

AN ARCHEOLOGICAL REPORT OF THE  
OTTAWA ISLANDS ARCHEOLOGICAL,  
NATURAL AND WILDLIFE SURVEY  
IN CENTRAL EASTERN HUDSON

BAY

SUMMER 1980

Daniel Weetaluktuk\*

\* RESEARCH DEPARTMENT,  
MAKIVIK CORPORATION  
INUKJAK, QUEBEC  
JOM 1MO

and 4898 de Maisonneuve W/O  
Montréal, Québec  
H3Z 1M8

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The Ottawa Islands Archeological, Natural and Wildlife Survey in Central Eastern Hudson Bay, Summer 1980 Crews and Itinerary

First Attempt 23 to 27 of July

Daniel Weetaluktuk, Principal investigator  
 Dave Murray, Research assistant  
 Erik Val, Research assistant  
 Timothy Nayoumealuk, speedboat crewman  
 Jamesie Weetaluktuk, speedboat driver

Second Attempt 29 July to 4 August

Daniel Weetaluktuk, Principal investigator  
 Dave Murray, Research assistant  
 Erik Val Research assistant  
 Jimmy Kasudluak, speedboat crewman and driver  
 Eli Weetaluktuk speedboat driver

This survey trip to the Ottawa Islands had its problems getting underway right from the start. Due to foggy weather at Great Whale the two research assistants from Montreal office of Makivik Research Department had trouble reaching Inukjuak while the weather held. Hence we had to wait for another period of reasonable weather before we started out for the most northwesterly end of Hopewell Islands as our jumping off island. We had gone as far as we can and were camped at Elsie Island when the big wind storm hit. We had to spend 5 days there stormbound, which during this time further survey was done on the Elsie. Seven more archeological sites were confirmed and revisits done on most of the sites found during the original Hopewell Islands survey of the 1979.

Due to number of reasons of which most important were running short of food provisions and lack of time for the rest of Inuit members, because they had to get back to their regular work, we headed back to Inukjuak.

During this time frantic effort to get two Inuit crew/drivers went underway with marginal success. Jimmy Kasudluak was referred to us as possible crew as he has gone with Imaqvik Fisheries shrimp fishing trips in Davis Strait. Since Eli's boat was one of the rented boats we asked him if he could take a break from his office work and come with us.

The other speedboat was Daniel Inukpuk's which Erik and I used. Both of these boats were of same model being Sunray SV 535 with length of 16' 10". Eli's boat had a 140 hp. Johnson will our rented boat had a 70 hp. Johnson.

We finally made to Akviliet on the morning of 30 July, a calm windless day. It must be noted that all the islands sites described in this report besides the Gilmour were seen that day. The sites on Gilomour were surveyed in 2.5 days. Also noteworthy is that I was shot by .22 caliber rifle on the inner side of knee, most fortunately it was not a serious wound and is completely healed. As with other groups even in peterhead boats we were lucky go make it back in the night we did.

This field work was conducted under Northwest Territories Government permit No. 80-482.

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Lorraine Brooke, Gilles Gagné and Bill Kemp gave assurance as to the significance of going to the islands.

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Dr. Roger Marois and Dr. Robert Janes issued the permit for the survey work.

Captain Johnny Inukpuk gave valuable information of the general characteristics of the islands from first hand experience. Inukpuk Inukpuk and Simeonie Weetaluktuk pointed out the best routes to take in case of rough weather and best known boat hauling places in case of bad storm.

In the field: To the two research assistants during the trip, Dave Murray and Erik Val much gratitude is expressed for we were in difficult position during latter half of the trip. For Val who had to stand most of this period as a compass post.

Jimmy Kasudluak and Eli Weetaluktuk who were at most of times spending lonely hours by the boats and tents while we conducted the survey. And for the hard drive back in misty fog.

During the Elsie Island stay, Timothy Nayoumealook and Jamesie Weetaluktuk proved capable as we experienced bad rainy wind storm. During one time they had to spend all night keeping the boats fastened and watch them from washing up ashore or drifting off.

In library research: Bill Kemp, Dave Murray, Monika Orechowska and Souie Gorup gave much needed assistance in hunting and obtaining some of the hard to get articles relevant to this report. Dr. M.S. Maxwell was also very helpful. Additionally to the men of Inukjuak who went to meet us in time of need while we were coming in. Josie Epoo (since deceased), Daniel Inukpuk, Pinnie Tukai, Elijasie and Jamesie Weetaluktuk all gave their time in the middle of deary night to watch for us, and kept fire going on the top of the hill. Lazarusie Epoo (mayor) and Abraham Kasudluak (secretary-treasurer) for the provision of gasoline and oil for the rescuers.

The Inuit camp at Cox and Commodore Islands were all very helpful in letting us use the set up HF radio communication link and shelter. We stayed at Jacob Oweetltuk's tent. Lastly to the National Health and Welfare Canada doctors, interns, nurses and support staff at the Moose Factory General Hospital who took good care of the author during a week stay.

### Background of the work

The author had originally hoped to accompany the Geological Survey of Canada party lead by Dr. W.R.A. Baragar in summer of 1979. But was restricted due to some equipment problems and time constraints for that summer to go to Ottawa Islands. Instead Hopewell Islands were surveyed (report in progress).

Since not much was to happen in summer of 1980, besides a two week excavation at Inukjuak, it was decided if it was possible to continue the work on eastern Hudson Bay islands (Sleeper and Hopewells) which the author had started in 1979. For reasons that it was too late to apply for research support from the National Museum of Man (A.S.C.) and Government-of the Northwest Territories, the author had to approach the Makivik executive if they would be willing to fund the project and it was in their interest as far as the off-shore area is concerned, for finding out the aboriginal occupation of the islands by pre-historic and later Eskimos (Inuit).

#### Survey Methods

The plans for reconnaissance of the islands were based on knowledge of other people, the 1:60,000 aerial photographs and as always restriction of weather conditions. Most of the work plan was to spot check the most promising areas from stereo air photos and as we approach the island and see what they are like up close or at least from nearby sea level. This worked out quite well but we had to keep constant worry about the weather since we were not used to been on those islands and since the only well protected harbour was on Gilmour Island some forty (40) miles from more southerly islands. This makes a lot of difference in rough seas when every mile seems ten. Most of the close survey was conducted on foot which is must in Arctic if one is going to do at least a decent work, where some of the sites are even then hard to see.

#### Known Archeological Sites

In all previous exploration of the Akvileit, only five human made sites of any kind were known before our voyage. Of those four were known to be on Gilmour Island and one on House Island.

It was speculated by the author that there might be some Pre-Dorset sites on the larger islands, solely on basis of their extremely high elevation and also the presence of this culture on Mansel Island (Taylor, 1968a) and as quoted by the author on project proposal. This Pre-Dorset presence was not confirmed on the islands and the author believes now that the culture may not be found on the Ottawas after all.

More definite notion was held as far as Dorset sites were concerned, again solely on the basis of their existence on much lower elevated Sleeper Islands (Weetaluktuk; February, 1980). This was without doubt asserted by the Dorset sites on Eddy Island.

The Thule sites on the hand were known to be present on the islands from investigations by T.H. Manning and M. Wallrath during late 1940s and 1950s.

The definite Thule site was said to be on House Island according to Manning's 1946 report. This site was found to fit the description of Manning and was named after him.. As well tent ring and other related cache and surface structures were to be seen throughout the islands, some of them were much later than Thule rings and are in the periods between modern and Thule.

#### Seen Archeological Sites

Depending on how each site is divided or clump together, roughly twenty-eight (28) previously unrecorded sites were found by our party. Of those five had semi-subterranean house pits, while the rest were tent rings with related cache and some burials. Most of the sites seen by us are on Gilmour

Island, due to the large extend that we spent two and half days on that island, as compared to less to little over of an half spent on other islands.

Due to the large number of islands missed it is presumable that the sites in this report represent less or fifty percent (50%) of potential site total of the islands. Though they could well represent more than that percentage. Only further work would solve this problem for beyond any doubt our brief survey was not done in luxury of time for complete coverage of all the potential site spots of the islands.

#### Report Content

Most of the sites are described in general ways and no great detail is noted due to nature of work conducted in the field. To supplement the brief site descriptions, some photographs are included. One site map is also installed although it is only a rough sketch.

Reduced photo copy of Ottawa Islands map, by Energy, Mines and Resources Canada, gives the general idea about the alignment of the Ottawa Islands.

Drawn maps of 1:60,000 are directly from air photos and are used to indicate the exact location of the sites. Their co-ordinate numbers are not precisely on the spot but do serve as general approximation. Island names like 10th and 12th in no way are official. In this report they are used only for requirements of site locations.

#### Wildlife Seen

Most of the wildlife noted during the trip were seabirds though there were some seals seen throughout the island chain. No polar bears were seen by our party but Jimmy pointed out to us their tracks on gravel spots of 10th and Eddy Islands.

The birds seen were; Common eider *Somateria mollissima*, Red-breasted merganser *Mergus serrator*, Glaucous gull *Larus hyperboreus*, Black guillemot *Cepphus grylle*, and undetermined species of sandpipers.

Land mammals seen were only Arctic fox *Alopex lagopus*. The other possible small land mammal, Arctic hare *Lepus arcticus* was not seen or evidence of it.

Ptarmigan *Lagopus mutus* droppings were seen on Gilmour Island. No bird of prey was sighted throughout the islands, Snowy owl *Nyctea scandiaca* undoubtedly visits the islands once in a while.

#### Marine Mammals

The only sea mammals really confirmed were Ringed seals *Phoca hispida* which were to be found on most of the channels between the islands. It was not clearly established if what we saw was Bearded seal *Erignathus barbatus* or not, but it is without doubt that they are on those waters. As well we did not sighted any White whales *Delphinapterus leucas* or any other whales. Walrus *Odobenus rosmarus* was not seen either throughout the islands, but they are said to have been present on the most westerly and northerly islands by Inuit hunters of eastern Hudson Bay.

The lack of sighted marine mammals around the islands does not mean that they are not there. Merely it is because we speeded along the archipelago so fast that we would not have noticed the animals unless they were close by. Hence all the above mentioned unseen species are probably near the islands.

## THE ISLANDS

### Physiography

#### Location

The Ottawa Islands archipelago is situated on the upper central eastern Hudson Bay at about 70 miles average from the mainland northern Quebec shores. The archipelago's southwest end is at latitude  $58^{\circ} 58' 00''$  N. and longitude  $80^{\circ} 35' 00''$  W., while the northeast end is at  $60^{\circ} 00' 00''$  N. and  $79^{\circ} 50' 00''$  W. Thus the islands form a chain, 74 miles long and 18 miles at its widest section.

#### Geology

The first geologist to visit the islands was Robert Bell in 1877 and 1878 expedition, then again in 1885. Much later in 1946, T.H. Manning came to the islands to conduct various scientific fact finding. More recently J.T. Andrews and G. Falconer carried out geomorphological studies in summer of 1967. The most recent work done was published by W.R.A. Baragar and C. Lamontagne (1980) from their 1979 field work.

From these efforts they are able to correlate that the islands are part of volcanic rocks of Aphebian Circum-Ungava Belt, which in general is known to include Cape Smith-Wakeham Bay ridge, Ottawa Islands, Farmer Island, Sleeper Islands, and Belcher Islands.

The most commonly accepted age of the Circum-Ungava Belt is 1700-1800 Ma (million years) as assumed by B.J. Fryer, quoted by Baragar and Lamontagne (1980; 89). The volcanic rocks of the Ottawa Islands are divided into two broad groupings by the most recent investigators, as komatites and associated lavas and variolitic pillowed basalts as well as massive basalts flows. Those rocks are further subdivided into specific geological groupings.

#### Topography, glaciation, deglaciation and uplift

The geological structures have direct effect on the land forms of the islands, which in this case the rocks forming the islands all dip and face west between 15 to 40 degrees, but possibly less on the more southerly islands. Especially proliferative on exposed bedrocks are strike faults forming numerous gulleys and ravines which are known by Inuit as favourite polar bear napping places. When seen from the distance the islands appear to be bare rocks sticking out of middle of nowhere, which really is true. Fig. I shows some of the southern parts. Throughout the islands there are signs of glacial advances and withdrawal on bedrock striation scars and grooves. The islands are known to have been deglaciated between 7610 and 7250 radio carbon years ago (Andrews and Falconer, 1969).

The marine limit is 158 metres above sea level, where above this level a thin till covers some of the surface. Below the marine limit extensive moraine and littoral deposits fills ravines and slopes. The main valleys of the Gilmour and Perley Islands are good examples as shown on Fig. II.

The post-glacial isostatic rebound has been determined that these island which states that during the first one-thousand years after deglaciation the recovery rate was 59.5 metres. But at present it is predicted at 8 mm per year (Andrews & Falconer, 1969). At this rate the Ottawa Islands are just slightly lower in rebounding out of Hudson Bay than the Sleepers and Inukjuak region. But are much slower when compared to the southeastern Hudson Bay recovery. But their height above the sea even then was quite high when glaciation had just retreated from over them, especially the larger islands Gilmour and Perley.



## THE ISLANDS

### Inuit Knowledge and Legends

The Inuit of the eastern Hudson Bay knew of the islands according to their use of them and by the oral legends passed down from their ancestors. The Ottawa Islands are thus known as "Akvilleit" meaning "places or islands of large whales".

The shorten version of one of the legends, Ptarmigan Man goes like this. A girl was walking along the shore either scavenging for driftwood or for washed up marine invertebrates when a man in kayak came along and followed her, by paddling close to shore. He did so until they reached a camp where girls family and others were. The Inuit at this camp noticed that the new comer had a bright red eyebrows, and he was interested in getting the girl for wife. Which he did in few followings days. Not long after people also noticed that he was not like regular Inuit by the fact that he was out for periods of times for no apparent reasons. Not long after people found out he was a Ptarmigan man. At this finding the girl decided to get away from her man by fleeing to the higher hills, while the Ptarmigan man was out supposedly hunting. But he came back in time to find out what's happening with his wife and took to chasing her. The wife was frighten when she saw the husband catching up fast to her. As she was desparately running on the highest hill tops, something terrible happened to her for she turned into a stone. The Inuit of eastern Hudson Bay (those who are older and are familar with legend) still firmly believe this legend and say that this happened on the highest peaks of Gilmour Island. But some say that it happened on Perley Island. Whereupon they say when you try to reach the stone girl she always causes the fog and mist to form densely before you reach it, even when you had seen the figure in the distance before setting out to examine it. Hence the Inuit warn you to never try to reach it.

There may be a slightly different version of this story but this is most recently told story.

Also some of the Inuit know stories of how to deal with a polar bear attack when a hunter was out waiting at seal blow holes. They say that the hunter was or is always all eyes, that is, keeping constant check all around himself for sneaking bear, especially in early evening when they're after any prey. The hunter is supposed to have pre-checked the nearest smooth ice before stationing himself at the seal breathing-hole. In this way he would be prepared for bear attack. The oral manual says when the bear attacks, run for it, to smooth ice and stay there for the showdown. The gunless Inuit knew that the bear always leaped for the kill at you and it was at this moment that you merely shifted your position and kept on doing it until the bear was utterly exhausted, hence it gave you a chance to run for the camp. Not long after the bear usually showed up following hunter's tracks, at the camp, but this time every available hunter would be waiting for it. Those two stories were told recently by Johnny Inukpuk and Inukpuk Inukpuk of Inukjuak through the FM radio.

As well two hunters from Povungnituk were drifted out on ice to the islands. The son is recalled to have said to his father after they had came back to mainland, "Right father the Akvilleit are really lined up".

More detailed discussion will be dealt with in later chapters as to how the Eskimos got to the islands and when they were there.

THE ISLANDS

European Knowledge

From late 1600s until Robert Bell named the islands in 1885, the Ottawa, Sleeper, Marcopeet, King George and Belcher Islands were confused with each other and had various French and other European names but which were not definitely known to which islands they were applied by the explorers.

When H.M.S *Alert* under command of A.R. Gordon came in 1885, Robert Bell was aboard as geologist and naturalist, he had come earlier to the island as geologist. On the latter trip he named the Akvileit after the city of Ottawa, and some individual islands after its prominent citizens.

It was not until teens in 1900 that another Europeans came upon the islands. That was when Scottish steam whaler *Active* took an unusual step to spent a winter in Murray Harbour of Gilmour Island (Ross, 1975; 124). According to Ross this took place in winter of 1912-13 while records of Robert Flaherty who was in area at the time indicate that he met *Active* in 1914. This seem to hint some discrepancy of the years spent by *Active* on the harbour, unless it spent two winters. Johnny Inukpuk (born 1911) said that he had heard about a ship been wrecked on the Ottawa Islands and that some sailors died there. Ross (1975;124) states that two crewmen died of delirium tremens according to Flaherty's notes. He also states that the ship's official log only records that Captain Alexander Murray and harpooner Peter Stewart had died during the stay. The Captain died of internal tumor while the harpooner died of scurvy. Johnny Inukpuk and other Inuit crew went to see the graves while they stayed there during summer of 1979.

If there is some truth of Johnny's story of a ship being wrecked on the islands, there must have been something wrong with *Active* if it took the unusual step to winter in Murray Harbour, a long inlet named after the captain.

The next people in record who visited the islands went in the summer of 1939. Gerard Gardner and Brian E. Wilmot came aboard a two mast motor vessel. This schooner *Nouveau Quebec* was owed by O.M.I. Mission and was circumnavigating the Quebec-Labrador peninsula on supply route to its various missionary posts.

Either before or after this period there were few Eskimo families living on the islands (Johnny Inukpuk tape interview) mostly depending on marine mammals and some trapping for fur trade with Hudson Bay Company or Baffin Trading Company. They also sold such walrus products as ivory (carvings) and meat for dog-team food, for company dogs.

Even in late 1940s and through 1950s there used to be regular peterhead trips by the Inukjuak (Port Harrison) based RCMP post, to get walrus meat for winter food for their dog team.

The peterhead owning Inuit also made even more regular trips to Ottawa, King George and Sleeper Islands for the same purpose. Those people included Inuit from Povungnituk and Cape Smith sometimes.

The Canadian Research vessel M/V Theta cruise by the islands in 1961 during an oceanography studies. Then in 1965 the two ship program passed by the islands, CSS Hudson and M/V Theron involved in the research for Canadian Government. From those efforts and later helicopter magnetometric surveys in recent years much have been learned about the nature of the islands.

Before we went to the islands, two parties off Inukjuak had gone to the islands earlier. Those were Charlie Watt and Inukjuak men in July 1979, then W.R.A. Baragar/ Johnny Inukpuk group. Supposedly as well in later time Povungnitumiut.

10th Island

IgHd-1 Landing Approx. 59° 05' 37" N. 80° 32' 47" W. Map 2, Page 45

Located on a vegetated and outcropbound moraine facing west into a small sandy bay, flanked by basalt outcrops on both sides. Elevation above the present high tide mark is approximately 4 to 8 metres.

The features of the site are three circular and squarish tent rings, of loose spaced stones. They are about 3 x 3 metre in diameter. Only the largest ring had some cultural remain within it. This was a piece of a local quartz, dirty white in colour. As far as can be deduced, this quartz is affiliated with an occupation of the ring. No animal bones were seen, which might indicated a brief stay here by either Thule or Historic Eskimos.

12th Island

IhHd-1 Neaquak Approx. 59° 14' 00" N. 80° 37' 58" W. Map 3, Page 46

The site area is at the southwest sector of the island, above and north of main bay on south end. The bay is part of a shallow ravine where this site is, on its western side is a basalt cliff about 4 to 6 metres high as seen on background of Fig. 1A. The surface here is wave worn cobble, stone, and limestone slabs, some or most of it probably glacial transported.

This site would be found by landing on western half of the bay, which is divided by jutting basalt. The structures are around 50 metres from the shore.

During our brief stop here, at least 10 structures of caches and rings were seen. The caches were of piled stones and slabs, few were still quite intact as Fig. 1A and B illustrates. Shown on Fig. 1B is a cache of vertical slabs embedded and forming a box. Its length being about a metre and width .8 of a metre, the lid was not noticed.

The other cahes were larger but their interior space capacity were not much greater, however their rock weight reinforcement should have been stronger, from vicious appetite of husky dog.

Most of the caches were either collapsed or not well defined.

The five or so tent rings were of two principal types, circular and rectangular. The circular rings ranged in size from 3 to 4 metres diameter, while the rectangular one measured around 3 by 5 metres. Its noteworthy characteristic was an upright slab block, propped up probably as pole support and as partition (Fig. 1C).

Lastly the probable cause for structures to be here is single skull of a large sea mammal, likely *Balaena mysticetus* (bowhead whale). It was laying right side up (Fig. 1D) at the central northeast of this site.

The Eskimo group who camped here were of the same period as the previous 10th Island site.

There was no time for further survey of this island (12th) due to worry about the weather, therefore we rushed to House Island while the calm day held, despite possible site location at south-central and north end of 12th Island.

In our rush we skip the island between 12th and House Islands, though it has highly potential areas of level moraines where sites usually are located.

House Island

IhHd-2 Puiguvik Approx. 59° 18' 39" N. 80° 34' 35" W. Map 3 & 4, Page 46 & 47

On a shallow ravine bounded by low basalt bedrock, south end of the island and around 40 metres from the shore of cobble beach ridges of the middle bay facing southeast. Elevation range from 5 to 8 metres a.s.l. Most structures are on tightly compacted cobble, stone and limestone slabs, with few exceptions of isolated groups of rocks on bare bedrock.

The ruins of caches and tent rings were pretty much the same as previous site with loose spaced rings and similar caches. At least 10 or so structures were seen at this site.

