

North Bathurst Island Archaeological Project: Final Report

Robert McGhee
Canadian Museum of Civilization

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Executive Summary

The northern half of Bathurst Island has been proposed as the site of a National Park. At the time that this proposal was made, no systematic survey of the archaeological resources of the area had been undertaken. Several cairns and depots resulting from nineteenth century British exploration of the area were known to exist, but no prehistoric archaeological sites had been identified within the boundaries of the proposed park (Ebell and Dueck 1996).

In order to gain knowledge on prehistoric and historic use of the proposed park area, an archaeological survey was undertaken in July 1996. Helicopter survey was completed of an estimated 90% of coastal areas within the proposed Park; several interior valleys and transects were also surveyed. The coastal areas which were not surveyed were judged to be too unproductive to merit investigation. The area covered included most of the small islands off the northern coast of Bathurst and as far west as Helena Island; some of the islands in Bracebridge Inlet; and Alexander Island off the western coast. An attempt was made to visit Vanier, Massey and Cameron islands to the west, but was turned back because of weather. A walking survey covered most of the eastern coast of the island between Polar Bear Park National Wildlife Area, and the Nunavut Settlement lands to the north of Moses Robinson River.

Approximately 20 archaeological sites were recorded, but the majority of these lie in areas adjacent to the proposed Park, either in the Polar Bear Pass National Wildlife Area, or the Nunavut Settlement lands. The sites within the proposed Park area were limited to the northern shore of Bracebridge Inlet, and along the eastern coast to the south of the Nunavut lands. These sites, all of which were extremely small, represent all major periods of prehistoric occupation of the High Arctic, between approximately 4500 and 500 years ago.

The preliminary survey indicates that portions of the proposed Park area have been used, at least occasionally, by prehistoric peoples over the past 4500 years. These occupations seem to have been concentrated along the coasts of Bracebridge Inlet and the eastern coast of Bathurst Island. Occupations of other coastal areas, and of interior zones, were probably more ephemeral. This finding coincides with information from Inuit residents of Resolute Bay, who state that they or their recent ancestors probably only used the area to "hunt through" occasionally.

The project also visited most of the reported cairns and depots related to nineteenth century British travel in the area (two cairns on islands surrounded by open water were not visited for helicopter safety reasons). GPS co-ordinates were obtained on these features, and an additional cairn which probably relates to this use of the area was located.

Introduction

An archaeological survey of the proposed North Bathurst Island National Park was undertaken in July 1996, under contract to Parks Canada. The objective of the project was to provide information on current and past cultural activities related to land use and resources in the study area, as part of a feasibility study for the proposed national park. The information was also to be used in developing a management regime, recognising that the understanding of local human-land relationships as essential to park establishment, operation and interpretation.

The primary goal of the survey was to compile a Preliminary Resource Reconnaissance, which would serve in the definition of themes and objectives to be used in preparing a Park Proposal. Subsidiary goals included an evaluation of the cultural value of these resources; an evaluation of the historic value of the resources in terms of conservation and presentation; and the establishment of a baseline for future monitoring and reviewing of conservation and presentation objectives.

The contractor was instructed to identify past and contemporary Inuit uses of the land through interviews in the community of Resolute Bay, and to conduct a field survey oriented to examining all of the major habitable landforms. Special attention was to be given to several areas which had been selected on the basis of environmental and historical information: the north coast of Graham Moore Bay, and the adjacent area of a polynia in Pell Inlet; the east coast of Bathurst Island excluding lands selected under the Nunavut Land Claim; the islands to the north of Bathurst Island; two valleys between Erskine Inlet and May Inlet; and the Humphries Hill area where outcrops of chert had been located.

The following report comprises a brief summary of the field project; a description of the information which resulted; and recommendations on the conservation and presentation of the archaeological materials located during the field survey.

Historical and Environmental Background

Bathurst Island lay at the northwestern margin of the Wisconsin Ice Sheet. It was freed from its relatively thin ice cover between 10,000 and 9000 years ago, at which time open water conditions probably existed during the summer months along the southern and eastern coasts of the island. Succeeding millennia saw an increase in summer pack ice in the waters surrounding Bathurst Island, with conditions similar to those of the present becoming established by about 5000 years ago. By 4000 years ago Bowhead whales appear to have reached their maximum postglacial range in the channels of the Arctic archipelago, suggesting a corresponding minimum in the extent and seasonal duration of sea ice (Dyke et al 1996: 246-9). This coincides with the warmest period of postglacial temperatures as measured by $\delta^{18}\text{O}$ in ice cores from the Devon Island Ice Cap, located approximately 500 km to the east of Bathurst Island; after about 4500 BP,

the ice core evidence suggests a steady decrease in temperatures to modern conditions (Koerner and Fisher 1982:206).

The first evidence of human occupation in the Arctic Archipelago occurs at some time during the millennium between 5000 and 4000 BP, and may have been encouraged by climatic conditions which were slightly warmer than present norms. The most recent comprehensive account of this occupation places the origins of the people known as Palaeo-Eskimos in eastern Siberia (McGhee 1996). They are portrayed as a group whose northern Asiatic technology, including the bow-and arrow and finely tailored skin clothing, provided them with the means to occupy Arctic North America. Palaeo-Eskimos were the primary occupants of Arctic Canada and Greenland over the following four millennia, with a continuous sequence of occupation and cultural development in the Eastern Arctic regions of Baffin Island, northern Hudson Bay, and Ungava/Labrador. They were displaced from the region by the expansion of ancestral Inuit across Arctic North America approximately 1000 years ago.

In the High Arctic zones to the north of Parry Channel, a more sporadic sequence of Palaeo-Eskimo occupations has been proposed (McGhee 1976a; Schledermann 1990; Sutherland 1991, 1996) separated by periods when large portions of the area appear to have been beyond the margins of Palaeo-Eskimo occupation. The scale and sequence of occupation varied considerably from one region of the High arctic to another. The only region close to the study area which has seen relatively intense investigation is the Port Refuge locality on Devon Island, approximately 100 km east of Bathurst Island (McGhee 1979, 1981). Brief surveys undertaken in the central and southern portions of Bathurst Island (McGhee 1976b; Schledermann 1978) have suggested three periodic occupations of this area by Palaeo-Eskimos which are roughly synchronous with those at Port Refuge. These occupations can be assigned to the following cultural units, with approximate calendrical dates as follows:

Palaeo-Eskimo	Independence I / Pre-Dorset	ca. 2500-1500BC
	Abandoned or limited occupation	ca. 1500-800BC
	Independence II / Early Dorset	ca. 800-200BC
	Abandoned or limited occupation	ca. 800BC-AD500
	Late Dorset	ca. AD500-1200
Neo-Eskimo	Thule Inuit	ca. AD1100-1500
	Abandoned or limited occupation	ca. AD1500-1950

Table 1: Summary of known prehistoric occupations of the central High Arctic.

