IGLOOLIK ESKIMO SETTLEMENT AND MOBILITY 1900-1970

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ABSTRACT

At the beginning of the 20th century the Igloolik Eskimos utilized a large area of northern Foxe Basin, N.W.T.. By 1969 settlement was entirely centralized in two villages. This thesis is an analysis of the changes in patterns of settlement and mobility that have occurred as a result of increased linkage with Western society in this century.

Two major migrations are identified, which led to entirely new patterns of settlement, one in the 1940's, the other in the 1960's. The structure of population groupings is examined, and core and peripheral groups defined with respect to resource exploitation and group composition, and later by religious affiliation. The mechanisms that underlie the evolution of the settlement pattern are analysed, and the process of centralization is explained.

RESUME

Au début du vingtième siècle les Esquimaux Igloolik ont occupé une grande partie du nord de Foxe Basin, T.N.O. Depuis 1969 la population s'est établie dans deux villages. Dans cette thèse nous présentons une analyse des changements survenus dans la répartition spatiale et la mobilité du peuplement causés par l'accroissement des contacts avec la société occidentale de ce siècle.

Deux migrations d'importance majeure, qui ont amené des répartitions spatiales complètement nouvelles, y sont décrites. La première migration date des années 1940, la deuxième des années 1960. La structure de ces groupements de population est étudiée. Les groupes noyaux et périphériques sont définis par rapport à l'exploitation des ressources, composition interne, et ensuite par affiliation religieuse. Les mécanismes qui sous-tendent l'évolution de la répartition spatiale du peuplement sont analysés, et le processus de centralisation est expliqué.

ACKNOWLEDGMENTS

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF MAPS

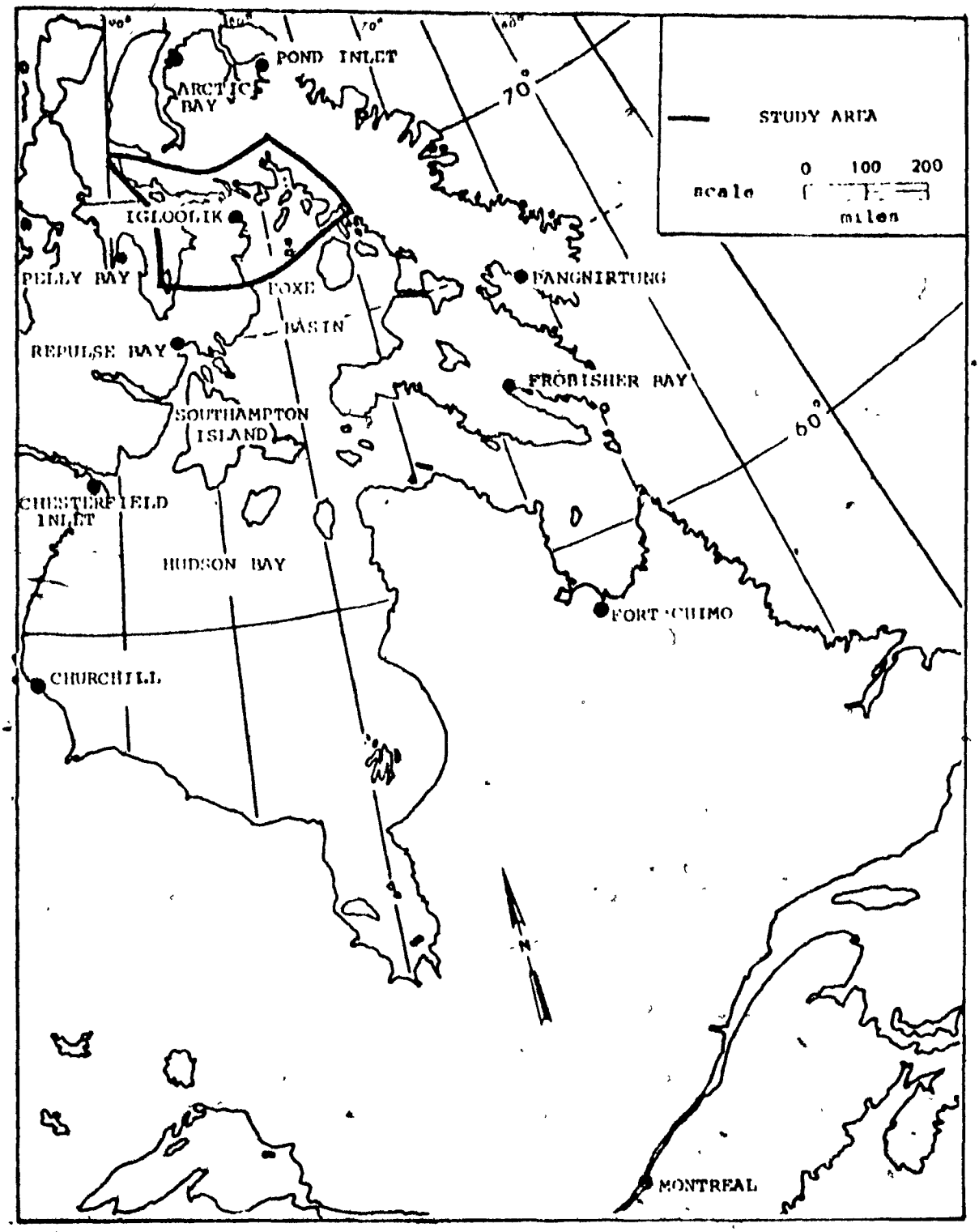
CHAPTER I

RESEARCH PROBLEM AND PURPOSE

The purpose of this thesis is to analyse the relationship between Western technology and institutions, and the changing pattern of Eskimo settlement and migration within northern Foxe Basin, N.W.T. (Map 1). The study will define and describe the pattern of settlement through time, and explain the process of change that has occurred since first contact in 1821. Particular emphasis will be placed on the period between 1900 and 1970.

The analysis of acculturation and change within the Igloolik Eskimo population is based on the assumption that settlement pattern and population movement are sensitive indicators of the relationship between man and the environment. In a society that lacks written records, settlement pattern, together with the material culture, is one of the few tangible expressions of the changes that may occur in this relationship.

In 1969 R.C.M.P. records listed 728 Eskimos in northern Foxe Basin, living in two villages, Igloolik and Hall Beach. Throughout most of their history however, the Igloolik Eskimos have been unevenly distributed over northern Foxe Basin, in an area of at least 62,500 square miles. At times the population was dispersed over the region, and at others it was concentrated in two or three large villages. However, even with these villages there was an element of settlement mobility, and settlements were not rigidly fixed in space



MAP 1
LOCATION OF STUDY AREA

as they are today. The evolution towards the present centralization has been complex, and the underlying processes that created centralization have been working over a long period of time.

In order to analyse the effects of contact on settlement pattern, and the resulting centralization, two hypotheses are suggested:

i) Centralization of population was made possible because technology and cultural change provided viable options to dispersal. Thus the greater effectiveness of exploitation enabled more and more people to live from less and less space.

ii) Centralization of settlement is recent, but the processes behind it are not. Centralization is a culmination of a long-standing trend that started as a result of early contact with Western society, and that existed prior to the provision of housing in centres.

A logical extension of these two hypotheses is that the process of centralization and growth is not unlimited, and that optimum size is passed when technology leads to over-exploitation and consequent decline in productivity of resources that cannot be compensated for by increased mobility away from the settlement. At this point new options and alternatives of village maintenance must be relied upon. The thesis deals largely with hypotheses one and two, and only in Chapter VI will the wider ramifications of centralization be dealt with.

Further questions raised in order to explore these hypotheses include:

i) What is the basic structure of Igloolik Eskimo population groupings?

The discussion of this question includes a definition of settlement areas and settlement composition, as they have evolved through time.

ii) What factors have encouraged changes in population groupings in northern Foxe Basin? In what way have they affected the evolution of settlement pattern in the past, and to what degree are these, or similar factors, still operating to affect settlement pattern?

iii) The introduction of Western technology has been one of the most tangible changes to occur in northern Foxe Basin. What is the role of technology in settlement pattern changes? In particular:

a) What was the impact of Western technology on the economy, and on exploitative patterns, and the effect of this on settlement?

b) What effect has the use of this technology had on the ecological system of northern Foxe Basin?

c) What is the relationship between the adoption of Western technology, and social factors? What sort of social circumstances were most conducive to the adoption of Western technology, and how, in its turn, did this improved technology affect the social component of settlement pattern?

iv) Once settlement pattern change has been initiated what are the mechanisms by which population is redistributed? For example:

a) Is membership of groups fluid, with a free exchange of personnel between them?

b) Or does the type and amount of mobility differ between individuals? If this is so, and some individ-

uals in a settlement area are more residentially stable than others, can these be identified as a core population? Does the settlement area also include more mobile peripheral individuals?

Organization of the Thesis

The thesis sets out to study the relationship between the Igloolik Eskimos and the larger Canadian society in this century, from the point of view of changing settlement patterns. Settlement centralization has been the culmination of long-term processes of change following contact. In order to understand those processes the basic population structure, factors which change population groupings, and the mechanisms by which groups change are studied, together with the underlying impact of Western technology.

The bulk of the thesis consists of a descriptive analysis of the changing settlement patterns as reconstructed from detailed family histories, and written records. It has been possible to trace settlement pattern and migrations in some detail from the beginning of this century to the present. Settlement pattern is the sum of all individual behaviour patterns. Individual choice of location is therefore a key component of settlement pattern, and is given due emphasis in the analysis in this thesis.

The thesis is organized as follows. Chapter II is a discussion of the general processes of settlement and mobility in the

context of the Igloolik Eskimos, the evolution of settlement pattern, and a chronology of changes associated with contact. A description of settlement pattern at the time of first contact, in Chapter III, provides the background for an analysis of settlement pattern changes from 1900 to 1970. For purposes of the analysis these 70 years are broken into three periods which are covered in Chapters III, IV, and V. Chapter VI is a discussion of the continuation of settlement and migration processes observed for earlier periods, in the context of the present fixed village locations. Chapter VII contains a summary of the findings of the thesis.

Study Area and Field Research

The Eskimos in the area from Pond Inlet to northern Foxe Basin, and south to Repulse Bay and Southampton Island, form one distinct cultural group. This has been recognised and defined by Damas (1969, a & b), and by Crowe (1969) who used the term Melville-Borden Eskimos to describe the group. The Igloolik Eskimos of northern Foxe Basin form a distinct element within this group, that may be identified on both cultural and linguistic grounds, and by its recognition as a separate entity by other Eskimo groups (Damas 1967, 127). The Igloolik Eskimos remain an identifiable population despite interaction with other Eskimo groups. In this thesis the term Igloolik Eskimos will refer to the population of northern Foxe Basin only.

The International Biological Programme (I.B.P.) has under-

taken a wide range of studies of the Igloolik Eskimos including physiology, dental studies, epidemiology and health, and nutrition. This thesis is one of a group of four interrelated theses and provides the historical perspective for studies of the modern hunting pattern (Beaubier 1970), ringed seal behaviour (Bradley 1970), and current migration trends (Kharusi n.d.). Beaubier and Bradley investigated the present pattern of resource exploitation. The final project will be based on Chapter VI of the present thesis, being a detailed analysis of mobility in the context of the current fixed settlement locations.

Field work for this thesis was conducted during the summers of 1968 and 1969 when five months were spent in Igloolik, and three weeks in Hall Beach. General demographic data was collected in 1968, and the results of this are presented in a report for the International Biological Programme (Beaubier, Bradley and Vestey 1970). In 1969 detailed histories were recorded for a 20 percent sample of Igloolik Eskimo families by means of a structured interview. The questionnaire is shown in Appendix A. The sample includes all former "camp bosses" named by previous workers in the area (Damas 1963, Anders 1965). These "camp bosses" were generally the heads of large kin groups and therefore able to give accurate information on other members of their own family and settlements. Other individuals, less firmly attached to one group or settlement, were also included. See Appendix B for sample interview.

By this method detailed settlement histories were collected for almost all families currently living in northern Foxe Basin, and

for a large number of families who had once resided in the area.

Wherever possible a man and his wife were interviewed together. It was found that men could provide accurate data on the location and economic activities of a settlement, and the names of hunting associates. The women could remember which children had been born in the settlement at the times under discussion, and this made accurate dating possible with the aid of R.C.M.P. records of birth dates which extend back as far as 1945, and include estimates of ages for the whole population born before then.

Maps of the area of northern Foxe Basin were also used in interviews, and most men had a very accurate concept of locations in areas they were familiar with. Only rarely did two informants mark contradictory locations for place names. Map 2 (in pocket) includes a number of place names collected from informants in this way. A comprehensive map of the Eskimo place names collected in the field in 1968 and 1969 has already been presented in a report to the I.B.P. (Beaubier, Bradley and Vestey, 1970).

Few adult Igloolik Eskimos speak English, so it was necessary to employ an interpreter. The same interpreter assisted in all but two interviews in Igloolik, and another in Hall Beach, using a copy of the questionnaire written in Eskimo syllabics. Informants were free to read this if they wished. In addition to these interviews much supplementary information was collected in conversation with other informants on a more informal basis. A period of time was also spent in a small remote village in order to compare this with life in Igloolik

and Hall Beach.

The general material obtained from informants, together with the censuses made by Mathiassen in 1921-1922 (Mathiassen 1928), the Roman Catholic Mission, and the R.C.M.P., and other written records summarized in Chapter II, supplement the detailed histories of the sample families. The number of families excluded from the study due to lack of data is negligible. Some families resident in the area in the earlier part of the century have undoubtedly been excluded, but in general the reconstruction of settlement patterns and migrations may be considered accurate because of the amount of cross checking possible between informants' accounts.

CHAPTER II

THE PROCESS OF SETTLEMENT AND MOBILITY IN THE CONTEXT OF THE IGLOOLIK ESKIMOS

Settlement pattern is an expression of the relationship between a population and its habitat. It results from the distribution of individuals over the landscape in such a way as to increase the efficiency of their adaptation. In addition to facilitating access to resources the size and spacing of groups determines the patterns of interpersonal co-operation and sharing that are needed to harvest and distribute these resources. However, the need for proximity of individuals may directly conflict with the need for dispersal over the resource areas, and settlement pattern represents a balance between these two forces. The form it takes depends both on factors in the biophysical environment affecting the location and availability of resources, and on aspects of social organization that are necessary for maintaining particular relationships between individuals.

Igloolik settlement pattern was traditionally adapted to resources and to resource areas that varied in type and distribution with the season. Throughout the year a range of different resources, distributed over a large area, would normally be exploited. Further, the distribution and availability of a particular resource might vary from year to year. As a result of this variability the effective occupation of Foxe Basin must include large areas that are only potentially usable pending specific circumstances. Consequently rational definitions of hunting territories can only be based on use over a

number of years.

Because of this variability in the environment, an important component of settlement was mobility that enabled the population to move around the territory in response to the availability of resources. Mobility, in the context of an established settlement pattern, takes two forms:

i) mobility radiating from a central settlement into the local resource area, as in the individual hunt,

ii) the relocation of settlement in a different resource area as part of the yearly cycle.

Where resources are scattered the amount of mobility necessary in their exploitation depends directly on the efficiency of exploitative techniques in use. This depends partly on ecological knowledge, but is largely a function of technology. Technology may therefore be considered a further component of settlement as its efficiency affects the intensity of exploitation of a particular resource. The less effective the techniques the less are the resources available from a given area, and the greater the need for dispersal. Technology also affects the means available for dispersal. The more effective the transportation, the further it is possible to radiate from a central settlement on individual hunts, with a consequently diminished need for relocation of settlement.

Increasing the level of efficiency of technology has a three-fold effect. It enables a more intensive use to be made of local resources, improved transportation results in a greater ease of movement

between settlement and resource area, and it means that more resources may be transported back to the settlement. All three result in a tendency towards more sedentary settlement.

However, there is a limit to this process which is reached when improved technology enables exploitative activity to concentrate in the vicinity of central settlements to the detriment of resources in that area. This results in such changes to the biological environment as the relocation of marine animals in more remote areas (Bradley 1970). The existing settlement pattern no longer represents an adequate adaptation to the changed environment. Wolpert emphasizes the role of migration as "a form of individual or group adaptation to preceived changes in environment, a recognition of marginality with respect to a stationary position" (Wolpert 1965, 161). Where severe environmental stress is experienced mobility assumes the form of large-scale migrations both within the region and between regions. Such migrations mark the transition from one settlement pattern to another. Hawley states that migration, in the sense of a nonrecurrent movement, "is both the means by which settlement change is effected and the most accessible and measurable evidence of change." (Hawley 1950, 327). A series of such migrations accompanied the process of transition from the independent organization of the pre-contact Igloolik Eskimos, to the present inter-dependence with Western society. Specifically there was an expansion and dispersal of population in the late nineteen forties, and later a centralization movement in the nineteen sixties. In both cases settlement patterns had been evolving slowly over a long period,

and this cumulative change resulted in a relatively sudden transition to an entirely different pattern of settlement when the existing pattern of adaptation was perceived to be inadequate. The transition was accomplished by large-scale migrations and redistribution of population within northern Foxe Basin.

Igloolik Eskimo population groupings were traditionally flexible. Size, location, and membership of settlements fluctuated in response both to conditions in the biophysical environment and to social factors. Lee describes a general concept of settlement pattern for hunter-gatherers as

> "a dynamic model in which interlocking aggregations of persons undergo continual reshuffling in response to short and long term environmental fluctuations, and to changes in population density." (Lee 1972, 22)

The settlement pattern of the Igloolik Eskimos appears to correspond to this model to some extent, although it may be questioned whether fluctuations in settlement pattern amount to a "continual reshuffling."

Damas defines the Igloolik Eskimos of northern Foxe Basin as a band using the criterion of its being "identified by name with the general territory that is exploited, [which] does not necessarily imply defence of a territory. The band generally seems to be composed of smaller segments that operate within the general area designated by the band name. Although there was much fluidity of personnel among the bands within. . . major regions" winter aggregations had a "core of members [that] remained from year to year. The larger entity, however, showed a much greater stability over a longer period"

(Damas 1969a, 123, 126). Thus the majority of the Igloolik Eskimos did remain within the area of northern Foxe Basin, despite considerable interaction between Igloolik, Pond Inlet, Arctic Bay, and Southampton Island groups.

During the yearly cycle in the aboriginal period the size and structure of groups within northern Foxe Basin did not fluctuate at random in response to environmental factors. Population movement and settlement pattern also operated within a social framework which strongly influenced the precise form population dispersal took in specific ecological circumstances. The exact mechanisms involved in group formation and structure are discussed in the following analysis (Chapters III to VI).

In the study of a flexible settlement pattern such as that of the Igloolik Eskimos it is not sufficient to observe the pattern in one or two years, as it is necessary to take account of any long-term changes that may occur in larger cycles. As Lee states, "intergroup economic relations take years and generations to unfold" (Lee 1972, 20). Because of this, isolated censuses or reports are particularly vulnerable to bias, and it is important to study the patterns of settlement through time. Only then can migrations marking the transition to a new pattern of settlement be distinguished from settlement relocations forming part of an established pattern.

Components of the Igloolik Settlement Pattern

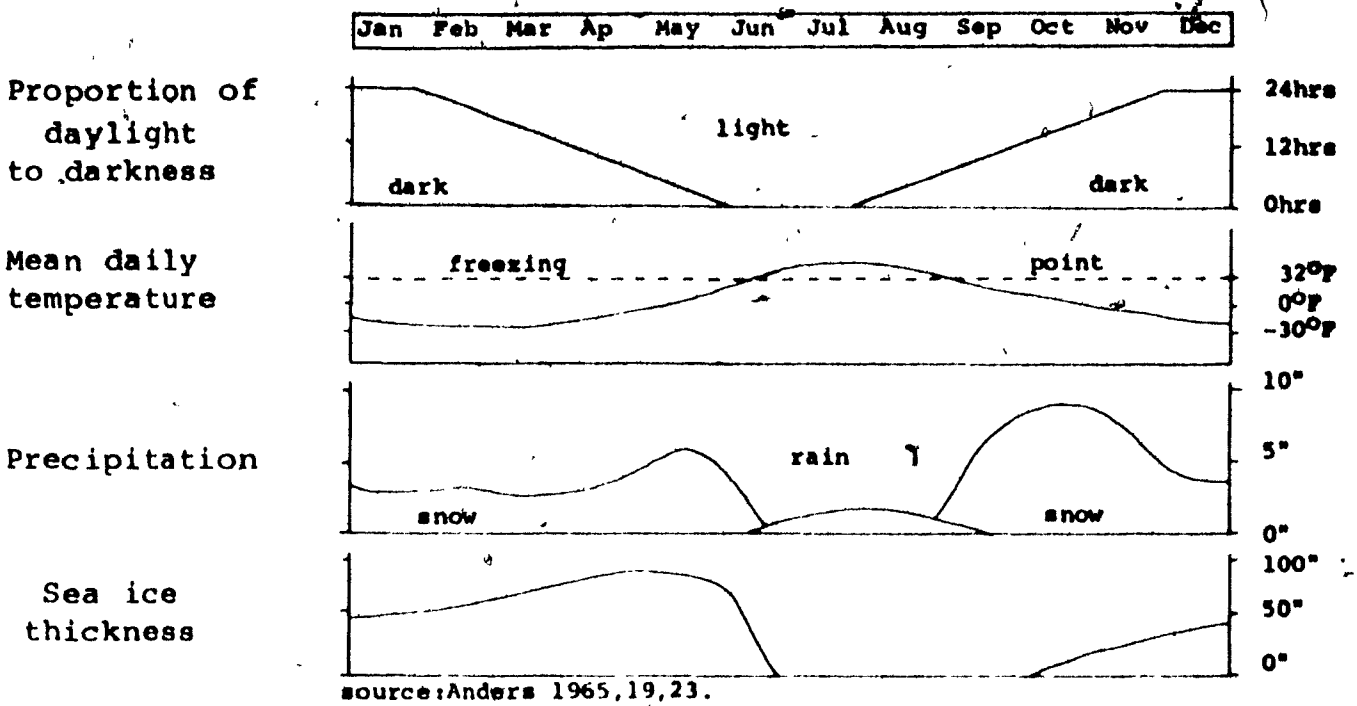
ENVIRONMENTAL COMPONENT

The biophysical environment is the primary sphere in which all human activity takes place, and the evolution of the Igloolik settlement pattern is a reflection of the process of adaptation to the ecological system of northern Foxe Basin. The outstanding features of this system are the harshness of the physical environment, and the narrow range of resources available to the human population. The resources that exist are subject to marked seasonal, and other more erratic fluctuations in quantity and distribution. The availability and value of resources to the human population are further defined by technological, economic and social elements of the cultural environment.

Figure 1 is a calendar of conditions in the ecological environment. The aspects of the physical environment most important to the human population are hours of daylight, ice conditions, temperature, precipitation, and wind speed. The table includes the chief biological resources used by the Igloolik Eskimos, and their relationship to the physical environment. However, the presence of an animal in the area throughout the year does not imply that it is always available as a resource. The behaviour of animals may determine their availability, for example in winter ringed seals use breathing holes in the ice where they may be harpooned, but in summer they are dispersed in open water, and are consequently harder to harvest. The condition of

FIGURE 1
CALENDAR OF CONDITIONS IN THE PHYSICAL AND BIOLOGICAL ENVIRONMENTS

A. Physical Environment



source: Anders 1965, 19, 23.

B. Biological Environment

	Jan	Feb	Mar	Ap	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Caribou							autumn coat, herds					
Ringed seal	use breathing holes				bask on ice		mass for migration disperse in open water			follow ice expansion		
Bearded seal	individuals in pack ice						move nearer shore			follow ice expansion		
Walrus	herds in pack ice						move nearer shore			follow ice expansion		
White whale and narwhal							on migration					
Fox	winter pelt											
Fish	present beneath ice						spawn in rivers					
Migratory birds							———					
Bird eggs							———					

source: Beaubier 1970

Key
——— : indicates presence in the region

animals is a further factor. Caribou are more useful when their coats are suitable for clothing in late summer than at other times of the year. Similarly fox skins are only white in winter. The most important of these physical factors are summarized in the table.

In the pre-contact period the basic requirements of food and fuel, together with the material used for shelter and equipment were obtained by intensive exploitation of the available resources. The abundant walrus of northern Foxe Basin was a mainstay of the Eskimo economy at the time of contact. Ringed seal, and bearded seal are also common, and played an important part in the economy in winter and spring when they could be hunted on the ice. White whale and narwhal were also hunted, but it is doubtful whether the bowhead whale ever played an important role in the modern Igloolik Eskimo economy.

Sea mammals provided the bulk of human and dog food, and blubber for lamps. Ringed seal skin was used for clothing, and bearded seal for boots, rope, thong, and a variety of other products.

Caribou herds on Melville Peninsula and Baffin Island provided meat, clothing, bedding, tent material, and sewing thread. Bone, antler, and walrus and narwhal ivory were all utilized in the absence of wood or metal. Fish, birds, and a small amount of vegetation such as berries, or certain roots and leaves in summer, were all used to supplement the main diet of sea mammal meat.

These resources were sufficient to support a human population in northern Foxe Basin, and had done so since the time of the Pre-Dorset people who lived here from about 2,000 B.C. (Meldgaard 1962).

SOCIAL-ECONOMIC COMPONENT

The relationship with the ecological system is modified by the social component of settlement which enables the human population to adapt to an environment of limited and fluctuating resources. Four basic adaptations have been made.

i) The primary requirement for survival in this environment is a specialized technology, together with adequate ecological knowledge and an associated set of subsistence activities designed for the intensive exploitation of the existing resources.

ii) The population is concentrated in relatively small aggregates occupying distinct resource zones.

iii) There is a relatively high degree of mobility and flexibility. The overall settlement pattern of the region varies within a range from a small number of concentrated population aggregates, to numerous small dispersed groups.

iv) A high degree of interdependence of individuals and families results in a system of food sharing and co-operation enabling any members of the society to receive aid from others when needed (Heinrich 1955).

Settlement pattern is central to all these adaptational processes, and the forms it takes reflect the relationship between the human and biophysical environments. The population, at a given level of technological and ecological knowledge, responds to its energy needs in accordance with variations in the environment by the following changes:

i) The type of subsistence activity.

ii) The intensity of activity.

iii) The location of groups and individuals.

iv) The density of the population exploiting the resources.

The variables of settlement pattern are function, location, season, duration, size, and composition of individual settlements. Responses to changes in the environment are made by changes to any or all of these variables (Figure 2). The settlement pattern is therefore changed both by the formation of new settlements and by the rearrangement of population within existing settlements, entailing alterations to the size, composition, and location of settlements. An important distinction is made between settlement site and settlement composition. In northern Foxe Basin three variations in settlement site and composition

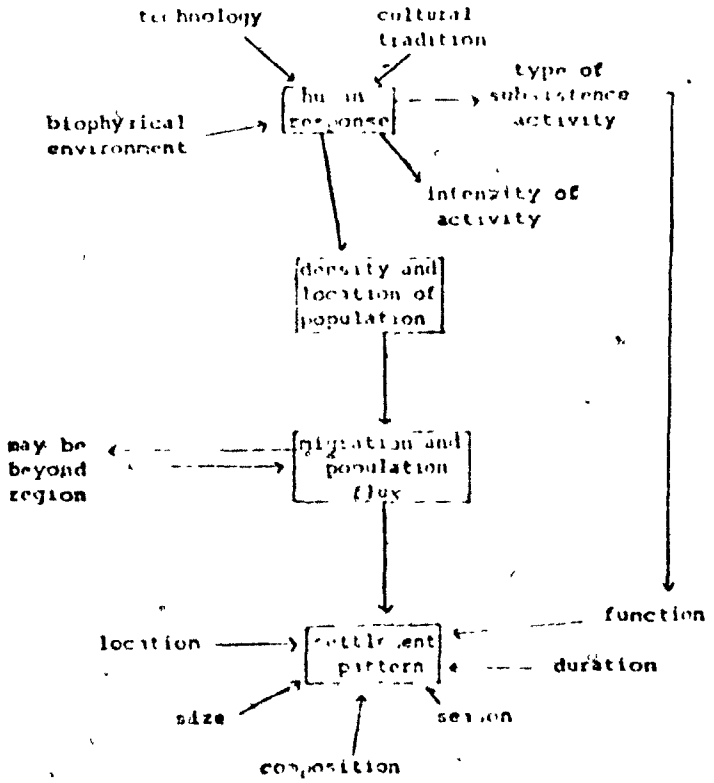


FIGURE 2
COMPONENTS OF SETTLEMENT PATTERN.

may be postulated:

i) Village site stable, membership fluctuates.

ii) Members move together from one site to another.

iii) Population movement may bring members of several settlements together in one site, or may result in the dispersal of members of one settlement over several sites.

The processes by which settlement pattern changes in order to adapt to the environment are therefore:

i) Movement of settlements.

ii) Population flux between settlements, which may or may not entail changes in the size of settlements.

iii) Population flux beyond the territory.

There may be a large range of possible choices of individual location as defined by ecological considerations. However, the actual range open to an individual may be considerably smaller. This is because the composition of settlements is not dependent solely on the resources available locally, at any one time, or on subsistence activities currently in progress, but is also affected by social factors influencing individual location. For example, in northern Foxe Basin groups may congregate in one large village during periods of low hunting activity in winter because of a wish to be together for social and ceremonial activities as much as for economic purposes (Damas 1969, 122). Alternatively a group may disperse in order to avoid conflict between members, even though there are no over-riding ecological reasons for dispersal. Individual choice of location within a particular settlement pattern is largely affected by such factors as kinship ties and personal preference, as shown in Damas' study of the Igloolik Eskimos in 1961 (Damas 1963).

TECHNOLOGICAL COMPONENT

A third component of settlement, identified in the introduction to this chapter, is technology. The introduction of Western technology has been one of the major influences on the distribution of the Igloolik population in this century. Two items in particular have had extensive effects not only on subsistence activities, but on the whole process of settlement and migration. These are guns and whaleboats. Because of the importance of their impact on settlement the consequences of their adoption are summarized here (Figure 3).

The earlier adoption of guns in other parts of the caribou range, in southern Melville Peninsula and northern Baffin Island, had contributed to the decline of the herds frequenting the Igloolik area. When guns became available to the Igloolik Eskimos this decline was accelerated. Guns made it possible to hunt seals in the open water, and this, in turn, facilitated settlement in areas previously uninhabited because of the lack of walrus (Damas 1963). Guns increased the amount of food available, but their use implied dependence on trading for the supply of ammunition, which in turn increased the importance of trapping in the economy.

The use of whaleboats introduced new patterns of mobility. Travel to resource areas was able to radiate further from the settlements, and there was consequently less need for the dispersal of settlements. It became possible to hunt from a central village and to return there after the hunt together with the meat. It was no longer necessary to move the settlement to the resource to such an extent. Improved mobility

itself increased the chances of a successful hunt as a greater area could be covered in the search for game.

Whaleboats gave access to walrus in open water and they now made large scale summer hunting of walrus feasible for the first time. More meat could be retrieved from hunts among ice pans, or at

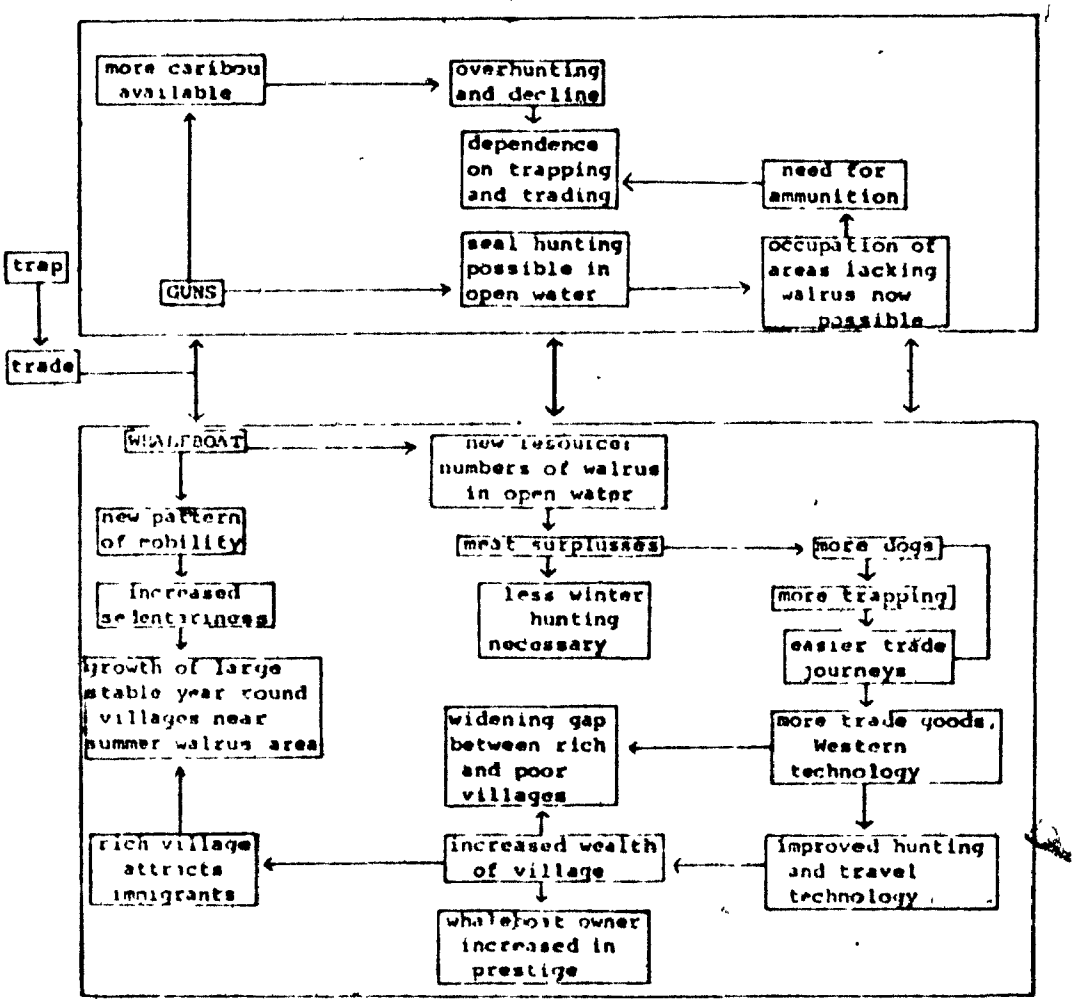


FIGURE 3
THE INTERRELATIONSHIP OF GUNS AND WHALEBOATS WITH SETTLEMENT

the floe edge, therefore more walrus could be killed without increased wastage. The summer hunt now provided a considerable surplus of meat that could be stored for winter use. There was consequently less need to hunt in winter, and stable winter villages formed which depended on cached meat. These did not need to be at the ice edge as seal hunting was no longer so important in winter, and large, year-round villages developed near summer walrus hunting places. More dogs could be kept because of improved food supplies. More trapping was possible with the increased free time in winter, and because more individuals now owned dog teams.

Because of the increase in trapping more trade goods were available, in particular items of Western technology. This improved hunting and travel technology further by the addition of traded wooden sleds, more guns, and more boats. As a result of these improvements more resources became available per unit of effort of those using such equipment. The village with a whaleboat became rich, and a widening gap was created between rich villages and those without whaleboats. The rich village attracted immigrants and peripherally attached members. The whaleboat owner grew in prestige, and a new authority structure developed as individual hunters became dependent on their place in the whaleboat crew.

Many other items of Western technology were adopted as they became available through trading, and most of these affected settlement to some extent. For example the use of primus stoves made it unnecessary for women to accompany hunters on extended hunts. This,

together with improved transport technology giving the men greater mobility, made a more sedentary life possible for families as the women and children stayed in one place for longer periods (Crowe 1969, 71). The adoption of canvas tents made summer housing roomier, brighter, and more portable. Other examples are dealt with as they occur in the text.

In general improvements to hunting and transport technology resulted in the availability of a far greater potential food supply per unit of effort (Beaubier 1970). This had a marked effect on a settlement pattern adapted to the limited exploitation of scattered resources in that technological improvements made available to hunters both a larger area on individual hunts, and a greater proportion of the resources in that area. This had the overall result of lessening the need for dispersal of settlement.

The Structure of Settlement

This section is a discussion of the structure of population and settlement within the framework of the ecological, social and technological components described above. There is a spatial division of population groups into recognisable territories or settlement areas within northern Foxe Basin. This is true of the earliest historic period, and persisted at least until the recent centralization movement, despite a degree of mobility and inter-dependence of individuals.

SETTLEMENT AREAS

Certain core settlement areas may be readily defined, together with other smaller or less regularly occupied, minor settlement areas. The following definitions have been formulated:

Settlement Area

A settlement area is recognised by its having a distinct, self-contained settlement pattern involving a series of seasonal or occasional sites, normally associated with one large winter village.

Core Settlement Areas

These are considered to be areas continuously inhabited by a relatively large group over a long period of time. The distribution of population within the area may change, but at the centre there is a stable core population group.

Minor Settlement Areas

These include areas occasionally or sporadically inhabited or those inhabited more permanently by a very small group. These settlements are not central to the overall settlement pattern of the region.

POPULATION GROUPS

In order to understand the processes of settlement and migration, the specific patterns in which population is distributed over northern Foxe Basin, it is necessary to analyse the composition of the population in these settlement areas.

Core Population

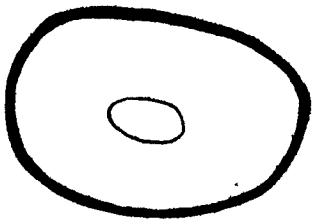
The core population is defined as a stable population group attached to a core settlement area. It may possibly consist of a single kin group, and is characterized by close co-operation within the group, and a low degree of individual mobility between settlement areas. Core population groups may on occasion occupy minor settlement areas for brief periods, later returning to their own core settlement area.

Peripheral Population

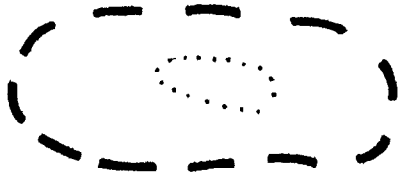
The peripheral population consists of those people who are not firmly attached to any one core settlement area or core population group. They are characterized by frequent movement of individual families between areas, and by peripheral association with several groups. This is often the result of their being members of small kin groups, or of genealogical isolation, together with a failure to attach to a core group, for example by marriage. Individuals from core groups may also behave in the pattern described for peripheral population if they should leave their own kin group, and would therefore be classified as peripheral. The population of minor settlement areas is classified as peripheral even if residentially stable.

The relationship of population groups with core and minor settlement areas is complex, and is summarized in Figure 4.

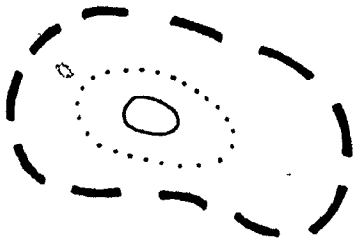
In theory any combination of these settlement area-population group arrangements may be present in the region at any one time. Core settlement areas normally contain both core and peripheral population.



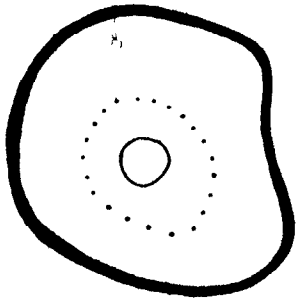
a.Core settlement area, core population only.



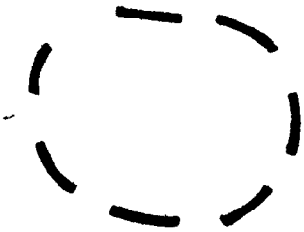
c.Minor settlement area, peripheral population only.



d.Minor settlement area, core and peripheral population.



b.Core settlement area, core and peripheral population.



e.Minor settlement area, currently unoccupied.

Key

- Core settlement area
- Minor settlement area
- Core population group
- Peripheral population group

FIGURE 4
TYPOLOGY OF SETTLEMENT AREA AND POPULATION GROUPINGS

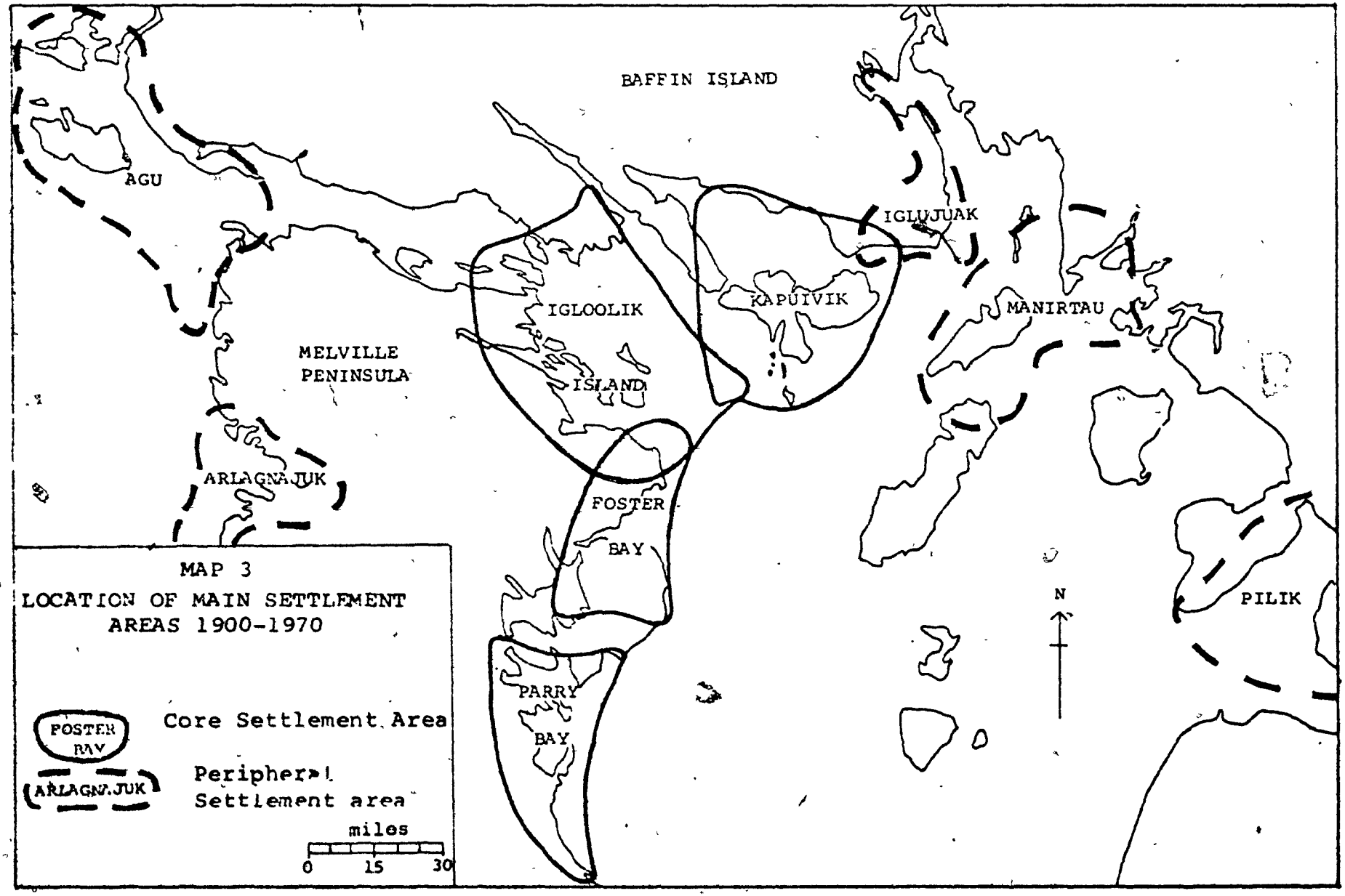
The peripheral population may account for over half the total population of a core settlement area, or may be completely absent, although this is the exception. All three arrangements may be found in the Igloolik region, and are described in Chapters III to V.

Settlement areas are themselves liable to change. Core settlement areas may be abandoned to become occasional settlement areas, and minor settlement areas may themselves be abandoned. Conversely minor settlement areas may become permanently inhabited by a large group, thereby becoming core areas, and new settlement areas may develop. Core settlement areas are normally rich in resources and large in extent, but this may also be true of minor settlement areas. Not every suitable settlement area is necessarily inhabited by a large core group at any given time. Map 3 shows the location of the more important settlement areas in the period 1900-1970. Not all these areas were occupied concurrently. The most intensive and consistent settlement has been in the arc from Jens Munk Island to Parry Bay, which comprises four of this century's major settlement areas. Only the more important of the minor settlement areas are shown as the entire area has been hunted at different times in this century, and small scale or transitory settlement has been widespread in the period.

The Evolution of Settlement

LITERATURE ON IGLOOLIK SETTLEMENT

Although the neighbouring areas of Pond Inlet and Repulse


BAFFIN ISLAND
AGU
IGLUJUAK
IGLOOLIK
KAPUIVIK
MANIRTAU
MELVILLE
PENINSULA
ISLAND
ARLAGNAJUK
FOSTER
BAY
PARRY
BAY
PILIK
N
MAP 3
LOCATION OF MAIN SETTLEMENT
AREAS 1900-1970
FOSTER BAY
ARLAGNAJUK
Core Settlement Area
Peripheral
Settlement area
miles
0 15 30

Bay had been frequented by American and European whaling fleets for some years, no southern explorers entered northern Foxe Basin until 1822. Since this first expedition of Westerners into the area there have been several visits by explorers, but they produced few reliable records of population size or distribution, and much of the reconstruction of former settlement patterns in this thesis relies on the oral tradition of the Igloolik Eskimos themselves, checked against the more reliable of the written records. As stated earlier, even reliable censuses represent only one aspect of the long-term processes of settlement pattern evolution.

In 1822 Captains Parry and Lyon in the ships Fury and Hecla visited northern Foxe Basin in search of the Northwest Passage. They wintered at Igloolik Island in 1822-1823, and reported on the numbers of Eskimos encountered in the area. The total population of northern Foxe Basin at this time was under 200. Their reports (Parry 1824, Lyon 1824) are the earliest available accounts of settlement pattern, but were probably biased by the presence of the ships themselves, as a large proportion of the Igloolik Eskimos wintered by the ships, attracted both by the novelty, and by gifts and trade.

Hall crossed the area by sled in 1867. The impression he gained of the settlement pattern, though incomplete, was not biased by his own presence, as had been the case with Parry and Lyon. His findings (Nourse 1879) largely corroborated the data given by them. On the basis of Hall's notes Crowe estimates the population of northern Foxe Basin to have been approximately 126 in 1867 (Crowe 1969, 33).

Low, in 1903, did not visit northern Foxe Basin itself, and appears to have gathered an incomplete picture of the Igloolik Eskimos from whalers, as only one settlement is mentioned, in contrast to the two or three found by earlier visitors. The population also seems disproportionately small, 60 at Igloolik Island (Low 1906, 134) compared with both earlier and later estimates.

Whaling fleets had visited areas neighbouring northern Foxe Basin for many years, coming into direct contact with other Melville-Borden Eskimos at Pond Inlet and Repulse Bay. There is no reliable reference to them reaching northern Foxe Basin. However, the Igloolik Eskimos did travel to these neighbouring areas to trade with or work for whalers (Tremblay 1921, Crowe 1969), and later to visit the trading posts set up there, and this began to affect their patterns of seasonal activity and settlement.

In 1922 the Danish Fifth Thule Expedition entered northern Foxe Basin from Repulse Bay. They remained in the area until 1923, living with the Eskimos, and produced detailed accounts of the settlement pattern and seasonal activities for these two years (Mathiassen 1927, 1928, Rasmussen 1929). Mathiassen recorded 143 people in northern Foxe Basin in the winter of 1921-1922. His census is represented in Figure 10 and Map 4. This is the earliest dependable source of data on settlement pattern, and has been an important cross check on the reliability of oral history collected in the field.

R.C.M.P. patrols visited the area in 1927 and 1929 and reported on the location of settlements. Kerr, on an R.C.M.P. patrol

in 1930, mentions three winter settlements in the area with a total estimated population of 220-260 (Crowe 1969, 36).

A Roman Catholic Mission was established near Igloolik in 1931. The Missionaries recorded 238 people in a census made in 1945 (Crowe 1969, 36) and 283 in 1949 (Damas 1963, 28) and noted information on the location of settlements, and of individual families. A trading post opened in Igloolik in 1939, closed in 1943, and re-opened in 1947. This, together with the Mission, which moved to the present site of Igloolik in 1939, created a centre of Western activity in the area, which gradually became the focus for centralization of Eskimo settlement.

By 1961 Igloolik had a permanent Eskimo population of 20 families (R.C.M.P., 1961). Hall Beach, the site of a Distant Early Warning (DEW) line base, since the mid 1950's, was also becoming a focus of Eskimo settlement. Malaurie (1962, 7) estimated the total population of northern Foxe Basin to be 491 in 1959-1960.

In his study of Igloolik kinship and local groupings, Damas (1963) records in detail the settlement pattern, population size and distribution, and seasonal activities as he found them in 1961. At this time both Igloolik and Hall Beach were growing settlement centres, but the majority of families still lived in other, dispersed villages. Damas' report has been a valuable source of background material for this study, containing information on the history of settlement since 1922, and on the controls of kinship on individual location within the overall settlement pattern. In common with all other writers on the area,

however, Damas was concerned with the settlement pattern in specific periods for which documentation exists (1922, 1949 and 1961), not with its evolution. The reconstruction of settlement pattern depends largely on written censuses that give a static view of population in a particular year and season which does not of itself explain the basic changes occurring to overall patterns of settlement. This is particularly true of the Mission censuses during the crucial period of dispersal in the nineteen forties. Damas' study was made before the large-scale centralization movement started.

Since 1961 there have been annual censuses produced by the R.C.M.P. (Disc Lists). Several of these include the locations of individual families at the time the list was compiled, but in general they are simply lists of families arranged by disc number. R.C.M.P. birth and death records provided additional documentary data on the location of families. These records extend as far back as 1945, although they are incomplete before the nineteen sixties. They frequently provide information on the location of families in a specific season and year which supplied a background to and a cross check on oral history.

In 1964 Anders (1965) conducted an area economic survey of northern Foxe Basin for the Federal Government. This contains descriptions of demography and economy of each settlement as he found it. Igloolik and Hall Beach contained approximately half the population of northern Foxe Basin at this time (394 of a total of 642 people) (Anders 1964, 58).

Crowe's Cultural Geography of Northern Foxe Basin (1969)

includes a summary of settlement history based on very thorough documentary research. However, these written sources fail to show several of the most important changes in settlement pattern and their causes. Crowe describes the economy and settlement pattern of the 1960's.

CHRONOLOGY OF CHANGE

Following contact a new set of forces was introduced which linked the Igloolik Eskimos with the larger Western society. These initiated changes in the technology, resource base, religion, ideology, and health of the Igloolik Eskimos. Events following contact not only affected the population directly by altering the relationship between it and the environment, they changed the natural environment itself.

The response to these changes was consistent with adaptation to the natural environment in pre-contact times, and was reflected by changes in the settlement pattern. Technology, the basic adaptation to the environment, was itself improved. Resources could be exploited more efficiently, a large population could be maintained, and new patterns of dispersal and mobility became possible. New resources were exploited, notably white fox, and subsistence activities and mobility were modified to include trapping and trading activities. Later, however, as the biological resources themselves changed in quantity, distribution and availability in response to factors resulting from contact, it became not merely possible but necessary to adopt new patterns of settlement and mobility in order to maintain a viable relationship with the environment. At this point, when new modes of behaviour related to the forces of contact became necessary for survival

the Igloolik Eskimos lost their self-sufficiency and independence and became increasingly dependent on Western society.