The ring were of the usual size as in above sites, and the caches of same material and shape. There were no animal bones noticed. Culture; Thule or Historic. We hurried to look for Manning site.

IhHd-3 Manning Approx. 59° 18' 47" N. 80° 34' 50" W. Map 3 & 4, Page 46 & 47

This is the site mentioned by T.H. Manning from his 1946 voyage. During our short visit to it, few more details were added from surface observations.

Six (6) ruins of sod winter house pits of Thule type were visible on ground surface. The houses are on start of downshore slope at about 28 to 33 metres a.s.l. The ground surface base is glacial and wave packed cobble, slab and stone, half filling a long and narrow ravine, which divides southwest portion from rest of this island. As usual the western limit of basalt outcrop is projecting as low cliff. The shore is approximately 175-200 metres to the south. The ground condition where the house pits are is growth of dense sphagnum peat which almost clogs a stream running down slope at the foot of a cliff (sketch map). Also growing on the peat moss were drawf willow and other miniture plants, as noted by Manning Lyme-grass *Elymus arenarius* grows on the southwest portion, on structures 5 and 6.

A sphagnum pond (sketch map and upper left sector of Fig. 2A) is located on the northeast sector and contributes water to streams flow, thus enriching the lushness of vegetation around the site.

Closest to the pond are Houses 1 and 2, in general outline rectangular with average depth of about 80 cm. and as a rule they have entrance passages of the cold trap type like Thule house should, it is roughly 4 by 5 metres.

House 1 is pretty straight forward in shape, being most rectangular of other houses. The entrance faces west on the long side and is separated from the pit by the lintel ridge, heavily covered by peatmoss. Throughout the house surrounding, tussock bumps covered the surface, though few limestone rocks and slabs were exposed and displaced as seen on Fig. 2B.

This disturbance is either by previous investigators or by Inuit, however it appears to be minimal.

Although the surface conditions are the same as House 1, House 2 differs from first house for it may have double cold trap entrance passages, one on north end and other on southeast corner. However the one on north end may also be a mini-house or even storage house, only excavating it would settle this matter. A more likely entrance passage is directly linked with it, a passage at the southeast corner.

The interior of House 2 is much deeper than first house, being about a metre

at the deepest. Whether this house had been excavated was not determined in short span of time spent here. It also appeared most wet, on the floor area.

House 2 's shape and size are generally the same, therefore it may be pre-sumable that they were contemporaneously occupied. It may also be noted that these houses may be most recent of six ruins, this statement will be further explained in discussion section.

House 3 and 4 are another pair closely resembling each other in size, shape and surface conditions. Both are neither round or rectangular but rather irregular. From the surface both are not as deep as previous houses. However House 3 is about 60 cm. at the deepest back end, the rest of its interior is slightly less and most faint at the north side where the sleeping platform is likely to be (house pit shown on center of Fig. 2A). As expected the interior is completely covered by sphagnum and showed only vertical wall along the back wall with few cracks of vegetation. No whalebones were visible in or on this house, though excavation would probably expose them.

House 4 is faintest outline of all ruins, but is similar to its immediate neighbor in shape. In Fig. 2A it hardly shows in photograph directly behind Erik Val, and east of House 3. For this reason it must be in most original condition of all ruin structures here, no stones or whalebones were exposed about and in the house.

House 5, the largest of all, showed considerable interior surface conditions for some idea of its arrangements, although its depth was no more than 50 cm. Its general shape is rectangular with a compartment at its east-south end. A calcareous flagstone alcove was quite intact, it is situated at the north-east corner. Other flagstones were propped upright in few places inside and along the walls (Fig. 2C). They are assumed to be in their original structural place, though few were laying on the ground surface.

The apparent limit of sleeping platform and or the floor area was traceable and is indicated as dash line on sketch map. A whale skull probably that of bowhead is located on center east of the house, it is entirely covered with peatmoss and only front end was showing slightly, skull shown on map as an outline with letter B.

The lintels of the entrance passage were all collapsed, few of them, calcareous flagstones were exposed as shown on map. The surface depth is same as house and taper to ground level at its end.

House 6, the smallest of all ruins is approximately 2.5 by 3 metres and its entrance passage about 2 metres. It is densely covered with sphagnum, less by Lyme-grass. It is seen on Fig. 2A as double-hole on center right foreground beyond the stream. There were no visible interior set-ups due to vegetation cover, but it seems to be a regular Thule single room house or storage house (McCartney 1977: 42, 43,54), which in this case the interior may be flat as all floor-like space.

If Thule people who camped here had either scavenged or caught whale at this site, they would have to have cache-houses, which in this case may be an entrancelike pit north of House 2 and of course House 6.

The evidence of walrus hunting was confirmed by four (4) skulls, now deeply embedded in dry peat ridge west of pond, and about 15 metres north of ruins.

D. Murray reported seeing another walrus skull in one of many shallow pond, to the north of IhHd-3, which for now is designated as IhHd-3A for conve-

nience along with couple of other nearby sites of few rings and isolated stone cluster. Those site are shown on site location map as along the dash-line because their exact locations are difficult to pin-point on 1:60,000 scale air photos. Culture and time period probably same as IhHd-3.

IhHd-4                    Approx. 59° 18' 40" N. 80° 34' 23" W. Map 3 & 4, Page 46 & 47

This site consist of at least eight (8) tent rings and about five (5) cache stone clusters, on level till gently sloping to east. The surface is thick with moss and lichen. Elevation is approximately 8 to 10 a.s.l.

- Most of the rings are circular with diameter of about 4 metres, while all of the cache remains are collapsed haphazardly. There were no animal bones seen in caches or around the site. Probably Thule summer campsite.

The other potential site areas are tills and former marine beaches at lower elevations and to the east of IhHd-4, forming height of point "hook" on the southeast section of House Island. But they are likely to similar to IhHd-4 which is not one of the most productive or interesting site.

IhHd-5                    Approx. 59° 18' 55" N. 80° 34' 20" W. Map 3 & 4, Page 46 & 47

Located at about 100 metres northeast of IhHd-4, at lower elevation of 5 to 6 metres a.s.l. The gently sloping till is bounded in semi-circle outcrop on entire north, west and south sides, only east side is open overlooking the south east waters. The three or so tent rings are at the foot of western side outcrop. There was no apparent cultural remains, but they were of similar type rings as IhHd-4, being of same cultural affinity for sure.

IhHd-6                    Approx. 59° 19' 28" N. 80° 34' 23" W. Map 3 & 4, Page 46 & 47

This site is on highest non bedrock height of land of the southern portion of House Island, on cobble and gravel till which only had isolated pockets of plant growth. Here one (1) tent ring and possible other, and five (5) small, shallow pits of about 1 metre diameter were noted. A bone fragment of unidentified animal was found during brief testing among the stones. This fragment was quite well preserved and might indicate that this site is not so ancient, despite its high elevation. The shallow caches may be little older, dating probably to Dorset times. The tent ring was not well outlined but hinted Thule rather than Dorset origin by its nature which only archeologist can feel, which is hard to tell in words.

#### Other potential site areas on House Island

The northern half of ravine in which Manning site is, slopes down into a small bay facing northwest. Along this slope there is 100% chance that there are similar tent rings, or even another group of semi-subterranean house ruins. Other likely spots are the tills on north central, narrow part. And possibly on the highest height of land on northern main portion. And lastly the slopes leading down to the bay of north end.

It is assumed that there are other Thule type winter houses on this island, on the basis of many unchecked, but favourable ground site locations as mentioned above.

Due to unfavourable beach landing areas, the island immediately north of House Island was not investigated. Also not much appears to be favourable for site location, from air photo analysis, except on central placed till.

Eddy Island

IiHc-1 Cranium Approx. 59° 24' 45" N. 80° 19' 13" W. Map 4 & 5, Page 47 & 48

The site location is on narrow sloping moraine ending into a sand and gravel beach. The upper slopes are covered by lush green moss with spots of dwarf willow and few species of northern grasses.

At high tide mark, a piece of milled lumber was seen on crevice of a small outcrop on the east side of the beach. This lumber was supposed as possible wooden ship keel fragment by the party, though it is just as unlikely. It had a hand hewn end joint.

At about 10 metres from the water limit and 1 metre above high tide mark, was a cranium of adult human. What was left of it was only cap part or the brain case, the entire frontal and mandible was missing and not seen nearby. In all probability this skull cap came from a grave, part of this site. It most likely was displaced by animal from its resting place.

The main features of this site are no less than five (5) tent rings and a burial, on well vegetated slope ranging in elevation from 5 to 8 metres a.s.l. The rings were of two shapes, square and circular and showed no sign of cord line stone weights. Their sizes were of normal dimensions of about 4 to 5 metres diameter. There was a driftwood in one of the larger ring of lower elevated group, it may have been pole or divider between sleeping and floor section. The other rings had few marine mammal bones in or near them, those bones were either of walrus, white whale or polar bear.

The single obvious burial was of same types found on the Sleepers (Weetaluktuk 1980,10). Though the driftwood roofings were still there, they had decomposed to some extent. Whether the animals had gotten to corpse while it was recently placed and left or the roofing had collapsed first is not determinable, but the skull was not in the grave.

The Eskimos who left the site were probably late Thule culture.

IiHc-2 Approx. 59° 24' 50" N. 80° 19' 00" W. Map 4 & 5, Page 47 & 48

Situated at the far and high end of moraine slope, above and along the IiHc-1 location. The elevation is at around 30 metres a.s.l. The ground surface of peat moss is rich with lichen spots, crowberry leaves and other miniature plants.

The site component is a single shallow semi-subterranean structure. It is only 20 cm. throughout its interior, having a squarish shape of 3.5 metres long and 3 metres wide as shown on Fig. 3A. Its peculiar trait is an entrance passage leading downslope on the left wall side. Its depth is slightly shallower than the interior.

Because of its entrance passage, I assumed this structure to be Thule, Hence I did not bother to test it. Later on when I showed Ian Badgley the photograph he thought it might be Dorset structure, at this elevation it may well be Dorset (Badgley 1980, personal communication).

On fine and level gravel outwash between IiHc-2 and IiHc-3 was a single tent ring of oval shape with dimension of about 2 by 3 metres. There was nothing to indicate its cultural affinity, so it could be Dorset or Thule Eskimo ring. This ring is designated as IiHc-3A as shown on maps.

IiHc-3 Kasudluak Approx. 59° 24' 50" N. 80° 18' 50" W. Map 4 & 5, Page 47 & 48

The entire site area is flat gravel based moraine now thickly covered with sphagnum. The slight basin is wet as to support a sphagnum bog near some of the middle of the site structures.

The total of visible semi-subterranean houses was sixteen (16), all of which were Thule type with heavy sod walls. Their shapes were quite uniform of being circular. But their size were varied from 8 metre diameter to 11 metres. All of the structures are reminiscent of Site 8 on Kidney Island, Sleeper Islands (Weetaluktuk 1980,14,15,16).

Some of the ruins are closely side by side (Fig. 3B) as if to form a single dwelling, but because they are separated by sod wall, they were counted independently.

It seemed that all of those structures were in original state and had never been disturbed. However there was not whale bone or other animal bone showing on the surface. They may have all disintegrated through time and only these buried by sod may be intact.

In all probability the smaller structures are Thule, while the larger ones are a bit later group, either post-contact or Historic.

IiHc-4 Negative Approx. 59° 24' 55" N. 80° 18' 54" W. Map 4 & 5, Page 47 & 48

Located on the same but drier moraine and about 100 metres north of IiHc-3. The vegetation is dark brown peat with sparse surface of moss and lichen. The gravel flat is exposed at the ridges of frost cracks and heaves throughout the site. Elevation above sea level is between 35 and 40 metres.

The archeological components are two definite but shallow semi-subterranean structures, they are no more than 8 cm. deep at their deepest. Their shape are sub-rectangular of approximately 2.5 by 3 metres. Because of their shape it was assumed that those are the first Dorset structures confirmed, hence we did careful testing inside the larger and westerly ruin, not a scrap of expected lithic flake was found, however below 2 to 10 cm. dark peat were well preserved bones of medium size animal, probably of *Phoca hispida* (ringed seal). Same results were obtained from other ruin, this was somewhat disappointing because one would expect to find non-lithic artifacts when the bones are well preserved.

At the time of the survey, it was speculated that those structures might had been Thule cache houses solely for reason of lacking lithic flakes usually more abundant in Dorset structures. However they are too far away from the Thule site (IiHc-3), and they are much more ancient looking as well as conforming to regular Dorset structure shape found in the region.

The discovery and confirmation of Dorset site nearby (IiHc-5) strengthen my assumption of this site as Dorset Eskimo rather than Thule cache house.

IiHc-5 Fox Den Approx. 59° 25' 00" N. 80° 19' 00" W. Map 4 & 5, Page 47 & 48

Situated on southwest facing moraine slope valley of mostly exposed gravel/sand surface, the cultural bearing spot is immediately northwest (5 metres) of the *Alopex lagopus* (Arctic fox) dens, which were occupied at the time of survey as shown on Fig. 3C. As result of this occupation a rich concentration of plant community exists over the dens. Some of those are *Pyrola grandiflora* (Large-flowered wintergreen), *Taraxacum lapponicum* (Dandelion), *Saxifraga tri-cuspita* (Prickly saxifrage) and other saxifrage group as well as dozen or so similar plants.



It was on sand blow-out and near the edge of vegetated area that we found several light coloured chert, white and milky quartz, crystal quartz and darker coloured chalcedony. A total of 21 pieces were picked up for photographs but left at the site after, as shown on Fig. 4A.

Identifiable as utilized pieces are mark with small letters, are as follows: (a) chert spalled burin, (b) microblade fragment, (c) microbladē fragment, (d) pentagonal end blade body, (e) quartz crystal microblade, (f) microblade, (g) microblade, (h) notched microblade, (i) microblade, (j) microblade fragment.

The rest were just flakes as they are usually found in Dorset sites, similar to this which does not have any definite structures. The possible age of this site will be discussed in later chapter.

At approximately 60 metres southwest down-slope was a well defined clump of flagstone forming a paved outline about .5 by 1.5 metres, unfortunately the black and white photographs of it did not turn out. Though there was nothing on the surface to indicate its cultural origin, except the architectural style, this is most likely a Dorset structure.

Further down southwest at about 100 metres were three semi-subterranean pits which were quite shallow. Their shapes were squarish to sub-rectangular with no entrance passage. Their size were about same in the neighborhood of 3.5 to 4 and 5 metres dimensions. All of these ruins were closely side by side in northwest-southeast orientation. The ground surface is lush green with peat based vegetation. There was no time for testing those pits. On the basis of their shape and size those pits are presumed Dorset Eskimo.

From this vicinity of Eddy Island it was clearly and without doubt established that the Dorset people were on those islands long before the coming of the other and later groups.

From this island we moved on to Gilmour Island and safety of Murray Harbour, in doing so we skipped 15 or so islands. The rest of Eddy Island was not surveyed even though the central moraine ravine slopes on central areas and the large moraine bridge joining its northwestern portion. Also the slope facing the west into bay of this northwest portion.

The island immediately west of south portion of Eddy has potential site areas especially at southeast end leading to small bay, and the southwest slope of a large moraine valley also leading small bay. Another possible area is central valley facing west.

The two small islands north of this island and to west of north half of Eddy Island are almost bare basalt, however the south one has favourable moraine slopes (airphoto analysis) leading to south bay. The other north island does not look favourable but it does have moraine shore on northeast sector.

The two islands 4th and 5th north of Eddy have spots of potential site areas. The islands far to west and east of Eddy were not visited although they may have archeological sites.

The J. Gordon and Pattee Islands have excellent moraine slopes suitable for site location, and from brief passage between Perley and those islands, it seemed that there are sea birds and ringed seals around them. Therefore my assumption is that there are probably Dorset and Thule site on the slopes of J. Gordon and Pattee.

Gilmour Island

IiHa-1 Encounter Approx. 59° 51' 00" N. 80° 03' 18" W. Map 6, Page 49

Recorded by J.T. Andrews and G. Falconer (Geographical Branch, G.S.C.) in 1967 and filed by National Museum as Acc. No. 1640, this site was thought as possible Pre-Dorset before investigation by us, because of its high elevation. However much to my disappointment it turn out not even to be Dorset site. The site itself is located on large moraine valley between two half of massive basalt outcrops forming Gilmour Island. The four tent rings are on height of valley at the beginning of northward slope.

The most southeast ring is on mossy level flat, and is by itself. It measures approximately 4 by 5 metres of sub-rectangular shape. In appearance it was doubtlessly Thule or later Eskimo.

The other ring was about 70 metres away to westnorth on much more rocky terrace. This terrace is mixture of large stones, cobbles, gravel and sand with patches of lichen cover. This ring was a rectangular with 3 by 5 metres dimension. Its cultural affinity is same as above ring.

The remaining tent rings were approximately 30 metres directly north of this ring, on bare cobble ridge. They were squarish and were of same general size of 3 by 3 metres. The westerly one showed some disturbance and there were bits of seal bones looking quite recent.

Again it was obvious that those rings are not Pre-Dorset or Dorset, but more likely late Thule to Historic.

IiHa-2 Probable Approx. 59° 47' 27" N. 80° 04' 07" W. Map 6, Page 49

From IiHa-5 on north end of Murray Harbour, this site is one (1) mile northeast on south facing moraine slope. The probable component is on flat gravel till and is around 50 metres east of the main western stream gully leading down the valley into Murray Harbour. Here few cluster of stones made up of suspected structure which may also well be a remain of shattered boulder. After careful search for cultural debitage among and near the stones, a bit of dark local quartz flake was found. This was only possible evidence, that may indicate this cluster as human made, however it is just as likely that it may be naturally occurring.

For this reason it is difficult to say if this is Dorset remain, but it may be.

IkHa-1 Sivuak Approx. 59° 46' 30" N. 80° 05' 25" W. Map 6, Page 49

Reported by M. Wallrath in 1957 and by J.T. Andrews, G. Falconer in 1967. The site consist of eleven (11) semi-subterranean houses including two of two room houses sharing an entry passage. Those houses were counted as separate and individual.

The ground surface here is thick peat supporting various species of arctic plants. From excavated houses, the base appeared to be sandy gravel though few stones and boulders showed on slight hump to east of the houses.

House 1 like all others is facing downslope and is rectangular of about 4 by 6 metres. Its depth is approximately 40 cm. with no apparent disturbance. No testing was conducted by our group on this house, the interior was quite shallow but the sleeping platform must be intact as heavy shpagnum covered it.

House 2 & 3 are about 40 metres north from House 1, and share an entry passage. They are same size and shape being squarish of 3 by 4 metres dimension. The east house around 60 cm. deep and had been dug by either previous investigators or other groups. The hole has been partially re-vegetated since for it does not appear as recent disturbance. The limestone flagstones were removed from their original place and scattered about the house as shown in Fig. 4B.

House 4 is 3 by 3 metres with 3 metres entrance passageway, it had a test pit from previous investigations. The interior is quite flat with no sleeping platform, the occupants slept on the floor, if this is not a storage house.

House 5 is same size as previous houses but it has limestone flagstone benches and a compartment showing. The lintel seemed to be intact as it was covered by peat moss.

House 6 is kind of obscure and almost blends with natural pits of peat vegetation. It is about 2.5 by 3 metres with an entrance passage. There were no visible disturbance on surface.

House 7 is around 3 by 4 metres with 4 metres long entrance and has similar surface conditions as previous house.

House 8 has seemingly undisturbed surface conditions, it is 3 by 4 metres with 4 metres long entrance. The floor area was semi-circular of 1 by .8 metre, as well define from the rest of the interior.

House 9 is about 3 by 3 metres with 3 metres entrance passage, with slight depth of floor space of 1 by .6 of a metre.

Houses 10 & 11 also share an entry passage like Houses 2 & 3 of this site. House 10 is about 3 by 3 metres with 2 metres entryway, it does not show any sign of disturbance by previous investigators.

House 11 is about 4 by 6 metres, a cobble is exposed and may have been pole support. The interior is quite shallow being in order of 25 cm. deep.

Most of the houses of this site are quite small, therefore all of them can't be just storage or cache houses, though their general appearance would hint as such (as stated by McCartney; 1977,39,54). Only actual excavation would resolve this problem. Further details will be dicussed in discussion section.

IkHa-2 Fear Approx. 59° 47' 15" N. 80° 08' 25" W. Map 6, Page 49

Another known and named site by previous parties, namely J.T. Andrews and G. Falconer in 1967, this site is filed as Acc. No. 1640 by the National Museum of Canada.

Here on series of raised beach terraces which are split on northern portion by dry stream bed, were 22 or so tent rings and about 17 caches or cobble clusters. Those terraces are at above 20 metres elevation and directly west of the main gravelly bay in southwest section of Murray Harbour.

The southwest terraces composed of four definite ridges, while the northeast has six ridges half of which are at higher level than southwest terraces.

On the highest southwest terrace are 2 cache pits, a burial and a ring, the vicinity of those structures had no animal bones.

The next terrace down had 4 tent rings and 5 cobble clusters also without any animal remains.

The third terrace had 7 cobble clusters, probably cache remains or piled up tent rings and 4 tent rings. A whale skull and other bones were scattered inside and about the rings.

On the lowest and faintest terrace which became a long sloping moraine down to the shore, was single rather modern tent ring with a tin can. This must have been one of the parties tent ring who were there in late fifties and early sixties.

About 20 metres west of the highest terrace ring on the northeast section was a small 1.5 by 2 metres ring of square shape, inside it was a collapsed remain of either a cache or a trap. Whether this ring was a Dorset or Thule was not determinable due to lack of cultural material, but it could be Dorset.