Ancestral Inuit, assigned to the Thule culture of the New-Eskimo cultural tradition, appear to have arrived in this area as part of their expansion eastward from Alaska at some time shortly after AD 1000 (McGhee 1984). This expansion, and the consequent decline and disappearance of Palaeo-Eskimo occupation, may have been related to the few centuries of climatic warming known as the Mediaeval Warm Period. Warmer summer climatic conditions may have resulted in a decrease in sea ice and expansion of

sea mammal populations, which made the area attractive to early Inuit hunters who had mastered the techniques of maritime hunting. Large Thule culture winter villages, with evidence of a maritime hunting economy including the capture of Bowhead whales (*Balaena mysticetus*) are known from several locations along the southeastern coast of Bathurst Island. The apparent disappearance of Thule Inuit occupation from most of the High Arctic Islands at some time after AD 1500, may be related to a period of climatic cooling which has been termed the Little Ice Age, and which may have restricted the range and movements of sea mammals into the region.

The next chapter in human use of the area began with the British naval expeditions of the mid-nineteenth century, primarily those associated with the search for the lost Franklin expedition (Gray 1995; Phillips 1982, 1984). Between 1850 and 1854 several sledging parties explored portions of the coastlines of northern Bathurst Island, leaving supply depots and record as means of communicating with other parties or with the lost Franklin expedition. Sparse finds on Cornwallis Island and the southern portion of Bathurst Island suggest that Inuit may also have visited the area during this period, perhaps stimulated by the presence of naval supply depots.

European exploration of the area continued sporadically during the first half of the present century, with a marked increase in both scientific and commercial exploration beginning during the 1960s and continuing to the present day (Gray 1995). With the establishment of the Inuit community at Resolute Bay in 1953, an Inuit presence once more appeared in the area.

Fieldwork Summary

The survey was carried out by Robert McGhee (Canadian Museum of Civilisation), assisted by Mark Amerualik (Resolute Bay). Logistic support was provided by the Polar Continental Shelf Project, and the Canadian Wildlife Service camp at Walker River on the northeastern coast of the island was used as a base for the work. The field project was carried out in conjunction with that of Frank Miller of the Canadian Wildlife Service, who accompanied the archaeological crew on most helicopter survey flights and utilised these flights to assess the current state of mammal populations in the area.

Miller and Amerualik arrived at the Walker River locality (76° 0' N, 97° 40' W) on July 10, and began to establish the base camp. McGhee flew from Ottawa to Resolute Bay on July 11, and arrived at the base camp with the helicopter at noon of the following day. The remainder of that day was devoted to completion of camp arrangements, and the field survey began on July 13. The period between July 13 and July 19 was spent in helicopter and foot survey of selected portions of the study area. Snow cover over most of Bathurst Island at the time of the survey was limited to an estimated 5% of land area, and was confined to steep valleys and lee slopes; in some regions of high elevation, such as the interior Stokes Range, snow cover existed over approximately 80% of the land area.

Walking surveys were undertaken in the vicinity of the base camp, and covered the portion of the eastern coast of Bathurst Island between Polar Bear Pass National Wildlife Area, and the parcel of Inuit lands on northeastern Bathurst Island selected under the Nunavut Agreement. Helicopter survey was undertaken with two (McGhee and either Amerualik or Miller) or three observers covering both sides of the aircraft. Although speeds and altitudes were varied according to conditions and expected findings, most survey was carried out from an altitude of less than 100 metres and at speeds of less than 100 kilometres per hour. Slow and sometimes repeated passes were made on areas of high potential, especially if there were limitations to visibility of ground features. Potential features were viewed from a close hover at an altitude of 10 metres or less, and landings were made in order to investigate identified sites or to examine occasional areas of apparently high potential. Notes were recorded vocally on a micro-recorder, flight lines and site locations marked on maps, and site locations recorded from the helicopter's onboard GPS instrument.

Approximately 30 hours of helicopter time were used to explore an estimated 90% of coastal areas within the proposed Park, as well as several interior valleys and cross-country transects (Figure 1). The portions of coast which were not surveyed were judged to be too unproductive, usually because of steep topography, to merit investigation. The area covered included most of the small islands off the northern coast of Bathurst and as far west as Helena Island; some of the islands in Bracebridge Inlet; and Alexander Island off the western coast. An attempt was made to visit Vanier, Massey and Cameron islands to the west, but was turned back because of poor weather conditions. The following brief description of survey activities summarizes the field notes which are submitted as an adjunct to this report; the areas surveyed are indicated on the accompanying maps and summarised in Figure 1.

July 13: Helicopter transect westwards through the northern edge of Polar Bear Pass, where we identified Thule and Late Dorset sites which do not seem to have been previously reported in the western portion of the Polar Bear Pass National Wildlife Area. Continued to survey along the northern coast of Bracebridge Inlet and Graham Moore Bay, locating three small sites which appear to have Late Dorset affiliation. Turning northwards at Schomberg Point, we examined the coasts surrounding the small polynia in Pell Inlet, and did a circuit of the coasts of Alexander Island. After returning for fuel at Schomberg Point we continued northwards, surveying the Bathurst Island coasts of Erskine Inlet as far as the more southerly of two low valleys crossing the peninsula between Erskine and May inlets. We traversed this valley, rounded Grant Point in May Inlet, and continued southwards along the western coasts of Dundee Bight. Here we traversed another low valley extending southwestwards to the head of Erskine Inlet, which we found to be a low coastline with little potential, so made a cross-country transect to refuel at Polar Bear Pass Research Station, and returned to base camp.