The specific effects of contact on patterns of settlement and mobility are analysed in Chapters III to VI. A brief summary of the history of contact will provide a framework for this analysis. Figure 5 shows the course of changes in the historic period. Five main periods are identified, each of which is represented by a different type and intensity of contact with Western society, accompanied by a distinct phase in settlement pattern, and activities associated with maintaining this pattern.

i) Pre-contact Period

The first division is the pre-contact period described in Chapter III. This is defined as the period immediately prior to the earliest direct contact with the West in the nineteenth century. By this time neighbouring Eskimo groups were intermittantly in direct contact with whalers, as were individual Igloolik Eskimos visiting these areas. There was some influx of Western goods, such as metal objects, mostly obtained indirectly from the whalers by trade with neighbouring Eskimo groups.

ii) First Explorers

The second period is marked by the first discovery of northern Foxe Basin by explorers, beginning with Parry in 1822. At the same time permanent centres of Western activity were developing in the neighbouring areas of Pond Inlet, Repulse Bay, and Arctic Bay. Whaling ships had visited the north and east coasts of Baffin Island, and Hudson

FIGURE 5
CHRONOLOGY OF CHANGES FOLLOWING CONTACT: N.FOXE BASIN

Period	Agents of change	Areas Affected and Results of Change	Settlement Pattern	Date
1 Pre-Contact			Pre-contact pattern	
2 First contact	Whalers on periphery, explorers, Christianity, first guns, indirect contact with West.	Trade, disease, religion, technology.	Occasional camps near explorers. Individuals visit neighboring regions.	1822, 1867 etc.
3 Growth of centres in neighboring regions Trap/ trading.	Distant trade posts, guns whaleboats. Anglican and RC conversions. RC Mission near Igloolik.	Trapping, trade journeys. Increased hunting yields. Population growth. Disease. Increased Christianity.	Development of large stable, year-round villages. Greater mobility. Trade trips.	1903, 1920 etc.
4 Growth of centres in N.Foxe Basin	RC Mission and trading post in Igloolik. Government welfare	Shorter, more frequent trading trips. Greater use of W. technology. Changes to natural environment.	Decline of large winter villages, greater dispersal of population. New settlements established. Growth of Igloolik.	(1939) 1945 1947
	DEW Line at Hall Beach Growth of W. agencies in Igloolik and Hall Beach. Health service, wage labour, RCMP, school.	Increased travel to centres, dependence on store Amenities increase pull of village High incidence of S. introduced disease.	Continued growth of satellite villages near centres. Growth of centres.	1954 to 1963
5 Settlement centralization	Provision of serviced government housing.	Centralization accelerated. Increased wage labour, and less emphasis on hunting.	Movement from outlying villages to centres. Some camps remain due to members' choice, but Igloolik and Hall Beach dominate.	1964 to 1969
	Continued increase in contact with South, technology & ideology. Economic dependence on larger Canadian society.	Death rate dropped, large increase in numbers of young. New pattern of hunting from villages unsatisfactory. More travel to south for education, visits, etc.	Igloolik and Hall Beach only permanent settlements.	1969 to 1970

Bay sporadically since the 17th century. By the 19th century both American and European whalers were in the Eastern Arctic regularly in summer (Low 1906), and they employed and traded with the Eskimos of northern Baffin Island and Repulse Bay when they visited these areas. They introduced guns and employed Eskimo hunters to supply them with food, especially caribou meat, which probably contributed to the decline of the northern Baffin Island and Melville Peninsula caribou herds in this century. They also introduced whaleboats to the areas adjacent to northern Foxe Basin.

iii) Trapping-Trading

Commercial whaling declined after the turn of the century, but the presence of whalers was replaced by that of traders. A private trading post opened at Albert Harbour near Pond Inlet in 1903, followed by several others in this general area, most of which were short-lived. Most important of these posts was that established by the Hudsons Bay Company at Pond Inlet in 1921. A Hudsons Bay Co. post opened at Repulse Bay in 1920, and one was temporarily in operation in Arctic Bay in 1926 and 1927, and again from 1936 to the present (Usher 1971). The traders were primarily interested in fox furs. They encouraged fox trapping both by local people, and by Igloolik Eskimos in their own area. The pattern of activities in northern Foxe Basin was modified to include winter fox trapping, and extended spring trade journeys of approximately 300 miles each way. The Igloolik Eskimos began to look outwards, away from their own area, for regular trade in these neighbouring centres.

This affected the internal patterns of subsistence activities and both trapping and trading brought changes to the settlement pattern. Trapping was a winter activity that did not require the co-operation of groups of individuals, but this of itself did not result in the dispersal of the traditional large winter settlements, as co-operation was still necessary in other spheres. Trading meant that several men, and usually their whole families would be absent from settlements for a period of some weeks in spring. Hunting time lost through trapping or trading was compensated for by improvements in technology making possible increased hunting yields per unit of effort.

Guns and ammunition became available to the Igloolik Eskimos. This particularly affected caribou hunting. By the nineteen thirties a few Igloolik Eskimo families owned whaleboats bought at distant trading posts. Others made wooden framed skin boats with newly available wood. The improvements to hunting due to whaleboats made this a very favourable period, and in the view of Damas

> [the Igloolik Eskimos] in the 1930's and 1940's ... were probably going through the stage of their greatest economic well-being from the standpoint of meat production ... the whaleboat had greatly improved the success in the hunt, [and] this improved exploitative situation enabled them all to subsist well in the region. (Damas 1963, 26)

Anglican and Roman Catholic Missionaries followed the whalers to the east coast of Baffin Island and to Repulse Bay. Some Eskimos in regions surrounding northern Foxe Basin became converted to Christianity. Missionaries were authorized and equipped by the Dominion Government to teach and supply medical aid where possible in the absence

of any government schools or nursing stations (Bethune 1934, 55). Together with the trading posts, Missions, where they were established, therefore created a stable focal point for the Eskimo population. They also became the focus for future Western activity. Christianity was introduced to northern Foxe Basin from Pond Inlet in the early 1920's by Pond Inlet and Igloolik Eskimos who had been converted there. The Pond Inlet converts were Anglicans and had relatives in the Parry Bay area, and several people from the village of Avajuk were converted to Catholicism when visiting Pond Inlet. In this period disease introduced from the south was widespread among the Igloolik Eskimos, in particular tuberculosis and venereal disease, and occasional outbreaks of virus epidemics such as influenza.

iv) Growth of Centres in Northern Foxe Basin

The first Western agency to operate within northern Foxe Basin itself was a Roman Catholic Mission. A Mission was built in 1931 near Igloolik at Avajuk (Map 2) which was at that time a large seasonal settlement. In 1937 the Mission was transferred to the present site of Igloolik in Turton Bay, which is a little more accessible to supply ships, and is situated in the centre of the area then inhabited by the Igloolik Island population. The Mission had little immediate impact on settlement pattern, but its location was significant in that future Western activity centred on the same site despite the fact that the deep bay holds broken ice into the late summer impeding both sled and boat travel, and giving only a very brief open water period for supply ships from the south.

Only one or two local families moved to Igloolik when the Mission was built there, and the remainder, although many became Catholics, retained their previous seasonal settlement pattern. People in other parts of northern Foxe Basin were not greatly affected by the Mission, and those who were converted to Christianity became Anglicans. The introduction of two sects of Christianity, Anglican and Catholic, had a further significance on settlement pattern, however, in that it was to divide the population into two segments that largely lived separately and did not intermarry. The extent to which such a division of population existed independent of the introduction of Christianity will emerge from the analysis in Chapters III to V.

This fourth period is marked by the growth of centres in northern Foxe Basin with a resulting centralization of trading and other economic and social activities. The Hudsons Bay Company recognized the potential of northern Foxe Basin as a source of fox furs, and opened a store in Igloolik in 1939. This store received no supplies for several years because of ice conditions, and it closed in 1943. The store re-opened in 1947 and has remained open since then. For the first time the focus of trading activity was in the centre of the Igloolik region. Annual trade journeys to distant posts were no longer necessary, and were replaced by several shorter trips to Igloolik each year.

Contact with the neighbouring groups at Pond Inlet, Arctic Bay, and Repulse Bay continued, but on a smaller scale. There was some migration inwards to northern Foxe Basin as local game, in particular caribou and walrus, declined in neighbouring regions as a result of

overexploitation. Northern Foxe Basin was, by comparison, rich in resources. A marked influx of population began in the 1930's and continued into the next decade.

The value of furs had dropped from its previous high level by the time the store opened in Igloolik (Figure 9), but the introduction of a government welfare system in 1945 (Crowe 1969, 74) supplied an additional source of income for the Igloolik Eskimos. Increased amounts of Western material goods became available. Of particular importance was the introduction of motorized canoes. These gave individual hunters independence and mobility that had been impossible with whaleboats, but it increased dependence on the store for gasoline. The more general ownership of boats made the establishment of new small settlements possible as hunters could be independent of the few villages possessing whaleboats.

One unforeseen result of improved technology was a decline in the caribou population, decline and withdrawal of walrus from its former range near settlements, and increased wariness of hunted seals. This intensified dependence on the store for guns, ammunition, boats and fuel, and created a new demand for imported food, clothing, and other goods formerly supplied by hunting. There was some movement of settlement to Igloolik itself, especially of the old and disabled.

Hall Beach later became a second centre in northern Foxe Basin. The establishment of a store and a mission had marked Igloolik's growth as a village. Both were introduced with the aim of drawing local people into their sphere of influence. In contrast to this Hall Beach

was developed as a military defence installation, and its subsequent growth as a population centre was incidental to this original function. In the mid 1950's the missile tracking stations of the Distant Early Warning Line (D.E.W. Line) were built and Hall Beach, an uninhabited site fifty miles south of Igloolik, was selected as the main station for the Foxe Basin sector. A series of smaller radar stations, subsiduary to the Fox Main site at Hall Beach, ran across northern Foxe Basin and Melville Peninsula. The determining factor in the location of the D.E.W. Line was the suitable latitude, not the fact that it dissected the territory of the Igloolik Eskimos. An effort was made to disrupt the local people as little as possible. The men who built and manned the sites in the 1950's were brought in from elsewhere, and they included some Eskimos from the Western Canadian Arctic, together with some from Repulse bay, but none from Igloolik (Ross 1960, 162).

However, the D.E.W. Line did affect the local people in several ways. The nursing station attached to the Fox Main site became a focus of attention for the Igloolik Eskimos because of the high incidence of ill health, most significantly tuberculosis, and some serious outbreaks of measles and influenza introduced from the south (R.C.M.P. records, Igloolik). The site dump provided large amounts of salvage that was used by the Eskimos. This included scrap lumber for housing, boat frames or tools; metal; and food both for dogs (Ross 1960), and possibly for humans (Anders 1965, 97). Some people were attracted by the market for Eskimo souvenirs at the base.

In this period the availability of wage labour and the use of money as a means of exchange were increased, although the D.E.W. Line provided little employment for local people. More occasional stevedoring jobs became available as Western activity grew. An Eskimo Co-Operative society was started in Igloolik in 1963, and Co-Op. stores were opened in Igloolik and Hall Beach in 1965 (Usher 1971, 176). A Hudson's Bay Company store was built in Hall Beach in 1967.

Western education on a scale far larger than that formerly provided by the Missionaries was introduced when a school was built in Igloolik in 1960. Government representatives supervised social assistance payments and general administration of the village. A nursing station was set up in Igloolik in 1963. The R.C.M.P. had patrolled the area sporadically from its post in Pond Inlet since the nineteen twenties. After 1964 Western law was represented by a small R.C.M.P. post in Igloolik itself. The two villages, Igloolik and Hall Beach, became increasingly important economic and social centres for outlying settlements.

v) Settlement Centralization

Between 1964 and 1969 the Federal Government introduced a scheme to provide houses for all who required them. This, together with the growing dependence on government aid and imported food, clothing, and technology, increased the pull of Igloolik, and to a lesser extent Hall Beach, to such a degree that the population, already dependent on these villages, migrated to the centres. This migration was accomplished in the relatively short period of four years. A few

families remained in their outlying settlements by choice despite the disadvantages of being obliged to make frequent visits to the centres to trade, and their children spending much of the year living in school hostels. By the winter of 1969 only one family lived permanently in an outlying settlement. The growth of centralized settlement was accompanied by increased contact with Westerners in the villages, and by the influence of films, magazines and radio.

The numbers of southerners living in the villages increased. In 1969 the following southern personnel lived in Igloolik, several of whom were accompanied by their families: five teachers, two Hudson's Bay Company staff, three government representatives, two R.C.M.P. officers, one or two missionaries and later a nun, and two nurses. In Hall Beach there were two Hudson's Bay Company employees, two government representatives, two nurses, two or three teachers, and one of the missionaries from Igloolik. More people visited the villages for short periods, including construction crews of five to ten men, government officials, numerous IBP investigators, mining company prospectors, and occasional tourists. A small but growing number of Igloolik Eskimos travelled south for such purposes as adult education or visits, and others occasionally found work in other arctic centres.

The growing population in northern Foxe Basin has compounded the dependence on Western society. An important factor in this growth has been the recent marked drop in infant mortality rates following centralization of population and improved medical facilities.

The ratio of adults to children in the area was 1:2.09 in 1969, compared with figures of 1:0.54 in 1922, and 1:1.22 in 1949 (Damas 1963, 28). The relationships between changing infant mortality rates and settlement centralization are demonstrated in Figure 6.

FIGURE 6

RELATIONSHIP BETWEEN INFANT MORTALITY AND SETTLEMENT CENTRALIZATION 1959-1968

year	proportion of population in centres	number of deaths by residence of parents				
		outlying village	centre	D.E.W. Line station	not known	total
1959	18%	1	1	1.	0	3
1960	20%	8	1	0	0	9
1961	24%	4	1	0	0	5
1962	26%	9	1	0	0	10
1963	30%	4	1	1	0	6
1964	50%	2	2	1	0	5
1965	58%	4	6	0	0	10
1966	75%	1	3	0	0	4
1967	90%	2	1	0	1	4
1968	92%	1	1	0	0	2
total		37	18	3	1	58

source: Bradley, Beaubier and Vestey 1970, 27, and Figures 38-52.

Following centralization in the decade of the 1960's there has been a decline in the efficiency of hunting because of the time and expense involved in travelling to hunting areas from the villages. Contributing to this is the high cash outlay necessary for hunting, to buy equipment, fuel and ammunition, the overexploitation of the hunting areas adjacent to the villages (Bradley 1970), and the increasing number of dependents per hunter. Even where boys are eager to hunt

they are prevented by the time spent in school and the expenses involved. These factors have increased the economic dependence on the south and dependence on government subsidies or wage income, and have contributed further to the loss of self-sufficiency.

CHAPTER III

PATTERNS OF SETTLEMENT IN THE IGLOOLIK REGION 1900-1945

The Structure of Settlement at the Time of Contact

At the time of first contact with Western society the settlement pattern of the Igloolik region was based on two core settlement areas, Igloolik Island and Foster Bay, together with two minor settlement areas (Lyon 1824, Parry 1824, Nourse 1879). (Map 2)

Igloolik and Pingerkalik were the winter villages of the two core settlement areas, and were surrounded by a number of auxiliary habitation sites. There is little information in the literature on the composition of settlements, or the interaction between the main population aggregates before 1922. However, the written sources and evidence collected from informants in 1968 and 1969 suggest that in this period Igloolik and Pingerkalik were normally established as separate winter villages by the Igloolik Island and Foster Bay populations respectively. There was certainly a large degree of co-operation and fluidity of population between the two groups. Another, smaller group was centred on Parry Bay, with a winter site on Amitioke Peninsula, and there is some evidence of a further group temporarily living at Pilik (Boas 1888, 444).

The annual cycle in the two core settlement areas at the end of the 19th century and beginning of the 20th centry has been reconstructed from the accounts of Parry (1824) and Lyon (1824), and Mathiassen (1928). The overall population of northern Foxe Basin was

155 in 1822 (Parry 1824, 492), and 146 in 1921-1922 (Mathiassen 1928, 15). The majority of these people lived in the two core settlement areas. They followed the seasonal activities summarized in Figure 7.

The villages of Igloolik and Pingerkalik are characterized by year round occupation. In winter they were normally inhabited by the whole population of their areas, but by summer the majority had dispersed leaving perhaps only one or two families. Igloolik and Pingerkalik were the sites of stone houses (qarmats) which were occupied in the early part of winter, but snow houses and tents were also used at the same sites at different times of the year (Lyon 1824, 257, Mathiassen 1928, 137).

SEASONAL CYCLE AT THE TIME OF CONTACT

December to February is the time when the sea ice reaches its greatest extent (Grainger 1959). The sun is low, and cold temperatures and lack of sufficient light combine to discourage all but the most necessary hunting (Figure 7). Where it had been possible to accumulate surplus food from the late summer and autumn hunts, cached meat was used at this time of year, and it was generally a period of little activity. Hunting for seal at breathing holes in the ice was the main economic activity, together with some thin ice walrus hunting at feeding places near the floe edge. There was no need for dispersal of population because winter hunting required the co-operation of large groups, the location of resources was more limited, and stored food was also used. The population of Igloolik Island and Foster Bay gathered

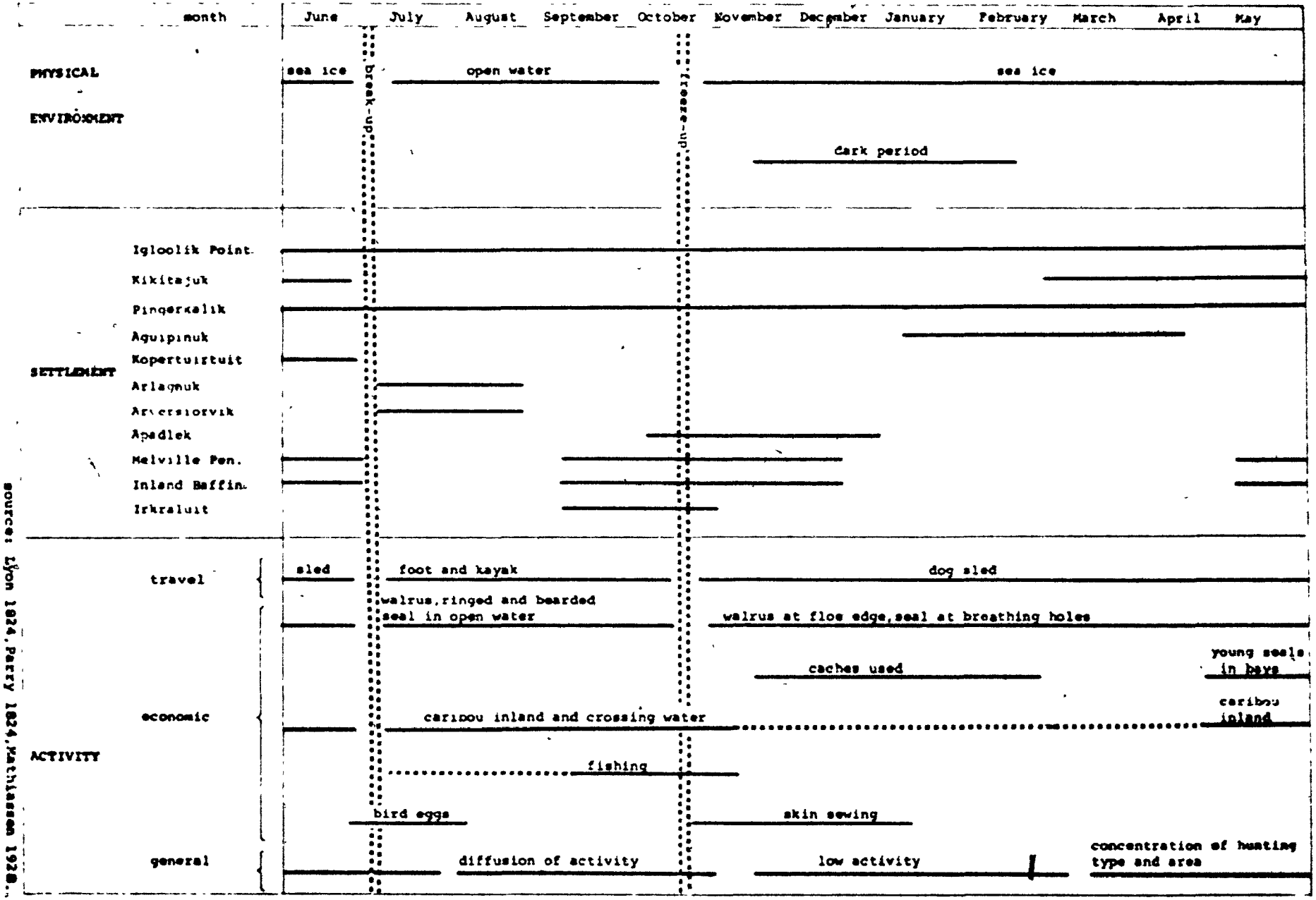


FIGURE 7: SEASONAL CYCLE AT THE TIME OF CONTACT

at Igloolik and Pingerkalik, and normally no other sites were regularly used in these areas in mid-winter.

In February and March, as daylight returned, hunting became more frequent. At this time some families moved out onto the sea ice to hunt seal and walrus, and the locational focus of hunting and settlement moved outwards following the maximum expansion of the ice, and the outward movement of marine fauna with the floe edge. A village of snow houses was normally built off Igloolik Island where suitable ice conditions were encountered. The exact location of this village, Aguipinuk, varied from year to year. A second sea ice village reported by Parry (Parry 1824) was probably built separately by the Foster Bay population.

Spring is characterized by high sun and lengthening daylight (Figure 1), and the continued existence of land-fast sea ice. In late March, April and May families moved onto the shore again from the sea ice to Kikitajuk, Igloolik or Pingerkalik as the floe edge began to recede (Figure 7). Hunting was concentrated on the shore ice and at the floe edge adjacent to Igloolik Point and Pingerkalik where there were seal and walrus. There was occasional caribou hunting in early spring, inland on Melville Peninsula behind Igloolik Island where caribou were usually found at that time of year.

By May there was some diffusion of activity and an accompanying dispersal of population with more frequent caribou hunts both on Melville Peninsula and on Baffin Island. As the ice broke up new temporary settlements were established along the coast near the floe

edge. Parry reported that Kopertuirtuit, a site on the coast of Melville Peninsula opposite Igloolik Point, was used to cache blubber as the ice receded (Parry 1824). Arlagnuk, further east along the Melville Peninsula coast, was a temporary site in July, as the ice edge is nearby at this time of year. The ice in Hooper Inlet and Foster Bay had normally broken up by July, making sled travel impossible.

Break-up marked changes in all aspects of the annual cycle (Figure 7). Kayaks were used in open water, sea ice became unsuitable for travel, and movement inland was now on foot. This is a period of 24 hour daylight, and precipitation, which is generally small (Figure 1) falls in the form of rain.

The hunting pattern, and with it the settlement pattern, responded both to changes in the physical environment and to the corresponding changes in the biological environment affecting animal behaviour and distribution. Hunting activity diversified and the population dispersed to occupy a greater area of northern Foxe Basin. For example, the area exploited by the Igloolik Island population increased from approximately 100 square miles in the vicinity of the Island in winter, to approximately 3,000 square miles in summer, including areas inland on Baffin Island and Melville Peninsula, and fishing sites such as Irkraluit at the mouth of Gifford River.

Iglooiik, Pingerkalik, Arversiorwik, and Apadlek in Hooper Inlet, were four of the main summer sites, but others were also in use. Walrus, ringed seal, and bearded seal were hunted, together with white whale and narwhal. With the return of migratory birds, eggs and some ducks and geese were eaten. Fishing was an important secondary

activity, in particular at settlements near river mouths. Char were trapped at stone weirs at these places, for example at Nauyaruluk, Irkraluit, and Nugsanajuk in Foster Bay. Fishing was undertaken by both men and women. It was a subsiduary activity for women and older people, and although predominant in summer it took place throughout the year, either in the open water of rivers, river mouths or lakes, or through holes in the ice.

By August and September the range of activities was most diverse. Villages reached their greatest dispersal, and population aggregates were at their smallest, sometimes consisting of individual nuclear families. Often these camps were very transitory. Caribou hunting and fishing both became important activities as well as sea mammal hunting. According to Mathiassen (1928, 30) there was a division of activities according to age at this time of year, as the younger men and their families moved inland to hunt caribou, leaving the older men on the coast to hunt sea mammals. Food surplusses were stored for winter use.

Freeze-up generally occurs in October when there are fewer hours of daylight, temperatures fall, and the sea ice begins to form. Precipitation falls in the form of snow. Freeze-up resulted in another major re-adjustment in settlement pattern and economic activities. The range of activities was reduced at this time, and the people concentrated once more into larger villages. Seal, walrus and caribou were hunted both for immediate use and for storage, and any surplusses were cached for winter use, in addition to stores accumulated in summer. One

autumn and early winter activity was sewing new clothes from caribou skins from the early autumn hunts. Apadlek was named by Mathiassen's informant (1928, 30) as being the main skin sewing village of the Igloolik Island population. By winter most people had gathered at Igloolik and Pingerkalik again.

The Trapping - Trading Network

At the beginning of the present century contact between the Igloolik Eskimos and Western society was still confined to the occasional visits of explorers to northern Foxe Basin and infrequent and casual barter with whalers in neighbouring areas. Trading with the Eskimos was an important subsiduary source of income to whalers, especially as the numbers and value of bowhead whales declined towards the end of the 19th century (Low 1906). As the visits of commercial whaling ships to the eastern Arctic became less frequent a number of traders established posts to take advantage of the underdeveloped potential for trade. Trading posts were established in Pond Inlet in 1903, Repulse Bay in 1920 and Arctic Bay in 1926. Some traders visited Foxe Basin themselves to encourage trapping, for example a man employed by Munn at Pond Inlet (Munn 1932).

The Igloolik Eskimos now became fully committed to trapping for the first time. The stone traps formerly in use were replaced by metal spring traps obtained from the traders. Two men born in 1910 and 1916 state that stone traps were used by the Igloolik Eskimos before

their generation, although both men had used them when metal traps were not available (Unpublished field notes 1969, 3,4).

Activities associated with trapping and trading were overlaid on the traditional hunting economy, and the trading posts became an indispensible part of the economic sphere, exerting a centrifugal force attracting the Igloolik Eskimos to visit neighbouring regions. The trapping-trading network is illustrated in Figure 8.

The Igloolik Eskimos themselves became increasingly important to the continuance of the economic viability of these trading companies, which competed with each other to obtain resources from northern Foxe Basin. In this period between 1900 and the 1920's the price of fox furs was high and trading was beneficial to the Eskimos and traders alike (Figure 9). This interdependence formed a strong link between the Igloolik Eskimos and the traders.

Trapping and trading was an innovation involving the use of new resources. However, the immediate value of trading to the Igloolik Eskimos lay in it providing the means for improving the exploitation of traditional resources. In return for an outflow of resources from northern Foxe Basin, largely in the form of fox skins, there was an influx of Western technology. The impact of guns and whaleboats on both hunting and settlement is discussed in Chapter II. Other items such as large wooden sleds, primus stoves, knives and tools were also used to improve the efficiency of traditional activities rather than to initiate new activities. Items such as tea and tobacco were popular and sought after luxuries, but there was no accumulation

FIGURE 8
THE INTERRELATIONSHIP BETWEEN TRAPPING AND TRADING
1903-1939

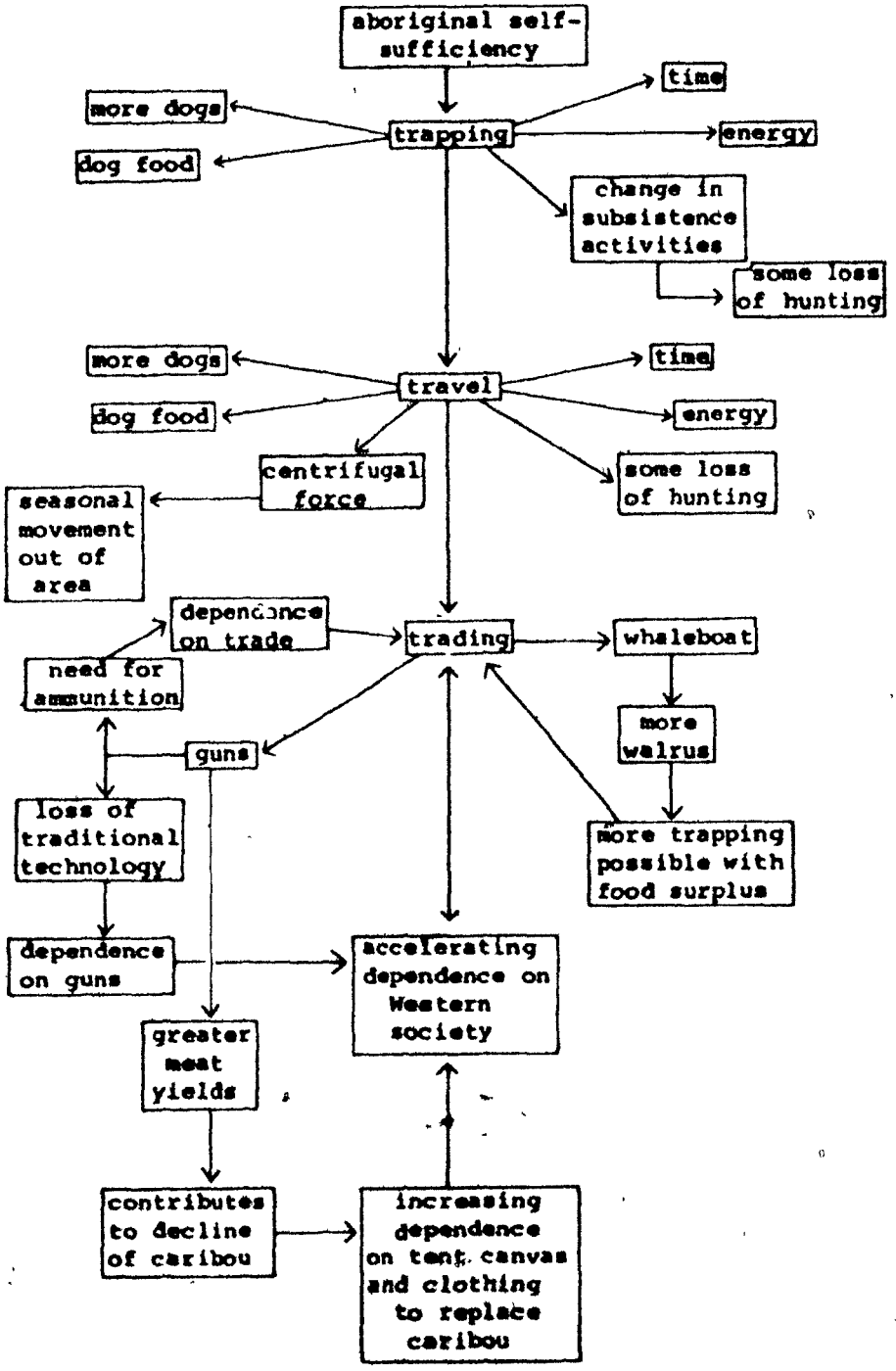


FIGURE 9

WHITE FOX TRADED AT POND INLET AND FOX PRICES 1921-1954

Year	Average Value of White Fox N.W.T. ($)	Fox Traded
1921	35.26	318
1922	40.60	-
1923	38.50	1,048
1924	38.76	1,355
1925	32.93	1,866
1926	31.43	844
1927	44.70	382
1928	42.00	1,333
1929	54.15	3,515
1930	32.81	2,384
1931	22.18	479
1932	14.04	2,811
1933	19.51	3,113
1934	17.94	904
1935	15.31	450
1936	15.31	1,698
1937	13.00	971
1938	11.57	700
1939	11.12	-
1940	8.24	844
1941	18.27	933
1942	25.85	1,020
1943	28.00	342
1944	32.25	988
1945	36.00	1,309
1946	21.50	839
1947	13.50	503
1948	11.00	570
1949	8.80	531
1950	6.50	857
1951	11.47	350
1952	7.70	536
1953	8.38	-

source: Bissett 1967, 36,37.

of wealth per se, and imported food was not used when trading posts were first opened. The main purpose of trading was the acquisition of technical equipment to improve hunting and food production. A man born in 1900 recalls that when his family traded at Pond Inlet:

> other than ammunition we only bought tea and tobacco. We didn't buy flour. I first tasted flour as a teenager when I visited Repulse Bay. (Unpublished field notes 1969, 1)

Visits to the trading posts, however, also brought the Igloolik Eskimos into contact with Western ideology, in particular Christianity. Converts returned to the region and Christianity was established there well before the first Missionary arrived. The particular pattern of conversions is closely connected with settlement pattern, and is discussed in detail later in this chapter.

THE ADOPTION OF GUNS AND WHALEBOATS

A number of guns had been in use in northern Foxe Basin since the end of the 19th century. The supply of ammunition was a limiting factor in their use, so much of the hunting was still dependent on traditional weapons and techniques, before trading became widespread.

A man born in 1900 (Unpublished field notes 1969, 1) recalls that his father was a young man when the Igloolik Eskimos first obtained guns, that is in the late 19th century. At that time they got guns from whalers in the south of the area at Repulse Bay, or possibly Chesterfield Inlet, or from north Baffin Island. There were few guns, and they were only used in summer, for caribou or ringed seal. Harpoons

and traditional equipment were still used for all types of winter hunting. However, the use of guns increased after the trading posts opened. The same man recalls getting guns and ammunition from Pond Inlet as a young man when there was a trading post on Bylot Island. This was operated by Munn, a private trader, and was open between 1914 and 1923. By that time trading was profitable enough for the informant's family normally to obtain sufficient cases of ammunition for their needs each year. "We didn't buy too much of other things,... ...so we always had enough for ammunition." (Unpublished field notes 1969, 1) (see Figure 9). Another man born in 1951 states that "people have always had guns in my lifetime, although when I was young not every man owned a gun" (Unpublished field notes 1969, 2). At the beginning of this century the trader at Pond Inlet was the only reliable source of guns.

Whaleboats had not been introduced in the area by 1922 (Mathiassen 1928) although they had been used by the neighbouring Pond Inlet, Arctic Bay, and Repulse Bay people for some time, having been introduced by the whaling fleets. The whalers frequently discarded their old whaleboats at the end of the season, often trading them for skins and ivory from the Eskimos. A member of a whaling expedition to Baffin Bay in 1899 noted that as they left Baffin Island at the end of the season "one boat was given to the natives. It is a very old boat, and done for, but we are to get four large bearskins for it next year." (Barklay Walker, 1909, 99). An immigrant to Igloolik from Repulse Bay refers to this practice when he states that before the trading posts

the people "took the whalers' boats and used them" (Unpublished field notes 1969, 3). However, none of these abandoned whaleboats are known to have reached northern Foxe Basin.

In the 1930's several Igloolik Eskimos bought whaleboats at trading posts in neighbouring areas (Unpublished field notes 1969, 1). Damas calculates the price for a sail driven whaleboat in about 1927 to be 85 fox furs (Damas 1963, 24). However, by the 1930's the fur market had dropped because of the Depression and more than twice that number of skins would have been needed to buy a boat of the same price (Figure 9). This would represent the accumulated take of several men, possibly over more than one winter.

The advantages of owning a whaleboat in the exploitation of food resources are outlined in Chapter II. It should be emphasized that there was a considerable dependence on whaleboats in order to accumulate sufficient surplusses of meat to carry on the newly adopted cycle of seasonal activities. Therefore individuals without boats came to depend on those with boats, and similarly settlements without boats were at a disadvantage compared with settlements with boats, creating a widening gap in the wealth and solidarity of settlements.

The contrast between settlements with whaleboats and those without is illustrated by a man from a small settlement where there were only two hunters. He states that "if in a year there was enough food, trapping would be more important." If they had not cached sufficient meat in summer they could not devote very much time in winter to trapping. This in turn meant that they could not trade for improved

equipment, and might continue in this pattern for years, unless they could join with hunters who owned a whaleboat. The bigger extended families were at an advantage in having enough men to hunt if the food supply was low in winter, while others continued trapping, and the returns from both could be shared (Unpublished field notes 1968, 1969).

While whaleboats remained scarce this phenomenon had a pronounced impact on settlement, emphasizing the disparity between wealthy settlements centred round a core kin group, and smaller, or less stable settlements that were short of manpower and needed all their trapping income for guns and ammunition in order to remain at the subsistence level. Members of these settlements were frequently more mobile than those of the larger more consolidated groups, and occasionally they visited the latter villages, usually exploiting tenuous kinship ties, associating with a remote relative rather than a parent or sibling, in order to take advantage of the enhanced economic level resulting from the use of whaleboats.

During the 1920's and 1930's the economic position of the Igloolik Eskimos improved as they began to exploit as yet undiminished resources using more efficient methods, at first guns, and later whaleboats. This contrasted with the situation in northern Baffin Island and Repulse Bay where prolonged use of Western technology had gone beyond this initial favourable stage and resulted in over-exploitation, and shortages of caribou and walrus. Barklay-Walker (1909, 69) states that Bylot Island near Pond Inlet, was once good for caribou, but now "the natives have pretty well exterminated them".

Munn gives an insight into this process saying that after he sold his trading post to the Hudson's Bay Company

> their traders ... took caribou skins as trade to dispose of amongst the natives of Labrador or elsewhere. I was told that in one year the Company had shipped a thousand skins from Baffin's Island. This was truly robbing Peter to pay Paul. It would soon have meant the practical extermination of caribou on the island, or at best so reducing their numbers that the natives there would not be able to obtain the winter clothing ... so necessary to them. (Munn 1932, 255)

Scarcity of caribou at Pond Inlet led to greater pressure on caribou around northern Foxe Basin. Occasionally Pond Inlet people would visit the eastern part of the basin specifically to hunt caribou (Unpublished field notes 1969, 13), and the trader Munn reports on the exchange of skins between the Igloolik and Pond Inlet Eskimos near his post saying:

> They were very generous to my Pond's Inlet people, giving them a number of the invaluable September-killed caribou skins for clothing, of which they brought a good supply. (Munn 1932, 255)

A group of Pond Inlet people moved permanently to Manirtau in the northeast of Foxe Basin in 1920 because of paucity of resources in their own area (Unpublished field notes 1969, 13, Mathiassen 1928). Others came to northern Foxe Basin for walrus, and during the 1920's and 1930's there was a wave of immigration from northern Baffin Island and Repulse Bay far more pronounced than the former small scale reciprocal migrations between regions. This, together with natural increase, led to a considerable growth of population, from 143 in 1922 to 301 in 1949. This resulted in serious pressure being put on resources in

the neighbourhood of settlements.

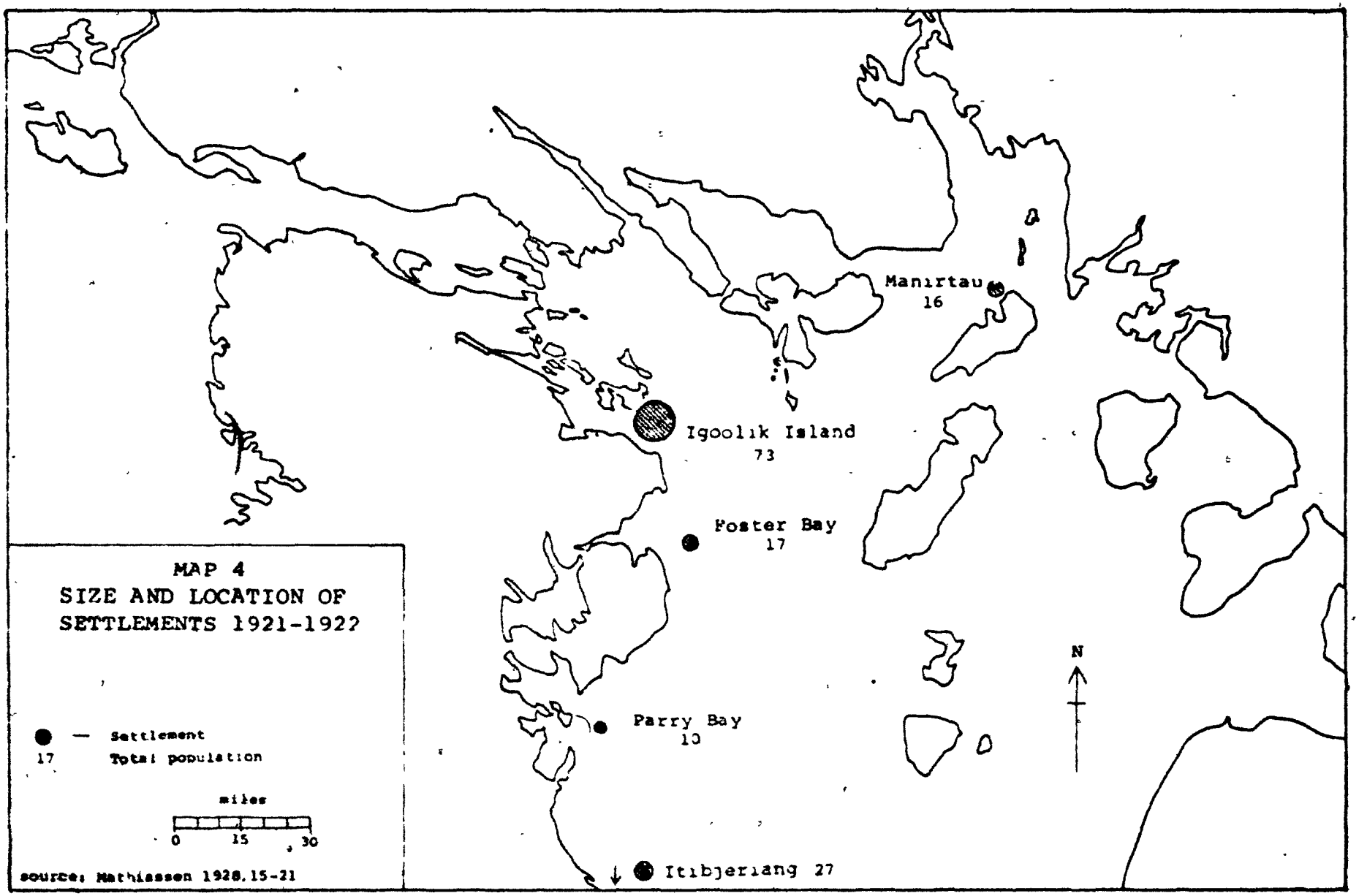
By the 1930's caribou had declined in northern Foxe Basin. Whaleboats, the increased walrus catch, and hunter pressure resulting from population growth, began to affect the habits of the walrus. In the 1930's, and especially the 1940's the walrus withdrew from the parts of their range that were near settlements, turning to more remote areas. These changes increased the overall dependence on trade, but came at a time when fox prices were dropping. This situation led to fundamental changes in the settlement pattern in the late 1940's.

Changes to Settlement Pattern 1900-1945

The size and composition of settlements, individual mobility, and changes in overall settlement pattern in this century have been reconstructed by informant recall data gathered in Igloolik and Hall Beach in 1968 and 1969, correlated with the available censuses.

The first accurate census was made in the winter of 1921-1922 by Mathiassen (1928, 15). He recorded the location and composition of the four winter villages that formed that year, together with a fifth group of Igloolik Eskimos wintering to the south of the area. This, together with the descriptions contained in other parts of the Fifth Thule Expedition reports, is the earliest reliable written source of data on settlement pattern and population, and it corresponds very closely with the reconstruction made from informants' accounts.

In the winter of 1921-1922 settlement was concentrated in


Manirtau
16
Igoolik Island
73
Foster Bay
17
Parry Bay
10
Itibjeriang 27
N
MAP 4
SIZE AND LOCATION OF
SETTLEMENTS 1921-1922
— Settlement
17 Total population
miles
0 15 30
source: Mathiassen 1928.15-21

the same areas as it had been at the time of first contact, although one large group was temporarily living between northern Foxe Basin and Repulse Bay, and another group had recently immigrated from Pond Inlet to Manirtau (Map 4). Figure 10 is a breakdown of population by settlement.

FIGURE 10
SIZE AND LOCATION OF SETTLEMENTS 1921-1922

	men	women	children	total
Igloolik Island	24	25	25	73
Foster Bay	6	6	5	17
Parry Bay	3	3	4	10
Manirtau	4	5	7	16
Itibjeriang (in south)	8	8	11	27
Total:	45	47	51	143

source: Mathiassen 1928, 15-21

Igloolik Island

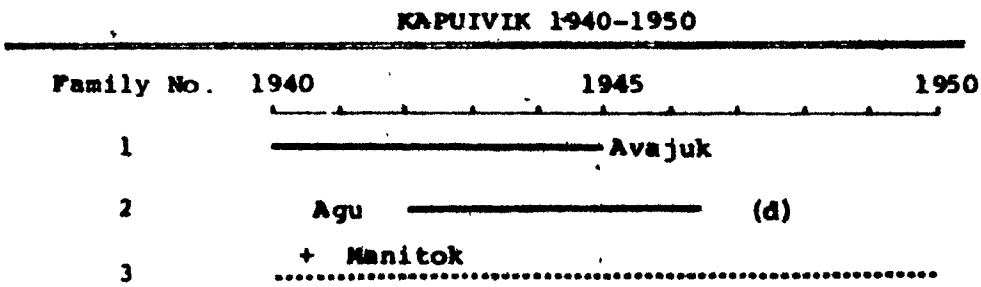
In the period between 1900 and 1945 the Igloolik Island area supported the largest population aggregate in northern Foxe Basin, as it had done at the time of first contact (Figure 11[1], Figure 12). There were 73 people living in the area in 1921. This figure recorded

[1] Figure 11 is the key to accompany all tables of settlement composition in Chapters III to VI.

FIGURE 11
OVERALL KEY TO FIGURES OF SETTLEMENT COMPOSITION

————	Residence at the settlement named in the figure title
.....	Intermittant or inferred residence in present settlement.
————	Continued residence beyond the period shown in the table.
Agu ———	Origin of family moving to present settlement.
——— Agu	Destination of family moving from present settlement
————	Where no origin is stated the nuclear family is newly formed.
————(d)	Death of family head.

Example:

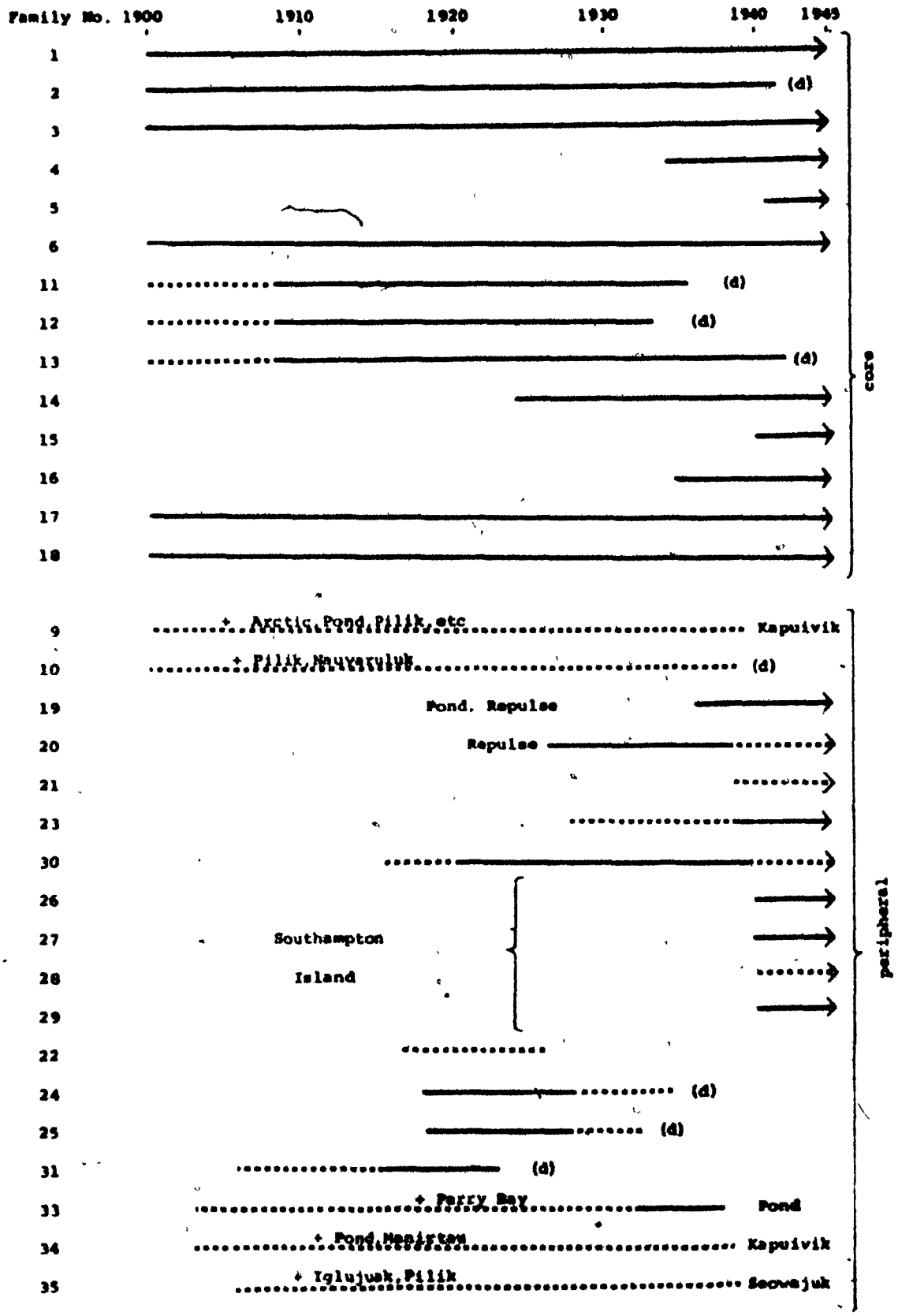


1. Family 1 lived in Kapuivik until 1945 when they moved to Avajuk.

2. Family 2 moved from Agu to Kapuivik in 1942, and lived there until the head's death in 1946.

3. Family 3 lived in Kapuivik intermittantly throughout the period, but was also associated with Manitok.

FIGURE 12
COMPOSITION OF THE IGLOOLIK ISLAND POPULATION 1900-1945



For key to all settlement composition tables see Fig.11

by Mathiassen, is consistent with the population size extrapolated for the area during the first 20 years of this century from the field data (Figure 10).

The Igloolik Island people continued to hunt in an area from the southern tip of Jens Munk Island, along the floe edge towards Foster Bay, and in the north, west from Jens Munk Island to the mouth of the Fury and Hecla Strait, with occasional visits to the west coast of Melville Peninsula, and the eastern shore of Foxe Basin (Map 2). The emphasis of hunting was still on walrus and seal. Walrus continued to be abundant in Hooper Inlet by Igloolik Island. Caribou became scarcer inland on Melville Peninsula during the period, especially after guns were adopted locally, so that they were hardly worth hunting there (Beaubier 1969, 1), and men began to travel further afield on Baffin Island for caribou. The winter site at Igloolik Point was still in use, and Mathiassen found a snow house village there in 1921, but Avajuk, a village on Melville Peninsula west of Igloolik Island, grew in importance during the period.

At the centre of the Igloolik Island group in the early part of this century was one man and his three sisters. He was a good hunter, "one of the most skilful walrus hunters at Iglulik" (Rasmussen 1929, 32), and supported two wives and numerous children, who survived to maturity. His three sisters remained at Avajuk with their husbands after marriage. This group of relatives, having a strong leader at their head, and occupying an excellent resource area, became established as the core of the Igloolik Island population.

By 1921 there were 24 adult men in the group, of whom four were sons of the leader. He had ten surviving offspring by this time, although the next largest family in the whole of northern Foxe Basin had only four, and most had no more than two (Mathiassen 1928). This structure is directly linked with the subsequent development of the village.

Co-operation within the leader's family enabled them to trap extensively in winter. Trap lines were set inland from Avajuk, and each man could tend his trap line in one day's travel by dog team (Unpublished field notes 1969, 2). This encouraged the practice of remaining at Avajuk into the winter, instead of large scale relocation nearer the floe edge at Igloolik Point for seal and walrus hunting, which had been characteristic of earlier periods. However, the winter villages at Igloolik Point and on the sea ice were still in use but on a smaller scale.

