

McMASTER UNIVERSITY

ARCTIC CULTURE TRANSITION - AN OVERVIEW

THE MACKENZIE DELTA - A CASE STUDY.

A STUDY CONCERNING ITSELF WITH THE  
HUMAN GEOGRAPHY OF THE ANCIENT  
ARCTIC GENERALLY, AND THE PRESENT  
ENVIRONMENT OF THE MACKENZIE DELTA

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## ABSTRACT

The purpose of this Thesis is twofold. First, Arctic America and Greenland will be discussed in terms of culture history. Four basic questions will be dealt with concerning the Eskimo. They are: where did the Eskimo come from; why did they come; how did they come; and, once here, what happened to them. The final portions of Section I will be concerned with the pre-Dorset, Dorset, and Thule cultures. However, prior to dealing with the Eskimo, a brief overview will be presented of early man in the New World, and the geographic setting of the Arctic.

Section II will move from the general to the specific. The Mackenzie Delta in the western Canadian Arctic will be the area of study. The Delta, following a brief discussion of the physical geography will be examined from a human geographic perspective. The main topics to be discussed are: early exploration; the development of settlements; and, the present cultural milieu. Prior to examining culture, and culture change, a few theoretical models dealing with culture will be presented.

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SECTION I

ARCTIC

THE PEOPLE

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THE CULTURE

INTRODUCTION TO SECTION I

As outlined in the abstract, Section I of this thesis will examine the movement of Eskimos first of all into the New World, and later, between Alaska and Greenland. The various culture stages that have developed from earliest times to the present will be discussed. Basically, a general overview of the people and the culture, will be the foremost aim of this section.

The Arctic with its harsh climate, limited resources, and contrasting environment, is home for a group of people called the Eskimo. Currently, there are only about 60,000 of such people in the world.<sup>1</sup> They live in four different countries - Russia, Denmark, The United States, and Canada. About 1,500 of them are in Russia; between 15,000 and 20,000 in the United States; Greenland has nearly 30,000; and, in Canada, approximately 12,000.<sup>2</sup> The word "Eskimo" means "eaters of raw flesh". It is an English corruption,<sup>3</sup> of a French corruption, of a Cree Indian word.

Early man in the New World will be briefly examined before proceeding further.

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<sup>1</sup>I.N. Smith (ed.), 1966, p.11.

<sup>2</sup>Ibid, pp.11-12.

<sup>3</sup>Van Steensel (ed.), 1966, p.1.

Man's occupancy of the New World is very much involved with the advance and retreat of ice that occurred in the Pleistocene period. During the Pleistocene there were four major advances and retreats of the ice sheet. Neither advance nor retreat was uniform; instead, there were irregular movements within each of the four major stages. Wisconsin, the name given the last glaciation, lasted about 80,000 years.<sup>1</sup> It is within this Wisconsin period that the story of man's entry into America begins.

There abounds a multitude of arguments concerning man's entry into the New World both as to date, and route of migration. However, many feel that the Bering Strait was the most probable route. As to how long man had occupied the New World varies, generally, between 10,000 B.P.\*, and 50,000 B.P. "Although some carbon-14 analysis have given readings back to over 30,000 years ago for material from human settlements, these are not as yet accepted with confidence. The more cautious archaeologists would say that there is as yet no certain proof that man had entered the continent before about 15,000 years ago, although earlier dates are by no means improbable."<sup>2</sup>

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<sup>1</sup>Holmes, 1965, p.685.

<sup>2</sup>Hawkes (ed.), 1963, p.686.

\*B.P., Meaning Before Present, will be used throughout this paper.



If man arrived during the early stages of the Wisconsin, or during the interglacial period prior to it via the Bering Strait, he could have walked on a land bridge to the New World. The floor of the Bering Sea is one of the most level in the world "with a slope of no more than three or four inches to the mile."<sup>1</sup> Given the smoothness of the area plus the relatively shallow depth (maximum depth of 180 feet) of the Bering Sea, it is hence hypothesized that this region was ice free as the Wisconsin ice sheet would lock up more than a sufficient amount of water to completely empty the Strait. "It has been determined that the Wisconsin glacier reached its maximum 40,000 years ago and lowered the sea level by as much as 460 feet. As the glacier grew and the ocean receded, an even broader highway was revealed at the Bering Strait. With a sea-level fall of only 150 feet, the bridge connecting the two continents must have been nearly 200 miles wide."<sup>2</sup> Holmes feels that this tundra land-bridge was well over 1,000 miles wide during some periods.<sup>3</sup> It is strongly felt by many that early man did use this area as a crossing point, and from here dispersed south into the interior. Why he moved south is difficult to answer. Perhaps the pursuit of a

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<sup>1</sup>Hammond (ed.), 1966, p.281.

<sup>2</sup>Ibid, p.284.

<sup>3</sup>Holmes, 1965, p.833.

migratory food supply was one of the major reasons. As to his route, this leads to much debate. Perhaps the Yukon River - west to the Mackenzie, and then south; or, the corridor between the Coast Range and the Eastern Canadian Rockies; or, a third alternative is a water route following the west coast. However, the water route via the west coast is a tenuous one if for no other reason than the great navigational skills that would be required if such a venture were to succeed. Various authors support various and/or multiple routes. As more archaeological work is done we will get close to the truth, and at present a good deal of the literature is based on speculation, although I hasten to add, such speculation is often well thought out. I also think that in all probability a great deal of the history has been buried under a hundred feet or so of water, and perhaps an equal amount of sediment.

In any event, it is relatively safe to say that man has been in the New World for at least 10,000 years, and that a highly probable route is via the then existing Bering Strait land-bridge. On the other hand, the Eskimo only dates back to about 5,000 B.P., although it is felt by many that he was here at a date earlier than this. The questions are obvious. Why did the Eskimo come; where did he come from; how did he get here; and once here, what happened to him? The questions are easy - the answers are difficult. It is to the Eskimo that I now turn.

SETTING

It is best to first make clear where the Arctic is. By saying that it is that area north of  $66\frac{1}{2}^{\circ}$  north latitude is to omit much of the Arctic (such as the Hudson Bay areas, or the southern section of Greenland). A better method of delineation is the  $50^{\circ}\text{F}$  July isotherm. This then includes the climatic, vegetative, and animal life that is associated with the Arctic. Climatically the three main features are long cold winters, short cool summers, and little precipitation.

The area is, with a few exceptions, north of the tree line and hence vegetation is limited to scrub growth, and a wide variety of lichen. Dr. Porsild points out that, "There are 800 species of flowering plants in the entire Arctic and about 500 of these are found in the Canadian Arctic"<sup>1</sup> As one proceeds north, vegetation decreases in both amount and variety. In contrast to both climate and vegetation is the relative abundance of animal life ranging from sea mammals and land animals, to a great variety of birds and even a surprising number of insects. Of animal life, Dr. Tener lists the following: "There are the masked shrew, arctic shrew, tundra shrew, pigmy shrew, polar bear (perhaps 10,000), grizzly bear, short tail weasel, wolverine, red and white fox, grey wolf, brown and collared lemmings,

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<sup>1</sup>I.N. Smith (ed.), 1966, p.39.

meadow vole, arctic hare, muskox (perhaps 10,000), barren ground caribou (perhaps 250,000)<sup>1</sup> According to Tuck, "there are about eighty species of birds known to breed in the Canadian Arctic. This is about twelve per cent of the total number of species inhabiting the North American continent."<sup>2</sup> Although insects decrease markedly beyond the tree line, the tundra does support a wide variety of such life. Dr. Freeman points out that, "The insects of Northern Canada are abundant both in number of different species and often in the number of a particular kind --- just south of the tree line there are about 10,000 species whereas north of the trees there are only about 500 species."<sup>3</sup> Certain of these forms of life migrate north for the summer months only, but many are year round inhabitants.

Hence, to think of the Arctic as a monotonous plain with a scarcity of plant and animal life is false. The environment is markedly different west to east, and south to north. Let us now examine the earlier posed questions.

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<sup>1</sup>I.N. Smith (ed.), 1965, p.25.

<sup>2</sup>Ibid, p.29.

<sup>3</sup>Ibid, p.34.

WHERE DID THE ESKIMO COME FROM?

One point that practically all agree on is that the Eskimo is not native to the area, and that he does not represent any people that at one time were further south in America and had migrated north. However, at one time, many scholars felt that the Eskimo was a group of American Indians who migrated north via Hudson Bay or the Mackenzie system and then fanned out across the Arctic. Archeology, however, does not support this view. Dr. Diamond Jenness, who is one of the leading authorities on the Arctic says that, "we cannot point to any probable ancestry within America itself."<sup>1</sup> Substantiation of this comes from a variety of sources one of which is blood types. Hawkes points out that Group "B" blood which rarely occurs among the American Indian is frequent in the American Eskimo and his Asiatic neighbour.<sup>2</sup> Other than from blood types comes evidence from artifacts. Many of the Eskimo hunting weapons exhibit Eurasian parallels. Such would be "the bird arrow, a shaft with a blunt point to stun and maim birds, is common in both Asia and among the Eskimo. So also are the Eskimo woman's knife, the lunate shaped ulu."<sup>3</sup>

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<sup>1</sup>D. Jenness (ed.), 1933, p.378.

<sup>2</sup>J. Hawkes, 1965, p.105.

<sup>3</sup>R.F. Spencer, J.D. Jennings, et al, 1965, p.127.

There is an impressive list of artifacts that exhibit an Asiatic derivation, and these are but a couple. There are some noticeable physiological attributes that sets the Eskimo apart from the Indian of America, and at the same time links him to a Mongoloid origin. According to Hooton, "craniologically the skulls of Western Eskimos are to me indistinguishable from those of the Chukchi, their nearest neighbours on the Asiatic side .....taking everything together, it seems to me that the Eskimo are the most clearly Mongoloid in their affinities of all the American race."<sup>1</sup> \*

Jenness provides some further viewpoints that try to establish a connection between skulls found at Chancelade in France and at Obercassel in Germany of the Magdalenian period that can be compared favourably with the Eskimo skull. On the other hand, Hrdlicka feels that the original stock were medium or round-headed and developed its dolichocephalic sub-type in Arctic America.<sup>2</sup> But, as soon as you introduce environment and food conditions as a determinant of physical development, a barrage of arguments appear on both sides of the fence. For example, Harp feels that in middle Pleistocene times primitive Pithecanthropoid types in China

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<sup>1</sup>D. Jenness, 1933, p.152.

\*also see Oschinsky, 1964.

<sup>2</sup>Ibid, p.379.

were developing an adaptation to the cold, and feels that man's conquest of the Arctic can be traced back to that time. As the Eskimo is generally short and stocky they have a lowered ratio of skin heat to body mass and hence body heat is radiated to a lesser extent. Further protection from the cold comes from a liberal fleshy covering of the face, a narrow nasal passage, and a very low bridged nose.<sup>1</sup> Honigmann points out that in cold climates the amount of body area exposed to air is decreased by the fact that appendages and extremities of the body tend to decrease. He goes on and states that "it is doubtful if body size could have survived unaltered over from 2,000 to 20,000 years and under various environmental circumstances. Instead it seems more likely that adaptive changes in the New World peoples have been taking place since these continents were first populated and they still continue to occur. Races are not stable."<sup>2</sup> There is also the argument that they have developed very strong jaws and teeth along with strong temporal muscles, and that these features have been developed as a response to a diet of tough food once they arrived in the New World. But, if such is the case, why is it that other peoples do not exhibit these same characteristics when

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<sup>1</sup>I.N. Smith (ed.), 1966, p.50.

<sup>2</sup>J.J. Honigmann, 1959, p.871.

faced with a similar environment? Further, why are certain features more pronounced in different sections of the Arctic when food conditions are quite similar? And more important, why are such features more apparent in the male than the female? On the one hand there is data to suggest that some physiological adaptations to a cold climate have taken place. Perhaps specific areas did contribute to a differentiation, but my feelings are that the Eskimo had such attributes prior to arriving in the New World and that such features may have been modified slightly by environmental conditions but not to any great extent. To support this basic view is Hilde's findings as Director of the Defense Research Board, Arctic Medical Research Unit who states that "there is no doubt that survival of men in the Arctic is due to his mastery of the environment to provide himself with clothing, with heat, and with shelter, and not because he is physiologically adapted to survive such extreme cold."<sup>1</sup>

Freuchen thinks that the Eskimo originated in northeastern Siberia, but that traces of their original culture is now covered by the Arctic Ocean.<sup>2</sup> As mentioned, the arguments go on, and on, and little information can be garnered as to exactly where their origin was. However,

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<sup>1</sup>I.N. Smith (ed.), 1966, p.59.

<sup>2</sup>P. Freuchen, 1957, p.19.



the concensus of opinion is that they are not from a prior American stock, and all evidence points to a migration from Asia.

#### WHY DID THE ESKIMO COME?

To this question there appears to be no answer. As to their origin and adaptation it has been seen that many theories have been put forth, but as to why they came, very few authors even suggest a reason. Freuchen thinks that they probably migrated due to the population of southern Asia pushing north.<sup>1</sup> But, this answer leads one to ask more questions such as why they did not spread along the shore of the Chukchi Sea rather than cross the Bering Strait? Or, what caused this push from the south? I feel that the causes for migration of a people are usually manifold, but that one or two aspects are more important than the others. For example, population pressure per se will have relatively little effect on a group, but when combined with a food or water shortage then migration becomes an obvious answer. Perhaps in this case there was a decrease in the food supply, and as many Eskimo groups are often highly dependant upon one main staple, a major disruption in the supply of this staple could cause a migration to try and locate a new source of supply. Another

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<sup>1</sup>Ibid, p.19.

possibility is that if newcomers were pushing north from the south of Asia then perhaps hostility occurred that forced the Eskimo to migrate. However, I feel that there was a series of events that precipitated the migration, and these forces may never really be known.

#### HOW DID THE ESKIMO COME?

His method of transport to the New World is subject to much speculation and is tied into numerous other factors. To begin, before one can ascertain how he migrated the question of where he migrated from should first be answered. It is not known from what region in Asia the Eskimo came. If it was from a coastal region it may be safe to assume that he already had developed a mode of water transport. On the other hand if he was from the interior, perhaps he utilized dogs in some form as is now common in the Arctic and has been for a very long time. Of major importance is the date of his arrival which we don't know either. If he came during most times of the Wisconsin he could have walked dry-shod to Alaska. But, if he came when the Wisconsin was retreating, the Bering Strait could have had water in it. It is known that "the rapid rise of sea-level began again about 7,000 years ago, and sea-level has lain within ten feet of its present position throughout the last 5,000 years."<sup>1</sup> And, "rising sea level eliminated the land

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<sup>1</sup>D.F. Hopkins, 1959, p.1524.

bridge for the last time between 10,000 and 11,000 years ago."<sup>1</sup> So, between 7,000 and 11,000 B.P., there was water in the Strait, but it may well have been shallow enough to permit freezing to occur right to the bottom for much of the year, and if this did occur then he could have walked across to Alaska on this ice-bridge during the winter months.

If he arrived later than 7,000 B.P. then he almost had to come via a means of water transport because once sufficient water is in the Strait then tide and current action heave and crack Bering Strait ice in winter months to such an extent that "it is by no means usual for ice to form in such a way as to make a crossing possible ..... while it is entirely possible that occasional crossings from the mainland to the islands, or even from mainland to mainland, have been made on the ice, it is a dangerous journey and it is not likely to have been a common procedure at any time."<sup>2</sup> Hence, an ice-bridge route is very questionable if he came after 7,000 B.P. We do know that a type of kayak was in full use in Alaska, but it is not too clear if it occurred in Siberia.

Another view that is worth mentioning is the idea that he came during the period when it was possible to

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<sup>1</sup>Ibid, p.1527.

<sup>2</sup>D. Leechman, 1949, p.198.

cross via a land-bridge. Once here, he lived in a mountain valley area where he lived off of available animal life. As the Wisconsin retreated the tree line presumably advanced, and the Indians from the south pushed north at a speed relative to that of the trees. This eventually led to contact between the two and hostility occurred. The Eskimo was driven north to a sea shore location where he was forced to adapt a way of life geared mainly to the exploitation of ocean mammals and fish. Data is lacking to support this view but none the less it is an interesting concept.

Evidence dates Eskimo, or pre-Eskimo arrival at about 5,000 B.P. which is during rapid Wisconsin retreat, but this is not to say that he was not here earlier because much of this earlier evidence (if he was here) could now be covered by water and/or sediment. So, as to how he came is closely linked to where he came from, and when he came.

I would like to suggest, although no evidence is yet available to support my viewpoint, that he arrived sometime prior to 5,000 B.P. but probably not earlier than 11,000 B.P. This means that he probably came by some form of water transport that was further developed once he arrived.

#### ONCE HERE, WHAT HAPPENED TO THE ESKIMO?

More data is available to help answer this question than was available for the preceding questions. However, data by itself is practically meaningless, and here again interpretation varies from one author to another. The

following is a culture sequence of the Arctic based on archaeology, and will be examined later in more detail. The earliest known finds are those of the Cape Denbigh Flint Complex of northwest Alaska dated at about 5,000 B.P.<sup>1</sup> This culture spread east reaching Greenland about 4,000 B.P. These east moving descendants of the Denbigh culture are variously called Pre-Dorset, Palaeo-Eskimo, Sarqaq, and this stage lasted to about 2,800 B.P. in the central Canadian Arctic, and to approximately 2,500 B.P. in Greenland. By about 2,800 B.P. Pre-Dorset was replaced by Dorset Culture. Dorset covered a wide area and spread east from its hearth in the Foxe Basin area, west to Coronation Gulf, and was in existence for different time periods depending upon location. It is important to note that Dorset never moved as far west as Alaska, or to be more precise, no evidence of it has been located west of Coppermine. By about 1,000 B.P. Dorset was being replaced by the Thule Culture which was pushing east from Alaska. Developing from Thule was Recent or Modern Eskimo. It should be mentioned that there were important offshoots from these major stages such as the Caribou Eskimo.

I will now attempt to trace the transition from one culture to the other, and the major differences between them. As a background it should be kept in mind that these

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<sup>1</sup>J.L. Giddings, 1967, p.ix.

people in moving from west to east, (and east to west) faced a variety of environments all of which we would classify as harsh. At the same time, they had to respond to the gradual climatic changes that were occurring plus relatively wide seasonal variations. One of the really difficult problems faced by the anthropologist and archaeologist is in deciding at what point Eskimo history begins. For example, there are finds in the interior of Alaska and in the Northwest Territories that date earlier than Denbigh, yet the artifacts are similar in many respects to Denbigh. The problem thus posed is should such finds be considered Eskimo, or can they be attributed to an earlier people that migrated south prior to the Eskimo arrival in the New World? The answer to this is extremely difficult given only the data that is now available.

#### DENBIGH: PRE-DORSET

Denbigh, although as mentioned may not be the earliest culture, appears to be a good starting point in Eskimo culture because traces of it can be recognized as far east as Greenland. Clarification must first be made before proceeding further. The Denbigh Flint Complex is a specific site at Cape Denbigh on Ngrton Sound. It is but one of a series of sites that constitute what is called the Arctic Small-Tool Tradition.<sup>1</sup> However, as it

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<sup>1</sup>H.B. Collins, in J.M. Campbell (ed.), 1962, p.126.

is of major importance, many use Denbigh Flint Complex and Arctic Small-Tool Tradition interchangeably. In essence anything in the Arctic that dates to a Pre-Dorset time period becomes a member of the Arctic Small-Tool Tradition Group. (I will use the term Denbigh when dealing with this period rather than Arctic Small-Tool Tradition)

There are sites, other than Denbigh, in the west, two of which are Tokuk and Natvakruuk, (in the area of 68°8'N. - 151°43'W.) that exhibit artifacts similar to Denbigh.<sup>1</sup> What complicates these two sites is the fact that they are at an inland location which would tend to suggest a dependence on Caribou. Some have suggested that it is by no means unreasonable to think that these people combined a life of both hunting inland animals and sea mammals, and that they migrated to the ocean during the summer months. This would require a high level of technology (which the people probably had) or, as an alternate answer, perhaps trade developed between the interior and the coast. As of yet, data is too lacking to make any firm predictions.

Moving to the east-central Arctic a site at Thyazzi in northeastern Manitoba reveals a close alliance with Denbigh, as does the work done by Harp at Eaker Lake.<sup>2</sup>

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<sup>1</sup>J.M. Campbell (ed.), 1962, p.39.

<sup>2</sup>E. Harp in J.M. Campbell (ed.), 1962, pp.69-75.