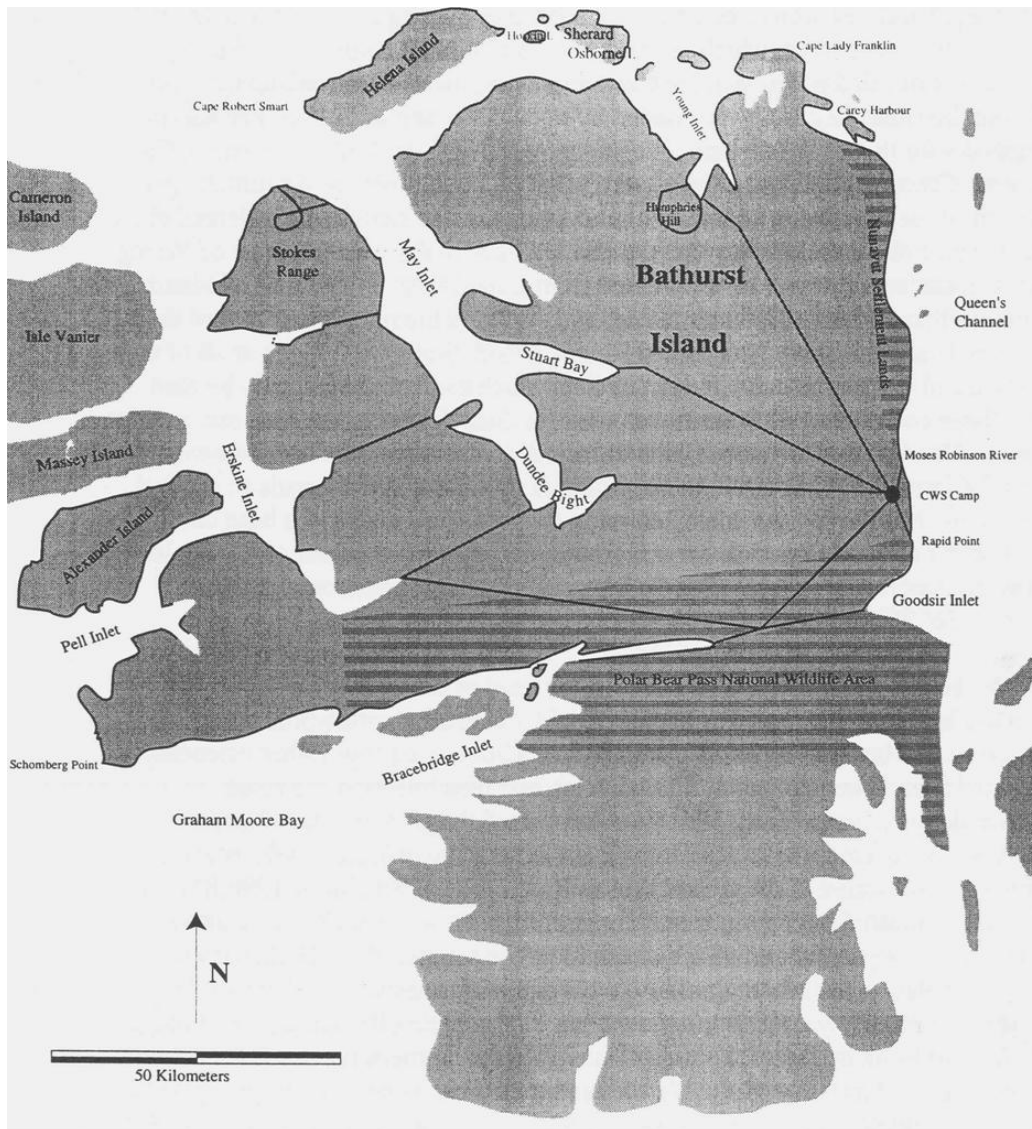


Figure 1: The study area. Black lines indicate flight transects and areas of coast covered by helicopter survey.

July 14: Helicopter transect northward along the eastern coast of Bathurst Island, locating several small sites of uncertain affiliation within the area of the Inuit Settlement Lands, as well as one cairn on a ridge of the Organ Heights (location 76° 28' 53" N, 97° 40' 57" W) which may relate to the Franklin Search Expedition period. We decided not to visit the Cheyne Islands, located approximately 7 km offshore, because they were surrounded by open water and our helicopter was not equipped with floats. We continued to survey westwards around the coasts of Carey Harbour, Cracroft Sound, and the eastern coast of Young Inlet. After refuelling at the head of the inlet we did a circuit of Humphries Hill in search of a potential chert quarry, and followed the valley west of this hill back to the western coast of Young Inlet. Continuing northwards, we crossed from Cape Mary to the string of islands off the northern coast of Bathurst Island, and surveyed the northern shores of the Berkeley Islands, Hosken Islands and Helena Island. Stops were made at all of the British naval expedition cairn and depot sites which had been previously located along these coasts, and GPS positions noted for these features. We then recrossed to Acheron Head on northwestern Bathurst Island, and surveyed the coast eastwards as far as Balcarres Island in northern May Inlet. A transect was then made to the fuel cache at the head of Young Inlet. Returning directly cross-country to base camp, we searched for a reported petroleum exploration drilling site southeast of Young Inlet, and in the reported area located and photographed a large abandoned airstrip (location 76° 20' 50" N, 98° 40' 50" W).

July 15: Helicopter transect westwards to the head of Stuart Bay, and then survey southwards around the coasts of Dundee Bight, continuing northwards along the west coast of May Inlet as far as Dampier Bay. Crossed the low valley extending westward from Dampier Bay to Erskine Inlet, and then followed the coast northwards to Acheron Head, which we had visited the previous day. Turning inland, we conducted a brief search for a 1978 Panarctic drill camp which was reported to be located in the central Stokes Range (Ebell and Dueck 1996:81). The only feature located during our relatively brief high altitude search was a survey marker which appears to define a benchmark at the summit of the Stokes Range; features located in the broad plateau to the south of this range would have been obscured by relatively continuous snow cover. Abandoning the search, we crossed May Inlet to Francis Herbert Point, and surveyed the northern coast of Bathurst Island as far east as Cape Mary. We then returned cross-country over high ground to Mount Lockyer, and surveyed southwards along the eastern coast of May Inlet as far as Stuart Bay. After examining the terraces along the lower course of Stuart River, we made a direct transect to base camp. In the evening, the helicopter returned to Resolute to undertake another job. The excellent weather and helicopter availability had allowed us to complete most of the survey goals on July 13-15.