The sixth and highest terrace had 2 tent rings and a cobble cluster, its cultural affinity was not identified but I would think it as Thule or later Eskimo rather than Dorset.

The fifth terrace which was only a small area contained a single ring. Also similar in style, and there was a single cache. There were few marine mammal bones, probably of white or beluga whale.

On the fourth terrace were 4 tent rings of Thule type with no apparent animal bones.

The third terrace had 4 rings, a cobble cluster and 2 small fire pits, or they might have been old cache pits robbed of stones.

The next terrace had a large rectangular ring of Thule or later Eskimo type, this type of ring has been seen throughout the region.

The lowest northeastern terrace had only few hints of occupational zones, but as the it was getting dark we had no time for closer examination.

Most of the rings here suggested a Thule or later Eskimo occupation, probably during warmer months of years spent on this island.

In the vicinity and to east of this site, at the top of the outcrop is supposed to be the location of two burials of Captain Alexander Murray and harpooner Peter Stewart who were from *Active*. According to Johnny Inukpuk, who has seen them before and in summer of 1979, the grave are said to be open slab or block vaults filled with sand and gravel, and they are said to be sitting directly on bare bedrock. If the photograph on page 84, Fig. 48 of *The Land That Never Melts*, Auyuittuq National Park; is any indication of the usual whaler burial practice, those graves sound to be similar type.

IkHa-3 Missing Approx. 59° 49' 20" N. 80° 05' 55" W. Map 6, Page 49

The location of this natural site was believed to be IlHa-2 supposedly reported by M. Wallrath in 1961. We had not found IlHa-2 when we surveyed the stream flowing to Murray Harbour as stated in site form with that designation, therefore we assumed it had to be on this stream. All we found were 24 fox holes. The original IlHa-2 may have been eroded away if it was near the main stream flowing to Murray Harbour as its banks were covering an extensive area where it has and still is shifting from each delta every yearly run-off. The designation IlHa-2 has been given to another site mentioned earlier which any one may not have recognized or would not recognize as a site.

This natural site is included in this report for reasons, if there is doubt of the location of IlHa-2. No structures nor lithic flakes were found here.

The following four sites are all modern campsites, and all are located at the far and north end of Murray Harbour. They are described generally as places of interest and from what we saw of them.

IkHa-4 Evidence Approx. 59° 48' 40" N. 80° 06' 00" W. Map 6, Page 49

Located on sandy shore point, the level immediately above high tide mark is densely covered with *Silene acaulis* Moss campion, and some sphagnum moss in some isolated wet spots.

The oldest tent rings of which there were at least three, had large marine mammal bones of either white whale or walrus and some might have been even of Polar bear. There were also seal bones.

The more recent ring had wooden poles left behind by the campers, these poles were milled and some plane smoothed.

The most recent camp rings were those of geologists, W.R.A. Baragar and crew. Lastly at high tide mark we found a makeshift mast washed ashore. Tied to it were a store bought full length winter parka, a child's T-shirt, a white plastic bag, a piece of bedspread and two regular size plastic honey bags. Inside the right pocket of the parka were three Champion spark plugs and a felt shoe sole. These "flags" were tied to a driftwood and milled 1 by 4 lumber nailed together to maximize their length which was then 4.5 metres or 13' 3½". The cord used for fastening was a green strapping type. Also tied to the top of the pole was a nylon rope evidently rigging for the "mast".

In all probability this makeshift mast was from the canoe of two Akulivik (Cape Smith) men who were lost in September 1979.

IkHa-5 Inukpuk Approx. 59° 48' 45" N. 80° 05' 15" W. Map 6, Page 49

Immediately east the delta mouth of main stream flowing south into Murray Harbour, the whole vicinity is gravel flat with only few spots of thin vegetation cover. This camping spot was our second site only after turning back from first returning attempt. Here we found two wooden 2 by 4s sticking vertically out of ground, at first we thought they might be whaler grave markers. But upon close examination they turn out to be no more than boat mooring posts. Also seen was a badly shot up 10 gallon gasoline drum, shot by 12 gauge slugs as tale-tell empty plastic shell suggested. This could not have been earlier than mid sixties when plastic shells were still not introduced in the region. There might have been two modern tent rings here but both were badly robbed of stones by most recent campers, namely Johnny Inukpuk and crew. An old radio-sonde transmitters of larger model was seen here with few scraps of soapstone that had been carved while people camped here. As well Samwilly Elijasialuk's crab "trap" was noted.

IkHa-6 Seaweed Approx. 59° 48' 28" N. 80° 05' 00" W. Map 6, Page 49

This area is rather poor for camping spot for it is too steepy, but we had to camp here in order that our speedboats are safely moored and positioned as to the direction of wind that day.

Here at least three rings were seen, we had to use some of their stones for our two tents. All rings were modern, of which two were circular while the other was rectangular shape from the Woodsman type tent. There were no surface material from the occupation of the rings.

IkHa-7 Distant Approx. 59° 48' 12" N, 80° 05' 30" W. Map 6, Page 49

On the deep south end of the inner Murray Harbour, this modern campsite was not visited but one 45 gallon gasoline drum could be seen in the distance. During the 1979 trip of four speedboats from Inukjuak, this is where they camped. Stories from them indicated also that this spot had been used by others especially those from Povungnituk.

IkHa-8 Crab Approx. 59° 48' 12" N. 80° 07' 08" W. Map 6, Page 49

Located on flat sloping gravel bank directly across point of land on the opposite side of the inlet. Elevation a.s.l. is between 8 and 12 metres. Here three tent rings of round type were noted, also a cache was near them, as well an elliptical outline of stones about 1.5 by .8 metre dimension. This might be a burial of a child, however it is not definitely certain. The people who were here were definitely earlier than modern period, they may have been either Thule or later Eskimos.

IkHa-9 Exposed Approx. 59° 48' 14" N. 80° 08' 30" W. Map 6, Page 49

On the far west of the Gilmour Island southwest arm, the area is rather uninviting for camping. But here on large cobble and occasional boulder filled slight ravine sloping down to a tiny bay, were two definite man moved group of cobbles. One of them was at the foot of steep almost over-hanging bluff. This ring used the bluff as north side, it was only about 3 metres long. The stones were semi-loose spaced and not piled up.

The other structure was to the south and looked to be a cache rather than anything else, for it was open but not in good shape, however it may also have been a child grave which since has been opened by wild animal. The Eskimos who left this site were probably Thule or slightly later group.

IkHa-10 Etimivik Approx. 59° 47' 08" N. 80° 08' 20" W. Map 6, Page 49

Low elevation site on gravelly slope at about 3 metres a.s.l. The components consist of couple of circular but collapsed cache remains. Probably semi-modern.

IkHa-11 Wallrath Approx. 59° 46' 45" N. 80° 08' 35" W. Map 6, Page 49

The site area is series of 5 or more raised beach ridges at elevation of 4 to 7 metres. The most northerly ring has squarish back and the front is tapering to the entry way. It is 4.3 metres wide and 7 metres long.

The grand total of rings on three ridges were 36 including above ring, all were similar in shape and size. Some were circular, oval and squarish and their average dimension were 3 by 3 metres.

The cache total came to 40, some of them might have been child graves. But it was hard to tell without removing the stones.

There were at least 4 burials which were more or less determined by the somewhat oblong shape and larger size. One of them had femur of large animal which might have been grave furnishing, as was custom before Christianity, at least in ethnographic period.

Scattered throughout the rings and caches were animal bones, mostly sea mammals like white whale, seals and walrus, also occasional polar bear.

IkHa-12 Meagre Approx. 59° 46' 58" N. 80° 08' 45" W. Map 6, Page 49

Directly west of IkHa-11, on the top of steep bank of gravel till resting on the east edge of the bedrock ridge. The site components are two oval rings of stones measuring 1 by 1.5 metres. It was not determined whether these are tent rings or grave outline, but they may be grave outline rather than tent rings from their size and shape. The people who left these rings could be the same who camped at IkHa-11.

IkHa-13 Inukshuk Approx. 59° 46' 42" N. 80° 08' 36" W. Map 6, Page 49

At the height of eastern edge and above point of land, the surface here is a cobbly till resting on bedrock. The main features on "boulder field" are (4) four or so inukshuks, (6) six caches and a single fox trap of sliding door type, also (4) four or so rings of tent outline.

The largest inukshuk might have been 1.83 metres (6 feet) tall when intact, the others might have been a bit smaller. Most of them were collapsed but they were still in certian condition to allow estimate of their original height. The caches were of regular type found on the island and the region and most of them were in bad shape.

The tent rings were of either circular or squarish shape with average size of 5 by 5 metres, of loosely spaced stones. In and around these rings are marine mammal bones. There was a scapula of a whale larger than beluga, also there were rib bones scattered about the site and of course there were some seal remains. The Eskimos who camped here were probably Contact or later group.

IkHa-14 Bear Skull Approx. 59° 46' 42" N. 80° 09' 36" W. Map 6, Page 49

From IkHa-13 to this site the trail on bare bedrock was marked by occasional stone markers, even on of the small fault of outcrop was a stepping stone to make passing the fault easier to step over. The markers lead to a hallow of ground where some stone and cobbles filled the deepest part. Here a footpath was cleared through the cobbles and stones. It was .5 metre wide and about 14 metres long in north-south orientation. To the east and by it was an adult polar bear skull.

In all probability this footpath was built by Thule or later Eskimos but the bear skull is more likely recent kill, during modern times.

IkHa-15 Series Approx. 59° 46' 15" N. 80° 09' 10" W. Map 6, Page 49

The outline marked on the map consist of (6) six series of sites that are all kind of inter-connected with each other. They are located on and around a lower and narrower moraine surfaced section of main southwest arm which a large part of it is now covered by moss and lichen as well as few spots of lyme-grass. On northern part of it is an outcrop almost surrounded by tent rings. This part contain 14 caches which some may have been child graves, and 4 tent rings. Within and nearby some of the rings are as follows, 1 polar bear skull, 1 walrus skull and some beluga whale bones. Here we noted a tin can of either skim milk or lard container, rusted but still in fair condition. The tent rings were of regular size for the period of canvas tents which were 4 to 5 metres diameter and more often round than square, they most likely are of late 1800 to early 1900 and some as late as 1950s, the ones with tin can.

The rest of the north side moraine is same portion of of slope which the previous tent rings are, but to south of a narrow bog pond which divides it, the moraine slope resumes from southern outcrop. The whole area is oblong shape in north-west, southeast orientation.

Here large number of recent and modern tent rings, caches and some graves made up the components. The total of (54) fifty-four tent rings were counted throughout the site, (33) thirty-three caches and (2) two graves were also noted. The tent rings were of the same size as previous site, being the average of 4 to 5 metres diameter, and all of loosely spaced stones and some with stone weights for cords.

The caches were just clusters of stone now collapsed almost flat on the ground. Most of them were of 1.5 by 1 metre size and were all of round stone, though sometimes they had some flagstones and blocks as additional or framing structure. In the region the slabs and blocks are most used as framing and lining structure caches and burials then weighted down by round stones and other kind shaped rocks to protect them from scavengers.

The graves here were assumed solely by their longer shape appearance and more intact condition than presumed cache remains.

Few marine mammal bones were seen scattered on the ground surface throughout this site.

The people who stayed here were probably post Contact/Recent and Modern.

#### IkHa-15A

This site is on the same side as IkHa-15 tent rings but is at the bank before the bog. The components are (6) six Thule type winter sod semi-subterranean ruins in linear arrangement along the bank. They are facing south and most of them are of squarish and rectangular shape. The most southeasterly four ruins are grouped up as twins sharing the same wall.

House 1 is largest of ruins here, in size and shape it conforms well with the Manning site's House 1 and 2. It is rectangular 3 by 4 metres dimension, with entrance passage of cold trap type. Its interior was wet shpagnum and water fills the floor space which appeared to be bare gravel in some spots. A corrugated and galvanized iron sheet was laying in the interior. Evidently the later Eskimos used the semi-subterranean pit as a cache and covered it with this sheet. I can assume this because as a boy I recall our camp using same type of sheets to cover walrus dog-food, stored for winter use and re-enforced with stones. But there were no stones inside House 1 here, therefore it can be also assumed that this sheet was blown by wind into this ruin, from its original cache stones.

House 2 is about 4 metres east of House 1, is a bit smaller but of same shape generally. Like House 1 its surroundings are covered by heavy shpagmun growth which at couple of metres south of its entrance end, it becomes wet and eventually slips under a pond. It also had a galvanized iron sheet inside it and the interior surface and floor was generally same as House 1, wet and with exposed floor spot. No testing was done in or near those house ruins. The walls of both were not very high mounds and may suggest their relative old age. It may be presumed that the more recent Eskimos dug the floor area to make a handy cache pit with already wall surroundings.

If this is the case then it is likely that the Eskimos who did this were the ones who left the modern tent rings, but who built snow houses in winter time as was the practice by the eastern Arctic and Hudson Bay Eskimos (Inuit) until late 1950s and early 1960s when education need for Inuit children was made obligatory by the Canadian Federal Government.



Houses 3 & 4 are about 8 metres east from House 2. Those houses are generally square in shape and each measure around 2.5 metres each, the walls are jointed on one side, it is doubtful that those houses might have been separate but rather that they were merely a larger version of Houses 1 & 2, with separate entrance passageway which they had. Unlike the previous houses their entire interior surface were completely covered by sphagnum with haphazard intentions of interior living arrangements, as shown on Fig. 4C.

Those houses may have been occupied by extended family of in-laws.

Houses 5 & 6 are identical to previous twin houses and are most easterly of semi-subterraneans. In all respects they are same as Houses 3 & 4 and may had been the in-law or close friend Eskimo dwellings.

The age of these ruins are most likely contemporaneous whenever that period of time was which will try to be narrowed down in discussion section.

#### IkHa-15B Eroded Bank

Part of the main IkHa-15 and 15A but is most eastly of both sites, this site is presently being eroded by waves apparently when the wind direction is from south, southeast or east. Although it is 1.5 to 2 metres above high tide mark, it is a moraine fill, which make it vulnerable to pounding waves that are common in early autumn.

The bank is about 1 metre high with turf surface, which on steep slope are marine mammal faunal remains. Most of the bones were of smaller animal such as ringed seal. Among those bones we found three definite artifacts of bone and possibly antler but it may be of walrus rib.

One of them was by itself on level wave deposit sand, it probably was exposed and displaced by waves only the previous autumn, before we got there.

This curious piece is or was made of three components, the inner part was a wooden stick of 7 mm diameter or pencil size. The bulkest and middle part is a short cylindrical piece with average diameter of 29 mm and average length of 27 mm, both of its end are conical, the larger one has maximum height of 12 mm. This end is presumed to be the top of the whole piece if it was designed to be a functional gadget. The smaller end has only maximum height of 3 mm. Right in and through the center and parallel to cylinder's side is a hole holding a broken piece of stick mentioned above.

The last and largest piece is a flat disk with mean diameter of 60 mm and its thickest section is 6 mm. Again this piece is designed to fit around the cylinder as shown in illustration of Fig. 5A on page 50. Multiple side, top views. All those pieces were fitted together as mentioned, when we found it laying on wave washed sand. The first thing that comes to mind is child's toy top, but it may also have been something else. It might have also been a mouthmouth of either a fire or drill bow, or maybe a skin float. Most Inukjuak Inuit who have seen it think it might be a mouth piece for seal skin float. But they are not too sure, as it could well be something else that they have not had chance to know when they were young.

The other pieces were originally one piece but had been sawed off since along the side as shown in mock-up drawing. The larger piece have a drilled hole in line with other, smaller piece as it has been originally when one piece. Its original function is thought to have been a drill base and guide, to prevent an object being drilled from wondering off, this has been suggested by Inukjuak Inuit again but they have some reservation about it. It might also have been a part of sled trace equipment or some other unknown function but it certainly appear more functional than the other above gadget. The last piece has been made as rough needle for lace guide for food or other skin bag.

The southern portion of this site, IkHa-15C is on a moraine filled ravine slope bounded by basalt cliff on its western limit, the whole slope being in north-south orientation. Here no less than fourteen (14) raised beach terraces made a step-like slopescape. Twelve of them contained dwelling remains of the Eskimos who had camped here in the past, leaving 50 tent rings, 45 caches or cachelike ruins, some animal bones and a grave as well as an exposed human-skull.

On the highest terrace we found what we thought were four (4) possible Dorset if anything structures. They were ever slight depressions among the stones and boulders. Their possible dimensions were thought to be 3 by 4 metres and only after painstaking search on their surface interior did we found a single beige chert flake. This by no means was taken as definite indicator that those were indeed are structures at all. Those evidences are far too slim to make definite statement as to the human or natural cause of their shape or presence. Though the elevation was high enough at over 20 metres for Dorset site to be at this level.

The definite rings at this terrace were two Thule or later Eskimo type tents of loose spaced stones with no weights for cords, there was also a cache here. Nearby those structures were some smaller whale bones.

The second terrace had two tent rings of Thule or later period and a cache.

The third terrace had nine (9) tent rings of Thule or later Eskimo types, eight (8) caches and a skeleton of *Delphinapterus leucas* (white whale).

The fourth terrace had six (6) tent rings, three (3) caches and a marine mammal rib, either of white whale or walrus or even a polar bear.

The fifth terrace contained three (3) probable tent rings of oval shape, measuring about 2 by 5 metres. Those might have also been open graves of Thule or pre-Christianized Eskimos.

On the sixth (6) terrace were three (3) tent rings, one of them was large rectangular type of about 6 by 11.5 metres. As well there were five (5) caches and some animal bones scattered nearby.

The seventh (7) terrace which was three (3) or four (4) metres below the previous terrace, therefore making the greatest level difference between terraces. Here 4 tent rings were noted, two of them and nearest to cliff were quite different from the rest of the rings. Those being of closely fitting stones and of deeper dug than all other rings. Hence their interiors were approximately 30 cm. below the surrounding ground surface. The larger one had a well defined sleeping platform and its front end toward entrance was tapering. The other ring seemed to have flat interior with no sleeping platform. In all probability those two rings were occupied contemporaneously, maybe a bit later than other rings.

On the eighth (8) terrace was one burial, probably from all those rings occupiers, fifteen (15) tent rings and one human skull only with jaw missing. Close examination of this skull suggests that this skull was not of biologically pure Eskimo, or was even of European. A prominent skull cap ridge known by physical anthropologists as racial indicator was lacking on this skull, therefore it was considered that it was highly probable that it was of a mixed blood. This skull was laying on its right temple inside a square and recent looking tent ring at this terrace.

The remainder of the structures were three (3) caches of collapsed stone type. It is possible that one of them might have been a grave but all of them were in too poor a condition to make definite assumption and conclusion in regard to the exact former function they had.

The ninth terrace had two (2) tent rings of Thule or later type and five (5) caches.

On the tenth terrace were three (3) rings and ten (10) caches, all similar in size and shape to the rest of the site structures.

The eleventh terrace had one (1) tent ring and one (1) cache of the same type.

On the twelfth (12) we saw three (3) tent rings and eight (8) caches of the same kind as noted on the entire slope except the highest terrace.

It is obvious that this particular slope has had a lot of Eskimo occupation as the number of rings, caches and other structures attest to it. The occupation that goes back to the times of Thule Eskimos, if not Dorset and had continued to the Contact and Historic times and of course to Modern times even if in sporadic events.

IkHa-16 Footpath Approx. 59° 45' 57" N. 80° 09' 15" W. Map 6, Page 49

Like the previous site the three (3) sites here are grouped together in designation for convenience and since all of them do not comprise a whole lot of structures.

IkHa-16A consist of three tent rings on cobbly area. Also a single cache remain was nearby. About 50 metres south of it was a footpath very similar to one of IkHa-14. This path was cleared out of cobbly patch at the front and east of a low cliff outcrop. It was again .5 metre wide and its length was 11 metres. We presumed that it may have been cleared to make the seal dragging hunter have easier time with his kill on the way back to the camp. Or it could have been for some other function which has not readily come to mind.

The tent rings here were of regular type some round and others squarish with rounded corners. Some had semi-loose weight rocks but all were not modern with weight stones for cord. No animal bones were noted near or in them. Those rings and footpath may have been of the Thule people, if not Contact or Historic.

IkHa-16B is more or less directly east of above site, on height of land. It consist of five (5) inukshuks, the tallest and largest was 1.3 metres while the others were much smaller because they were in bad shape. Beside the largest one was a vertebra of a large whale (bigger than white whale), measuring about 6 inch diameter of round part or centrum.

On the northwest section and at lower level of this site were four (4) caches in collapsed condition.

The people who left those structures were probably Thule or later Eskimos, though the largest inukshuk could be of European origin.

IkHa-16C is approximately 100 metres south of IkHa-16A and is at the west edge of a low outcrop. The structures comprised of two (2) tent rings of regular type and three (3) possible caches which may also have been trap or child burial.

This no doubt is other Thule or later Eskimo site. The rest of the Gilmour Island southwest arm was not surveyed because there was little or no probable sites at this low elevation portion which most of it is bare bedrock and there were no stones sticking out of the top, that are often indicator of site's presence.

The shallow ravine west and northwest of this site was surveyed with no positive results even though it might have been suitable for human occupation as it was well above 10 metres mark.

IkHa-17 Seal Cove Approx. 59° 46' 30" N. 80° 07' 15" W. Map 6, Page 49

On the southeast side of Murray Harbour, this site is at the water front and west of a steep valley. Here the ground surface is marine and littoral deposit, most of it is covered by light cover of moss and lichen. At the center of this valley is a small stream eroding it and flowing through to the sea. The human made components are about six (6) tent rings of roundish shape. All of them appeared recent with litter of seal and larger marine mammal bones near and at the front of them. Therefore it is presumable that site is Modern and may be only 50 to 75 years old.

