and the other collections, except for one or two specimens, are of crude manufacture and are stylistically simpler, especially with regard to the tang forms, conical tangs lacking knobs, or oblique cut tangs. A decline in the care and skill involved in making bone/antler foreshafts, harpoon heads, ice pick heads, and lance heads is also apparent.

At Silumiut and Igluligardjuk there is a limited use of metal. The presence of ulu handles with an intermediate piece (also at Meliadine-1) shows a change in style to accommodate metal end blades. The ground stone technology is still predominant, however. During the historic Thule phase, all the former stone cutting edges were replaced by metal blades.

As far as artwork is concerned, tingmiujaq, drilled teeth and several ornamental objects are found in the modified Thule phase represented at Silumiut. There is one drilled tooth pendant but no tingmiujaq so far recovered from Meliadine-1 and perhaps a simplification of art-forms is reflected in the single link pendant compared to the multi-linked

pendants of early phases of the Thule culture. There is a carved ivory comb fragment from Silumiut and an ivory winged needle case from Igluli-gardjuk, neither of which categories apparently have been found further south in the Caribou Eskimo area. Some harpoon heads at Silumiut have the Y-line design, but none of the harpoon heads from the historic phase are decorated.

Only a few specific examples have been cited but a look at the assemblages is enough to conclude that, generally, Silumiut and Igluli-gardjuk display a higher quality of craftsmanship than, for example, Meliadine-1 or the Eskimo Point collection. In all probability, this technological degeneration could be used as a relative indication of the chronological placement of Thule assemblages. The Meliadine-1 assemblage and more particularly the southern Keewatin collections also lack many of the elements which make up a typical Thule assemblage like that from Silumiut, for example, a ground stone technology, tingmiujaq, decoration on tools, winged needle cases and ivory combs, and knobbed arrowhead tangs. There are undoubtedly more artefact categories to be included here when more archaeological work has been carried out between Chesterfield Inlet and Churchill.

Finally, during the Caribou Eskimo period, there was a return to economic specialization, this time in the hunting of caribou and, later, to a commercial specialization in intensive trapping. It also seems as though the settlement pattern may have been less nomadic than the previous Thule period. The Caribou Eskimo culture, however, displays no art and the crudest craftsmanship of the neo-Eskimo stage, as Birket-Smith accurately observed.

Mathiassen (1930) offered an environmental explanation for the lack of art in the Caribou Eskimo culture, in accordance with the shift

in economic orientation from sea-mammals to an exploitation of inland resources. He felt that musk-ox horn and antler were appreciably inferior raw materials when compared to ivory. Thus, the ornate ivory combs, thimble holders and needle cases from typical Thule assemblages have become mundane bone and antler objects or have even been eliminated in the Caribou Eskimo culture. Similarly, the elaborately carved ivory bird gaming figures have their counterparts in the Caribou Eskimo culture as dice made from caribou foot bones (Mathiassen 1930). In truth, most of the outstanding artwork and ornamentation from the Inuit culture tradition has been done in ivory, but although the change in exploitative patterns affecting the raw materials may have affected the quality and quantity of design and elaboration, it really doesn't account for the deterioration in the manufacture of day-to-day weapons and utilitarian equipment since the classic Thule phase. The parallels that exist between classic Thule and Caribou Eskimo exploitative patterns, that is, economic specialization and relative sedentariness, illustrate that this variable does not seem to be a direct causation of the cultural degeneration that has occurred.

In a recent study of artistic productivity and technological degeneration in the Eskimo culture tradition, McGhee (1974b) found that no simple correlation exists between the degree of artistic productivity/craftsmanship and the nature of economic and settlement patterns. It was proposed that Eskimo behavioural patterns served as intervening variables affecting the deterioration of material culture. The Inuit behavioural pattern is a complex but salient factor involved in the explanation of cultural degeneration in the case of the Caribou Eskimos. As applied here, the term includes many interrelated variables having to do with value systems, the desire to conform and cultural awareness

(that is an individual's or group's attitude toward it's own culture). We must be aware of the role of this complicated factor in the historical processes affecting cultural degeneration even if we cannot determine the precise nature of the role itself.