In about 1939 it was the leader of Avajuk and his family who were the first to obtain whaleboats in northern Foxe Basin (Unpublished field notes 1969, 2). They were able to do so by pooling resources and combining the fox take from the trap lines of the father, his sons and sons-in-law. One of the leader's sons recalls travelling with his father and two brothers to Pond Inlet where they traded fox and wolf skins for the boat. "The price of fox skins was good then. We got more furs then, and it was not difficult to trap enough." (Unpublished field notes 1969, 6). Another son bought a whaleboat in 1934, and a son-in-law bought another at about the same time.

These boats enabled hunters to harvest more walrus in Hooper Inlet, and more importantly, to transport the meat, which was stored near Avajuk. Instead of hunting on foot along the shore between Foster Bay and Hooper Inlet in summer, they could now concentrate on walrus nearer Avajuk on ice pans, or at the numerous small islands used by the walrus to haul out in summer (ooglits). This lessened the need for summer dispersal from Avajuk. The increased catch of meat resulting from the use of whaleboats and firearms also contributed to growing sedentariness. It was now less necessary to relocate near the floe edge at Igloolik Point in winter as there was normally a supply of stored food at Avajuk, and journeys to hunting areas on the ice were made easier by the increased size of dog teams and improved sleds. Long sturdy sleds made of traded wood were now common. Trap lines were set near Avajuk and spring trade journeys made from there. The Igloolik Island people became increasingly centralized and sedentary in the 1930's, and so were able to live for much of the year at Avajuk.

Avajuk was originally an autumn village, but by the early 1930's it had become a year round site occuped "all year except for caribou hunting and spring sealing on the ice." (Unpublished field notes 1969, 2). Damas noted that by 1931 a new style of stone and turf house (qarmat) had been developed at Avajuk (Damas 1963, 25). Earlier qarmats had been round, but these were now rectangular, and were roofed either with skin in the old style, or with canvas.

The growing prosperity of the Igloolik Island group meant

that interaction between this and other population groups in northern Foxe Basin were not reciprocal, but tended in one direction only. The Igloolik Island people did not characteristically visit other settlements in northern Foxe Basin for extended stays, but members of these groups did visit Avajuk, becomong attached temporarily as peripheral population (Figure 12). Interaction between the Igloolik Island and Foster Bay groups, for example, diminished when whaleboats at Avajuk made co-operative walrus hunting on the coasts between the two areas unnecessary for the Avajuk men.

With one exception families in other villages in northern Foxe Basin were unable to afford whaleboats at this time. Co-operation was needed to pool resources to buy a boat. It was also necessary for the difficult overland journey on which dogs and families must be fed, and sufficient dogs and men to haul the heavy boat were needed. Several dog teams were used to bring one boat from the trading post (Unpublished field notes 1969, 1,10). It was only the larger settlements whose members were able to do this easily. This demonstrates a strong link between technology available and the size of settlements. The possibility of buying a whaleboat gave considerable economic advantage to the larger settlements. Since Avajuk was the largest population aggregate in the region, and had at its core one strong kin group able to co-operate in trading, its advantages over the smaller settlements grew cumulatively as it acquired superior technical equipment. Time was against the smaller settlements too, as the price of white fox was dropping during the 1930's, from an average of $32.81 in 1930 to $11.12 in 1939 (Figure 9),

making the chance of buying a boat even more remote for the smaller settlements.

Use of whaleboats required co-operation of crew members, unlike the kayak where each man was independent. A new pattern of hunting emerged in which the whaleboat owner played a prominent part, and with it came changes in the authority structure of settlements. Previously every man with a kayak had hunted seal independently in summer. Some informants cite cases of co-operation of several kayaks in a whale hunt, but it seems that this was rare (Unpublished field notes 1969, 1). Walrus were usually hunted by pairs of men on foot on the ice, using harpoons, and there had been limited walrus hunting in summer.

Now for the first time it was possible to hunt walrus in summer by boat. Several men were needed to steer and row the boat, tend the sail, and to kill and butcher the walrus, and a new organization, based on the whaleboat owner, emerged.

Previously those men who did not own a kayak spent the summer hunting caribou on foot inland (Unpublished field notes 1969, 1). These were often the young men. Now "if a man didn't own a boat he hunted with men who did." (Unpublished field notes 1969, 4) Men who had no boat therefore became dependent on those who did, lending more prestige and importance to boat owners.

Following the improvement of hunting yields and the greater degree of sedentariness in the 1920's and 1930's the Igloolik Island population group grew in size, both by increased survival and by immi-

gration from poorer neighbouring areas beyond and within northern Foxe Basin. Village endogamous marriages became popular, particularly between cousins despite the incest taboo against such marriages. This ensured an individual's continued strong ties with the core group. In-marrying males from other settlements tended to remain in the area after their bride service rather than return to their own village because of the advantages of living at Avajuk. Both trends go against the norms described by Damas in relation to marriage (Damas 1963).

Damas (1963, 60) shows that the entire village population of 1921 was related in some way to the leader. However, during the 1920's, and especially in the period following the acquisition of whaleboats, a number of immigrants were attracted to the area. This influx is not documented in the literature as it occurred between the 1921 and the 1945 and 1949 censuses, and by 1945 many of these immigrants had moved elsewhere. Damas notes that the population doubled between these censuses, but does not explain the process (Damas 1963).

Table 12 shows the population of the Igloolik area between 1900 and 1945. The core group is composed of relatives of the leader. The immigrants who joined the group after the 1920's came from Southampton Island, Repulse Bay, and one group from Pond Inlet via Manirtau in northern Foxe Basin. Several other men relocated in the area from other parts of northern Foxe Basin in this period, emphasizing even further the disparity between the size of Avajuk and all other groups in the region. Without exception these immigrants came to Avajuk to take advantage of its high level of prosperity. Several had come from regions beyond northern Foxe Basin because walrus and caribou in their

areas had declined. Others came from poorer local villages.

The extreme stability of the Avajuk core group is demonstrated in Figure 12. No member of this group left the area for more than brief visits to trading posts or to relatives once they had obtained whaleboats. This suggests that Avajuk was the most favourable of all possible locations open to members of this group. Some immigrants also displayed a degree of stability after their arrival, made possible by the prosperity of the area. In several cases these immigrants increased their kinship links with the original core group through marriage and adoption between the groups. A number of other immigrants never became permanent members of the group, but remained at its periphery, their behaviour characterized by frequent movements and association with other settlements. Most had only tenuous kinship ties with the core population at best. These may be termed the peripheral members of the Igloolik Island population.

The period of the 1920's and 1930's was one of prosperity for the Igloolik people, but their dependence on trade was growing. They required guns and ammunition, and after giving up the use of kayaks they depended entirely on their whaleboats for open water hunting. Caribou were harder to find nearby and had to be hunted further afield. In addition tuberculosis had become widespread, and many people living at Avajuk had contracted it and were consequently seriously incapacitated.

A Roman Catholic Mission was established at Avajuk in 1931. This site was chosen because it was at the centre of the largest population group in the region where there were already some Catholic converts.

There were also some Anglican converts in other parts of northern Foxe Basin, but with the establishment of the Mission at Avajuk the majority of the Igloolik Island people were converted, and Avajuk became the Catholic stronghold. Others elsewhere in the region remained Anglican. All the descendents of the core group at Avajuk are Catholic, and today form the heart of the Roman Catholic section of the modern village of Igloolik. The remainder are largely Anglican whatever their orginal village affiliation.

Foster Bay

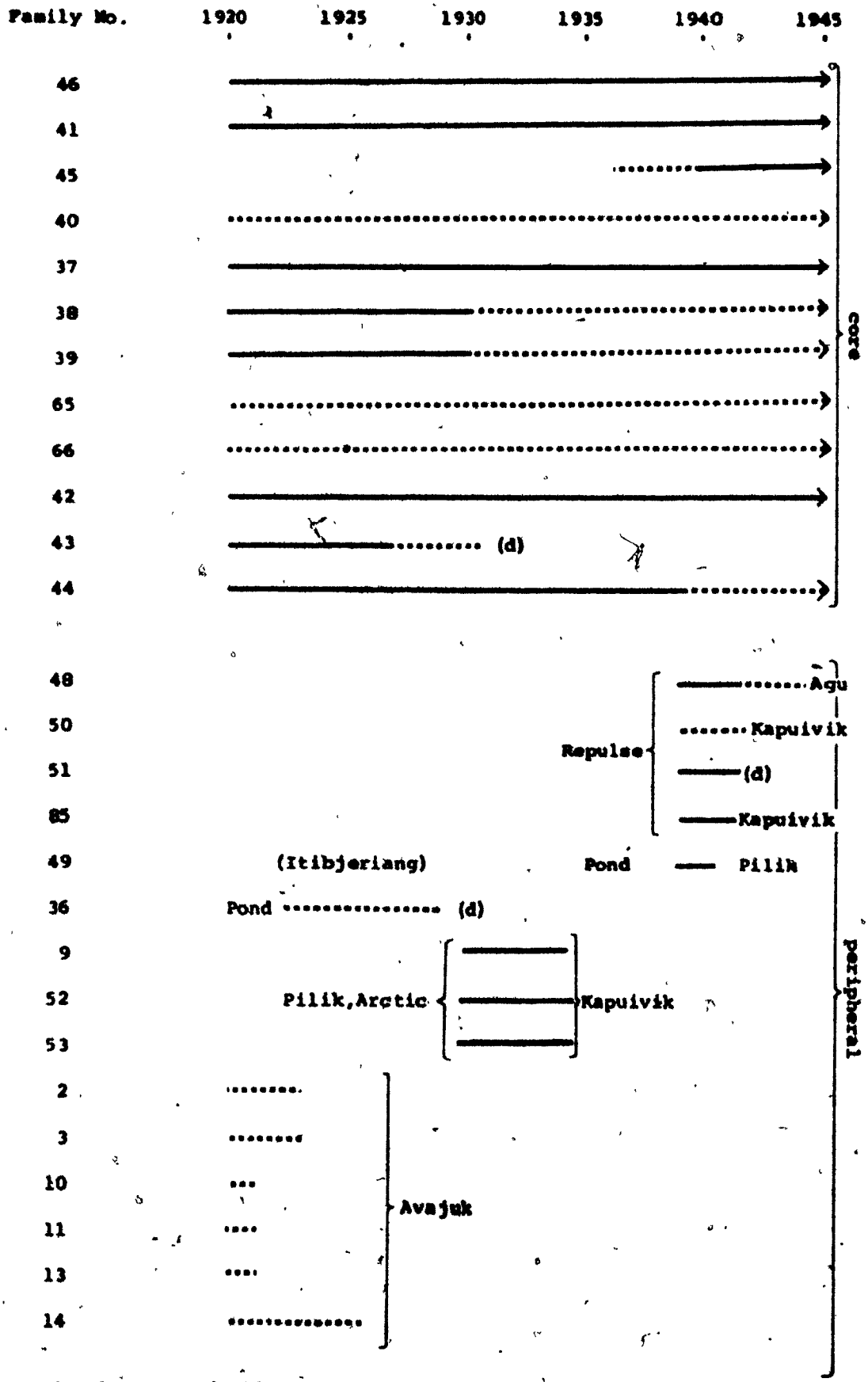
The second largest population aggregate at the beginning of the century was centred on Foster Bay. This was a good area for walrus hunting, as well as for seal, caribou and fish. The seasonal cycle included a winter village at Pingerkalik or Akunik, summer sites at Pingerkalik and Umaluya[1], often in company with some of the Igloolik Island people, or at Nugsanajuk, and sites on the Ooglit Islands. During the first 30 years of the century the settlement pattern was essentially the same as that described above for the period of first contact in the 19th century.

In 1921 the Foster Bay group consisted of six families (Figure 13). Five of the six adult men belonged to one kin group, being a father and four adult sons. The sixth family at the time of Mathiassen's census was not closely related to this core group, but had relatives at Avajuk.

As in the first contact period this group could be distinguished from the Igloolik Island people by the establishment of separate

[1] In this Thesis Umaluya refers to this site in Foster Bay (Map 2), not the Umaluya (Umaluyat, Crowe 1969, 130) on Igloolik Island.

FIGURE 13
COMPOSITION OF THE FOSTER BAY POPULATION 1920-1945



For key see Fig.11

winter villages, and a series of seasonal settlements in Foster Bay. However, there was considerable interaction between the two groups, and co-operative hunting was common before 1930. In the 1920's several sons of the leader of Avajuk spent springs and summers hunting walrus at Umaluya in Foster Bay, continuing the trend for co-operation between the two groups. However, after the Avajuk group acquired whaleboats these men tended to stay in the area around Igloolik Island. One of them compares Umaluya in Foster Bay with Avajuk as follows: "it was possible to get more walrus from Avajuk, but we needed a boat, as they were further from land. Walrus were close to shore at Umaluya [Foster Bay] and could be caught without a boat." (Unpublished field notes 1969, 6). When the Avajuk people bought whaleboats these men no longer needed to hunt on foot along this coast, but joined others hunting from boats. In this period the personnel of the two areas became more sharply defined and autonomous.

In the 1930's, after the death of the Foster Bay core family head, two of his sons bought a whaleboat. This had the effect of consolidating their status as leaders of the group. They could now take fuller advantage of the large numbers of walrus in Foster Bay and on the Ooglit Islands.

At this time Akunik appears to have become the dominant winter village instead of Pingerkalik, which is nearer the winter floe edge. This is a similar shift to that of the Igloolik Island population from Igloolik Point to Avajuk, and it may be assumed that the underlying reasons are the same. The whaleboat, by increasing the emphasis on

stored meat and trapping in winter made it possible to stay in the autumn village through the winter as hunting near the floe edge became less important at this time of year. Bigger dog teams and better sleds made journeys to the hunting areas easier and quicker.

A second group associated with Akunik in this period, in particular the early 1940's, also had connections with the small Parry Bay population in the south. Two brothers, related to this group, lived together at Akunik for three years from about 1939 to 1941. Both had previously been highly mobile. One had come from Pond Inlet, and later went on to associate with several other villages in the area before establishing his own settlement with his sons. The other brother had come from Repulse Bay, and he then moved on to Kapuivik on Jens Munk Island. This man states that he never owned a whaleboat, but that his neighbours in Akunik, the two leaders, did, and it seems that this whaleboat was an important factor in his decision to locate at Akunik.

Several other families from elsewhere associated with Akunik briefly in the 1930's and early 1940's. These families were a floating peripheral population attracted to Akunik by its economic position, although most of them were ostensibly, exploiting kin ties (Figure 13).

In summary, Akunik, consisted, up to the mid 1940's, of a stable core population composed of one man and his sons, who lived there throughout the period. A group of peripheral, short term members were also associated with the village, apparently attracted by its comparative wealth, and the possession of a whaleboat. Some of these men were

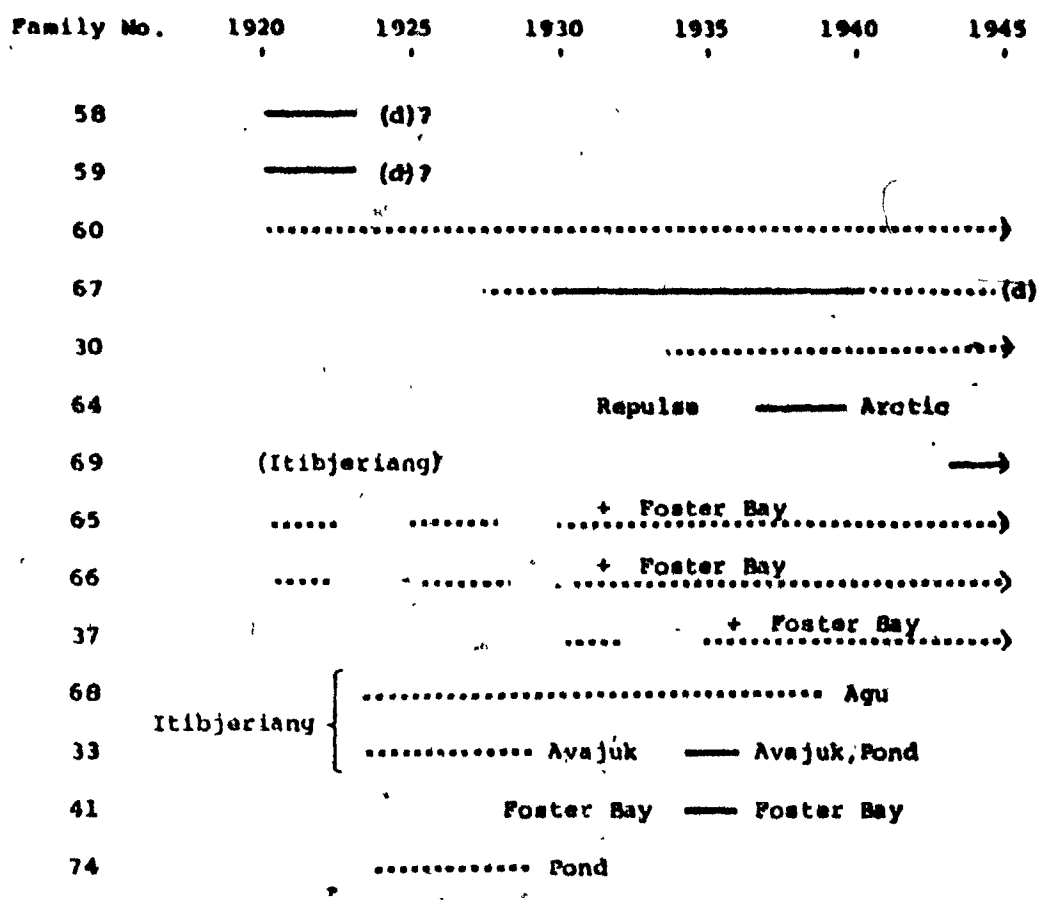
normally associated with Parry Bay, and others had a history of frequent movement. The association between the Foster Bay and Igloolik Island populations, prominent in the 1920's, had decreased as both groups became more autonomous after obtaining whaleboats. This trend was emphasized by the tendency of the Akunik people to trade at Repulse Bay, increasing their contact with the southern settlements in Parry Bay, while the Avajuk people traded at Pond Inlet or Arctic Bay to the north. In addition the Igloolik Island people embraced Roman Catholicism whilst the Parry Bay people, in common with the remainder of the population, became Anglicans.

Parry Bay

A third, smaller population group was centred on Parry Bay in the south of the area, following the pattern found in the pre-contact period. This is an area similar in extent and resources to Foster Bay, but it was a minor settlement area supporting a smaller permanent population (Figure 14). There was little regular interaction with groups further north in contrast to that between the Igloolik Island and Foster Bay groups. Although individuals from Parry Bay did visit these areas at times there was little movement the other way from Akunik, and almost none from Avajuk, both of which were more prosperous than Parry Bay.

In 1921 there were only three families in Parry Bay, a man and his two adult sons. However, the group spending that winter at Itibjeriang to the south had come from northern Foxe Basin, and members

FIGURE 14
COMPOSITION OF THE PARRY BAY POPULATION 1920-1945



For key see Fig.11

are known to have been associated with the Parry Bay settlements, especially during the 1930's. They were also associated with other villages in northern Foxe Basin and were a relatively mobile group. If these two groups are combined there is a possible maximum population of 11 families for Parry Bay in the 1920's. However, it is unlikely that this number ever lived here together, and these people nearly all displayed high personal mobility (Figure 14).

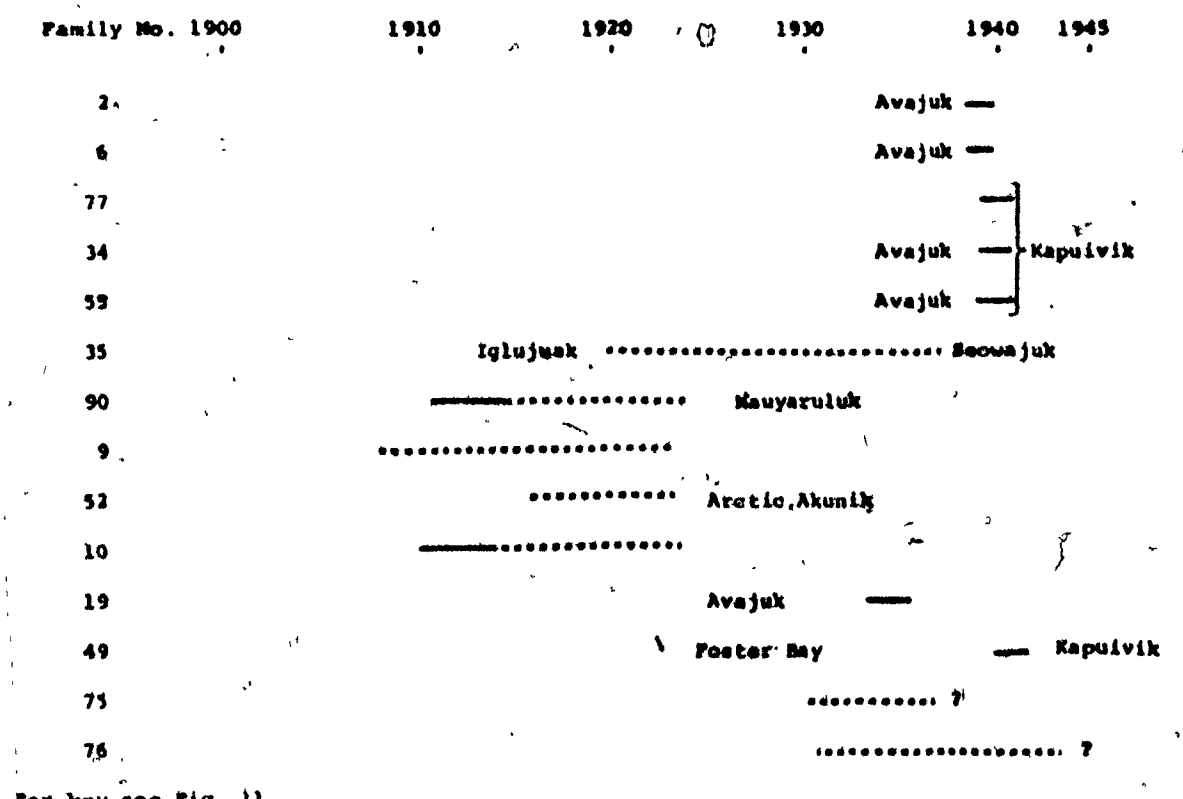
By the 1930's Karmat was the main village, with five or six families living there throughout the decade. There was a small permanent population, but the majority of members were very mobile, moving between settlement areas, and spent much of their time in other northern Foxe Basin villages, or out of the area altogether. Apparently none of these people owned whaleboats in this period (Unpublished field notes 1969, 1) which must have been a strong influence on their decisions to align with other groups. There was a close connection between some Parry Bay people and Akunik now, apparently influenced by the latter village's whaleboat. The loose structure, and transitory nature of the Parry Bay settlements, lacking large sibling groups, or even a large permanent population of adult men, made the accumulation of sufficient furs for a whaleboat difficult and apparently impossible to achieve. In this period Parry Bay cannot be considered as a core settlement area of the same nature as Igloolik Island or Foster Bay because of its floating population which was also aligned with several other population centres both in and outside northern Foxe Basin. There is a marked contrast between the mobility of the Parry Bay people and the stability of the Igloolik Island and Foster Bay groups.

Other Settlements

During this period a number of other minor settlement areas were inhabited intermittently.

Pilik on the east side of northern Foxe Basin, was visited occasionally but there has been no permanent long term settlement there in this century

FIGURE 15
COMPOSITION OF PILIK 1900-1945



For key see Fig. 11

(Figure 15).

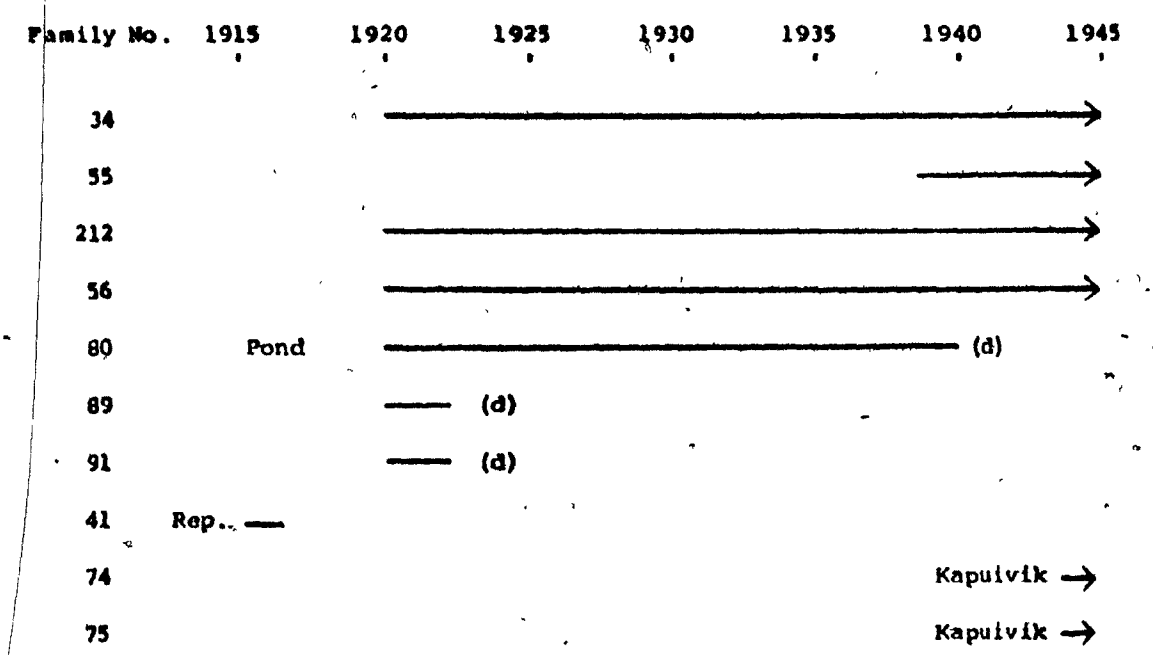
One man, originally from Avajuk, who led a very mobile life, lived at Pilik for at least part of the time between about 1908 and the early 1920's, together with two or three other families, including his elder brother. He trapped fox there for at least ten winters, and traded at Pond Inlet. He also lived at Irkraluit, Igloolik Island, Arctic Bay and Pond Inlet during this period. Another of these families

also moved to Arctic Bay and Pond Inlet in the 1920's before returning to northern Foxe Basin in 1930. Only one man is known to have been associated with Pilik in both the 1920's and 1930's, and he also lived at Seowajuk north of Jens Munk Island during the same period.

It seems clear from statements made by informants that Pilik was considered marginal to the main hunting areas, but was sometimes visited for brief periods if for any reason game was short elsewhere. Caribou hunting was particularly good on that coast because caribou could be found there after they had left areas further north on Baffin Island during their migratory movements. It may be that people went to Pilik especially to get caribou skins to replace clothes and bedding. This became increasingly probable as caribou became scarce elsewhere. However, these settlements were comparatively small and transitory, and were generally composed of highly mobile individuals, rarely members of core population groups at this time.

Manirtau and Steensby Inlet. The other settled areas in the east were Manirtau and Steensby Inlet. In 1921 Mathiassen reported five families at Manirtau who were recent immigrants from Pond Inlet. Of these, three men and their sons, and at times their sons-in-law, remained in the area throughout the period that followed (Figure 16). One of these men lived at Kangilkaimayuk in Steensby Inlet in the 1920's, where he remained until his death in about 1940. His sons lived there with him, and they stayed there into the 1950's. One of his daughters married into the first family living at Manirtau, and the two groups retained close links.

FIGURE 16
COMPOSITION OF MANIRTAU 1920-1945



Rep. - Repulse Bay For key see Fig.11

The Manirtau group was also associated with Kapuivik on Jens Munk Island from the early 1940's. They joined with the Kapuivik people for summer and autumn walrus hunts, using the Kapuivik whaleboat.

Agu. In the northwest, beyond the Fury and Hecla Strait, a group of minor settlements became established around Agu Bay (Figure 17). Before the 1920's this area was not permanently occupied. Occasional hunters visited the area from northern Foxe Basin or Arctic Bay, but they did not settle there. In the mid 1930's a group of immigrants arrived from Arctic Bay. They were influenced by the disappearance of

walrus in that area, and generally poor or deteriorating hunting conditions.

Three men, two of them brothers, founded settlements at Agu Bay. There were no walrus there so the seasonal cycle was dominated by seal hunting. Crowe (1969) suggested that permanent settlement of this area was only possible after the adoption of firearms increased seal yields.

For most of these people the winter sealing village was at Kikitarluk on Crown Prince Frederik Island (Map 2). This group moved out onto the sea ice as the winter advanced. Fox lines were set on the island or on the adjacent coast of Baffin Island. The traps were dependent on seal meat for bait, and as this was also the source of human and dog food seal hunting took precedence over all other activities. Before break-up men left by dog team for Baffin Island or Melville Peninsula for caribou hunting. While some men hunted inland those remaining at the coasts fished in the rivers. In autumn they lived in qarmats nearer the shore, hunting ringed seal and bearded seal at the floe edge, as well as white whale. When the sea froze they returned to Kikitarluk for the winter.

One of the group owned a whaleboat at one time, but he lived apart from the others at Akimanik during most of the period. Since there were no walrus in the area the usefulness of a whaleboat was limited and did not have the same effect on the group's economy as the boats at Igloolik and Akunik. Being so close to Arctic Bay the men sometimes undertook two trade journeys, one on their own in winter,

FIGURE 17 COMPOSITION OF AGU 1920-1945

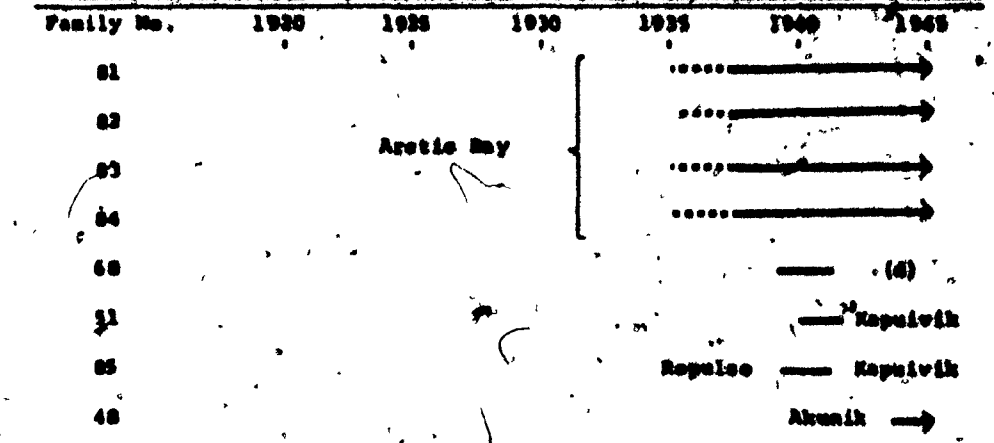


FIGURE 18 COMPOSITION OF NUUVARULUK 1915-1945

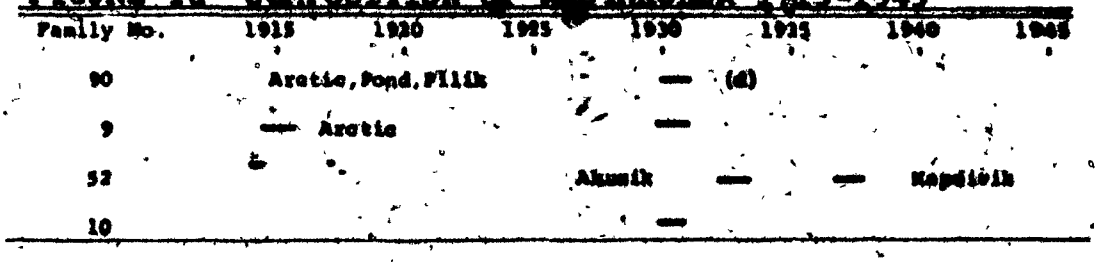


FIGURE 19 COMPOSITION OF SEOWAJUK 1920-1945

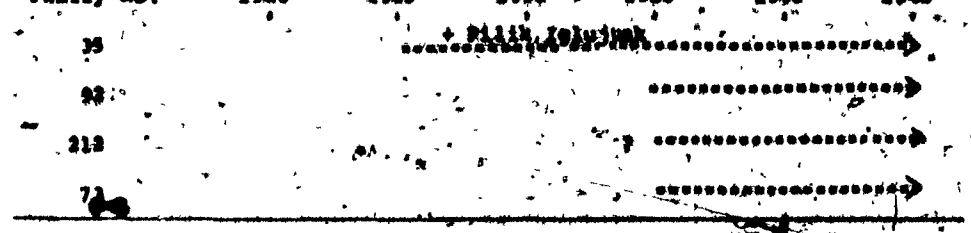
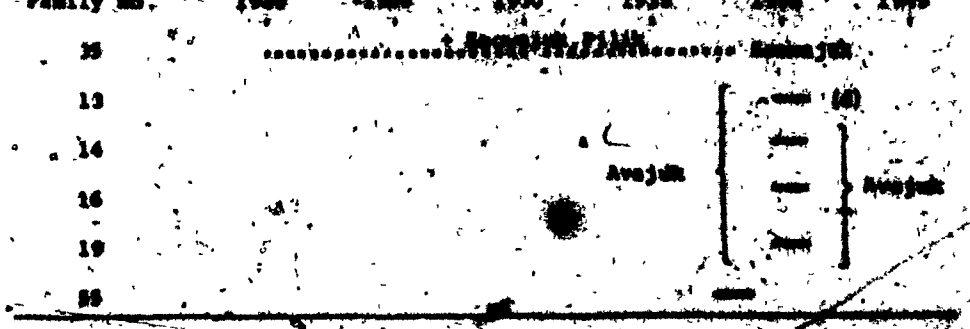


FIGURE 20 COMPOSITION OF IGLIJUAK 1920-1945



For key see Fig. 11

the other with the whole family in spring (Unpublished field notes 1969, 5).

The Agu people, after their initial move from Arctic Bay, were residentially stable and remained in the same area throughout the period, independent of other groups. They traded at Repulse Bay until 1947 when the store opened in Igloolik, and this served to emphasize their marginality to the main northern Foxe Basin population as their contact was minimal.

Nauyaruluk. About four families lived at Nauyaruluk during the 1930's. These included two very mobile men, one of whom also lived at Arctic Bay, Pond Inlet and Pilik. The second man and his son also lived at Arctic Bay and Akunik. One of this man's brothers left Avajuk for a while in about 1930 to join him at Nauyaruluk. This site was not occupied again, except perhaps for short term seasonal visits until the late 1940's (Figure 18).

Seowajuk, northwest of Jens Munk Island, was occupied intermittently during the period. One man was associated with this area from the 1920's to the 1940's, but he also lived at Pilik and Iglujuak during this time. A second family is known to have lived here throughout the 1930's and early 1940's until the head's death (Figure 19).

Kapulvik. By 1943 Kapulvik had become a significant village. Before then Jens Munk Island had been the site of occasional temporary settlements only, in this century. By the late 1930's several families lived

on the island, particularly at Nugliviktok. These included the highly mobile man mentioned in connection with Pilik above. By 1943 a large group of families had begun converging at Kaersuit for the autumn walrus hunt. These people came from Kapuivik, Seowajuk, Manirtau, and other settlements in the area (Unpublished field notes 1969, 8) and were brought together by one man's whaleboat. This trend continued throughout the 1940's. The processes leading to the growth of Kapuivik are described more fully in Chapter IV.

Iglujuak was the site of temporary camps during this period. Only one family, also mentioned in connection with Pilik and Nauyaruluk, is known to have lived here permanently before 1940. In 1940 three of the sons of the leader of Avajuk formed a temporary caribou hunting camp here, but returned to their own village after a short period. Iglujuak did not become a permanent village with a stable population until the mid 1940's (Figure 20).

There were also temporary camps at a number of other sites. These include Upirgnaviajuk and other locations on the north shore of Murray Maxwell Bay, north of Jens Munk Island, and at Irkraluit at the mouth of Gifford River. These were seasonal sites, as suggested by the place names (Upirgnaviajuk meaning a summer site, and Irkraluit a fishing camp), and such sites had been in use since pre-contact times. These settlements were formed temporarily by people from other villages. Families occasionally settled temporarily on the west side of Melville

Peninsula, for example a visiting Pond Inlet family lived at Arlanajuk in the early 1930's but these settlements were not permanent. Other short-term camps, generally seasonal, were located throughout the area, as suggested by the distribution of recently used place names shown on Map 2. The population distributions described in this section are summarized in Figure 21.

Summary: The Effect of Trade on Settlement, 1920-1945

The adoption of regular trapping and trading in this period resulted in an influx of Western technical equipment. The improved equipment was applied to traditional resources (with the addition of fox) and greatly increased the effectiveness of subsistence activities. This resulted in an overall increase in the economic level of the Igloolik Eskimos, which in turn promoted population growth, both by natural increase and by immigration (Figure 22).

The improved economic position, however, was not uniform. Whaleboats in particular, were only available to settlements of a certain population size having a large kin group able to co-operate in trading. These conditions were met in Avajuk and Akunik, but not yet elsewhere.

The division of population into core and peripheral groups discussed in Chapter II is clearly in evidence in this period. Two core population groups owned a large proportion of the region's Western technical equipment, guns and whaleboats. The core settlement areas

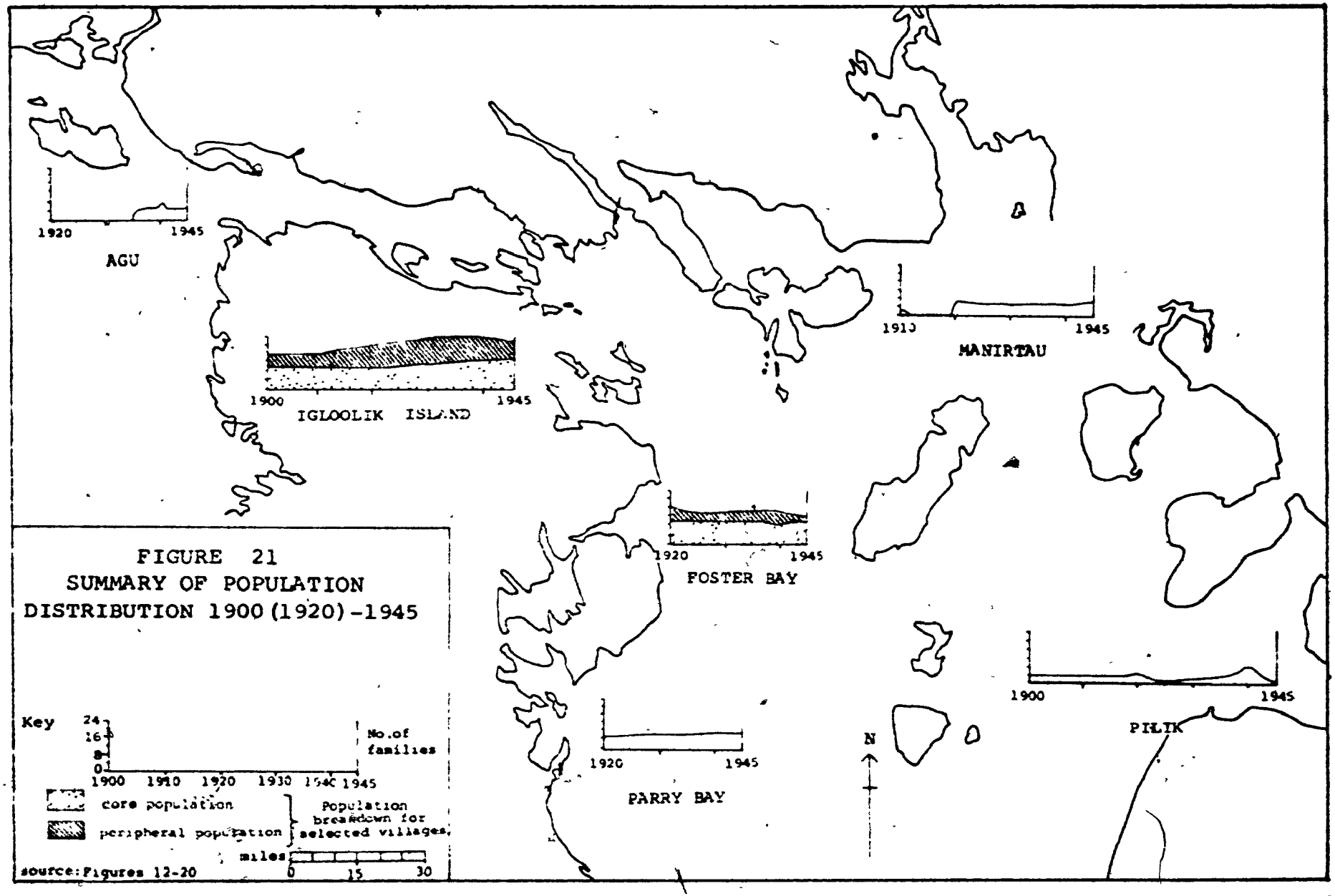
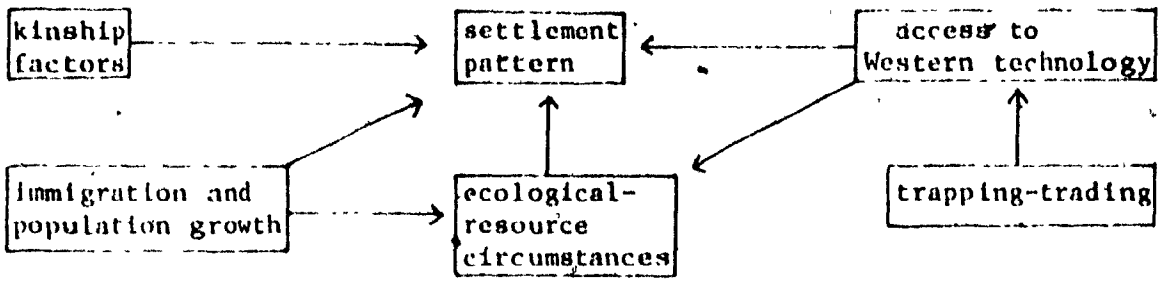


FIGURE 21
SUMMARY OF POPULATION DISTRIBUTION 1900 (1920) -1945

FIGURE 22

FACTORS INFLUENCING SETTLEMENT PATTERN 1900-1939



occupied by these groups, Igloolik Island and Foster Bay, attracted peripheral population from other areas in northern Foxe Basin and from neighbouring regions which were at a lower economic level. These people expected to benefit from the wealth of the core settlement areas. Conversely, the minor settlement areas in the Igloolik region did not develop the new social or economic organization based on the use of whaleboats, but remained at a more steady subsistence level, the improvement offered by firearms offset to some extent by a decline in the caribou (p.62).

The core settlement areas developed a new settlement pattern based on a central village (Avajuk and Akunik) from which a large proportion of the year's subsistence activities were generated. These villages were occupied all year, but groups and individuals continued to relocate at seasonal settlements for short periods, returning to the central villages where surplusses were stored for winter use. Trading was an indispensible part of the yearly cycle.

The population of northern Foxe Basin continued to grow by natural increase following improvements to the food supply and increasing sedentariness, and by immigration from neighbouring regions. Some immigrants established new minor settlement areas, such as those who came to Manirtau from Pond Inlet and to Agu from Repulse Bay. The core settlement areas attracted a large proportion of immigrants both from other local settlements and from other regions. However, immigration was not unlimited, and these settlements did not grow beyond a certain level (Figure 21). Instead population growth was absorbed elsewhere, rather than diluting the resources of the rich core settlement areas. The fact that many peripheral inhabitants of the core settlement areas, in particular Avajuk, left after only a brief association with the village to join new settlements, suggests that the limits of the resources in these areas were perceived, and that the core groups were in a position both to exert pressure on peripheral members of the group to leave, and also to prevent others from attaching themselves to the group. The practice of jealous preservation of kinship ties within the Avajuk core population is further evidence of the influence of this group in excluding others from the area, implying that without kinship ties an individual would have no claim to the resources of the area.

The core populations formed an elite, comprising the most influential and prosperous members of the wealthiest villages of northern Foxe Basin, which was itself an area richer in resources than any of the neighbouring regions on northern Baffin Island or southern Foxe

Basin at this time. During the 1920's and 1930's the core populations had nothing to gain from mobility, and they became further entrenched, as well as being residentially centralized in their own settlement areas. At Avajuk in particular it became increasingly desirable to marry into the core population, and because of a fear of becoming isolated from the group, cousin marriages became common, despite an incest taboo forbidding this.

The Avajuk core group became further isolated from the remainder of the Igloolik Eskimos because they were Roman Catholic, and all other settlements had adopted Anglicanism. This appears to be the critical stage at which the two sects became exclusive, and the ultimate cause of the present situation where intermarriage between the sects is almost non-existent. The Roman Catholic core population of Avajuk wished to remain closed to outsiders in order to keep their wealth concentrated in the kin group.

The remainder of the population was largely Protestant, and although this group had less cohesion, it remained predominantly Protestant because of the unwillingness of the Catholic core group to intermarry and their desire to remain distinct. Over forty years this has led to the present strict schism between groups that has the consequence of halving the available choices of marriage partner to any individual. It appears that religious affiliation was, at this time, merely a veneer covering a more basic schism between the core population of Avajuk and all other population groups.

In this period the Igloolik Eskimos were still largely self

sufficient, and their economy was improved, but a growing dependence on Western society was in evidence. Dependence on whaleboats and firearms accompanied the loss of certain traditional skills and equipment including the use of the kayak and bow. Population grew as a result of the prosperity of northern Foxe Basin, but although growth was partly absorbed in areas other than the traditional population centres hunter pressure was increasing to a degree that was to result in serious ecological changes.

CHAPTER IV

THE COLLAPSE OF TRADITIONAL SETTLEMENT PATTERNS 1940-1955

Population Growth and the Changing Environment

In the early stages of contact the relationship between the Igloolik Eskimos and their environment seemed to have been greatly enhanced by technological change that apparently benefited the people without harming the resources on which they depended. The adoption of innovations such as firearms and whaleboats had led, in the 1930's, to what Damas considers the "stage of greatest economic well-being from the standpoint of meat production." (Damas 1963, 26). Improved technology, applied to traditional subsistence activities naturally resulted in greater yields. Although trapping intruded on the former cycle of activities, the use of guns and whaleboats made hunting more efficient, and consequently less time consuming. Dependence on the trader was limited to guns, ammunition, and boats which were purchased from the proceeds of fox trapping.

However, this favourable situation was short lived, and by the 1940's some of the adverse results of technical innovations were becoming evident. A series of ecological changes that began with the use of guns and accelerated with the introduction of whaleboats in the 1930's and 1940's, resulted in changes to the patterns of dispersal and seasonal movement of both land and marine animals. In response to these changes in the biological system the human population

also adopted new patterns of settlement and seasonal dispersal. The specific consequences are shown in Figure 23 (for the general processes involved see Figure 3, Chapter II).

One of the first significant changes in the biological environment was the decline of the Melville Peninsula caribou population. This followed the introduction of firearms in the late 19th century, with the consequent increase in kills. The people of the Repulse Bay area had long hunted caribou with guns, both for themselves and for the whaling fleets, and this brought an end to the caribou migrations across the Rae Isthmus (Manning 1943, 103). Those animals that remained on northern Melville Peninsula were then decimated in the 1930's after rifles came into more general use among the Igloolik Eskimos. By 1939 it was necessary for a group of four men from Igloolik Island to spend a season in the east of northern Foxe Basin hunting caribou on Baffin Island to get skins for clothes and bedding. Another group visited Pilik in the late 1930's for the same purpose. The people became aware of the impact of guns, and one informant states, for example, that "the people stopped hunting caribou on Melville Peninsula because they declined through too much hunting with guns." (Unpublished field notes 1969, 2). Caribou on northern Baffin Island also declined because of overhunting in the Pond Inlet area (see Chapter III), but no migration route was cut off as it had been on Melville Peninsula, and caribou were still present on Baffin Island around northern Foxe Basin.

Marine animals were also severely affected by the use of

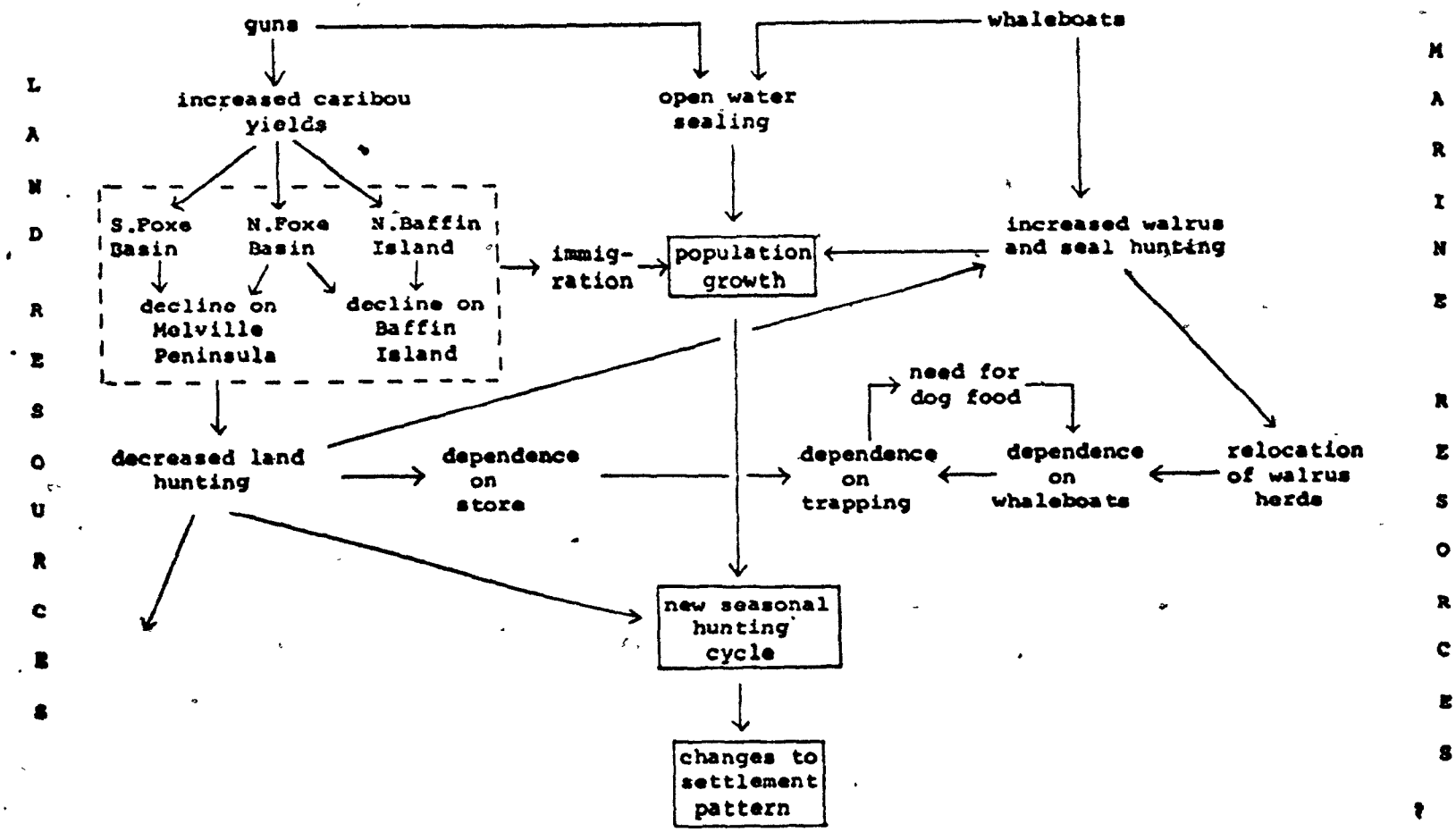


FIGURE 23

TECHNOLOGICAL AND ECOLOGICAL CHANGES AFFECTING HUNTING AND SETTLEMENT PATTERNS 1940 to 1955

Western technology. By the 1940's the walrus herds were beginning to react to increasing hunting pressure and boat traffic. It seems that they were not overhunted like the caribou, but that they became more wary of hunters and gradually moved away from areas of heavy use. This has been linked to the increased traffic and the introduction of inboard motors for whaleboats (Beaubier 1970, 184-186). Thus by 1948 the walrus herds that had made Igloolik Island such an attractive location for so long, had left the area, and have not returned in large numbers since (Crowe 1969, 69). Walrus were still plentiful around the Ooglit Islands in Foster Bay, the Calthorpe Islands south of Jens Munk Island, and in Parry Bay, but many of them had moved out as far as the Manning Islands, or the Spicer Islands in the centre of Foxe Basin more than 30 miles away from the heavy hunting areas (Map 2).