July 16: Amerualik and McGhee carried out a walking survey along the east coast of Bathurst Island, northwards from the base camp as far as the Inuit Lands at Moses Robinson River. One Thule cache site was located in a boulderfield approximately 3 km south of Moses Robinson River, and a small Palaeo-Eskimo camp was identified on terraces along the southern edge of the river mouth.

July 17: The helicopter was delayed by weather, and returned at noon. In the afternoon we flew northwards along the coast to obtain GPS readings on the sites discovered the day before, then surveyed southwards. Located one Palaeo-Eskimo camp on terraces to the south of the mouth of Walker River. Continued southwards along the east coast of the Polar Bear Pass National Wildlife area, locating one Thule village a couple of kilometres north of the head of Goodsir Inlet. Continued westwards across Polar Bear Pass in attempt to survey the islands in Bracebridge Inlet, but were turned back by wind and fog, and returned cross-country to the base camp.

July 18: Attempted to reach Massey, Vanier and Cameron Islands. Headed west to the head of Dundee Bight, then northwards along the west coast of May Inlet and attempted to cross through the low valley to the west of Grant Point, but were turned back by fog and wind. Crossed May Inlet to the mouth of Stuart River, and returned directly to base camp in rapidly deteriorating weather.

July 19: Amerualik and McGhee carried out walking survey southwards from the base camp, along the east coast to Rapid Point. We revisited the site found the day before to the south of Walker River, and located three more small Palaeo-Eskimo sites on terraces to the north of Walker River. In the evening we returned by helicopter and obtained GPS locations on these sites. McGhee returned to Resolute that night in order to interview local residents regarding use of Bathurst Island, while Amerualik remained in the base camp to assist Frank Miller with his work the following week. McGhee returned to Ottawa on July 22.

Archaeological Site Descriptions

(1) Previously Unreported Sites

Twenty previously unreported archaeological sites were identified during the survey work. Two of these were located in the Polar Bear Pass National Wildlife Area: a Late Dorset site on the southern shore of the narrows of Bracebridge Inlet, and a Thule village on the east coast 2 km north of the head of Goodsir Inlet. Eight were located in the Inuit Lands along the northeastern coast of the island; seven of these were camp and cache sites which are consistent with a Late Dorset use of the area, and were mostly located at points of land associated with stream deltas; a cairn on a ridge of the Organ Heights may have been built by members of a nineteenth century British naval expedition to the region.

The remaining ten sites were located within the proposed boundaries of the Northern Bathurst Island National Park, and are described individually in the following section. Identification numbers in the Borden system were assigned by Lucie Johanis of the Canadian Museum of Civilisation.

Site 35X9 (QjLq-1)

This site is located at 75° 34' 45" N, 101° 21' 24" W, on the northern coast of Graham Moore Bay. It lies on a flat gravel terrace at an estimated 5-10 m elevation, above the western shore of a small point extending southwards from Bathurst Island, and approximately 100 m north of the tip of the point. A patch of rock slabs measuring approximately 3 by 4 m resembles the type of pavements often associated with Late Dorset camps. A second patch of rock slabs, located 10 m to the south of the first, shows less structure. No bones or artifacts were seen on the surface of the site. This is most likely a small camp related to Late Dorset use of the area.

Site 35X10 (QjLq-2)

Located at 75° 36' 13" N, 101° 23' 03" W, this site lies on the northern coast of Graham Moore Bay, on a small rounded point approximately 1 km west of the mouth of Snowbed Creek. The site lies on a gravel terrace at an elevation estimated at 5-10 m, and consists of a single tentring approximately 3 m in diameter; the ring has been partially dismantled, and a small cache built into one side of it. No bone or artifacts were seen on the surface. The style and elevation of this small camp is consistent with a Late Dorset affiliation.

Site 35X11 (QjLq-3)

Located at 75° 35' 50" N, 101° 30' 57" W, this site is located on raised beaches 60 m inland from the shore of Graham Moore Bay, on a rounded point approximately 3 km west of the mouth of Snowbed Creek. Three small tentrings, 2-3 m in diameter, lie on a gravel terrace at 5-10 m above sea level. One side of each has been dismantled in order to build a small cache, and a few small and heavily weathered bone fragments can be seen on the surface. Approximately 100 m to the east a Bowhead whale mandible protrudes from the gravel; this area was covered with snow at the time the site was visited, but the bone is likely from a naturally beached whale, and not directly related to the site occupation. A Late Dorset affiliation for the site is probable.

35X12 (QjLu-1)

This possible site lies on a northward-sloping boulder-covered hillside, 60-80 m inland from the coast of a small bay located 3 km east of Herbert Point, at position 75° 37' 11" N, 102° 43' 37" W. The boulder field consists of a mass of frost-shattered bedrock, with individual boulders ranging from approximately 10 cm to 50 cm in dimension. Two lines of boulders have been turned over or stood on end, revealing their yellow unweathered surfaces in sharp contrast to the dark grey of undisturbed boulders. Each line is approximately 20 m in length, and the two are aligned but separated by an undisturbed area approximately 20 m across. A few of the displaced boulders have small cobbles placed on top of them. This is possibly a natural frost-related feature, but the interpretation seems unlikely. Although no other signs of human activity were noted in the vicinity, it appears to be an artifact. The apparent freshness of unweathered surfaces on displaced boulders suggests a relatively recent date for the disturbance, perhaps related to 20th century European or Inuit activity in the area; however, a Thule

Inuit or Late Dorset Palaeo-Eskimo affiliation is not impossible.