IkHa-18 Attempted Approx. 59° 46' 50" N. 80° 07' 10" W. Map 6, Page 49


Like the previous site this one is on moraine filled gently sloping deposit on the east side of the harbour. The ground surface is much the same as last site, however the peat is present to greater extend and there are spots of lyme and other species of grass here also. As well there are few wet spots on the basins of the ground.

At the lower section of the site we counted twenty-six (26) caches as the main features, though a single tent ring was also seen. Scattered about were numerous marine mammal bones which most appeared to be of white whale with few skulls.

The bit higher level had four (4) possible Thule type pits which were very small and heavily covered by peat that made it hard for definite conclusion of their exact nature. Twenty-four (24) caches were counted at this level as well. Plus there were twenty-three (23) tent rings of the usual configuration. Most of them had no cord weight stones. Additionally there were couple of polar bear skulls with some teeth intact.

The main features of this upper level were six (6) Thule type semi-subterranean house ruins, in cluster arrangement. The largest was about 3 by 5 metres and rectangular in shape. It was about 30 cm deep, and testing at the interior beginning of the cold trap entrance revealed some sea mammal bones, probably of the ringed seal.

The rest of the house ruins were not as large and their shape ranged from oval to squarish and most of them were of 2 by 2 metres in size, and all appeared to have a cold trap entry passage.

In addition we saw a tent ring to the north of the house ruins at about two (2) metres. It was of peculiar shape, being double rings joined by stones before they overlap. Then the whole thing is encircled by elliptical string of stones, with a break at one of the ends. The whole structure looked kind of like this illustration . The exact function of this structure is not known but it is highly probable that it was a tent ring, it also might have been a game or contest structure.

There was another possible semi-subterranean house ruin but it was not tested by us as it may as well be a naturally occurring pit caused by frost heave or ice rafting when the sea level was at this height.

In all respects this site is similar to all other sites with Thule type house ruins and tent ring only sites with caches and animal remains, which are now known as principal site type to be found on the islands. Except of course the Dorset sites that are probably here but were not visited this summer due to lack of time and choice of the islands visited.

### Summary Comments

Of over twenty-five (25) archeological sites located on the islands, eight (8) has semi-subterranean house pits both of Dorset and Thule types. The vast majority of sites were tent rings of which seven (7) explicitly were modern and all on Gilmour Island. The rest would be in between Thule and modern periods. It was not confirmed that the tent rings of Dorset people were present but the IiHc-5 Fox Den site may represent a summer occupation as no structure outline was noted.

Pre-Dorset as mention in "Known Archeological Sites" section no Pre-Dorset as is known archeologically was found there, even though the islands would have been large enough for this culture group to settle on. The marine limit of 158 metres is certainly high and if Pre-Dorset people had knowledge of the islands they would have made some use of them, or even accidentally got ice drifted onto them. It seem highly probable that they were not present on the archipelago to great if any extend. But such presence cannot be rule out from fews days survey of the Ottawa Islands.

Dorset although there were not as many Dorset sites as on the Hopewell Islands the existance of Dorset sites on Ottawas has been clearly eastablished by our reconaissance and it is interesting to note that this Dorset period appeared not to be a late phase of this prehistoric Eastern Arctic culture. Even the far flung Ottawa Islands saw the appearance of this roaming culture.

Thule much was expected of this Eskimo group to be found on the islands and we were not disappointed by their sites seen on most of the visited islands.

Contact/Historic this period group is always difficult to pinpoint since there is no fine dividing line between Thule and later Eskimos. But this period serve as buffer zone between late Thule and modern Inuit.

Loosely it would be defined when the Eskimos met or have met the Europeans for the first time, but were still not drastically altered in most of their every utilities and were not christanized yet. This would range from anywhere late 1700s to mid 1800s in eastern Hudson Bay. Even then it was not an everywhere phenomom because there were always islolated spots with few Eskimo families.

Historic on the islands this period generally starts from late 1800s till the majority of Inuit started to rely more heavily on obtained goods from the traders, especially tea, tobacco the guns. In some places like Cape Smith (Akulivik) this period went right into 1920s, for some families.

Modern this period can range from early 1920-1930s to the present times, but for this report it implies the periods only as late as 1960s, therefore anything after that is considered too recent to fit this designation.

Most of the sites are within Thule to Historic times, but this period is not as interesting as Dorset periods and is quite well known as to when they were occupied. And yet they can also be very alike when seen as tent rings.

On the other hand the problem of Dorset people getting to the islands is much more interesting to most archeologists engaged in research. The little known fact of Dorset watercraft adds to the problem of research as far as to how they got to the islands in the first place. Therefore more attention will be held about the Dorset people crossing the 70 mile gap in unstable ice region in winter. This gap is much more signifigant than gaps between Belchers which Harp has pointed out in his preliminary reports. This will be argued further.

But until actual field work has been done in this region further discussion seem to be in vain.

Povungnituk region: is considered marginal for one main reason, the low topography. The second is lack of sufficient fieldwork or knowledge on Dorset archeology. But one thing is for certain, that the Dorset people must have passed through or settle in the region while gradually working their way down the east coast of Hudson Bay.

The collection that might have some Dorset pieces is from Povungnituk itself excavated by Wallrath in 1961, mostly from a Thule site. The possible Dorset pieces are few artifacts and flakes of jadeite from JaCh-1. Artifacts and flakes were in milky quartz, a likely Dorset trait. Those collections can be seen at the National Museum of Canada.

The Inuit of the Hudson coast have stated to me that you cannot see Ottawa Islands from Povungnituk. This lowland starts from few miles north of Portland Promontory and ends at few miles south of Cape Smith Range.

If the post-glacial uplift is the same as Cape Smith-Ottawa Islands as it is indicated on uplift charts (Andrews, McGhee and McKenzie-Pollock 1971) the Povungnituk region should have uplifted by about 14 metres (46 feet) during the last 2,400 years. The whole Povungnituk region hardly exceeds 30.5 metres (100 feet) at its highest peaks, hence it leaves us about 16.5 metres difference between then sea level and the highest island heights. For looking at modern maps revealed that there were scattered islands off-shore and that the coast was about 3 to 10 miles from inland from the present shoreline.

It would seem that this region was too low for comfortable human occupation during the first phases of Dorset culture and only later in Dorset times may it have been more hospitable. The above mentioned Dorset artifacts and flakes seem to have come from a late Dorset people. But before any definite statements can be made concerning who was there and when we have to wait until further work is done here.

However it can be assumed that if the Dorset people were here, they may have gone to Ottawa Islands by one way or another. One sure way is to be drifted off to them accidentally as stated in Inuit Knowledge section.

The Hopewell Islands-Inukjuak region: is presently considered as prime area responsible for peopling of the Ottawa Island during the Dorset Eskimo periods for the following reasons;

1) archeologically known, 2) geographical location, 3) topography and game resources, and 4) winter ice conditions and sea water currents.

The Hopewell Islands-Inukjuak region have just been surveyed for archeological sites and couple of Dorset site salvage excavated at Inukjuak starting in 1979. The Hopewell Islands survey revealed considerable number of Dorset sites on the islands, so did the survey near Inukjuak community.

This region, a large land area projecting out into central eastern Hudson Bay is northern limit of the great Hudson Bay arc. This arc is perfect a semi-circle with its southern end at Cape Jones. Its significance as far as the Ottawa Islands are dealt with is that the distance difference is comparable to that of Smith Island, when seen in Elsie Island-Waters Island perspective. Which is greatly shortened when you have favourable current working for you in crossing the 60 plus miles between the nearest island to island distance.

Disussion on facts, possibilities and speculation

Pre-Dorset: the speculation of this culture being on the islands is possible but not confirmed by our brief field work. Therefore its discussion will be excluded here.

Dorset: the presence of Dorset culture remains and structures presents an interesting if not significant problem in Arctic archeology, as far as Dorset watercraft if any is implicated.

Where the Dorset people may have come from is discussed here, even with limited knowledge of the possible and adjacent mainland regions and islands. These being considered are the following:

1. Cape Smith-Smith Island region
2. Marginally Povungnituk region
3. Hopewell Islands-Inukjuak region
4. Sleeper Island region
5. King George Islands

It must be pointed out that any other regions like islands in northwestern Hudson Bay and the Keewatin coastal lands or even the Belcher Islands and are not being considered as probable, or even if possible regions where the Ottawa Islands Dorset may have originated from.

Known regions: include only the # 3 and # 4 above regions, while the rest are marginally or totally unknown.

Two major scenarios of the Dorset peopling of the Ottawa Islands from 5 regions above, or combination of them are postulated. Whether this peopling was willful or accidental is also of main concern.

Then from limited artifact assemblage found on the islands, the chronology of this occupation is typologically placed compared to artifacts from the nearest mainland regions.

The Cape Smith-Smith Island region: while this region is one of the likely place where Dorset Eskimos might have come from, the problem with it is that it is virtually unknown as far as Dorset archeology goes. The reason for this region as a likely place for Dorset to cross over from is that the Smith Island has a peak of 307.5 metres (1009 feet) and Mount Allen on Gilmour Island has peak of 344 metres (1130 feet). The distance between those peaks is around 78 miles.

On calm days it is said that you can see Mount Allen when you are not even at the peak of Smith Island. Issac Aupaluktuk of Inukjuak, who grew up in the region states that they used to be able to see the Ottawa Islands when water was calm. He said that it appears in the distance like a dark cloud.

It is very likely that the Dorset people might have seen the islands while in Cape Smith region. This is quite possible even during a bit higher sea level. The rate of uplift for these areas is quite similar according to isobase maps (J.T. Andrews 1969) and during the earliest Dorset times they may not have uplifted by more than 15 metres (Andrews, McGhee and M. Kenzie-Pollock 1971, 222). This rate may not have significant effect when one is dealing in hundreds of metres, as far as visual distance is concerned.

However before we accept the fact that Dorset people had seen and decided to head for the islands, there are still few problems to concern with.

Those are geograpical, climatic and seasonal factors, besides cultural li-

mits of Dorset people who are not or hardly known to possess any watercraft of large size must have restricted them from travelling any distance over an open sea. The Dorset people are now known to have had kayak not very different from Baffinlanders (G. Mary-Rousselière 1979:26). But what is still not known is whether they had an umiak.

Geographically the distance between Smith Island and Gilmour Island in summer can be quite hazardous for people in small watercraft for couple of reasons. First is the unpredictable wind change and the second is counterclock-wise current direction which the people setting from Smith Island would have to battle head-on unless they pick the right moment and go sail with the wind. Sailing with the wind is probably the only way to reach Ottawa Islands from Smith Island. But there is another possibility.

While seal hunting along the floe-edge off the Hopewell Islands, we have often witnessed the change of current from north to south. The south flow can run for hours at approximately half a knot an hour or more.

The Dorset people may have had taken this advantage when setting out to the islands. If they only had kayaks it is likely that the pioneering hunters went first and came back later, bringing good news of game resources on the islands. Hence the whole group would have planned a move to them in more favourable season or even jumping off point.

The most critical factor during the Dorset period was a climatic conditions of colder and warmer trends. In the colder periods the sea ice between the Smith and Ottawa Islands must have been more solid and stable as compared to today's unstable ice conditions throughout the winter.

If that is the case then the ice would make an excellent bridge for at least a month or more. Such sea ice condition would make a yearly journey predictable and possible for Dorset people. Or even as long as they can afford or wished to stay on the islands.

In winter of 1978/79 the fast ice extended as far as Sleeper, Marcopeets and Ottawa Islands for as long as a month. Though the ice between Ottawa Islands and mainland can not be expected to be stable for more than couple of weeks under normal colder winter conditions of present climes. But even then the ice is constantly subject to strong currents and winds which alternates persistently. Under this ice condition the journey to the islands in winter is riskier but possible, and probably a lot safer than trying to cross it in summer in what is now known of Dorset watercraft. Therefore it is possible to cross the 60 mile gap under present conditions during the coldest period of winter.

It is not known what the weather was like in warmer periods during Dorset occupation of the Eastern Arctic. This according to Dekin (1972) occurred at intervals and happened twice when Dorset occupied Eastern Arctic. The first warm period took place between 200 BC and lasted until 400 AD, while the second part occurred between 850 AD and 1150 AD.

It is now known that the Dorset occupied the east coast Hudson Bay during both of these warmer periods but not directly at Cape Smith region due to lack of field work there.

It is generally presumed by Arctic scholars that during the warmer periods the weather was also calmer, on the assumption of prevailing wind changes in which the wind was from westerly direction (McGhee, personal comm.). At this time the Dorset people may have taken this opportunity to hit the islands.



The topography of this region is quite higher than the Povungnituk region, but still one cannot see Ottawa Islands from the nearest Elsie and Nuvusik Islands. The sea level above then of 30 metres (98.4 feet) would not have had dramatic change from the present shoreline, except of course with deeper bays and inlets. The Hopewells would have on the other hand had been drastically reduced in size, to the point that the smaller islands would have been nothing more than islets, but the larger islands would have still been of considerable size. This being the case, archeological sites were found at over 50 metres (164 feet) on larger islands. They also had numerous structures, one site had a count of 73 boulder-field pits. On the mainland, similar sites but with less pits were seen at the same elevation.

The region here has reliable sources of bearded and ringed seal and not so reliable now, the harp seal. Larger marine mammals includes white whale and walrus. Walrus are hardly seen today but they must have been here during the Dorset periods. Sea ducks here are as reliable as sea mammals, in breeding seasons. Land birds are about the same and land mammals like caribou and other smaller species are to be hunted in the region.

The winter ice conditions are most important factors along with water tide, currents in so far as with are dealing with marine mammal hunters and gatherers. The ice cover in winter has drastic change over the general outlook of the hunters who must continue to hunt seals at the breathing holes, and must continue to travel from one hunting spot to another. For travelling the ice cover makes every move easier and less riskier, especially for people who had no large watercraft like umiak. The cover that allowed people to travel with more leisure even if they just walked or pulled sleds as attributed to Dorset people archeologically.

The Hopewell Islands-Inukjuak region always has open leads close to the shore of the islands due to constant changes in wind and currents. The winds from north, north-east, east and east-south have effects on ice conditions for most parts of winter. Only during February-March are there few weeks of complete cover or flow edge too far for favourable seal hunting. And even on calm days the leads usually open up from current shifts, Many a hunter have recieved warning to be careful and watchful when off-shore wind subsides, least he be cast adrift on ice. Stories are known of whole group of Inuit travelling up and down the coast on nomadic hunts, being cast adrift for days or weeks but managing to survive the ordeal with some loss.

It is with this in mind that I suspect that such misfortunes might have happened to Dorset groups from this region. The archeological sites surely indicate that Dorset population might have been large enough to absorb this kind of loss. The group who are marine mammal oriented could have survived long enough to be carried to the Ottawa Islands by counter-clockwise current. This group then may further be carried to Smith Island-Cape Smith region when they had seen it from the top of Gilmour Island, and bring what ever news they had to tell about the islands to other Dorset groups. This speculation is very optimistic for it is more than possible that the Dorset who set a foot on the islands may have been doomed to stay there as long as he lived. Even in summer Dorset kayakers could have been blown off to the islands from this region (Inukjuak). It is not known how many kayaks would be in groups, only we presume that they may have been of same size group as Inuit who used to travel in two to eight or more kayaks before introduction of whaleboat, peterhead and outboard canoe.

Sleeper Islands region: is considered because the Sleepers are directly in line with Ottawa Islands, which are also down stream from Sleepers as the current flows. Again the winter conditions are prime reasoning for cast-off flow edge hunters who find themselves by the Ottawa Islands, who had no other choice but to head for them.

The distance seems a bit long to speculate for drifting Dorset kayakers out in open water. I have heard of Belcher Island Inuit who found it difficult when stormbound between north Belcher Islands and Sleeper Islands. It would not have been less during Dorset times unless one take into account the supposed warmer and calmer climate, to cross the 97 or so miles nearest gap.

King George Islands region: first of all it is not archeologically known if Dorset culture is present on these islands and of course due to lack of field investigations here. But if they are here, it is not impossible for another lost Dorset hunters to find themselves drifting to Ottawa Islands. The Ottawa Islands are further out than King George group. For this reason it is highly probable that they (Ottawas) caught the drifting Dorset hunters from King George Islands. Same goes during spring, summer or fall seasons when Dorset Eskimos tried to hop island to island.

The five regions above represent the most likely areas where Dorset people are thought to come from. While the Cape Smith and Povungnituk regions might be the best choices, the Hopewells-Inukjuak, Sleeper and King George Islands are just as likely places. All those regions are probable donors of Ottawa Islands Dorset, if we take the accidental peopling. For in all those areas wind and current are active. The Cape Smith area Dorset hunters could have easily been blown off. This has happened to the area Inuit as recently as September 1979. Two Inuit men enroute back to Akulivik from Povungnituk were lost in thick fog and ran out of gasoline. Their empty freighter canoe was later found washed up on north shore of Gilmour Island, and we found their probable make-shift mast on this trip, inside Murray Harbour.

Hopewells-Inukjuak region is highly probable as donar of Dorset people for its geographical location and water currents. The closeness of flow-edge by the islands (Hopewells) and constant opening of ice leads in this area all contribute to the possibility that the Dorset in this region were just as likely to be blown off toward the Ottawa Islands. Indeed there is an oral procedure for people being drifted on sea ice of central eastern Hudson Bay. The people are told to walk southward along the inland-ward edge of moving ice. By doing so they are supposed to have constant location if they are not overtaking the ice movement, which in all consequence is desirable. The cast-offs are to continue travelling in this direction until the wind blows the ice to fast ice of mainland, in which time the drifters scramble for it.

The author has been in one close call while seal hunting in winter, one mile off Farley Island. It was only because the older hunter noticed the frost mist forming between us and the shore that we made a run for it in time to catch small ice cakes to serve as stepping bridges.

The case of hunters off the Hopewell Islands being blown off occurred once in a while before Inuit were less dependant on seals for their dog team. But the hunters usually managed to return.

In late fifties and early sixies there were three major drifts from Inukjuak area. Though at that time there were air search and rescue was available for locating the lost hunters. But during Dorset time no such things would have rescued them as they drifted to the islands in Hudson Bay.

Considering all those possibilities and in the final analysis I am inclined to favour the accidental over intentional Dorset Eskimo peopling of the Ottawa Islands from these various areas just discussed. This view of course is restricted to Dorset culture and not Thule or later Eskimos who came after. Now we must take a closer look at known Dorset site on the islands.

#### Ottawa Islands Dorset sites

Of the five probable Dorset sites found by our party last summer, only one is definite while the rest are just Dorset like shallow depressions of right dimensions and shape. The depressions have already been described but noteworthy characteristics are that they are sub-rectangular and most of them had no visible entrance passage except a single component at IiHc-2 as shown on Fig. 3A.

The other possible Dorset house foundations are at IkHa-15C, but their definite shape has not been determined and one chert flake scrap is deemed not enough to warrant a conclusive clarification of these "structures" as Dorset.

The another probable Dorset site is IiHc-4 with Dorset style shallow depressions. Though testing two definite structure was negative except for faunal remains these house foundations are believed to be Dorset.

The positive Dorset site is IiHc-5 where the artifacts can be compared to the known Dorset material from across the Eastern Arctic. These are shown on Fig. 4A. As is readily evident the lithic variety and artifact types may be some indication to the chronology of the site occupation.

As it is clearly evident in Fig. 4A photograph a large percentage of artifacts are microblade and fragments, and there is a spalled burin (a) and a main body of pentagonal end blade (d), while the rest of cultural materials are high quality raw lithic flakes of chert, chalcedony, quartz crystals and quartz. No slate artifacts or fragments were seen here during our brief stay. Whether this has anything to do with chronology is not known as this sample is too small. But one thing is for certain, that this sample is within the Dorset period before the terminal phase.

In this region it is believed that the type of raw material utilized by Dorset Eskimos is some indicator of passage of time, most notably from early/middle and terminal phases. Though this hypothesis still need to be tested by further research. On the lowest level sites, the black cherty quartz or maybe a fine grain slate seen to be most common used material for chipped tools and weapon points. This has been noted on both Hopewell and Sleeper Islands and on mainland sites.

The earlier than terminal Dorset on the other hand tend to have a high quality lithic materials like chalcedony, milky and other quartz, crystal quartz and light to dark coloured cherts. Those of course occur to some extent at lowest sites as is expected. The black cherty quartz was represented by one microblade at Inukjuak River 3 and may have come from the latest occupation which may be correctly dated by one of the carbon 14 samples. This is at  $850 \pm 175$  AD (QU-1048) and probably dates the last occupation of the site. The earliest date is at  $70 \pm 230$  BC (NMC-1130), probably the initial occupation of the Dorset group. But those dates are only tentative and can not be conclusively taken until further excavation with charcoal samples is conducted. The ground surface with past-burned characteristics at Inukjuak River 3 makes all charcoal dates a suspect until nearby sites at same elevation are excavated.

The collection from IiHc-2 compares well with Ekineapik 3 artifacts on the mainland Quebec, the Inuit pillaged site. This site has never been excavated, only surface collection was made from disturbed components. The Ekineapik 3 is at the same elevation a.s.l. as IcGm-4 Inukjuak River 3, therefore it may be of the same period, at least some of the fire place spots. The Ekineapik artifact types and lithic material suggests an early Dorset occupation. The ground slate with closely placed multiple side notching, the profusion of microblades and high quality of most lithic material support this assumption about the Ekineapik.