These adverse changes in the biological system did not, however, cause a decline in the human population. Several factors combined to result in a rapid growth of population. Increased meat yields and decreased seasonal movement cut the death rates which meant that each hunter now had more people to support. In 1922 the population of 143 had had a ratio of hunters to non-hunters of 1:2.1. By 1949 the population had grown to 283, and the ratio had increased to 1:3.1. This represented both an increase in infant survival, and also a greater number of old people who could now be cared for after they ceased to be active. The introduction of government welfare in 1945 (Crowe 1969, 74), which included family allowances, and later old age and disability pensions, made the survival of more old people and young children likely,

in contrast to the traditional situation where these were the most vulnerable members of the society in times of famine or hardship. This population growth counteracted, to some extent, the advantages of the technical innovations of the 1930's in that hunters were now obliged to provide more meat to feed their families.

A second factor in population increase was immigration. As mentioned earlier, the economic well-being of the Igloolik Eskimos in the 1930's attracted a number of families from such areas as Pond Inlet, Arctic Bay, Repulse Bay and Southampton Island. Ninety-nine of the 283 people recorded on the 1949 census originated outside the region (Damas 1963, 28). By the 1940's these people had become part of the permanent northern Foxe Basin population.

The overall result was a doubling of population between 1921 and 1949, from 143 to 283 (Damas 1963, 69). With increased wastage of game that could be killed more easily than retrieved, coupled with the population growth there was a major increase in hunting pressure on game in the vicinity of villages. Even in areas where immigration was limited by means of social or economic mechanisms that discouraged permanent attachment of new village members, some immigration did occur. This, together with natural increase, was augmented by increasingly frequent short term visits from peripheral families, all of which was sufficient to cause overexploitation of local resources.

After 1947 the Hudson's Bay Company store and the Mission made Igloolik a focal point for the region. Western trade goods became

more abundant. In particular engines for whaleboats, and canoes with outboard motors were more easily available from the local store. These, together with the Hudson's Bay Company and Mission supply boats, increased motor traffic in the area of Igloolik Island, and further emphasized the trend of out-migration of game.

Fox trapping was encouraged by the store manager, although prices were lower and the incentive less than earlier (Figure 9). There was increased dependence on the store for items such as canvas to replace the heavy skin summer tents, material for clothing now that caribou skin was scarcer, primus stoves and kerosene, fuel for boat motors, and food. In particular flour became an important supplement to the diet. The purchase of these goods was paid for in part by government subsidies after 1945. Finally, the incidence of tuberculosis was high, and it was inevitable that this debilitating disease should affect patterns of activity, and increase dependence on the centre.

In a society traditionally so sensitive to minute changes in the environment, such changes as these were bound to have a profound effect. Indeed, the decade 1940-1950 was one of large scale change in human settlement pattern, marked by migration between settlements, and the establishment of new villages. The traditional settlement pattern which had survived until now with only minor modifications and additions, collapsed, to be replaced by an entirely new pattern of dispersal.

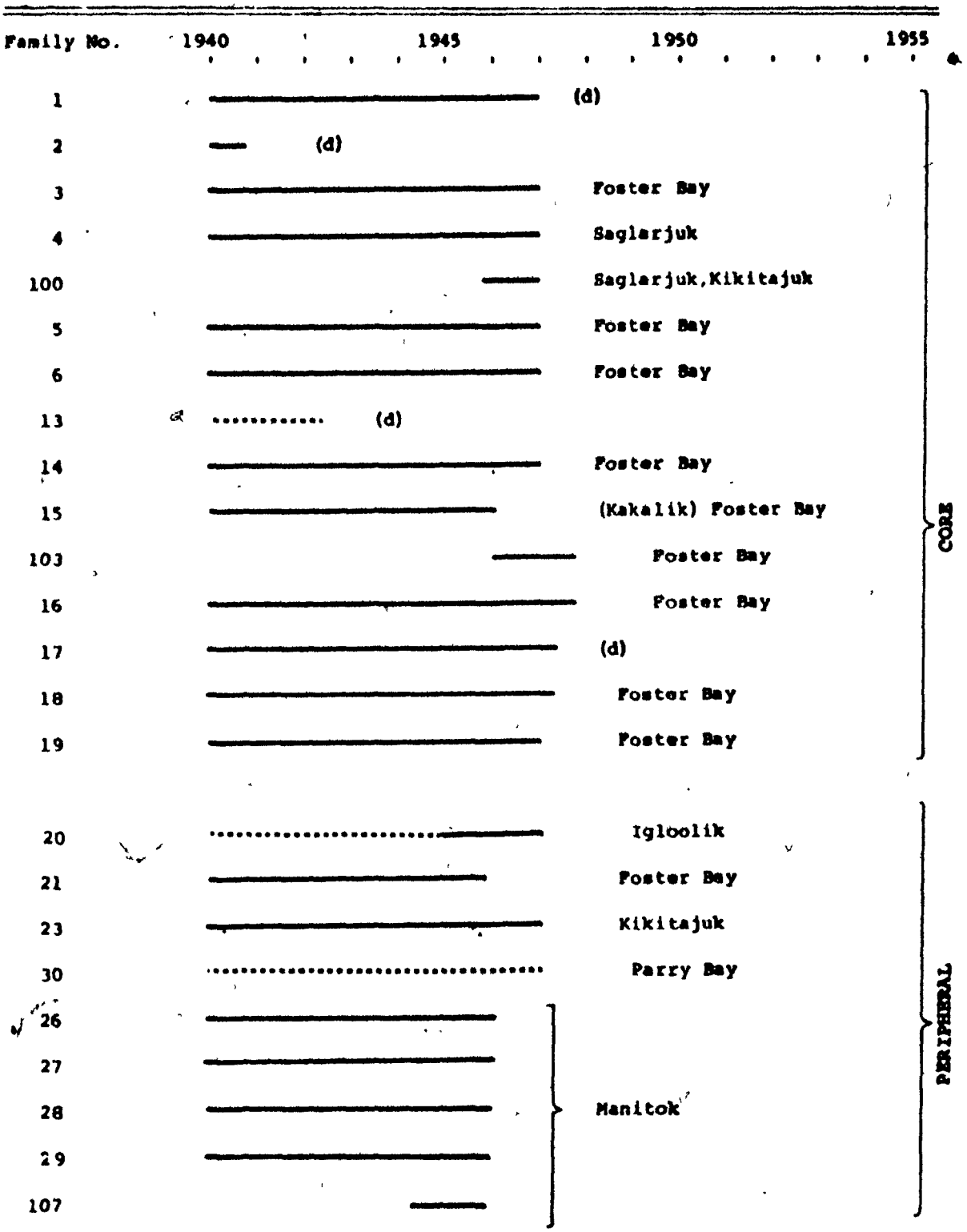
Changes to Settlement Pattern 1940-1955

AVAJUK AND THE DISPERSAL OF THE IGLOOLIK ISLAND GROUP

The keystone in the collapse of the traditional settlement pattern was Avajuk. This village had outstripped all other northern Foxe Basin settlement groups in size and prosperity and had attracted the largest peripheral population (Figure 24). It was now the first village to outgrow its resources. The Avajuk population was obliged to disperse, and this caused direct repercussions throughout the region, accelerating the existing trends towards overexploitation of resources elsewhere, and indirectly leading to further population dispersal. The dispersal of the Avajuk population was accomplished in less than two years, and after such stability this suddenness had an even greater impact on other settlements. The first tangible sign of overpopulation around Igloolik Island was the loss of the Avajuk peripheral population (Figure 24). As Avajuk began to experience economic stress these habitually mobile people found it more profitable to settle elsewhere. The realignment of much of the peripheral population of northern Foxe Basin in the 1940's is one of the major changes in settlement pattern to occur in this period, and is discussed later in this section.

The movement of the Avajuk core population itself was a new phenomenon. Prior to the 1940's the core population had shown extreme residential stability. Their solidarity was largely the result of economic incentive, but they were also living in a close group by personal choice (Unpublished field notes 1968, 1969). The group was entirely Catholic, in contrast to the remainder of the Lakimos in the

FIGURE 24
DISPERSAL OF THE IGLOOLIK ISLAND POPULATION 1940-1955



For key see Fig.11

region who were Anglican. Its dispersal therefore demonstrates the severity of the ecological changes taking place in northern Foxe Basin. This group would not have dispersed if there had been any viable alternative. There was none, as the game in the Igloolik Island area could no longer support the whole group with the means at its disposal.

In 1940 Avajuk was still the largest and structurally most tight-knit village in the area, with the strong core population centred on one family. During the 1930's Avajuk had attracted a number of immigrants, some of whom became permanently attached to the core group. There were several whaleboats making the village wealthy by local standards. The leader, and several of his sons owned whaleboats, as did one of his sons-in-law (Unpublished field notes 1969, 1). Men without boats were able to hunt with those who did have them. In the late 1940's inboard motors had been introduced, giving hunters a greater range of travel from their home, but incidentally driving the game further out, making longer distances necessary on hunting trips.

In the early part of the decade there were about 20-25 adult hunters in the village. This is not very much greater than the number of hunters in the 1920's, but these men supported more dependents, and there was increased wastage of game, which added to the pressure on local resources.

The first adjustment that the Avajuk core population was to have to make to the growing stress in their habitual hunting area, which had occurred despite efforts to keep population down to the former optimum level, occurred in 1939 or 1940 when two of the leader's sons spent a year at Pilik hunting caribou. At the same time three

more sons and a son-in-law stayed at Iglujuak to hunt caribou. The son-in-law had also done this in 1936. It was presumably this group that is mentioned by Crowe as receiving supplies of meat from Avajuk during a shortage that year (Crowe 1969, 83). This is generally considered to illustrate the prestige and wealth of the Avajuk group, able to help out other villages in time of need. In fact the emergency supplies came from the men's father in their own village while they were attempting to balance the lack of caribou in their own area.

Avajuk had grown to be a small village of permanent houses that were inhabited throughout the year, except when hunting caribou, or when spring villages were established for seal and walrus hunting. The trends towards sedentary life described in the previous chapter were intensified. Those who left the village in summer returned before freeze-up and stayed until spring (Unpublished field notes 1969, 6). The people lived in qarmats made of stone and turf, roofed with canvas or skin, and these were increasingly used throughout the winter in place of snow houses which were harder to heat. Surpluses from summer hunts made a sedentary life possible in winter, and the sea ice hunting village that had been located at Igloolik Point since pre-contact times decline still further in importance. Women no longer travelled with the men on hunting trips since in both summer and winter improved transport enabled the hunters to return to the central village. The adoption of cloth dresses and also some outer clothing by the women, influenced both by the shortage of caribou skins and by preference, made travel in winter as unpleasant as it was unnecessary (Crowe 1969, 71).

The women were increasingly housebound in a small house heavy with smoke from the lamp or primus. Accompanying this was an increase in the incidence of tuberculosis and brochitis. Several informants recalled the prevalence of chest ailments and other sickness at Avajuk at this time, and considered these to be one of the reasons for the village's breakdown.

The immediate cause of the rapid dispersal was the death of the village leader in 1947. One of his grandsons stated that "we left Avajuk in 1947 because the old man [the leader] told us to leave, because we had been there too long. There was sickness there. Everyone had T.B. and brochitis." (Unpublished field notes 1969, 2).

In the early 1940's men were forced to go further afield when hunting. Some had exploited parts of the Fury and Hecla Strait as far as Saglarjuk (Map 2), others re-established summer walrus hunts at Pingerkalik (Unpublished field notes 1969, 9), and still others went on regular summer walrus hunts to the Calthorpe Islands south of Jens Munk Island (Unpublished field notes 1969, 6). All of the hunters returned to Avajuk from such temporary locations, and the winter village retained its solidarity.

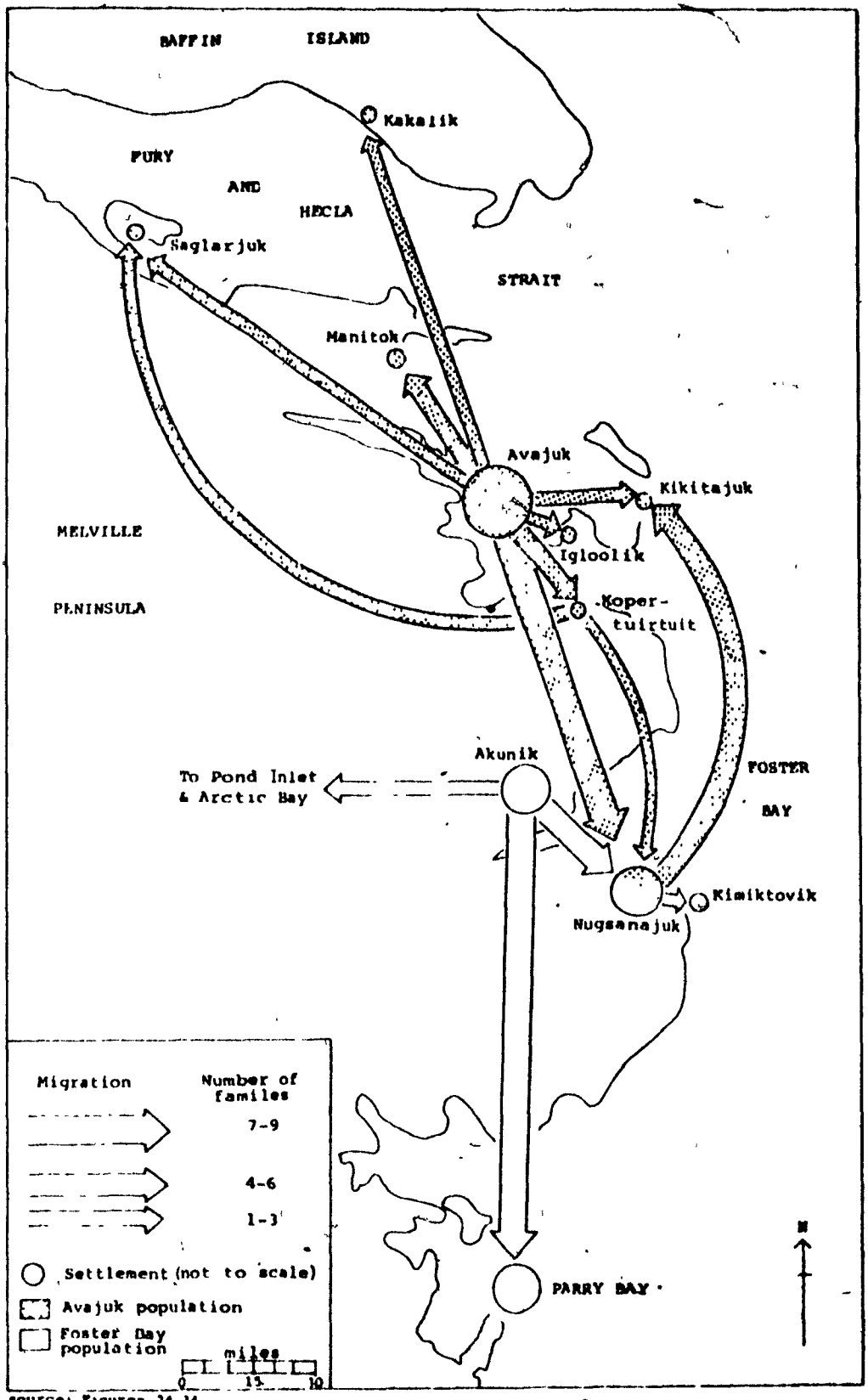
However, by 1946, because of ecological changes the situation had deteriorated to such an extent that the area could no longer support such a large concentrated population, even with increased hunting ranges. Between 1946 and 1949 a fundamental shift in settlement location occurred. In this period the entire population of Igloolik Island, numbering about 22 families, moved outwards towards the edge of the

area, breaking down into several smaller segments (Figure 24). This dispersal of the traditional central population group of northern Foxe Basin was to have far-reaching effects on the entire Igloolik Eskimo group, both in the other traditionally settled areas, Foster Bay and Parry Bay, and on the newly established villages described later in this chapter.

The process of the breakdown of Avajuk, as reconstructed from interviews in 1968 and 1969, is shown on Map 5 and Figure 24. The first group to sheer off from the village was a family that had only been associated with Avajuk since 1940, having immigrated from Southampton Island. Although peripheral to the core group in that they were recent immigrants, this group had remained at Avajuk since their arrival, and later they resumed their association with families from the Avajuk core population. They moved from Avajuk to Manitok, about 20 miles to the north, at the mouth of the Fury and Hecla Strait (Map 5). The reasons given by the son-in-law for the move were first, that his father-in-law told him to move, and second, that there were more seals there. The move was clearly due to the pressure at Avajuk resulting from a growing human population and declining resources. The group did not possess a whaleboat, and walrus hunting was no longer important to them after leaving Avajuk. One of the sons reports seeing walrus near Manitok in the 1930's but not since then (Beaubier 1969, 1). The group went as far as Garry Bay on the west side of Melville Peninsula for caribou in the 1940's but had very little success because of the depleted herds. They trapped along the Fury and Hecla Strait as

MAP 5

DISPERSAL OF POPULATION FROM AVAJUK & AKUNIK 1947-1955



source: Figures 24-34

far as Saglarjuk, and also on the north side at Upirgnavik. The mainstay of the Manitok economy was always seal which could be hunted all year with the aid of rifles. Although the store had re-opened at Igloolik "seal hunting was always more important than trapping in the winter" (Unpublished field notes 1969, 12).

By 1947 the population of Avajuk was reduced to its core members, the peripheral population having relocated in more favourable areas. This core group consisted of the leader and his sons, and two affinally related men. This group now split and dispersed to the locations shown on Map 5. Damas notes that the breaking of male sibling bonds was common once men had reached maturity where fission was necessary in order to maintain settlements of optimum size. However, there is also a tendency for brothers to remain together where possible (Damas 1963, 191). At Avajuk the leader's sons had been able to live together into middle age because of the village's growing affluence in the 1920's and 1930's. Several of them had already died by 1947, and the youngest was 30. By this time several of the grand-sons of the leader were adult men with their own families.

In 1947 two of the leader's sons, one with three adult sons of his own, left Avajuk, moving to Kopertuirtuit, a fishing camp on the south side of Hooper Inlet. One of these men and his three sons moved from Kopertuirtuit to Saglarjuk in 1949-50. They lived at Agu in 1951-2, and the sons have hunted in the Fury and Hecla Strait seasonally since then. The second son and his family moved south from Kopertuirtuit to Nugsanajuk in Foster Bay where they lived with about

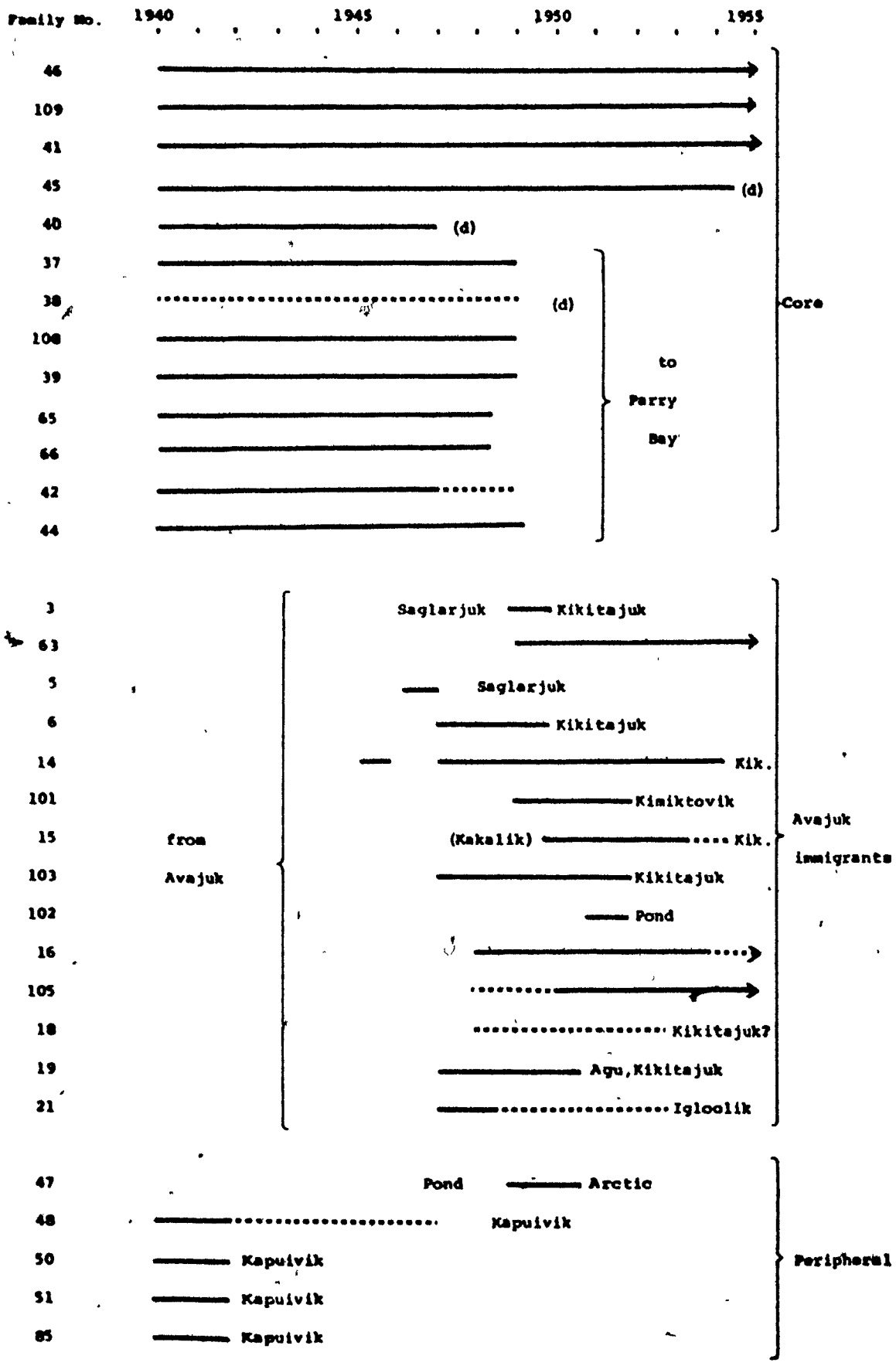
eight or nine related families that had moved there direct from Avajuk. In all more than ten men moved to Nugsanajuk from Avajuk with their families in this period (Figure 25). This place is only ten miles from Akunik, and draws on the same game area. The immigration to Nugsanajuk represents a doubling of the Foster Bay population. At least two of the in-migrating men had whaleboats, and these, together with the Akunik boats, doubled hunter pressure in the area.

One of these immigrants from Avajuk had been associated with Akunik after marrying a woman from that village in about 1940. He now aligned with Akunik rather than Nugsanajuk, but the two villages later combined, so that by 1948 Nugsanajuk was the main village in Foster Bay. Several of the immigrants from Avajuk stayed in Foster Bay until the early 1950's. Other Avajuk families moved to Kakalik, Igloolik, and Kikitajuk in the period from 1947 to 1950 (Map 5).

After this initial dispersal of settlement following the abandonment of Avajuk, the Avajuk group remained in close contact. A census taken in June 1949 by the Catholic Missionary found many of the former Avajuk people at a summer sealing camp at Igloolik Point although several of these are known to have been living at Nugsanajuk or elsewhere during the rest of the year.

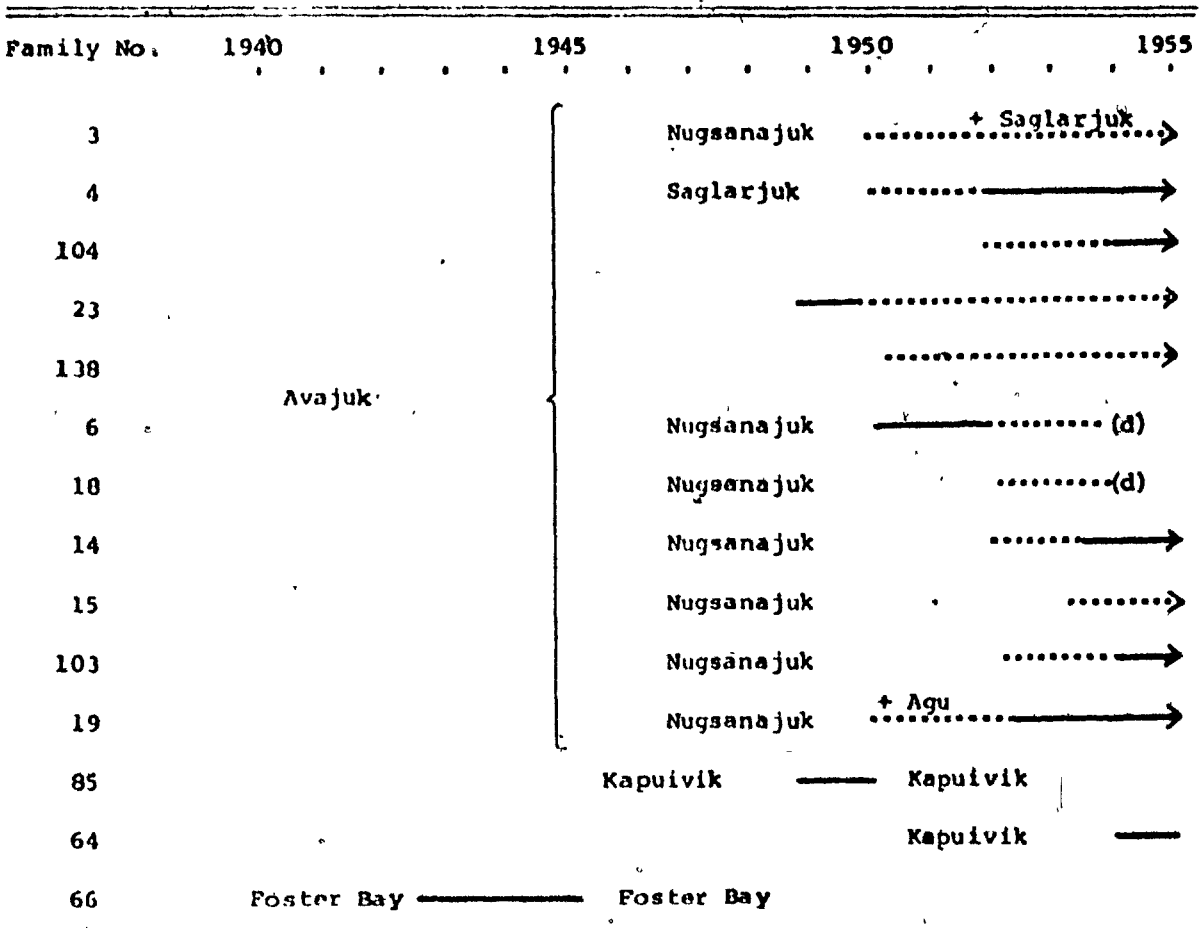
Foster Bay already had a large population (Figure 25), and the game in that area was undergoing the same stresses of increased hunting pressure, noise, and boat traffic as that of Igloolik Island. The influx of men from Avajuk resulted in very serious overpopulation.

FIGURE 25
COMPOSITION OF THE FOSTER BAY POPULATION 1940-1955



Kik. - Kikitajuk. For overall key see Fig.11

FIGURE 26
COMPOSITION OF KIKITAJUK 1940-1955



For key see Fig.11

The repercussions of this on the Akunik population are discussed in the following section. The in-migrating Avajuk men reacted to the situation by further migration. By 1950 there was a regrouping of several former Avajuk families at Kikitajuk on Igloolik Island (Figure 26).

The new availability of canoes and motors from the store in Igloolik gave individual hunters greater mobility and independence from

whaleboat owners. Men could now travel from Kikitajuk to hunt walrus at the Ooglit Islands, or Seowa and the Calthorpe Islands, at the same time being near the source of fuel. The trading post, a first aid post, the Mission, and the source of government aid all added to the attraction of living near Igloolik. Kikitajuk represented a location near the traditional Avajuk hunting territory, within reach of the store, yet near the new walrus and caribou areas. Furthermore Kikitajuk had previously been used as a seasonal settlement by the Avajuk people. The development of Kikitajuk as a permanent village was a complete break from the former settlement pattern that stressed location near the walrus herds. This was made necessary because of two new factors, dependence on the centre especially for fuel, and the outward movement of the walrus herds.

Between 1950 and 1954, with an influx of people to Kikitajuk, this village became firmly established as the new permanent settlement for the descendants of the earlier Avajuk core population. Four or five of these families moved in from Nugsanajuk having lived there for several years, and the four members of the core group associated with Saglarjuk also aligned with their kin at Kikitajuk. These four men had hunted at Saglarjuk in the 1940's and spent the year 1951-52 at Akimanik in the western end of the Fury and Hecla Strait. The disappearance of walrus near Igloolik Island may have influenced this move to an area which, although it had no walrus, was less intensively hunted for seal and white whale. The father of these men, who was a son of the Avajuk leader, moved to Kikitajuk in

the early 1950's, and the three sons moved there permanently in 1952 or 1953 "to join their relatives." (Unpublished field notes 1969, 2). They now resumed walrus hinting, being nearer to the herds, with the added mobility of canoes. One of these men states that they preferred to live at Kikitajuk because they could hunt walrus again (Unpublished field notes 1969, 2). However, fox trapping now required a two day journey instead of the one day or less from sites on Melville Peninsula, and this, together with low prices, led to the decreasing importance of fox trapping in the economy. The sons continued their association with the Fury and Hecla Stait, hunting there seasonally.

In all only two or three of the sons of the former Avajuk leader moved to Kikitajuk. Two had been away from Avajuk since they were young men, associating with Pilik and Jens Munk Island. Their sons now lived on Jens Munk Island. The Avajuk leader's youngest son had moved permanently to his father-in-law's village in Foster Bay. The remaining brothers and the father, the former leader of Avajuk, were dead by this time.

Kikitajuk therefore had neither the size nor the extensive close kin ties of Avajuk. The remaining village members consisted of a man married to one of the Avajuk leader's grand-daughters who had lived at Avajuk for many years, and two others who had previously lived at Avajuk. Several other families were associated peripherally with Kikitajuk. One man who had immigrated to the area from southern Foxe Basin in 1940, visited Kikitajuk from the Jens Munk Island settlements in 1949. Another immigrant lived in Kikitajuk briefly in 1954

after leaving Kapuivik. He later moved to Parry Bay.

Although Kikitajuk was in many ways the successor of Avajuk, it did not enjoy the same prosperity. The core group was small, and although largely the descendants of the leader of Avajuk they were by now third generation and did not have such close kinship ties. They still represented the core of the northern Foxe Basin Catholic population, but there was by now another concentration of Catholics around the Mission at Igloolik. Kikitajuk was a poor substitute for the former rich village of Avajuk, and did not have the same power to attract and hold population. In addition the growing population of Igloolik exploited the same resource areas as Kikitajuk leading to a progressive worsening of hunting conditions after the establishment of this village.

CHANGES TO THE FOSTER BAY AND PARRY BAY POPULATIONS

In Foster Bay the core population of the second traditional major settlement centre, Akunik, had been augmented in the 1930's by a number of immigrants attracted by the local resources and the presence of whaleboats. Now with the dispersal of the Igloolik Island group in 1947 the population of Foster Bay, which had been about 12 families in the earlier part of the decade, doubled (Figure 25, Map 5). With this came an increase in the number of whaleboats and the pressure on local game. Walrus had not been driven from Foster Bay as they had been from Hooper Inlet, and their presence in the bay and on the Qoglit Islands was the main attraction for the in-migrating Avajuk people.

Akunik remained as a settlement site, but several people

left this settlement to join the immigrants in their village at Nugsanajuk. Thus during the early part of the 1950's the situation was one of newly expanding population and increased motor traffic in Foster Bay, and between it and Igloolik. Such an increase in activity created a very unstable relationship between the human population and the biological environment which resulted in increased wariness of game in the area. Many of the former Avajuk people left to live in Kikitajuk as hunting conditions deteriorated in the early 1950's, but several Akunik families also found it necessary to leave in that period. The unstable situation was compounded by the establishment of the D.E.W. Line station about 15 miles south of Foster Bay at Hall Beach between 1954 and 1957. The full effect of the D.E.W. Line on settlement is considered in the next chapter, but it may be mentioned that the increase of motor boat traffic in summer between Hall Beach and Igloolik is considered to be the crucial factor in the movement of the Foster Bay walrus herd to more isolated areas, notably the Manning Islands 40 miles out into Foxe Basin (Beaubier 1970, 185).

As a consequence of overpopulation in Foster Bay, and increased motor noise, the walrus moved out, and this made it necessary for many Akunik people to leave the area. They were unable to move north because this area was already under pressure and occupied by the expanding and dispersed Avajuk people, so they moved south to the previously underpopulated Parry Bay (Figure 27). This movement is illustrated in Map 5. Parry Bay, although possessing similar resources to those formerly found at Igloolik Island and Foster Bay, had only a small transitory population. The Parry Bay game had not been

overhunted due to the small population and absence of whaleboats, and the immigrants were attracted by better hunting prospects. They brought with them at least one whaleboat.

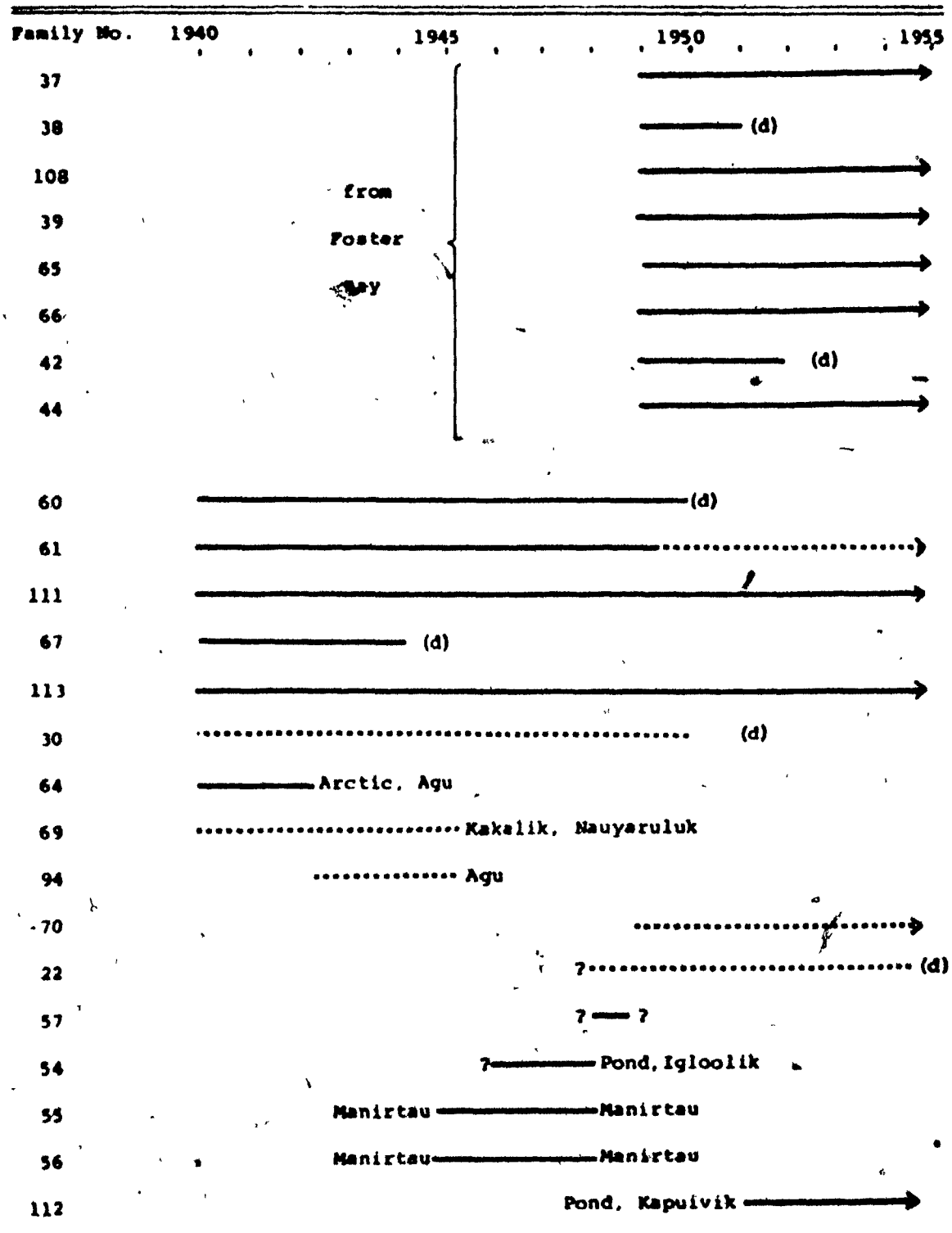
In the early part of the decade 1940-1950 there were normally about six to eight families in the Parry Bay area. Several of these were in close contact with Akunik, sometimes combining with families there at summer camps to share their whaleboat.

When the Foster Bay population doubled in size after the dispersal of Avajuk, several Akunik families were displaced as a result of increased pressure on Foster Bay. Eight men, formerly associated with Akunik, are known to have moved south to Parry Bay between 1946 and 1949 (Figure 27), where the majority of them remained until the mid 1960's. These men had formed part of the core population of Akunfik, two of them being sons of the leader.

Their relocation was not simply a movement of peripheral population such as had occurred on a small scale during the preceding period, but represented a basic shift in the settlement pattern of the Foster Bay core population. The movement was in response to pressures on local resources caused by the increased use of southern technology, immigration into northern Foxe Basin, and natural increase. The immediate cause, however, was the dispersal of the Avajuk population in response to these factors.

By 1949 the population of Parry Bay had swollen from 6-8 families, to 18 men with 62 dependents at the time of the June village

FIGURE 27
COMPOSITION OF THE PARRY BAY POPULATION 1940-1955



for key see Fig.11

(OMI 1949). Several of these families had joined the village temporarily from elsewhere, but the fact that people were attracted there in such numbers, even temporarily, indicates the increasing scarcity of game in other areas as well as increased mobility. The Parry Bay settlements remained an important centre of population until the mid 1960's. This was the first time in this century that Parry Bay had a large population with a stable core group.

DISPERSAL OF THE PERIPHERAL POPULATION

The core populations of Igloolik Island and Foster Bay dispersed between 1945 and 1950 in the ways illustrated in Map 5. With the exception of the remote villages of Agu and Manirtau, formed earlier by immigrants, the remainder of the northern Foxe Basin population had already reacted to this pressure. These people formed the peripheral population of the region, and were characterized by the absence of extensive kin groups, and lack of prolonged association with one settlement or large group, as shown by frequent movement between settlements both in and beyond northern Foxe Basin. Many of them had attached themselves to Avajuk and Akunik (Figures 12 and 13) in order to take advantage of the general prosperity of those villages.

As the economic position of Avajuk and Akunik declined the benefits to be derived from them for peripheral members decreased as food surpluses became increasingly concentrated in the core group. Unlike the core group which stood to gain from its solidarity, the peripheral population took advantage of its mobility and dispersed to areas which were not overpopulated. By this process several new villages

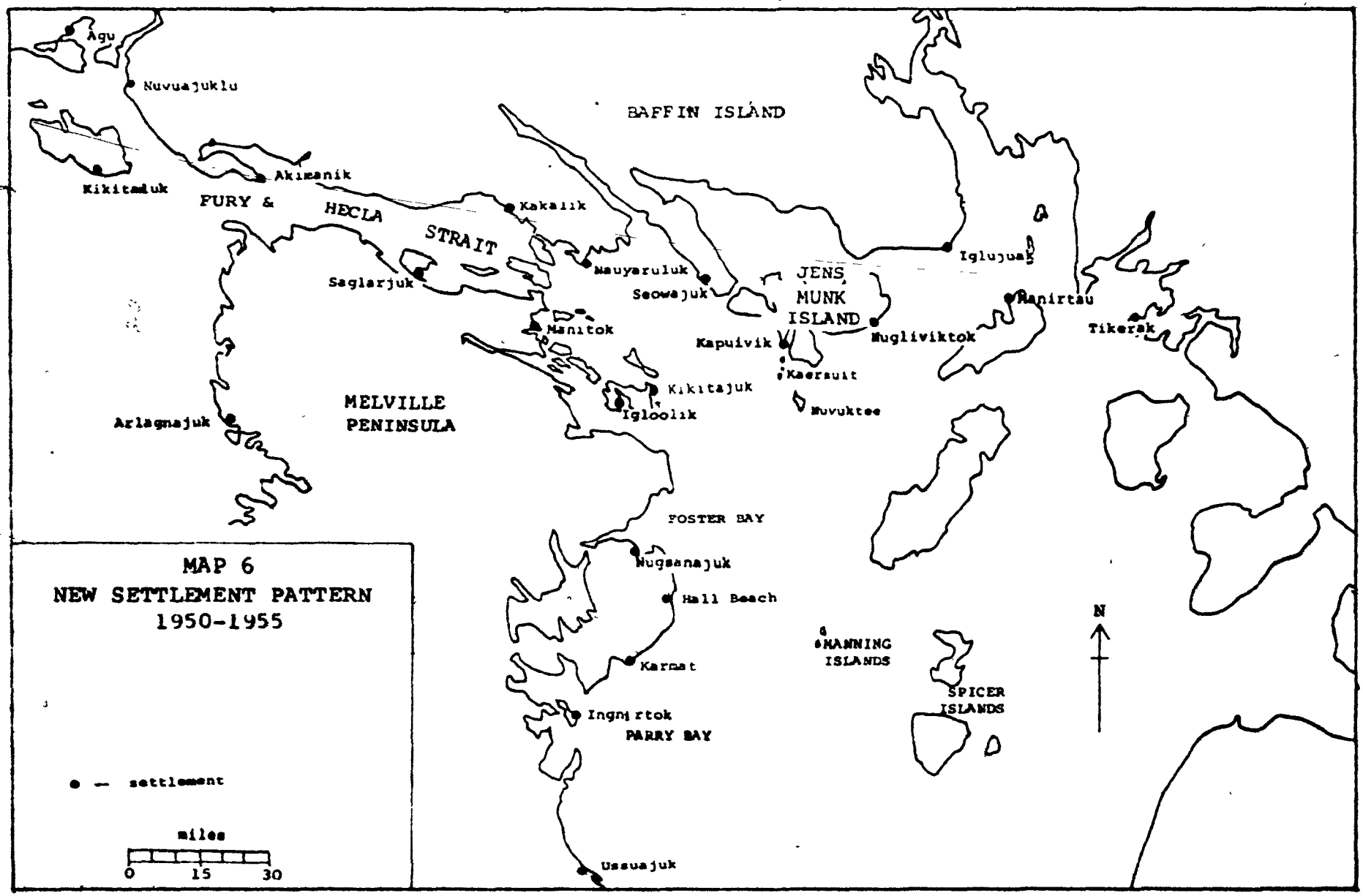
were established (Map 6).

Although the more general ownership of whaleboats and later of canoes was an important factor in this dispersal, boat ownership did not initiate the moves, it merely supplied the means to accomplish them. The dispersal of the majority of the peripheral population occurred in the late 1940's before canoes came into general use. Indeed, the existence of a whaleboat at the newly formed settlement on Jens Munk Island had a smilar effect to that of the whaleboats at Avajuk ten years earlier, namely attracting settlers who as yet had no boats of their own.

In this period new settlements grew at Seowajuk, Nauyaruluk, Iglujuak, and most importantly Kapuivik on Jens Munk Island. None of these included members of the old core popualtions of Avajuk or Akunik, and even though most had been in use as occasional camp sites since pre-historic times, their development as permanent settlements was a complete break from the traditional settlement pattern (Map 6).

Kapuivik

The most striking new alignment of population was the growth of a large village on Jens Munk Island. Before the 1940's Jens Munk Island had been the site of occasional camps, and there is archaeological evidence of occupation here by Thule, Dorset and pre-Dorset people (Meldgaard 1956), but as a resource area it had been largely neglected in this century. It was used more as pressure increased


Agu
Nuvuajuklu
Kikitaluk
Akimanik
FURY &
HECLA
STRAIT
Kakalik
Saglarjuk
BAFFIN ISLAND
Nauyaruluk
Seowajuk
JENS
MUNK
ISLAND
Iglujuak
Manirtau
Tikerak
Manitok
Kapuivik
Nuguliviktok
Kaersuit
Kikitajuk
Igloolik
Nuvuktee
MELVILLE
PENINSULA
Arlagnajuk
FOSTER BAY
Nugsanajuk
Hall Beach
MANNING
ISLANDS
N
Karmat
SPICER
ISLANDS
Ingmirtok
PARRY BAY
Ussuajuk
MAP 6
NEW SETTLEMENT PATTERN
1950-1955
settlement
miles
0
15
30

around Igloolik Island, for example, some men had wintered at Nuvuktee in 1940-41, and spent the spring at Kaersuit, both on Jens Munk Island.

The new village, however, was formed by peripheral members of existing settlements, or by immigrants, who now found this location more satisfactory than a marginal attachment to the traditional core populations. Figure 28 illustrates the heterogeneity of the Kapuivik population. As many as seven main groups contributed to the growth of Kapuivik. They were brought together not by kinship ties, but by a common need to exploit a better resource area. The existence of a whaleboat was the factor enabling such a concentration to form at Kapuivik.

The initial settlement on Jens Munk Island was at Nugliviktok, dating from about 1938. This village later relocated at Kapuivik in 1943.

By 1938 the first population group (Group 1, Figures 28, 29) had established a settlement at Nugliviktok on the east side of Jens Munk Island. The group consisted of one man, his nephew, his two adult sons and their familes. Before this, one man recalls, they had moved around a lot, usually staying at one place no more than two or three years. The leader of the group had acquired a whaleboat, which made him independent of the Avajuk and Akunik core populations, and provided the necessary mobility. They eventually broke with the other settlements in northern Foxe Basin because "the game moved away from places they had lived before," (Akunik and Nauyaruluk), and moved to Nugsanajuk "because it was better for hunting" (Unpublished field

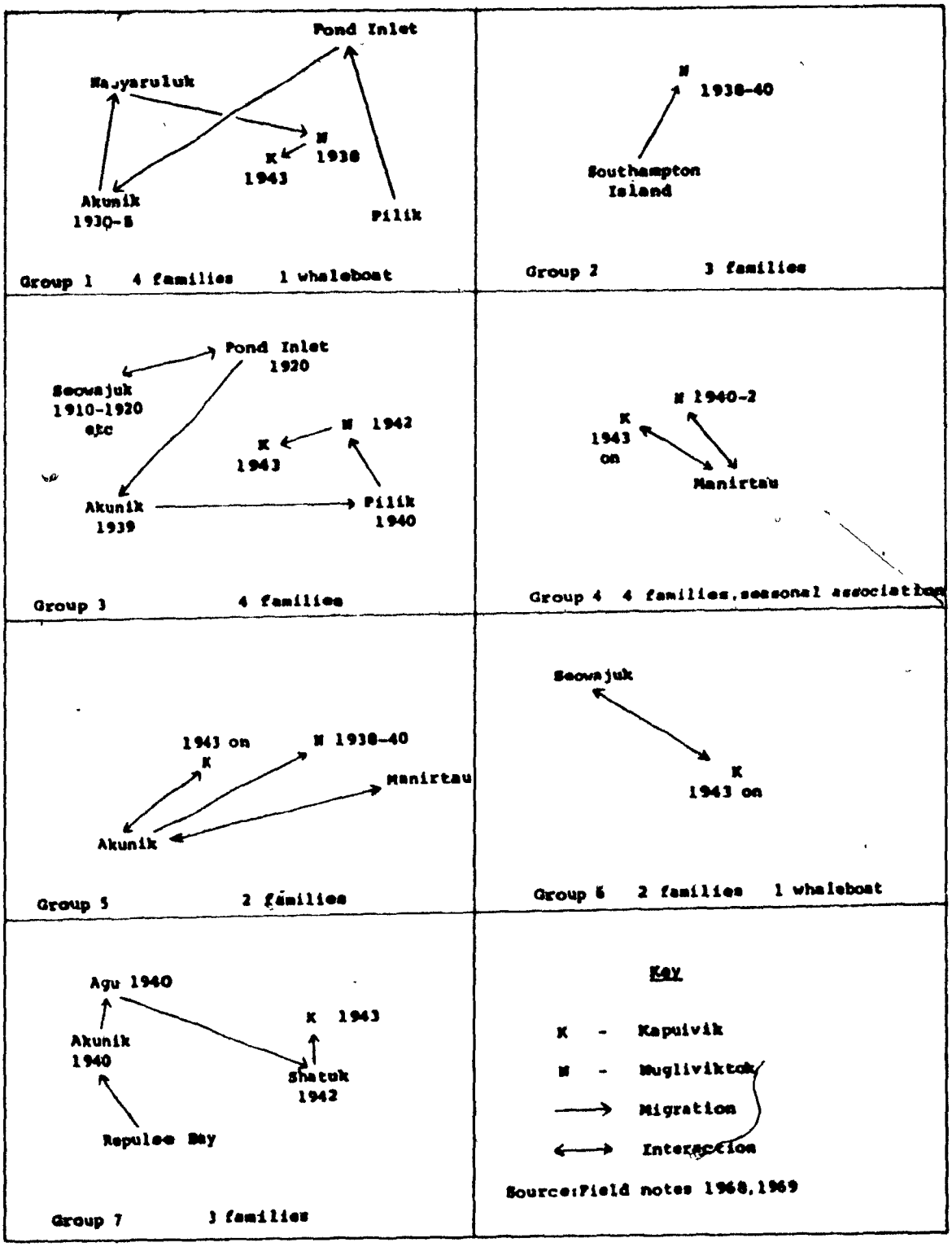
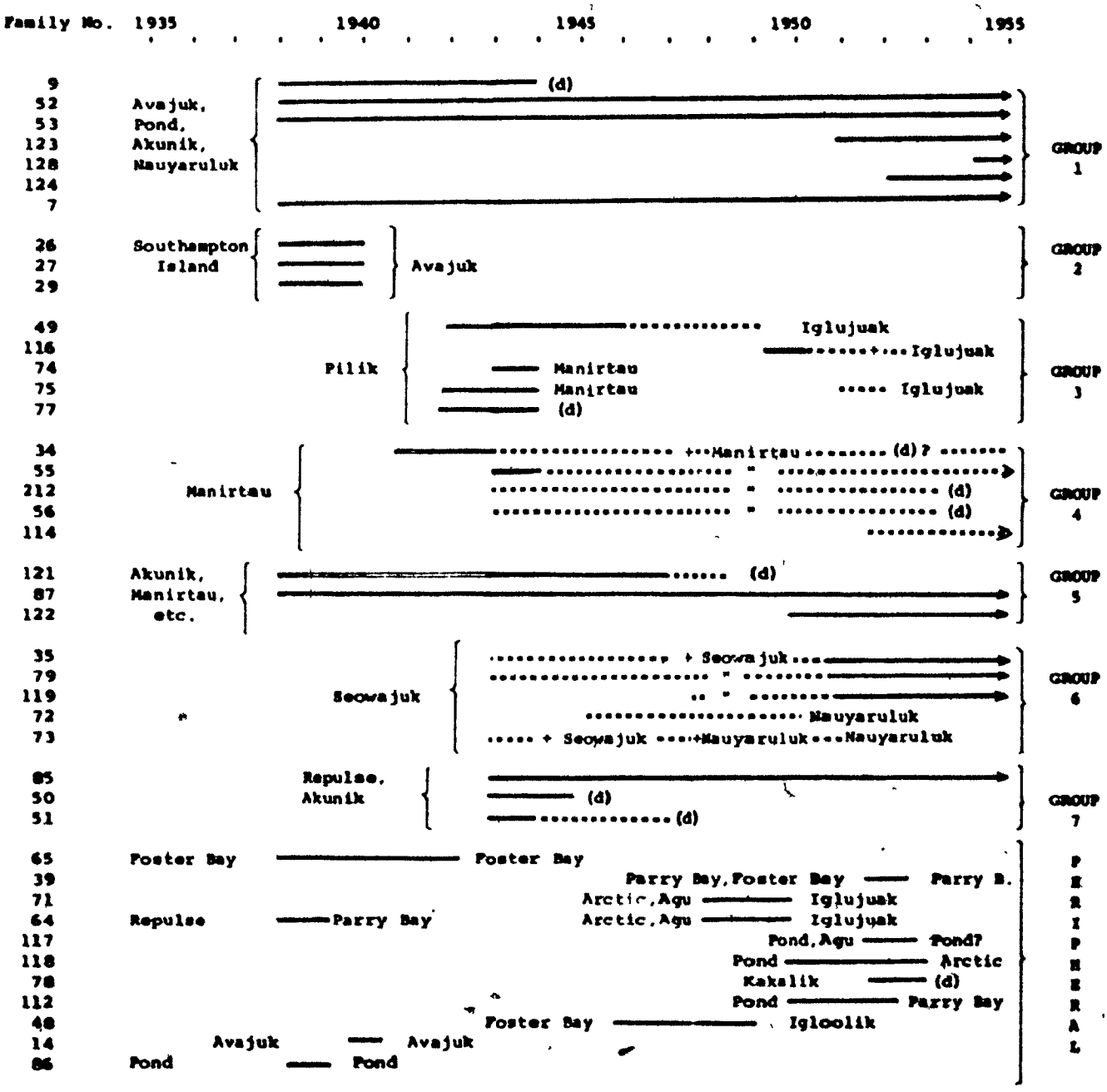


FIGURE 28
THE HETEROGENEITY OF THE JENS MUNK ISLAND POPULATION

FIGURE 29
COMPOSITION OF NUGLIVIKTOK AND KAPUIVIK 1935-1955



notes 1969, 10). Walrus was the important factor in this decision.