McGhee (ibid.) presented a model involving a concept of craftsmanship and changing social values which is applicable to the west coast Hudson Bay situation and the Caribou Eskimo case, particularly with regard to technological degeneration. The model "sees the individual as allocating his time and propensity to craftsmanship in terms of the changing values of his society" (ibid.). The basis of this model lies in the postulate that an individual desires to channel his energy and abilities towards the things in which his society places the greatest value. Thus, if high value is placed on fine tool making, the sewing of beautifully patterned skins or elaboration of weapon heads, the individual will apply himself to these tasks. Conversely, if a low value has been placed on craftsmanship, this would be reflected by a deterioration in quality of the production of ordinary technological items. Changes over time in the Inuit value systems relating to technology could, therefore, be manifested archaeologically. Values relating to technology and craftsmanship may be loosely related to the economic, as well as to other cultural systems.

There is, however, an additional and important fact to be considered for this particular area, that is, European contact. It is proposed that the European presence has acted as a catalyst in the technological and artistic degeneration of the west coast Hudson Bay Thule and recent Inuit populations. Chapter 3 has shown that European contact had a profound effect on Inuit exploitative patterns during historic Thule and Caribou-Eskimo times. It may be suggested that the presence of Europeans

influenced the direction of the apparently changing behavioural patterns discussed above, particularly social values placed on craftsmanship, and cultural awareness, since classic Thule times in Hudson Bay. Birket-Smith (1929a:234-35) had this to say about the material culture of the west coast Hudson Bay Inuit:

"The Caribou Eskimos, and for that matter all Eskimos on the west side of Hudson Bay, rarely aim higher than making an implement useful, finish is a matter of no account, and a West Greenlander would be ashamed to use most of the implements with which hunting is carried on at Hudson Bay. The pleasure of creating attractive lines and well balanced proportions seldom appears over the mental horizon of the Caribou Eskimos...But it must in truth be added, that it has not become better since a semi-European meat-can culture has seen the light."

Despite the potency of the last sentence, Birket-Smith minimized the importance of the presence of Europeans on the west coast of Hudson Bay and seems to have regarded the presence of the Hudson's Bay Company for the last 300 years as inconsequential: "even if we disregard the slight contact which the establishment of the Hudson's Bay Company's post at Churchill has meant" (Birket-Smith 1929a:32). The following overview of the Caribou Eskimo material culture gives an idea of the degree of European influence that is involved in this case.

First of all, a loss of interest in traditional art and ornamentation is obvious. Neither the historic Thule nor the Caribou Eskimos decorated their tools. Scanty evidence from historic Thule sites in this area indicates little in the way of artwork. An ivory pendant with one chain link from Meliadine-1 shows that there was some interest during this period. Birket-Smith (1929) mentioned only two or three objects with design, and the ornate ivory needle cases were only known to the Qaernermiut but were scarcely used at the time of the Fifth Thule Expedition. Instead, moss cushions, pieces of deerskin and old cartridge casings

stuffed with sock remnants were used. The degeneration of ivory combs and tingmiujag to coarse bone or antler counterparts in the historic period has already been discussed. Ornamentation in the Caribou Eskimo period was done as bead embroidery, mostly among the Padlimlut, but this style was undoubtedly picked up from the Indians with whom the Inuit had regular contact at the trading post since around 1790.