Although the slate was not seen on IiHc-2, it is expected to be found on the Ottawa Islands Dorset tool kit as it appears to be one of the common eastern Hudson Bay trait and it is locally abundant on the Hopewells.

An early or middle Dorset occupation possibility is hinted further by spalled burin and a pentagonal endblade. In as much as those two artifact types are not the best temporal sequence indicators, they are the only available type of Dorset tools for some idea of the occupation period.

First the spalled burin found at IiHc-2 on Eddy Island. This burin is of true type and fits Maxwell's typology of Shaymark scaled (Maxwell: 20, 1973). He find the type at these south Baffin Island sites; Closure, Tanfield, Annawak, Shaymark, Loon, Ealah, Site 13, Avinga, Nanook 1 level 2, Kemp level 1, Nanook 1 and 2 level 1, Site 7-1A and Sandy.

Though the type covers the full range of chronological sequence where it is a dominant burin type at Loon site, a middle Pre-Dorset (Maxwell: 20, 1973), (McGhee and Tuck: 9, 1976), (Maxwell: 58, 1976). But it does occur at Dorset sites also as stated above by south Baffin sites. Most of these sites are within Pre-Dorset to Dorset range. It must be mentioned that at present most Arctic archeologists have little faith in Maxwell's sites as far as typology is concerned. But at the same time no one seem to have attempt any real classification of burin types as Maxwell has. While Maxwell himself now say that burin types are too variable to be reliable indicator of temporal sequence, they do serve as general reference for roughly estimating site age as above, as far as the author is concerned.

The pentagonal endblade (d) from IiHc-2 has the blade tip broken off. Again we must turn to Maxwell's material for reference as it does not seem to be illustrated in other Arctic archeology literatures, even those issued from most recent excavations.

The piece recalls the Kemp level four artifact (32), (Maxwell: 140B, 1973) and Kakela piece (V), (Maxwell: 154B, 1973) and Component 1 of the Nanook site, artifact (f), (Maxwell: 167B, 1973).

The Dorset occupation at Kemp site is placed between 550 BC to 250 BC. While the Kakela is placed between 21 AD and 280 AD. As for the Nanook site it is placed at 450 BC for Component 1.

As can be determined from above information the IiHc-2 probably dates within the above time span of 550 BC to 280 AD. This would also placed it within the IcGm-4 Inukjuak River 3 occupation if we are to consider Dorset people coming from here to the islands.

The later Dorset occupation is expected to be found on the islands as it was seen on the Sleepers and Hopewells-Inukjuak areas by the author.

In conclusion the Dorset people had been on the Ottawa Islands even if this occupation was sporadic, but until actual excavation are done we do not know exactly how, when and where they came from.

Known Thule sites in eastern Hudson Bay

The only well known excavated Thule site in the region is at Cape Smith, dug by Wallrath in 1958. This collection has been summarized by Taylor (1968b, 21) who concluded:

"it appears that the Cape Smith Thule site of Wallrath reveals an early variant of Thule, perhaps even earlier than Mathiasen's (1927) Naujan and one as old as Collin's early Thule component at Frobisher Bay, Baffin Island (Collins, 1950). Thus it is the earliest known Thule occupation in Labrador peninsula and among the oldest known in the Canadian eastern Arctic"

The above information confirms the existence of an early Thule variant in the region. This fact seem to have been overlooked by some archeologists who always seem to consider the eastern Hudson Bay as marginal and later occupied region by both Paleo and Neo Eskimos.

Given the rapid movement of the original Thule people through the eastern Arctic, some investigator have been too conclusive about the original occupation of the region, before further excavation were done to give overall picture.

Back to the known Thule sites, the three sites found by Taylor (1968b, 21) on Mansel Island's Amulet Creek are not stated what period of Thule they belong.

T.H. Manning (1948) reports 4 one room and 5 two room semi-subterranean house pits on south side mouth of Kovik River, presumably Thule winter house ruins. A few hundred further inland from these ruins he saw other two, one near the small lake which appeared slightly older.

Nearest to the river are some depressions, which from author's experience sound to be Dorset slight depression features.

Still about 400 yards further up river near the top of a rise and 40 feet (12 metres) above the river, he saw 3 one room, 3 two room and 1 three room house ruins, as well 2 circular slight depressions are mentioned.

One would expect that not all of the twenty (20) plus ruins are of Thule origins. Some sound to be more of Dorset origin by their condition and shape, if my experience in central eastern Hudson Bay can be of any significance to make this statement.

The Thule site at Povungnituk is supposed to have been excavated by a person named Matthew (Zebeedee Nungak, 1979 personal comm.). This may have been Matthew Wallrath. The National Museum of Man collection from Povungnituk site, the JaGh-1 could have come from this work. Supposedly this is Wallrath's site he dug in 1961, which there seem to be no report resulting from it. The period in which it belong is not known also.

In Hopewell Islands-Inukjuak area Thule material has been published by Mathiasen (1927), the collection he obtained by purchase from H.B. Company post manager at Pond Inlet, Lt. Hérodier. Hérodier had previously been stationed at a Port Harrison (Inukjuak) Révillon Frère Post as manager, where he had dug his collection. The site is supposed to be about 5 kilometres north of Inukjuak "at an old tenting place between the mouths of two river, an important hunting place for white whales". This might be the present day Ogaksiovik or Five Mile Inlet. Mathiasen stated that the collection showed close relationship to his other Thule material he had at the time.

The bone objects from this collection were quite well preserved and he states "they appear to be of very different ages. Nine may at once be picked as quite new", (Mathiassen: 1927, 289). This statement has implication that this material was most likely of late Thule, which Taylor (1968:22) re-affirmed.

The harpoon heads with drilled lashing holes instead of slotted holes have been used as chronological indicators by most Thule archeologist, but recent work by McCartney on Northwestern Hudson Bay (McCartney: 1977a) have shown that the drilled lashing holed harpoon heads came very shortly after and still within the classic Thule period. Therefore the lashing holed harpoon heads may not always be associated with late Thule.

The recent survey by the author have resulted in less than expected number of Thule sites in the Hopewell Islands-Inukjuak region, and because of no excavation of these sites nothing in detail can be elaborated. But general remarks can be made from exterior observations.

The Thule winter house ruins are usually of two main types. First is the usual circular or key-hole type. The second is either square or rectangular type. The size vary from 1.5 by 2 metres in some square ruins to 4 by 7 metres or larger in rectangular ruins. The circular ruins also vary in size (diameter) from 3 to 6 metres, depending if they are not oval shape.

Whether the size and shape of the house ruins have anything to do with their age is not yet known in the concerned region. Rousselière has found that the size of the house does not necessarily and automatically reveals the temporal sequence of Thule occupation. He even considers that the larger houses may represent the earliest occupation on the basis that the whaling unit requires a sizable number of people (Rousselière: 1979, 58).

Further Rousselière states that the depth of the entrance passage relative to the depth of the house floor and the surrounding ground has significance as the three of his early houses has this trait.

On the Sleeper Islands the Thule winter house ruins are also only exteriorly known (Weetaluktuk: 1980) where they might span most of the Eastern Thule occupation period.

At the Marcopeet Islands (north of Sleepers) T.H. Manning have reported the existence of four or five houses (Manning: 1946) which he states are about the same age as those he saw on north end of Kidney Island of Sleepers (not seen by author). Again these Thule winter houses could represent any period of Thule settlement on these islands.

The summer dwelling remains are much more difficult to place as Thule for reasons that the defination between Thule, Contact, Historic and sometime so called Recent Eskimo are not always distinguishable, just from tent rings alone. The rings for most part are all alike and rarely have anything in or near them as cultural evidence. Though some rings sometimes have preserved faunal material if they are semi-modern (Historic) or modern.

The Thule type ruins found at the Ottawa Islands are both circular and square or rectangular. They appear to be scattered through-out the islands as seen by our survey party.

#### The Ottawa Islands Thule sites

The House Island IhHd-3 Manning site is most southerly of presently known Thule sites on the islands. Most of the semi-subterranean house ruins are of rectangularish shape but one is squarish (see sketch map).

These houses may not have been used simultaneously as their surface conditions revealed. House 1 and 2 may be the most recently left because their pronounced interior depth suggests this. Exposed slab by House 1 entrance looks to be removed from its original place. If this is the case the depth of the interior could be deepened from previous excavation which removed the slab. This house is less deep than House 2 which as shown on Fig. 2A.

House 1 is almost perfect rectangle with its entrance passage placed at and perpendicular to the long side. This house type occurs in most of the known Thule sites in the regions surveyed by the author. While the type is not common it does occur at most of the major sites. The summer counterpart is the large rectangular tent ring which appear to have direct bearing on the house design or vice versa. Like this type structure the tent ring only occurs singly or as couple of examples per site.

On the Hopewell Islands this type has been noted on IcGm-1, V. Valentine site on Patterson Island, where a single type on the site does not seem too old. It also is found at Kitukhatgak 2 on Dryton Island, where the couple types are quite large and again may not be that ancient.

I have learned from hunters who had excavated one of the winter houses at this site while they were waiting for ice to melt for boat travel, that they did not find much except very few "black stone tools". This black stone was most likely slate or dark cherty quartz as found by author on the survey of these islands. Incidentally the Kitukhatgak 2 is mixed Dorset-Thule winter house site, where the houses are inter-mingled but separated by few metres. It may be that some of the Thule houses were dug out of original Dorset pits.

The house type was not seen on Sleepers, but the tent rings of this kind were found on several sites there.

In all probability House 1 and 2 are most recent, built and left by late Thule or even Contact Eskimo group.

House 3 and 4 on other hand are not deep and House 4 is most faintest. Whether it is so because the last occupant left the rich nutrients for plant growth is not known but it may be the oldest original settlement remain on the site. House 3 may be of same age as House 5 and 6. The indication of Thule trait on House 5 is a whale skull in side the house, it may have served as sleeping platform support. This was the only showing whale bone in all houses but testing was not done here, and whale bones as well as walrus are believed to be in these houses. Walrus skulls were noted immediately north of the site where the last occupants must have left them.

This recalls the Sleeper Island Site #8 where the similar conditions exists and walrus skulls were in or about the houses.

If the shape and size have any meaning in Thule archeology, the following will be mentioned again.

The shape of House 3, 4 and 5 are identical to these at Kitukhatgak 2, but somewhat smaller except for House 5 which match some of Kitukhatgak houses in size. But that's about all we can say until research into the nature of Thule characteristics in the region has been done.

Another Hopewell site with similar house types is at McCormack Island Site #8. Here the house ruins again are bit larger and heavily covered by sphagnum.

The only other two known Thule winter house sites on the Hopewells, both on Elsie Island do not have rectangle houses. On the mainland Quebec side nothing is known by author, though one person has pointed out on the map where there are some Thule type sites with winter houses.

The next Thule winter house site is IiHc-3 Kasudluak named after Jimmy Kasudluak. Here the size of the houses vary and are almost identical to Sleepers Site #8. Most the houses are either circular or oval and there was no rectangular like House 1 on Manning site.

The larger houses on IiHc-3 have extra separate room like Sleepers Site # 8 House 10. The couple other large houses are like Sleepers Site #8 Houses 7, 9 and 11. Whether they have any relationship with IiHc-3 houses is yet to be determined, but from above similarities it seems there is some link between these sites of two islands group.

The three winter house sites on Gilmour Island seen by our party did not have circular, oval or roundish shape. But rather they were either squarish or rectangular.

The IkHa-1 Sivvak site houses are smallish and squarish with long entry-way in relation to their size. Two of the larger structures House 1 and House 11 are somewhat more rectangular, in fact House 1 is rectangle and very similar to Manning site House 1 in size and shape. It is also most recent looking. The rest are small with average size of 3 by 3 metres and may have been occupied contemporaneously because of their similarities and surface conditions. They are of same size as House 6 of Manning site.

Certainly there have been Thule houses of this size excavated, but there is some doubt if all this size structures are houses because they could well be cache houses. McCartney excavated a house of this size at Creswell Bay Thule site PeJr-1 (author was with crew then) which proved as real house and was already evident as such by numerous whale bone on it (McCartney: 1979a, 289). On the more southern region like eastern Hudson Bay whale bones have not been noted on Thule sites. Either they have completely rotted away or were never used is not known. Manning site should have had whale bone rafters but there were none, even though the whale skull was inside one of the houses.

As for the driftwood rafters, I have heard my father say that Kitukhatgak 2 houses still had some old wooden rafters left intact when he was a boy. But it seems that they were taken off for stove wood fuel. So it sounds that in the southern regions the Thule people used wooden rafters instead of whale bone.

Then it would appear that most of the eastern Hudson Bay Thule winter houses had wood poles and rafters. In this case they were easily pillaged by later Eskimos for fire wood. Even in Dorset period this seems to have been the case as Harp found fragment of wood which he believed were "remnants of collapsed roof poles" (Harp: 1976, 132).

Elsewhere the single room and smallish house are reported at Cape Kent in Inglefield Land, North Greenland by E. Holtved (Hans-Georg Bandi: 1969, 167). And as already mentioned McCartney, they are to be found in Northwestern Hudson Bay as illustrated on Fig. 4. Shown on house numbers 21 and 24 and a small "termed storage pits" A, B, C, and D (McCartney: 1977a, 54). Considering this some of the IkHa-1 houses could be storage houses but just from surface examination it is hard to say.

As far as determining the approximate age of site from just the style of winter houses, there are conflicting evidence as more Thule sites are dug in the Eastern Arctic. These conflicts arise from the shape and size of the houses which were thought to have some relation to their age. While they appear to have some relation to their age all right not enough is known of the whole Thule development in different regions. There is no doubt that there are regional variations even if minor, which only further work can uncover.



The remaining two known winter house sites on Ottawa Islands, the IkHa-17 and IkHa-15A have squarish and rectangular house ruins. In all respect the houses are same as those just described on other Ottawa Islands sites.

Probable Thule advance to the Ottawa Islands

While it might be better to leave this question out altogether from discussion, few comments might be worthwhile to raise. Firstly of course is the the Cape Smith Thule site and its implication of peopling of the islands. It was no surprise to see number of previously discussed Thule sites on the islands, because unlike the interesting problem of how the Dorset people may have got to the islands, the nature of Thule transportation known hardly make the question of how they got to the islands interesting. With their fair sized umiaks and well developed kayaks, the Thule pretty well appeared to have colonized any fair sized islands as they came from the west.

If we take the all the discussed possible areas where Dorset might have set out to reach the islands, the Thule people would have better chance willfully migrating to the Ottawa Islands even in summer. If they had seen the Gilmour Island from Smith Island they could have set out successfully with wind if they timed the voyage correctly. Or they could have spread the word around about the mirage out in the distance they saw from Smith Island, down the east coast.

But even better time is in winter when dog teams are in use with sled travel. With dog sled capability the Thule migrants had more efficient and time saving travel mode as compared to supposedly hand-hauling sled Dorset group, greatly improving their chance of reaching the islands safely. Because as stated before the ice between the mainland and islands does not remain stable very long.

And yet even for unwilling Thule hunters or travellers along the coast there is ever present threat of being blown off in unwanted direction year around in the region.

If the Thule people who had reached Cape Smith area during the original expansion, they may well had got to the islands at the same time. If the older looking house ruins in the islands can be considered to suggest this original settlement.

Indeed the whale conscious Thule people may been the ones who dubbed the islands "Akvilleit", translated as places or islands of large whales, the name that endures to Inuit of eastern Hudson Bay.

The early Thule at Cape Smith is dated at same period as Crystal II around 1000-1200 A.D. (Taylor: 1968b, 23). In this case and assuming that this Thule group saw and set out to the islands (Ottawas) in search of whales, then some of the Ottawa Islands sites might be early, or at least some houses on the sites.

There is no doubt that other houses represent the later occupations and some of the summer dwelling rings surely represent the later Thule camps. With its better transportation capabilities than previous Dorset group, the Thule Eskimos must have travelled back and forth specially in mid winter without much difficulty, once they know the islands.

The whale hunting early Thule group must have found the previously unexploited whale population (if enough to hunt successfully) reliable for depending on for few years. This would give them time to adapt to the other local game resources, namely white whale and walrus and probably polar bear which is best known and hunted marine mammal on the islands, in recent past.

The Thule Eskimos seem to have successfully adapted to local environment and resources. The lack of numerous semi-subterranean winter sites in the region indicates that this adaptation was quick, probably happening within few years after they found out that they could not rely solely on large whales which may never have been too abundant here. And when combination of climatic change (what much effect it had here?) and then hunter wary whales made it necessary to rely more heavily on smaller whales and walrus, and most reliable winter food source, ringed seal. And of course the Polar bear.

Other food sources are small land mammals like Arctic fox, Arctic hare and for starvation threatened group weasel and lemming. The warmer period includes variety of sea bird and their eggs. Owls and other prey birds must have also been taken. The fish species that occur in the region were also taken, these being Arctic char, cod, sculpin and other eel-like species. Marine invertebrate taken were most likely clams, mussels, spider crabs, sea cucumbers, anemones, and urchins and again for starvation threatened, the kelp.

As well various land plants were taken, berries, sorrel, grasses and some lichens were taken and bark of willow for starving. Some of the plants were used for medicine.

As the Thule learned to live in the region they must have realized that when they had not caught a large whale for winter, they could not stay in any one spot. This may be reflected by lack of many Thule type winter sites or that the local Dorset population may have been too much for few kayaks and one umiak load of Thule migrants. This may be such case in the Hopewell Islands where there are more Dorset sites than Thule.

Or that most of the arriving Thule groups had already more of snow-house builder than semi-subterranean way of life. Inuit legends in eastern Hudson Bay claim that the Inuit built semi-subterranean houses because in some winters snow did not fall. How much significance this legend has is not known but it does imply the change of climate. This climatic change is just being better understood as more research into it is being done.

On the Ottawa Islands the number of Thule sites are same on far greater area covering Hopewell Islands, and most of the Ottawa Islands sites have more ruins per site. The Ottawas have far fewer Dorset sites than Hopewells. This may support the above statement of Hopewells being populated by well established Dorset group who knew the area better than newly arrived Thule group, therefore able to compete effectively with superior equipped Thule. This is only hypothesis and still have to be proved by actual excavation of both Dorset and Thule sites in the Ottawa and Hopewell Islands.

#### Contact Period

It is not established in the concerned area whether the supposed Norse exploration into the New World Arctic around or shortly after 1000 A.D. had influence. But discovery of an Old World derived sheet copper, later shaped into an amulet by late Dorset group whose house ruin it was found in by Elmer Harp (Harp: 1976, 130) clearly implies that there was knowledge and trade of European material even during that time. As far as this knowledge had much effect on local population goes, only possible theories have risen but these are too conflicting to dwell on. Therefore not much attention is given for possible contact during this early period.

The ill-fated voyage of Henry Hudson is well known, but only recorded contact with Eskimos is with violence, supposedly near the present day community of Ivugivik. And little nor any influence must have resulted for local Eskimos.

For the eastern Hudson Bay Eskimos not much was happening in ways of contacts with European explorers as most attention was directed in the western and northern coast of Hudson Bay, in search of Northwest passage.

The only sporadic contact explorer was likely Captain William Coats, who unlike most explorers of his day seem to have explored for sake of finding out what the country was like rather than being interested in one thing, Northwest passage.

Captain Coats had served many years with Hudson Bay Company as one or other of their ships from 1727 to 1751 (Barrow: x, 1852).

One of his passage have direct mention of the Ottawa Islands but with different name, Sleeper Islands. The following are his accounts. (Barrow: 66, 1852).

"The Sleepers are seven larger, and many smaller islands, from 59° 40' to 60° 05'; the westernmost is in 59° 50'; and is fourteen miles to westward of North Bear, with fine openings and good anchorage; and many Usquemows haunt these islands in summer, and bears S.W. by S. twenty-three leagues from Cape Smith; a high, bold, noble cape may be seen twenty-five leagues.

The above statements gave several information, first is the fact that there was confusion of island group names, for it sounds that Captain Coats knew what he was taking about when he mentioned Sleepers. The later geographers appear to have misnamed the present Sleeper Islands while that name was originally applied to present day Ottawa Islands.

The co-ordinates given by Captain Coats fits accurately to modern location of the Ottawa Islands. And there is no doubt about the accuracy of his navigating capability.

The "Usquemows" he mentions were no doubt Thule people and the bears also fit perfectly with Ottawa Islands known trait.

As for twenty-five leagues distance which he could see Cape Smith from the islands, also checks out. The league as defined by Webster dictionary is any of various units of distance from about 2.4 to 4.6 statute miles. The 2.4 miles x 25 come to 60 miles which again come almost perfectly for modern distance of Gilmour and Smith Islands.

Unfortunately Captain Coats does not gave much about the Eskimos he encountered on the islands except to mention that they did "swarm all the summer months to catch fish and moulted fowl, in great abundance, upon all these Belchers and Sleeper (Ottawa) Islands (Barrow: 66, 1852).

Captain Coats sounds to have through knowledge of the islands for he mentions how many are larger, their opening (channels) and good anchorage (Murray Harbour?) or did he meant anchorage between the closer kit islands?

The French explorers also had passed by the islands and on French maps of the period the islands appear under various names. What contact they had with Eskimos is not researched as the records have not been seen by the author. But it looks very interesting to see 17th century maps showing probably Ottawa Islands (Martijn: 1980b, 90,92,101,102,103 and 104).

It is evident that not much happened between the Explorers and Eskimos for at this early date they usually avoided each other. Eskimos for most part did most of the avoiding until what precious metal the explorers possessed which in later times they would go as far as to kill the owners to get it (Inuit legends).