Nuglviktok became a year-round village where the older people stayed while the young camped elsewhere seasonally (Unpublished field notes 1969, 4). This is a continuation of the division of activities by age reported by Mathiassen (1928, 30) in 1922.

The second group (Group 2, Figures 28, 29) immigrated from Southampton Island and lived at Nuglviktok between 1938 and 1940. The third group had moved there by 1942, having been associated with several other settlements. Group four from Manirtau, joined the village temporarily in the period 1940 to 1942, attracted by the whaleboat. They continued their association with the village after it relocated at Kapuivik in 1943, and regularly participated in summer walrus hunts using the whaleboat. A fifth population group associated with Jens Munk in this period was headed by a man who had lived in Foster Bay and Manirtau. They spent 1938 to 1940 at Nuglviktok associating with relatives from the Manirtau group who were there at the same time. This group remained at Kapuivik and established kinship links with group four, and later group seven (Figure 28).

In 1943 the first and the third groups, comprising eight families, moved to Kapuivik. Once more the stated reason for their move being that it was a better area for game, "it was better at Kapuivik for hunting" (Unpublished field notes 1969, 4). The head of the first group still owned a whaleboat, that, at the time before the introduction of canoes, when whaleboat owners were most influential, gave this man considerable prestige as a leader over the other village members. His family remained in Kapuivik until the 1960's, forming the

dominant kin group, the core of what Damas termed the Upper Village of Kapuivik (Damas 1963, 91).

After the establishment of Kapuivik the Seowajuk people became closely associated with the village (Group 6, Figure 28). In 1943 about three families were in Kapuivik from Seowajuk. They continued to visit Kapuivik seasonally from Seowajuk until two of the men moved to Nauyaruluk after 1947, when the remaining families became more closely associated with Kapuivik.

A small group of immigrants from Repulse Bay (Group 7, Figure 28) stayed at Akunik briefly before spending a season near Agu in 1940. They found the Agu area short of game, particularly with the absence of walrus, and moved to Shatuk on the south tip of Jens Munk Island in 1942. These three families moved to Kapuivik in 1943, and remained there, later forming the core of one half of the village population, the Lower Village of Kapuivik (Damas 1963, 91).

Kapuivik was a village formed by men who have been defined as peripheral to the core population groups of northern Foxe Basin. A large proportion of the Kapuivik people were immigrants who could not be absorbed in the other population centres such as Avajuk or Akunik because of the declining resources of these places. The first groups to settle at Nuglviktok and Kapuivik were not closely related to each other, but were joined by a common need for the local resources, and the opportunities created there by the existence of a whaleboat.

However, after the establishment of a village at Kapuivik this heterogeneous group of men itself became consolidated into a core

population group characterized by residential stability and the development of kinship ties within the group by means of marriage and adoption. By the early 1940's Kapuivik consisted of a core group of 13 men, with several peripheral members who were associated with Soowajuk, Manirtau, Akunik, Arctic Bay and Pond Inlet (Figure 29).

The village never developed the close kin ties characteristic of the Avajuk and Akunik core groups, however, and at the time of Damas' visit in 1961 he had to divide Kapuivik into Upper and Lower villages for the purposes of his study of kinship, finding only tenuous links between the two (Damas 1963).

By the early 1950's Kapuivik had become one of the largest aggregations of population in northern Foxe Basin. At about the time the Kapuivik group got a motor for their whaleboat the pattern of walrus movement changed, and the walrus began staying further out in northern Foxe Basin (Beaubier 1969, 4). It was now necessary to travel further for game, in particular walrus, but at the same time growing numbers of canoes and motors increased hunting ranges. It was still possible to cache enough meat from the summer hunts to last the winter. Kapuivik now replaced Avajuk as the largest and richest village in northern Foxe Basin.

Nauyaruluk

A new settlement was established at Nauyaruluk on the north side of the Fury and Hecla Strait in 1947. This village was formed by a single extended family of a couple, with a married son, who were formerly associated peripherally with Akunik, Avajuk and Pond Inlet

(Figure 30). They were joined by a man from Seowajuk who left that village as it began to lose its autonomy due to increasing ties with Kapuivik. Another man also formerly resident at Seowajuk, joined the Nauyaruluk group when he married the leader's daughter in about 1950. These four families remained at Nauyaruluk throughout the period, largely dependent on seal, although they also hunted walrus before the herds left the area in the 1950's (Unpublished field notes 1969, 7). They became residentially stable and were able to live there permanently because of the possession of one or more boats.

FIGURE 30
COMPOSITION OF NAUYARULUK 1940-1955

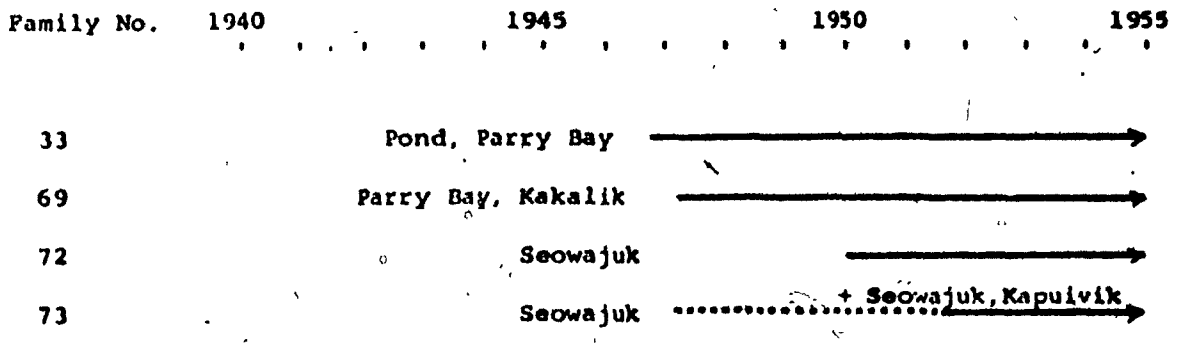
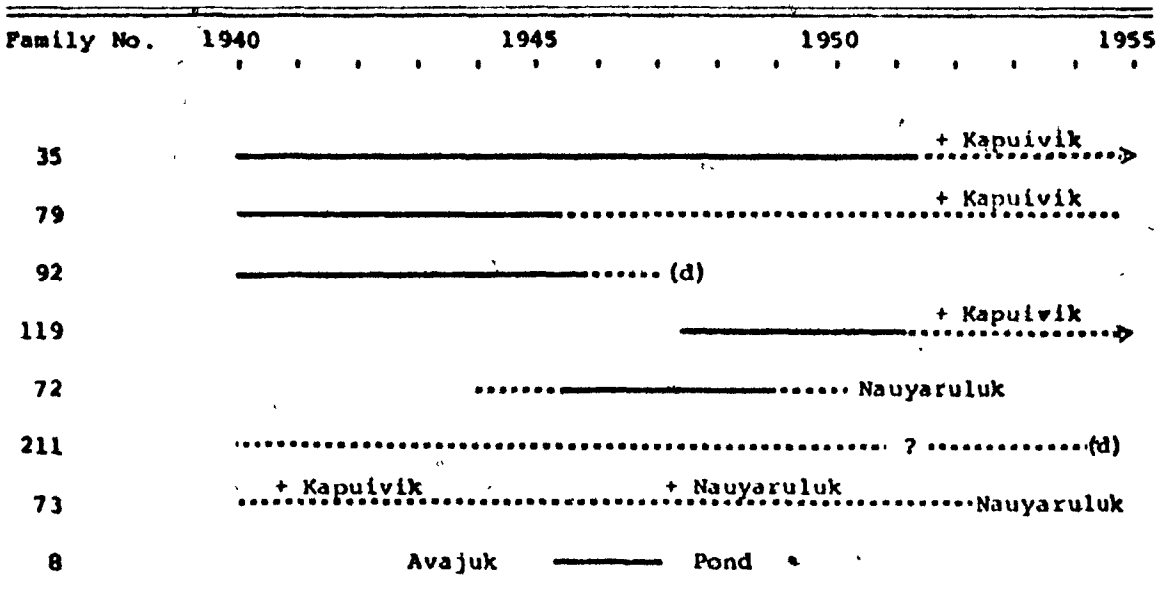


FIGURE 31
COMPOSITION OF SEOWAJUK 1940-1955



For key see Fig.11

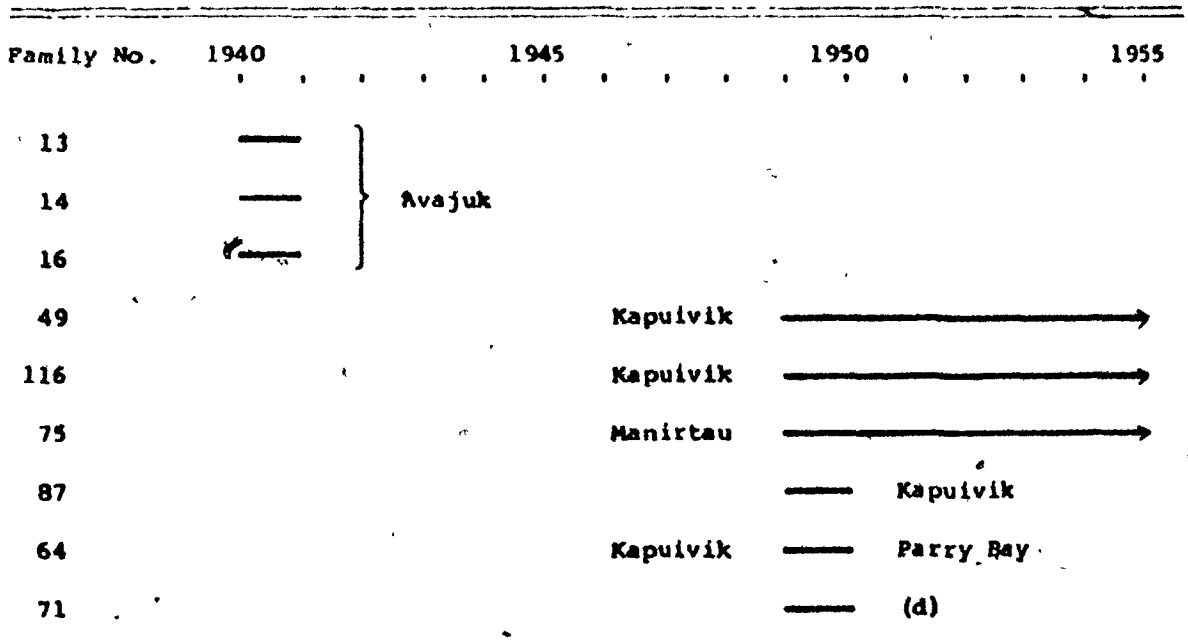
Seowajuk

Four to five families lived permanently at Seowajuk in the period (Figure 31). The group owned a whaleboat and joined the Jens Munk Island population at walrus camps at Kaersuit and Nuvuktee in spring or summer. The Seowajuk autumn and winter settlement was dependent on walrus meat cached near Kapuivik, in particular for use as dog food, and it was necessary to make several journeys there each winter (Unpublished field notes 1968, 1). Seowajuk's size and autonomy were both reduced during this period due to the growth of Kapuvik, and it was later abandoned when two families became attached to the Kapuivik group, and two others joined the newly established settlement at Nauyaruluk in the late 1940's.

Iglujuak

In 1940 a group of families had lived temporarily at Iglujuak (Figure 32). Since then there had been no permanent settlement in the area. However, by 1949 a small settlement composed of three families had been established there. The head of this group had previously lived at Akunik, and moved to Iglujuak after about seven years residence on Jens Munk Island (Group 3, Figure 28). Damas (1963, 27) relates this move to the acquisition of a whaleboat that

FIGURE 32
COMPOSITION OF IGLUJUAK 1940-1955



For key see Fig 11

enabled the head to form his own settlement since he wished to be independent of the new large village of Kapuivik. It is also undoubtedly related to the general dispersal and expansion of population in the

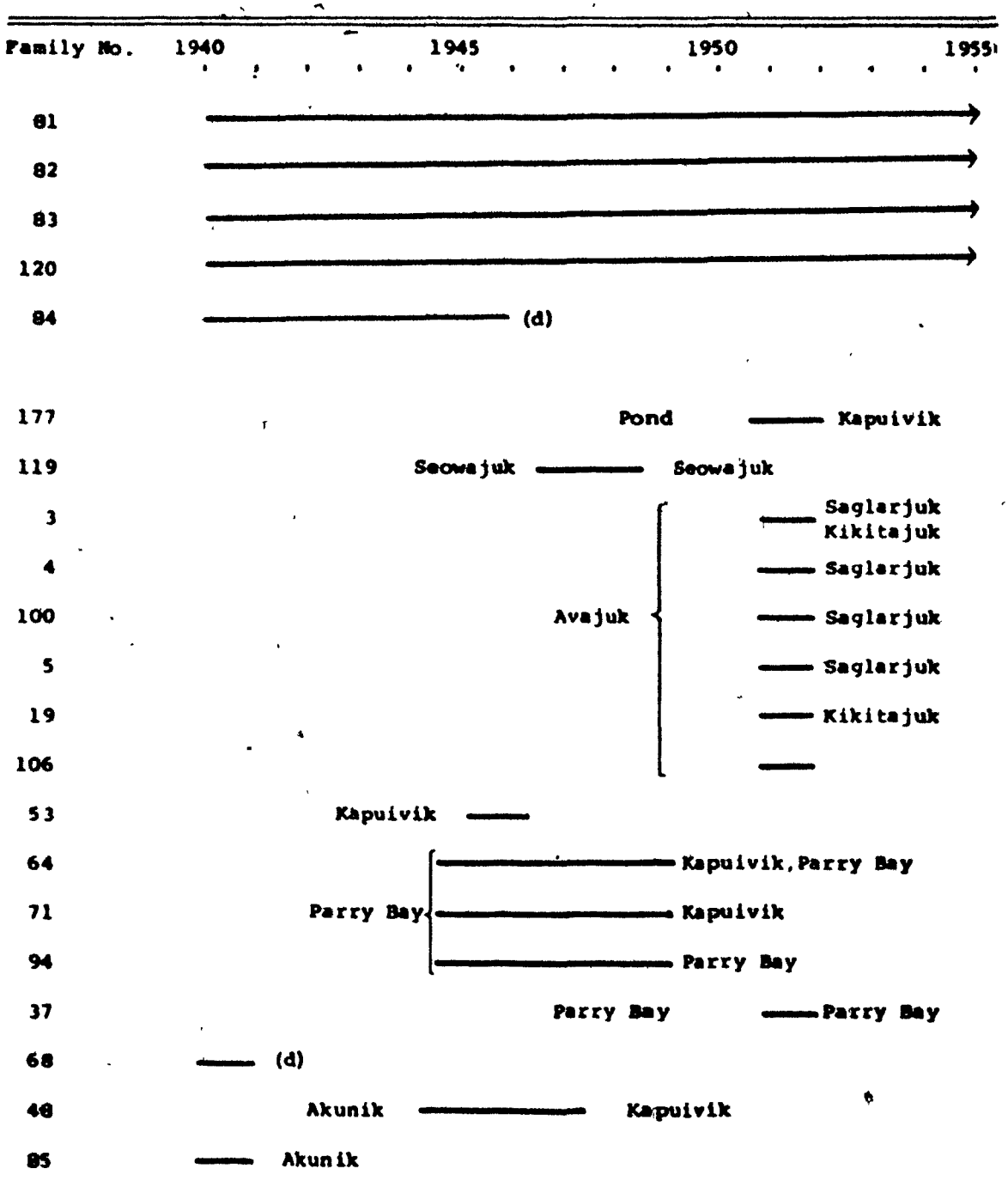
west of northern Foxe Basin, one result of which was increased migration to Jens Munk Island.

Iglujuak consisted of a stable population of three families until the 1960's. Because of the whaleboat this group was residentially stable after the establishment of their village. They were joined briefly by others, for example in 1949 the group also temporarily included three men from Kapulvik, and frequently they themselves joined the Jens Munk people in large walrus hunting groups in summer. These were generally in the Calthorpe Islands at Kaersuit or Nuvuktee. For the remainder of the year the Iglujuak people hunted as far as Kalili at the head of Steensby Inlet, and to Murray Maxwell Bay. They made extended visits to Pilik in autumn for caribou, in which the whole family participated. In winter fox trap lines were set in the vicinity of Iglujuak (Beaubier 1969, 3).

Other Settlements

Agu. There was no further permanent immigration to the Agu area in this period, largely because its remoteness and the absence of walrus made it unattractive for long term settlement. The central families of the Agu population remained constant (Figure 33). They were too remote from the other Foxe Basin settlements to be affected greatly by the increasing dispersal of the population. However, the western end of the Fury and Hecla Strait was visited seasonally by people from further east following the population movements of the late 1940's. In 1951-1952 four families from Avajuk, already mentioned in connection

FIGURE 33
COMPOSITION OF AGU 1940-1955



Agu Bay includes: Agu, Akimanik, and Muvuajuklu.
For key see Fig.11

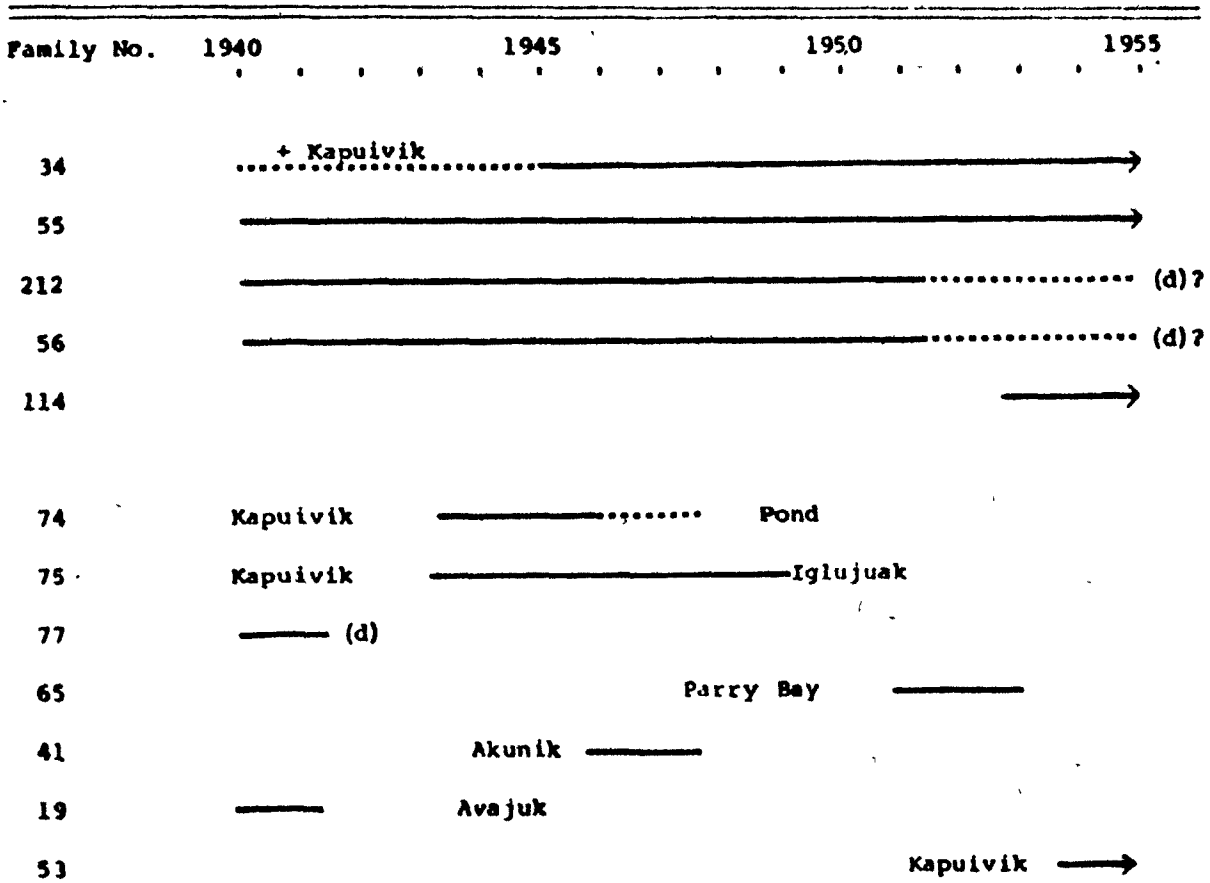
with Saglarjuk (p. 1), joined some of the Agu people at Akimanik for about a year. The Akimanik group had a whaleboat, but since the mainstay of the economy was seal the usefulness of a large boat was limited.

One of the visiting families in 1952 reported that during their stay there was a famine and they had to leave the area. This suggests that they were unused to such a degree of dependence on seal hunting, being accustomed to using whaleboats for walrus which required less frequent hunts and provided surplus meat for storage (Unpublished field notes 1969, 2). Another family immigrating from Pond Inlet spent the same period at Akimanik before moving to Kapulvik. Several other families visited the area periodically, specifically to hunt bears, which are present in Committee Bay, in order to obtain trade goods such as canoes and motors with the skins. By the 1950's fox prices were low compared to their peak in the 1920's, but the demand for bear skins had not decreased. However none of these families settled in the Agu region so that the permanent population remained stable.

Manirtau. The Manirtau group, established on the east side of Steensby Inlet since the early 1920's, remained stable throughout the period (Figure 34). The game in this area was not subjected to the same intensive hunting or high incidence of water traffic and increase of motors as that in the vicinity of the Melville Peninsula settlements. Consequently the Manirtau hunters were virtually unaffected by these changes.

The village consisted of six families (Group 4, Figure 29),

FIGURE 34.
COMPOSITION OF MANIRTAU 1940-1955



For key see Fig. 11

none of which possessed a whaleboat. Their cycle of activities included a winter settlement at Tikerak from which the people hunted caribou inland and ringed seal at the floe edge. In spring they moved to Angmarjuak Island for ringed, and bearded seal, and walrus at the floe edge, returning to Tikerak in summer for seal and caribou. They frequently joined the Jens Munk people for summer walrus hunts after the establishment of a permanent settlement there. In autumn they hunted caribou,

travelling south as far as Ipiutik. Apart from the co-operation with the Jens Munk people their cycle was a continuation of the pattern that existed throughout northern Foxe Basin before the introduction of whaleboats. The Manirtau group did not undergo any appreciable changes in their subsistence activities or settlement pattern until they acquired a whaleboat in the late 1950's (Beaubier 1969, 2).

Pilik. There was no permanent settlement at Pilik in this period. However, with the decline of the Melville Peninsula caribou herds and increased mobility of hunters using whaleboats and canoes, Pilik became an important seasonal hunting area. Caribou had decreased further north on Baffin Island (Unpublished field notes 1968, 1)partly as a result of overhunting here following the decline of the Melville Peninsula herds and a shift in hunting locations. Several groups now made extended hunting trips to the area of Ipiutik or Pilik Bay to find caribou.

Summary

The period 1940-1955 was characterized by population growth and the increased use of Western technology, which led to more intensive hunting, greater wastage of game, boat traffic, and later engine noise, and increased the strain on resources in traditionally populated areas. These processes resulted in the decline of caribou, the redistribution of walrus, and increased wariness of seal. Fox prices had not recovered from the decline during the Depression years, meaning that

the trading position was now less favourable to the Eskimos. The worsening economic conditions were coupled with the growing number of dependents per hunter - hunter to non-hunter ratios being 1:2.1 in 1922, and 1:3.1 in 1949 - which resulted from better survival due to increased sedentariness, a more secure food supply, and later, government subsidies. The overall result was that the existing patterns of population distribution and hunting activities were now unsatisfactory. Reaction to this situation can be divided into three elements:

i) Increased exclusiveness of core population groups.

ii) Dispersal of the peripheral population from core settlement areas.

iii) Dispersal of the core populations themselves.

The core populations first became more consolidated and entrenched. The development of kin links with others outside the group was discouraged, and peripheral people were excluded from permanent membership of the group.

The peripheral population, attracted in the late 1920's and the 1930's to Avajuk, and on a smaller scale to Akunik, because of the advantages of their wealth, now looked elsewhere. Many relocated at Kaputvik, while other small settlements grew and new ones were established. This was made possible in most cases by the possession of a whaleboat by a peripheral family.

Despite the loss of its peripheral population Avajuk was still too overcrowded. The walrus had left Hooper Inlet, and the advantages of concentration in one village had diminished. In conversation

with former members of the village an impression was gained of distaste for the village at this time with many references being made to the high incidence of illness there, in particular bronchitis and tuberculosis. They now felt the need to disperse, which was encouraged by the leader before his death in 1947 (Unpublished field notes 1969). A large proportion moved south to Foster Bay with which they had traditionally been associated before the advent of whaleboats.

Now with whaleboats in both groups, and a doubling of population, they brought the same problems of overpopulation and overhunting with them to Foster Bay. Many Foster Bay people left their traditional home to resettle in Parry Bay, and some of the Avajuk immigrants later returned to Igloolik Island to establish a village at Kiktajuk, the hunting pattern from there taking a new form with canoes. The village was at an intermediate point between the store at Igloolik which was the source of fuel, and the walrus herds. The strong Catholic group was temporarily broken as the Avajuk core group dispersed. They retained former links, and the taboo against intermarriage with other, Protestant groups, but did not retain their high level of prosperity in comparison with the other Igloolik Eskimos.

A completely new pattern of settlement was established by 1955 (Map 6 and Figure 35). The dispersal of population and occupation of new settlement sites has been attributed to the efforts of the store manager at Igloolik to encourage fox trapping in remote areas (Manning 1943, 104). Some of the Igloolik Eskimos themselves have offered this explanation (Damas 1963, 27). Damas relates the process to the "swelling local population, mostly brought about by immigration, which was absorbed

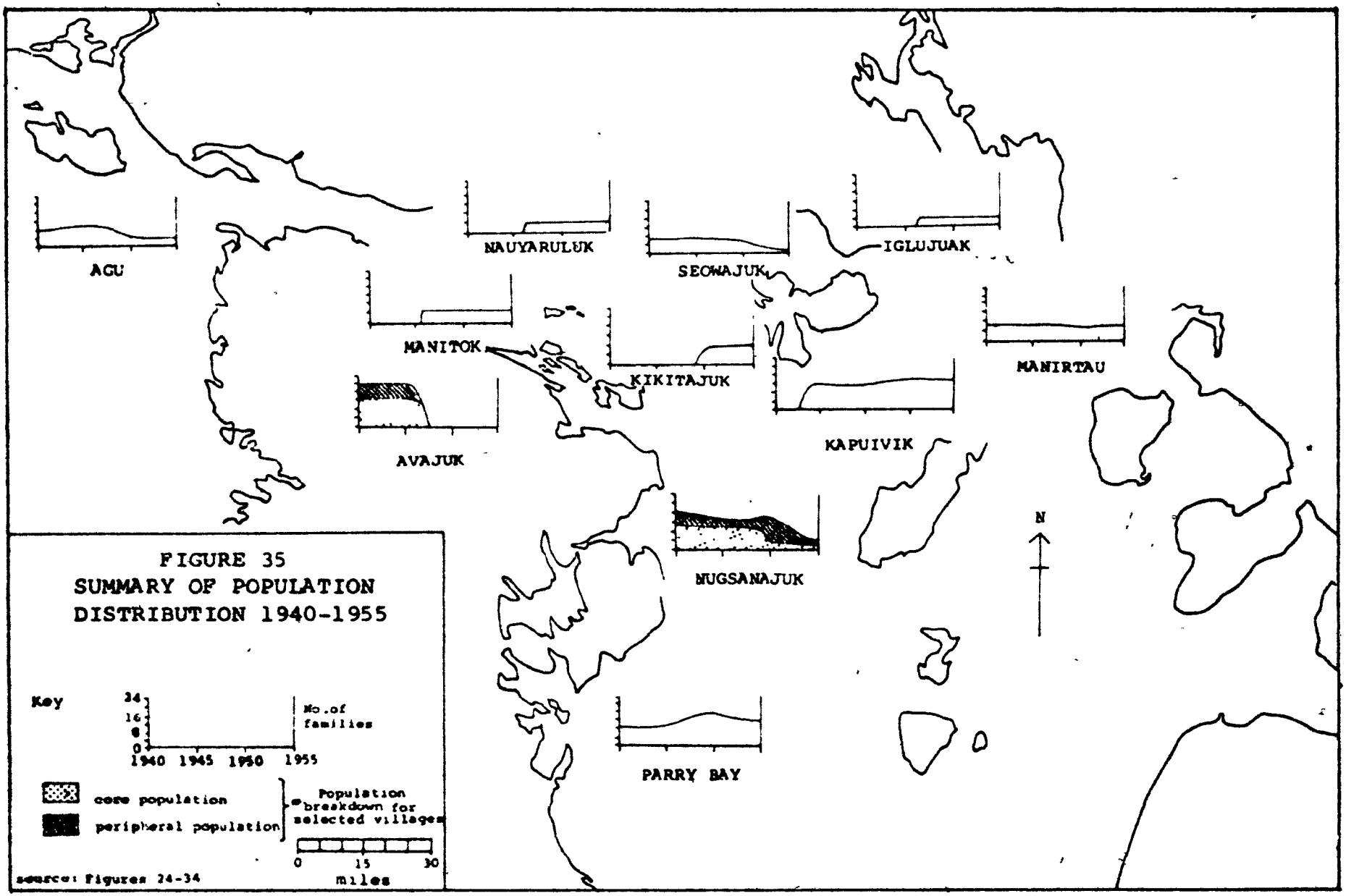


FIGURE 35
SUMMARY OF POPULATION DISTRIBUTION 1940-1955

by the establishment of new village sites." (Damas 1963, 27). However, it is clear from the foregoing analysis that the process was far more complex than either of these explanations suggests. Commercial fox trapping had been an element in the economy since the beginning of the century, and by the 1940's it had declined in importance both because of the considerable drop in prices, and because government assistance provided an alternative cash income after 1945. The dispersal and establishment of new settlements did not involve immigrants or surplus population alone, but affected the most stable core groups and resulted in a collapse of the traditional settlement pattern.

Dispersal of population was related to the overexploitation of resources in the traditional settlement areas, the result of both increased population and the use of Western technology. The desire of the peripheral population for independence from the core groups that had hitherto controlled most capital equipment was an element in the dispersal of these peripheral people. Independence was now possible for them because of the more general ownership of whaleboats, and after the store opened, an increase in the number of canoes with outboard motors. However, the dispersal of the core groups was due solely to the deteriorating relationship with the natural environment, and it is likely that similar processes occurring in other parts of the Canadian Arctic had the same causes.

The very items of Western technology that made dispersal possible, guns and boats, were themselves the means of increasing hunter's dependence on the trade centre by their constant need for ammunition and motor fuel, and after this dispersal dependence on Igloolik grew progressively. This process is described in Chapter V.

CHAPTER V

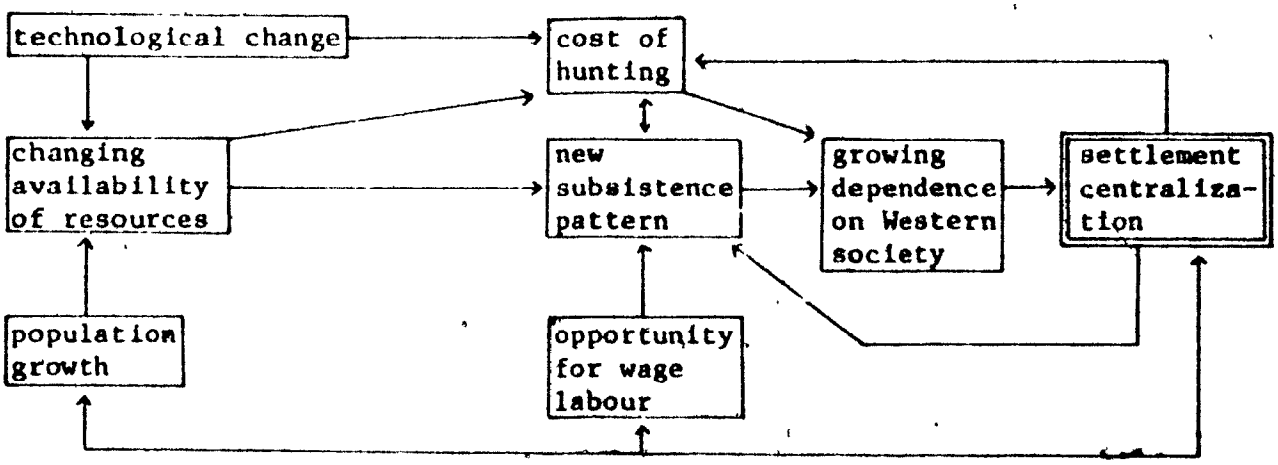
SETTLEMENT CENTRALIZATION 1955 - 1970

Growth of Regional Centres

Centralization of settlement was a continuation and culmination of the trend towards greater dependence on Western society, and centres of Western activity that is illustrated in earlier chapters. This was a response to technological change, population growth, and shifts in game distribution and availability, all of which led to changes in the subsistence pattern, and a growing dependence on Western society. This process is illustrated in Figure 36.

FIGURE 36

FORCES ACTING ON SETTLEMENT PATTERN 1955-1970



The forces shown in this table are essentially the same as those discussed in Chapter IV, but with the addition of a new factor in the subsistence pattern, the opportunity, or hope of wage labour, and the availability of housing in the centres. The specific

forces involved in this period are discussed below. They include social institutions, technological change, government programmes, population growth, and the changing availability of resources.

Western influence in northern Foxe Basin increased rapidly following the establishment of a store at Igloolik in 1947. A second centre developed 50 miles to the south at Hall Beach after 1954, and together Igloolik and Hall Beach grew to dominate the settlement pattern, exerting a centralizing force. At first they became the focus for increasingly frequent visits from outlying settlements. Then their existence encouraged a certain amount of migration to villages nearer the centres. Later there was accelerating migration to the centres themselves which culminated in the centralization of the entire northern Foxe Basin population by 1969.

Between 1954 and 1957 D.E.W. Line radar stations were built across the arctic, with Hall Beach being chosen as the site of one of the chief stations, Fox Main. A number of subsidiary stations were also established in Igloolik Eskimo territory, from Maktar on Committee Bay in the west, across northern Foxe Basin to the Pilik area of Baffin Island.

Despite the fact that local labour was not employed, the presence of the D.E.W. Line stations in the area had a considerable effect on the population. There were several advantages to visiting the site or living near it. The nursing station at Fox Main was one of the most important of these, and it became a new focal point for the area. Families with sick members were attracted there, often making

journeys in spring specifically to visit it.

During the same period Igloolik was growing as an administration centre. By the early 1960's it had a school with hostels for the children of families living outside Igloolik, a government office with an Area Administrator, a Roman Catholic church and Mission with a resident priest, an Anglican church with an Eskimo minister, and a Hudson's Bay Company store. A nursing station, an R.C.M.P. post, and an Eskimo Co-operative society with a store followed (See Chapter II). This growth overshadowed the advantages of Hall Beach to some extent, but during the 1960's some opportunity for wage labour developed in Hall Beach which, together with the good market for crafts at the base, enabled Hall Beach to retain some attraction for settlement.

Before 1959 it was the policy of the Federal Government to discourage Eskimos from moving to the centres in the hope that they would live independently on local resources. However, in 1959 this attitude was reversed, and it has since been government policy to encourage the centralization of Eskimo settlement in the Northwest Territories, largely because "a scattered population is difficult to administer" (Thompson n.d.), and the services the Department of Indian Affairs and Northern Development is committed to provide can be more efficiently managed if the population is centralized. A housing programme was initiated in 1959 and several one room houses were provided for welfare cases in Igloolik, but otherwise there was no marked response to the programme. A new scheme began in 1964 in which housing was let

to Eskimos by the government. The scheme was accompanied by "an adult education program with the goals of educating the participants in the intricacies of living permanently in a rented dwelling of southern Canadian design" (Thompson n.d.). Rents were to be scaled according to income. Houses contained basic furniture and equipment, and services included garbage and sewage removal, and electricity and fuel quotas (Thompson 1969, 33).

The housing programme, together with nursing and welfare services and compulsory education, predictably encouraged large scale settlement in the centres, and during the period 1964 to 1970 the pattern of scattered settlements, as it then existed, came to an end. By 1970 all but one family living at Agu had moved into Igloolik or Hall Beach.

The housing programme and government health and education services were only three of the contributing causes to the centralization movement. Before centralization there was an increased availability of store goods with a local store and supplementary income from government assistance. Goods bought include canoes, motors, guns, ammunition, clothing, tent canvas, camping stoves, fuel and food. However, although they increased mobility and made the maintenance of dispersed settlement possible, these items, and particularly guns and boats, simultaneously increased dependence on the centres to the extent that when the means were provided in the 1960's settlement became completely centralized. Population continued to grow because of lowered infant mortality rates (Figure 6), better care for the sick and aged,

and some immigration. Motor traffic, in particular motorized canoes moving between Hall Beach and Igloolik, snowmobiles, supply ships from the south, and possibly aeroplanes at Hall Beach, affected game distribution and wariness, as did the increased hunting pressure.

Centralization itself caused further changes to the subsistence pattern, and resulted in the concentration of hunting around the settlements. This has had the effect both of driving game away to quieter areas, and also of increasing the wariness of seals remaining in the area, with an overall result of reduced hunting yields (Beaubier 1970, 190).

At the same time a new money resource became available with the opportunity for wage labour in the centres. Although jobs were limited in number, and often of short duration, for example stevedoring for the annual sea lift, they did add to the attraction of the centres.

These factors contributed to the development of a new subsistence pattern. The hunting pattern that developed in this period meant that men would make extended trips alone, leaving their families at home dependent on stored food supplies, including purchased food. At this time the use of flour as a supplementary food increased rapidly, and bannock became an indispensible addition to the diet (Milne 1970). One reason for this new pattern was the increased ratio of non-hunters to hunters. The family was often simply too large to move to seasonal settlements. Another factor was the increased mobility of hunters with motorized canoes, which made it unnecessary for the whole family to move as often, an acceleration of the trend started with the introduction

of whaleboats and bigger sleds and dog teams 30 years earlier.

The cost of hunting, in terms of ammunition, equipment and fuel, increased to the point where unless the price of seal or fox skins was high, and a man had enough to trade, hunting was only possible when subsidized in some way, for example by family allowance income (Beaubier 1970, 204). Seal skin prices dropped during the 1960's.

Abandonment of Outlying Settlements 1955 - 1970

In this period there was an outstanding change in the settlement pattern as all outlying settlements were abandoned in favour of Igloolik and Hall Beach. Broadly the population of the northern part of the area was drawn to Igloolik, while that of Foster Bay, Parry Bay and Usuajuk to the south moved to Hall Beach, regardless of former group affiliations, as illustrated in Figure 37. This movement took place largely during the 1960's, but other changes occurred earlier, such as the development of satellite villages around Hall Beach, and a certain amount of inward movement to existing settlements closer to the two centres from the more remote villages.

Centralization to Igloolik

KAPUIVIK

In the late 1950's and early 1960's Kapuivik was the largest settlement in northern Foxe Basin (Figure 38). The stable population numbered about 18 families until 1961. The seasonal cycle included a winter village at Kapuivik which was largely dependent on cached meat.

FIGURE 37
ABANDONMENT OF OUTLYING SETTLEMENTS 1960-1970

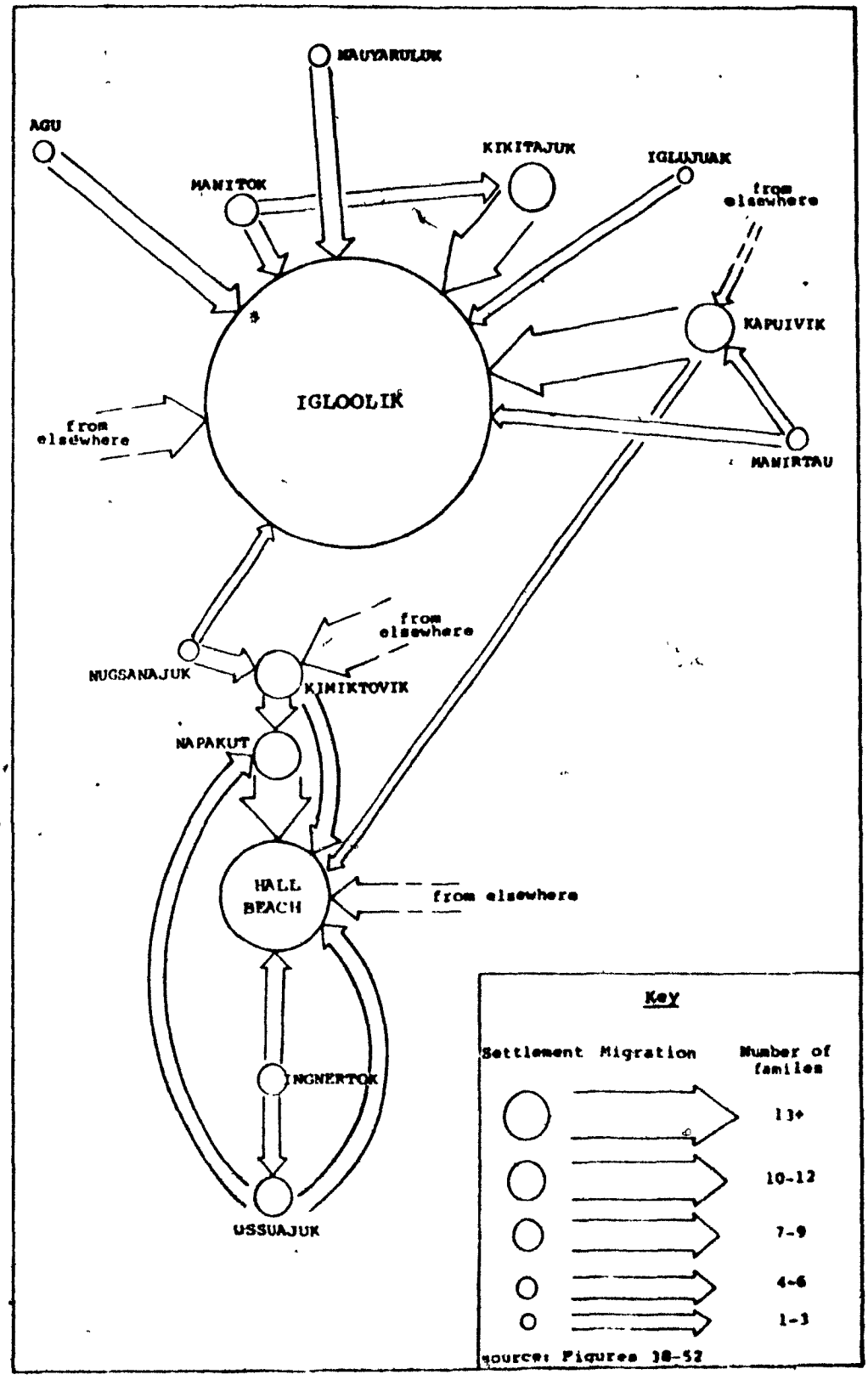
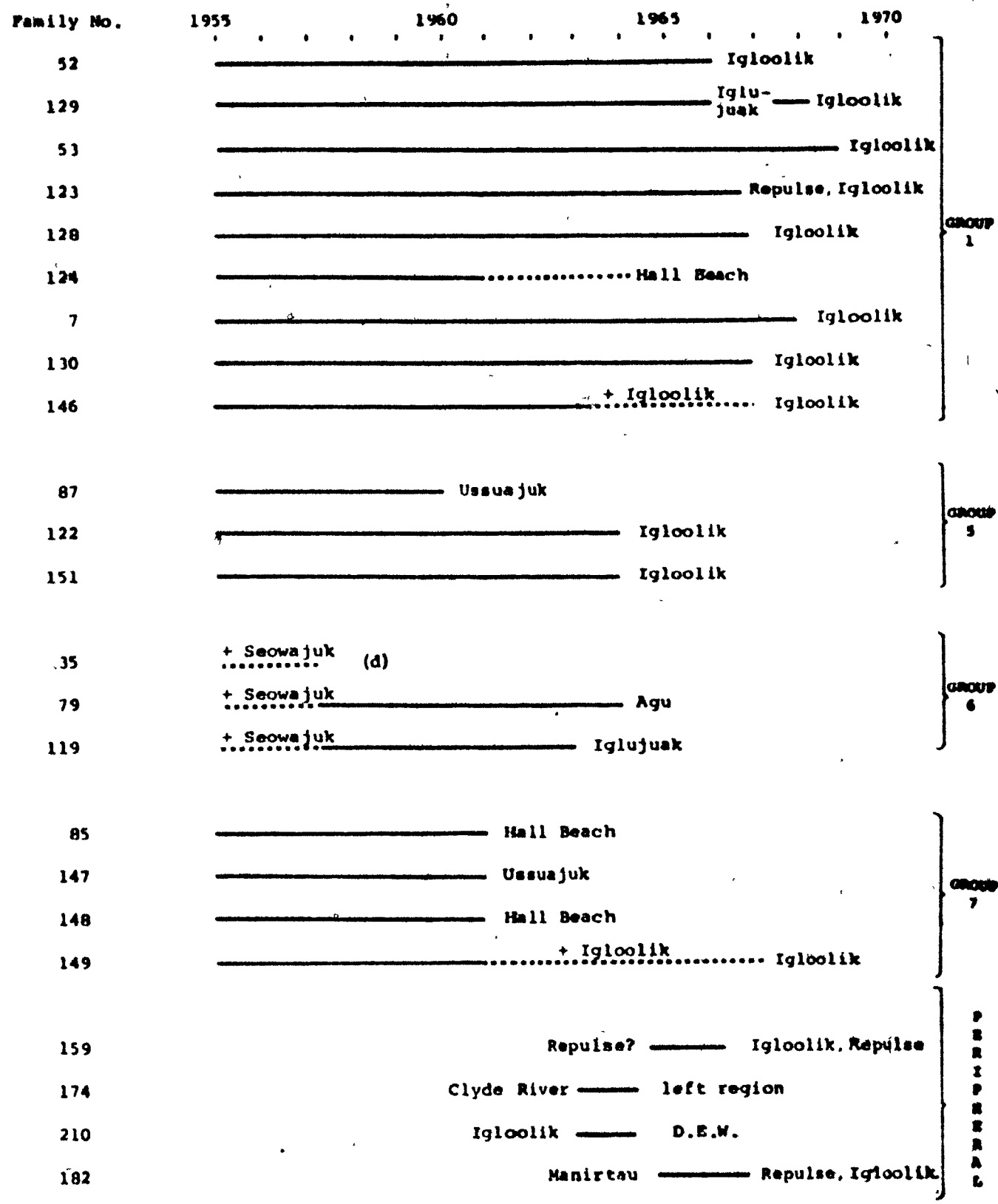


FIGURE 38
COMPOSITION OF KAPUIVIK 1955-1970



notes: D.E.W. - D.E.W. Line.
For key see Fig.11

Trap lines were set near the village in winter. There was a spring settlement at Seowa for ringed and bearded seal, and a summer walrus hunting site at Kaersuit. In autumn journeys were made to Pilik, or more recently Erke, on Baffin Island, for caribou, returning to Kaersuit to continue walrus hunting in autumn. About four to five trading journeys were made to Igloolik each year (Unpublished field notes 1969, 4).

Until the early 1960's Kapuivik consisted of two distinct segments, the Upper and Lower Villages (Damas 1963, 92). The segments consisted of Groups 1, 5, 6 and 7 described in Chapter IV. In addition to these groups several other families lived at Kapuivik including short term visitors from local settlements and from beyond the region, forming a peripheral population (Figure 38).

The core group of the Lower Village (Group 7) left Kapuivik in 1961 to visit Hall Beach because of the mother's sickness. The family remained at Hall Beach permanently after that, where the father found employment with the Department of Northern Affairs. He was accompanied by one adult son. A second son moved to Ussuajuk in the south of the area, but remained in close contact with his father in Hall Beach, sharing equipment with him. The third son divided his time between Igloolik and Kapuivik after his father left.

Group 1, the core group of the Upper Village, remained at Kapuivik until its members all moved to Igloolik between 1966 and 1969. In 1965 the leader of this group owned a trap boat and motor, and a canoe with a motor. His son owned a snowmobile. His brother

also owned a canoe, two motors and a whaleboat in 1965 (Anders 1968). This family group also owned two other canoes with motors. Although the status of the whaleboat owner was somewhat diminished after the availability of canoes made smaller groups of hunters more independent, this accumulation of equipment continued to give these men a strong position of leadership over other village members.

The core group of the Lower Village had owned a canoe and motor. Only one other member of the village had a boat, and one other a motor, but both of these men had left Kapuivik by 1965.

This left the first family group as the only core population of Kapuivik after 1961. They were joined occasionally by others for short periods, but with the growth of Igloolik and Hall Beach there was no new long-term immigration to Kapuivik.

In 1966 the leader of the remaining core group moved to Igloolik. His wife needed to be near the nursing station, and both agreed that "it is better for the old people to live in the village" (Igloolik), (Unpublished field notes 1969, 10). Their sons stayed in Kapuivik until 1967 and 1968, but they then joined their father in Igloolik, as did some of his nephews, and continued to hunt from there, with visits to summer camp sits.