A loss of interest in traditional culture elements and their manufacture, and a desire to obtain European objects seems to have been a predominant trend since earliest contact with Europeans. Many of the European goods served as substitutional elements for the traditional Inuit elements. Documented sources relate how iron from abandoned ships has been a highly prized possession since the 1600's. Metal was used increasingly as it became more available, replacing stone and bone technology- flattened nails became arrowheads, iron fish hooks and metal blades for all types of knives became common by the Caribou Eskimo period. Birket-Smith (1929a:79) observed that the snowknife made of bone or antler had "disappeared long ago among the Caribou Eskimos". He found that they were hafting butcher knives and other iron blades for snow knives. By the 1900's, sealing harpoon heads and foreshafts were made from iron. As they became more available, nails were also used in hafting, replacing old methods using lashing holes or scarfing and lashing. Steel sewing needles were very popular in the historic period, quickly replacing bone or ivory needles. Brass fillets, hammered out of old telescopes, were commonly fashioned into brow bands. The possibility that a concentration on metal technology, especially with the increasing availability of iron, affected deterioration in bone manufacturing technique is apparent and seems to be a more acceptable explanation than Birket-Smith's concept of primitivity. This concurs with the above-

mentioned model of craftsmanship and shifting social values, more value being increasingly placed on metal technology and less time and care taken to craft tools in bone or cutting and scraping edges in stone. Historic Thule artefact assemblages show a tendency for harpoon end blades, men's knife blades, some ulu blades, and some arrowheads to have been made of iron and a great proportion of the bone artefacts, including harpoon heads, foreshafts, arrowheads, scrapers and ice picks are of a rather crude manufacture.

Birket-Smith (1929a) observed that soapstone lamps were not often made but the Inuit frequently used naturally hollowed rocks. He interpreted this as a primitive trait but he also mentions that china-ware saucers were also used as lamps and by the 20th century a number of the people had primuses and hurricane lamps, so it would seem as though the European presence may have influenced the fading out of soapstone lamps in the Caribou Eskimo period. Other examples may be cited for the incorporation of European objects into the Inuit culture on an increasingly large scale. Wooden dishes and bowls were used "but now they have gone so much out of use in favour of meat cans and enamel bowls" (Birket-Smith 1929a:146). Similarly, spoons that were formerly made of musk-ox horn, antler or wood were abandoned in favour of cheap metal spoons. Padlimiut clothing was supposedly less well made than the Qaernermiut apparel (ibid.:200) however it was also observed that more Padlimiut used European cloth for their clothing (ibid.:193).

Several elements of the technological culture having to do with exploitative patterns have also been changed by European contact, and replacement elements from the European culture have been incorporated into the Inuit culture. Both the kayak and the umiag were abandoned and replaced by the canoe and the open whale boat. The kayak seems to have

fallen out of use for hunting swimming caribou by the time of the Fifth Thule Expedition and the last reference to the umiaq was possibly Ellis' in 1748. The whale boat was introduced by American whalers after 1860. Birket-Smith noted that the use of certain implements, present in the Thule culture, such as tower traps, bolas, and the bow and arrow were absent or declining in the Caribou Eskimo culture. There is archaeological evidence to indicate that tower traps and the bolas were probably used in early historic times (Linnaeae and Clark n.d.). The introduction of firearms c. 1770's and the later availability of steel traps from the Hudson's Bay Company, undoubtedly induced the disuse and abandonment of these features. The importance of fire-arms to the Inuit has already been discussed.

Only a few new, as opposed to substitutional, technological elements were introduced into the Inuit culture. Nets for fishing, net making, the fingered glove, cloth bags, and the plane on a European pattern were incorporated into Caribou Eskimo material culture (Birket-Smith 1929b).

Archaeological sites from the historic period and especially the Caribou Eskimo period are characterized by a paucity of artefactual remains, but there is always a heavy European element in the assemblages. Although Europeans have been trading with the Inuit since 1718, there are two periods which likely marked the increasingly availability of European goods previous to the 20th century - at the end of the 18th century when fire-arms were introduced and annual trading journeys to Churchill were initiated, and after 1860 when American whaling began in Roës Welcome Sound.