Going still further east, a field party from the National Museum of Canada linked finds from Ivugivik<sup>1</sup> (extreme north-west corner of the Ungava Peninsula) to Denbigh. Sites also exist on the south shore of Baffin Island and on Greenland as well. The origin of Denbigh is unknown, but "this complex has some elements, notably a variety of fluted point, probably derived from the Palaeo-eastern tradition to the south, but it is dominated by Mesolithic or persistent Upper Palaeolithic forms reminiscent of the Old World."<sup>2</sup> This same basic view is held by Taylor, "Denbigh types and styles show enough similarity to older Asian sites that most workers believe that much of Denbigh origin lies in the Palaeolithic and the Mesolithic periods of the Far East and in the early Neolithic, say about 4000 B.C., of Siberia."<sup>3</sup> While origin is not really known, it is known by the location of the forementioned sites (and there are more) that these Pre-Dorset people covered an extremely wide range. Also, its influence on later stages was quite profound. "The Arctic Small Tool tradition, especially as represented by the Denbigh Flint Complex, was characterized by such important Mesolithic and/or Palaeolithic traits as burins, side blades, microblades, and cores, but was probably no more

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<sup>1</sup>W.E. Taylor in J.W. Campbell (ed.), 1962, pp.90-91.

<sup>2</sup>J. Harkes, 1965, p.153.

<sup>3</sup>Van Steensel (ed.), 1966, p.2.



than 5000 years old; its implement topology suggests that it was essentially an American variant of the much older Eurasian Mesolithic. And the later Eskimo cultures to which it gave rise not only continued to follow a Mesolithic way of life but, in doing so, continued to employ specific Mesolithic types of implements that had gone out of their use thousands of years earlier in other parts of the world."<sup>1</sup> The main artifacts that they are known for are their "flint tools, scrapers, points, bone working tools, gouging tools, knife blades and so on. Among them are some of the most delicately chipped, precisely formed, chipped-stone tools in the entire prehistoric world."<sup>2</sup>

Pre-Dorset people were in the central Arctic by approximately 4500 B.P., and reached Greenland about 4000 B.P. This stage lasted until about 2800 B.P. in Canada and about 2500 B.P. in Greenland. The disappearance of the Pre-Dorset people, like their origin, is subject to much debate. However, some of their technological traits carry over to the Dorset Culture. It is to Dorset that we will now turn.

#### DORSET

Dorset culture existed from about 2800 B.P. to

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<sup>1</sup>J.D. Jennings, E. Norbeck, et al, 1965, p.90.

<sup>2</sup>Van Steensel (ed.), 1966, p.2.

approximately 1000 B.P. Dr. Jenness of the National Museum of Canada defined this new culture in 1925. He called it Dorset as many of the artifacts came from Cape Dorset in southwestern Baffin Island. Dorset indicates a continuum of the east moving Pre-Dorset culture. But, Dorset itself appears to have developed in the Foxe Basin - Hudson Strait area of the eastern Canadian Arctic.<sup>1</sup> As to why this complex arose is unknown, but it can certainly be established that it was different than that which occurred before or after. A connecting link between Early Dorset and Dorset was discovered on Southampton Island and represents "an early stage of the culture with substantially different inventory of that of classic Dorset .....it is older than Dorset sites and lacking many of the traits of later Dorset culture; it exhibits several significant parallels with the early Neolithic of Siberia and Mongolia."<sup>2</sup>

Dorset moved from its Foxe Basin area as far west as Coronation Gulf. It is important to note that it never pushed as far west as Alaska. It also spread as far North as Ellesmere and Melville Islands. From Ellesmere it is found east to Greenland and south down both coasts. Another extension was from the Foxe area south to the north east

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<sup>1</sup>F. Mowat, 1965, pp.372-383.

<sup>2</sup>J.D. Jennings, E. Norbeck et al, 1965, p.90.

tip of Labrador and finally reaching as far south as the Northern Peninsula of Newfoundland. Dorset people utilized a variety of available food such as seal, walrus, polar bear, caribou, fox, rabbit, birds and fish.<sup>1</sup> It seems that seal and walrus were the main staples along with caribou. However, due to the size of their implements, some authors presume that they depended heavily on fish and small sea mammals. There is no evidence to substantiate the use of boats. However they did have small sledges that were drawn by man-power.<sup>2</sup> A very important point is that whaling was not known to them.

They lived in partially subterranean houses (some authors feel that they were completely underground except for a dome-like roof) that were constructed of stone slabs, boulders and available turf. As the culture developed, communal houses made their appearance.<sup>3</sup> Most feel that they did know the technique of snow-house building. Their permanent homes were about 20 to 30 feet in length, and 15 to 20 feet wide, and there appears to be a central hearth with earth benches along the side walls, and a raised sleeping area at the back.<sup>4</sup> Most of their implements were

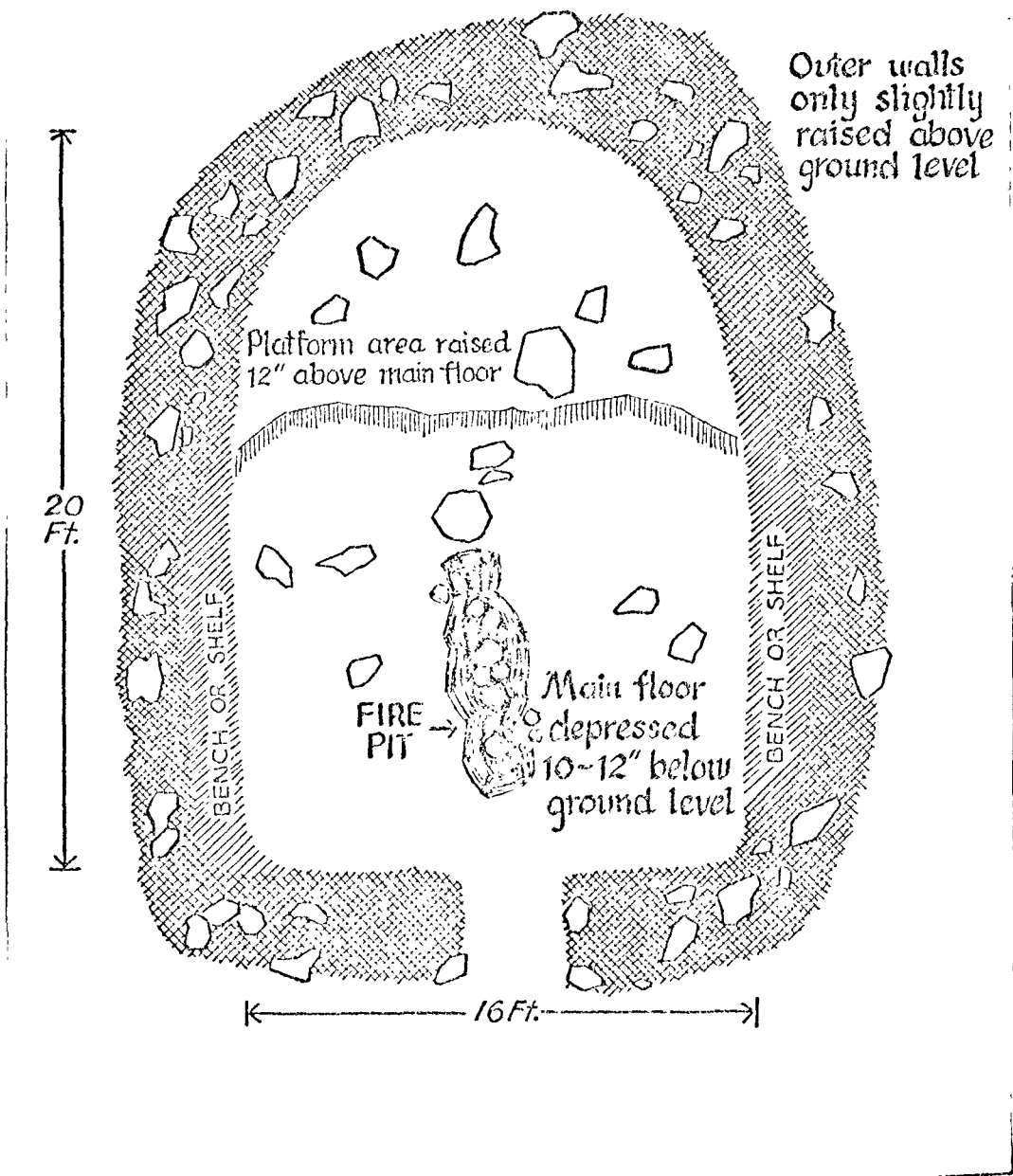
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<sup>1</sup>Ibid, p.107.

<sup>2</sup>Kaj Birket-Smith, 1959, p.192.

<sup>3</sup>Ibid, p.191.

<sup>4</sup>F. Mowat, 1965, p.373.



Plan of a typical Dorset house

SOURCE: F MOWAT, WEST VIKINGS,  
TORONTO: McLELLAN AND  
AND STEWART, 1965,  
p. 374.

made of bone, ivory, quartz, chert, and chalcedony, and one feature in all Dorset finds is the smallness of their implements. In the early stage of Dorset, "implements include large headed harpoons and lances with open sockets and polished slate points, which were only gradually replaced by the small harpoon and chipped flint blades of the later period . . . . Peculiar to Dorset Culture are gouged holes instead of drilled ones, apparently they had neither the bow-drill nor bows and arrows."<sup>1</sup>\* They also had works of art made from bone and stone which were probably for ornamental purposes.

From the foregoing it can be observed that they indeed had a relatively high culture form. The disappearance of the Dorset is as much a mystery as its appearance, although there are a few points that should be mentioned. It is believed that it was these people that the early Norse called "Skraelings" and possibly, hostility occurred between them and the Norse in the Eastern section of their culture area. Some think that the increasing warmth of the Labrador current changed the breeding habits of the seal and that as a result, the seal moved to new breeding grounds. The Dorset peoples in the east relied heavily

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<sup>1</sup>Kaj Birket-Smith, 1959, p.192.

\*For a discussion of early Dorset culture, refer to J. Feldgaard in J.F. Campbell (ed.), 1962, pp.92-95.

upon seal as a staple, and if the seal had been removed from their diet then it could have been most serious. But, neither of these explain why Dorset disappeared in the area further west, and one can only conclude that it was replaced by the east moving Thule culture. As Taylor puts it, "the Thule culture steam-rollered Dorset."<sup>1</sup> This may be misleading, and it must be pointed out that there is no evidence of hostility between the Thule and Dorset people. In many cases the Thule people adapted some of the older Dorset culture, and often the Dorset people modified a new trait that they had learned from the Thule. This Thule-Dorset transition is very complicated and, as has been pointed out, Thule did take longer in some areas to gain acceptance than in others.

#### THULE

Thule culture developed in Alaska in a sequence that can be traced as far back as the Denbigh Flint Complex. (although many steps in this Denbigh-Thule transition are not understood) Between the decline of Denbigh and the rise of Thule, several complex stages occurred. A major problem is that different authors give different names to the same stage, and some argue as to the proper sequence. But, a few main ones can be distinguished between Denbigh

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<sup>1</sup>Van Steensel (ed.), 1966, p.4.

and Thule, the first of which is the Old Bering Sea Culture. This culture was discovered by Jenness in 1926 and further excavations show that it is in the Cape Bering, St. Lawrence Island, Diomedes Island Area. In many ways it was similar to Denbigh, but did exhibit a more advanced implement manufacture. Also it had a form of curvilinear art which was apparently not at all common to Denbigh.<sup>1</sup> An offshoot of Old Bering Sea, the Okvik phase, is similar to the Old Bering Sea, but had some unique aspects of its own. It is known that the Okvik people did hunt seal and walrus, and that crude pottery and lamps were known.<sup>2</sup> And, at one site three substyles of Okvik art was revealed which perhaps indicates that Old Bering Sea developed from Okvik, and not the other way around.<sup>3</sup>

The next phase is the Birnirk Culture. The remains of this culture are found in many sites in North Alaska, as well as on the north shore of Siberia. The Birnirk stage was quite complex - complex to the degree that Ford labelled one site at Point Barrow as being "gadget ridden".<sup>4</sup> This culture was undoubtedly derived from the earlier

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<sup>1</sup>D. Jenness, 1933, p.387.

<sup>2</sup>Kaj Birket-Smith, 1959, p.187.

<sup>3</sup>J.D. Jennings, E. Norbeck (eds.), 1964, p.93.

<sup>4</sup>F.S. Spencer, J.D. Jennings(et al), 1965, p.90.

Bering Sea Culture but the ties between the two are vague. At Point Barrow there were twelve or thirteen houses of the subterranean type of wood construction with a sod cover. Literally thousands of artifacts were recovered including nineteen types of harpoon heads, sixteen types of bone arrow points, snow goggles, fishhooks, bow and arrow, seal floats, wooden buckets and even musical instruments. The list of items goes on and on.<sup>1</sup> The Birnirk contributed heavily to the later Thule culture. But, to add further to the confusion, Soviet archeologists have found at sites in northeastern Siberia the Okvik, Old Bering Sea, Birnirk, and Thule Culture. Because of this it is now questionable if the origin of Thule can be assumed to be in Alaska and then spread over to Siberia or if it developed in Siberia and crossed the Strait to Alaska. There are arguments for and against.

One other culture worth mentioning which does not appear to tie in with the earlier Birnirk or later Thule, is that of Ipiutak. It is located near Port Hope and the village consists of over 600 houses, and had an estimated population of about 1,500. It is the largest Eskimo site known in the Arctic. Equipment found suggests a diet of both sea and land animals, and that these people probably

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<sup>1</sup>Ibid, p.90.



migrated from the coast into the interior in the fall, and back out again in spring.<sup>1</sup> It has been suggested that while these people were distinct, they were tied culturally to the Old Bering Sea culture as there is some resemblance between their art forms.

Birnirk culture apparently transformed into Thule. Thule culture was named by Mathiassen who was the archaeologist on Knud Rasmussen's expedition to Hudson Bay from 1921 to 1924. Mathiassen saw that there had been an earlier people living in Hudson Bay area who depended far more on sea mammals than the natives that were then present. He called this culture Thule from the site where it was first discovered in northwest Greenland. Of the culture Mathiassen had this to say, "The Thule culture, with all its peculiar whaling culture, has originated somewhere in the western regions, in an Arctic area where whales were plentiful and wood abundant, and we are involuntarily led towards the coast of Alaska and East Siberia ..... from there it has spread eastward right to Greenland, seeking everywhere to adopt itself to the local geographical conditions. And it can hardly have been a culture wave alone; it must have been a migration."<sup>2</sup>

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<sup>1</sup>N.A. Chance, 1966, p.11.

<sup>2</sup>D. Jenness, 1933, p.385.

Of Thule culture, whaling is the most distinctive feature, and "it is the Thule culture with its specialized development of sea mammal hunting that underlies the culture of the modern Eskimo."<sup>1</sup> Typical Thule traits are "whalebone mattocks, snow shovels, bone arrowheads, harpoon sockets and finger rests, bow drills and ulus."<sup>2</sup> Thule spread as far east as Greenland but it was not a uniform or equally accepted culture in all areas. In fact, in some areas Thule culture is completely lacking such as on the northwest coast of Newfoundland, and the Atlantic coast of Labrador.<sup>3</sup> It is agreed upon by almost everyone that Thule developed from Birnirk, yet it is interesting to note that Birnirk appears to have been further advanced in many ways.

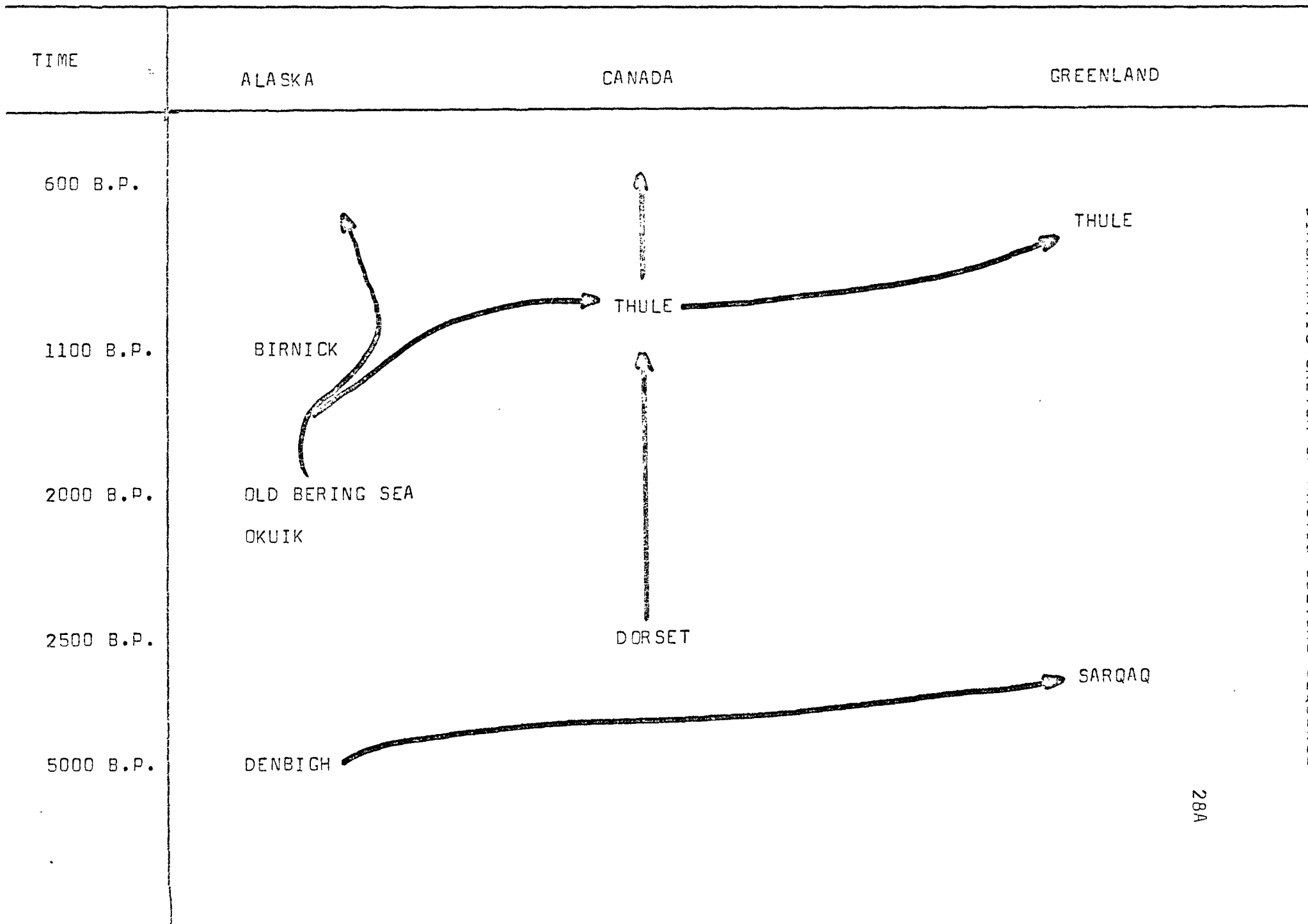
In many ways the Thule culture was well adapted to an Arctic way of life. They utilized more of the natural resources than any culture group prior to them. They were generally better equipped than their predecessors. Yet, Thule, like the others came to an end. Why did this occur? A decrease in whaling, which was of such importance to them was a possible factor, and this I feel occurred due to European whalers invading the Arctic. After the whalers

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<sup>1</sup> J.D. Jennings, E. Morbeck (eds.), 1964, p.107.

<sup>2</sup> Ibid, p.107.

<sup>3</sup> D. Jenness, 1933, p.390.