The younger brother of the leader remained at Kapuivik with his large family until 1969. He then moved in to Igloolik because there was a house available for him there. He found the idea of having a house attractive, although he realized that hunting would be more difficult from the village. His wife needs to be near the

nursing station. His two sons moved to Igloolik in 1967.

Thus by 1969 Kapuivik was abandoned as a winter village, although former members continue to hunt in that area. The reasons for its abandonment follow a pattern that is also found in other settlements. Sickness or old age affected the decisions of the three leading families, as did the attraction of housing in Igloolik and Hall Beach. One man remained in Hall Beach after finding permanent work there.

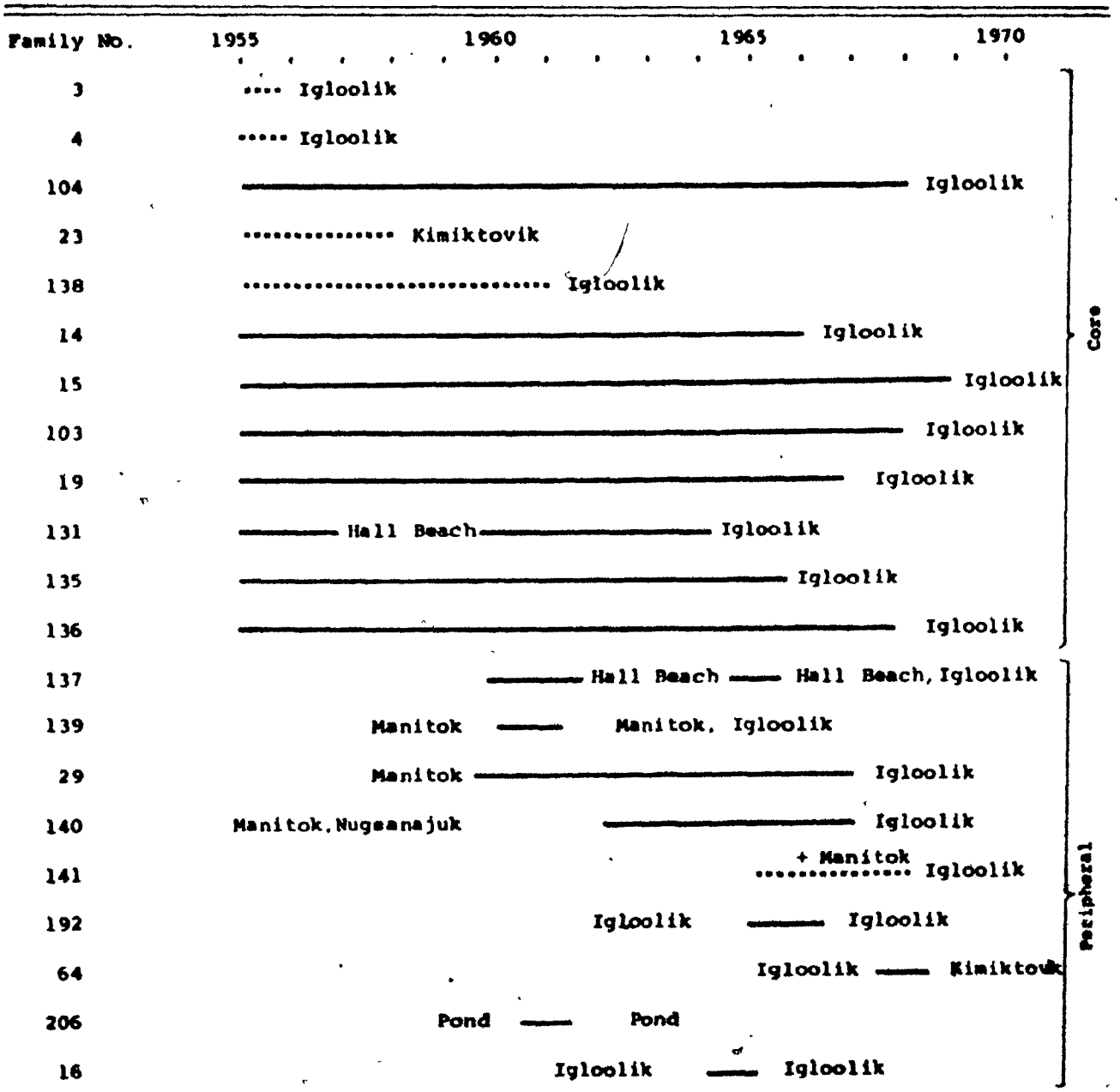
KIKITAJUK

After their dispersal between 1946 and 1949 the majority of the Avajuk population realigned in three locations. The first of these was Kikitajuk, the second Manitok, and the third Igloolik.

Kikitajuk although not an outstandingly prosperous village as its predecessor Avajuk had been, retained its core population until relatively late in the centralization movement that occurred in northern Foxe Basin in the decade 1960-1970 (Figure 39). This was largely because of its favourable position near hunting areas and within easy reach of Igloolik. Also because of its location, it attracted a number of additional families who settled there temporarily before moving in to Igloolik or Hall Beach.

The core population of eight families remained unchanged until the period between 1966 and 1968. These were headed by the two Avajuk men who had moved there in the early 1950's. These men and ten related families, including their own married sons, were joined briefly by eight other families during the period. Four of these per-

FIGURE 39
COMPOSITION OF KIKITAJUK 1955-1970



For key see Fig.11

ipheral families were related and had previously lived at Manitok, but moved to Kikitajuk briefly, realigning with the core population families who they had lived with at Avajuk until 1946.

The population of Kikitajuk at this time included several old and infirm men who were unable to hunt. Three of four wooden houses were erected at Kikitajuk after 1964. By 1965 the two old or disabled heads of core families had houses, as did another disabled man from Manitok. These were supplied by the government for welfare cases. The houses had been removed from Igloolik and taken to Kikitajuk in sections by dog team. They were supplied with oil stoves and fuel, and contributed to the reluctance of the core population to move to Igloolik.

The hunting equipment used by the Kikitajuk people was concentrated in the hands of the core population, as it had once been at Avajuk. Between them they owned a whaleboat, two canoes and three motors, whereas the remaining families owned only dog teams, (Anders 1968) and were therefore dependent on the core group for the use of boats in summer hunting.

The population of Kikitajuk consisted of three elements. The core population, divided into hunters, and old or disabled, and the peripheral population. The peripheral population, having no strong kin ties, and owning little capital equipment, had little incentive to stay at Kikitajuk once housing became available in Igloolik. Five of these families moved to Igloolik from Kikitajuk in 1966 and 1967. These included the disabled man from Manitok, and his son and son-in-law who

between them owned minimal hunting equipment. Another man returned to his former home in Kimiktovik and later moved to Hall Beach. The other periphral families had already left by 1966.

The old, disable, or sick members of the core group were the next to leave Kikitajuk. The camp leader, an old man, moved to Igloolik in 1966. The head of the second core family, also unable to hunt, moved there in 1967. Those remaining in Kikitajuk were the young, fit members of the core group. By 1968 the village was composed of three sons of the former leader of Kikitajuk and one son of the second man. The leader encouraged the young men to stay in camp in order to provide food for the family members in Igloolik. His argument was that "there is more food when all the men hunt together", and although the younger men were not discouraged from moving to Igloolik to work for wages, and were "free to do as they wished," they continued to hunt from Kikitajuk as a group (Unpublished field notes 1969, 6).

The proximity to hunting areas and the existence of housing there further encouraged these men to stay in Kikitajuk. Despite this they had all joined their fathers in Igloolik by the winter of 1969, although they continued to live at Kikitajuk during parts of the summers. By 1969 they had developed a new hunting pattern, in common with other men from Igloolik, of one or two day hunts at the floe edge starting from Igloolik and travelling by dog team or snowmobile. This pattern lasts until spring when they camp at Kikitajuk by the floe edge until the ice leaves Turton Bay in front of Igloolik, and it again becomes possible to commute between Igloolik and the hunting area, now by boat.

MANITOK

Manitok was a small village composed solely of the kin of one man, who had immigrated to northern Foxe Basin in 1938, joining Avajuk in 1940. This man's three sons and son-in-law, and their three sons and their families formed the stable core population of Manitok until about 1961 (Figure 40).

The people of Manitok owned a minimal capital equipment, with no whaleboat and only one canoe and motor (Anders 1968). In 1961 the leader of this group, by now an old man, was in hospital in Chesterfield Inlet, and later died without returning to Manitok. In the same year, one of the adult sons who was unable to hunt because of ill health, moved to Kikitajuk. He lived in a government house there briefly, and moved to Igloolik in 1966. Another member of the group became closely associated with Igloolik after 1959, spending part of his time there. He remained in Igloolik permanently after being disable in an accident in 1964 or 1965. He states that he "was told to stay in one place because of [his] health, but would prefer to hunt if [he] were fit." He was renting a government house in Igloolik by 1965.

Two other Manitok men were also associated with Igloolik after 1964, and moved there permanently in 1968. Another moved a government house to a site near Manitok at Inuksugalik in about 1964, but shortly afterwards he began spending the winters in a house in Igloolik, only using his house at Inuksugalik in the summer.

Manitok attracted an influx of summer visitors from Kik-

FIGURE 40
COMPOSITION OF MANITOK 1955-1970

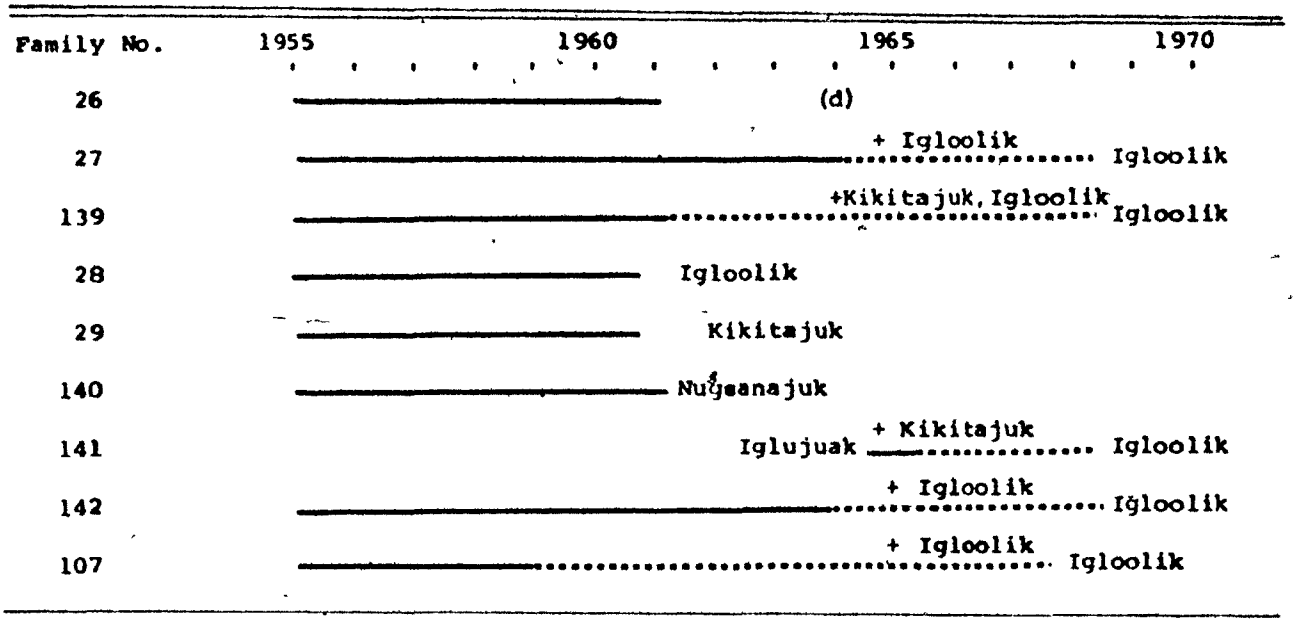
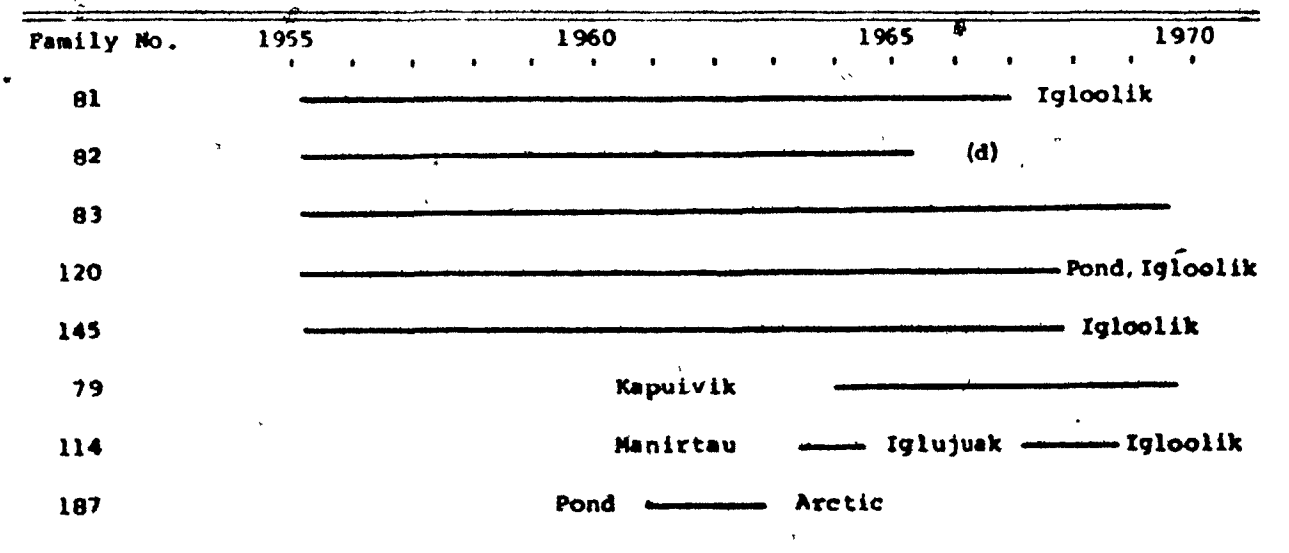


FIGURE 41
COMPOSITION OF AGU 1955-1970



For key see Fig.11

itajuk and Igloolik in the early 1960's. The former permanent Manitok population joined this seasonal movement to the area after their relocation in Igloolik. The Manitok area is now regularly visited by hunters working from Igloolik, and is richer in seals than the overhunted area immediately to the east of Igloolik Island where much of the Igloolik generated hunting takes place.

AGU

The Agu Bay group consisted of two brothers and three step-sons and their families. Another related man, also resident at Arctic Bay for part of the time, lived at Agu between 1961 and 1963 with his family. They were joined from the mid 1960's by two in-marrying men, one from Kapuivik, the other from Manirtau (Figure 41). The group was divided between two or three settlements for much of the period, and the two brothers did not live together.

These people owned two canoes with motors in 1965. One of the two brothers died in 1965, and the other brother moved to Igloolik in 1967 when he became too old to hunt adequately, and his settlement was involved in a famine. His wife prefers life in the village to the hard conditions at Agu, although the man would prefer to be able to hunt (Unpublished field notes 1969, 5). The step-sons and sons-in-law remained at Agu until 1968 and 1969 when all but one family moved into Igloolik with the hope of getting houses there. They continued to hunt from Igloolik.

MANIRTAU

Manirtau was composed of four to five families throughout the first part of this period. The central member was an old man with his three sons and a grandson. They were joined at times by two sons in law and an eighth man who visited Manirtau briefly from Arctic Bay (Figure 42).

This group owned a whaleboat and a motor after 1959. They normally lived at Tikerak in winter and summer, with visits to the floe edge at Angmarjuak in spring, and to Iplutik for caribou in winter. Between 1959 and 1961 the village shifted to Manirtau, but returned to Tikerak after two years (Beaubier 1969, 2).

The death of the leader in 1960, and that of his wife in 1965 contributed directly to the abandonment of Manirtau. After the death of the father one son moved to Agu when he married a woman from that village. He owned a canoe and motor. This left the remaining men short of hunting equipment. A second son moved to Igloolik in 1962 where he was later employed by the Department of Northern Affairs, hunting only in his spare time. The third son, who was partially disabled, continued to associate with both Manirtau and Igloolik until he too moved in to Igloolik in 1964, influenced by his infirmity. He has since stopped hunting. The grandson went to Kapuivik in 1965 after his own village had broken up, but he moved to Igloolik by 1966 and has since followed the hunting pattern described in Chapter VI. The two sons-in-law also left Manirtau, one to go to Iglujuak in 1964, the other to Pond Inlet in 1967. The Manirtau area is now rarely

FIGURE 42
COMPOSITION OF MANIRTAU 1955-1970

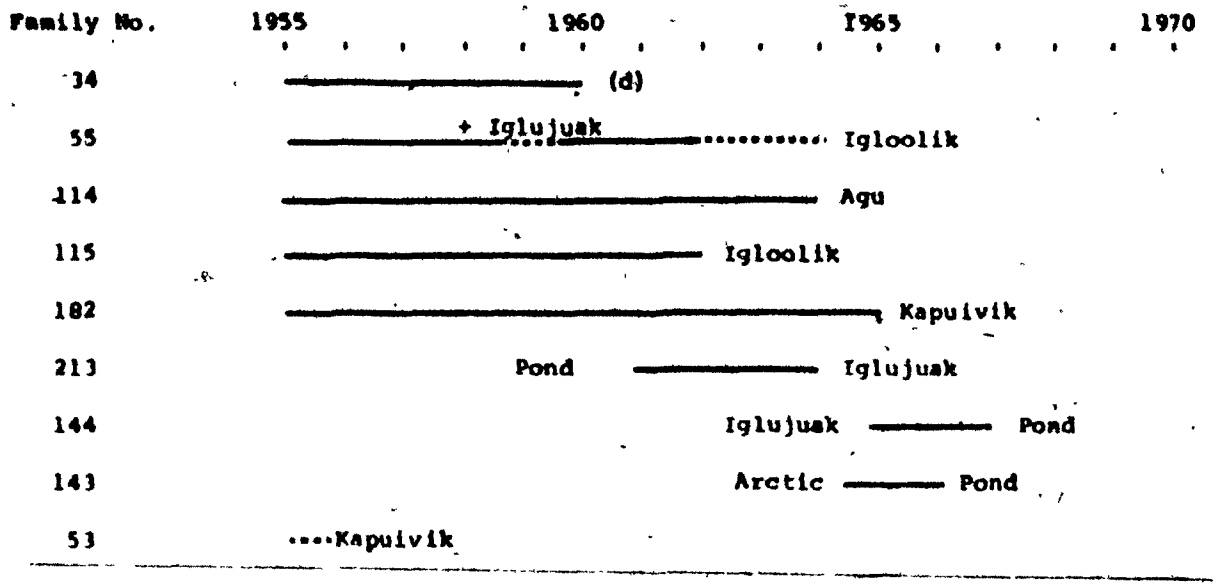
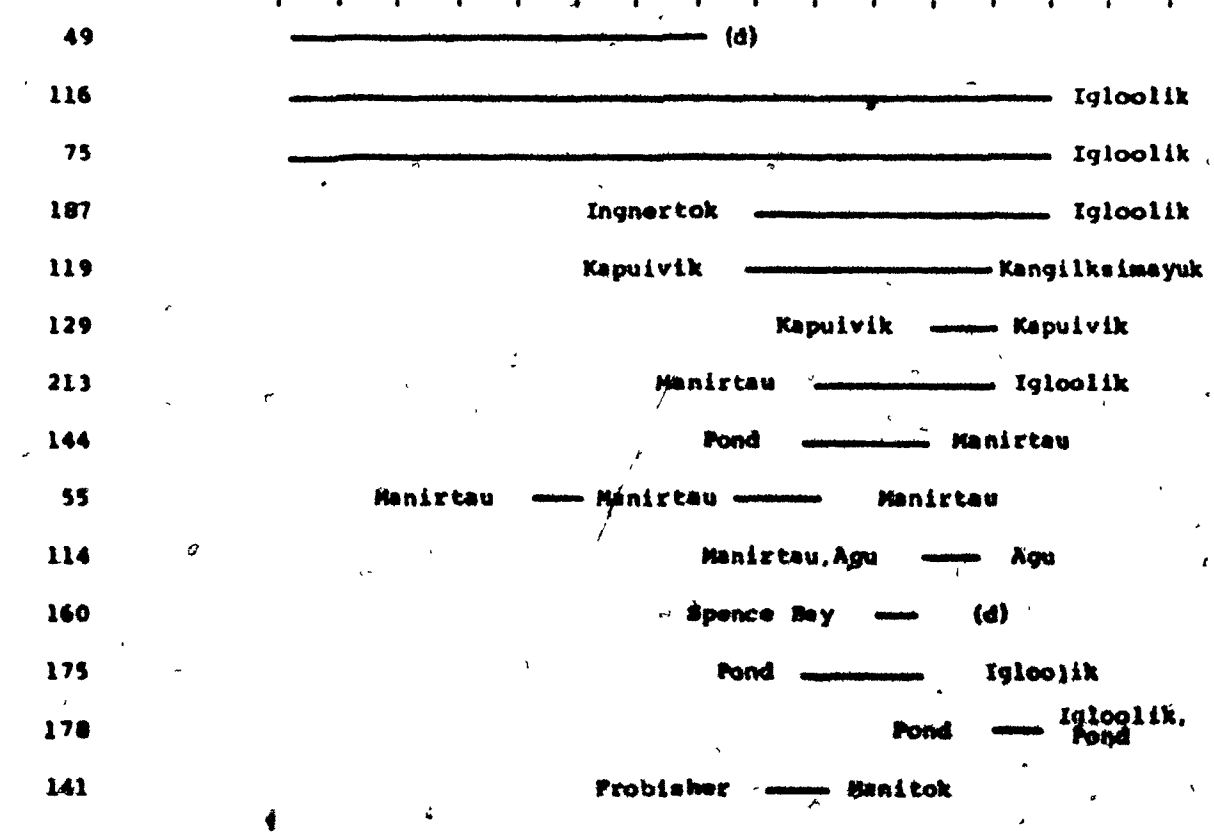


FIGURE 43
COMPOSITION OF IGLUJUAK 1955-1970



For key see Fig.11

visited, except for autumn caribou hunts in the neighbourhood of Erke.

IGLUJUAK

The three men who established Iglujuak in the 1940's continued to live there throughout the period. The father died in 1962 but his son and son-in-law remained at Iglujuak. They were joined in the 1960's by a number of short term members (Figure 43). The core families owned a whaleboat with an engine, two canoes and one motor. They were joined in 1963 by a man from Kapuivik who owned a whaleboat and a canoe, together with a man from Ingnirtok who later became his brother-in-law. Three men, also associated with Manirtau, joined the Igulujuak group at times after 1959 when they acquired a motor for their whaleboat which gave them greater mobility in summer.

After 1967 only four families remained at Iglujuak, together with one man who also associated with Kangilksimayuk. By 1968 Iglujuak had dissolved and its members all had houses in Igloolik. One man states that life is too hard in the country, especially for his wife. He prefers her to live in a warm house (Unpublished field notes 1969, 8). The factors contributing to this decision were the remoteness of the settlement, sickness in the family and the availability of housing in Igloolik. These men continue to camp in the summer, but the journey from the village to camp, and the caches of fuel necessary for a summer's hunting were found to be prohibitive, and the men tended to conform to the newly developing pattern of hunting from Igloolik. One of these men realizes that "the village is no good for seal hunting", and that

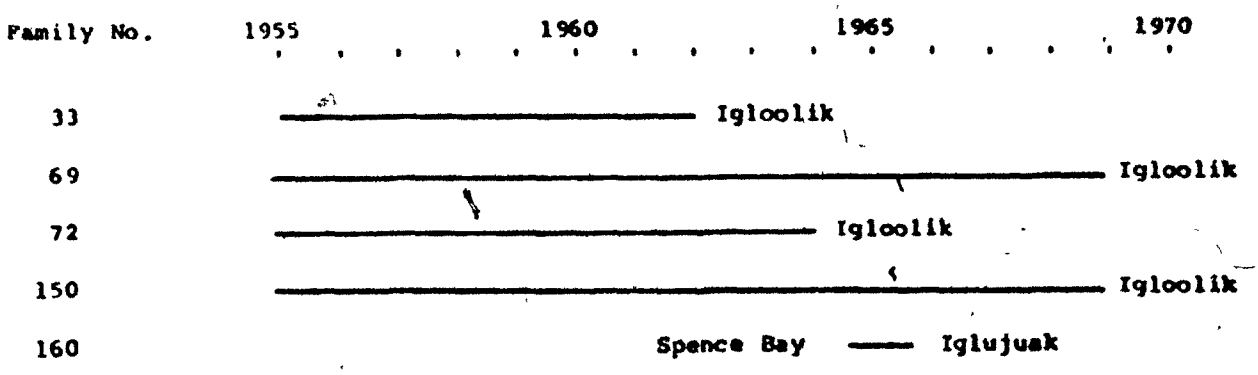
"the men must disperse", but finds it difficult to do so in practice (Beaubier 1969, 3).

NAUYARULUK

Nauyaruluk was a small settlement composed of one man, his two sons, a son-in-law and another affinally related man, and their families. This group, which established a settlement in 1947, continued to live there into the 1960's (Figure 44). They moved sites several times, but stayed in the same area. The winter site, Nauyaruluk, was on the shores of the Fury and Hecla Strait near the winter sealing grounds. The summer site was at Upirgnavik, or at Irkraluit at the mouth of Gifford River.

In 1959 the associated man left Nauyaruluk to move to

FIGURE 44
COMPOSITION OF NAUYARULUK 1955-1970



For key see Fig 11

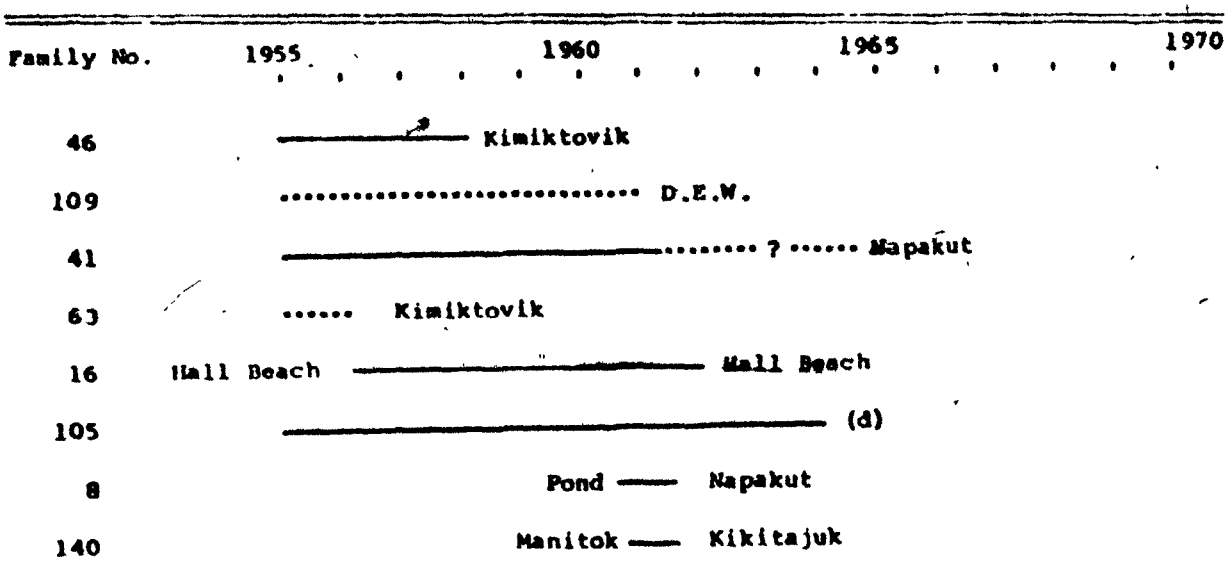
Igloolik after the death of his wife. Shortly after, in 1962, the leader also moved to Igloolik because of old age and poor health. A son-in-law had a house in the village where he was able to stay until he received a government house in 1964. One of his adult sons had moved to Igloolik a year before him. The eldest son was now the leader of Nauyaruluk. After his daughter married in 1962 her husband stayed at Nauyaruluk. The new leader's brother-in-law moved to Igloolik in 1964 where he had a house. The two families remaining at Nauyaruluk acquired a one room government house in 1964. They moved to a new winter site near Upirgnavik where they set up the new house, and remained there until the winter of 1969. They occasionally visited Igloolik for extended stays, but moved in permanently in 1969, largely because of the difficulty and expense of remaining at Nauyaruluk with a faulty boat motor and a long journey to Igloolik to trade, and possibly the small size and isolation of the settlement. Sickness in the family was another contributing factor.

Centralization to Hall Beach

FOSTER BAY

Nugsanajuk was the successor to Akunik as the main village in Foster Bay. There were about five or six families living there permanently in this period (Figure 45). However, the village was affected by the growth of Hall Beach after the construction of the D.E.W. Line, and four families moved to locations nearer this centre.

FIGURE 45
COMPOSITION OF NUGSANAJUK 1955-1970



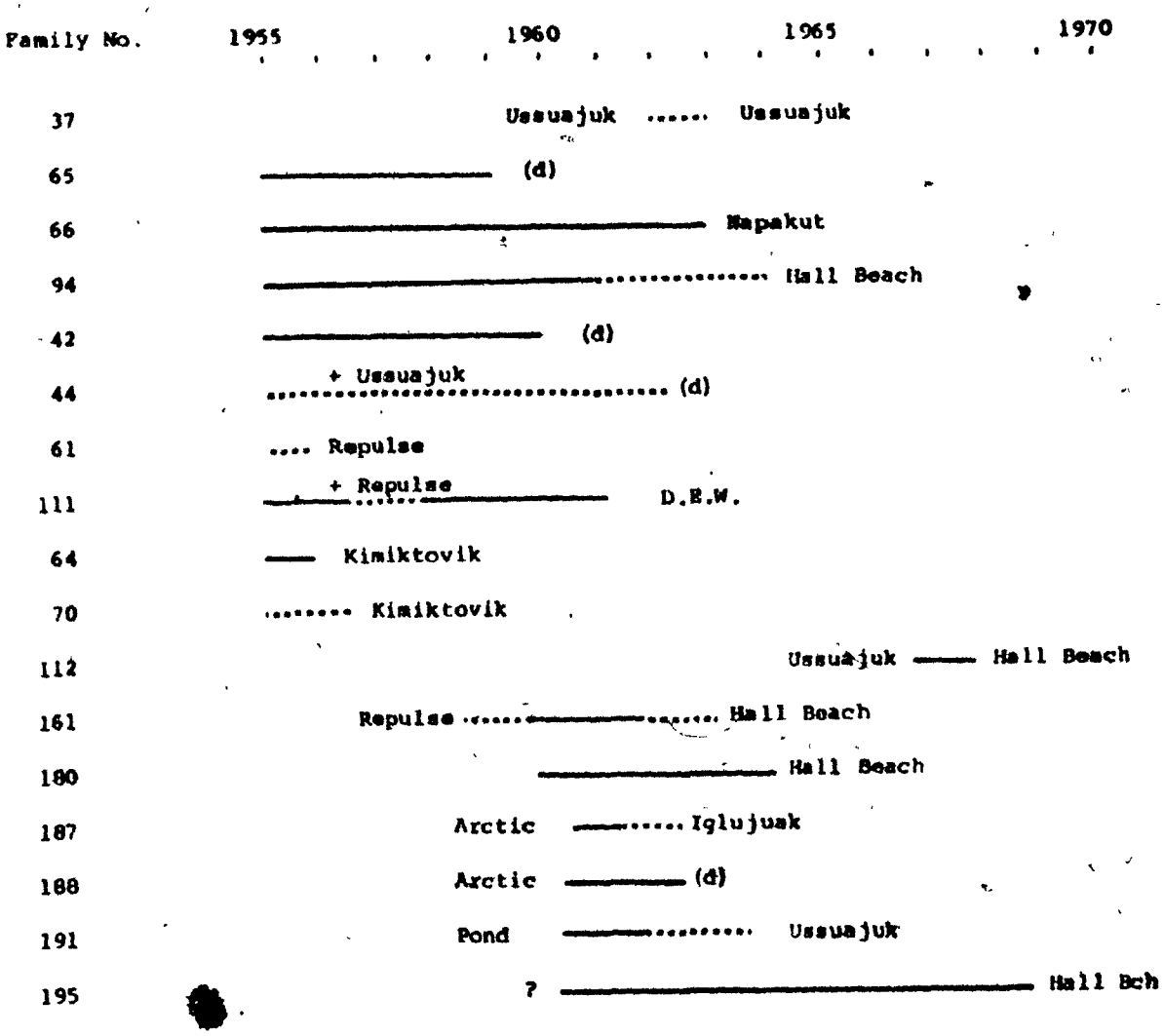
For key see Fig.11

The head of one of these found employment at the D.E.W. Line. Another moved to Igloolik to join his own relatives after living with his wife's disabled father for many years. The village was abandoned by 1964.

PARRY BAY

Ingnirtok, in Parry Bay, was closely connected with Ussuajuk in this period. Figure 46 shows the large number of short-term visitors to Ingnirtok. The village had from five to ten families living in it at the beginning of the period. Ingnirtok broke up during the early 1960's and several members moved directly to Hall Beach, others to Ussuajuk. It has since been the site of summer camps for people living in Hall Beach.

FIGURE 46
COMPOSITION OF INGNIRTOK 1955-1970

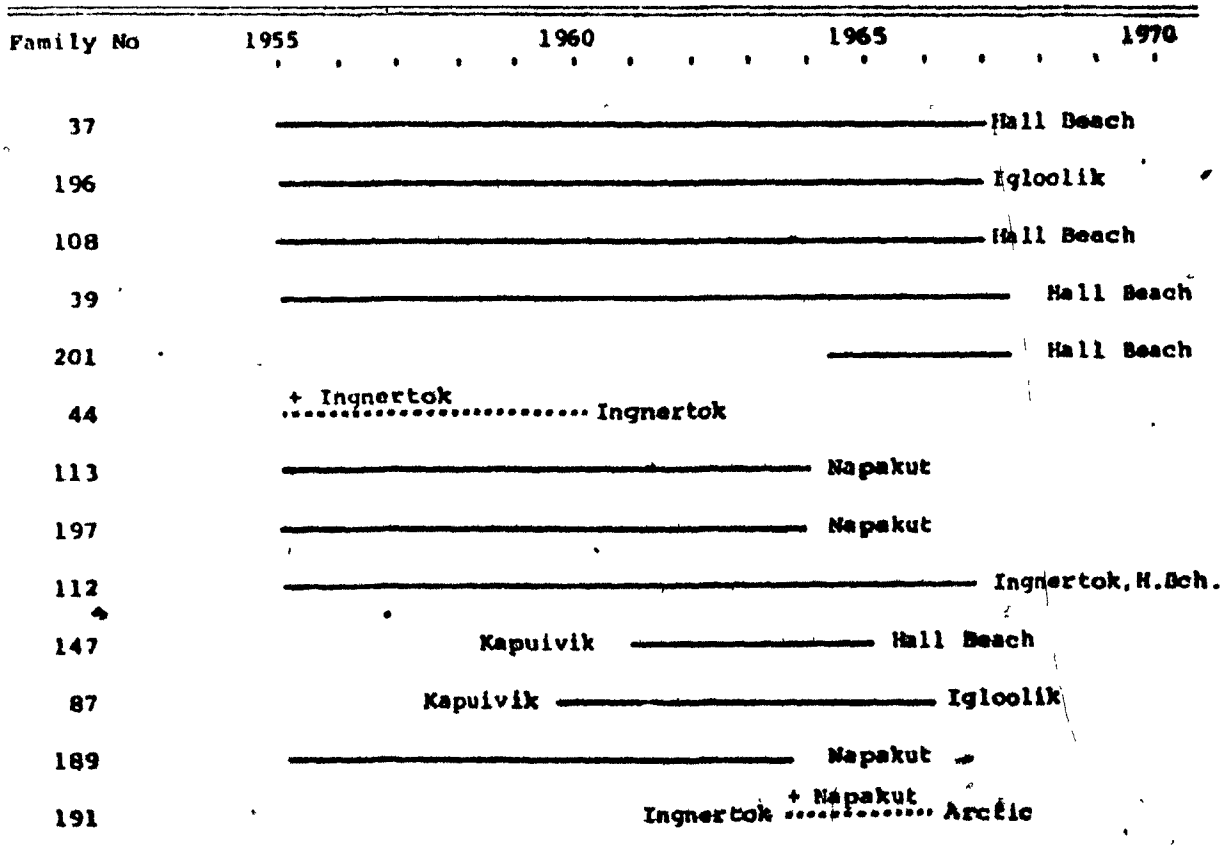


For key see Fig.11

USSUAJUK

Ussuajuk is 30 miles south of Parry Bay, and is the most southerly settlement in northern Foxe Basin. The core of the Ussuajuk population in this period consisted of about 10 families, joined at times by at least 3 others (Figure 47). Several members of the

FIGURE 47
COMPOSITION OF USSUAJUK 1955-1970



For key see Fig.11

village were also associated with Ingnirtok, particularly the former Akunik people who had moved south to Parry Bay in the early 1950's. The leader of Ussuajuk, who had gone there from Akunik, owned a whaleboat with a motor, and a canoe and motor. He and his son remained at Ussuajuk until 1968.

Ussuajuk broke up between 1964 and 1968, most members moving to Hall Beach when government houses became available there. Hall Beach had become the focal point for the settlements in the south because of its proximity, especially after the store opened there in 1965.

Four families moved to Napakut after 1964 when nearby Hall Beach began to grow, and they later moved to Hall Beach itself. At least one of these moved there because of a need to be near medical facilities (Unpublished field notes 1969, 11). The last families had left Ussuajuk by 1968. Some of them continue to visit the Parry Bay area seasonally, camping at Ingnirtok for example, but rarely visit the Ussuajuk area because of its remoteness.

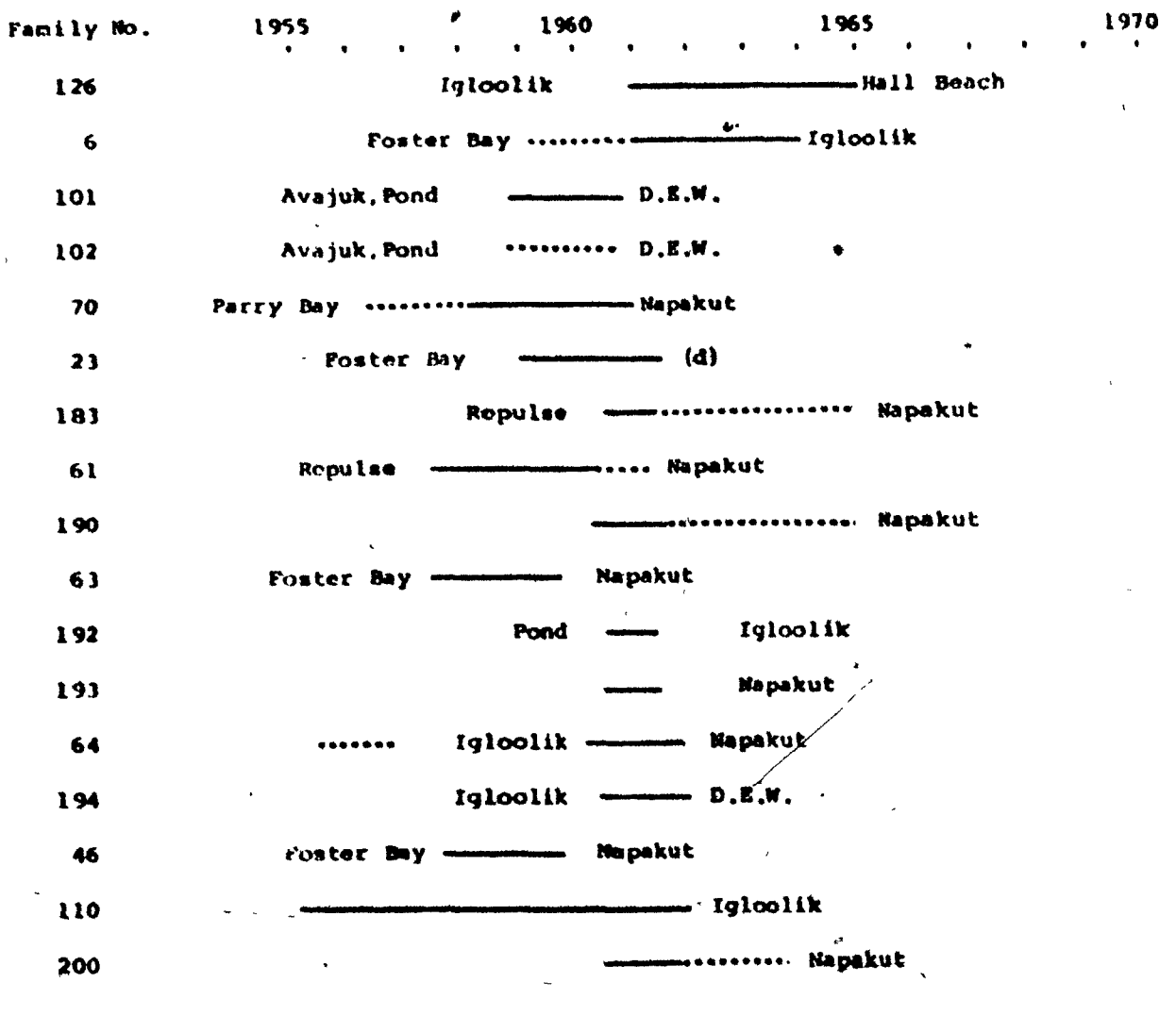
The abandonment of Ussuajuk and Ingnirtok was not related to a lack of game in those areas, but was due to the attraction of Hall Beach with its housing and nursing station, and for some the possibility of wage labour, together with the increasingly prohibitive costs of maintaining remote settlements. Crowe's description of the seasonal cycle of activities at Ussusajuk for the early 1960's shows that there was a considerable degree of interdependence and co-operation

between families in the village, and with members of the Ingnirtok group (Crowe 1969, 51-63). Once most members had relocated at Hall Beach it was difficult for the remaining few families to maintain the settlements effectively alone. One man who moved to Hall Beach in 1967 dislikes it, but moved in "because I had a house there. I was told to stay here because I got hungry to camp." (Unpublished field notes 1969, 11). However, he finds it difficult to hunt from the village as there is far less game in the area than at Ingnirtok. He continues to hunt near Ingnirtok in summer. A second man who moved in from Ingnirtok in 1967 also came because of having a house at Hall Beach. He felt that the Housing Committee, an elected body of local people in Hall Beach, wanted him to move. He also continues to camp in the Ingnirtok or Karmat area in summer, but appreciates having a house in winter.

THE SATELLITE VILLAGES: KIMIKTOVIK AND NAPAKUT

Kimiktovik and Napakut grew as a result of the development of nearby Hall Beach. People were attracted there by the proximity of the D.E.W. Line station and nursing post. Kimiktovik grew during the late 1950's until it reached its maximum size, between 1959 and 1961, of up to 15 families (Figure 48). Kimiktovik had attracted immigrants from Repulse Bay, Pond Inlet, Akunik, and Nugsanajuk, as well as a number of the more mobile Igloolik Eskimos from elsewhere in the northern Foxe Basin. Four of these people found employment

FIGURE 48
COMPOSITION OF KIMIKTOVIK 1955-1970



For key see Fig.11

with the D.E.W. Line after 1961 and 1962.

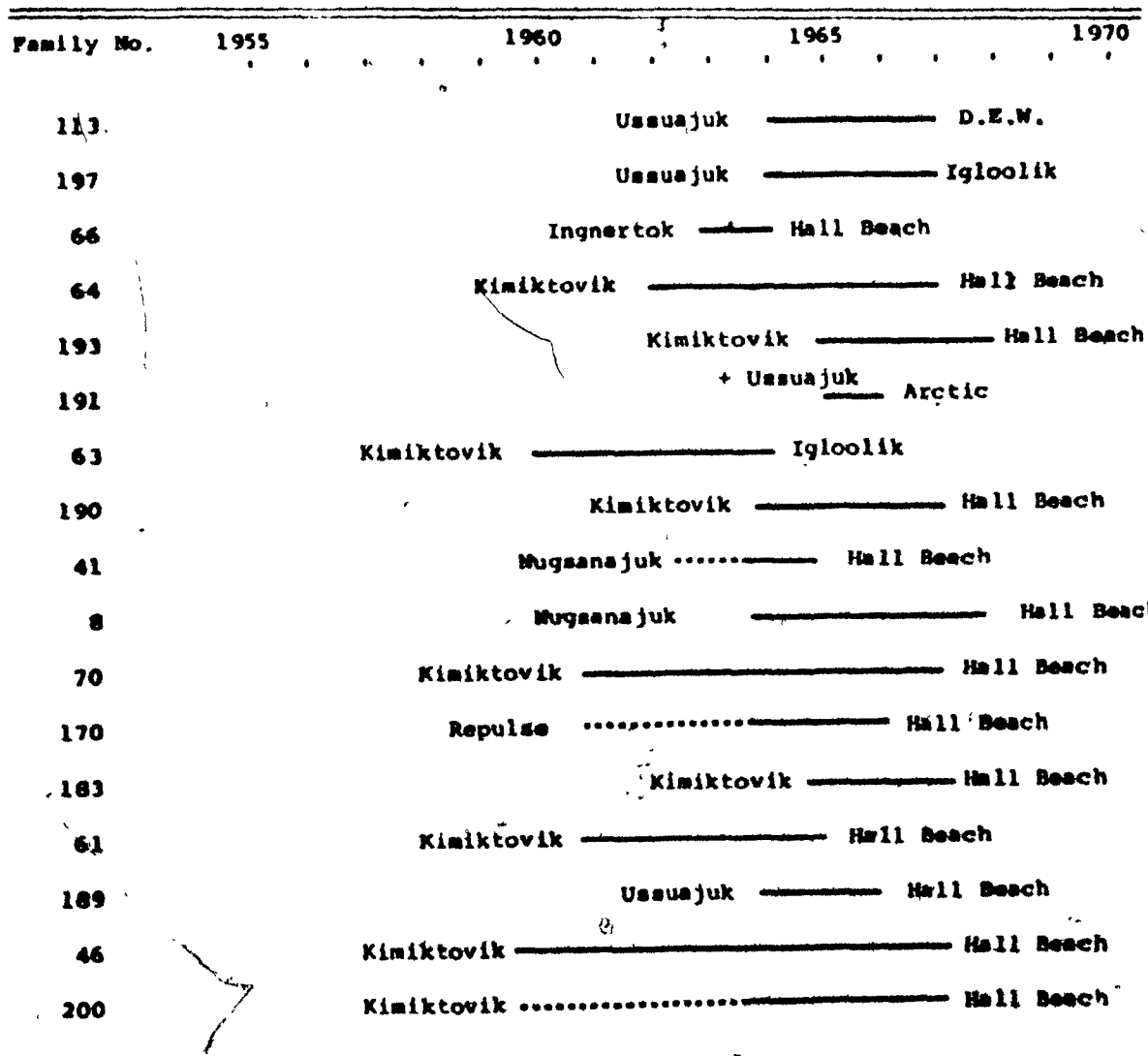
In 1961 the population of Kimiktovik had a large proportion of infirm or dependent members, including three widows with young families and two old, infirm men. The Kimiktovik people were able to

build shacks using materials from the D.E.W. Line dump, and this, together with the proximity of the nursing station, undoubtedly influenced the composition of the settlement.

Napakut, a few miles nearer Hall Beach, was the successor to Kimiktovik. Between 1960 and 1964 14 families moved to Napakut in order to be closer to Hall Beach (Figure 49). They built wood and cardboard shacks there. Anders (1965, 65) was amazed by their "extremely filthy appearance", and recommended that the shacks be destroyed. Eight of these families came from Kimiktovik, and several more from Ussuajuk and Ingnirtok. There people wished to live near Hall Beach. Several came to be near the nursing station because of illness or infirmity, others hoped to find work at Hall Beach. The D.E.W. Line dump was yet another attraction. Two of the families moving to Napakut had a history of mobility and had no close kin ties in northern Foxe Basin These men moved near to Hall Beach largely because of the material comforts available there.

Thus Hall Beach, or its nearby satellite villages, attracted two types of immigrant. The first included people living in settlements near Hall Beach, from Ussuajuk in the south to Akunik in the north, who found life in these settlements increasingly difficult in comparison to the advantages of Hall Beach. On the whole it was the peripheral members of these settlements who moved first, and the leaders and their immediate families who tended to remain the longest. The second category includes people, such as the two families mentioned above, who were genealogically isolated from the remainder of the Igloolik

FIGURE 49
COMPOSITION OF NAPAKUT 1955-1970



For key see Fig.11

Eskimos, and did not have strong links with any other settlements. In this case their location was determined by purely economic considerations. The same is true of infirm and dependent members of the satellite villages.

D.E.W. LINE STATIONS

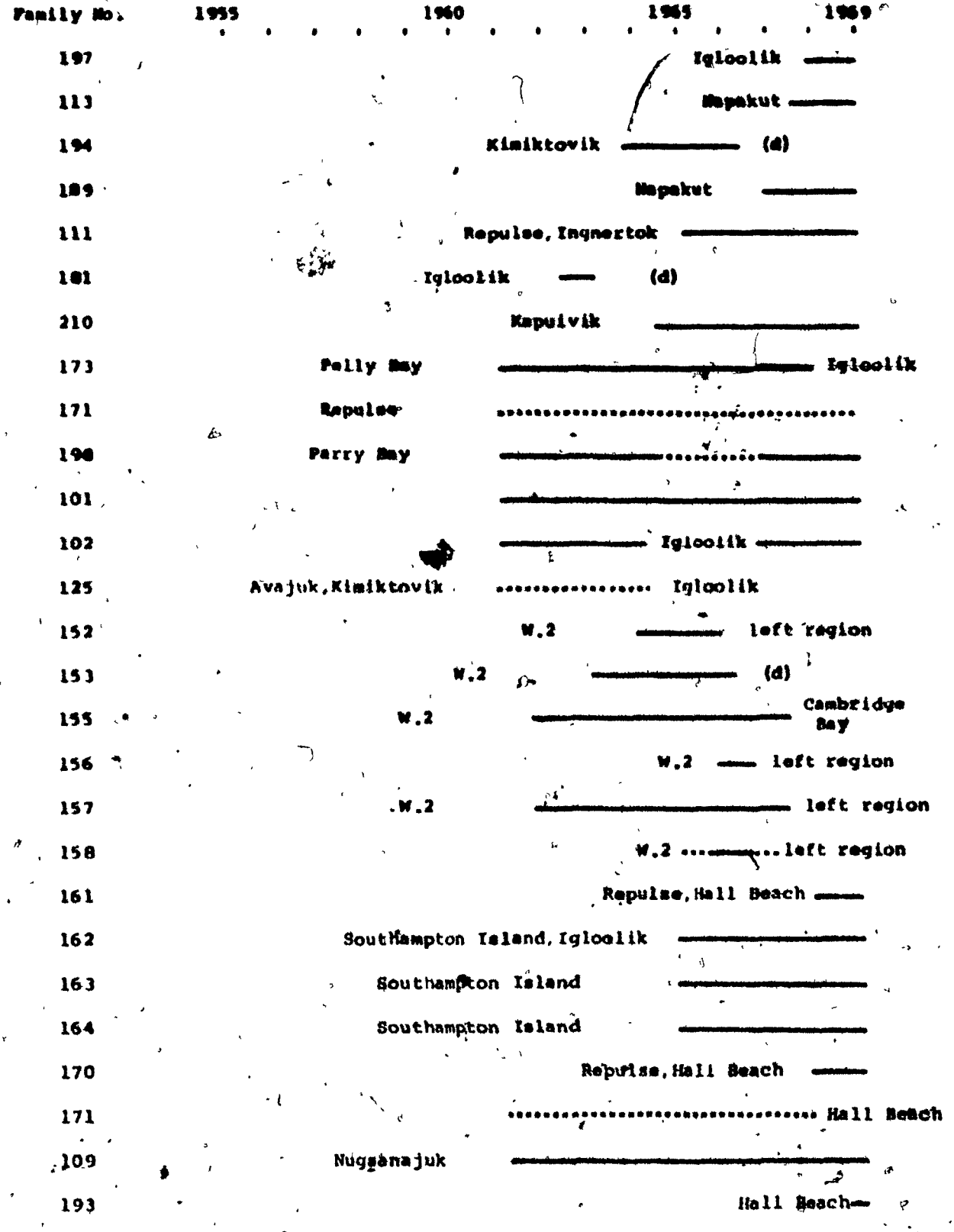
Before 1960 the D.E.W. Line stations in Foxe Basin had exclusively employed labour from southern Canada, the U.S.A., or other parts of the Arctic, in particular the Western Canadian Arctic. After 1960 several men from Repulse Bay and Southampton Island immigrated to northern Foxe Basin to work for the D.E.W. Line. At the same time a number of Igloolik Eskimos were employed by the D.E.W. Line. Housing for Eskimo employees was provided near the Fox Main site, two miles from Hall Beach, or at the various remote sites.