Whereas Birket-Smith almost ignored the influence of European contact in favour of a model of cultural primitivity, it actually seems that

the increasing availability of European objects affected the rate of degeneration of the Caribou Eskimo material culture. The reason that Birket-Smith attenuated the importance of European influence may be that he believed the Inuit to be more or less cultural absolutists, in other words, "Such a specialized form of culture is exacting. It is very selective towards the foreign influences which seek to leave their mark and does not uncritically absorb every element that comes along" (Birket-Smith 1929a:33). To the contrary, the west coast Hudson Bay Inuit have, since the historic period, shown a lack of conservatism towards the acceptance of foreign objects rather than an attitude of cultural absolutism.

It is now possible to present a model which attempts to show the mechanics of culture change in the Caribou Eskimo area. The model involves certain variables including Inuit behaviour, specifically changing social values which de-emphasized craftsmanship and art, a propensity to incorporate foreign elements into the material culture, changing economic and settlement patterns, and the European presence. These variables have subsequently affected the material and intellectual culture of the historic and recent Inuit in this area to an extent which caused Birket-Smith to base his general scheme of Eskimo cultural development on the "primitivity" of the Caribou Eskimo.

A change in social values with particular reference to craftsmanship has been effectively demonstrated in the deterioration of traditional technology from the end of the classic Thule phase. The factors influencing this change in values are rather nebulous. McGhee (1974b) suggests that changes in the value systems of a society may be caused or influenced by various sources such as "preferred subsistence patterns, ideas on ownership and accumulation or display of property, beliefs in

hunting magic, fear of ghosts and witches, expression of solidarity through conformity in manufacturing, and so on". Which of these may have influenced changes at the end of classic Thule times is difficult to speculate except that it likely had something to do with the change in economic and settlement patterns after a climatic change brought about the decline in whaling. After contact times, the presence of Europeans possibly directed these changing social values so that the Inuit became increasingly interested in obtaining European implements, food and weapons and they channelled their efforts towards this end as European goods became more and more available. At the beginning of the historic period, this was possible by trading whale products, however this activity was never profitable to either the Europeans or the Inuit since the trade did not amount to much. Having little in the way of commercial resources to offer the Company, the Inuit were unable to get a quantity of European trade goods. Furs, especially fox, were always worth more in trade value to the Company traders but we have already seen that before the Inuit had fire-arms they were unable to actively participate in this kind of trade. Perhaps the introduction of fire-arms, increasing sources of European goods, and the nature of Inuit behaviour patterns as they have been discussed, prompted an intensification of commercial resource exploitation, especially fox trapping. "It is the fox which enables the Eskimo to procure the luxuries of civilization..." (Birket-Smith 1929a:113). The outcome of all this was that many elements of the European material culture were incorporated into the Inuit material culture, thus accelerating the degeneration of the traditional technology of the Caribou Eskimos so that this group appeared to one ethnographer as the most primitive arctic culture. Indeed, perhaps Birket-Smith's observation that the interior Padlimiut

were the most primitive of the Caribou Eskimo sub-groups supports the argument presented here. This group probably had been in closer contact with Europeans than any of the others due to their proximity to Churchill and Reindeer Lake. They probably had the greatest opportunity of all the Caribou Eskimos to be influenced by the "meat-can culture". It has been said that the Hudson's Bay Company considered the Padlimiut to be the best fox trappers (Birket-Smith 1929a:100).

The above model of cultural change is relevant to the historic period on the west coast of Hudson Bay. However, there are at least two questions relating to prehistoric cultural development which remain unanswered: why did the social values relating to craftsmanship and art decline from the end of the classic Thule phase to the historic period; and why did the historic Inuit so readily accept European culture elements from the time of initial contact? We might compare, as did Birket-Smith, the Caribou Eskimos with the West Greenland Inuit who maintained an impressive aboriginal technology and adaptation despite equal duration and intensity of contact with Europeans.