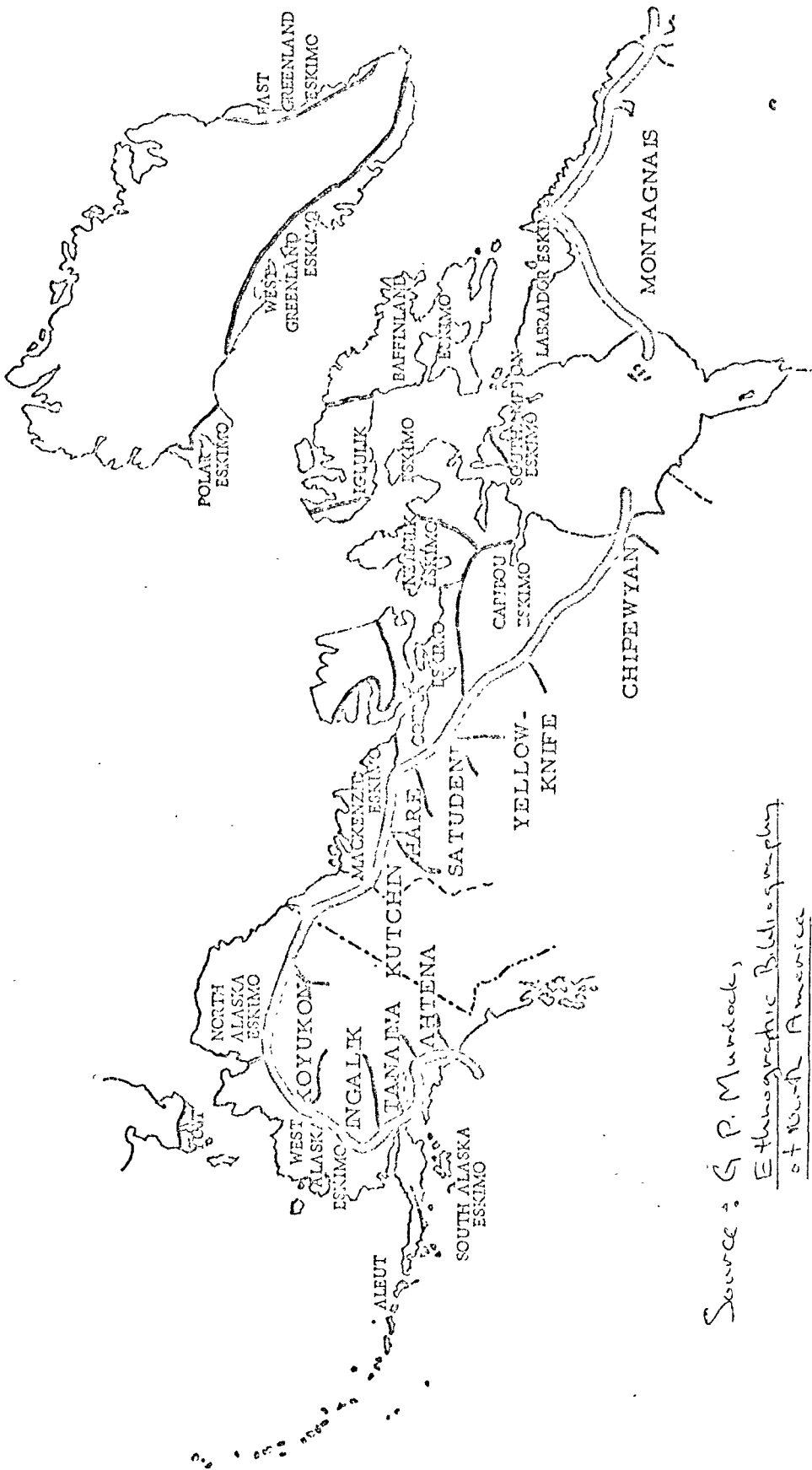
DIAGRAMMATIC SKETCH OF ARCTIC CULTURE SEQUENCE

came other "whites" who introduced new ideas and technology to the old way of life. Thule reigned from about 1000 B.P. to about 200 B.P. The decline of Thule was the birth of "Modern Eskimo".

#### CONCLUSION

Condensing 5,000 years of Eskimo history necessitates the omission of much detailed knowledge. However, the purpose of Section I was to provide an overview and not a detailed account. It can be seen that Eskimo culture history is indeed quite complex. Many mysteries have yet to be solved. Our knowledge of the transition from one culture phase to another is the result of many thousands of hours of painstaking site research and later interpretation. While we have learned a great deal, much is yet to be done.

The old is rapidly dying - the new is a one way street with no turning back. His skills and heritage that served him so well are of little value in the New Arctic. He has to learn the new skills, the new techniques, and build a new heritage to prepare himself for the twenty-first century.



Source: G. P. Murdock,  
Ethnographic Bibliography  
of North America

SECTION II

THE MACKENZIE DELTA  
A CASE STUDY

INTRODUCTION TO SECTION II

Whereas Section I was concerned with Arctic America generally, this section will deal specifically with the Mackenzie Delta area.

As an introduction, the physical geography will be discussed in conjunction with climate and vegetation. A brief account of Indian-Eskimo interaction will then be examined. The major portion of this second section will be concerned with the social conflicts and the resulting transitional milieu. In order to understand the present-day problems, a history, in terms of early exploration and subsequent settlement development, will be dealt with. Thus, this section can be divided as follows:

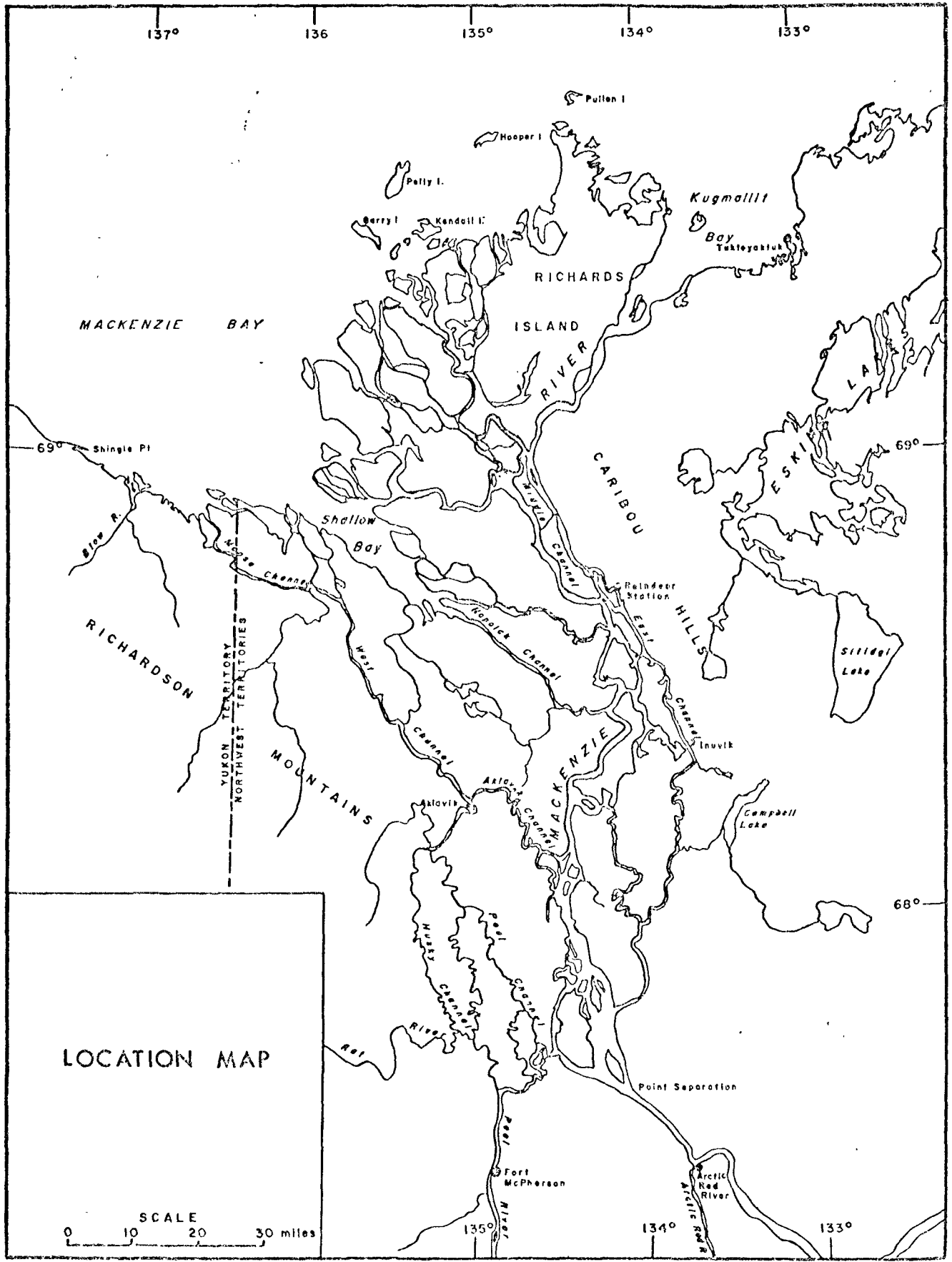
- (a) Physical geography
- (b) Indian-Eskimo contact
- (c) Early Exploration and discovery
- (d) Settlement history
- (e) Social change -
  - (i) theory
  - (ii) transition
  - (iii) religion and education
  - (iv) settlement characteristics
  - (v) social problems
  - (vi) administrative view- native view
  - (vii) summary and conclusions

Much of what is included is the result of personal observations while working in the Delta from May to September of 1967. I was employed by the Department of Indian Affairs and Northern Development, and was posted in the settlements of Inuvik, Aklavik, and Tuktoyaktuk. Most of my stay was at Aklavik.

Wherever possible in this paper, I have supported my views with the research findings of others.



# MACKENZIE DELTA



Source: A.M. Lewis, *Northwest Territories*  
*Journal of the Royal Geographical Society*  
 p. 4.

PHYSICAL GEOGRAPHY

The Mackenzie River, after a journey of 1,071<sup>1</sup> miles, flows into the Beaufort Sea. For the last 130 miles of this journey, the river divides into several main channels and a maze of lesser channels and lakes - this area is The Mackenzie Delta. With an area of 5,275 square miles, the Delta is the twelfth largest in the world.<sup>2</sup>

BOUNDARIES

The Delta is about 130 miles from south<sup>\*</sup> to north, and approximately 40 miles wide. It is bordered on the west by the Richardson Mountains. These mountains, while not glaciated during Pleistocene time,<sup>3</sup> exhibit a very rugged topography. To the northwest, this upland area merges into a fairly narrow coastal plain. Between the upland area and the coastal plain is the "Arctic Plateau", which is "a gently rolling, upland surface, between 200 and 1,000 feet above sea level."<sup>4</sup> The coastal plain

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<sup>1</sup> J. Beckay, 1963, p.99.

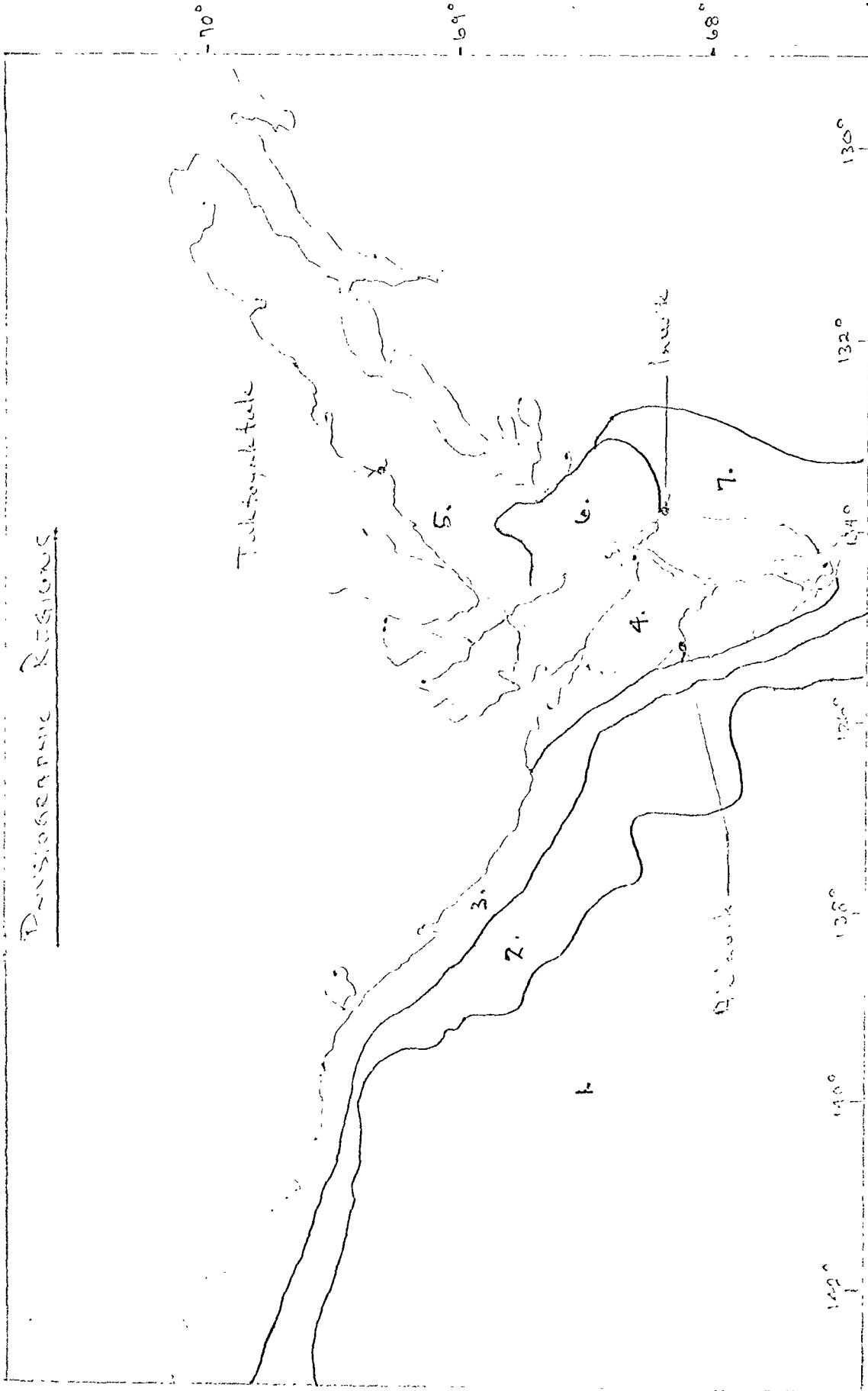
<sup>2</sup> Merrill, et al, 1960, p.1.

<sup>3</sup> K. Abrahamson, 1966, p.7.

<sup>4</sup> K. Abrahamson, 1966, p.9.

\* Point separation is the southern limit of the Delta.

Divisional Regions



1. British and Richardson Mountains.
2. Arctic Plateau
3. Arctic Coast Plain.
4. Mackenzie Delta
5. Pleistocene Coniferales
6. Canadian Hills
7. Churchill Lake Hills.

Source: Modified from K. M. Mearns's  
 Arctic Environmental Changes,  
 Arctic Institute of North America  
 Research Paper No. 22  
 (1964)

itself "is a monotonous stretch of open, often wet tundra, crossed by numerous streams from the mountains and more or less dotted by shallow lakes."<sup>1</sup>

On the east side of the Delta, there is an upland area consisting of the Campbell Lake and Caribou Hills. The Campbell Lake Hills extend south and east from Inuvik and are "composed of rocky hills and escarpments that may reach an altitude of 800 feet."<sup>2</sup> The Caribou Hills extend north from Inuvik to approximately halfway between Reindeer Station and the south end of Richards Island.<sup>3</sup> These Hills, which reach a maximum altitude of about 850 feet,<sup>4</sup> decrease in altitude north of Reindeer station.<sup>5</sup> In the north, the Caribou Hills blend into the Pleistocene coast area. This Pleistocene coastal area, which includes both Kendall and Richards Islands, is generally low lying with some areas up to 200 feet above sea level.<sup>6</sup> Pingos are characteristic throughout much of the Pleistocene region. Pingos are conical hills or mounds that are ice-cored.

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<sup>1</sup> Ibid, p.9.

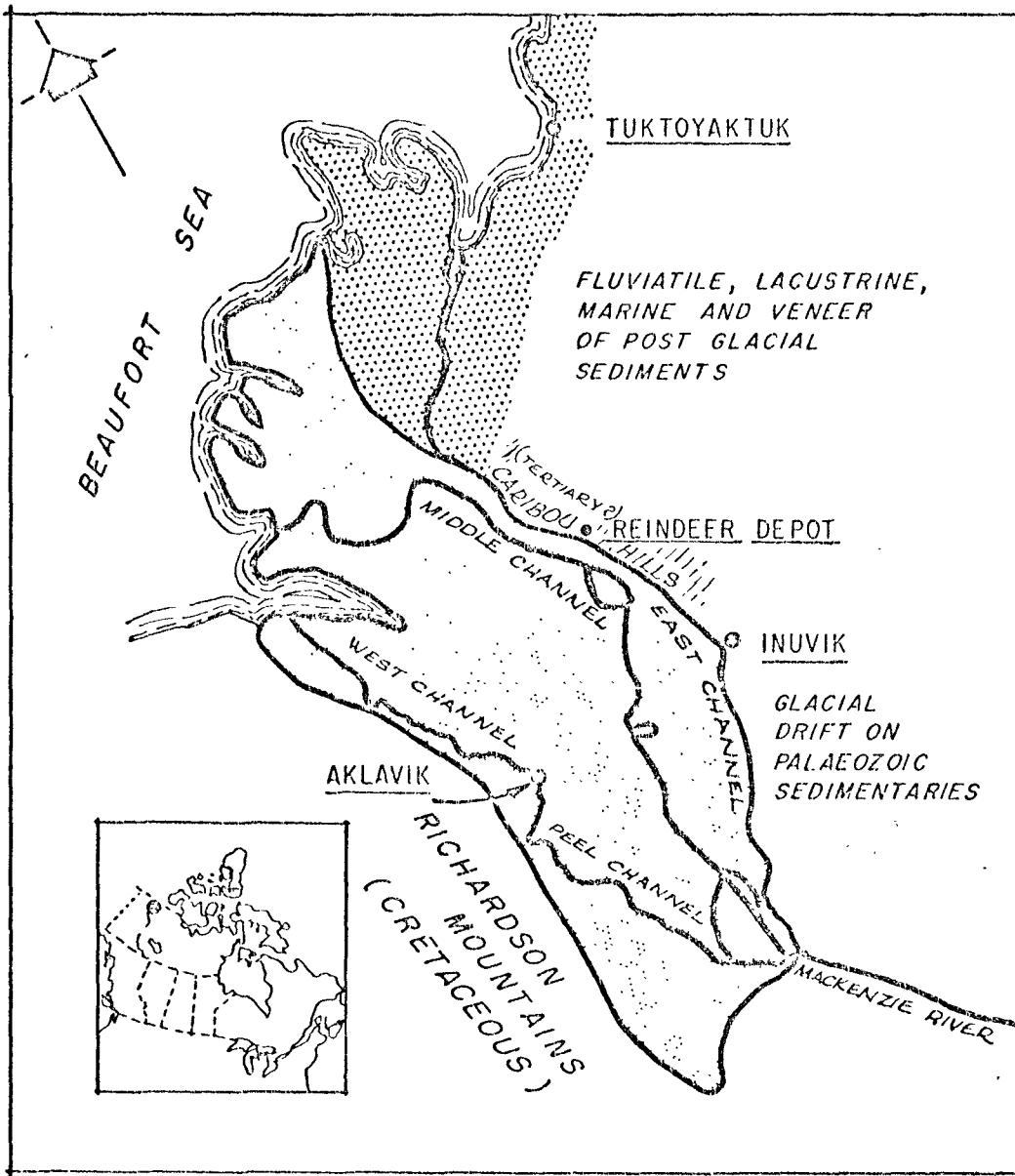
<sup>2</sup> Ibid, p.10.

<sup>3</sup> Ibid, p.10.



<sup>4</sup> Ibid, p.10.

<sup>5</sup> J. Mackay, 1963, p.143

<sup>6</sup> K. Abrahamsson, 1966, p.6.



LEGEND

-  PRESENT MACKENZIE DELTA
-  OLD MACKENZIE DELTAS

0 10 20 30  
SCALE IN MILES

FIGURE 1 THE INUVIK REGION

Source: J. A. Pitblado, *Geology of the Mackenzie River Basin*,  
*Engineering Site Information*,  
p. 19.

The height of this unusual formation "varies between 10 and 150 feet, the basal diameter between 100 and 2,000 feet."<sup>1\*</sup>

### THE DELTA

The Delta itself, as Mackay puts it, "defies easy description . . . . The delta is composite in origin. The greater part has been built up by sedimentation from the Mackenzie River, but the southwest part receives sediment from the Peel and Pat Rivers."<sup>2</sup> The discharge of the Mackenzie River is estimated at 100,000 c.f.s. in winter; 300,000 c.f.s. in summer; and up to 500,000 c.f.s. at break-up.<sup>3</sup> Channel widths vary from more than a mile, down to a few feet. Channel depths also vary considerably from very shallow to in excess of 100 feet.<sup>4</sup>

Flooding can be common throughout most of the Delta, and particularly during spring break-up. During break-up, the Delta is receiving warmer water from the south, as well as meltwater from the local snow cover. "The Peel River is fed by meltwater from the nearby streams. These streams

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<sup>1</sup> K. Abrahamsson, 1966, p.8.