The next couple hundred years seem to have been quiet as the Northwest passage seeking explorers headed west far above the Ottawa Islands. There is not that much evidence of any ships passing by or spending time on the islands.

During the whaling period by European whalers the Ottawa Islands area is shown as southern limit of occasional cruising (Ross: 1975, 59). And again nothing in lengthy contact is recorded. Except when whaler *Active* wintered there between 1912 and 14. It is not known if there were Eskimos there at the time as I have not gotten hold of its records.

The records of geologist Robert Bell also have not been seen by the author. But no direct mention has been made if he saw the Eskimos there when he went in 1877, by various writers who have quoted his records.

Neither the records of Robert Flaherty gave clear indication of Eskimos being there, but there is always mention of them in one way or other and it gives some impression that they were there only in summer. From European point of view at that time this may have seemed that the Eskimos did not or could not spend winter on these islands.

From Inuit stories the Eskimos did spend winters on the islands even if they came out once in awhile to trade or for change of environment or for more serious reasons.

It was not until late 1800s and early 1900s that the Eskimos of the region had any prolonged contact with Europeans. The Ottawa Islands Eskimos may have been in contact with missionaries at Great Whale, if we assume that they were regularly migrating between mainland and islands as it is said by eastern Hudson Bay Inuit.

The geologist like Bell, Flaherty and Low are recalled by older Inuit who heard it from their grandparents and parents second hand. The "ohragakne at-eit" (minerologists) as they were known were first white men seen in the region. Inuit say that they obtained European goods from these geologists but to what extent they were dependent on them is not fully determinable.

The establishment of trading posts nearby mainland coasts may have been too much a temptation for Ottawa Islands Eskimos to stay there for any length of time. Couple with various introduced sicknesses from Europeans the remaining population may have had to rely more heavily on traders. Thus was the beginning of the abandonment of the islands.

The islands were regularly visited as walrus and Polar bear hunting spots by Cape Smith (Akulivik), Povungnituk and Port Harrison (Inukjuak) Inuit until mid 1960s when dog teams were still in use.

This hunting had an effect on the walrus population which prompted A.G. Loughrey to state "They (walruses) are still found, although, apparently in reduced numbers, in the vicinity of Belchers, King George, Sleeper and Ottawa Islands.... It is not certain but seems likely that they winter in open leads around the chain of the islands from Ottawas to the Belchers" (Balikci: 1964)

After the dog teams were not in intensive use the Ottawas were not often visited and only when peterheads were hired to take scientists out, from either Inukjuak and Povungnituk. The Povungnitumiut were the only regular visitors since then. But recent interest and recall of the islands have resulted since Johnny Inukpuk's peterhead was hired by Baragar in 1979, off Inukjuak. This interest aroused older people who recall being there for a winter or two when they were very young. From this we learn that the islands were not that long ago abandoned as semi-permanent residence.

### Conclusion

The prehistory of the Ottawa Islands even when seen mostly from spot checks survey revealed that it goes back to Dorset Eskimo period. However they got to the islands the Dorset people whose dwelling remains are described here seem to have been the pioneering group. This initial peopling may have occurred sometime between early and middle Dorset times. As Harp said of his northern Belcher Islands Dorset collections "There appear to be strong ties with Maxwell's early Dorset sites on southern Baffin Island" (Harp: 11, 1976) The Ottawa Islands site artifacts seem to share this tie.

The problem of Dorset archeology is of considerable interest to Dorset students, and the presence of this culture on small islands like Ottawas can only make Dorset more interesting from problem archeology point of view.

The possible adjacent mainland origins have not even been studied, except for Inukjuak region which have revealed little in ways of artifacts from two sites excavated. But these sites and other few surfaced collected in the fringes of Inukjuak have shown just as strong ties with south Baffin sites in ways of slate knives and soapstone vessels as well as other lithic tools.

From these evidences of Dorset Eskimo expansion or accidental occupation of the islands, further research seem necessary both in the possible mainland origins and the islands, to better understand the nature of Dorset peopling of the region.

The problems of the original Thule Eskimo settling on the island is no less intriguing for Arctic archeologists, especially those who are more into Thule than Paleo-Eskimo archeology.

The initial Thule arrival might also have happened quite early in eastern or original Thule migration into eastern Arctic, as revealed by Cape Smith collection.

The nature of Thule way of life in the eastern Hudson Bay is not well or hardly known. But they were in Gulf Hazard by late 1200 or early 1300s (Harp: 18, 1972). The winter house site could well represent the earlier Thule camps before they got to know the region better, after the above dates.

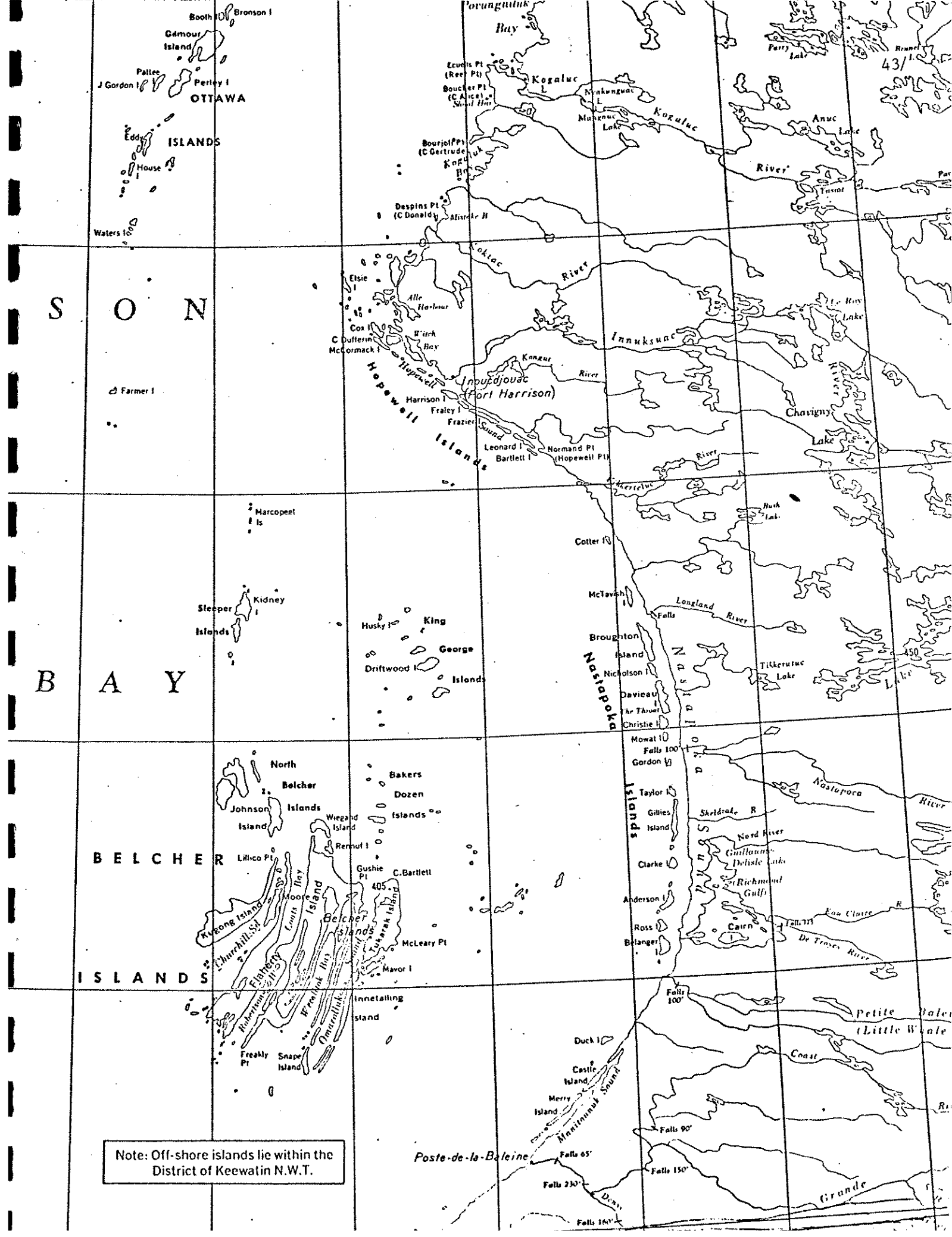
The eastern Hudson Bay is one of the regions in Arctic Quebec where Dorset and Thule people overlaps the occupation for at least couple of centuries as shown by Gulf Hazard sites (Harp: 19, 1972).

The concrete archeological proof of the contact between these two cultures are of significant concern of Arctic archeologists who often have only Inuit oral legends to go by, beside ever scanty evidence of possible contact.

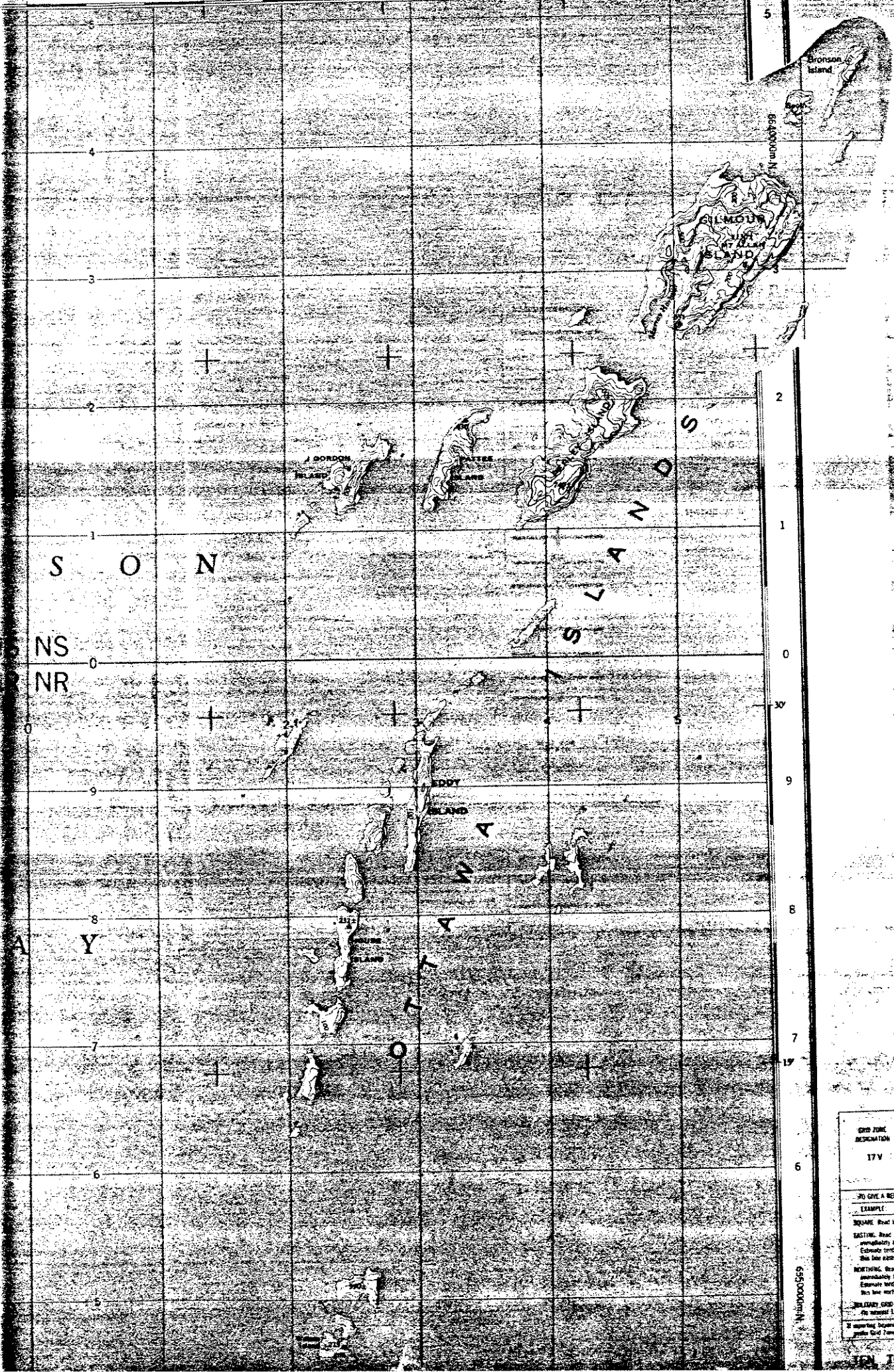
From these views the eastern and coast of Hudson Bay is one of the regions to study not only for just stated reasons but for its hidden prehistory, which may have direct relationship why just discovered traits of Dorset and Thule or even Pre-Dorset are the way they are.

The region as whole has been for too long neglected by Arctic prehistorians.

\* \* \* \* \*



Note: Off-shore islands lie within the District of Keewatin N.W.T.



1:50,000 IN SQUARE

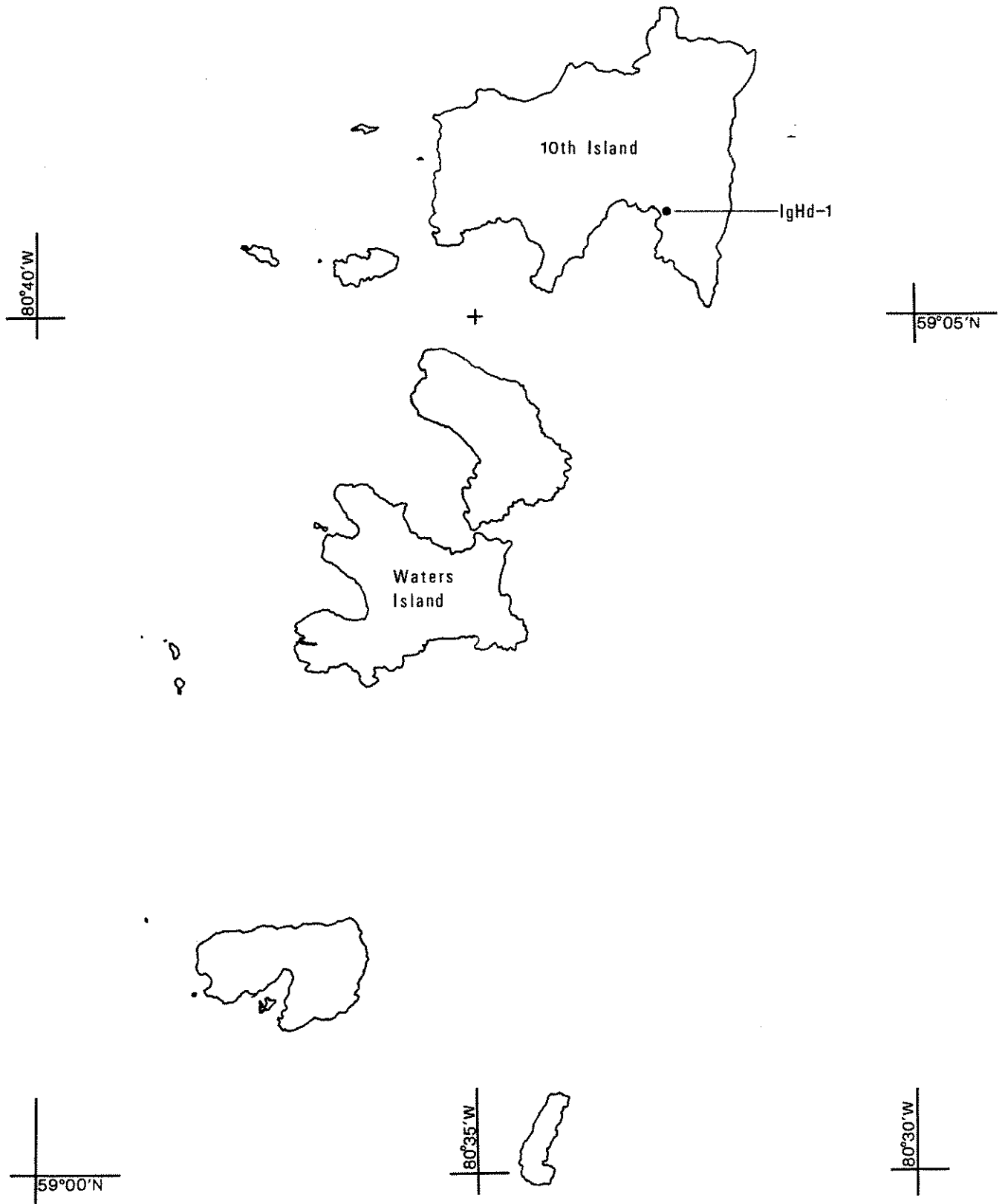
GRID ZONE DESIGNATION	MS NC
17V	NR 17

DO NOT GIVE A REFERENCE TO NEARBY

EXAMPLE	SPOT ELEVATION
<b>SQUARE</b> Read letters of grid horizontally to left of point. Estimate tenths of a square from this line eastward to point.	
<b>EASTING</b> Read number on grid horizontally to left of point. Estimate tenths of a square from this line eastward to point.	
<b>NORTHING</b> Read number on grid vertically below point. Estimate tenths of a square from this line northward to point.	

**QUADRANT GRID REFERENCE**  
(to nearest 1,000 meters)  
If reporting beyond 18° in any direction  
give Grid Zone Designation ex. 17V

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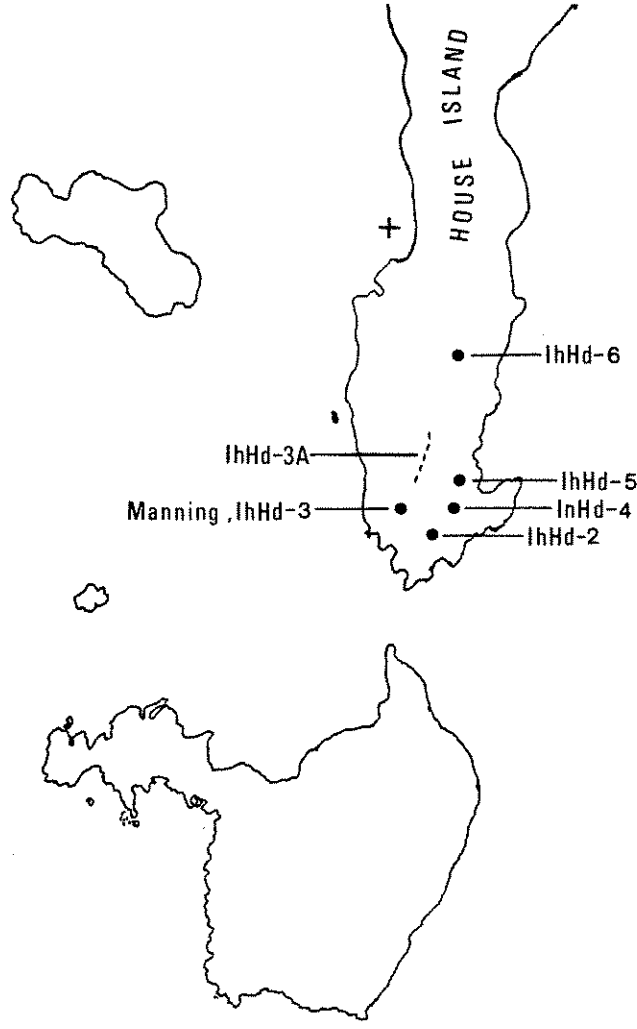