The paucity of archaeological remains after about A.D. 1200 would seem to indicate that affluence was not a characteristic of west coast Hudson Bay Thule culture at this time. One may speculate that the Thule people may have been experiencing a failing economy, and may no longer have been able to maintain the viable cultural traditions of the earlier classic Thule population. We will never know what course the development of Thule culture in this area might have taken if it had not been interrupted by the arrival of Europeans. As McGhee (1975) has pointed out, the occupation of Arctic Canada by populations of the Inuit cultural tradition has been characterized by its discontinuous nature. The marginal regions of Arctic Canada in particular have been series of migrations

from a core area, followed by the cultural thriving of a thinly spread population for a period of a few centuries and ending in local population extinctions. The transitional Thule populations of the west coast of Hudson Bay seem to have fit this pattern.

The changing values which are reflected in the deterioration of material culture noted above, would seem most likely to be related to deteriorating economic conditions and changing subsistence patterns following the end of the classic Thule phase. The cultural processes involved in the relationship between economic conditions and values relating to craftsmanship are poorly known. We can only assume that such a relationship does exist, and that it may explain the situation apparent throughout the transitional Thule period on the west coast of Hudson Bay. The propensity of the historic Inuit of this area to accept and incorporate European culture elements may have been a further result of deteriorating economic circumstances. In contrast to Inuit populations living in more economically viable circumstances, who could maintain relatively unchanged aboriginal technological and adaptational patterns, the survival of west coast Hudson Bay Inuit may have depended on imitation and borrowing of European technological elements and involvement in a trading economy.

CONCLUSIONS

Birket-Smith defined the Caribou Eskimo culture on the basis of two major criteria: the uniqueness of the exploitative pattern, specifically the year-round habitation of the interior barren grounds and a reliance on caribou for subsistence, and the "primitive" appearance of the material culture. These observations led him to postulate that Eskimo culture tradition had an inland origin on the central barrens and that the Caribou Eskimos were the survivors of the oldest Eskimo culture, the "proto-Eskimos".

A model of culture change in the Caribou Eskimo area is presented as an alternative to Birket-Smith's "proto-Eskimo" theory. The model is built around three basic assumptions:

1. there was continuity between the Thule and Caribou Eskimo populations and cultures;
2. the "primitive" appearance of the Caribou Eskimo material culture was a result of a degeneration of aboriginal technology over the past few centuries;
3. the extension of inland residence over the winter months was dependent on the introduction of fire-arms, and the abandonment of the interior barren grounds by the Chipewyan population.

Archaeological evidence indicates that there was an on-going degeneration in technology since the classic Thule phase (A.D. 900-1200) which was initiated by certain historical processes including, probably, a change in social values affecting Inuit views on craftsmanship. It was proposed that the deterioration in the quality of manufacturing technique through time could perhaps be used to assist in the relative chronological placement of Thule assemblages. The technological

degeneration was also influenced by the acquisition of items of European technology.

The conclusion offered is that the origin of the Caribou Eskimo culture, as defined by Birket-Smith, occurred c. A.D. 1775 when the effects of culture contact between the aboriginal Inuit and Europeans caused a change in the Inuit exploitative and settlement patterns and subsequently accelerated the deterioration of the material culture of the west coast Hudson Bay Inuit.

BIBLIOGRAPHY.

Birket-Smith, Raf

- 1929a The Caribou Eskimos: I. descriptive part. Report of the Fifth Thule Expedition, 1921-24, 5(2). Copenhagen.
- 1929b The Caribou Eskimos: II. analytical part. Report of the Fifth Thule Expedition, 1921-24, 5(2). Copenhagen.
- 1959 The Eskimos. (Revised) London, Methuen.

Boas, Franz

- 1907 The Eskimo of Baffin Land and Hudson Bay. Bulletin of American Museum of Natural History, 15, New York.
- 1964 The Central Eskimo. University of Nebraska Press, Lincoln.