<sup>2</sup> J. Mackay, 1963, p.98.

<sup>3</sup> Ibid, p.99.

<sup>4</sup> Ibid, p.103.

\* For a detailed explanation of Pingos, refer to Mackay, 1963, pp. 69-94.

break up early, and consequently the southwestern portion of the delta breaks up first."<sup>1</sup> The average date for break-up at Aklavik, Inuvik, and Reindeer Station is May 28th, May 31st, and May 27th, respectively.<sup>2</sup> Due to the flooding, floodplain lakes are created, and such lakes constitute over 90% of all Delta lakes.<sup>3</sup> There are literally thousands of lakes in the Delta, and "perhaps nowhere else in Canada is there an area of comparable size with as many lakes..."<sup>4</sup>

#### CLIMATE

Climatically, a large portion of the Delta lies south of the 50° F July isotherm. If climate conditions are to be used as a definition, Tuktoyuktuk and the outer islands are "arctic", while both Aklavik and Inuvik are "subarctic."<sup>5</sup> The climatic graph (see next page) illustrates that for Aklavik, mean daily temperatures are below freezing for eight months of the year. At Tuktoyuktuk, the mean daily temperature is below 0° F for six months.<sup>6</sup>

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<sup>1</sup> K. Abrahamsson, 1966, p.55.

<sup>2</sup> Ibid, pp.55-56.

<sup>3</sup> J.R. Mackay, 1963, p.132.

<sup>4</sup> Ibid, p.130.

<sup>5</sup> Ibid, p.153.

<sup>6</sup> K. Abrahamsson, 1966, table 5.

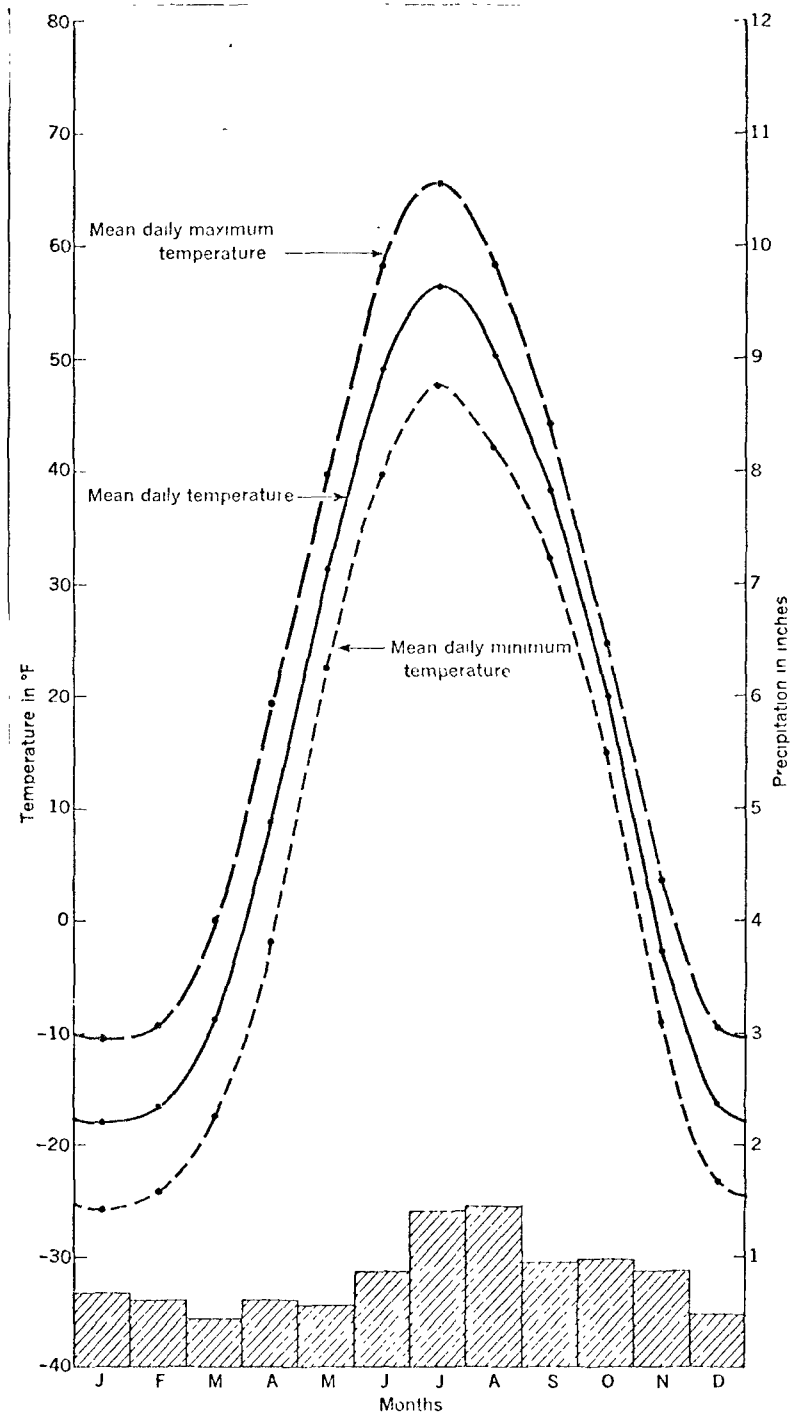


Figure 68. Climatic graph for Akluvik. Scale for precipitation on right.

Sources J. R. Mackay, The Mackenzie D.H. Area, 1962-1963, Ottawa: Dept. of Min. and Tech. Surveys, 1962, p. 65.



Generally, temperatures at inland locations are coldest in January. In July, temperatures exhibit a daily mean of 56.6<sup>0</sup> F at Aklavik, 55.9<sup>0</sup> F. at Inuvik, and 50.1<sup>0</sup> F. at Tuktoyuktuk.<sup>1</sup> An extreme high of 93<sup>0</sup> F has been recorded at Aklavik. "In relation to its latitudinal location the Mackenzie Delta has the warmest summer temperatures on the North American Continent. This general statement holds true also for the spring period."<sup>2</sup>

Precipitation totals are low throughout the Delta, with the coast area receiving between 5 and 7 inches of total precipitation. (Tuktoyuktuk, 6.15" of which 4.02" is in the form of rain.<sup>3</sup>) There is an increase in precipitation at inland locations. (Aklavik, 7.67", of which 3.37" is in the form of rain;<sup>4</sup> Inuvik, 10.87" of which 4.33" is in the form of rain.<sup>5</sup>) Within the Delta the prevailing winds are northerly.

#### PERMAFROST

The distribution of permafrost throughout the delta

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<sup>1</sup> K. Abrahamsson, 1966, tables 8,9,10.

<sup>2</sup> Ibid, p.21.

<sup>3</sup> Ibid, table 5.

<sup>4</sup> Ibid, table 9.

<sup>5</sup> Ibid, table 10.

is controlled generally by climate, but is also regulated by microclimate, relief, drainage, vegetation, snowcover, soil type, and particularly by water bodies. Depths to the bottom of permafrost in the older Delta are at least 350 feet.<sup>1</sup> Permafrost is greatly influenced by the distribution of water bodies, as under large water bodies, there is a zone that is permanently unfrozen. "A lake in the recent Mackenzie Delta was investigated in April 1961 and borings were made to determine the permafrost depth under and close by the lake. The lake was 900 feet in diameter. No permafrost was encountered below the lake centre to a point where bedrock was reached at a depth of at least 229 feet. Permafrost was found to the full depth. (115 and 196 feet respectively) in two boreholes within 100 feet of the lake."<sup>2</sup>

#### VEGETATION

Vegetation in the northern portion of the Delta is of the tundra variety, while boreal forest occupies the southern section. When travelling at water level, one receives the impression that he is travelling through a

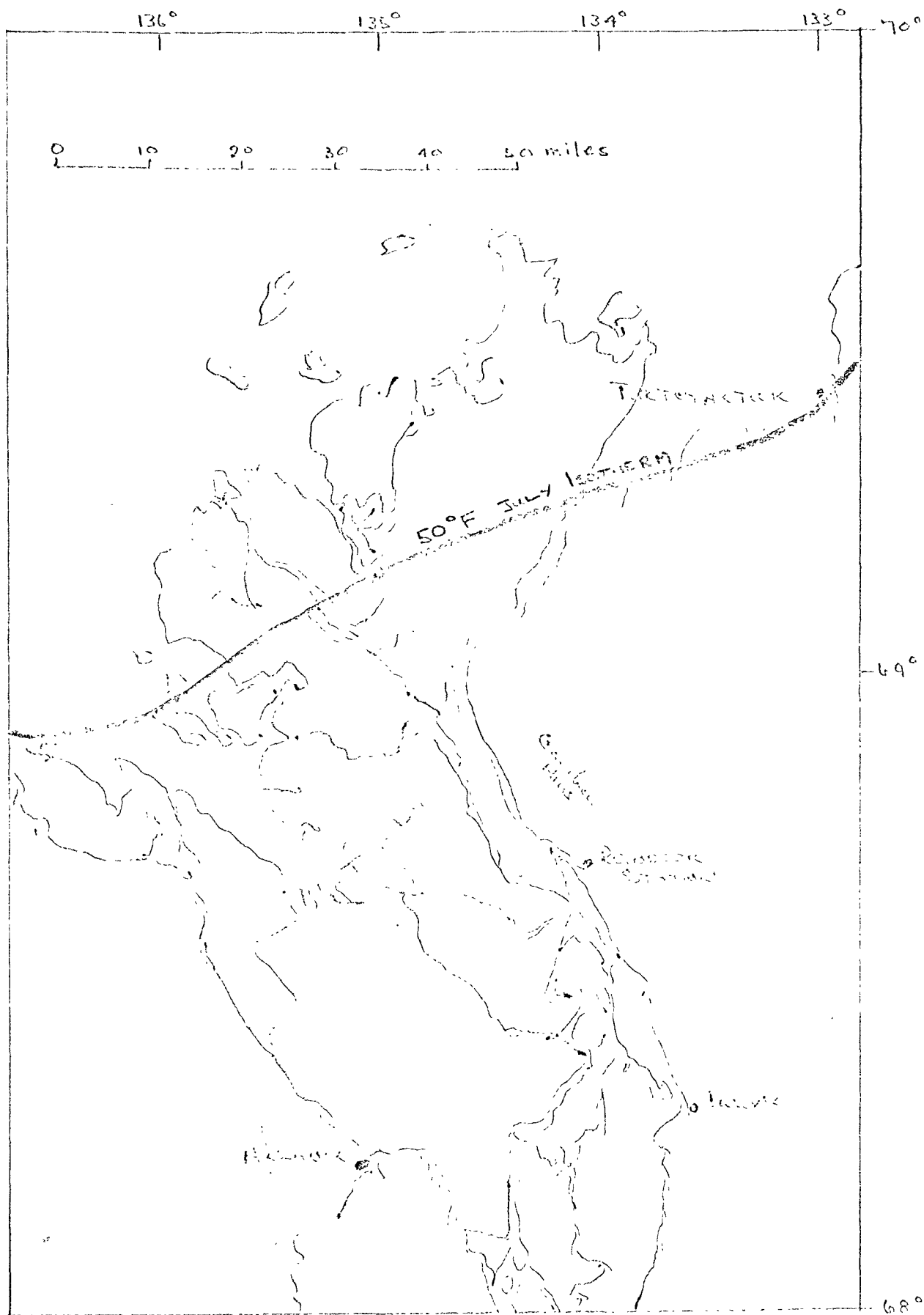
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<sup>1</sup> J.R. Mackay, 1967, p.25.

<sup>2</sup> K. Abrahamson, 1966, p.45.

# LOWER MACKENZIE DELTA

38A



Source: K. Abrahamsson, Arctic Environment and Change (Montreal: Arctic Institute of Canada, 1966) Map 14.

continuous forest. However, from the air, it becomes clear that such "forests" are very narrow strips along the channel levees. The transition from forest to tundra (when proceeding north) is very rapid in most areas of the Delta.

Within the boreal forest "typical tree species are white and black spruce, poplar, white birch and tamarack with alder and willow."<sup>1</sup> White spruce is the most abundant tree in the forested area of the Delta. "The typical spruce stands of the Delta average between 100 and 300 years of age but trees in excess of 500 years have been reported."<sup>2</sup>

This brief overview of the physical characteristics of the Delta has been presented as a setting within which the human geography can be examined.

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<sup>1</sup> D.H. Wellstead, 1968, p.2.

<sup>2</sup> Ibid, p.3.

INDIAN - ESKIMO CONTACT

Prior to examining "white-native" contact in the Delta, a few remarks will first be made regarding the early Indian-Eskimo relationship. Little data is available dealing with this specific subject, and hence the remarks contained herein will be brief.

The two groups that were closest, spatially, to the Eskimos of the Delta were the Kutchin and Hare Indians. The relationship between these two groups and the Eskimo does not appear to have been too friendly. Dr. Jenness points out that the Hare, "Although they hunted caribou in the vicinity of the Eskimo Lakes, they did not descend the Mackenzie itself much below the Ramparts through fear of the Eskimo, who occasionally visited that place to obtain flinty slate for arrowhead and knives."<sup>1</sup> The Kutchin or Loucheux Indians occupied the Peel and Yukon River basins. "To the north of the Kutchin were the Eskimo, with whom they alternately fought and traded."<sup>2</sup>

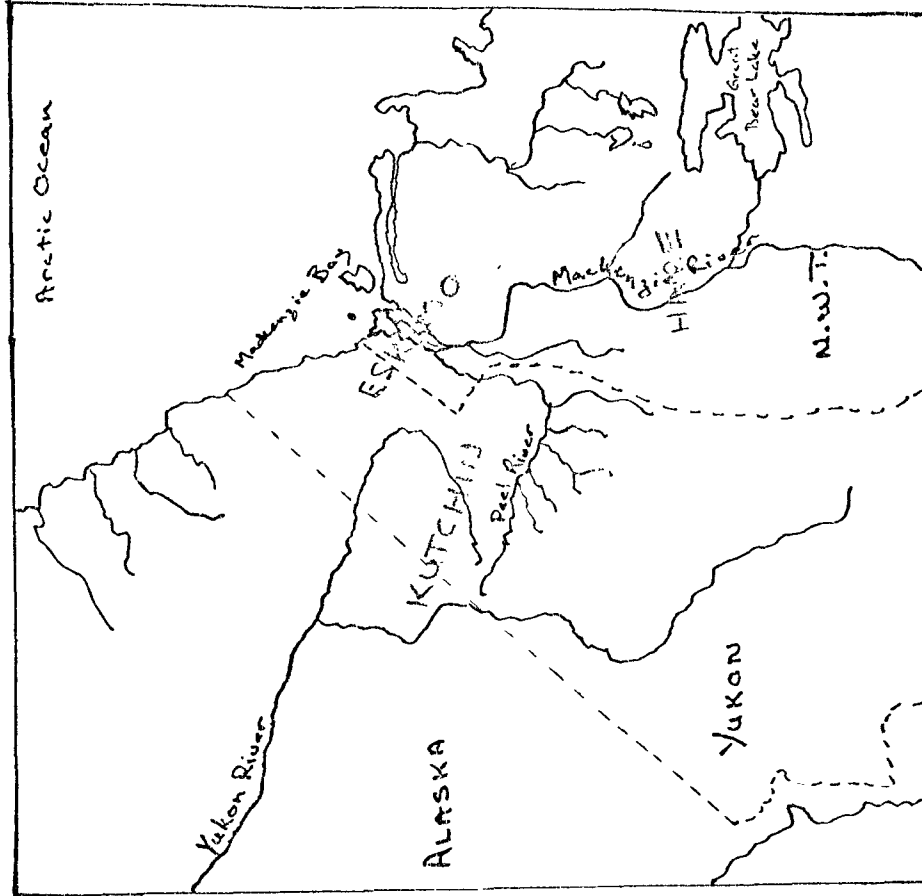
The journal of Alexander Mackenzie makes reference to the animosity between the Indians and Eskimos. On July 9, 1789, Mackenzie's party came upon a lone Indian who informed

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<sup>1</sup> D. Jenness, 1953, p.394.

<sup>2</sup> Ibid, pp.399-401.

KUTCHIN - HARE - ESKIMO: GEOGRAPHIC LOCATION



40A

Source: National Museum of  
Canada, 1932,  
Map 279A.

them "that in three nights we should meet with the Esquimaux, with whom they had previously made war, but were now in a state of peace and amity . . . . On our putting to shore, in order to leave his canoe, he informed us that on the opposite hill the Esquimaux, three winters before, killed his grandfather."<sup>1</sup> One of the guides that Mackenzie employed was very apprehensive. "He had his alarms also respecting the Esquimaux, who might kill us and take away our women."<sup>2</sup>

Prior to the establishment of Hudson's Bay Posts within the Delta proper, Eskimos traded at Fort McPherson. The fort was originally founded in 1840 and was moved downstream to its present location in 1852. The Indians give the following as the reason for this relocation. "The usual reason given by the Indians is that they moved to the present site because it commands an excellent view of the delta, and thus gave the advantage of an early warning of the approach of enemy Eskimo. It is known that from 1849 to 1852 the local Loucheux Indians were engaged in frequent feuds with the Eskimos."<sup>3</sup>

In 1924, Rasmussen talked with an Indian woman who was the wife of the Hudson's Bay Store manager at Shingle

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<sup>1</sup> A. Mackenzie, 1902, pp.252-253.

<sup>2</sup> Ibid, p.255.

<sup>3</sup> W.E.S. Hensch, 1961, p.83.

Point. The following story was related to him by this woman. "There had always been a great deal of intercourse between the Eskimos and the Indians, especially before the trading stations were established. Every summer, the Eskimos used to come up to Fort McPherson and camp on a great plain near the hill where the Indians had their tents. They played football on the plain, but on one occasion, trouble arose owing to the rough and unsportsmanlike - behavior of the Eskimos; the Indians retired from the game and the Eskimos struck camp and went off in anger. Next year they came again in great numbers, ready for battle, but the Indians, not wishing to give any occasion for bloodshed, moved into the bush with their tents and loosed their dogs. These dogs were very fierce, and the Eskimos were greatly afraid of them. My informant was only six or seven years old, but she remembers being driven into the bush, in case there should be fighting. She had taken an axe with her, hoping to kill an Eskimo herself. No one was afraid, for such scenes were of frequent occurrence. But the dogs, which also appeared to hate the Eskimos, kept guard so well that nothing came of the attack. The Eskimos made peace, and that was doubtless the last feud between the two people. Now they are good friends, but in former times, "the hoskies" were noted for their treacherous attacks, and the Indians feared them, more especially for their habit of



carrying off their womenfolk; hence the many half-breed types, of Eskimo and Indian blood."<sup>1\*</sup>

From the foregoing it can be seen that the Indian-Eskimo relationship, while it did exist, appears to have fluctuated between hostility and friendship. However, as mentioned, little data is available on this subject.

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<sup>1</sup> K. Rasmussen, 1927, p.301.

\*Also see H. Selermann (ed.), 1942, pp.49-51.

EARLY EXPLORATION AND DISCOVERY

"River Disappointment" was the epitaph that Alexander Mackenzie gave the river that now bears his name, "because he had hoped that this broad stream would lead through the western mountains to the Pacific, and not to an ice filled sea."<sup>1</sup> Alexander Mackenzie, born in Scotland (1764) and educated in Montreal entered the fur trade in 1779 with the newly formed XY Company. "The enterprise and aggressiveness of the new company attracted to its side the young adventurer from Scotland, and it is not too much to say that a large portion of the success attained by the XY Company was due to the energy and resourcefulness of Alexander Mackenzie."<sup>2</sup> The XY Company merged with the North West Company, and it was while Mackenzie was an employee of the North West Company that he accomplished his journey to the mouth of the Mackenzie River. "He left Old Fort Chipewyan on Lake Athabasca at nine o'clock in the morning, June 3, 1789. On July 12, at five o'clock in the evening, he reached Whale Island, in the Arctic Ocean . . . . Mackenzie turned his back on the eternal ice packs, of the Arctic Ocean to retrace his steps to Old Fort Chipewyan, where he arrived on Sept. 12, 1789 at three o'clock in

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<sup>1</sup> J.K.S. Careless, 1963, p.138.