Most immigrants from the Western Arctic had left by 1968 (Figure 50), and the limited number of jobs available at the D.E.W. Line stations were held by local men or immigrants from Repulse Bay or Southampton Island. The number of men employed was due to be cut in 1969 or 1970 as the D.E.W. Line reduced operations.

New Settlement in Igloolik

Igloolik had been a centre for the region for some time by 1955. The Catholic Mission had moved there in 1937. By 1947, when the store re-opened, several families were living in Igloolik. By the 1950's the population of Igloolik could be divided into five segments (Figure 51). The first was a man and his family employed by the

FIGURE 50
FAMILIES WITH HEADS EMPLOYED AT D.E.W.LINE STATIONS 1955-1970



notes: W.2 - Western Canadian Arctic District.
For Key see Fig.11

store. Secondly an old blind man who had moved there with his three adult sons in 1948 or 1949. The third group consisted of men formerly at Avajuk who had lived briefly at Kikitajuk before moving to Igloolik in 1953 or earlier. This group was composed of eight or nine families. Lastly an old man and his son who had immigrated into the area in the 1930's, and had since been closely associated with the Mission.

Of the group of former Avajuk men one states that he moved to Igloolik because he was working for a government survey team for a year. He was able to obtain enough wood to build a shack in the village, and had remained there ever since. He continued to hunt from the village although "it is harder from there, and takes longer. [He] hunted less, but still hunted caribou a few times in the winter. There was less trapping than before." (Unpublished field notes 1969, 2).

In 1959 one man and his four adult sons moved to Igloolik from Pond Inlet. This man's father was the leader of the Iglujuak people, but the man had not lived with his father for many years, and when he was in Pond Inlet had received training to become an Anglican Minister. He now moved to Igloolik to form the centre of what was to become the Anglican section of the village. The Roman Catholic Avajuk people now living in Igloolik helped this man fetch his trap boat which he had left in Pond Inlet. Although the two religious groups were well defined, the Anglican minister was in fact the nephew of the Catholic old blind man, although he and the Minister's father, brothers, had been separated through much of their adult lives. In 1961 Damas was able to demonstrate kin ties between all the families living in

Igloolik (Damas 1963, 93). However, the later influx of Catholics and Protestants reinforced the schism between the two groups, and such co-operation and recognition of kin links between groups became increasingly rare. Protestant and Catholic sections of the village are physically separated by a large tract of land owned by the Hudson's Bay Company (See Chapter VI).

The population continued growing in the early 1960's, particularly by the addition of widows or families unable to support themselves in camp. For example four widows moved there between 1961 and 1964, and two more old men who no longer hunted.

By 1964 the village contained 41 families (R.C.M.P. 1964). Of these four were living in government houses. The heads of three of these families were old or disabled, and the fourth was employed by the government. The Hudson's Bay Company employed two men, both of whom were provided with houses. The village was now the largest settlement in northern Foxe Basin.

Between 1964 and 1968 the government built 70 houses in Igloolik, and by 1970 there were no permanent settlements other than Igloolik and Hall Beach. In addition to these 70 houses there were two Hudson's Bay Company houses, although these were no longer in use by 1968, one R.C.M.P. house for the Eskimo Special Constable, and a privately built house. By 1970 there were 86 families living in Igloolik. The organization of the village is described more fully in Chapter VI.

FIGURE 51
COMPOSITION OF IGLOOLIK 1955-1970

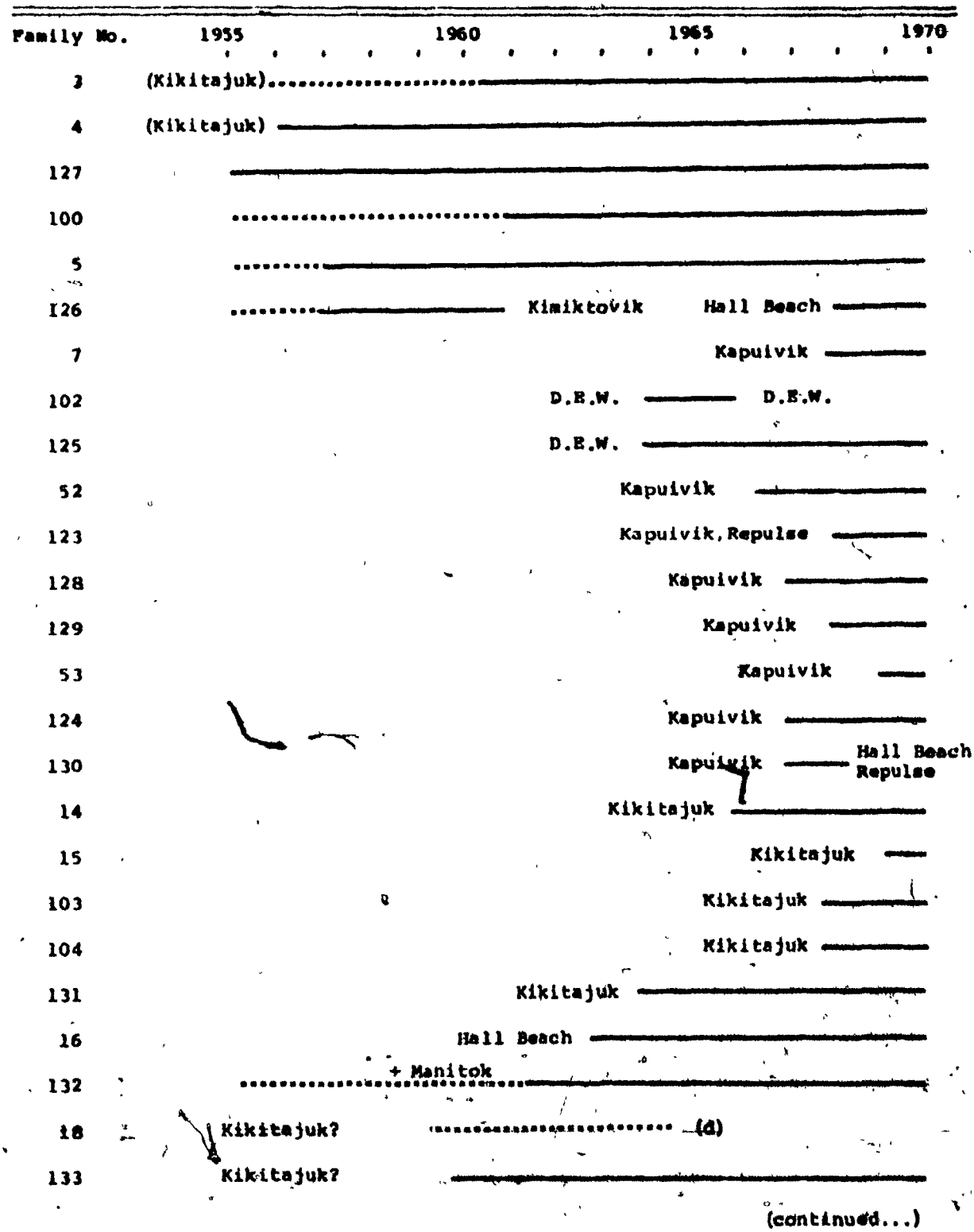


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FIGURE 51 ...continued

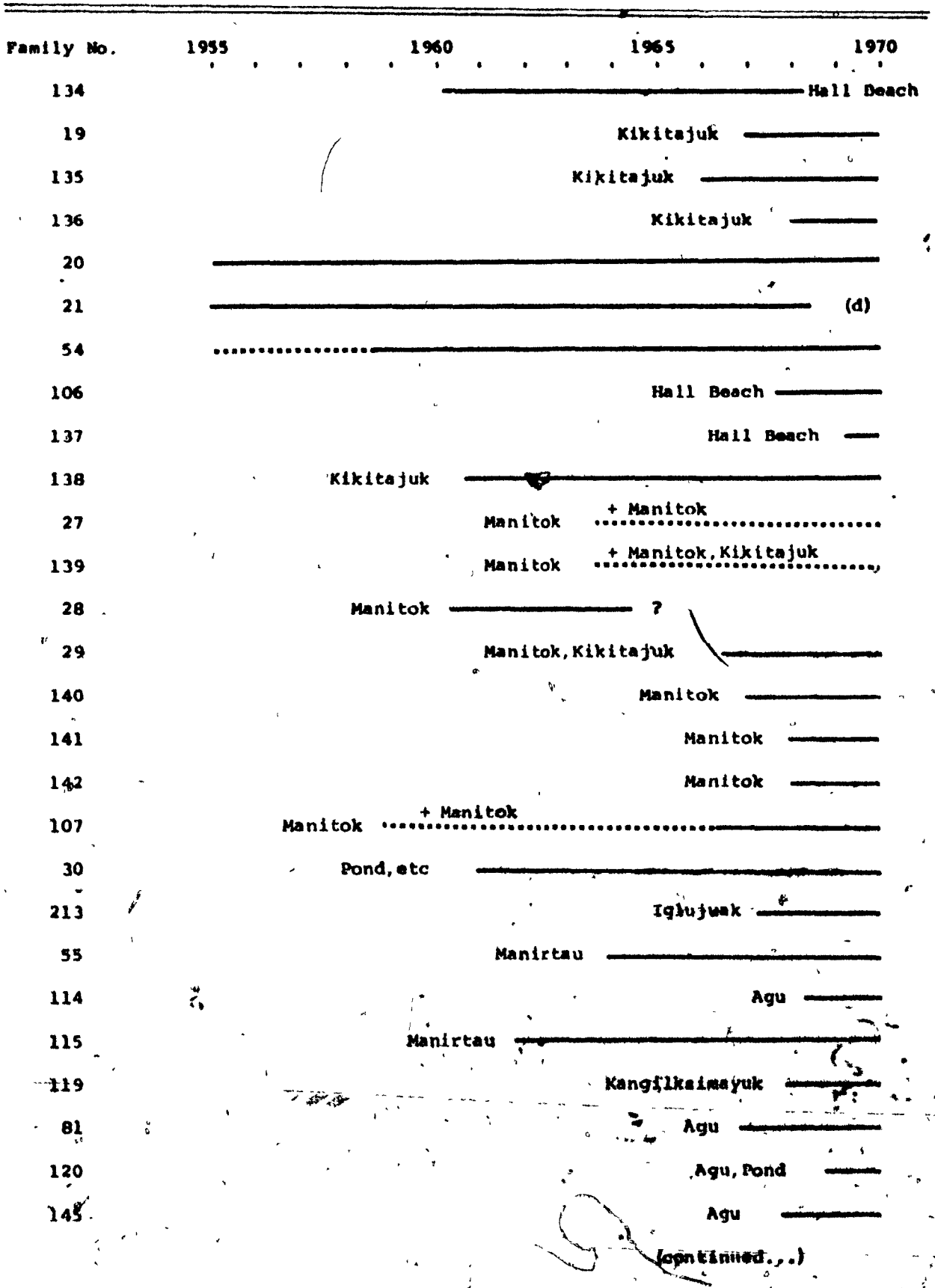

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FIGURE 51 ...continued

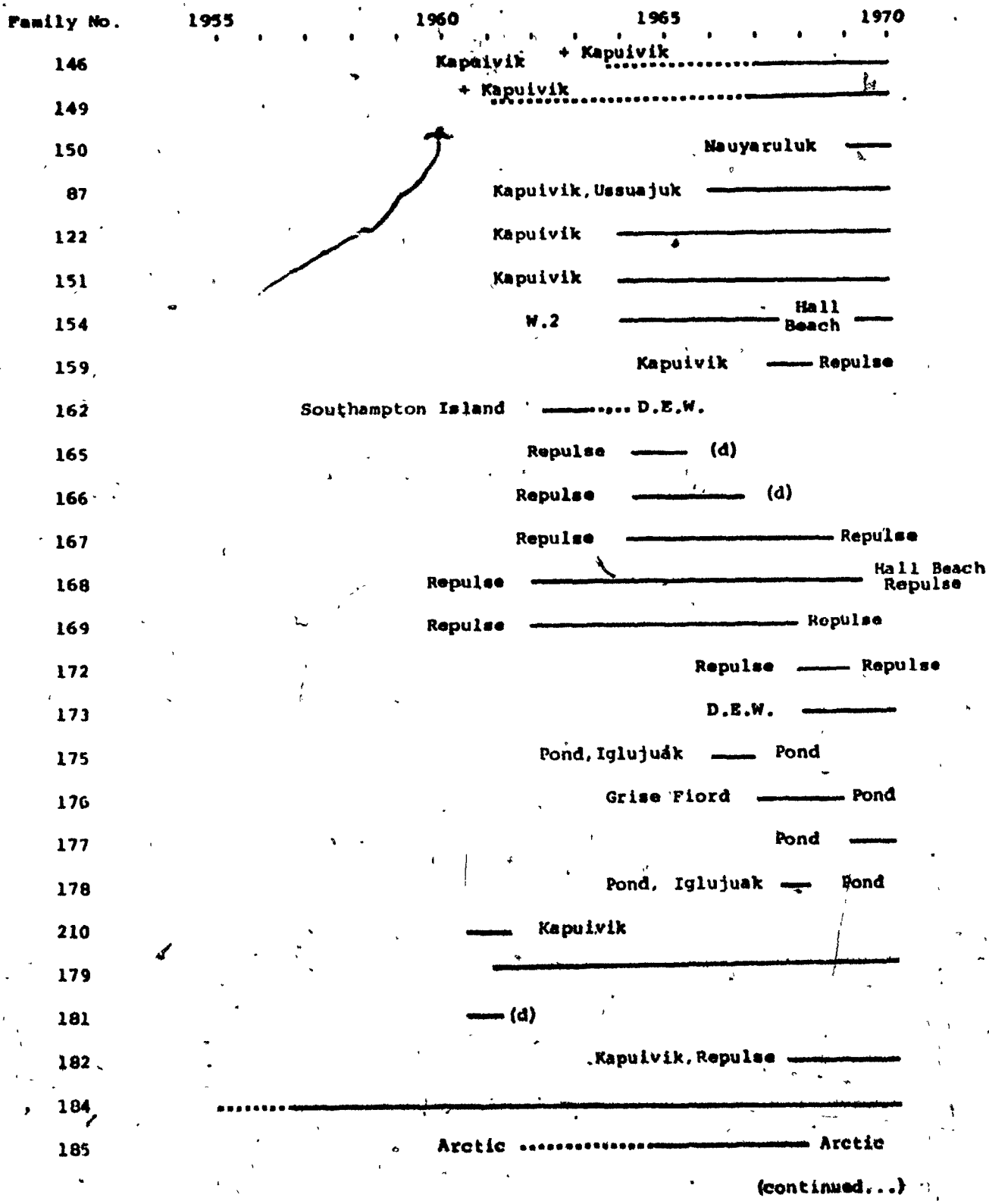

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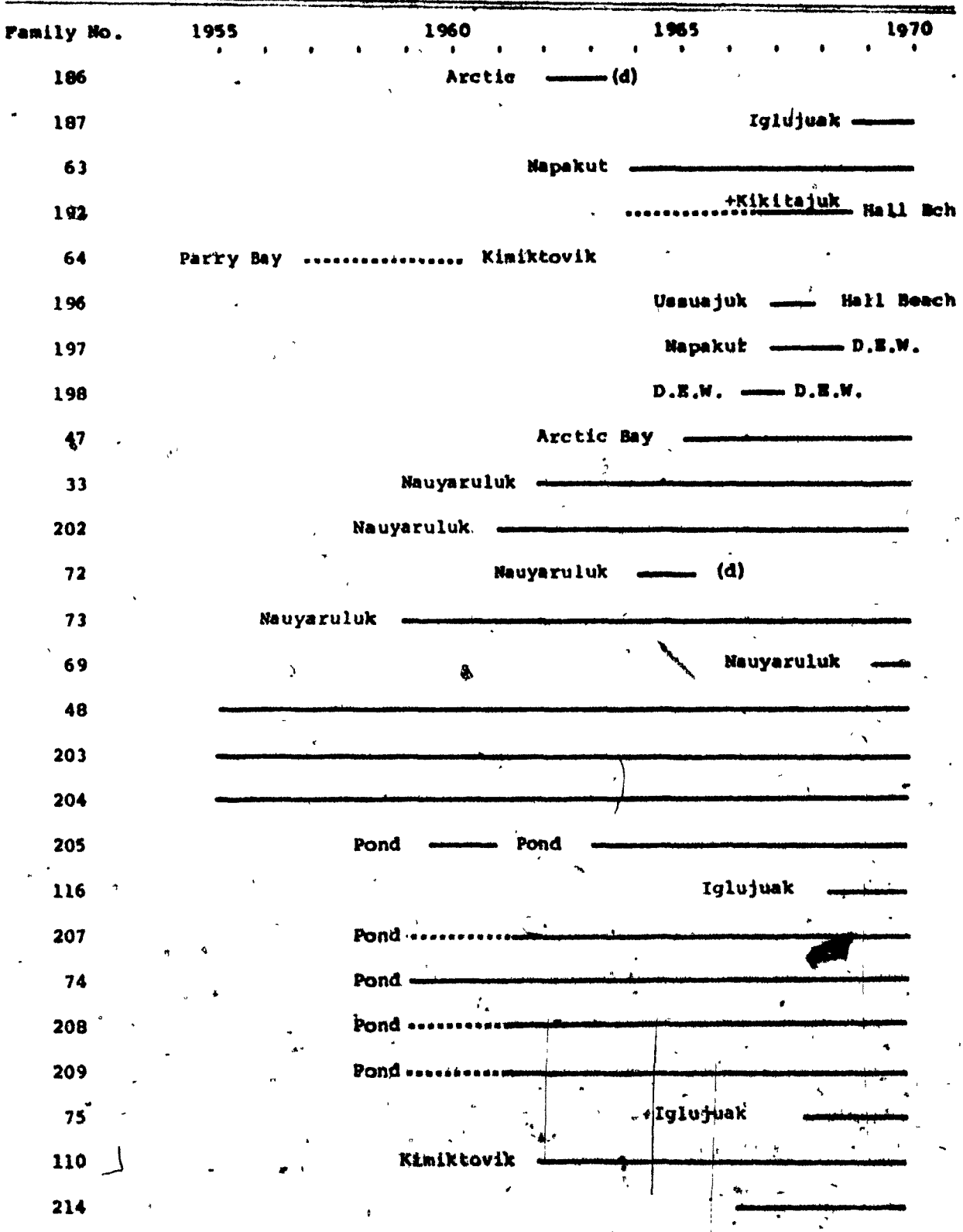
FIGURE 51 ...continued



notes: D.E.W. - D.E.W. line. N.2 - Western Canadian Arctic District.
For key see Fig.11

New Settlement in Hall Beach

The growth of Hall Beach began after 1960. Before that there had been no employment on the D.E.W. Line for local people and no incentive to settle nearby except the station dump and the nursing station. By 1961 two local people were employed by the nursing station, and several others by the D.E.W. Line itself. Damas (1963, 82) reported a small camp near the nursing station in 1961, which included the man and woman employed there, and three men employed at the Fox Main site. This camp grew rapidly over the next few years becoming the village of Hall Beach, with immigrants coming from the nearby satellite villages Napakut and Kimiktovik, direct from the southern villages Ussuajuk and Ingnirtok, or from other settlements in northern Foxe Basin (Figure 52). In particular one large segment of the core population of Kapuivik moved to Hall Beach in 1961, ostensibly because of sickness in the family. They stayed there after the head of the family began working for the Department of Northern Affairs, although one of his sons aligned with Ussuajuk for several years and continued hunting, using equipment bought by his father, and providing food for the family.

With the provision of government housing in Hall Beach the village grew quickly until there were about 32 families living there in 1968, excluding the D.E.W. Line employees at the base two miles away. By the end of that year all settlements south of Foster Bay had been abandoned, and most of the people had relocated at Hall Beach. By September 1969 there were 32 families in the village, living in 27 houses.

FIGURE 52
COMPOSITION OF HALL BEACH 1955-1970

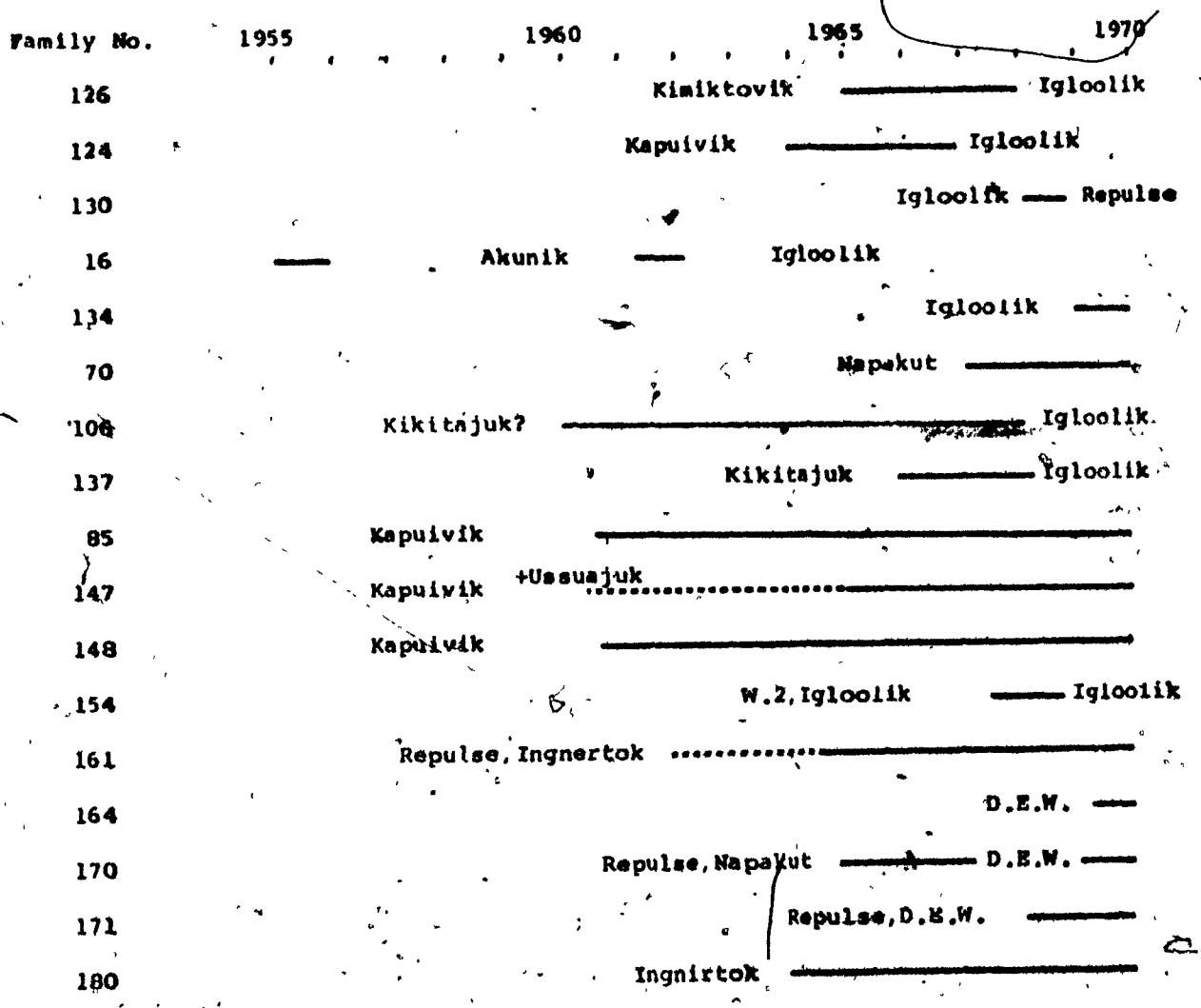


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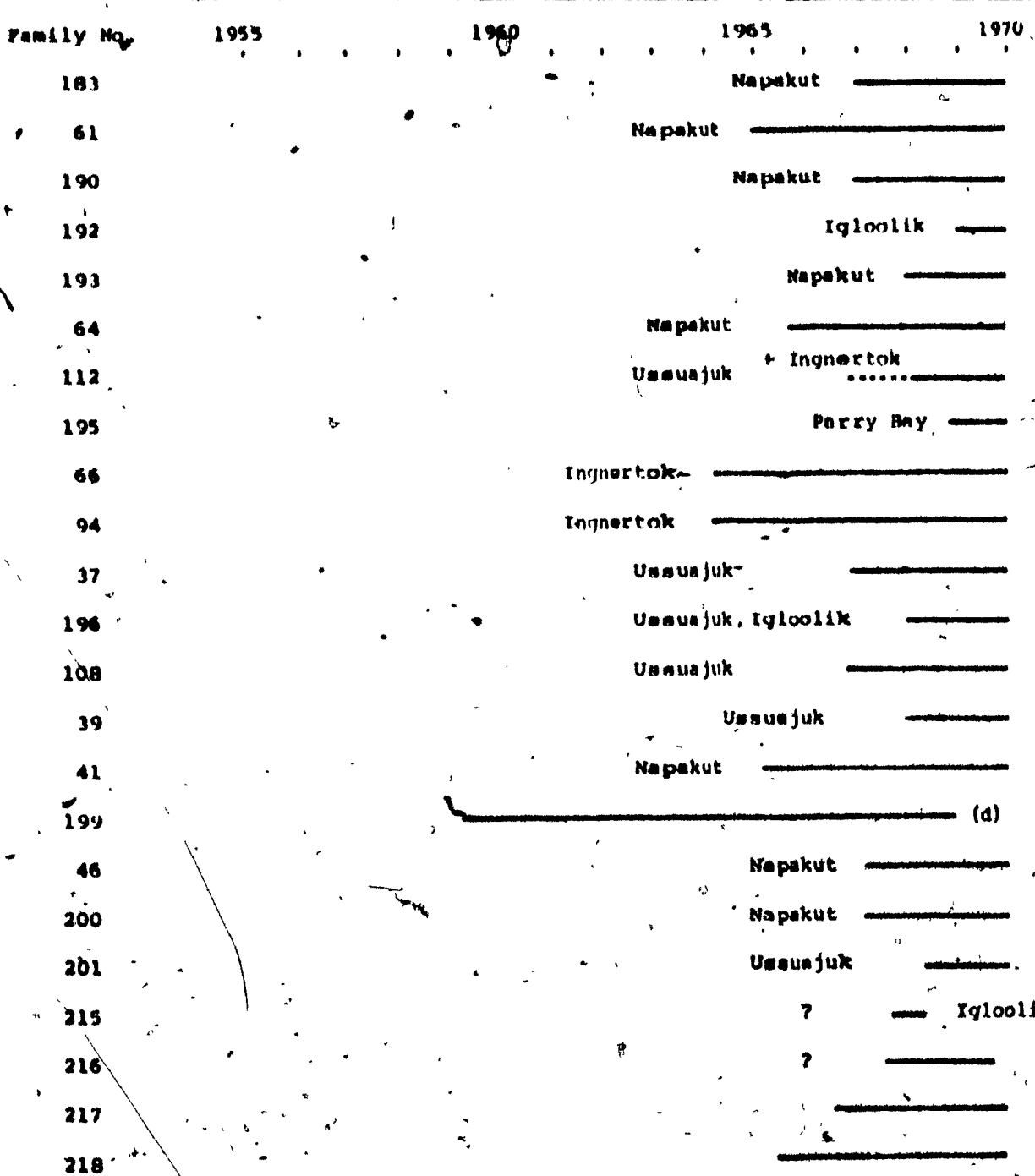
FIGURE 52 ...continued



For Key see Fig.11

Summary

The abandonment of the outlying settlements in northern Foxe Basin, already underway in the early 1960's, was largely completed between 1964 and 1968 coinciding with the intensive government housing programme (Figures 53 and 54). The mechanisms controlling population movement in this centralization process are similar to those operating during earlier population shifts. There is a marked difference in the behaviour of the core and the peripheral populations identified in this thesis. As in the population dispersals of the mid 1940's, members of the peripheral population, having less to gain from staying in one settlement, are the first to take advantage of a new resource, in this instance housing and the opportunity to move to the centres. In contrast the core populations are again entrenched in their own settlements and are reluctant to give up their independence and autonomy to join the larger centres. They are in positions of authority in the outlying villages, and characteristically the majority of the capital equipment in a village is held by the core group (Anders 1968). In this situation peripheral village members had little to hold them in outlying settlements, and when government aid in the form of pensions, family allowance and welfare payments and a rental housing programme provided the means for them to settle in the centres many of them did so.

The centralization movement of the peripheral and disabled population was not a direct inward movement in all cases. Two new satellite villages were formed near Hall Beach after its advantages as a centre were perceived, but before the provision of housing made it

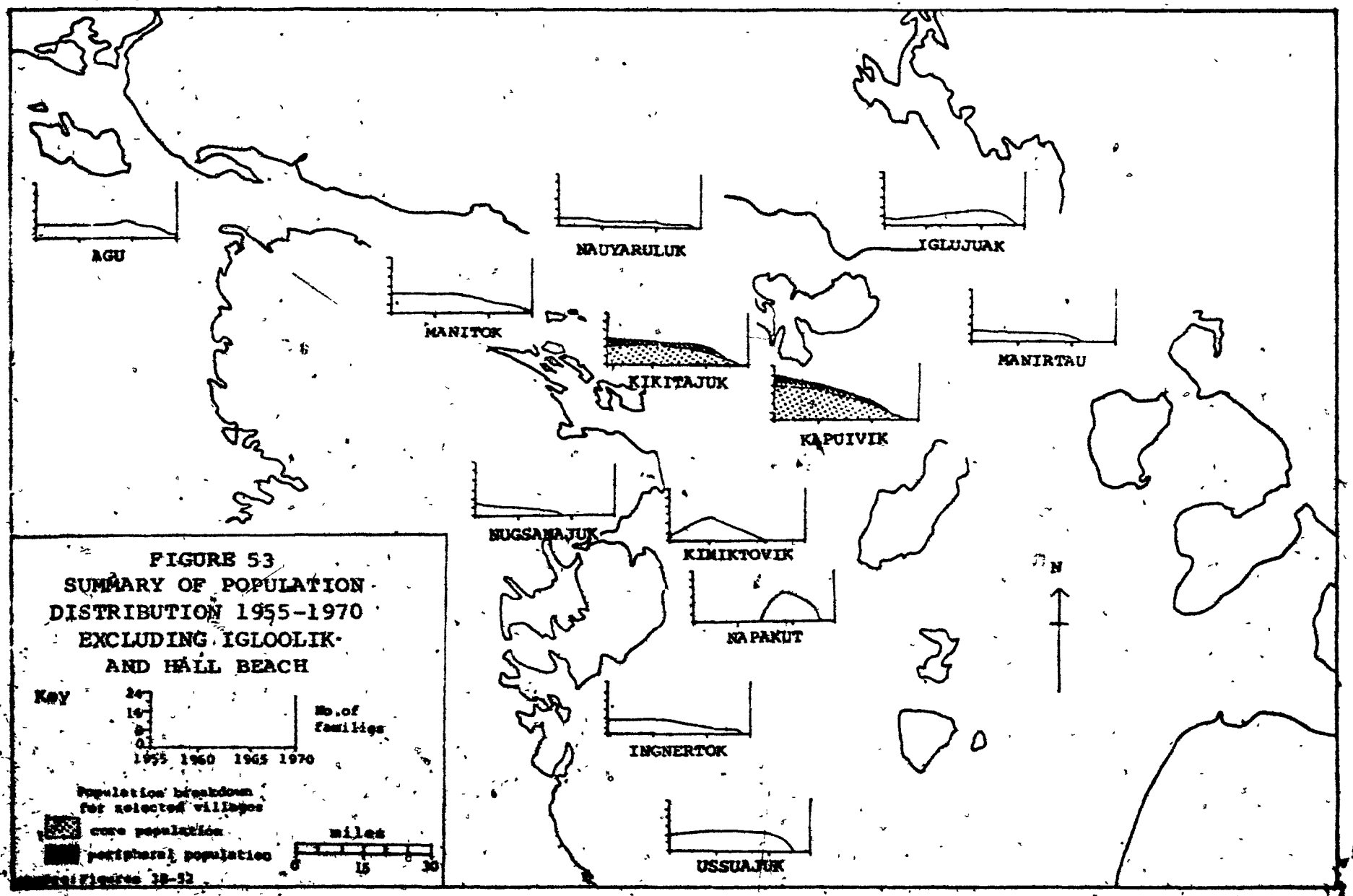


FIGURE 53
SUMMARY OF POPULATION DISTRIBUTION 1955-1970 EXCLUDING IGLOOLIK AND HALL BEACH

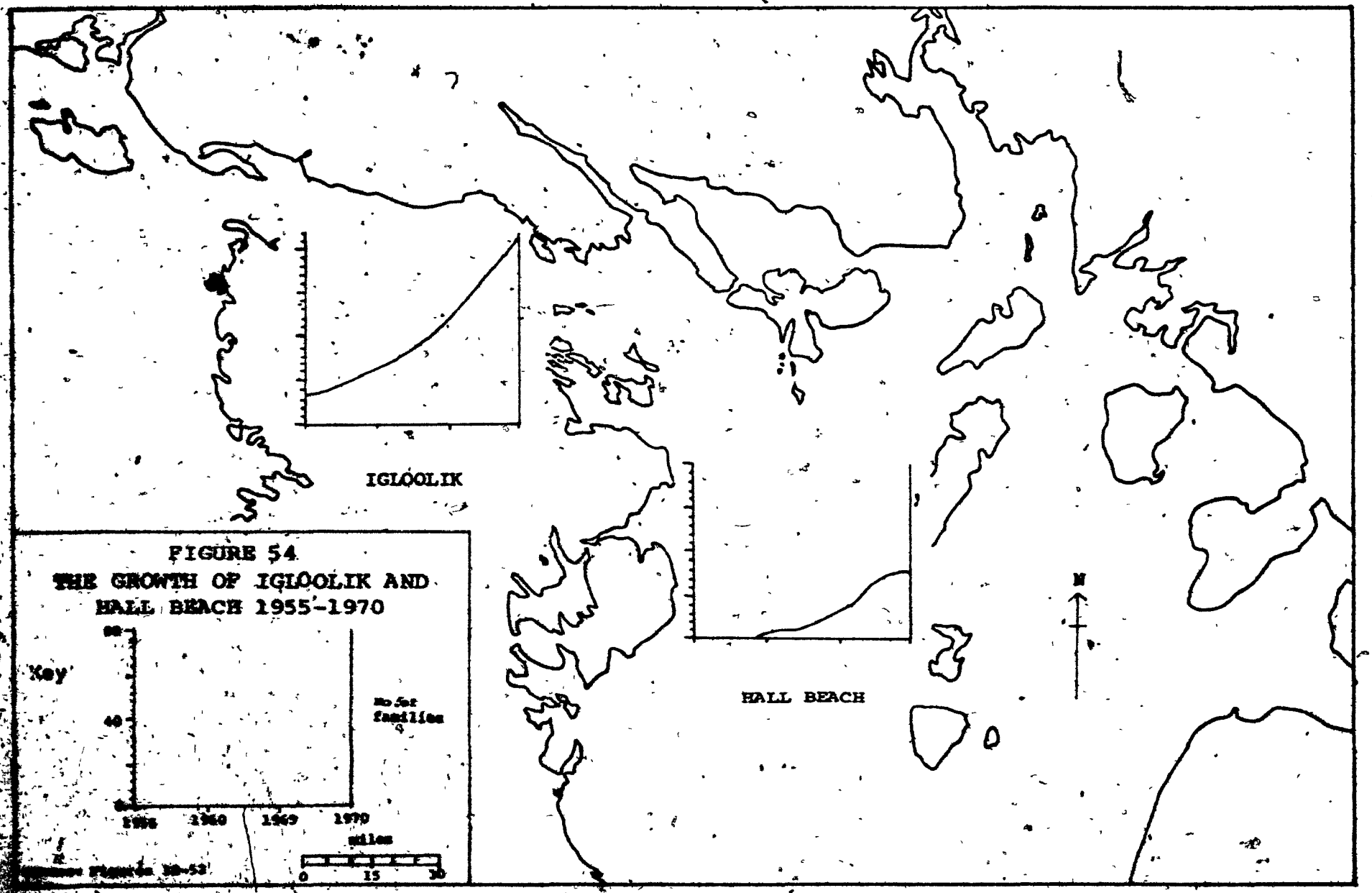


FIGURE 54
THE GROWTH OF IGLOOLIK AND HALL BEACH 1955-1970

feasible to move to the centre itself. These villages, Kiniktovik and Napakut had an extraordinarily high proportion of disabled men, and widows with families to support. Kikitajuk was the equivalent satellite village of Igloolik, although its establishment preceded the centralization movement, and it had a strong core group that resisted this movement.

The eventual movement of the core groups to the centres was the result of several factors. Their villages had been reduced by the departure of the peripheral population. Families were split when old and infirm members moved to the centres, and children were obliged to spend much of the year living in school hostels. These children did not return to their villages equipped to continue the hunting tradition. The cost of maintaining remote settlements was now prohibitive (Beaubier, Bradley and Vestey 1970, 84-130), in particular the cost of gasoline needed for hunting and for journeys to the centres to trade, to transport children to school or to visit the nursing stations. To these disadvantages may be added the remoteness from the nursing stations and churches, loneliness of women in the smaller settlements compared with their acquaintances in the centres (Unpublished field notes 1969, numerous references), and the inefficiency of small year-round village hunting groups (Unpublished field notes 1969, 14). Pressure from government officials, and village Councils to move to the houses provided for them is a further factor according to several of the latest issue of grants to Igloolik and Hall Beach.

CHAPTER VI

ADAPTATION TO IGLOOLIK AND HALL BEACH 1968 - 1970

Chapters I to V dealt with the process of population change and settlement centralization. The Eskimos of northern Foxe Basin are now faced with the necessity of adapting to fixed village locations that have been stabilized by the development of permanent facilities and the existence of Western institutions. The purpose of this chapter is to discuss how general patterns of adaptation operate within these fixed villages.

An important assumption is that the present social structure of the community has evolved directly from settlement processes operating before centralization, despite the strong impact of Western culture on present day Igloolik Eskimo society. The chapter will focus on the structure of modern settlement, and show how this structure is related to previous patterns, to the economic alternatives open to the Igloolik Eskimos, and to the integration of traditional behaviour in the modern setting.

Modern Village Structure 1968 - 1970

IGLOOLIK

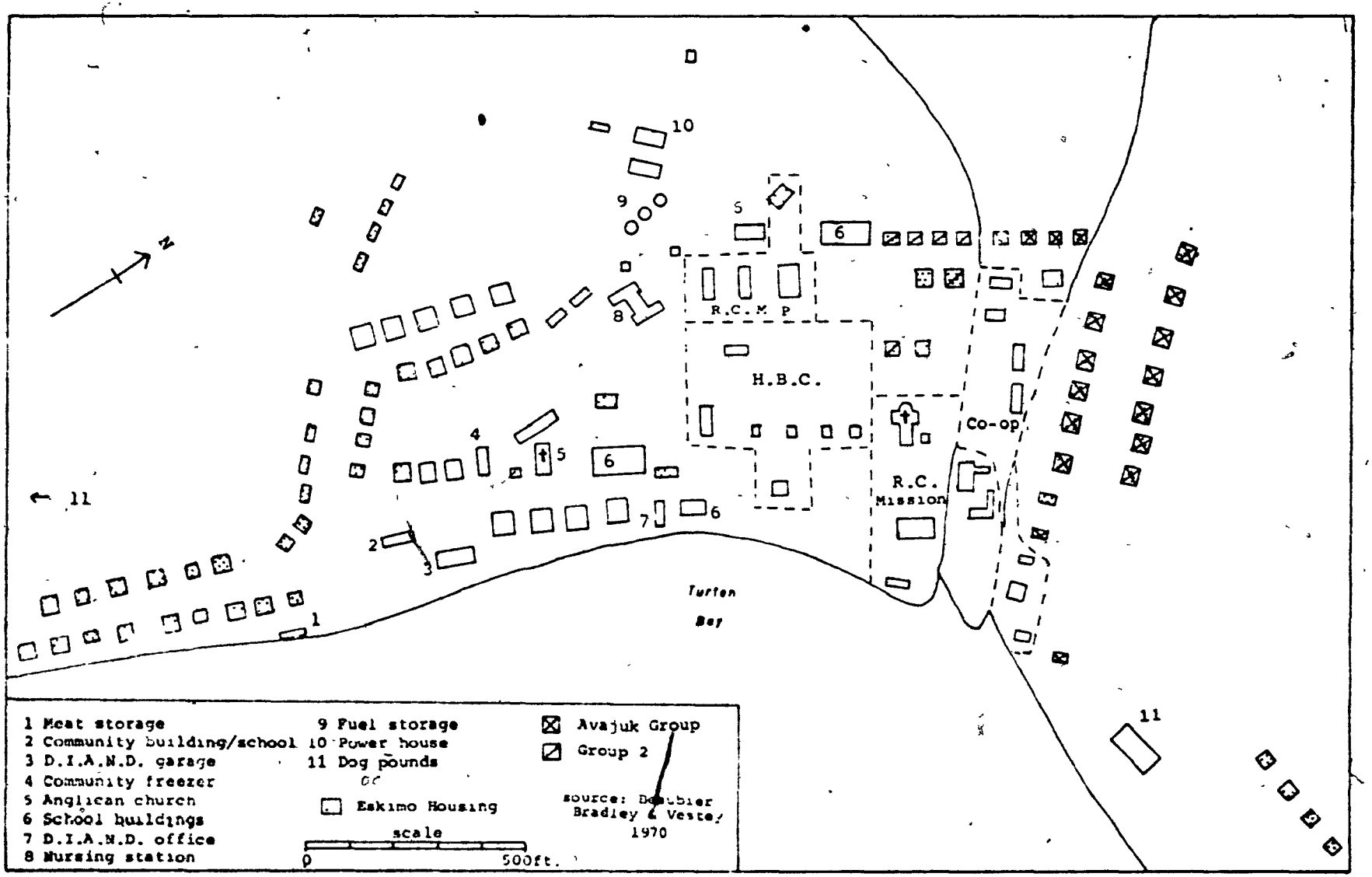
Grouping of individual nuclear families in the modern village of Igloolik is clearly related to patterns of settlement prior to centralization. The most obvious feature is the spatial separation of the Anglican and Catholic segments of the village. The Catholics

earlier formed the core population group of the Igloolik Island area.

The Roman Catholic Mission and the Hudson's Bay Company store were the first two Western agencies to become established in Igloolik, in 1937 and 1939 respectively. Their buildings are located at the widest, most level, and best drained section of the beach on which Igloolik is built. The Catholic Mission was already the focus of some Eskimo settlement by the time the government rental housing programme began in 1964, and several families had lived there for about 15 years. As more Catholic families moved in they naturally settled around the Mission. The Anglican minister had built a house on the other boundary of the Hudson's Bay Company land, and when Protestants moved into the village they all located at that end of the beach (Map 7).

The first Eskimo houses at Igloolik were shacks built from scrap materials, together with a small number of one room houses supplied by the government for welfare cases after 1959. When the rental housing scheme was introduced in 1964 the layout of housing was determined by a master plan originating with the Engineering Division of the Department of Indian Affairs and Northern Development in Ottawa. The specific location and allocation of houses was largely in the hands of local people who were organized into a Housing Committee representing people from both Anglican and Catholic groups.

Individuals and social groups had a large degree of choice of location in the village, and this is reflected by the spatial grouping of families. Indeed, one row of four houses was erected at the



MAP 7

IGLOOLIK AUGUST 1969

furthest end of the planned village a long way from the nearest neighbours, against the advice of the Area Administrator. This was the preference of a small group who did not want to be too close to the rest of the village (Haining 1968).

The Anglican-Roman Catholic dichotomy is the broadest division in the village. The origins of the religious schism have been discussed Chapters II and III. In 1931 the Catholic Missionaries located in an area occupied by the largest core population group in northern Foxe Basin. The conversion of the Avajuk families meant that the remaining groups, including the majority of the peripheral population, were to become doubly isolated from the Igloolik core group by a religious difference overlaid on existing social and economic differences.

The ramifications of this division are still evident in the present village of Igloolik. In the Catholic section of the village the majority of families are the direct descendants of the influential leader of Avajuk in the 1920's and 1930's. Map 7 shows the location of this Avajuk group in Igloolik in 1969. All the families marked are the direct descendants of the former leader. A number of marriages between cousins, aunt and nephew, further consolidates this group, and the original power structure of Avajuk has been duplicated in Igloolik (Unpublished field notes 1968). Other families who moved to Manitok after the dispersal of the Avajuk people are also associated with this group, although they live somewhat apart in the modern village.

A second group in the Catholic section is centred on a

family that has lived there for about 20 years associating with the Mission (group 2, Map 7). In 1968 the old couple had gathered their children and their families around them - sons and married daughters. The old woman explained that "I like to have my children near me" (Unpublished field notes 1968), forming a small "camp" within the larger village. In 1969 the visit of a town planner from Ottawa resulted in the disruption of this component. The houses were moved to fit the town plan, but the group maintained its compactness.

In contrast the Anglican section of the village is very complex in structure. The overall settlement pattern of this part of the village is one of small groups of relatives, or former associates, rarely more than three or four in neighbouring houses, together with isolated individuals, or scattered family groups. In 1969 there were 41 Anglican families, and 45 Catholic families in Igloolik. All but two of the Anglican families lived together in one section of the village, but it was not possible to isolate large groups, either of close relatives, or of former associates in other settlements. In general the origins of the Anglicans are diverse, and the majority have been associated with several settlements during their lifetimes. Many of them are families categorized as peripheral before centralization. Their scattered location within the Anglican section of the village reflects the heterogeneous origins of the Anglican population. It indicates the large proportion of peripheral families, and an absence of tight-knit co-operative groups, such as the two dominant Catholic groups, that would have the desire, or necessary pressure to arrange

housing located to suit their common needs.

Most of the Kapuivik people moved to Igloolik, but apart from one group consisting of the leader, his son and his nephew, members are dispersed throughout the Anglican part of the village. This possibly reflects the diverse origins of the Kapuivik population in the early 1940's (Chapter IV), and later tensions between segments reported by Damas in 1961 (Damas 1963).

However, some groupings are evident. Several former members of Akunik live close to each other, as do men from Iglujuak, and Agu. The Agu families moved to Igloolik in the autumn of 1969 and set up a tent village away from the planned settlement.

The Anglican minister, himself formerly attached to several peripheral groups in northern Foxe Basin and Pond Inlet, lived in a self-built house, and his sons, brother, and brother-in-law lived in houses nearby forming another small group within the Anglican part of the village.

In 1968 and 1969 five Catholic families also lived in this section of the village. One other household consisted of a woman from the Avajuk core group, married to and immigrant from the Western Arctic. This family had never been residentially stable, and had moved frequently to other settlements.

The houses themselves in the Anglican part of the village are very mixed in type, and three bedroom, two room, and one room houses constructed in different years are found next to each other in the two longest rows. This reflects the piecemeal development in which

isolated individual houses were constructed. It suggests a lack of group interest in their location, as well as a gradual migration to Igloolik of these people, in contrast to the group solidarity evident among the Catholics.

In 1969 few families were of mixed religious origin, although there were several young couples from different religious backgrounds meeting, for example, at the Youth Club dances.

The distinction between the Catholic and Anglican sections of Igloolik is further emphasized by the use of the Bell Telephone system. Telephones are used for calls between households in the village, and only rarely for outside calls as until 1972 these had to be made by radio telephone through the operator in Igloolik. Telephones are used as a substitute for visiting, and their presence may be taken as an indication of the amount of interaction between renters.

In November 1968 32 Eskimo households were renting telephones (Bell Telephone, 1968). Well over half of these were in Catholic households. In all 46% of Catholic families rented telephones, in contrast with 27% of the Anglicans. If it is assumed that there is more telephoning within each of the two groups than between them, as is the case with visiting, this suggests that the Catholic members of the village form a closer group, with a greater degree of interaction than the Anglicans. The location of telephones appears to reinforce the conclusions drawn from individual locations within the village in suggesting a greater cohesion among the Catholic segment of the Igloolik population.

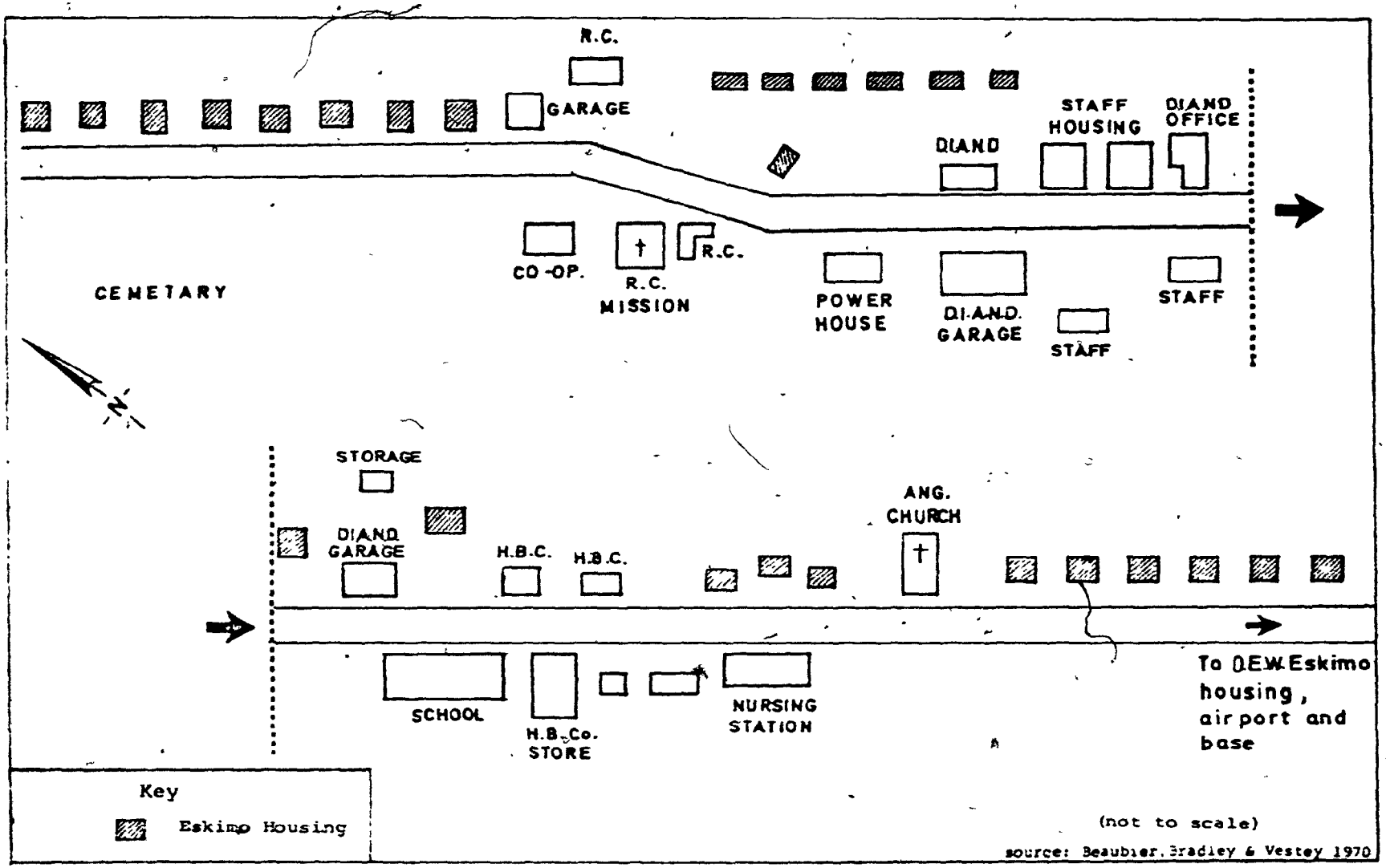
HALL BEACH AND THE D.E.W. LINE STATION

In 1969 little more than half (54%) of the population of Hall Beach was drawn from local settlements in the southern part of the region, that is from Foster Bay, Parry Bay or Ussuajuk. Thirty five per cent of the people of Hall Beach were immigrants to the region. Of the remaining few people (1%) half were men who had been associated with numerous settlements in northern Foxe Basin, and the others were from the Avajuk group in Igloolik.