Christy, M.

- 1894 The Voyages of Captain Luke Foxe and Captain Thomas James. Hakluyt P., London.

Damas, David

- 1969 Environment, history, and Central Eskimo society. National Museum of Canada, Bulletin 230, Contributions to Anthropology: Ecological Essays, p. 40-64.

Davies, K.G. (Ed.)

- 1965 Letters from Hudson Bay 1703-40. London.

Dobbs, Arthur

- 1967 An Account of the Countries Adjoining to Hudson's Bay in the Northwest Part of America. S.R. Publishers Ltd. Johnson Reprint Corporation.

Douglas, R. and J.N. Wallace

- 1926 Twenty Years of York Factory 1694-1714. Jérémie's Account of Hudson Strait and Bay, trans. from French edition of 1720. Ottawa.

Ellis, H.

- 1748 A Voyage to Hudson's Bay, by the Dobbs Galley and California, In the years 1746 and 1747, for Discovering a Northwest Passage. London.

Gilder, Wm. H.

- 1966 Schwatka's Search. University Microfilms Inc. Ann Arbor.

Gordon, Bryan C.

- n.d. Thule culture investigations at Baker Lake, N.W.T. In press.

Hansen, Thorkild

- 1965 The Way to Hudson Bay, The Life and Times of Jens Munk. Harcourt, Brace and World, Inc., New York.

Harp, Elmer Jr.

- 1961 The Archaeology of the Lower and Middle Thelon, N.W.T. Arctic Institute of North American Technical Paper No. 8.

Harper, Francis

- 1964 Caribou Eskimo of the Upper Kazan R., Keewatin. Kansas University Museum Natural History, Miscellaneous Publication No. 36.

Hearne, Samuel

- 1971 A Journey from Prince of Wales Fort in Hudson's Bay to the Northern Ocean, 1769, 1770, 1771, 1772. Hurtig Publ. Co.

Holtved, Erik

- 1944 Archaeological Investigations in the Thule District. Meddelelser om Grønland, 141(1). Copenhagen.

Houston, C. Stuart

- 1974 To the Arctic by Canoe 1819-1821. The Journal and Paintings of Robert Hood, Midshipman with Franklin. The Arctic Institute of North America, McGill-Queen's University Press.

Irving, W.N.

- 1968 Prehistory of Hudson Bay: II. The Barren Grounds. In Science, History and Hudson Bay, (1) C.S. Beals, (Ed.) Department of Energy, Mines and Resources, Ottawa, pp. 26-54.

Jenness, Diamond

- 1946 Material Culture of the Copper Eskimos. Report of the Canadian Arctic Expedition, 1913-1918, 16, Ottawa.

Kelsall, J.P.

- 1968 The Migratory Barrenground Caribou of Canada. Department of Indian Affairs and Northern Development, Canadian Wildlife Service.

Kenney, James F.

1932 The Founding of Churchill. Toronto.

Larnder, M.M.

1968 Water and Ice: II. Ice. In Science, History and Hudson Bay (1), C.S. Beals (Ed.) Department of Energy, Mines and Resources, Ottawa, pp. 318-341.

Linnamae, Urve and Brenda L. Clark

n.d. The Archaeology of Rankin Inlet: a report of the first two field seasons, 1973 and 1974. In press.

Manning, T.H.

1951 A Mixed Cape Dorset-Thule Site on Smith Island, Eastern Hudson Bay. National Museum of Canada, Bulletin 123.

Mansfield, A.W.

1967 Seals of Arctic and Eastern Canada. Fisheries Research Board of Canada, Bulletin 137 (2nd revised ed.).

Mathiassen, Therkel

1927a Archaeology of the Central Eskimos: I. descriptive part. Report of the Fifth Thule Expedition, 1921-24, 4(1). Copenhagen.

1927b Archaeology of the Central Eskimos: II. the Thule Culture and its position within the Eskimo Culture. Report of the Fifth Thule Expedition, 1921-24, 4(1). Copenhagen.