<sup>2</sup> L.J. Burpee, 1935, p.416.

the afternoon."<sup>1</sup> Due to the excellent records that Mackenzie wrote, it is fairly easy to trace all of his journey except for that portion that deals specifically with the Delta. "The channels were so numerous and bewildering that Mackenzie was at a loss which to follow. The guide favoured the eastern-most on account of the Eskimo, of whom he was in constant dread, but Mackenzie decided to take the middle channel, as it appeared to be the largest and ran north and south."<sup>2\*</sup> The complete journey of just under 3,000 miles was accomplished in 102 days. The historian, Burpee, had this to say of the voyage: it was "one of the most remarkable exploits in the history of inland discovery, whether regarded in the light of results achieved, or of the time taken to cover a journey of nearly three thousand miles."<sup>3</sup> The Mackenzie Delta was now known.

"In the first quarter of the nineteenth century, following the publication of Mackenzie's journals, there was much scientific, commercial and political interest in the exploration of the unmapped Arctic coast to the east and west of the Mackenzie Delta."<sup>4</sup> In 1825, Franklin followed Mackenzie's route south through the Delta to the north of Great Bear River. The following year Franklin's

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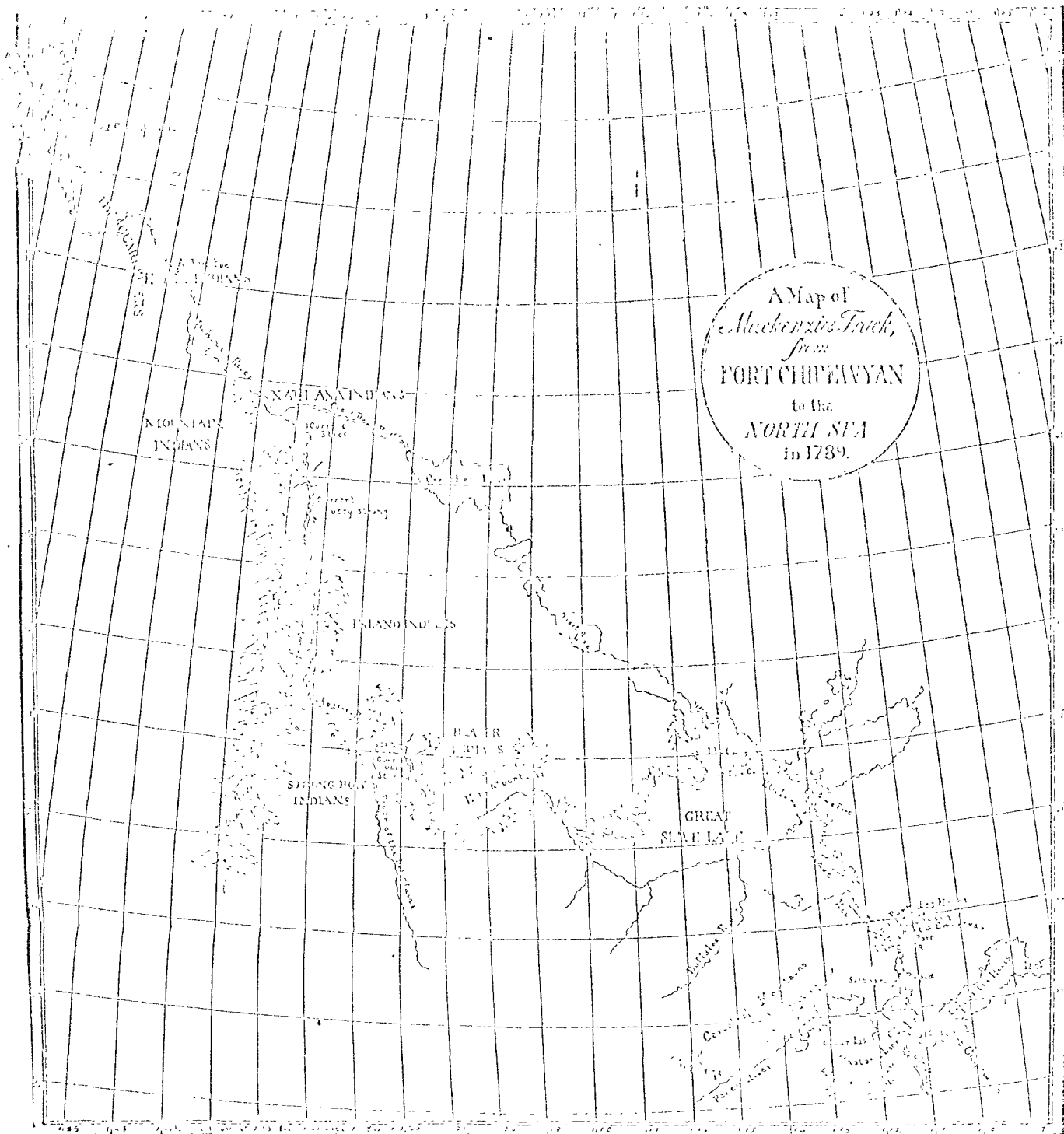
<sup>1</sup> T.H. McDonald, 1966, p.3.

<sup>2</sup> L.J. Burpee, 1935, p.438.

\*Also see Mackenzie, 1902, p.257, Vol. I.

<sup>3</sup> L.J. Burpee, 1935, p.448.

<sup>4</sup> J.R. Mackay, 1963, p.8.



Source: Alexander Mackenzie,  
 Voyages from Montreal through the Continent of North  
 America to the Frozen and Pacific Oceans in 1789 and 1793.  
 Vol. I, p. 192

party returned north to the mouth of the Mackenzie, but encountered hostile Eskimos and were very fortunate to escape. The party divided into two groups with Franklin heading west along the coast of Alaska, and Richardson east towards the Coppermine River district. Franklin returned to the Delta in late summer, after having travelled 374 miles west along the coast of the Beaufort Sea.<sup>1</sup> The party in early autumn continued south on the west side of the Delta, but took a wrong turn which resulted in them heading up a river that Franklin named the Peel. Franklin realized his error, headed north and then southeast, reaching Point Separation in September of 1826.<sup>2,3</sup> Franklin later, "advised the Hudson's Bay Company that the area (Peel River) was rich in furs."<sup>4</sup>

With the exception of a few explorers - Mackenzie, Franklin, Richardson and others - the Delta natives had practically no contact with the whiteman. In 1840 however, John Bell of the Hudson's Bay Company established Fort McPherson on the Peel River.<sup>5</sup> The fort was later moved (1852)

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<sup>1</sup> L. Roberts, 1949, p.71.

<sup>2</sup> J.R. Mackay, 1963, pp.8-9.

<sup>3</sup> W.C. Bethune (ed.), 1937, p.8.

<sup>4</sup> W.E.S. Hensch, 1961, p.86.

<sup>5</sup> R. Slobodin, 1962, p.20.

about four miles upstream to its present-day location.<sup>1&2</sup>

At Fort McPherson, there developed a religious split between the Anglican and Roman Catholic missionaries. In 1895 the Roman Catholic missionary moved and established the settlement of Arctic Red River. The Delta Eskimos were unaccustomed to trapping, but by the 1850's a few of them were trading at Fort McPherson. Yet, "for nearly half a century after the erection of Fort McPherson, this remote corner of Canada's Arctic remained isolated and without history."<sup>3</sup>

A major change occurred in the 1880's however, when American whalers entered the Beaufort Sea area. "American vessels alone frequented the continent's western Arctic, where for nearly half a century they confined their operations to the Bering and Chukchi Sea: only from 1888 onward did they follow the fast diminishing whales around Point Barrow into the Beaufort Sea and winter at Herschel Island near the mouth of the Mackenzie River."<sup>4</sup> The Beaufort was rich in Beluga and Bowhead whales, and "by 1900, summer whaling camps were common from Point Barrow to Cape Dalhousie and

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<sup>1</sup> W.E.S. Hensch, 1961, p.88

<sup>2</sup> P.F. Cooper, 1967, p.7.

<sup>3</sup> D. Jenness, 1964, p.13.

<sup>4</sup> Ibid, p.10.

beyond, but the economic conditions which favoured the interest of the whalers in the area were short-lived. Whale bone was replaced by other materials, and the end of the Victorian era brought about changes in fashion which also reduced its potential market."<sup>1</sup> During the early 1900's, whaling operations came almost to a halt. Yet, while this period was short-lived, the demographic and cultural affects that it had were profound. With whaling crews came firearms,\* liquor and disease. "Within a year it (liquor) converted Herschel Island, and indeed most of the Mackenzie Delta, into a hive of debauchery: drunkenness and immorality prevailed everywhere, strife and murder became everyday events, and disease previously un'noun to the Eskimos began to sweep away old and young like flies."<sup>2</sup> Added to this was an outbreak of measles at Fort McPherson which spread north, and further reduced the Delta Eskimo population. "By 1930 the population of Canada's Western Arctic had fallen to about 200, and of that number not more than a dozen - if so many - could claim descent from the 2,000 inhabitants Sir John Franklin had encountered in this region a century earlier."<sup>3</sup>

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<sup>1</sup> J.R. Wolforth, p.2.

<sup>2</sup> D. Jenness, 1964, p.14.

<sup>3</sup> Ibid, 1964, p.14.

\* firearms were not new, but they now became a more accessible commodity for the natives.

The area was then primarily occupied by Eskimos who migrated to the Delta from Alaska. The cause of this migration can be attributed to the whalers. The Eskimos supplied caribou meat to the whaling vessels and received, among other items, firearms and ammunition in return. This resulted in a serious depletion of the caribou herds of Alaska, and the subsequent migration of the Alaskan Eskimos to the Delta.

With the importance of whaling declining and that of fur trapping increasing, fur-trading posts started to develop throughout the Delta.



## SETTLEMENT HISTORY

Prior to examining the history of settlement in the Delta, it must be made clear that some would argue that the settlements of Fort McPherson, Arctic Red River and Tuktoyaktuk should not be included as being Delta settlements as in fact they are not within the present geographic limits of the Delta. While this is true, it is equally true that many writers do include these settlements when speaking of the Delta in human geographic, economic, social or political terms, because of their contiguous location, and close affiliation, with respect to the Delta. Hence, for the purposes of this paper, these three settlements will be considered as being Delta settlements.

### Fort McPherson

As mentioned, Fort McPherson on the Peel River was the first settlement (1849) to be established in the area. "According to Anglican parish records the population of the area in 1871 consisted of 351 Loucheux Indians and 300 Eskimo. Later, probably due to the decline in the fur trade, Fort McPherson lost its attraction for the Eskimo and they moved further north to the Aklavik area; today (1958) the only inhabitants of Fort McPherson are Loucheux Indians."<sup>1</sup>

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<sup>1</sup> W.E.S. Hensch, 1961, p.83.

Since 1871 the ratio of Indian to Eskimo at Fort McPherson has changed radically. For example, in 1958 of a total population of 453, only one person was Eskimo, 48 were white or white status Indians, and the remainder were Loucheux.<sup>1</sup> Present-day population is difficult to access, as authors vary one to another as to the population composition. Smith<sup>2\*</sup> shows the Fort McPherson population in 1965 as:

<u>White</u>	<u>Metis</u>	<u>Eskimo</u>	<u>Indian</u>	<u>Total</u>
29	158	12	315	514

For the same year, 1965, Cooper<sup>3</sup> provides the following:

<u>White</u>	<u>Metis</u>	<u>Eskimo</u>	<u>Indian</u>	<u>Total</u>
70	80	6	550	706

#### ARCTIC RED RIVER

In 1895 the settlement of Arctic Red River, at the junction of the Arctic Red and Mackenzie rivers, was brought into being. The reason for this settlement was because of a religious split at Fort McPherson, whereby the Roman Catholic missionary moved out (Anglican remained at Fort McPherson) However, in 1943 the Roman Catholics established another mission at Fort McPherson. In 1900,<sup>4</sup> the Hudson's

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<sup>1</sup> W.E.S. Henoch, 1961, p.98.

<sup>2</sup> D.G.Smith, p.10.

<sup>3</sup> P.F.Cooper, 1967, p.9.

<sup>4</sup> W.C. Bethune (ed.), 1937, p.21.

\* population data by Wolforth is the same as Smith for Fort McPherson - Wolforth, p.69.

Bay Company started a trading post at Arctic Red River which still exists today. As of 1965 the population of Arctic Red River was as follows:<sup>1</sup>

<u>White</u>	<u>Metis</u>	<u>Eskimo</u>	<u>Indian</u>	<u>Total</u>
5	21	--	83	110

This population has remained stable since 1956 when the total population was 108.

As mentioned, when whaling declined and fur trading increased, fur trading posts started to develop throughout the Delta. The first of such posts was established at Pokiak Point, opposite the present-day settlement of Aklavik, in 1912 (more detail will be included dealing with Aklavik later) The post at Pokiak Point was rapidly followed by three more at Herschel Island, Baillie Island, and Kittigazuit,<sup>2</sup> none of which exist today.

### TUKTOYAKTUK

Tuktoyaktuk, originally named Port Brabant, started as a settlement in 1928 when a group of Eskimos moved there from Herschel Island.<sup>3</sup> There is much conflict of opinion as to the meaning of the name Tuktoyaktuk. To some it means

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<sup>1</sup> J.R. Wolfarth, p.69.

<sup>2</sup> H.A. Innis, 1967, p.352.

<sup>3</sup> D. Jenness, 1964, p.8.

"where the caribou cross."<sup>1</sup> Others say that the name refers to a period long ago when caribou were plentiful. Apparently the caribou were walking in the water when an Eskimo woman looked at them. The caribou became petrified, and reefs that resemble caribou were later seen at low tide.<sup>2</sup> A third interpretation is "the thing that looks like a caribou"<sup>3</sup>

While not a settlement until 1928, it had been used because of its excellent deep-water harbour by Stefansson in 1906-07. In 1933 the Hudson's Bay Company abandoned Herschel Island and moved to Tuktoyaktuk;<sup>4</sup> and since then the settlement has acted as a trans-shipment centre between river boats (borges) using the Mackenzie system and ocean vessels supplying settlements to the east of Tuktoyaktuk. In 1954 a D.F.W. line site was located there. Prior to 1930, only four or five families lived at Tuktoyaktuk, but this increased to about 100 persons by 1955.<sup>5</sup> The 1965 population was as follows:<sup>6</sup>

<u>White</u>	<u>Inuit</u>	<u>Eskimo</u>	<u>Indian</u>	<u>Total</u>
70	19	200	6	295

<sup>1</sup> Per personal communication with native white at Tuktoyaktuk in 1957.

<sup>2</sup> pamphlet from the Tuktoyaktuk Fur Carpent Shop

<sup>3</sup> M. Sullivan, 1960, p.29.

<sup>4</sup> G. Abrahamson, 1966, p.11.

<sup>5</sup> J.R. Mackay, 1963, p.189.

<sup>6</sup> P.F. Cooper, 1967, p.9.

REINDEER STATION

Chronologically, the next settlement to be established was that of Reindeer Station. "Although a trading post existed opposite the present location of Reindeer Station, no settlement existed here until the Reindeer Depot was moved here from Kittigazuit in the late 1940's."<sup>1</sup> In conjunction with Reindeer Station, I would like to say a few words concerning the Reindeer Project in Canada, which is really the reason for the creation of Reindeer Station.

"Throughout all north polar regions there is a particular species of the deer family known as Rangifer tarandus . . . . There is no biological difference between reindeer and caribou. The difference between reindeer and caribou in North America is that the reindeer are domesticated to some extent and the caribou are wild."<sup>2</sup> Setan, in 1912, estimated the northern caribou population at about 2,000,000-  
Sanfield in 1950 felt that there were not more than 670,000 remaining.<sup>3</sup> In 1919 a Royal Commission was appointed to report upon the possibilities of creating a reindeer industry in Canada. The Commission, 1922, recommended

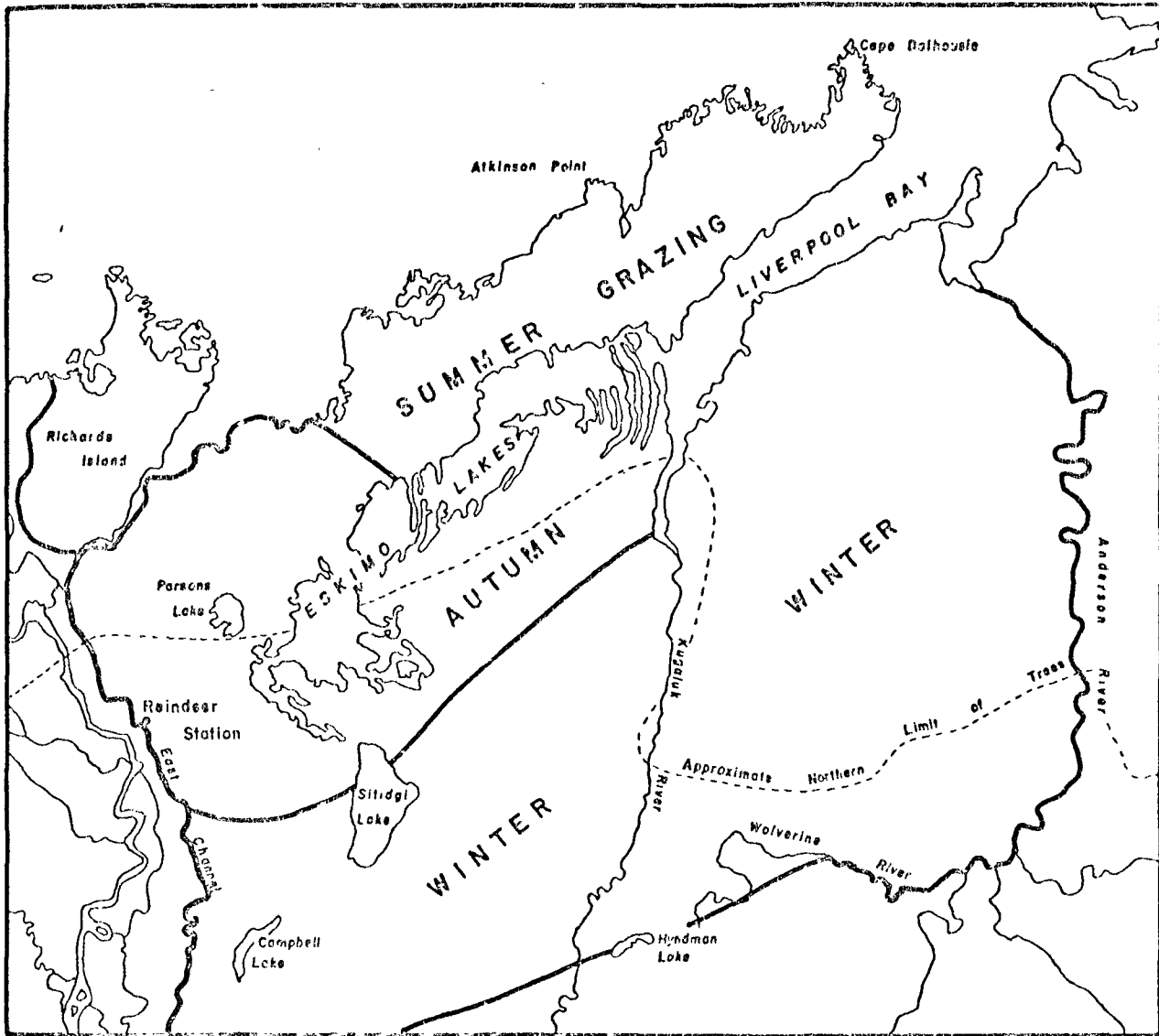
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<sup>1</sup> J.R. Wolfarth, p.6.

<sup>2</sup> R.S. Hill, 1967, p.4.

<sup>3</sup> A.E. Porsild, 1954, p.26.

# REINDEER RANGE



Source: J. R. Condit, *The Mackenzie Delta - Its Geomorphology, Basin and Drainage*, p. 21.

the establishment of an experimental herd. A.E. Porsild, a Danish botanist, was in charge (1927-8) of a detailed survey of areas in the Western Arctic that might be suitable for the grazing of reindeer.<sup>1</sup> In 1929 a herd of about 3,000 reindeer was purchased by the Canadian government from Alaska.<sup>2</sup> It took a five-year period (1930-1935) to drive this herd along the Arctic coast to the MacKenzie Grazing Preserve. During the drive, the herd population was reduced to 2,370.<sup>3</sup> Three months after arrival, the herd bore 815 fawns, and the Department of the Interior felt that success was assured.<sup>4</sup> However, management difficulties arose, and by 1959 many government officials were all for ending the project. The policy of the government was changed to place the operation on a commercial basis, but this too has had its ups and downs. In 1965 a new project manager - Mr. Sven Johansson who had had several years experience with reindeer herds in Sweden, took over the operation on a contract basis.<sup>5</sup>

Reindeer Station, in 1965, consisted of 60 Eskimos and 9 whites,<sup>6</sup> practically all of whom were directly

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<sup>1</sup> A.E. Porsild, 1954, pp.20-31.