Site 35X13 (RaLe-1)

Located at 76° 01' 38" N, 97° 36' 11" W, this site lies in an extensive boulder field 100 to 200 m inland from the east coast of Bathurst Island and approximately 1.5 to 2 km south of the mouth of Moses Robinson River. In one of the concentrations of largest boulders, 140 m inland and 10 m above sea level, is a rectangular and well constructed boulder cache with internal measurements 1.2 m by 1.5 m and external diameter of approximately 2 m; the cover of boulders weighing approximately 10 to 30 kg apiece has been removed, and the interior is heavily covered with moss. About 200 m to the north is a much larger cache, measuring 2.5 m by 3.0 m and built of very large rocks. Approximately 100 m to the northeast of the large cache, at an elevation of 4 m, is a rough circle of huge boulders measuring 3.5 m east-west by 3 m north-south; the interior is heavily covered with moss and boulders. This seems to be a natural boulder feature which has been modified for use as a cache or temporary shelter. About 100 m further north along the coast are two small caches, both dismantled. Close to one of these is a huge balanced rock standing on another slab, measuring approximately 1 m by 1 m by 40 cm thick, with two small cobbles jammed under it to keep it upright. About 600 m further north there is a natural concentration of huge rocks at high elevation and close to the steep slope behind the boulderfield. Beside it is another standing rock, a parallelogram roughly 1 m on the side and 60 cm thick, with a cobble jammed underneath it to keep it in place. This stands out well as a marker against the semi-permanent snowdrift at the base of the hill behind it. No artifacts or bones were seen on the surface of this site. The site is most likely a temporary cache locality related to Thule Inuit use of the area.

Site 35X14 (RaLe-2)

This site is located on a dry gravel terrace 300 m south of the mouth of Moses Robinson River, 120 m inland from the coast and at an elevation of 6 m above sea level; position 76° 02' 35" N, 97° 35' 05" W. The single feature is a scatter of cobbles and small boulders approximately 2 m across. Small fragments of heavily smashed and weathered bone show on the surface among the sparse cover of saxifrage. This appears to be a Palaeo-Eskimo camp, and the low elevation suggests a Late Dorset affiliation.

Site 35X15 (QILe-I)

Located at 75° 57' 33" N, 97° 38' 33" W, on a flat gravel terrace 400 m south of the mouth of Walker River. Three features lie on the first major terrace, 150 m from the shore across a low and wet coastal flat, and at an elevation of 9 m above sea level. The most southerly feature is a small box hearth with standing slabs 1 cm thick at the east and west ends and one fallen side slab showing on the surface; the hearth measures 50 cm east-west and probably about the same east-west. This hearth appears to have been part of a midpassage, the front end of which may have eroded down the steep slope of the terrace edge. The hearth is covered by a thick tussock of grass and

vegetation that has been used as an owl perch, and is surrounded by a possible tentring approximately 4 m in diameter. The next feature is 10 m to the north, gives the impression of a vague midpassage. The third feature is 12 m further to the north, a collection of cobbles close to the eroding edge of the terrace, which may be the remnant of a similar structure. No bone is visible on the surface of the site, and no flakes or artifacts were seen. The style of the most southerly and most completely preserved feature, as well as the elevation of the site, suggests an Independence II/Early Dorset affiliation.

Site 35X16 (QILe-2)

This site lies on the edge of a flat gravel terrace at an elevation of 18 m above sea level, approximately 1000 m inland from the coast and approximately 500 m north of Walker River: position 75° 58' 02" N, 97° 39' 51" W. The site consists of three small scatters of cobbles and slabs: the most southerly measures 2 m east-west by 1.5 m north-south, and may be the remains of a hearth and midpassage; one flake of light grey chert was visible on the surface. Ten m to the north is another scatter measuring 1 m east-west by 80 cm north-south, again suggesting a small midpassage. Eighteen m to the north is a smaller scatter of cobbles and slabs, with a few small and heavily weathered bone fragments showing on the surface. These features closely resemble Independence I camps known from neighbouring Devon and Cornwallis islands, and the relatively high elevation suggests an Independence I/Pre-Dorset affiliation.

Site 35X17 (QILf-1)

Approximately 180 m north of site QILe-2, the 18 m terrace is broken by a wide gully, where the terrace swings inland and deteriorates. Forty m to the north of this gully, on a wet gravel slope between the 18 m and 20 m terraces, lies an arrangement of six thick slabs which may be the remains of a cache; one fragment of heavily weathered bone is visible on the surface. Position 75° 58' 04" N, 97° 40' 21" W. The feature is probably associated with the nearby Independence I/Pre-Dorset sites.

Site 35X18 (QILf-2)

To the north of site QILf-1, the 20 m terrace is the most prominent feature, lying approximately 1 km inland from the coast. On the surface of the terrace, approximately 500 m north of QILf-1, are two scatters of larger boulders and slab fragments 2 to 3 m in diameter but with no apparent structure. The two are separated by 15 m, and a single chert flake was found in the more northerly. Position 75° 58' 23" N, 97° 40' 41" W. Again, an Independence I/Pre-Dorset affiliation is suggested.

(2) Revisited Sites

The project provided an opportunity to revisit and obtain accurate GPS positions on several sites which had been previously reported. These were all cache and cairn sites related to nineteenth century British naval expeditions to the area, and had been visited in 1981 and 1982 by Caroline Phillips of Parks Canada's Arctic Historical Archaeology Project (Phillips 1982, 1984; Ebell and Dueck 1995: 75-85). Most of these sites were

relocated and positions obtained, with the exception of cairns on Middle Cheyne Island (35X2) and Hooker Island (35X3) which could not be reached on account of the amount of open water between Bathurst Island and these offshore islets. Brief descriptions of the sites are listed below. Identification numbers in the Borden system were assigned by Lucie Johanis of the Canadian Museum of Civilisation.

35X1 (RcLf-1) Paine Point Cairn

This small conical cairn lies on the top of the highest local hill to the north of Paine Point. It is approximately 1 m in diameter and 70 cm high, with heavy lichen cover and no evidence of disturbance since visited by Phillips. Position 76° 26' 18" N, 97° 40' 43" W.

35X4 (ReLk-1) Harvey Point Cairn

This cairn was located on the ridge between Cator Harbour and the north side of Sherard Osborn Island, at an elevation (measured by helicopter altimeter) of approximately 60 m and not at the summit of the hill. It consists of a gravel and earth core about 1.5 metres across, covered with boulders that appear to have been rolled outwards from their original positions, and the entire feature is now approximately 2 m in diameter. The original height appears to have been approximately 1 m, and no recent disturbance is apparent. Position 76° 44' 55" N, 99° 37' 09" W.