10th Island, Ottawa Islands  
Archeological Site



80°40'W

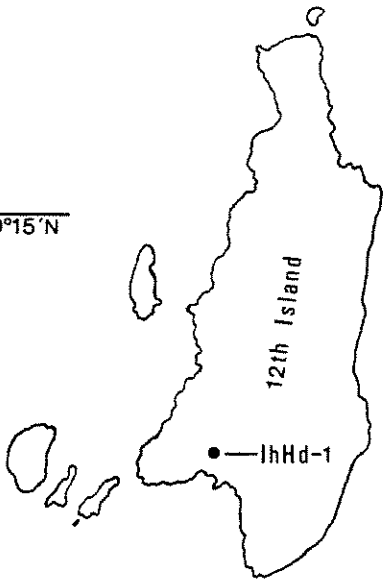
59°20'N



59°15'N

80°35'W

80°30'W



0 mile 1

House and 12th Islands  
Ottawa Islands, Archeological Sites

80°35'W  
59°25'N

+

liHc-5

liHc-2

liHc-1

liHc-4

liHc-3

liHc-3A

80°30'W  
59°20'N

HOUSE ISLAND

+

liHd-6

liHd-3A

Manning, liHd-3

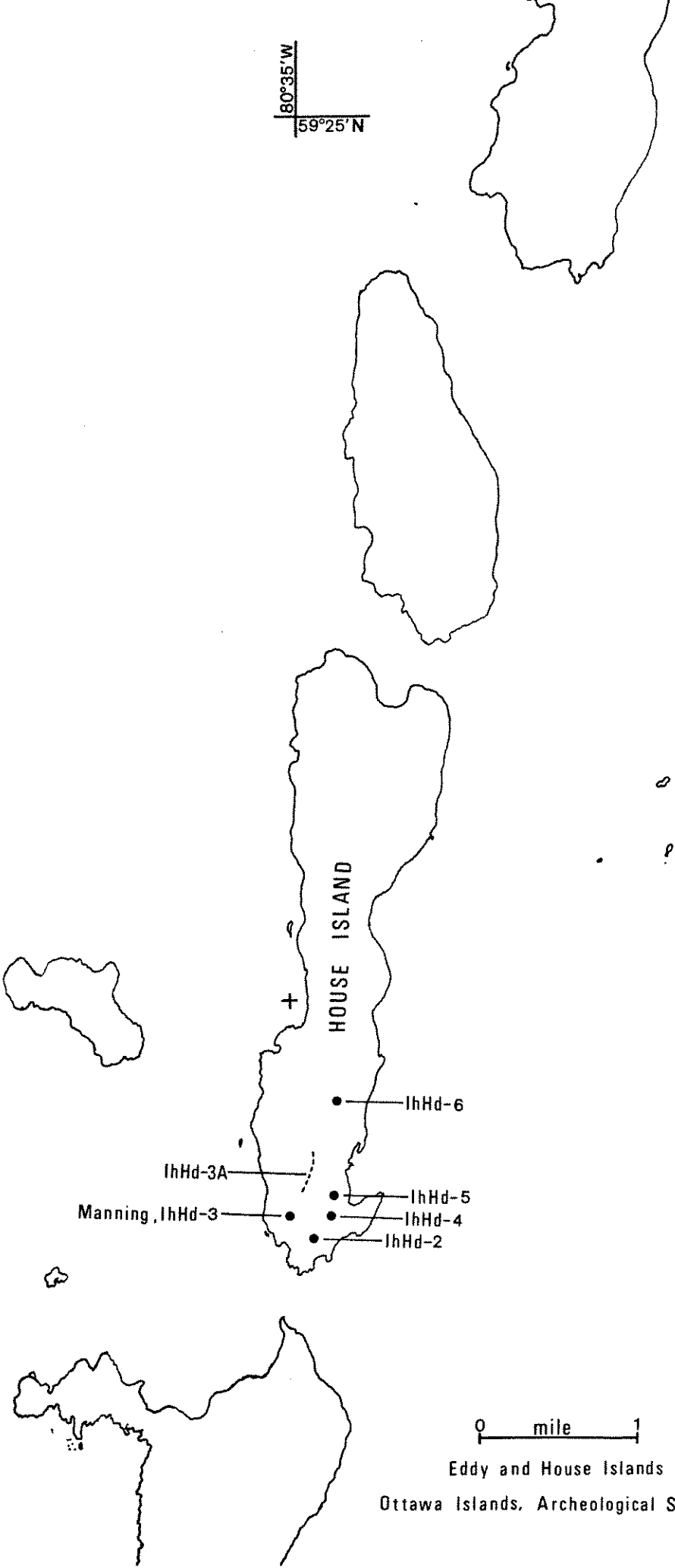
liHd-5

liHd-4

liHd-2

0 mile 1

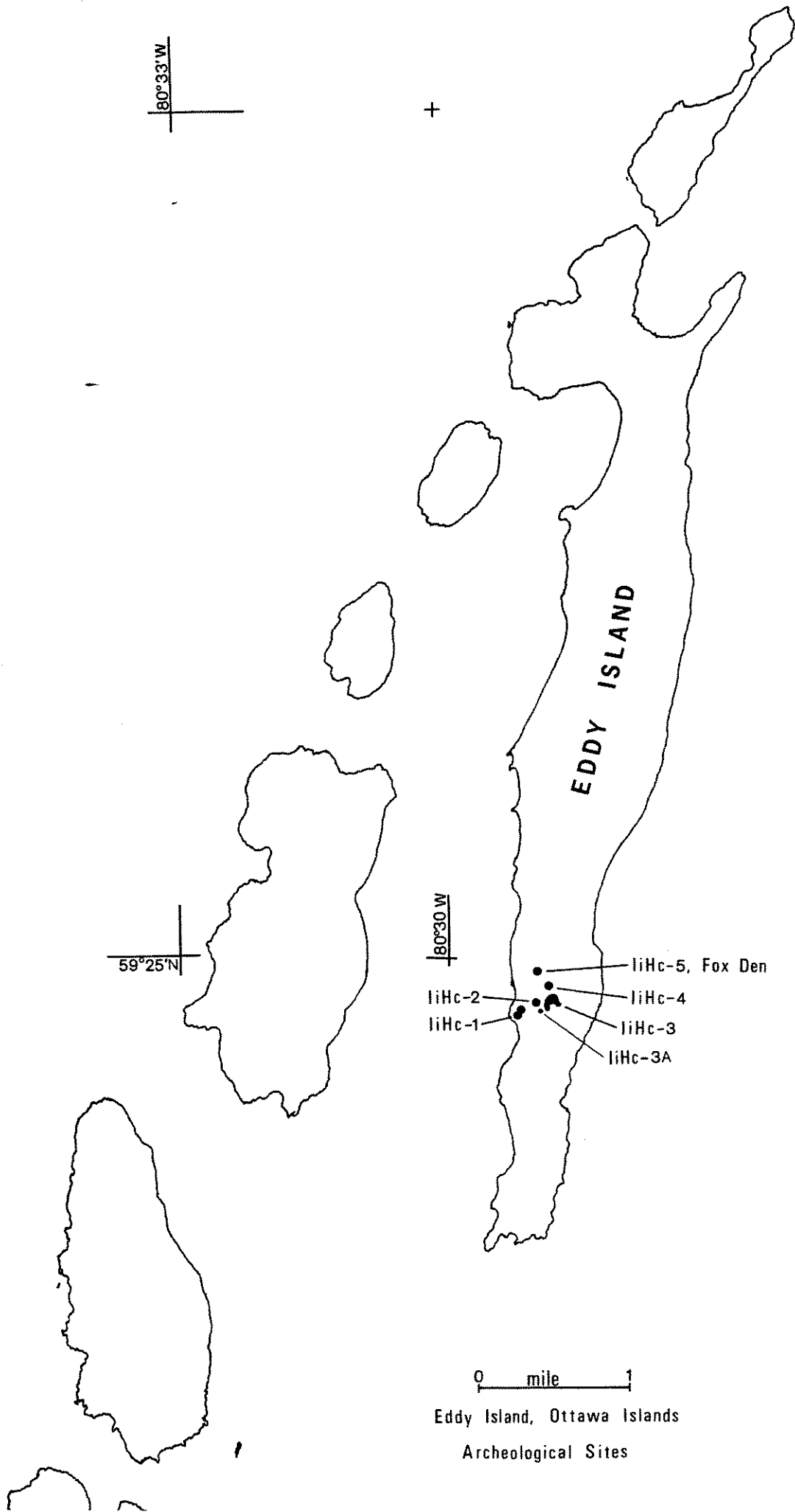
Eddy and House Islands  
Ottawa Islands, Archeological Sites



80°33'W

80°25'W  
59°30'N

+



EDDY ISLAND

80°30'W

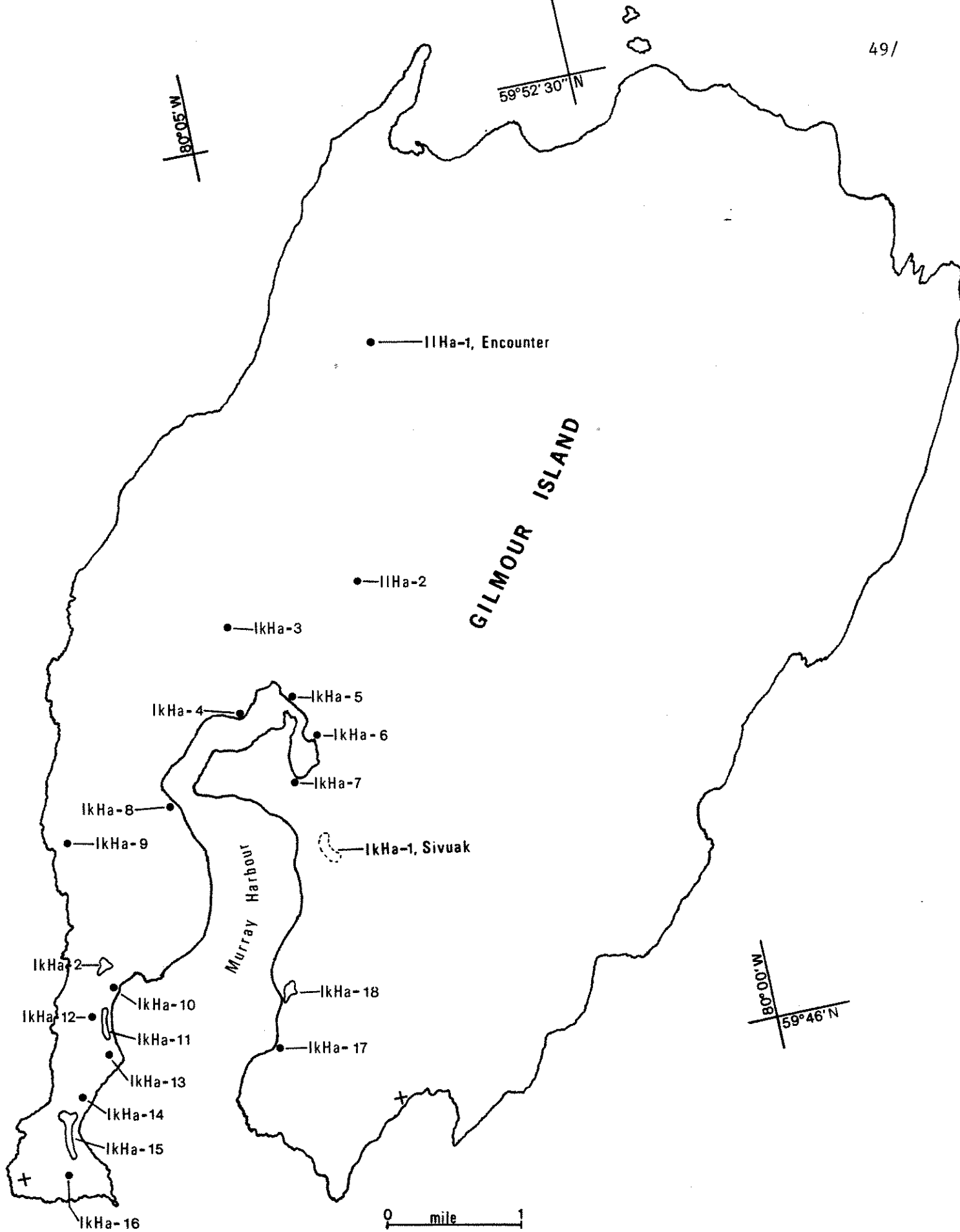
59°25'N

+

- liHc-5, Fox Den
- liHc-4
- liHc-3
- liHc-3A
- liHc-2
- liHc-1

0 mile 1

Eddy Island, Ottawa Islands  
Archeological Sites



Gilmour Island, Ottawa Islands  
Camp and Archeological Sites

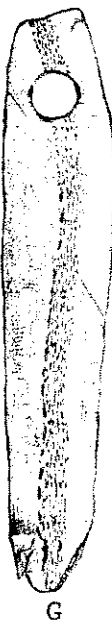
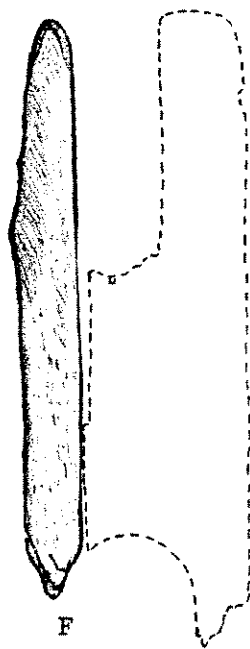
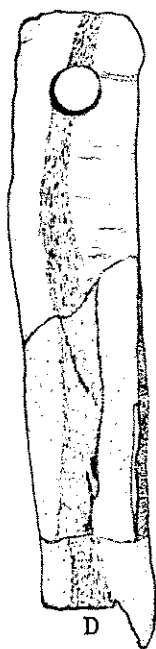
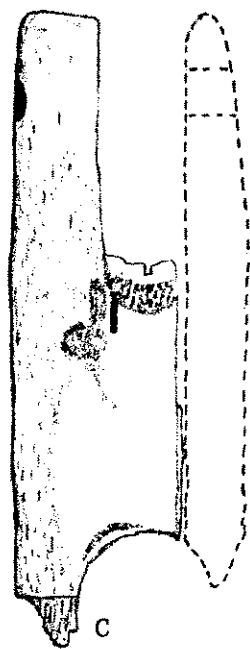
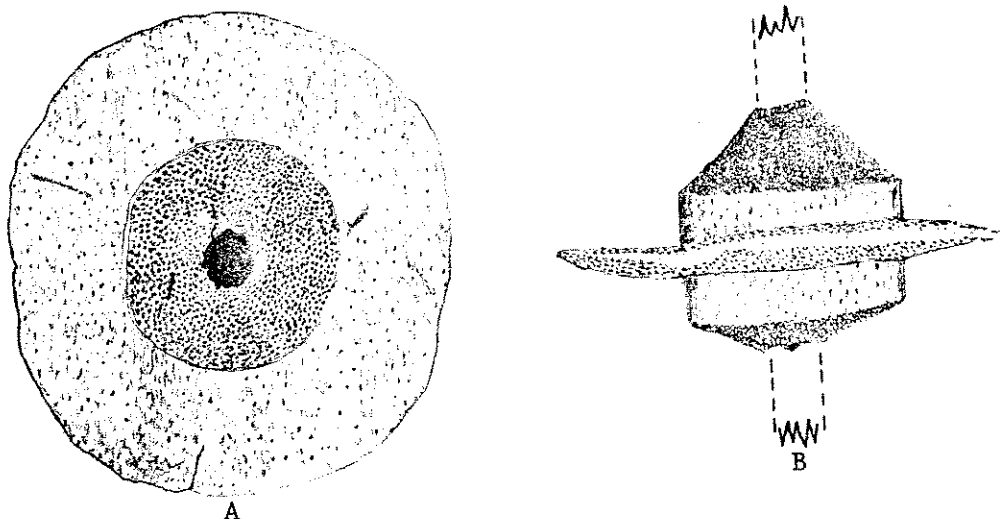
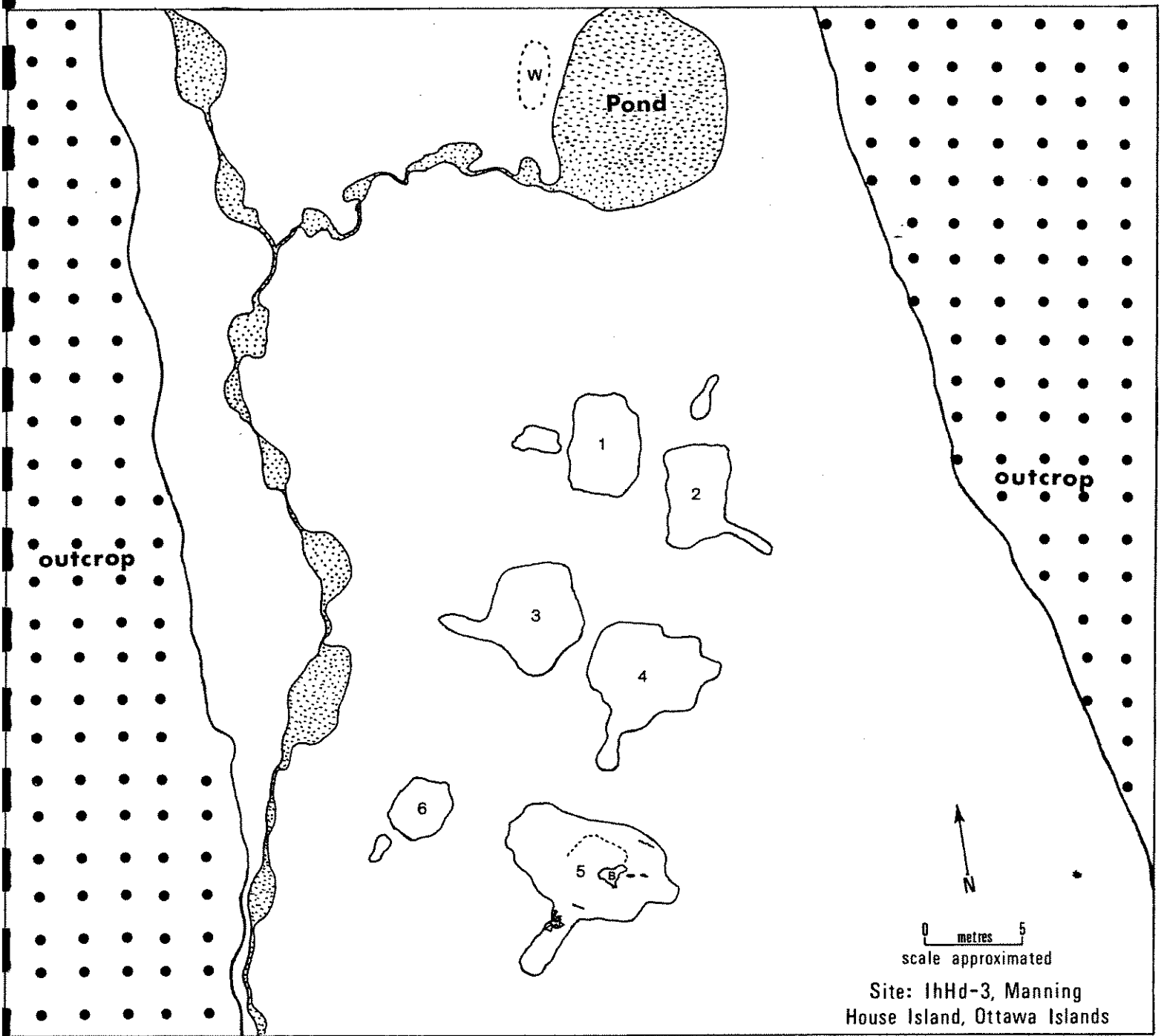


Fig. 5A  
IkHa-15B Eroded Bank artifacts  
Scale: Actual size



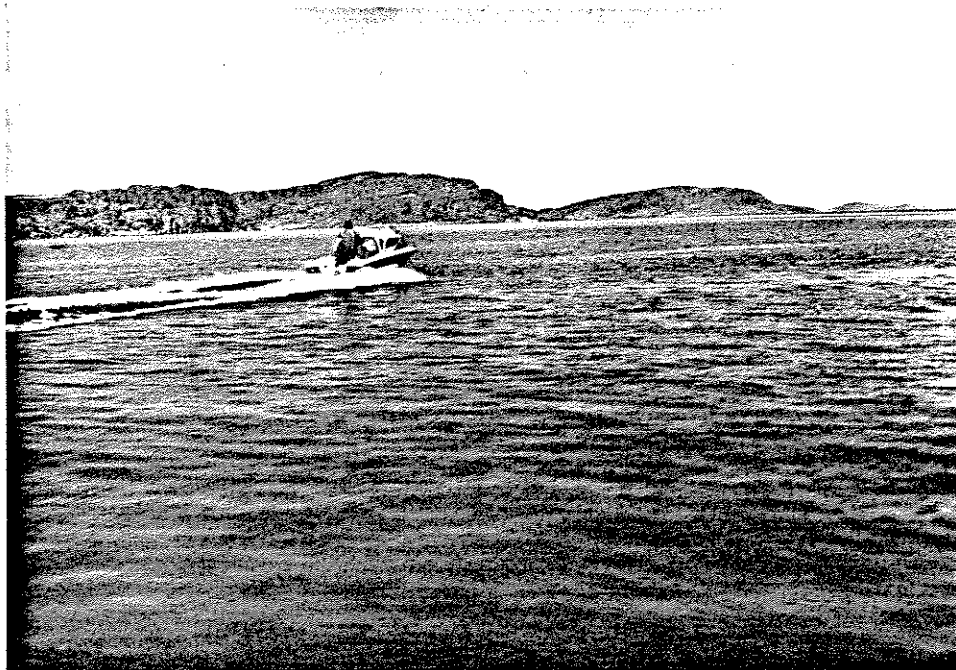


Fig. I

Southern parts of the Ottawa Islands. Islands between House and Eddy Islands. These islands are mostly bare rocks. Seabirds nests on higher cliffs.

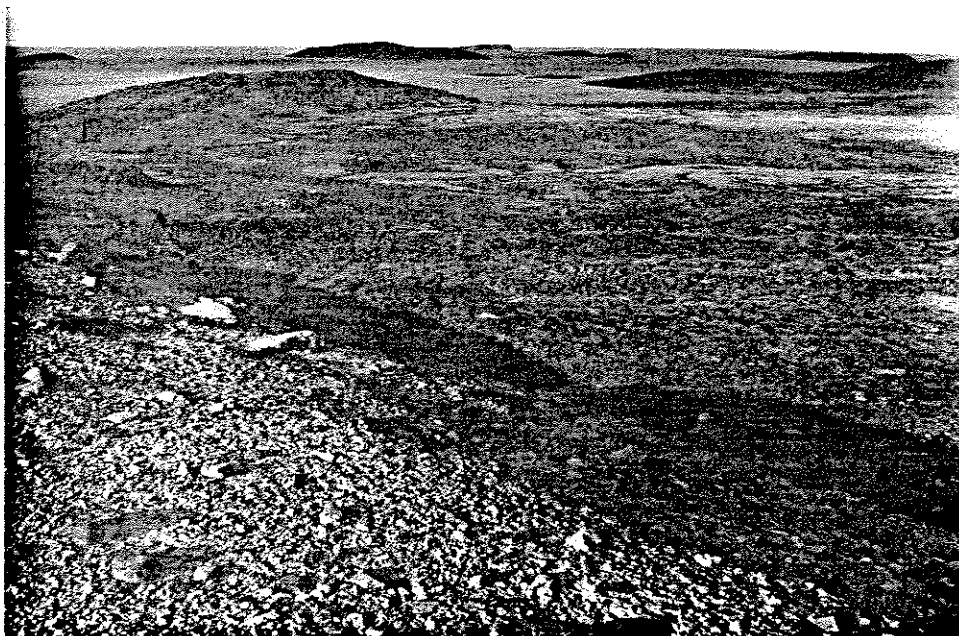


Fig. II

The main and central valley of the north side of Gilmour Island. The valley consists of sand and gravel moraine slopes and basin, below the marine limit. Most of the valley floor is covered by peat. The marine limit is about at this elevation as seen in foreground gravel bank.