<sup>2</sup> G. Abrahamson, 1963, p.189.

<sup>3</sup> R.F. Hill, 1967, p.5.

<sup>4</sup> D. Jenness, 1964, p.35.

<sup>5</sup> R.F. Hill, 1967, p.8.

<sup>6</sup> D.G. Smith, p.10.

connected to the Reindeer Project. As of the year end 1967/68 the herd size was 9,378, on a grazing area of 18,000 square miles.<sup>1</sup> However, I have been informed (1969) that Canadian Wild life Services have now taken over the management of the herd.<sup>2</sup> The future of Reindeer Station will almost be completely dependent upon the policy of this new management.

Before dealing with Inuvik, the most recent settlement to be established, I would like to return to Aklavik which was, until the creation of Inuvik, the administrative centre for the Delta.

#### AKLAVIK

Aklavik means "Place of the Brown Bear" or Place of the Barren Land Grizzly Bear,"<sup>3</sup> or "the place where I killed a bear".<sup>4</sup> A trading post was established at Pokiak Point (1912) on the opposite channel bank from present day Aklavik. Prior to this post, "there existed at this place, which was then called Sinik (sleep), only a log cabin that served as an overnight resting place for persons travelling from Herschel Island to Fort McPherson."<sup>5</sup> My feelings as

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<sup>1</sup> R.F. Hill, 1967, p.5 - p.131.

<sup>2</sup> per personal communication - Professor D. Gill, University of Alberta.

<sup>3</sup> J.R. MacKay, 1963, p.175.

<sup>4</sup> L. Sullivan, 1969, p.20.

<sup>5</sup> D. Jenness, 1964, p.9.



to why the post at Pokiak Point was established is as follows. Fort McPherson opened in 1840 and, as mentioned, a few Delta Eskimos were trading there by the 1850's, although their skills as trappers were very limited. When the whaling operations started in the Deaufort Sea in the late 1880's, there was a demand by the whalers for caribou meat. The Eskimos started to move north from the middle and southern sections of the Delta, to hunt caribou, which was traded to the whaling boats in return for ammunition, food, and the like. As well as hunting caribou, natives were hired to collect driftwood which would conserve the coal supply of the whaling vessels. With the decline of whaling in the early 1900's, the Eskimos returned to trapping as a means whereby they could continue to acquire "white" goods (i.e., tobacco, firearms, certain foods, and the like) Due to this renewed interest in trapping, Pokiak Point (along with Herschel Island, Baillie Island, and Kittigazuit) was established.

The Pokiak Point post was relocated at present-day Aklavik in 1924,<sup>1</sup> and Aklavik soon gained a position of high importance in the Delta. "the towns greatest growth took place from 1910 to 1936: during this period, Anglican

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<sup>1</sup> J.F. Wolfoith, p.4.

and Roman Catholic missions, an R.C.M.P. detachment-post and communications depot were established. Aklavik became the focal point of the Delta, attracting Eskimos from Alaska and the Arctic coast, and Indians from the southern regions."<sup>1</sup> Aklavik had early radio communication with Canadian National Telegraphs,<sup>2</sup> via a 500 watt low frequency transmitter that began operations in October of 1925.<sup>3</sup> By 1930 the population of Aklavik and the surrounding area had reached 400, and by 1950 about 1,500.<sup>4</sup> "Increased government activity in the Mackenzie Delta and the difficulties of large-scale construction in its principal settlement, Aklavik, prompted a government decision in 1953 to investigate the possibilities of relocating government facilities at Aklavik in a better location."<sup>5</sup> Of major concern was the fact that there was no permanent airstrip in the entire Delta. Due to this, during break-up and freeze-up, no aircraft could enter or leave the Delta.<sup>6</sup> There are many reasons put forth as to why there had to be a relocation. Most of the reasons such as erosion, flooding problems, and lack

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<sup>1</sup>D.H.J.Clairmont, 1963, p.1

<sup>2</sup>H.A. Innis, 1967, p.353.

<sup>3</sup>H.F. Wood, 1962, p.24.

<sup>4</sup>J.R. Mackay, 1963, p.175.

<sup>5</sup>J.A. Piblainen, 1962, p.1

<sup>6</sup>R.G. Robertson, 1965, p.199.

of adequate space to expand, are indeed sound reasons. However, some I find difficult to accept. For example, "subsurface investigations for the formation of a new school, which were carried out in 1953, showed that about 60% by volume of the frozen fine-grained soil consisted of ice. If, therefore, the old townsite were further developed with a further clearing of the muskeg cover and the installation of heated buildings, ground subsidence would occur with serious results."<sup>1</sup> However, in the summer of 1967, construction of a new school plus a six unit apartment, and the improvement of the airstrip, was occurring. Also, it was rumored that the Northern Canada Power Commission was seriously considering the enlargement of the Aklavik facilities. If in 1953 "serious results" would occur if construction of facilities were carried on, why would the results be less detrimental in 1967?

In any event, construction of Inuvik began in 1955, and was officially opened in 1961. With the start of construction at Inuvik, the population of Aklavik started to decline. In 1953 it was 980<sup>2</sup> and by 1961 it was between

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<sup>1</sup> C.L. Ferrill (et al), 1960, p.53.

<sup>2</sup> J.R. Wolforth, p.66.

600 and 700.<sup>1</sup> The 1965 Aklavik population was as follows:<sup>2</sup>

<u>White</u>	<u>Metis</u>	<u>Eskimo</u>	<u>Indian</u>	<u>Total</u>
105	134	277	158	674

With the creation of Inuvik, the future of Aklavik was very uncertain. The government was hoping that the Aklavik residents would voluntarily move to the new town; such has not been the case. However, by building a new public school, the government has indicated that it does not intend to have Aklavik decay - at least, not for some years to come.

#### INUVIK

The construction of the settlement that would replace Aklavik was carefully thought out and researched. Thought-out and researched that is, in terms of the most appropriate site location. The first task, after the 1953 government decision to investigate the possibilities of relocation, was to create a survey team. The various agencies represented on the survey team were as follows: Department of National Health and Welfare; National Research Council;(division of Building Research); Department of Northern Affairs and National Resources; Department of Mines and Technical Surveys;

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<sup>1</sup> J.R. Mackay, 1963, p.175.

<sup>2</sup> J.R. Walforth, p.69.

Department of Public Works; and, the Department of Transport.<sup>1</sup> Next, the specifications for the new site had to be decided upon. A list of eleven factors by which the potential sites would be judged was drawn up. They were:

"Essential factors:

- (a) Suitability of the site from the economic and social point of view;
- (b) Suitability of the ground for permanent sewer and water systems; foundations and roads.
- (c) Access to a good river channel
- (d) Availability of a suitable site for an airfield
- (e) Water supply.

Highly Desirable Factors:

- (f) Sewage disposal
- (g) Availability of gravel and sand for building
- (h) Possibilities of the site as a trans-shipment point from river to sea-going vessels

Desirable Factors:

- (i) Availability of wood
- (j) Availability of coal
- (k) Availability of a hydro-electric power site."<sup>2</sup>

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<sup>1</sup> I. Saird, 1958, p.19.

<sup>2</sup> R.G. Robertson, 1955, p.202.

The survey team worked during the winter of 1953 in Ottawa examining air photographs of the entire Delta. From the air photo interpretation, twelve potential sites were selected. The team arrived in Aklavik in March of 1954, and by taking ariel reconnaissance flights from there, "the original selection of twelve sites was quickly pared down to six since some of the potential sites were obviously unsuitable when examined in the field."<sup>1</sup> Two more sites were later eliminated and now only four remained. Of the four, the first potential site to be thoroughly examined was one located about 12 miles south west of Aklavik. It was hoped by many that this location - Husky Site as it was called - would be the one selected, as it would entail minimal moving on behalf of the native people. Also, the natives would remain adjacent to their usual hunting and trapping area. Unfortunately, the Husky Site proved unsatisfactory, as did the other site on the west side of the Delta. Of the two sites on the east side of the Delta, the one known as East Three proved the most satisfactory. At East Three there were large gravel deposits along with fine sand and silt; The drainage was good; it was located on a navigatable channel (east channel); and the

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<sup>1</sup> C.L. Merrill (et al), 1960, p.55.

underlying glacial soils would provide for better foundation conditions than those of Aklavik.<sup>1</sup> On November 18, 1954 the Federal Government, acting upon the advice of the Minister of Northern Affairs and Natural Resources, officially declared that the town of Aklavik should be relocated at this new site. (68°18' N - 133° 29' W)

Initial construction of the new town commenced in the summer of 1955. When a post office was established at the new site, a name had to be decided upon, "The local inhabitants were asked to choose a name for the new town and Inuvik was selected, an Eskimo word meaning "the place of man" or "the place where man is."<sup>2</sup> Practically all buildings in Inuvik are on piles so that heat from such buildings will not disturb the permafrost. Had the buildings been placed directly on the surface of the ground, the heat would have partially melted the frozen ground resulting in subsidence of the buildings. In order to sink the piles, "Steam jets were pressed into permafrost and sank into the mud that was produced as the ground thawed, making tubes of mud into which piles could be driven."<sup>3</sup> The piles, when properly inserted,

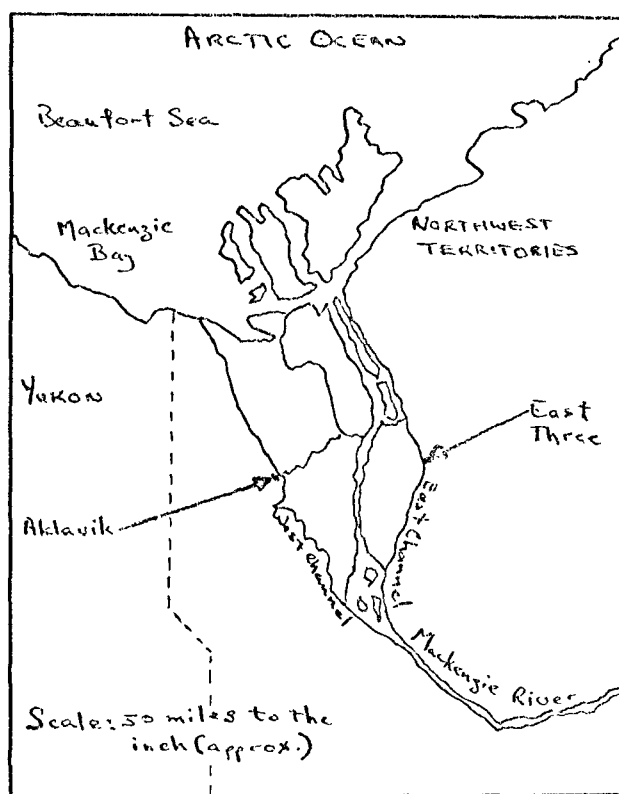
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<sup>1</sup> C.L. Merrill (et Al), 1960, p.57.

<sup>2</sup> G.B. Pritchard, 1962, p.201.

<sup>3</sup> Ibid, p.205.

## Sketch Map of Mackenzie Delta



Aklavik to Inuvik via WATER = 70 MILES

Aklavik to Inuvik via AIR = 33 MILES



would soon be permanently frozen into location. As one could readily envision, it would not take long before the construction site would resemble a sea of mud. As of 1967 this method of sinking piles has been discontinued. Now the method used is to drill holes into the permafrost that are essentially the same diameter as the piles that are to be inserted. With this method, the disturbance of the permafrost is practically non-existent.<sup>1</sup> Because of the permafrost conditions, it is impossible to have water or sewage pipes underground, and two alternate methods are available. One method is to have water delivered, and sewage collected, by tank truck. Or, construct an insulated system above ground which contains both water supply and sewage disposal.\* A combination of the two methods is used in Inuvik. This "utilidor" system costs about \$200.00 per linear foot.<sup>2</sup>

The town which initially started in 1955 was really taking shape by 1958. In that year (1958) a 6,000 foot airstrip located  $8\frac{1}{2}$  miles southeast of the town was in use.

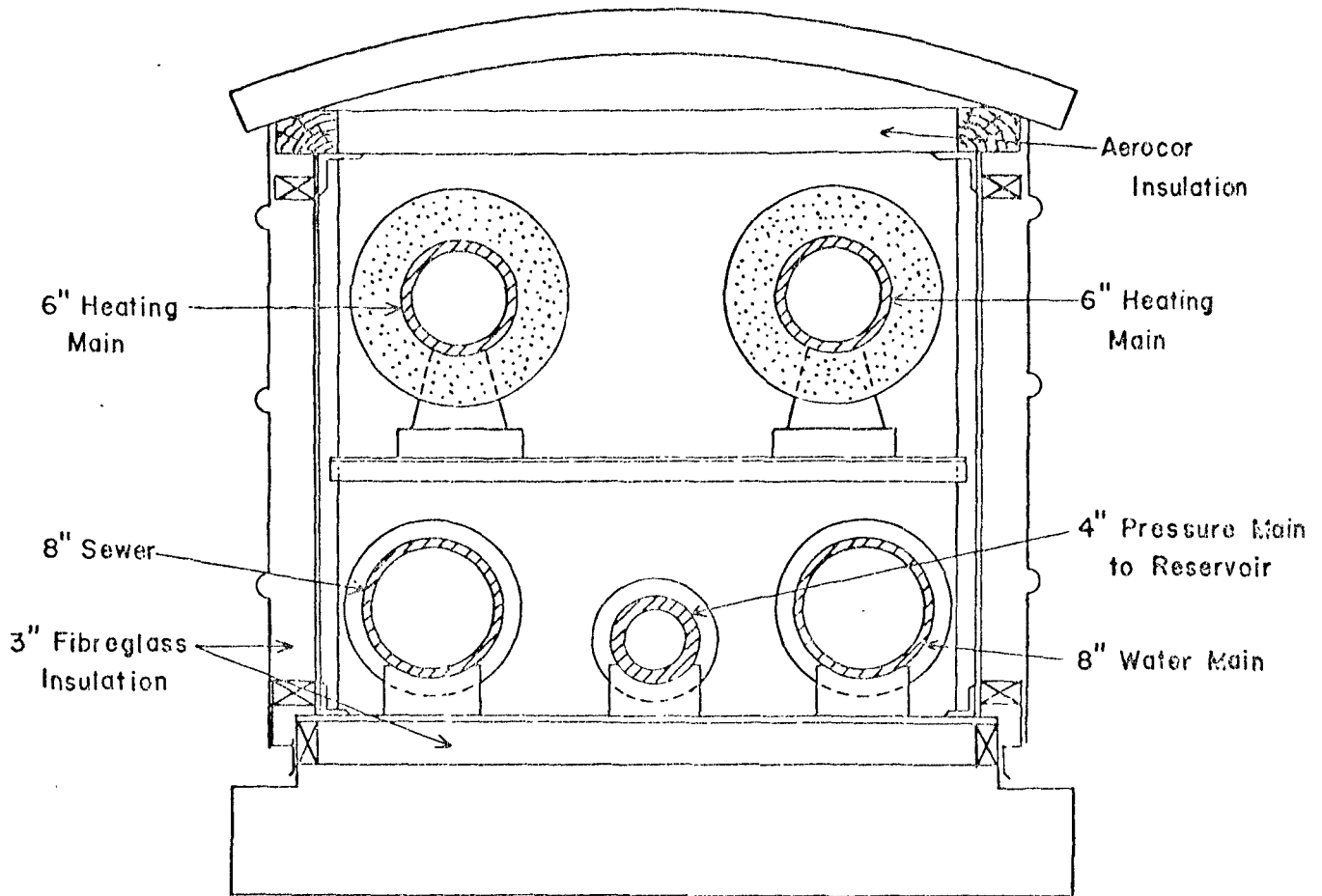
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<sup>1</sup> per personal communication with Mr. A. Goyer of Kennaston drilling, Edmonton, Alberta.

<sup>2</sup> P.F. Cooper, 1967, p.27.

\* see diagram on next page.

Fig. 4



Cross-section View of Inuvik Utilidor

Source: P. C. Jones, The Arctic Region  
Dept. of Transport 79

Also, the exterior construction of the school and hostels was completed. The only serious setback in construction was during the winter of 1959-60 when a fire destroyed the partially finished Nurses Residence. "The close of the construction season in 1960 saw the completion of all major contract work."<sup>1</sup> In 1961 Inuvik was officially opened. The population in 1965 was as follows!<sup>2</sup>

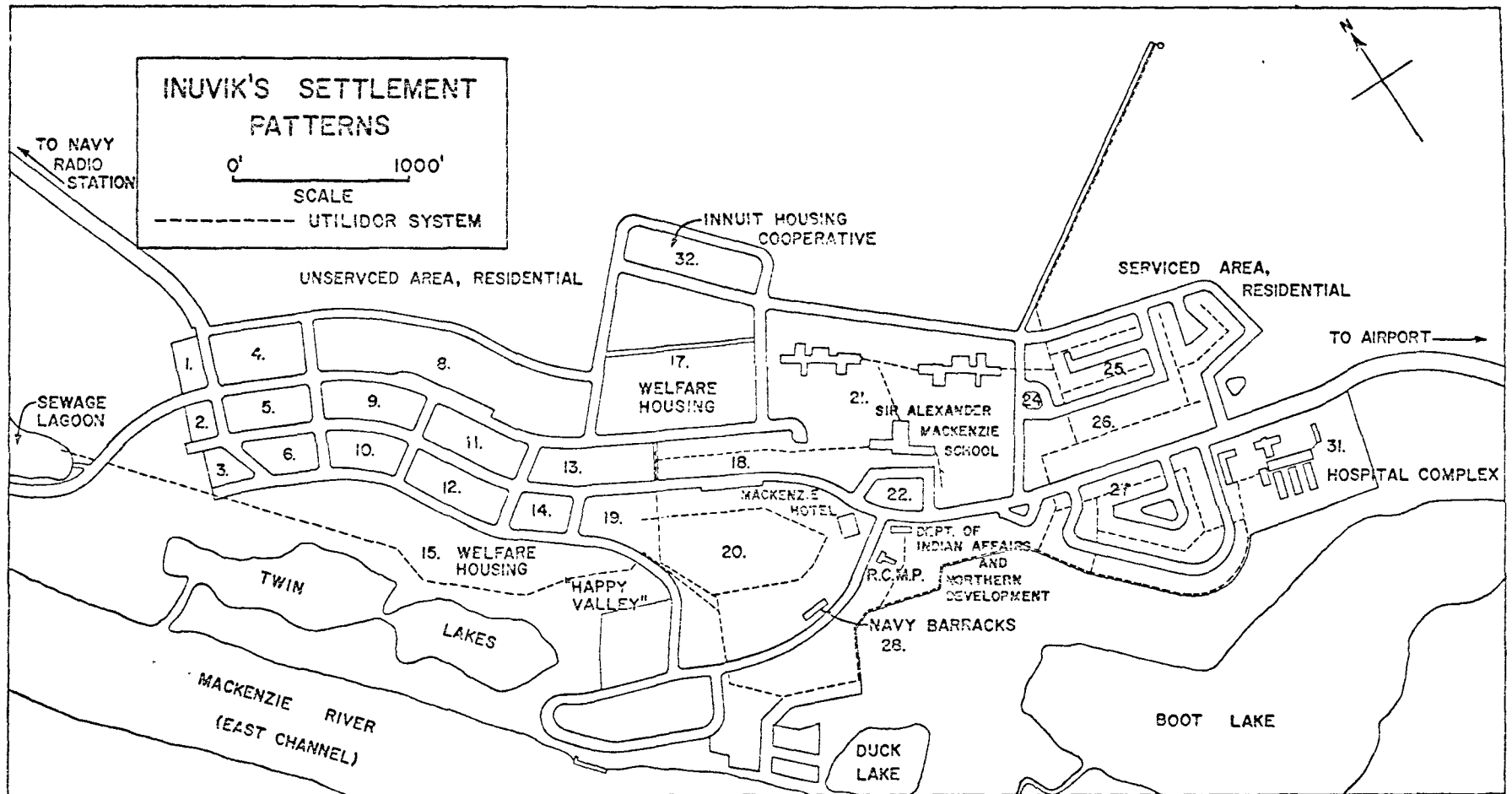
<u>WHITE</u>	<u>METIS</u>	<u>ESKIMOS</u>	<u>INDIANS</u>	<u>TOTAL</u>
1367		646	245	2258
102*		270*	114*	486*

\* school children residents in hostels.