35X5 (ReLm-I) Hosken Island Cairn

This very well built conical cairn stands on the summit of the western Hosken Island, at an elevation (measured by helicopter altimeter) of approximately 180 m. It is well preserved, approximately 90 cm high and 2 m in diameter. It is much less heavily covered with lichen than all other nineteenth century cairns visited, and this is likely due to the fact that it has not been used as a bird-roost because of its isolated, exposed and windy location on a coast which is almost permanently jammed with ice. The location of the cairn is very high and prominent, and from this altitude the loom of Ellef Ringnes Island can be seen approximately 100 km to the north across the polar pack. Position 76° 43' 33" N, 100° 05' 37" W.

35X6 (RdLq-1) Cape Robert Smart Cairn

This large and distinctive cairn lies on the summit of the steep hill behind Cape Robert Smart. The size, careful construction and unique L-shape are as described by Phillips, and there appears to have been little deterioration since her visit. A few small boulders have tumbled from the top of the cairn, but no other damage or disturbance was seen. A few fragments of weathered wooden lathe were seen on the surface, as well as a few bits of string which may relate to the Phillips visit. Position 76° 35' 20" N, 101° 37' 16" W.

An aerial search was made of the confused boulderfields lying at lower elevations behind the cape, but no trace could be found of a second cairn or depot which had apparently been established at this location.

36X1 (ReLh-1) Cape Lady Franklin Cairn

This disturbed gravel-cored cairn looks much as it was described by Phillips, and does not appear to have deteriorated since her visit. Position 76° 40' 42" N, 98° 27' 53" W.

36X2-5 (ReLh-2) Cape Lady Franklin Depot

The central feature at this location is a small patch of disturbed earth surrounded by an irregular rim of boulders approximately 4 m in diameter. Scattered around these are barrel staves, pieces of barrel cants, iron barrel hoops, and a piece of bamboo pole 80 cm long (part of the flagpole which originally marked the depot?). In the interior, covered in heavy moss, is an irregular pit approximately 2 m across, containing tin cans, some with red and green paint showing, buried to a depth of 20-30 cm. The main depot scatter is about 5 m across, but there are occasional tins and fragments of wooden objects scattered at a greater distance. Position 76° 41' 01" N, 98° 30' 05" W.

At a distance of 125 west of the main feature, at a higher elevation and 10 m south of the gully to the north of the site, is a scatter of boulders approximately 2 m in diameter, well covered in lichen, with a small irregular hole in the interior revealing a few wooden barrel fragments. This may be Phillips' location 35X3, described as 175 m west of 35X2.

Seventy-five m to the southeast of this feature, and forming a triangle with the main depot, lies a ring of heavy boulders, roughly 3 m in diameter. This is probably Phillips' 35X4, and appears to be the remains of a gravel-cored cairn similar to 36X1; it may have served as a marker for the main depot rather than as a cache.

Forty m downslope from the main depot lie the remains of at least one barrel, a circular tin, and a large square tin. This is probably Phillips' locality 35X5.

No trace was found of materials reported from lower elevations, close to the present beach. They may have been hidden by snow cover, or have been removed by ice. However at an elevation of about 5 metres, on the north side of the small gully north of the depot, there are a few scattered boulders which might indicate a camp; this locality was seen only from the air.

There is no indication that the features of this site have been significantly disturbed since the time of Phillips' visit 15 years earlier.

(3) Industrial Sites

Two drill camps associated with petroleum exploration activity were reported from the study area, and an attempt was made to locate these camps at the localities indicated by Ebell and Dueck (1995: Fig. 3). Unfortunately, the exact co-ordinates of the Panarctic J-11 drill camp in the central portion of the Stokes Range were not known at the time of survey, and the area searched was approximately 2 kilometres north of the actual location. In any case, heavy snow cover on the high plateau where the site was

located would have precluded a useful search of the area.

At the second location, approximately 10 km southeast of the head of Young Inlet, a graded airstrip suitable for landing large transport aircraft was found (position 76° 20' 50" N, 98° 40' 50" W). Aside from a few fuel drums scattered about the northern end of the airstrip, the area appears to have been cleaned up at abandonment

Occasional traces of roads or vehicle tracks, and of small temporary camps apparently dating from the latter half of the twentieth century and relating to either industrial or scientific exploration, were noted but were not recorded as archaeological sites.

Recent Inuit Use of the Area

Informal conversations were held with several Inuit residents of Resolute Bay regarding their knowledge and use of northern Bathurst Island. These conversations elicited very little information on the subject, and the general sense that the area within the proposed Northern Bathurst Island Park has been rarely used by Inuit residents of the community. Both in the past, and at present, Inuit activity has been concentrated on the southern half of Bathurst Island, with some use of the northeastern coastal regions selected under the Nunavut agreement. The areas to the west of this coastal strip and north of Polar Bear Pass have occasionally been "travelled through" and "hunted over", but not intensively used for any purpose.

This agrees with the situation reported by Riewe (1976) on the basis of research carried out in connection with the Inuit Land Use and Occupancy Project. The land use situation described by that project for the period 1960-1974 (Freeman 1976: Vol. 3, pp. 140-143; cf. also Gray 1995) can probably be assumed to have continued without significant changes to the present day.

Summary of Prehistoric Use

The archaeological remains discovered during the survey appear to relate to both Palaeo-Eskimo (Independence I/Pre-Dorset; Independence II/Early Dorset; Late Dorset) and Neo-Eskimo (Thule Inuit) cultural traditions and to all four of the discrete periods of occupation known from adjacent regions (see Table 1, above). The study area has therefore seen sporadic human occupancy over the past 4000 years or more, separated by periods of apparent abandonment.

The scale, nature and distribution of archaeological remains suggests that all four episodes of occupation were limited in both duration and extent. In all four periods, the geographical distribution of prehistoric archaeological remains coincides with the area used by Inuit in recent decades: the area of Polar Bear Pass, and the northeastern coast of Bathurst Island adjacent to the large polynia area in Queen's Channel (Freeman 1996: Vol. 3 p.143). The only remains found outside this zone suggest an

apparent westward extension of Late Dorset use of Polar Bear Pass to include the northern shores of Bracebridge Inlet (Figure 2). It should be noted that an isolated prehistoric find reported from the vicinity of Humphries Hill in the central northern part of the study area (Ebell and Dueck 1995:37) is a naturally flaked stone and not an artifact of human manufacture.