Fig. 1A IhHd-1 Neaquak

Dave Murray by calcareous flagstone pile remanant of a cache. Other similar piles in background. Note the basalt cliff.

Photo facing southwest.



Fig. 1B IhHd-1 Neaquak

Vertical flagstone cache box.

Photo facing south.



Fig. 1C IhHd-1 Neaquak

Rectangular tent ring with propped slab block.

Photo facing west.



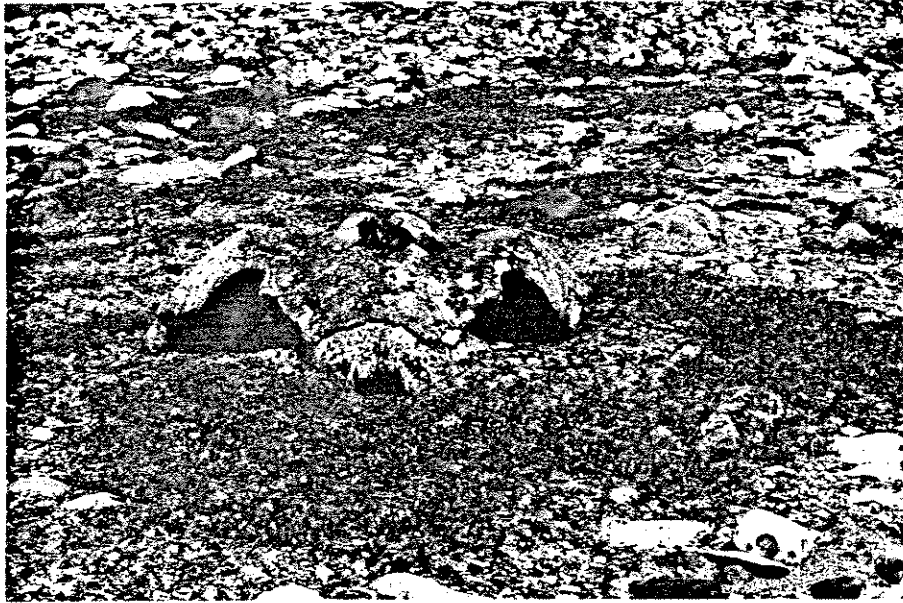


Fig. 2D IhHd-1 Neaquak

A skull of large whale probably of bowhead or the like.

Fig. 2A IhHd-3 Manning

Val and Murray by House 5.  
All houses are in view, so  
is part of a pond.  
A small stream is in fore-  
ground.

Photo facing east-northerly.

Text, page 9 & 10



Fig. 2B IhHd-3 Manning

Val standing inside House 2,  
House 1 is in foreground and  
sphagnum pond in center left.

Photo looking east.

Text, page 9 & 10



Fig. 2C IhHd-3 Manning

Close-up view of House 5.  
The calcareous flagstones  
are sticking out of some of  
the walls. Entrance passage-  
way is on upper center right.

Photo facing east-south.

Text, page 9 & 10

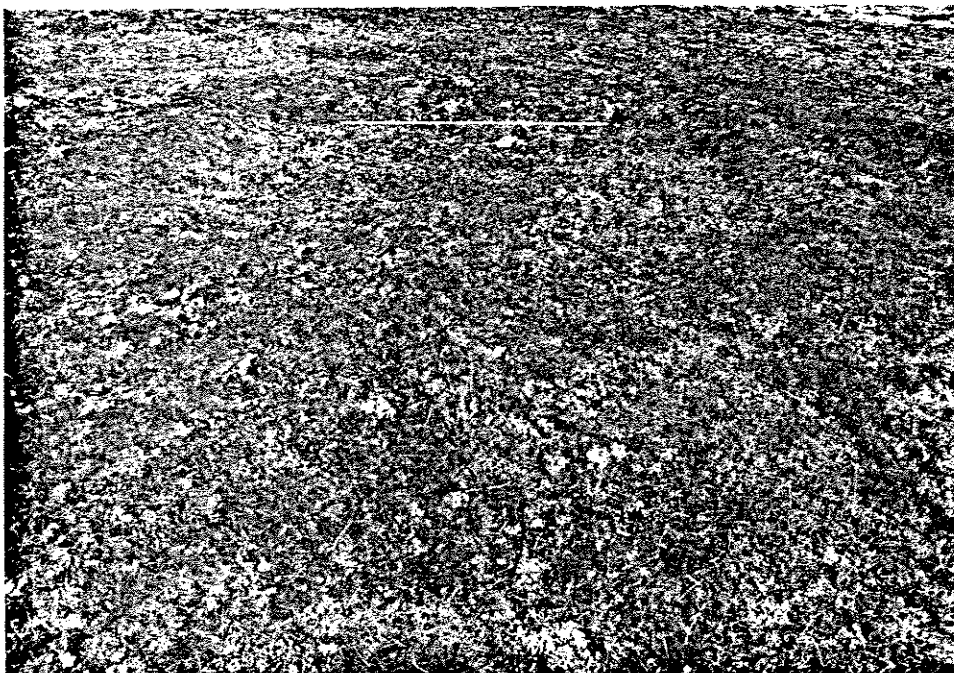


Fig. 3A IiHc-2

A single shallow component, heavily covered by peat and miniture plants. Scale stick is two metres. A shallow entrance passage is on right middle foreground, covered by more pure sphagnum patches.

Photo looking east.

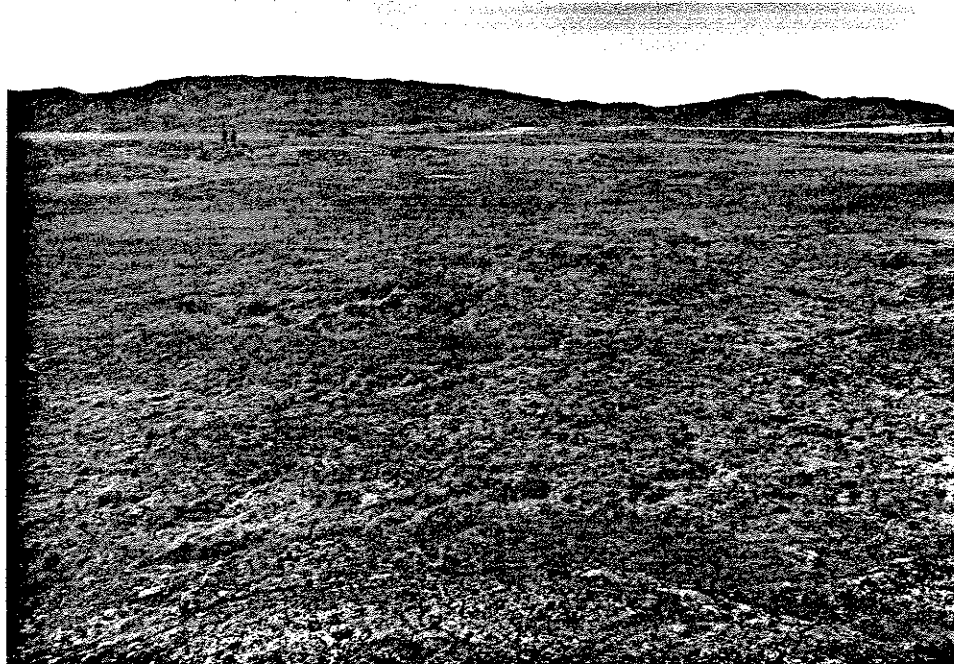
Text, page 12

Fig. 3B IiHc-3 Kasudluak

General view of most of the house pits. Erik and Eli by one of the larger house ruin. Some ruins are on wet sphagnum bog. About half of the pits are side by side. Most easterly houses are in foreground. Dave is by the northerly houses, in extreme upper right hand corner.

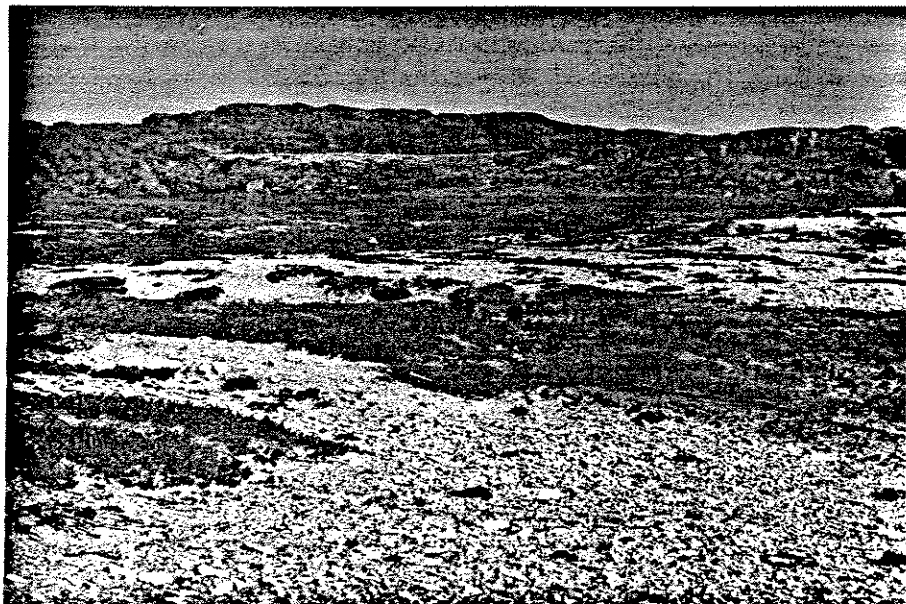
Photo facing west.

Text, page 13

Fig. 3C IiHc-5 Fox Den

General view looking east. The artifacts were found on exposed area among and around the stones at center left of foreground. Two fox cubs are looking on, at center of photo, too young to be wary of people.

Text, page 13 & 14



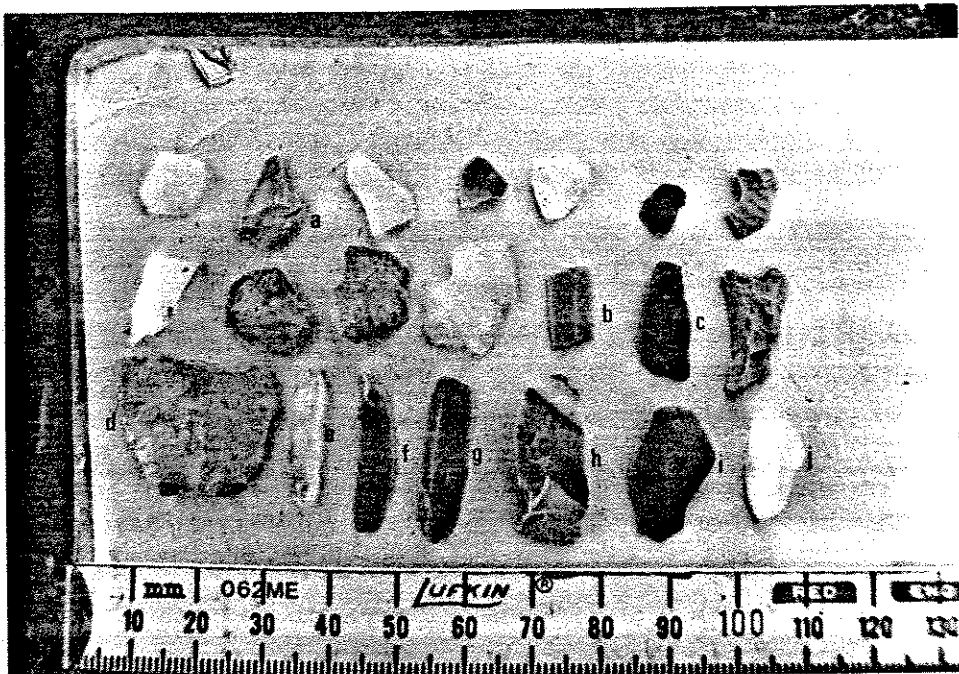


Fig. 4A IiHc-5 Fox Den

Dorset Eskimo artifacts from a sand/gravel blow-out surface near the fox holes. Note the variety of lithic materials.

Text, page 14



Fig. 4B IkHa-1 Sivuak

Erik Val resting on a platform of House 2. Scattered flagstones implies the activities of previous parties.

Photo looking east.

Text, page 16



Fig. 4C IkHa-15A Series

Houses 3 and 4 closely side by side, but with separate entry passage. Both are totally covered with sphagnum. Tent rings are in background.

Photo facing north.

Text, page 22

References

- Andrews, J.T., and Falconer, George  
 1969 "Late glacial and post-glacial history and emergence of the Ottawa Islands, Hudson Bay, Northwest Territories: Evidence on deglaciation of Hudson Bay." *Canadian Journal of Earth Sciences*, Ottawa, vol. 6, pp. 1263-1276, 12 fig., biblio.
- Andrews, J.T., McGhee, R., and McKenzie-Pollock, L.  
 1971 "Comparison of elevation of archaeological sites and calculated sea levels in Arctic Canada." *Arctic*, Montréal, vol. 24, no. 3, pp. 210-228, 7 fig., biblio.
- Baird, Patrick  
 1976 "The Living Landscape; Boreal Ecology, Flowering plants." THE LAND THAT NEVER MELTS: *Auyuittuq National Park*, edited by Roger Wilson, Peter Martin Associates Limited (Toronto) in association with Parks Canada, Indian and Northern Affairs, and Publishing Centre, Supply and Services Canada. pp. 95-139, 39 photographs.
- Balikci, Asen  
 1964 "The Povurniturmiut, Trappers of the East Hudson Bay," Chapter Four. in DEVELOPMENT OF BASIC SOCIO-ECONOMIC UNITS IN TWO ESKIMO COMMUNITIES; *National Museum of Canada, Bulletin No. 202*, Ottawa.
- Bandi, Hans-Goerg  
 1969 "ESKIMO PREHISTORY." *University of Alaska Press*.
- Baragar, W.R.A., and Lamontagne, C.G.  
 1980 "The Circum-Ungava Belt In Eastern Hudson Bay: The Geology of Sleeper Islands and parts of the Ottawa and Belcher Islands." in *Current Research*, Part A, Geological Survey of Canada, Paper 80-1A, p.89-94, 1980, Ottawa.
- Barrow, John  
 1852 "THE GEOGRAPHY OF HUDSON'S BAY: being the remarks of Captain W. Coats, in many voyages to that locality, between the years 1727 and 1751." *The Hakluyt Society*, London, England; pp. 0-147, Index
- Danielson, E.W. Jr.  
 1971 "Hudson Bay Ice Conditions," *Arctic*, vol. 24, no. 2 pp. 90-107., 9 fig., biblio.
- Dekin, Albert A., Jr.  
 1972 "Climatic Change and Cultural Change: A Correlative Study from Eastern Arctic Prehistory." offprint from *Polar Notes*, no. 12, pp.11-24, 8 tables., biblio.
- Gerard, G. and Wilmot, B.  
 1939 "Exploring in Labrador and Hudson Bay:" *Microfilm*, Centre for Northern Studies and Research, McGill University; Montréal.
- Griffith, R.  
 1953 "The World of Robert Flaherty," published by *Little, Brown and Company* in association with *Duell, Sloan & Pearce*, Inc. Boston, New York. and in Canada by *McClelland and Stewart Limited*, Toronto. 165 pages, photographs.

Harp, Elmer Jr.

- 1970? "Archaeological Investigations on the East of Hudson Bay," *Progress Report on NSF GS-2915, submitted to National Science Foundation.*
- 1976 "Report on Archaeological Investigations in the Belcher Islnds, during summer of 1975." *Report submitted to N.W.T. Government for N.W.T. permit No. 378, work supported by National Science Foundation.*
- 1976b "Dorset Settlement Pattern in Newfoundland and Southeastern Hudson Bay." *in Memoirs of the Society For American Archaeology, No. 31., "Eastern Arctic Prehistory: Paleoeskimo Problems."* edited by M.S. Maxwell.

Manning, T.H.

- 1946 "Ruins of Eskimo Stone Houses on the East Side of Hudson Bay." *American Antiquity*, vol. 11., no. 3, Jan. pp. 201-202, 4 photos, 1 fig., biblio.
- 1948 "Eskimo Stone House Ruins on the East Side of Hudson Bay: A Correction." *American Antiquity*, vol. 13., no. 3 Jan. pp. 250-251, 1 map, biblio.

Martijn, C.A.

- 1980 "THE 'Esquiamux' in the 17th and 18th Century Cartography of the Gulf of St. Lawrence:" A preliminary discussion; *in ETUDES INUIT STUDIES*, vol. 4, Nos. 1-2 1980, pp 77-104, 18 fig., biblio.  
Dept. of Antropology, Laval University, Québec.

Mathiassen, T.

- 1927 "Other Thule Culture Finds: Smaller finds from the East Coast of Hudson Bay." *in Archaeology of Central Eskimos, Report of Fifth Thule Expedition, 1921-24, Descriptive part.*, pp. 288-292.

Maxwell, M.S.

- 1973 "Archaeology of Lake Harbour District, Baffin Island." *Archaeological Survey of Canada Mercury Series, Paper No. 6.*
- 1976 "Pre-Dorset and Dorset Artifacts: The View From Lake Harbour." *in Memoirs of the Society for American Archaeology, No 31., "Eastern Arctic Prehistory: Paleoeskimo Problems."* edited by M.S. Maxwell.

McCartney, A.P.

- 1977a "Thule Eskimo Prehistory Along Northwestern Hudson Bay." *Archaeological Survey of Canada Mercury Series, Paper No. 70.*

ed.1979a "Archaeological Whale Bone: A Northern Resource." *University of Arkansas Anthropological Paper No. 1.*

- 1980 "The Nature of Thule Eskimo Whale Use." *Arctic*, vol. 33, no. 3.

McGhee, R., and Tuck, J.

- 1976 "Undating the Canadian Arctic." *in Memoirs of the Society for American Archaeology, No. 31*

- Murray, D.  
1980 "Report on Trip To Ottawa Islands." *Makivik Research Department*, Montréal, Québec.
- Porslid, A.E.  
1964 "Illustrated Flora of the Canadian Arctic Archipelago." *National Museum of Canada Bulliten No. 146*.
- Ross, W. Gilles  
1975 "Whaling and Eskimos: Hudson Bay 1860-1915." *National Museum of Canada, Publication in Ethnology No. 10*.
- Rousselière, G.M.  
1979 "The Thule Culture on North Baffin Island: Early Thule Characteristics and Survival of Thule Tradition." in *THULE ESKIMO CULTURE: AN ANTHROPOLOGICAL RETROSPECTIVE: National Museum of Man Mercury Series, Paper No. 88.*, edited by Allen P. McCartney.  
1979 "A Few Problems Elucidated... And New Questions Raised by Recent Dorset Finds in the Northern Baffin Island Region." *Arctic*, vol. 32, no. 1., pp. 22-32., fig./illustrations.
- Schledermann, P.  
1975 "Thule Eskimo Prehistory of Cumberland Sound, Baffin Island, Canada." *Archaeological Survey of Canada Mercury Paper No. 38*.  
1976a "Thule Culture Communal Houses In Labrador." *Arctic*, vol. 29., no. 1, pp. 27-37.  
1976b "The Effect of Climatic/Ecological Changes On the Style of Thule Culture Winter Dwellings." *Arctic and Alpine Research*, vol. 8. no. 1 pp. 37-47.  
1976c "History of Human Occupation." in *The Land That Never Melts: Auyit-tuq National Park*. edited by Roger Wilson; published by Peter Martin Associates Limited, in association with Indian and Northern Affairs, Parks Canada and Publishing Centre, Supply and Services Canada. pp. 63-93.
- Taylor, W.E.  
1962a "Pre-Dorset Occupation at Ivugivik in Northwestern Ungava. In Prehistoric Cultural Relations Between the Arctic and Temperate Zones of North America." edited by John M. Campbell, *Arctic Institute Technical Paper 11.*, pp. 80-91.  
1968a "The Arnapiik and Tyara Sites: An Archaeological Study of Dorset Culture Origins. *Society for American Archaeology, Memoir 22*.
- Val, Erik  
1980 "FIELD REPORT, Ottawa Islands, Archeological, Natural and Wildlife Survey." July 23-27, 1980. *Makivik Corporation Research Department*. Montréal, Québec.
- Weetaluktuk, D.  
1980 "A Report of Preliminary Archeological Survey On Kidney Island, Sleeper Islands, N.W.T., Central East Hudson Bay., Summer 1979." Report submitted to the *National Museum of Man and Government of the Northwest Territories for archeological permit No. 9-455*.

In Science, History and Hudson Bay, two volumes, edited by C.S. Beals and D. Shenstone, Canadian Department of Energy, Mines and Resources, Ottawa. 1968.

Dohler, G.C.

1968 "Tides and Currents." pp. 824-37., vol. 2.

Lee, H.A.

1968 "Quaternary Geology" pp. 503-42., vol. 2.

Pelletier, R., Wagner, F.J.E. and A.C. Grant

1968 "Marine Geology." pp.557-613., vol. 2.

Taylor, W.E.

1968 "Prehistory of Hudson Bay: Eskimos of the North and East Shores."  
pp. 1-26., vol 1.

Thompson, H.A.

1968 "Climate of Hudson Bay." pp.263-86. vol. 1.