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<sup>1</sup> G.B. Pritchard, 1962, p.208.

<sup>2</sup> J.F. Cooper, 1967, p.9.



Source: A.M. Erwin, *How Northern Towns are in Inuvik*, p. 13.

CULTURE CHANGE

Thus far, in the second portion of this paper, the physical geography as well as early European contact and subsequent settlement development in the Mackenzie Delta has been reviewed. These final sections will concern itself with the present predicament with which the native people are now faced. This predicament, in essence, is social or culture- change which is the result of the introduction of "white" norms, values, and ideals. Prior to examining the Delta specifically, culture and culture-change will be examined within a theoretical framework.

CULTURE

Many definitions are put forth as to the meaning of "culture," but most would agree that culture involves both people and ideas. The following is as appropriate as most, in defining culture. "Culture is the sum total of what human beings learn in common with other members of the group to which they belong."<sup>1</sup>

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<sup>1</sup> C.M. Arensburg and A.H. Niehoff, 1966, p.15.

CULTURE CHANGE

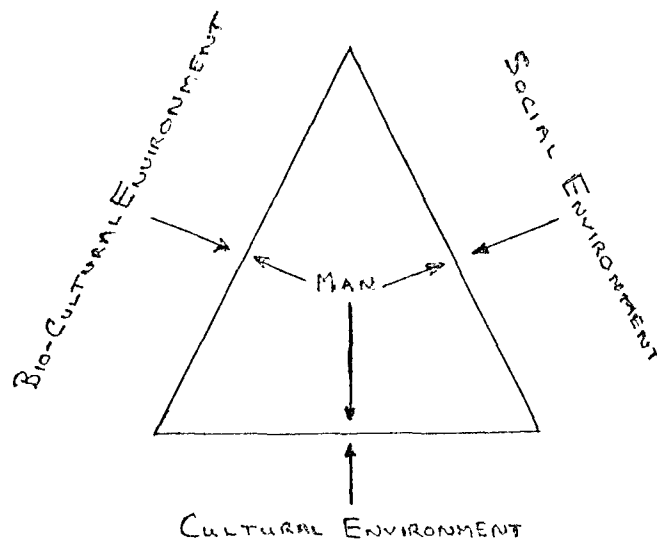
Culture change can occur in one, or both, of two ways. First, innovation from within can have a profound effect upon the ideals, ideas, norms and values of a given group. Secondly, change can occur as a result of contact with another area, or a "change-agent" or "innovator", from another area, the culture of which is different from the one in question. Change from "outside" may, in some cases, be forced upon a people. Such force can be direct, or indirect. Indirect forces would be the introduction of a new technology and/or culture into a society in such a manner that, while the people are not physically coerced into acceptance, they are in the position whereby retreat to a former way of life is all but blocked.

Culture-change can be viewed as a scale with complete acceptance of a new trait at one end, and complete rejection at the other. However, in most instances, the period of adjustment to new ideas, and the degree of acceptance of such ideas, falls somewhere between the two extremes. Moreover, during this period of acceptance, and particularly when such acceptance is mandatory, "culture-conflict" arises. In some instances such conflict may be short-lived; in others, it may take generations until it is overcome or resolved. This "culture-conflict" can have

profound effects upon both the culture undergoing change, and those agents of change from the "outside." It is worthwhile to examine a few theoretical models or topologies that concern themselves with "culture-conflict".

Bertrand Russell states that "It is the nature of man to be in conflict with something..... the contests in which men are engaged are three kinds - they are conflict of: (a) man and nature  
(b) man and man  
(c) man and himself"<sup>1</sup>

A diagrammatic view of this same basic concept is provided by Norman Chance.<sup>2</sup>




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<sup>1</sup> B. Russell, 1960, p.18.

<sup>2</sup> N.A. Chance (ed.), 1968, p.13.

Merton<sup>1</sup> has devised a more specific topology that deals with adaption by individuals within society. This basic topology is as follows:

<u>Mode of Adaptation</u>	<u>Cultural Goals</u>	<u>Institutional Means</u>
Conformity	+	+
Innovation	+	-
Ritualism	-	+
Retreatism	-	-
Rebellion	+ and -	+ and -

+ signifies acceptance

- signifies rejection

+ - signifies rejection of prevailing values and substitution of new values.

With conformity, the individual accepts the cultural goals and the institutionalized means (ways) of attaining such goals; the innovator accepts the goals but not the means; the ritualist does not accept the goals but does accept the means; the retreatist accepts neither goals nor means; and, the rebel replaces the old goals by new ones, and uses new means to reach these new goals. "Where common goals are prescribed for statuses, but institutionalized means for obtaining them are differentially distributed, some people are relatively disadvantaged. This may result in different modes of adaptation on the part of the people positioned differently

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<sup>1</sup> R.K. Merton, 1965, pp.139-157.



in the social structure."<sup>1</sup>

Niehoff<sup>2</sup> feels that there are two main forces at work with regard to culture change. The one force being the techniques used by the innovator to convince the group to accept the new ideas, and the second being the behavior of the recipients towards the new innovation. He then details seventeen criteria which determine the change process. The six primary ones are as follows:

- (1) The methods of communication used by the change agent.
- (2) The kind of participation he obtains from the recipients.
- (3) The manner in which he utilizes and adapts his innovation to the existing culture pattern

---regarding the reaction of the recipient, the primary variables are:

- (4) whether they have an initial felt need.
- (5) whether they perceive any practical benefit in adopting a change
- (6) whether their traditional leaders are brought into the planning and implementation of the process.

Niehoff sums up by stating: "Induced sociocultural change or technical innovation is a process that begins with an idea on the part of the change agent and ends in its adoption or rejection by the potential recipient."<sup>3</sup>

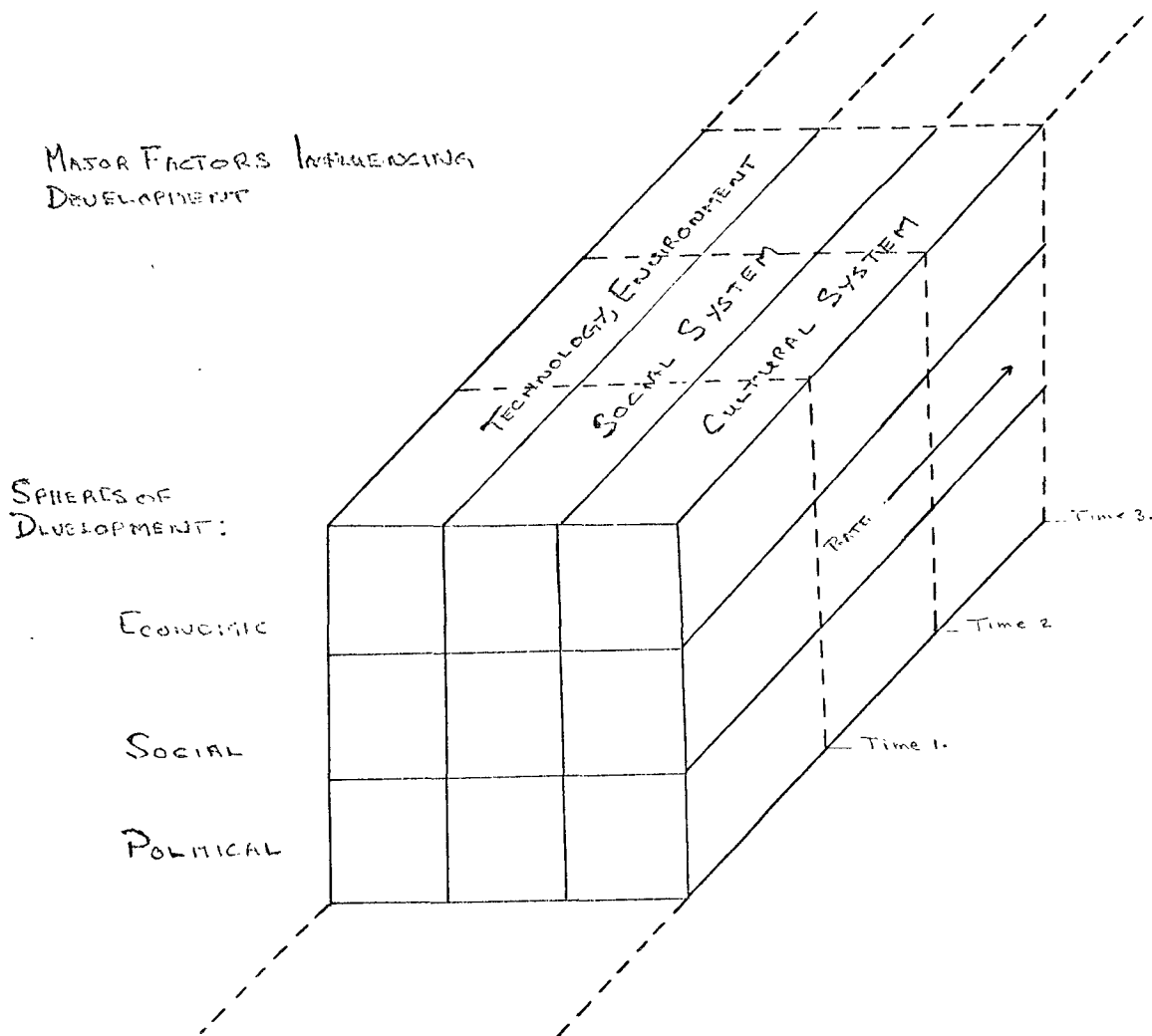
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<sup>1</sup> H.C. Bredemeir and R.M. Stephenson, 1965, p.132.

<sup>2</sup> A.H. Niehoff, 1966, pp.11-33.

<sup>3</sup> Ibid, p.40.

For a final view, the multi-variable model of developmental change, as presented by Chance<sup>1</sup> will be briefly examined.



The three main variables (1) technology and environment; (2) the social system; (3) the cultural system, were

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<sup>1</sup> N.A. Chance (ed), 1968, pp.1-8.

selected because: "the choice of these three variables is based on the premise that all men deal with their bio-physical environment with the techniques available to them; all men set up ways of regulating their social relations with others; and all men maintain a series of cultural beliefs and values that attempt to provide a coherent set of meanings for their actions."<sup>1</sup> By using a model such as the one developed by Chance, the researcher will quite readily be able to catalogue his data in the appropriate "slot". Hopefully, from such categorization, prediction will be greatly augmented.

Thus far, the theory that has been presented illustrates the main components of culture change. Inherent, if not specified, is the theme of culture-conflict. However, it is important to realize that all culture-change does not in itself necessitate culture-conflict. In examining the social milieu of the Mackenzie Delta, the ideas from the foregoing theories will be utilized as a base from which to view culture-change.

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<sup>1</sup> N.A.Chance, (ed), 1968, p.5.

RAPID TRANSITION

"The genesis of every social problem lies in the awakening of people in a given locality to a realization that certain cherished values are threatened by conditions which have become acute."<sup>1</sup> No society is a static unit, and change in some form is always occurring. The indiginous population of the Delta was, a relatively short time ago, a hunting, fishing, and to a limited extent, a gathering people.

The early explorers had little, if any, effect upon their way of life. Whaling operations, and its associated ills, had a profound effect, particularly on the demographic structure of the then existing society. Subsequent to whaling, the era of the fur trade began. Both the fur trade and whaling had a marked effect upon the existing culture. However, the main culture-transfer during both these periods was more of a material than an ideological nature. To be sure, in order to attain the material culture there had to be a certain degree of the ideological culture associated with it. However, in both instances, the way of life was still predominantly geared to the land and as such, many of the traditional values remained, if not wholly, at least partially intact.

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<sup>1</sup> L. Wilson and W.L. Kolb, 1949, p.782.

The third cultural evolution has been the one having the most profound effect. This is the development of a settlement way of life. Some suggest that rather than "evolution", this third stage should be labelled "revolution" "The most recent change has also been the most profound; it is that from a nomadic hunting and trading economy to a life of which the greater part is spent in a settlement."<sup>1</sup> Their movement to permanent settlement living has been extremely rapid over a very short time period. Smith estimates that there is only about 150 native people living the old "bush" way of life.<sup>2</sup> Even this small bush group visits the settlements from time to time for supplies, and are thus indirectly affected by "white" values. It is in the settlement where change is most rapid, and where traditional values come into sharp contrast with the "new" way of life. "White" mores and values dominate settlement life.

To use Merton's concept, new goals have been introduced but the means to such goals are not uniform. They are not uniform in two basic ways. First, there is an unequal distribution among the natives of the needed "white" skills, that will enable them to realize such

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<sup>1</sup> P.F. Cooper, 1967, p.11

<sup>2</sup> D.G.Smith, p.22.

goals. Secondly, some do not relate means with goals, also, some at the lower levels of acculturation view both means and goals in a different light than do those who are higher up the ladder of "white" orientation. They realize that with finances they are able to obtain many of the "white" implements (canoes, outboard motors, rifles, ski-doo's, etc.) that can make life both easier and more enjoyable. However, working for wages is a relatively new concept, which is in sharp contrast to their former life of hunting and trapping. Few natives enjoy year-round employment and part-time work is the best that most can, at this time, acquire in the settlements.

What Ervin has to say of Inuvik holds true, to varying degrees, for other Delta settlements. "The present economy is a highly artificial one, not dependent on the exportation of natural resources or on manufactured products. Government services and construction, supported by heavy financial "underwriting" from the south, form the basis of this artificial economy. Most of the permanent and native population are now supported through subsidized seasonal wage-labour and welfare payments."<sup>1</sup> At Tuktoyaktuk over 90% of the native families are on welfare.<sup>2</sup>

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<sup>1</sup> A.M. Ervin, 1968, p.2.

<sup>2</sup> per personal communication.

The native is caught between the "old" and the "new"; culture-conflict results.

#### RELIGION AND EDUCATION

Religion plays an important role in settlement life. As Porter points out, "In Canada the churches here assumed a crucial place in the structure of power. Religion interwoven with ethnicity and social class, has been and continues to be the most divisive element in Canadian society."<sup>1</sup> This also holds true, to a great extent, in the Mackenzie Delta. The church has been evident in all Delta settlements shortly after such settlements were established. Fort McPherson has had an Anglican mission since 1860.<sup>2</sup> In Aklavik, the Anglican church was established in 1919 and the Roman Catholic in 1926.<sup>3</sup>

Since their inception, the church has played a major role in education, and the early missionaries did a great deal of good in the spheres of education, medical care, and social assistance. However, their educational offerings, while better than nothing, were not really geared to the rapid development that was to come. "With the growing importance of the Arctic, the inadequate education system

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<sup>1</sup> J. Porter, 1966, p.511.

<sup>2</sup> W.E.S. Hensch, 1961, p.89.

<sup>3</sup> D.H.J. Clairmont, 1963, p.39.

that the missions had established was bound to give way, sooner or later, to a broader and more comprehensive system operated by the government and patterned after those in Canadian provinces"<sup>1</sup> However, the church was not, and is not, willing to surrender the functions of education without a struggle.

The two main competitors for soul salvation are the Roman Catholics and Anglicans. Affiliation of schools to a specific religious organization is still very strong in the Delta, and the student is often caught between two conflicting religious ideologies. "The most obvious feature of religious organization in Inuvik is the dichotomy between Anglicans and Catholics, and the open competition between the two groups. The dichotomy is physically visible in the hostels and the school ....Thus we can see that this religious division has been "built into" Inuvik, and that people enter an already fixed scheme; they are placed in a situation where they are identified with one group that opposes another group."<sup>2</sup>

In the 1940's the Pentecostal movement invaded the Delta and is actively competing with the long established Catholic and Anglican missions. The government now faces demands from three religious enclaves. Many members of the

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<sup>1</sup> D. Jenness, 1964, p.123.

<sup>2</sup> J. Mailhot, 1968, p.4.



Pentecostal church want their own hostels. Can government support the Roman Catholics and Anglicans yet refuse equal support to the Pentecostals? If support is refused the Pentecostal or any other religious organization, the government is indeed being most discriminatory. "Thus, Christianity's northern chariot, hitherto drawn by two quarreling horses, has now become a troika."<sup>1</sup> In the mid-1960's the troika became a four-horse hitch, when the Church of Latter Day Saints was established in Inuvik by a group of Mormons from southern Alberta. This fourth horse has relatively little say in the direction in which the carriage will take, as its membership consists only of seven families, all of whom are transient "whites".<sup>2</sup>

I received the impression from some members of the cloth that, while they were well-meaning in their efforts, they were doing little to introduce to their native congregation a true picture of the outside world. This I feel was a result of the fact that they themselves had no real understanding of a modern technological state that is on the verge of computerization. Hence, there is religious conflict that permeates throughout the settlement, and to a marked degree through the existing educational institutions.

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<sup>1</sup> D. Jenness, 1964, p.138.

<sup>2</sup> J. Mailhot, 1968, p.4.

EDUCATION

If one looks at the educational system as a separate entity and does not include the church intervention or the culture-conflict problem faced by the student, it is a very impressive system. The physical plant is one that would do justice to many towns in southern Canada. The basic curriculum used is that of Alberta. The teachers are well-qualified (academically) and with rare exception, are genuinely interested in their work. The following information is from personal communication with teachers in the Delta.

To teach in the Northwest Territories one must have a provincial teaching certificate (most commonwealth certificates are accepted provided they have good teaching references) Each teacher must have taught "outside" before being allowed to teach in the territories. Hence, the requirements are generally higher than the national average. The average time spent in the north is approximately two and one half years.

I was informed that one advantage the teachers enjoy, is that he has more freedom to experiment with teaching methods and a chance to really test teaching methodology. The disadvantages are that they experience isolation both personally and professionally, and can hence get out of touch with new teaching methods. They also complain about the high cost of living. Practically all teachers were in

favour of an increase in vocational and adult education, but the problem is lack of finances, facilities and staff.

Teachers are attracted north for a variety of reasons such as the fact that it is to them a new experience; to satisfy their curiosity about the north; in some cases because of higher wages; and also the pioneer element still exists. They felt that the programme of study for lower levels should be adapted to local situations until the student grasps the basic facts (i.e. speak of muskrat and caribou, rather than trains and trucks.)

The aim, to them, appears to be to prepare the student so that he can fit into a southern mode of life if he or she so desires. The native population generally feels that education is good for the children, and are willing to sacrifice so that their children can take advantage of it. Hostility does not exist to the same extent towards teachers as it does toward most other transients, because the people realize that "outside" teachers are necessary if their children are to advance.

The teachers did not feel that either education or religion should be forced upon the natives, but at the same time felt that both elements were wanted by most natives within the settlements. They did not (with some exceptions) feel that religion should have any say in school affairs, nor should it be taught as part of the curriculum as it

now is. (children can be excused from religious teaching with parental permission)

As stated, the foregoing is from the teacher's point of view. The Delta teachers, while well-qualified academically, have no, or very little, understanding of the sociocultural, socioeconomic, or psychological problems faced by Delta natives. Their orientation for teaching in the north is a farce which is mainly concerned with administrative functions and the bureaucratic hierarchy, rather than familiarizing them with the existing problems. Also, many teachers do not recognize the basic problems after having taught there for several years.

"With few exceptions, the teachers are southern Canadians who go north to teach for two or three years without training or experience in teaching northern children."<sup>1</sup> This holds true for the Delta teachers. One needs more than well-meaning people to make the system work, and it would be most desirable to orient the teachers before they arrive in the north. Many view the world through rose-coloured glasses, and some feel that their mission is to "save" the native and introduce him to the "only" way of life which to them is the "white" way of life. What Honingman says of the Eastern Arctic holds true for many teachers in the Delta.

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<sup>1</sup> M. Von Steensel (ed), 1966, p.130.

"The teachers had little regard for cultural relativity, and the result was that they failed to see how consistently Eskimo life encourages children to grown up into independent and very resourceful adult human beings."<sup>1</sup>

While I criticize the teachers it must not be forgotten that, as already stated, most are genuinely interested in their work and in helping the natives acquire the new skills that they will need. The teachers are the working part of the educational system, and we must look behind the system and see who decides on educational policy - in this case it is the government. If education of the natives is to be successful, the government must first of all educate the educators.

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<sup>1</sup> M. Von Steensel (ed) 1966, p.73.