The small size and coastal location of Palaeo-Eskimo camp sites suggest brief and occasional use of the area by family-size groups, probably engaged in hunting a mix of marine and terrestrial mammals. The only site related to Thule Inuit use of the area was a cache site, which may have been built to store a whale or walrus kill made by a party visiting from one of the Thule villages located along the eastern coast of Bathurst Island to the south of the study area.

Why were no archaeological remains found beyond the extreme southern and eastern margins of the study area? Part of the answer undoubtedly lies in the limitations of extensive helicopter survey techniques, which are not well designed for discovering small and unobtrusive archaeological sites located in an environment with significant vegetation or complex boulder cover. Sites were undoubtedly missed in the area covered by helicopter survey. Walking survey was limited to areas accessible from camp, and was unable to adequately cover areas of complex topography such as the maze of raised beach terraces behind Rapid Point or south of the mouth of Moses Robinson River. The surveys undertaken must be understood as being of a very preliminary nature, and we must assess whether this fact has significantly effected our judgement of prehistoric use of the area.

Several indications suggest that a more extensive and thorough archaeological survey of northern Bathurst Island will not significantly alter the findings of this preliminary work. The reliability of helicopter survey is suggested by the fact that small and unobtrusive sites were consistently located in the two zones where occupation was expected: the fringes of Polar Bear Pass, and the northeastern coast adjacent to the polynia in Queen's Channel. These are the same zones which have been used by Inuit hunters in recent decades, suggesting that environmental restrictions have consistently discouraged significant use of regions to the northwest. The fact that in Polar Bear Pass, intensive foot surveys carried out in association with biological research over a number of seasons has located only a few small prehistoric sites, suggests that the area stands on the fringes of habitual prehistoric use and occupation. A more intensive survey of the northeastern coast of Bathurst Island could be expected to produce a similar level of findings.

Finally, intensive ground searches were made at several localities of apparently high archaeological potential along the coasts of northern and western Bathurst Island, where landings were made either to assess archaeological possibilities or for other reasons (investigating muskox carcasses, noting old Bowhead whale remains, refuelling the helicopter). At none of these localities were traces of archaeological remains

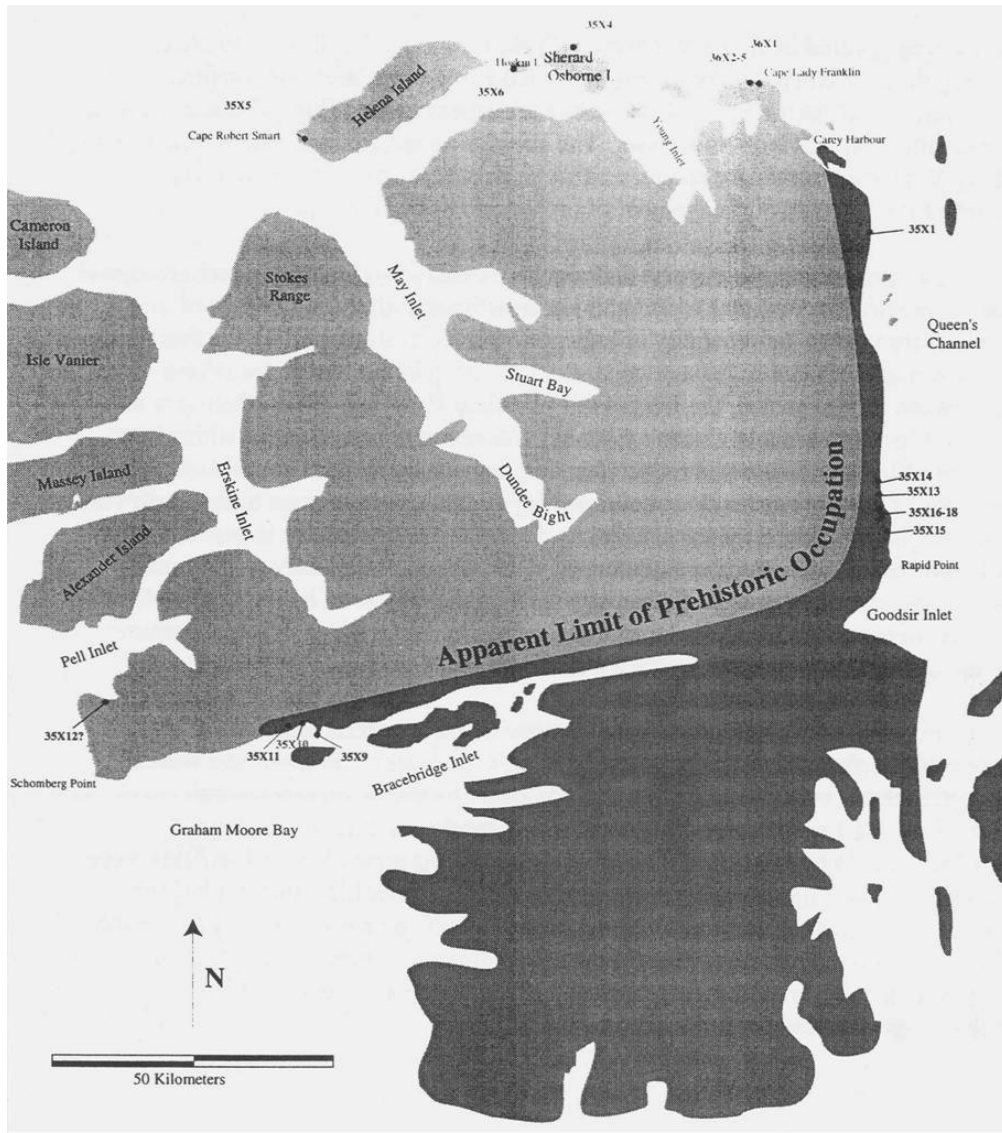


Figure 2: Locations of newly reported sites and revisited sites in the study area, as well as the apparent zone of prehistoric use (dark shading).

located, providing further hints that the lack of findings over most of northern Bathurst Island reflects extremely limited use of the area, rather than the inadequacies of the archaeological survey techniques. We suggest that the current survey project likely recovered a reasonable sample of the archaeological resources of the study area.