1928 Material Culture of the Iglulik Eskimos. Report of the Fifth Thule Expedition 1921-24, 6(1). Copenhagen.

1930 The Question of the Origin of Eskimo Culture. American Anthropologist 32(4):593-607.

McCartney, Allen P.

1971 Thule Eskimo Prehistory Along the NW Coast of Hudson Bay. Unpublished Ph.D. dissertation, University of Wisconsin, Madison.

McGhee, Robert

1970 Speculations on Climatic Change and Thule Culture Development. Folk 11-12:173-185.

1972 Copper Eskimo Prehistory. Publ. in Archaeology No. 2, National Museums of Canada, Ottawa.

McGhee, Robert

1974a Beluga Hunters: An archaeological reconstruction of the history and culture of the Mackenzie Delta Kittingyumiut. Newfoundland Social and Economic Studies No. 13, Institute of Social and Economic Research, Memorial University of Newfoundland.

1974b Artistic productivity and technological change in the Eskimo cultural tradition. Symposium on Primitive Art and Technology, University of Calgary, Nov. 1974.

1975 An Individual View of Canadian Eskimo Prehistory. Canadian Archaeological Association's Annual Meetings, Thunder Bay, Ontario. March 1975.

Merbs, C.F.

1964 Field notes, photographs, and other data pertinent to the 1964 Field Season. Unpublished Manuscript No. 603, Archaeological Survey of Canada Archives, National Museums of Canada, Ottawa.

Murdock, J.

1892 Ethnological Results of the Point Barrow Expedition 9th Annual Report of the Bureau of American Ethnology, Washington.

Rae, John

1970 Narrative of an Expedition to the Shores of the Arctic Sea in 1846 and 1847. Canadiana House.

Rich, E.E.

1949 James Isham's Observations on Hudson Bay, 1743 and notes and observations on a book entitled "A Voyage to Hudsons Bay in the Dobbs Galley, 1749". Champlain Society, London.

Robinson, J. Lewis

1968 Geography of Hudson Bay: I. Regional Geography. In Science, History and Hudson Bay, C.S. Beals (Ed.), Department of Energy, Mines and Resources, Ottawa, pp. 201-235.

Robson, Joseph

1965 An Account of Six Years Residence in Hudson's Bay, from 1733 to 1736, and 1744 to 1747. Reprinted in U.S.A.

Ross, W. Gillies

1973 Whaling in Hudson Bay: Parts 1, 2 and 3. The Beaver.

Stackpole, E.A. (Ed.)

- 1965 The Long Arctic Search: The Narrative of Lieutenant Frederick Schwatka, U.S.A. 1898-1880, Seeking the Records of the Lost Franklin Expedition. Mystic, Conn.

Swaine, Theodore (Drage)

- 1748 An account of a voyage for the Discovery of a North-West passage, 1 and 2. London.

Taylor, Wm. E. Jr.

- 1972 An Archaeological Survey Between Cape Parry and Cambridge Bay, N.W.T., Canada in 1963. Archaeological Survey of Canada, Paper No. 1, National Museums of Canada, Ottawa.

Tyrrell, J.W.

- 1908 Across the Sub-Arctics of Canada. London.

Vanstone, J.W.

- 1962 An Archaeological Collection from Somerset Island and Boothia Peninsula, N.W.T. Royal Ontario Museum, Art and Archaeology Division, Occasional Paper 4.

Williams, Glyndwr

- 1962 The British Search for the Northwest Passage in the Eighteenth Century. Royal Commonwealth Society, Longmans.

Williams, G. (Ed.)

- 1969 Andrew Graham's Observations on Hudson's Bay, 1767-1791. Hudson's Bay Record Society, London.

Young, Delbert A.

- 1973 Killer on the Unicorn. The Beaver, winter, pp. 9-16.