INDIVIDUAL AND COMMUNITY PROBLEMSSettlement Characteristics

As mentioned, the settlements of the Delta operate from a rather artificial economic base. Added to this artificiality is the great disparity between the "haves" and the "have-nots". Probably nowhere is the distinction as sharp as it is in Inuvik. I feel that one of the ideas in the designing and construction of Inuvik was to show that many of the features of urban Canada could be successfully transplanted into the far north. In some aspects this has been realized, but at the same time it is painfully clear to a newcomer that many acute problems exist. "Inuvik stands out as a town that represents the dominant Canadian culture in the Arctic. Its school, its suburbia, its super market, its five oclock rush hour, and many other of its decidedly urban and modern qualities will serve as a model of life that up until now could only be seen in magazines or movies by people living in the Delta - Inuvik is a bright shining picture of the outside world that has come into the northern midst."<sup>1</sup> Statements such as the foregoing must be taken in the light that either the author is attempting to be a humourist, or else he is completely blind. The rift, in terms of material facilities alone, between

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<sup>1</sup>R. Cohen, 1962, p.63.

administrative personnel and practically all natives, is most obvious. Cooper speaks of "the striking difference in the extent of the amenities of southern life available to administrative and technical people from the south and those the rest of the population can obtain. The width of this gap is clear to every tourist, no matter how short a time he may spend in the region."<sup>1</sup>

Inuvik can be roughly divided into three areas: the serviced area; the unserviced area; and, tent town. Lotz describes tent town as follows: "this area, around the margin of Twin Lakes is a slum. The population is entirely Eskimo, Indian or Metis, with only one or two whites. Housing consists of tents, tent frames, cabins and shacks. There are only one or two good cabins. Housing conditions are the worst I have ever encountered anywhere in the north."<sup>2</sup> He continues: Tent town is a depressing place. Living conditions are universally bad. Most shacks and cabins are poorly built, and measure 10' x 15' or 10' x 25' .....few shacks have porches, and garbage, empty crates, beer and liquor bottles litter the ground. Interiors are dark and gloomy and usually filthy."<sup>3</sup>

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<sup>1</sup> P.F.Cooper, 1967, p.14.

<sup>2</sup> J. Lotz, 1962, p.9.

<sup>3</sup> Ibid, p.20.

The study done by Lotz was made in 1962 and while many changes have occurred since then, one does not have to look very far to see some of the conditions he has described. Also, such conditions are very evident at Aklavik and Tuktoyaktuk. (I did not have the opportunity to view Arctic Red River or Fort McPherson, and hence am unable to comment on them. Reindeer Station, which I did visit, did not appear to have this problem to any extent) Again, the rift between the two extremes was most obvious. Keeping in mind the material facilities with which most natives must cope, I would now like to turn to some of the social conditions that exist, to varying degrees, in all Delta settlements.

#### Social Problems

The social problems that exist in the Delta are manifold. However, it must be stated that such problems are not to be found only in the Delta, and most of them to a greater or lesser extent, or in a different form, can be recognized in most sections of Canada. But, to me, the problems are more obvious because of the fact that:

- (a) the visual physical contrasts in terms of "haves" and "have-nots" are seen daily
- (b) many whites talk regularly (among themselves) about such problems.



- (c) most important, there is no place to "hide" such problems, whereas in a large city, many social ills are often restricted to a specific area(s), and the majority of the populace does not come into daily contact with them.

The settlement population will first be examined in terms of three age groupings.

#### UNDER 25 YEARS GROUP

A large segment of this group has never experienced anything except settlement life. To them, "bush-life" is foreign, except perhaps during summer vacation. This group is generally oriented towards the school or hostel environment, which provides a marked contrast to the home environment. As a result of this dual orientation, stress in the home is not unusual. "As a result the children's respect for their parents tends to be low. Similarly, many are ashamed, or at least confused, about their native origins and identities. Few indicated any desire to become trappers."<sup>1</sup>

The children are hence being exposed to several worlds at the same time. The adults face the same situation but from another point of view. Many of the children are in hostels away from parents and family for almost ten months of the year, during which time they are exposed to a "white" educational system, a "white" religious

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<sup>1</sup>A.M. Ervin, 1968, p.10.

establishment, and generally, a "white" way of life. What happens when they finish their education?

If they go "outside", they find life extremely difficult if for no other reason than racial discrimination. Let us not ignore the fact that Canada does have discrimination. Also, while they have been exposed to "white" goals, they are not adequately prepared to reach such goals. One Eskimo of about twenty years of age with grade eleven education, told me that he had gone outside (Vancouver), but could not face the loneliness, the rush of city life, and all the unknowns which we who have lived in cities think little, if anything, of. The transition was too great, and he returned home to Aklavik. His story is by no means an isolated example, and many others of his age group face the same experience because of the great difference in social, educational and ethnic background. The educational system, which serves the Delta natives, can only introduce a person to a very limited understanding of another way of life.

The second possibility open to a native who attains all, or part, of a high school education is to remain in the settlement. He is now faced with the problem of "what to do". The educational system has taught white goals, and in part, how to reach such goals, but only limited employment opportunities exist in the settlements.

Returning to his home environment is also difficult because his parents have not had his education and hence are at a different level of accularation. Also, as his native language is not taught in school, he may have a communication problem, with his parents. Being at a hostel for about ten months of the year means that he does not have the skills that he would have learned had he been with the family. In the hostel he has been exposed to a completely "white" way of life. All, or part, of such white mores may be excluded from his home environment. This points to one thing - conflict.

Thus, if he goes "outside" he faces many unfamiliar problems with which he is inadequately prepared to deal; if he returns to the settlement where he received his education\*, he will have difficulty in securing full-time employment; and, if he returns home he faces a similiar situation to that of going "outside", that is, lack of preparation. Some refer to this group as a "lost generation" and in this there is unfortunately, a large amount of truth.

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\* Inuvik is the only Delta settlement offering education at the high school level.

25 - 50 YEAR AGE GROUP

Ervin writes of this generation: "This generation grew up during the end of the fur-trade era. Their values were formed in a bush milieu. It is this generation who have the greatest difficulty in adapting, and who represent the crux of the adjustment problem in Inuvik."<sup>1</sup> Again, this statement holds true for settlements other than Inuvik. Like the younger generation, this group too is caught in several worlds at the same time. His former bush skills are of no particular use in the settlement, and working regular hours for wages is foreign to him. His former life had been geared to the seasons, not the clock. Added to this, is the fact that full-time employment is difficult to attain. Very few of them can assist\* their children in obtaining an education, as most of them only have limited schooling themselves.

Most do not comprehend the machinery of politics, administration or education, and many whites view them as second class citizens. Frustration is the inevitable outcome, and welfare payments are, for many, a major source of income.

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<sup>1</sup>A.M. Ervin, 1968, p.9.

\*When I say "assist their children" I am referring to academic assistance. They can (and some do) "assist" by maintaining a home environment that permits the child to develop regular study habits.

OVER 50 YEAR GROUP

This group is almost completely oriented to the old bush way of life, yet, since the development of settlements most of this group is living within the confines of the community. Due to their age, they are unable to obtain even part-time work (there are a few exceptions to this) Due to the communication gap, they are on the perimeter of both the native and non-native society. Communication between themselves and their grandchildren is practically non-existent, as neither can really comprehend the world of the other. At one time there were close ties between young and old; this is fast disappearing.

Due to the medical care that is available in the settlements, life is some what easier for this group than it would be were they still living a "bush" way of life. The basic problem of old age is certainly not unique to the Delta. However, the problem appears to have been magnified due to the rapid influx of a new technology and culture.

ASSOCIATED PROBLEMS

Two other major problems are those of venereal disease and alcohol. For the Northwest Territories as a whole, "The incident of gonorrhoea doubled during the

year."<sup>1</sup> This statement was issued in the annual report of the Northwest Territories for the year 1965-66; unfortunately, it was not stated what it was prior to doubling. In the Delta, rampant is the only word to describe V.D. "Dr. Frank Boyce treats what he claims is the highest venereal disease rate in Canada. He gets four or five cases a day in the hospital at Inuvik, and estimates that more than half of the town's 2,800 persons are afflicted."<sup>2</sup> Many people I talked with felt that this estimate by Dr. Boyce was too high, and suggested that 30% to 40% would be more realistic. If indeed only 30% of the Inuvik population has V.D., even this is out of all proportion to other areas in Canada. For example, in Hamilton, Ontario during the year 1968, there were 270 reported cases of gonorrhoea, and 53 reported cases of syphilis.<sup>3</sup> However, what is reported and what actually exists is a completely different matter. "It follows, then, if the estimates are correct, that there were over 200 cases of syphilis and 2,000 cases of gonorrhoea in the Hamilton-Wentworth area in 1968."<sup>4</sup> Compared to Hamilton, Inuvik has more than its

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<sup>1</sup>Annual Report of the Northwest Territories, 1965-66: p.25.

<sup>2</sup>Weekend Magazine (October 7, 1967), p.14.

<sup>3</sup>The Spectator (February 13, 1969)p.39.

<sup>4</sup>Ibid, p.39.

share of venereal disease, in proportion to its population.

Alcohol problems are extremely evident in most Delta settlements, and particularly in Inuvik. In 1960, the liquor store was moved from Aklavik to Inuvik, and this is the only legal retail outlet in the Delta. "It has only been in the last decade that drinking has been considered a "problem" by the official white representatives in the area. "Boot-legging" was always conducted on a small scale and homebrew became part of the native way of life, and did not appear to be disruptive."<sup>1</sup> Now, however, "There can be little doubt but that heavy drinking presents the most serious adjustment problem confronting Northerner townspeople."<sup>2</sup> Consumption of perfume, vanilla extract, after-shave lotion and hair-spray is not uncommon.\* Wood-alcohol is sometimes consumed. It appears that those who drink heavily do so to reach a euphoric state, and not for the pleasure of alcohol per se. Frustration is probably the basic cause for heavy consumption. "depression, self-dissatisfaction, anomie, and economic frustration present valid explanations for certain group and personal aspects

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<sup>1</sup>D.H.J. Clairmont, 1963, p.55.

<sup>2</sup>A.M. Ervin, 1968, p.17.

\*I personally witnesses the consumption or attempted purchase for consumption, of these items.

of the drinking."<sup>1</sup>

Drugs have not, as of yet, been used by Delta natives, nor do I think they will be due to the problems of obtaining them.

It is very difficult to obtain information regarding homosexual activity, but I have been informed by a reliable source that there has only been one known case of homosexuality in the Delta, and it was between an Eskimo youth and a member of the Canadian Armed Forces. Hence, it can be said that deviant behaviour in this regard does not exist.

#### ADMINISTRATIVE VIEW - NATIVE VIEW

Niehoff, in speaking of underdeveloped areas, points out that "the advisor must be introduced to the study of change from a socioculture point of view. He is already committed to the necessity for change.....he needs to understand how it (change) can take place within other sociocultural systems."<sup>2</sup> The teacher is not alone in being ignorant of the native culture, and most government personnel are in the same category. Like the teachers, the administrators need orientation prior to being sent north.

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<sup>1</sup>A.M. Irvin, 1968, p.17.

<sup>2</sup>A.H. Niehoff, 1966, p.5



(Area Administrators do have some training prior to arrival, but to me, it is not nearly sufficient) Added to this was the fact that not one government administrator could give me a clear answer as to what the official policy for the north actually was. Perhaps such a policy does not exist - if this be the case, then it is time that some guidelines were formulated.

Many civil servants in the Delta are dedicated to the task, and give their utmost effort - many are not. Some regard the north as a stepping-stone to the upper levels of civil servant hierarchy. For many, when they will be leaving the north is the main topic of conversation. This attitude adds fuel to an already well-fanned fire.

One administrator told me that his solution to the native problem was to ship every man, woman and child living north of the Arctic Circle to Southern Canada, as facilities such as schools, hospitals and the like would not have to be duplicated in the north. He wanted a forced integration of these people into the happy, non-discriminatory equal-opportunity area of metropolitan Canada. Another said that "The man who pays the piper calls the tune." and as the southern Canadian taxpayer is paying the piper, he should call not only the tune, but the method of dancing. It is true that much of the money for northern development does come from the southern taxpayer - it is equally true that most taxpayers are in total ignorance

of the north. It should be borne in mind that, "modernization efforts are by definition in basic conflict with traditional ideas, customs, and techniques. The forces of conservatism are strong because however poor the local conditions of life may be, it is a successful adaptation which enables the people to get by."<sup>1</sup> Many government representatives would do well to remember this fact, as adaptation to a completely new way of life will take time and patience on their behalf.

All personnel going north be they teachers, administrators, police, or even part-time summer students, should have some degree of orientation, even if it is limited to reading "the Silent Language."<sup>2</sup>

The native view of "outside" reality comes to him via C.B.C. radio, motion pictures, magazines, and those representatives of the south who are there. The CBC, I feel is doing an excellent job of acculturation. On the other hand, motion pictures give little insight into the "real" world. As many natives have great difficulty in reading English, (many cannot read at all) magazines do very little to further their knowledge of the "outside" world.

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<sup>1</sup> C.M. Arnesberg and A.H. Niehoff, 1966, p.82

<sup>2</sup> E.T. Hall, 1966.

The majority of whites that are there from the south are anything but a normal representation of a southern way of life. Some are there to escape from financial, marital or alcohol problems. Some seek adventure and a new way of life - some go with a genuine desire to help - some go for research. But, with exceptions, such people are not representative of a nine-to-five, worry about the mortgage, weekend at the cottage, upward - and - onward way of life. They are abnormal in this sense. The natives are thus exposed to those who, while they are from the south, are not truly representative of the south. Hence, the native view of "outside" is rather hazy.

However, while "outside" may be a nebulous concept, the settlement can be viewed in concrete terms. Most natives hold a negative view of settlement life, and this is particularly true in the case of Inuvik. The settlements are felt to be an impersonal "white-man's" world. "The town-dwelling native people have feelings of 'relative deprivation' when they compare their living conditions with the living conditions of the transients, for whom urban services are provided with comparative liberality"<sup>1</sup>

The natives, while perhaps unable to articulate the

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<sup>1</sup> A.M. Ervin, 1968. p.7.

"native-white" dichotomy, can certainly see the rift.

Many are becoming more and more dissatisfied with what they see.

## CONCLUSION

The first section of this thesis presented an overview of Arctic culture - the facts themselves are a conclusion. It would indeed be gratifying to say that the Dorset-Thule transition was a peaceful one; or, that Denbigh-Dorset was one of great conflict. This cannot be said for the simple reason that we just don't know. It would even be more exciting to conclude by stating that a Dorset-Thule culture trait continuum can be observed in the modern Mackenzie Delta. Unfortunately this too lacks any archaeological support.

There is no evidence to suggest that hostility occurred between the various Eskimo cultures. Likewise, no evidence is available to support the view that the transitions were peaceful. In examining culture transition, psychological hostility must be kept in mind. Unless one is able to view a group directly, or indirectly (via written records, folklore and the like) it is difficult, if not impossible, to determine the extent of mental coercion. With the early Eskimo, no direct and very few indirect observations are available.

Hence, the questions are numerous, the answers are scarce. However, it has been valuable to review Arctic culture from this broad perspective prior to examining a specific area, because it enables one to truly appreciate

the vast gulf between old and new. Also, it illustrates the fact that culture change is not a new phenomenon to the Arctic. However, the change today is far more rapid than ever before. Further, by an understanding of the past, we perhaps may glean a more knowledgeable insight of the present.

In synthesizing the second section, that concerned itself specifically with the Mackenzie Delta, more concrete conclusions can be stated. The Delta, like all Arctic areas, is one of delicate balance. This man-land-mind relationship can be easily disturbed. It appears that the Eskimo did not have the means to radically alter or destroy the resource environment, and hence the balance was maintained. The regional fauna and flora provided the basis for life; today, such is not the case. With the arrival of "outside" exploiters, the mental construct of the native towards the physical and biogeographic landscape changed drastically. In turn, the psychological environment was likewise altered. Where he had utilized the renewable resource base, he now exploited it.

The first, more-or-less permanent, white residents went to the Delta with the sole purpose of exploiting this rich fur area. Like the traders, the whaling crews that followed were only interested in the dollar return from

their investment. Maximum profit from minimal capital outlay appears to have been the motto of these early entrepreneurs, particularly the whalers. There was neither concern nor regard for either the human or physical environment. While this intervention by the two commercial activities radically altered the native mores and values, he was still able to maintain many of his traditional norms. This was possible because neither whaler nor trader was concerned with the native ideology. Hence, while disruption did occur, the man-land relationship remained, although, to be sure, this relationship was far different than it had previously been.

During this period the nucleus of settlement development occurred. However, the indigenous population still remained very much a migrant bush people, visiting the trading posts only three or four times a year. Of the Delta settlements, only Inuvik and Tuktoyaktuk were chosen because of specific site characteristics. For example, Tuktoyaktuk is the first site east of Herschel Island that is endowed with a deep water harbour. As detailed earlier, Inuvik had to meet specific site requirements. On the other hand, the posts at Fort McPherson, Aklavik, Baillie Island and Kittigazuit were selected more for their contiguous location to the resource being exploited than for specific site advantages. It is true that both Fort McPherson and Aklavik

were relocated in order to improve the site characteristics. However, in both instances, regional location was still of greater importance than site advantage. This is not to suggest that there was no purpose for the creation of posts, but rather, such posts could have been established elsewhere other than at their specific sites. This also holds true for Reindeer Station which could probably have been established at any one of a number of easily accessible sites within the reindeer grazing reserve. Hence, the early "outsider" in the Delta selected as their location, a point from which exploitation could best be accomplished. If the demand or the supply decreased to the extent whereby expenditures outweighed profits, the operation came to a halt (as was the case at Herschel Island, Baillie Island, and Kittigazuit)

Religion, in the form of Roman Catholicism and Anglicanism, became firmly established shortly after the trading posts emerged. The church was the first organization concerned with changing the native ideology. Hence, their function was far different than that of the earlier traders or whalers. For over half a century the whalers have been absent from the Delta. This church-trader duo was joined, eventually, by the Canadian Government. The government had, from time to time, dabbled in the north, however, such intervention was rather sporadic. It was not until 1953 and the creation of the Department of Northern Affairs and



National Resources that any intense government involvement occurred. Why did the federal government finally decide to become involved?

Perhaps the St. Laurent administration of the time, as have governments since, had a "vision" of northern greatness. The reasons are probably manifold, but I feel that two of them are linked to the words "embarrassment" and "potential". Embarrassment, because so little had been done for our northern peoples. Potential, because perhaps, there were millions in natural resources lurking just beneath the permafrost. In addition, it appears as if there was concern over the question of sovereignty. Perhaps it was felt that Canadian control over her Arctic domain could best be maintained by greater involvement. Whatever the reasons, the central government is now very much involved in the north. The lack of a policy does not seem to deter them from pressing ahead.

As can be seen, a commercial-church-state sequence has evolved. It is interesting to speculate what would have occurred had the north been void of an exploitable resource. Commercial ventures would obviously have looked, and then retreated just as quickly. The church would probably have become involved but to a far lesser extent. As for government involvement, this would depend to a large extent on the political, social and economic climate of the times.

For example, had Canada been deeply involved in a major war in the 1950's, I seriously doubt that a Department of Northern Affairs and National Resources would have come into being. However, in time, government intervention would have occurred, but as to its marginality or intensity, it is difficult to speculate.

With the involvement of government came the bureaucratic organization of schools, hospitals and other services that had been rather limited and dispersed. Permanent settlement living became the rule, not the exception. This in turn engendered social upheaval on a grand scale that has, is, and will continue, to be the major problem of the Delta. What can be done to ease the conflict during this difficult period of cultural adjustment?

To begin, a definite government policy should be formulated for northern development. This is not to suggest a rigid programme, but rather, one that will allow for change when change is necessary. The innovators should be made well aware of their role, and equally important, they should understand native reaction to new innovations. There must be mutual co-operation between native and white, and this can only occur through education of each by the other. Decision-makers, both in the field and in Ottawa, should attempt to pave a more comfortable road to goal achievement.

The most pressing problem is that of the existing social conditions. Government, at this juncture, should be concerned primarily with applied research - research that can be utilized within the next decade. The socio-geographic environment from a native perspective must be understood. Much of the research that is now being conducted may well be intellectually stimulating, but has little, if any, direct application to the major problem of the Delta.

Exploration of the non-renewable resource-base should be left, by and large, to private enterprise. However, the government should encourage and assist such undertakings whenever possible, because in the long term analysis, the future of the north will depend upon economic development. The Delta natives must not be considered an unwanted obstacle in the path of progress. Instead, they should be encouraged to fully participate in the social, economic, and political development of their homeland.

It is inevitable that the old way of life will disappear. Neither white nor native can retreat. Mistakes have, are, and will be made - hopefully we will benefit from them.

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