Environmental Limitations to Aboriginal Use of the Study Area

In their assessment of the archaeological resources of the area, Ebell and Dueck (1995: 34-37) note several zones of good hunting potential which might have attracted aboriginal use. Most of these zones are associated with muskox and caribou resources. Very few muskoxen and even fewer caribou were seen during the extensive survey of the area carried out in the summer of 1996, and the number of animals seen would not have supported any aboriginal hunters. This situation, apparently caused by surface icing during the previous winter resulting in starvation of a large proportion of both caribou and muskox populations, may be a recurring event on northern Bathurst Island. The land mammal resources of the area may always have been sufficiently unstable to attract hunting groups into areas located at a distance from the more dependable sea mammal resources of the southern and eastern coasts of the Island.

It seems unlikely that significant and stable sea mammal resources have ever been supported along the coasts of western and northern Bathurst Island, nor in the extensive waters of May Inlet and Dundee Bight. These coasts are consistently closed by sea ice until late in the summer, and some areas appear to be frequently closed throughout the year as the polar pack impinges on the northern coast of the island (Lindsay 1977). Open water does occur consistently in the small Pell Inlet polynia, but does not appear to support significant populations of sea mammals. In July of 1996 this polynia existed, but was separated from the open water of Barrow Strait by over 100 km of continuous ice cover. The polynia seems to consistently open in July and is isolated from the open water to the south until late August or September (Lindsay 1977); it therefore is not available for over-wintering walrus or whales, nor accessible to the Barrow Strait populations of these animals. Judging from the sea ice conditions characteristic of these coasts, it seems likely that animals larger than seals probably occur only as isolated groups or individuals which find their way into the area in late summer. Remains of several narwhal were seen along the shores of May Inlet; rather than indicating the consistent existence of a local population, these remains probably indicate that the inlet is a hazardous trap for narwhal which occasionally enter it during late summer, and are inevitably trapped by ice.

During the 1996 survey, no concentrations of seals were seen along any of the northern or western coasts of the island, and some coasts appeared to be devoid of seals. Although small groups of waterfowl were occasionally seen, no concentrations were of sufficient size to attract aboriginal hunters. None of the small rivers draining the area are known to support heavy runs of fish, nor are significant char populations known

from the few small lakes located to the north of Polar Bear Pass.

In sum, the animal resources of northern Bathurst Island have probably never been sufficiently dense or stable to attract significant use of the area by hunting peoples. Like Melville Island to the west, and the islands to the north, the northern portion of Bathurst Island appears to have always lain beyond the margins of significant and consistent aboriginal use and occupation.

Recommendations

(a) Further Survey Efforts:

As noted above, the preliminary survey reported in this document cannot be assumed to have recovered more than a reasonable sample of the archaeological remains which undoubtedly exist in the study area. If further efforts are judged to be warranted, it is recommended that these efforts be concentrated in the following areas:

- intensive foot survey for prehistoric sites along the northern shore of Graham Moore Bay between Polar Bear Pass National Wildlife Area and Schomberg Point; the offshore islands also warrant investigation; our attempted survey of these islands was prevented by deteriorating weather.
- intensive foot survey for prehistoric sites along the east coast of Bathurst Island between Polar Bear Pass National Wildlife Area and the Nunavut Settlement lands. Particular efforts should be made to survey the complex raised beach terrace complexes behind Rapid Point and at the mouth of Moses Robinson River, which we were prevented from doing by lack of time.
- intensive foot survey for prehistoric and historic sites along the northeastern coast of Bathurst Island between Carey Harbour and Cape Lady Franklin; nothing was seen during our helicopter survey, but small sites may have been missed because of complex ground cover.
- intensive foot survey for archaeological sites on the terrace systems along the lower course of Stuart River; none were seen in our brief helicopter survey of this promising locality, but our planned return for a more intensive search was prevented by deteriorating weather.
- extensive helicopter survey of Massey, Vanier and particularly Cameron islands; these islands were not searched during this project because of deteriorating weather conditions, and their relatively heavy use by caribou may have attracted a minor level of prehistoric use.

Further survey of other portions of the study area can be expected to produce small returns, and it is recommended that information on the archaeological resources of these areas can best be recovered by informing and requesting information from individuals and parties engaged in other activities throughout the study area.

(b) Known Sites

None of the archaeological sites discovered or revisited during this project were subject

to significant impact by natural forces or by human agency. None of these small sites would appear to have significant research potential, and would probably not repay the efforts of investigation. It is recommended that none of the known archaeological sites in the study area be excavated, stabilised, protected or marked. Protection of these sites can best be achieved by informing individuals and parties engaged in other activities of the existence of archaeological materials, and of the reasons for and benefits of leaving them undisturbed.

(c) Interpreting Cultural Heritage

Portions of the proposed Bathurst Island National Park have seen sporadic and occasional use by human groups over the past 4000 years or more. All major traditions and periods of prehistoric occupation known from Arctic Canada are represented. The coasts of the area were visited by the British Naval exploring expeditions of the mid-nineteenth century. During the latter half of the current century the region saw renewed exploration and use by Inuit groups, as well as transient mineral, petroleum and scientific exploration.

All of these diverse uses have left marks on the landscapes of northern Baffin Island, and may have effected at least transitory changes in the biological environments of the region. The human presence is an integral part of the region's natural history, and the interpretation of this history should include information on past human utilisation.

In view of the apparently slight, limited and transitory nature of past human occupation of the area, interpretation might focus on the following themes:

- the margins of human occupation: for most humans who visited this area in the past, it lay on the edge of a vast, unknown and unexplored region of the world.
- transitory use of an area: the region may never have been a homeland for people who passed its resources from one generation to the next.
- the significance of archaeological remains: in the situations described above, the discovery of landscape-marks indicating prior human presence must have always held a significance greater and more mysterious than those known from more thoroughly used portions of the world.

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Deposit of Ancillary Materials:

The following materials have been deposited with the Professional and Technical Service Centre, Parks Canada, 800-457 Main St., Winnipeg, Manitoba:

- transcribed field notes
- original 35 ml transparencies, together with a photo catalogue
- site forms for all newly reported and revisited sites
- 1:250,000 National Topographic Series maps covering the study area, marked with site locations, and the flight lines covered by helicopter survey