As would be expected from the history of religion in the area, the majority of Hall Beach families are Anglican. There are several Catholic families, however, served by a permanent Mission (Map 8). These families are mostly immigrants from Repulse Bay or Southampton Island, together with the two or three families from Igloolik who were in the area because of their employment (Figure 55).

The Catholics are concentrated near the Mission, but there is not the sharp division found in Igloolik, and indeed the underlying social differences between the two religious groups are absent in Hall Beach. This is also demonstrated by the number of marriages crossing religious lines, of which there were a number in 1969.

The major part of the Igloolik Eskimo population at Hall Beach was formerly peripheral to the core settlement areas in northern Foxe Basin, and today Hall Beach is peripheral to Igloolik as a settlement area. In that respect the local Eskimos of Hall Beach have much in common with the immigrant members, as both groups have a history of movement between settlements rather than of residential stability. It



MAP 8
HALL BEACH SEPTEMBER 1969

FIGURE 55

ORIGINS OF FAMILY HEADS FOR HALL BEACH AND FOX MAIN D.E.W. LINE STATION 1969

A. Hall Beach

	R.C.	Anglican	Total
Local villages	0	20	20
Southampton Island and Repulse Bay	8	3	11
Arctic Bay	0	2	2
Igloolik	2	0	2
Other N. Foxe Basin	1	1	2

B. Fox Main

Local villages	0	2	2
Southampton Island and Repulse Bay	1	1	3[1]
Igloolik	1	0	1
Other N. Foxe Basin	1	0	0
Western Arctic	1	0	1

Source: Unpublished field notes

appears that the fundamental form and origin of structural differences between the two villages Igloolik and Hall Beach, not to mention finer internal structuring, have been totally overlooked by other workers in the area, who continue to make such statements as:

---

[1] Religion Unknown

> [the] continuity of a patri-centred neighborhood in a moiety divided community ... is more obvious for Igloolik than Hall Beach (de Pena 1972, 48)

without suggesting any explanations of the differences observed.

The core group of Foster Bay, which moved to Parry Bay at the time of the population dispersals of the late 1940's forms one well defined group in Hall Beach, closely associated with the Anglican church. Similarly the former Ussuajuk and Parry Bay people maintain their links, but there is less group cohesion than among the core groups in Igloolik.

Economic Alternatives

Economic opportunities in the Igloolik region are limited. In 1968 and 1969 four alternative means of livelihood were available to the Igloolik population.

i) Hunting and trapping

ii) Work for wages

iii) Crafts

iv) Social assistance in the form of pensions, family allowance and welfare payments

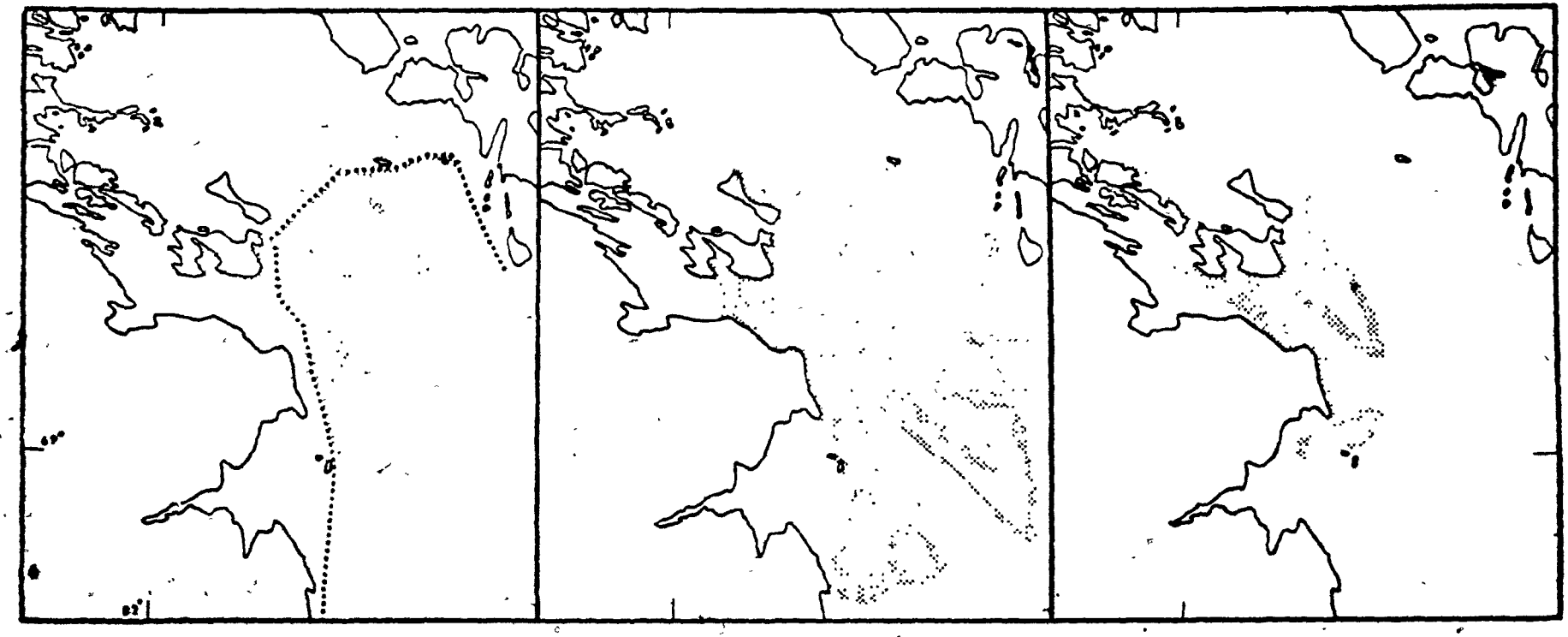
Although it is possible to combine two or more of these sources of income, the number of alternatives actually available to the majority of men is generally small.

HUNTING AND TRAPPING

Hunting Pattern 1968-1969

In 1968 and 1969 the activities of the majority of Igloolik Eskimo hunters were based on year round residence at either Igloolik or Hall Beach. Many hunters relocated at one or several temporary settlements established near the hunting territories in the months of June, July and August, some for the whole summer, others for shorter periods. The establishment of outlying camps is particularly necessary for residents of Igloolik because ice conditions in Turton Bay are usually bad for much of July and August, and prevent travel to and from hunting areas. There is a less well defined movement to summer camp from Hall Beach. The section of the coast there normally loses its ice early in the season making open water travel possible and consequently the men hunt out of the main village. Seasonal variations in the pattern of sea mammal hunting of Igloolik residents are described fully by Beaubier (1970 46-72). In winter there is little activity. Hunting is confined to the floe edge nearest the villages, and concentrates largely on ringed seal, although bearded seal and walrus are occasionally taken. Men who trap fox do so largely on the parts of Melville Peninsula nearest Igloolik and Hall Beach. The amount of trapping activity depends on the current trade price, and the abundance of fox in any particular year (Figure 58).

Spring hunting from Igloolik (Map 9) is concentrated on the floe edge along an arc from Kaersuit, past Igloolik Island to Foster Bay, which was the area traditionally hunted by the Avajuk people in the



Source: Beaubier 1970

MAP 9
SEASONAL VARIATION IN HUNTING TERRITORY : IGLOOLIK 1969

first half of this century. Hunting from Hall Beach is along the floe edge to Foster Bay in the north, and Parry Bay in the south. The emphasis for both is on ringed seal.

In summer, canoes are used in open water hunting for ringed seal, bearded seal, and walrus. The area covered by hunters is far greater at this time of year (Map 9). Igloolik hunters work in an area of northern Foxe Basin up to 40 miles out from the Kaersuit-Foster Bay arc. Hall Beach hunters travel between Foster Bay and Parry Bay, and out into Foxe Basin as far as the Manning Islands for walrus.

In autumn the hunting territory is reduced (Map 9), but with the dispersal of ice from the bays west of Igloolik Island it becomes possible for boat traffic to penetrate there. Ringed seal are hunted in the open water in the vicinity of Avajuk and Manitok, and as far as the mouth of the Fury and Hecla Strait. Caribou hunting is an important autumn activity. Hunters may go on extended hunting trips to Baffin Island, particularly to the area around Erke (Map 2). August is the time when most white whales and narwhals are taken.

The activities of the Igloolik hunters are a continuation of the hunting pattern that existed in Avajuk in the 1930's after the acquisition of whaleboats. Hunters are certainly more mobile now, particularly in summer with the increased individual ownership of canoes and motors. It is possible to commute longer distances from the central village to the hunting area, although fuel consumption is a limiting factor.

In general the hunting territory is that traditionally exploited by the Igloolik Island population. However, there are two fundamental changes. Although the men of Igloolik hunt in the same area this area no longer has the rich, seemingly inexhaustable resources that formed the base of Avajuk's wealth. Furthermore hunting from Avajuk involved at most 30 men equipped with dog teams and sail driven boats, with limited supplies of ammunition. Hunting from Igloolik now involves at least 50 men equipped with power boats and snowmobiles, and having far easier access to ammunition. In addition there is a continuous movement of boat or snowmobile traffic throughout the area, and between Igloolik and Hall Beach. The disturbing effects of hunting pressure, motor boats and snowmobiles are described by Beaubier (1970).

Game in the Igloolik area has either moved to quieter parts of northern Foxe Basin, as the walrus began to do 20 or more years ago, or else has become increasingly wary of hunters, as with the ringed seal (Bradley 1970). A man moving from a remote village to Igloolik in 1969 did so knowing that "hunting will become more difficult as game is scarce here." (Unpublished field notes 1969, 13).

Hunters in both Igloolik and Hall Beach are now faced with the alternatives of travelling further afield than they would like, or can afford (see next section), or of accepting a lower yield in the local area. It is probable that the situation will worsen with the increased use of snowmobiles rather than dogsleds, and greater summer boat traffic.

The Feasibility of Hunting: Costs and Returns

The basic requisites for a hunter are skill, environmental knowledge, and the desire to hunt. Hunting skill and knowledge must be acquired over a long period, and young men need to hunt with experienced hunters. This requirement is increasingly difficult to meet because of time which must be spent in school, particularly by those who have been away to boarding school in Chesterfield Inlet or Churchill. Young men not only emerge from school lacking training, they may have lost any interest in hunting other than in eating its products.

Several youths who do want to hunt have no equipment and little skill and are therefore dependent on other men for an opportunity to hunt. These men may prefer to take other more experienced or better equipped partners. One informant in Hall Beach believes that "there are too few active hunters to train all the young men eager to learn about hunting." (Unpublished field notes 1969, 3).

The two major cash outlays involved in hunting are investment in equipment, and the use of ammunition and fuel. Hunters need rifles and ammunition, boats and outboard motors in summer, and sleds and dogs or snowmobiles in winter, together with fuel or dog food and suitable clothing. Figure 56 gives the 1968 prices of some basic hunting equipment based on the Hudson's Bay Co. retail prices.

FIGURE 56

COST OF HUNTING EQUIPMENT 1968

Firearms		Ammunition	
calibre	cost $	no.	cost $
.22	22.95 - 85.95	50	1.25 - 4.10
.222	89.95 - 169.50	20	4.30
.243	162.50	20	5.25
.30-30	85.95	20	4.75
.303	26.95	28	5.80
12 guage shotgun	31.95 - 65.00	25	4.10

Transport	cost $
whaleboat and motor	2,675.00 (est)
19' canoe	345.00
22' canoe	500.00
Skidoo	850.00
5 H.P. motor	265.00
9.5 H.P. motor	420.00 - 495.00
20 H.P. motor	579.00
sled runners (pair)	14.00

Fuel	cost $
gasoline	1.22 gallon
naptha	1.10 gallon
kerosene	3.91 gallon
lubricating oil	0.70 quart

Source: Beaubier 1970 239, 240. Based on Hudson's Bay price lists 1968.

When hunting from the two villages the cost of fuel to reach resource areas, together with the fuel used on the hunt itself, is one of the major expenses. Figure 57 gives some representative distances for different types of hunting using canoes, together with the estimated cost in fuel.

FIGURE 57

COST OF FUEL IN OPEN WATER HUNTING FROM IGLOOLIK

Type of hunt	av. miles travelled	gals. gas[1]	cost of fuel
floe edge by canoe	68	7	$10.50
Bearded seal from Igloolik Point	39	9	13.50
Summer walrus	76	21	31.50
Open water hunting	45	8	12.00
Coastal ringed seal	92	17	25.00

Source: Beaubier 1970, 92, 240

Other incidental costs of hunting include the consumption of motor oil and kerosene for primus stoves. The cost of ammunition is another item to be considered. According to Beaubier (1970, 146) an animal is ususally hit several times before it is recovered. Not all shots fired find the target. Estimated percentages of hits range from 90% at seal breathing holes, 62% for shots from the ice to animals on the ice, to as low as 12% for shots from a moving boat at animals in the water (Kemp 1967-8). This represents considerable wastage of ammunition, which costs on average between 20 and 30 cents a shot.

A further requisite for hunting is time. Where wage labour is available this may conflict directly with hunting. In one case a man with full time employment may only have the opportunity to hunt on

[1] Gas consumption varies according to hunting techniques and load.

weekends. If he is an Anglican he will not hunt on Sunday. One day is hardly long enough for any type of hunting from Igloolik. Alternatively a man who is primarily a hunter may need to earn wages in order to meet his hunting expenses (see Figure 56). In this case he may take casual jobs when they are available, particularly in summer.

Other sources of income may be used. For example one informant in Igloolik pays his son's hunting expenses with his old age pension, while another man with a full time job helped to buy hunting equipment for his son (Unpublished field notes 1969, 1 and 15). In both cases the products of the hunt were shared. Evidence of money earned by young people being used to subsidize hunting of older family members was scanty, although such sharing undoubtedly exists.

The main value of hunting to the Igloolik Eskimos is that it is still the only source of fresh meat available to them, and it provides the preferred food of the majority of people. The proportion of local food consumed in each household is dependent on the number of hunters, if any, in the family, their equipment, skill and success, and on the availability of purchased food such as flour, as well as on individual taste. This naturally varies from family to family, and between groups. The nutrition of the Igloolik Eskimos is the subject of a separate study by the International Biological Programme (Milne 1969, Kharusi n.d.).

Families with cash income but no hunter may depend on the

Hudson's Bay Co. or Co-Op. for food, but such food is mostly dried or canned. The Co-Op. sold dried fish and frozen meat bought from local hunters, but most people rely on obtaining fresh food from members of their own family.

Other products of hunting are used in the home. These include caribou skins for winter clothing, sinew for sewing, seal skins for boots and rope, seal or fox skins for crafts, and ivory or antler for carving.

Hunting and trapping also provide a direct cash income by the sale of skins and other commodities to the stores. The returns from trading these items are shown in Figure 58.

FIGURE 58

TRADE OF SKINS AT THE IGLOOLIK RETAIL STORES 1964 - 1968

	1964-5		1965-6		1966-7		1967-8	
item	no.	av. price	no.	av. price	no.	av. price	no.	av. price
polar bear	25	$ -	26	$93.95	31	$106.04	17	$156.75
white fox	2,369	$ 8.28	461	$15.95	3,789	$ 14.90	974	$ 8.60
ringed seal	2,888	$ 9.39	2,228	$ 7.33	3,178	$ 5.99	628	$ 3.10
bearded seal	74	$20.20	80	$12.23	19	$ 16.94	32	$ 8.95

Source: R.C.M.P. records, Igloolik 1968

The table indicates that these products are subject to serious fluctuations in market price. In addition to this the cyclical variations in fox numbers makes fox trading an unreliable source of income. A successful hunter could barely live satisfactorily on the proceeds of hunting, providing sufficient food for his family and covering all

his expenses, including the purchase of equipment, from the sale of items shown on Figure 58. The majority of hunters must therefore use another source of cash as well.

WAGE EMPLOYMENT

Wage employment in the Igloolik area provides a viable alternative to hunting for only a very few people. Its most important role appears to be in providing cash to subsidize hunting activities. Although the number of opportunities increased during this decade with the development of the villages, the completion of large scale construction projects at the end of the 1960's means that very little work is now available. Such work as there is, depends heavily on government support and subsidies. Even the Hudson's Bay Co. relies to a large extent on the input of cash through government subsidies such as family allowance, into the communities.

Village Economy, Igloolik, 1968-1970

Only about half of the heads of the 86 Igloolik families are hunters. Some are able to earn wages, but many are unable to earn a satisfactory income either from hunting or from wage work. Figure 59 illustrates the small number of household heads with full time employment.

FIGURE 59

OCCUPATION OF HOUSEHOLD HEADS IGLOOLIK 1969

Primarily hunters	46
Full time wages	18
Part time wages	3
Casual wages (includes only construction and Co-Op.)	20
Other	20

N.B. Some men combined 2 or more occupations

Source: H. Milne, 1969

Opportunites for wage work included: school janitor, teaching assistant, sales clerks for the Hudson's Bay Co. and Co-Op, D.I.A.N.D. office staff and manual workers. The Indian and Northern Health Service nursing station in Igloolik employed three part time staff as interpreters and assistants in 1969. Hall Beach is limited to D.I.A.N.D., Hudson's Bay Co. and I.N.H.S. staff. The D.E.W. Line (Federal Electric Company) was curtailing its operations in northern Foxe Basin in 1969. That summer only eight Eskimos were employed by the Federal Electric Company there, and this number was due to be cut to four by the winter of 1969.

Other opportunities in the region include part time work throughout the year, and casual labour available at certain times of the year only, especially in summer. In 1968 and 1969 sea lift provided the majority of jobs. There are occasional opportunities for employment by visiting scientists or tourists. The presence of the I.B.P. personnel provided employment for guides, interpreters, infor-

mants and participants in special studies, but the money received was generally a negligible part of any individual's annual income.

Figure 60 shows the growth of recorded cash income form 1959 to 1969.

FIGURE 60

CASH INCOME IGLOOLIK 1959 - 1969

1959 - 60	$16,000
1964	$20,811
1965 - 66	$47,000
1966	$63,967
1969	$99,000

Source: D.I.A.N.D. cash income records, Area Administrator's Office, Igloolik.

This increase is far from representing a satisfactory employment situation, as all employment is involved with serving the village itself, and is largely supported by the government. Without subsidies the economy would collapse. Secondly, it is not sufficient to provide an acceptable income for even a fraction of the families in Igloolik.

Another limiting factor is that certain jobs require training, or such skills as the use of English, which are not available to the majority of family heads. These positions are generally filled by personnel from the south, therefore most of the casual work that is open to the Igloolik Eskimos is unskilled. The construction crew is composed of craftsmen from the south, including an electrician, a carpenter, and foreman. Local men are employed only as labourers, in

spite of the fact that several of the young men have received vocational training in these skills. Most of the jobs available require men to conform to southern standards of punctuality and reliability, leaving no room for other activities, and this frequently leads to misunderstandings. The individuals hired by the construction crew, for example, varied from week to week because men left to go hunting. However, this does serve to spread the wage employment among more individuals.

CRAFTS

The manufacture of crafts such as soapstone and ivory carvings, boots, parkas, harpoons or drums is a source of subsidiary income for a large number of men, women and children. However, very few people make it more than a hobby. No family received its primary income from crafts in 1968 or 1969 (Unpublished field notes 1968, 1969). Crafts bought by the D.I.A.N.D., and the Co-Op., and are sold privately, particularly to visiting scientists, and D.E.W. Line personnel.

SOCIAL ASSISTANCE

There are a number of household heads who, for any of several reasons, are unable either to hunt or to earn wages. They may be poor hunters, or own little equipment, and therefore be unwelcome to join other men hunting very often. They may find the cost of hunting prohibitive (see Figures 56, 57), or they may be old, ill, or disabled, and unable to hunt or work. Wage labour may not be available to them. These families can draw on three sources of support. Crafts

may provide a small income. Relatives may supply the family with meat. Government subsidies such as old age pension, disability pension, or family allowance provide a source of cash income to such families. All three sources may be used by one family, and the cash income is often shared with a family member to help meet the costs of hunting.

In 1968 and 1969 several families were primarily dependent on pensions or some other form of social assistance, but family allowances formed a subsidiary source of income to almost every household in Igloolik and Hall Beach. Because of the small overall cash income of most families social assistance in one form or another plays a significant role in the economy of both villages.

Religion, Group Control and Economic Opportunity

WAGE LABOUR AND HUNTING

It has been demonstrated above (Figures 56-58) that the costs of hunting outweigh the normal monetary returns, although hunting remains necessary for the provision of food. This difficulty is overcome in several ways, including:

i) A hunter relies on some form of social assistance income in his family, such as family allowance, or an older member's pension (see p.202).

ii) A hunter uses cash supplied by a member of his family with wage employment (see p.202).

iii) A hunter spends part of his time in wage labour in order to equip himself.

iv) A full time wage earner hunts in his spare time.

At the beginning of the centralization movement it became clear that the added cost of transport to hunting areas from the village would make it impossible for many men to afford to hunt. Consequently the Igloolik Co-operative Society was formed in 1963 in order to buy two peterhead boats for use in communal hunting (Beaubier 1970, 207). By 1969 the Co-Op. was a strong force in the village, providing work for its members, buying skins, meat, fish, and crafts, and retailing food, clothing, hunting equipment and fuel in successful competition with the Hudson's Bay Co. The Society had acquired a considerable amount of heavy equipment, and was therefore able to obtain contracts from the Federal Government, for instance for levelling an air strip in 1968, and for the construction of new buildings in 1969.

Communal caribou or walrus hunts in the two peterhead boats provide a source of meat for members and their dogs during the winter. The society also rented out such equipment as outboard motors to members. The Co-Op. has therefore translated the traditional concepts of co-operation and mutual help between members of a group into a modern context. However, in doing so it has also preserved the group structures identified earlier in this thesis. The Co-Op. consists of a strong, closely linked membership of people from the Catholic core group with a set of peripheral members from other smaller groups.

The Co-Op. is closely integrated with the Roman Catholic community, and in 1968 and 1969 the Catholic priest was one of its chief forces, providing the vital liaison between Eskimo and Western societies. The core of the members are the descendants of the former

residents of Avajuk, and its offshoot at Manitok, together with the second Catholic group associated with the Mission at Igloolik for the past 20 years.

The Co-Op is not exclusively Catholic though predominantly so. There are a number of active Anglican members, but once again, as in other spheres, past and present, these people are peripheral to the functioning of the Co-Op., and not vital to its existence or continuation.

The role of the Co-Op in integrating wage earning and hunting is indicated by the discrepancy between the pattern of wage earning and the distribution of capital equipment between the core and peripheral groups in Igloolik. In both 1968 and 1969 a greater number of Catholics combined hunting with wage earning - 15 Catholics and 8 Anglicans in 1968 and 16 Catholics 7 Anglicans in 1969 (Beaubier, Bradley, and Vestey 1970 38-42). Working for the Co-Op. facilitates such a combination as hours are flexible and men are able to take time off to hunt, which is not possible in most other work that is available. Because of its role in providing wage labour, particularly in 1969 when it received the D.I.A.N.D. housing contract, the Co-Op. has a strong influence on the specific distribution of wage income in Igloolik.

Anglicans tended either to hunt or to work for wages, and fewer men combined the two. The majority of the key permanent jobs in 1968 and 1969 were held by Anglicans, several of whom belonged to the same family. These men have no time to hunt except on annual holidays, yet they own large amounts of capital equipment.

As noted in the first section of this chapter the Anglicans in Igloolik comprise a number of small kin groups. Sharing appears to be limited to these kin groups and there is an absence of the large co-operative network that exists among the Catholic groups. There was a marked contrast between hunters with minimal hunting equipment, and men well equipped with boat, motor, and dogs or snowmobiles.

A survey of capital equipment belonging to a sample of 54 households in Igloolik in 1968 (Unpublished field notes 1968) provided some striking contrasts between the material wealth of Protestant families. Figure 61 shows the equipment owned by a full time wage earner, compared with one of several poorly equipped full time hunters.

Anglican households showed no pronounced tendency towards ownership of group property or towards the sharing of equipment, and men with no equipment were at a disadvantage in being dependent, for example, on a place in a boat belonging to someone else, rather than a straightforward sharing of equipment. Several Anglican men who lacked sufficient equipment, hired items from the Co-Op, because they had no kin able to share with them.

In contrast the majority of Catholic families surveyed tended to fall between the two extremes shown in Figure 61. None were so well equipped as family A, yet few men relying on hunting for their livelihood had access to as little hunting equipment as B. The key to this difference is not that the core group owned more equipment, but rather that the equipment is shared within groups of hunters. Hunter B does make use of a boat in hunting, and goes hunting whenever he can,

FIGURE 61

EXTREMES OF CAPITAL EQUIPMENT OWNED BY HOUSEHOLDS

WITH ACTIVE FAMILY HEADS, IGLOOLIK 1968

Family A (full time wages)	Family B (full time hunter)
(rented 3 bedroom house)	(rented 1 bedroom house)
tent	
electric sewing machine	
washing machine	
stereo tape recorder	
stereo record player	record player
2 radios	electric radio
deep freeze	
refrigerator	
electric iron	
(telephone)	
furniture (store-bought)	
wall lamps (store-bought)	
kitchen equipment (store-bought)	
Coleman lantern and stove	Primus lantern and stove
1 sled	2 sleds
1 Skidoo	11 dogs, 5 pups
22 foot canoe	
33 HP engine	
.222 rifle	
.303 rifle	.303 rifle
.22 gun	.22 gun
binoculars	telescope
fish net	
tool kit	hammer and saw
camera	
"walky-talky" radio set	

Source: A survey of a sample of 54 households in Igloolik. (Unpublished field notes 1968)

yet he, and others like him, made no reference to sharing ownership of the boat or boats he travels in. Several Anglican men made such statements as "I have no boat, and have to use other people's" (Unpublished field notes 1968, 2).

Among the Avajuk group the questions "do you own a motor?" or "do you own a boat?", were repeatedly answered by such statements as "it belongs to the group" (Unpublished field notes, 1968). Four of the six men who stated that they owned boats shared them with other members of the group. In contrast only one of the nine boats in the sample[1] belonging to Anglicans was shared by two brothers, and this boat was not used for hunting. Similarly four out of seven Catholics having a motor shared it with the group, compared with one motor out of 11 in the Anglican sample.

These facts point to a failure of the Anglicans to distribute cash income among themselves. A further indication of their fragmented nature which may serve to explain the situation in the 1930's when the Avajuk men bought whaleboats, while peripheral population both in Avajuk and in other settlements did not. This difference in co-operative behaviour has already been postulated as the cause of the contrasts in the preceding chapters.

Summary

The group organization described in this chapter refers to the period immediately following the completion of settlement centralization. Since then the Igloolik Eskimos have responded to other factors related to their centralized location, in particular the con-

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[1] The sample included approximately equal numbers of Anglican and Catholic families.

tinued residence in a large village with no clear prospects of further economic development, but rather the expectation of a decline in wage opportunities following the early stages of intensive village growth. There has been increased contact with aspects of the larger Canadian society, including forms of local as well as Territorial and Federal government. In addition to this factors related to individual personality and leadership ability have affected village organization. However, the fundamental structure of Igloolik and Hall Beach described above, which stem from patterns of settlement and social organization developed prior to centralization, continue to form the base on which the internal organization of Igloolik and Hall Beach will develop in future.

CHAPTER VII

CONCLUSION

The description and anlysis of the process of settlement and migration of the Igloolik Eskimos has shown that the growing involvement of the Eskimos with Western society in this century has led to fundamental changes in their relationship with the natural environment. Improved technology was one of the most important factors, and this was linked to subsistence behaviour, which was in turn linked to settlement and mobility.

In Chapter I it was suggested that settlement centralization was made possible because technical and cultural changes provided viable options to dispersal, allowing more people to live in less space. The large stable villages that developed in the 1930's were indeed a result of improvements in subsistence techniques with the use of guns and whaleboats.

The optimum size of settlements was passed when technological improvements resulted in overexploitation of local resources, a process suggested in Chapter I and described and analysed in Chapter IV. As a result the population dispersed over a wider area, and more villages were established in order to exploit new resource areas. Settlement continued to be based on central villages, however, and there was no return to previous patterns of high seasonal mobility of settlement units.

Recent centralization in Igloolik and Hall Beach is, in

one respect, a continuation of this trend to increasingly sedentary settlement, resulting from improved exploitative techniques. This movement, and the maintenance of present fixed settlements is only possible with a considerable input from the larger Canadian society. The present settlement pattern is largely a result of Federal Government policy, and would be impossible to maintain without government support. As in the 1940's the optimum size of settlements has been passed in respect to exploitation of local game resources, but linkage with Western society has so far made it possible for the village to continue to grow, and local resources to decline without the necessity of finding new options and alternatives of village maintenance.

Among the questions raised in Chapter I was the possibility of dividing the population into core and peripheral groups defined by mobility and attachment to specific settlement areas. The thesis has identified such a breakdown of population. Members of core groups are characterized by residential stability, the attachment to one settlement site or settlement area, and membership of large, close-knit kin groups. The core group of Igloolik Island is the most striking case. They consisted of one large kin group that maintained its solidarity by group endogamous marriages. They were strongly attached to the Igloolik Island settlement area, and were reluctant to leave, even when deteriorating local resources made relocation imperative. The group was further differentiated from others by a religious difference, and still retains a large degree of solidarity in the modern village of Igloolik. Another core group was identified in Foster Bay

in the earlier part of the century, which later moved to Parry Bay in the 1940's. Members of this group are now resident in Hall Beach.

In contrast to these more stable core groups, the thesis identified a peripheral population characterized by frequent movement between settlements in northern Foxe Basin, or beyond the region. Characteristically they were members of small or scattered kin groups. In terms of the modern settlements they have less solidarity or economic power than members of core groups. These differences, identified in the reconstruction of settlement history from 1900 to the 1960's, may still be observed to some extent in the structure and organization of the modern villages of Igloolik and Hall Beach.

In the late 1940's the population of Avajuk and Akunik experienced environmental stress resulting from the overexploitation of local resources, and such disadvantages as the high incidence of ill health. They responded by dispersal of settlement. At present the populations of Igloolik and Hall Beach are undergoing a similar stress. Local resources are no longer able to support the whole population, and the cost of hunting is high. However, they are in the centres by virtue of their dependence on the larger Canadian society, and have few real alternatives. Core and peripheral population alike responded to the facilities and services available in the centres, in particular heated and maintained housing, leaving remote settlements where hunting expenses are high, and access to Western facilities is poor. Many people moved to the centres attracted by the housing available there, but have now had the opportunity to realize that the

centres have only limited facilities to offer. One small group returned to a remote settlement in 1972, and others have expressed the desire to do so:

> I like the village, but if they took our houses away I'd go back to camp. (Unpublished field notes 1969, 16).

APPENDIX A

The Settlement History Questionnaire Used in 1969

(Introduction of purposes and description of information required, showing a copy of the questionnaire in Eskimo syllabics and a map of the Igloolik region.)

1. Where were you born?

    a. Man

    b. Wife

2. Where did you live as a young man/woman before you were married?

3. Where did you live at the time of your marriage and immediately afterwards?

4. What are your parents names?

5. Where did they live when they were young? (General)

6. Who else lived at: (names of settlements mentioned) when you were there? (how related, etc.) Where are they now, who are their surviving relatives, etc. (if not known)?

7. How long did you live at (each settlement)? What economic activities were most important, what was the seasonal cycle, etc.?

8a. What is the name of your first child? Where was he/she born? (additional information on where child is now, name of spouse, etc, if not known).

b. Ditto for second child, etc.

9a. When (child 1) was born at (settlement) which other families lived there with you?

How are/were you related? Where are they now (etc. if not known)?.

How long did you/they live there? What was the seasonal cycle?

b. Ditto for child 2, etc.

10. Why did you move from (settlement X) to (settlement Y)? (from questions 3 and 4) Who did you move with, etc? (amplify history of movement outlined in questions 3 and 4)

11a. When did you move permanently to Igloolik/Hall Beach?

b. What made you decide to move in?

c. Views of village versus camp, e.g. school, nursing station.

d. Preferences for the future, preferred occupation of their children, etc.

12a. Do you have any relations beyond the Igloolik region?

b. Have you ever visited them there?

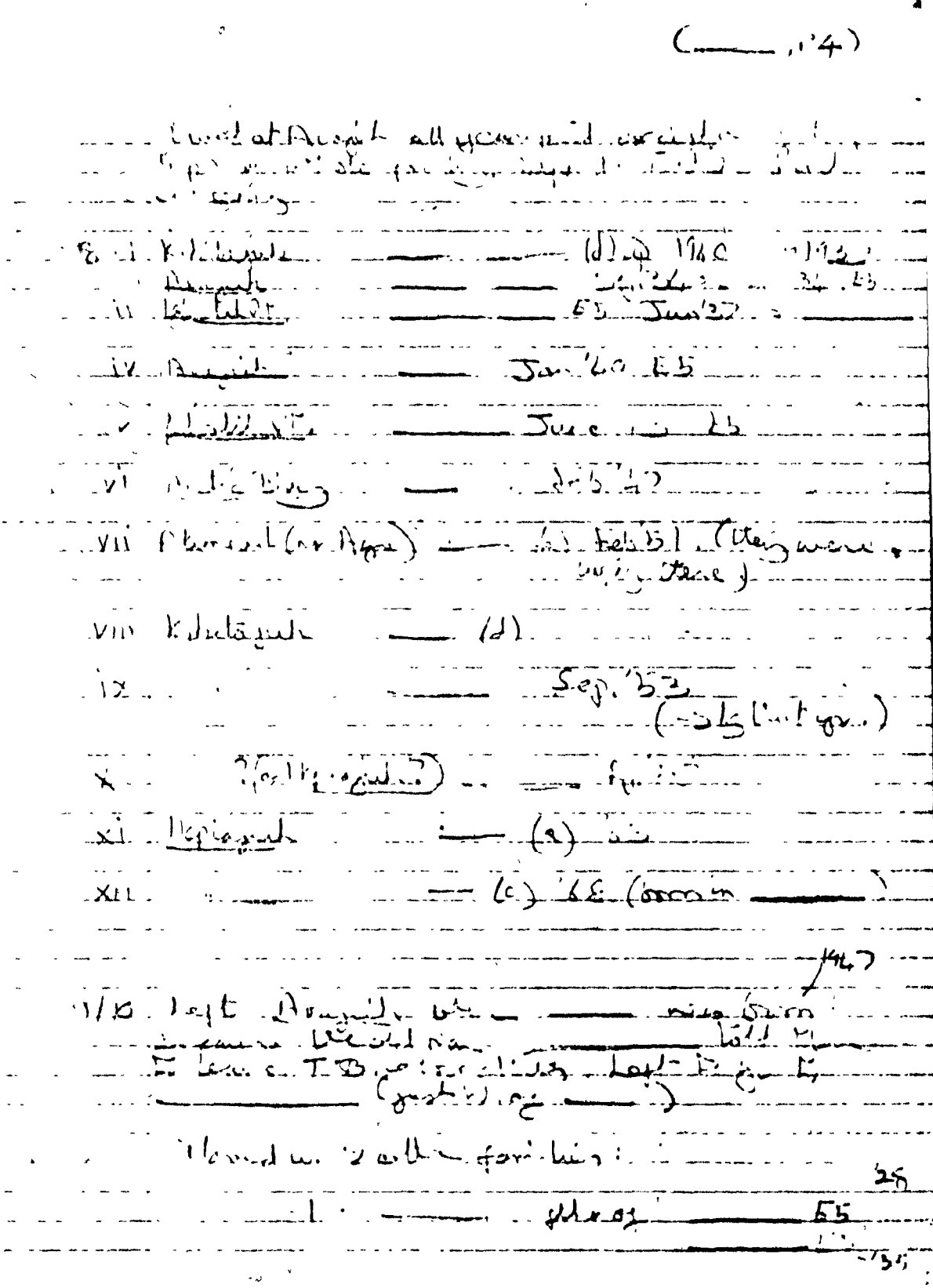
c. What other journeys have you made beyond the region? (date by age of children, purpose, companions, length of visit, etc.)

13. Names of both sets of parents (enlarge questions 4 and 5) Where were they born, summary of life history, where they lived, who with, etc. Further details of other relatives and associated families)

14. Further questions arising from interview.

APPENDIX B

Sample Field Notes 1969[1]



[1] This data is confidential, names have therefore been obscured.

BIBLIOGRAPHY

Anders, G.
1965 Northern Foxe Basin: An Area Economic Survey. Industrial Division, Northern Administration Branch, Department of Northern Affairs and National Resources, Ottawa.

1968 Personal communication.

Barklay Walker, A.
1909 The Cruise of the "Esquimaux" 1899 Liverpool.

Beaubier, P.H., J.M. Bradley and Jennifer Vestey
1970 Human Ecological Studies, Igloolik N.W.T. Report to the International Biological Programme, Human Adaptability Project, McGill University, Montreal.

Beaubier, P.H.
1970 The Hunting Pattern of the Igluligmiut: With Special Emphasis on the Marine Mammals. M.A. Thesis, McGill University, Montreal.

Bell Telephone
1968 Eastern Arctic Directory. November 1968.

Bradley, J.M.
1970 Ringed Seal Avoidance Behaviour in Response to Eskimo Hunting in Northern Foxe Basin. M.A. Thesis, McGill University, Montreal.

Bissett, D.
1967 Northern Baffin Island: An Area Economic Survey. Industrial Division, Northern Administration Branch, Department of Indian Affairs and Northern Development, Ottawa.

Bethune, W.C.
1934 Canada's Eastern Arctic: Its History, Resources, Population, and Administration. King's Printer, Ottawa.

Canada, Royal Canadian Mounted Police
1964-69 Annual Game Reports. 1964-1969, Igloolik, N.W.T.

1945-69 Birth and Death Records 1945-1969, Igloolik, N.W.T.

1961-69 Censuses of Igloolik Eskimos 1961-1969, Igloolik, N.W.T.

Chang, K.C.
1962 "A Typology of Settlement and Community Patterns in Some Circumpolar Societies". Arctic Anthropology 1962, I: 28-41.

Crowe, K.J.
1969 A Cultural Geography of Northern Foxe Basin, N.W.T. Queen's Printer, Ottawa.

Damas, D.
1963 Igluligmiut Kinship and Local Groupings: A Structural Approach. National Museum of Canada, Bulletin No. 196, Ottawa.

1969a "Characteristics of Central Eskimo Band Structure." in D.Damas (ed.) Contributions to Anthropology: Band Societies. 116-138. National Museum of Canada, Bulletin No. 228, Ottawa.

1969b "Environment, History and Central Eskimo Society." in Contributions to Anthropology: Ecological Essays. 40-64. National Museum of Canada, Bulletin No. 230, Ottawa.

Grainger, E.H.
1959 "The Annual Oceanographic Cycle at Igloolik in the Canadian Arctic: The Zooplankton and Physical and Chemical Observations." Calanus Series. No. 20, 453-501.

Haining, J.
1968 Personal communication.

Hawley, A.H.
1950 Human Ecology: A Theory of Community Structure. New York.

Heinrich, A.
1955 An Outline of the Kinship System of the Bering Straits Eskimos. M.A. Thesis, University of Alaska, College.

Kemp, W.B.
1967-68 Unpublished Field Notes. Volumes I-V, National Museum of Canada, Ottawa.

Kharusi, Jocelyn
n.d. Ph.D. Thesis in preparation.

Lee, R.B.
1972 "!Kung Spatial Organization: An Ecological and Historical Perspective." in DeVore and R.B. Lee (eds.) Studies of Bushman Hunter-Gatherers (in preparation).

Low, A.P.
1906 Cruise of the Neptune. Government Printing Office, Ottawa.

Lyon, G.F.
1824 The Private Journal of Captain Lyon Of H.M.S. Hecla During the Recent Voyage of Discovery Under Captain Parry. Murray, London.

Malaurie, J.H.
1962 Preliminary Report from an Anthropological Mission For Demographic and Economic Research Carried Out in Igloolik N.W.T. District, Canada. Unpublished manuscript, Department of Indian Affairs and Northern Development, Ottawa.

Manning, T.H.
1943 "Notes on the Coastal District of the Eastern Barren Grounds and Melville Peninsula from Igloolik to Cape Fullerton." Canadian Geographical Journal XXVI February 1943, 84-105.

Mathiassen, T.
1928 "Material Culture of the Iglulik Eskimos" in Report of the Fifth Thule Expedition 1921-1924, Vol. VI, No. 1, Copenhagen.

Meldgaard, J.
1956 "Prehistoric Culture Sequence" in Selected Papers of the Fifth International Congress of Anthropological and Ethnological Sciences. September 1-9, 1956, 588-595.

1962 "On the Formative Period of the Dorset Culture". Technical Paper No. 11, Arctic Institute of North America. December 1962, 92-95.

Milne, H.
1970 Personal communication

Munn, H.T.
1932 Prairie Trails and Arctic Byways. London.

Nourse, J.E.
1879 Narrative of the Second Arctic Expedition Made by Charles F. Hall. Government Printing Office, Washington.

O. M. I.
1949 Unpublished records of the Oblate Mission, Igloolik.

Parry, W.E.
1824 Journal of a Second Voyage for the Discovery of a Northwest Passage from the Atlantic to the Pacific. Murray, London.

dePena, J.F.
1972 "Growth and Development" in International Biological Programme, Human Adaptability Project (Igloolik N.W.T.) Reports for 1971-1972 p. 46-49. Annual Report No. 4, Toronto.

Rasmussen, K.
1929 "Intellectual Culture of the Iglulik Eskimos" Report of the Fifth Thule Expedition 1921-1924, Vol. VII, No. 1, Copenhagen.

R.C.M.P.
(see Canada, Royal Canadian Mounted Police).

Ross, G.W.
1960 "The Igloolik Eskimos". The Scottish Geographical Magazine. Vol. 76, No. 3 156-163.

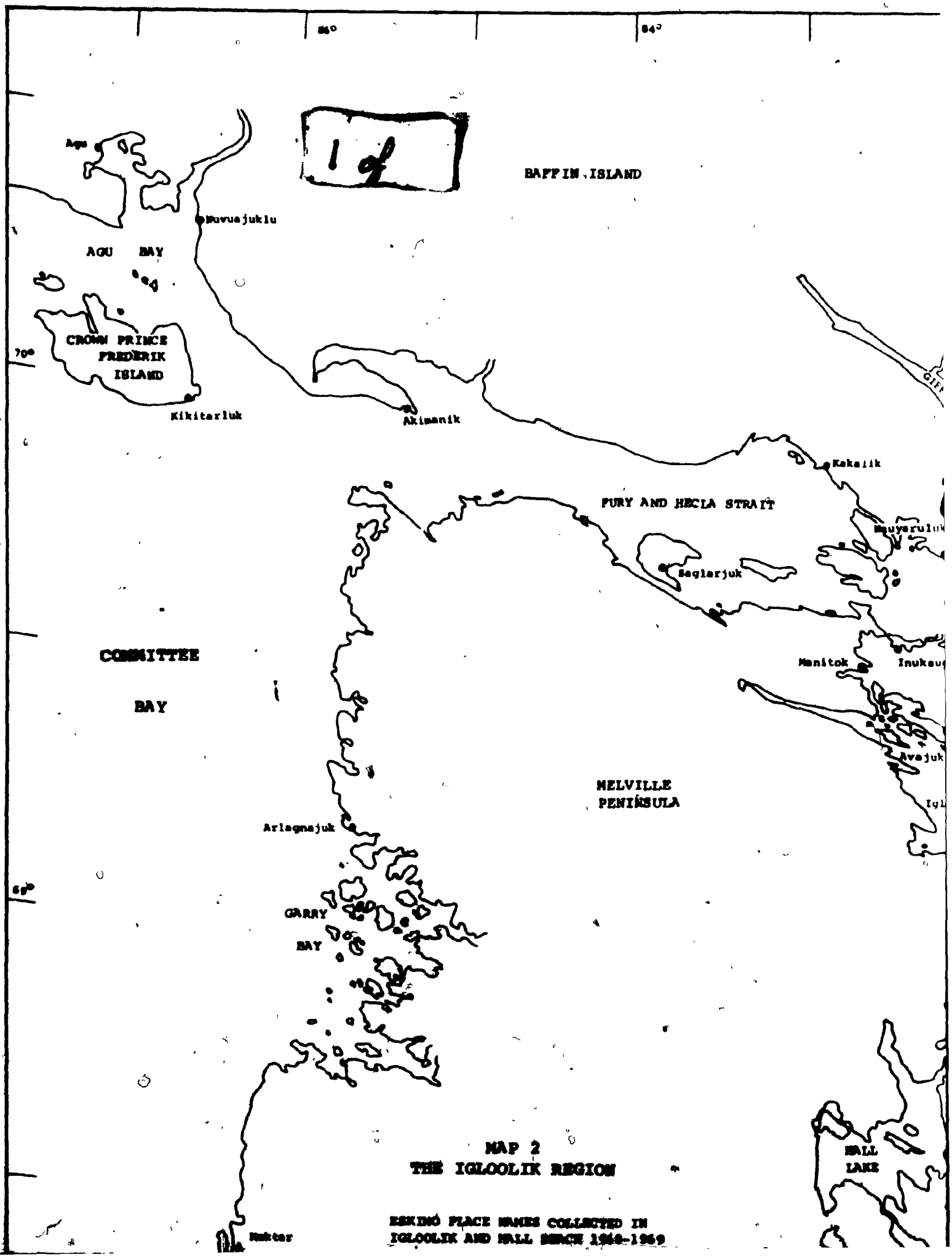
Thompson, C.T.
n.d. Housing in the North: Concern for Housing Versus Concern for People. Unpublished manuscript.

1969 Patterns of Housekeeping in Two Eskimo Settlements. Northern Science Research Group, Department of Indian Affairs and Northern Development, Ottawa.

Tremblay, A.
1921 The Cruise of the Minnie Maud. Quebec.

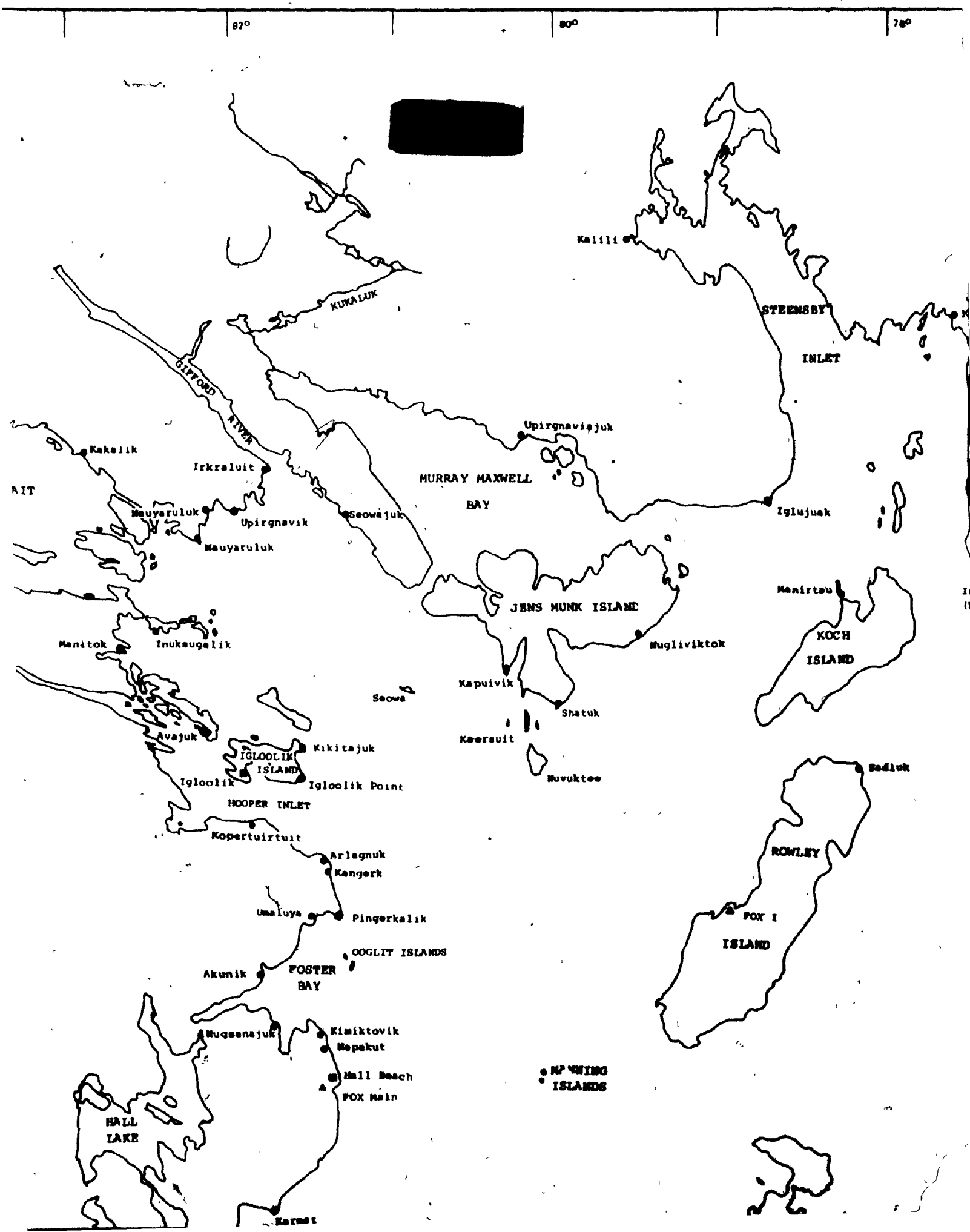
Usher, P.
1971 Fur Trade Posts of the Northwest Territories 1870-1970. Northern Science Research Group, Department of Indian Affairs and Northern Development, Ottawa.

Wolpert, J.
1965 "Behavioural Aspects of the Decision to Migrate." Regional Science Association. Vol. 15, 159-169.



MAP 2
THE IGLOOLIK REGION

ESKIMO PLACE NAMES COLLECTED IN IGLOOLIK AND HALL BEACH 1968-1969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GIFFORD RIVER
Upirgnaviajuk
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Upirgnavik
Seowajuk
Mauyaruluk
Iglujuak
Manirtau
JENS MUNK ISLAND
Manitok
Inuksugalik
Mugliviktok
KOCH
ISLAND
Kapuivik
Seowa
Shatuk
Kaersuit
Avajuk
IGLOOLIK
ISLAND
Kikitajuk
Igloolik
Igloolik Point
Muvuktoo
HOOPER INLET
Sadluk
Kopertuirtuit
Arlagnuk
Kangerk
ROWLEY
Umaluya
Pingerkalik
FOX I
ISLAND
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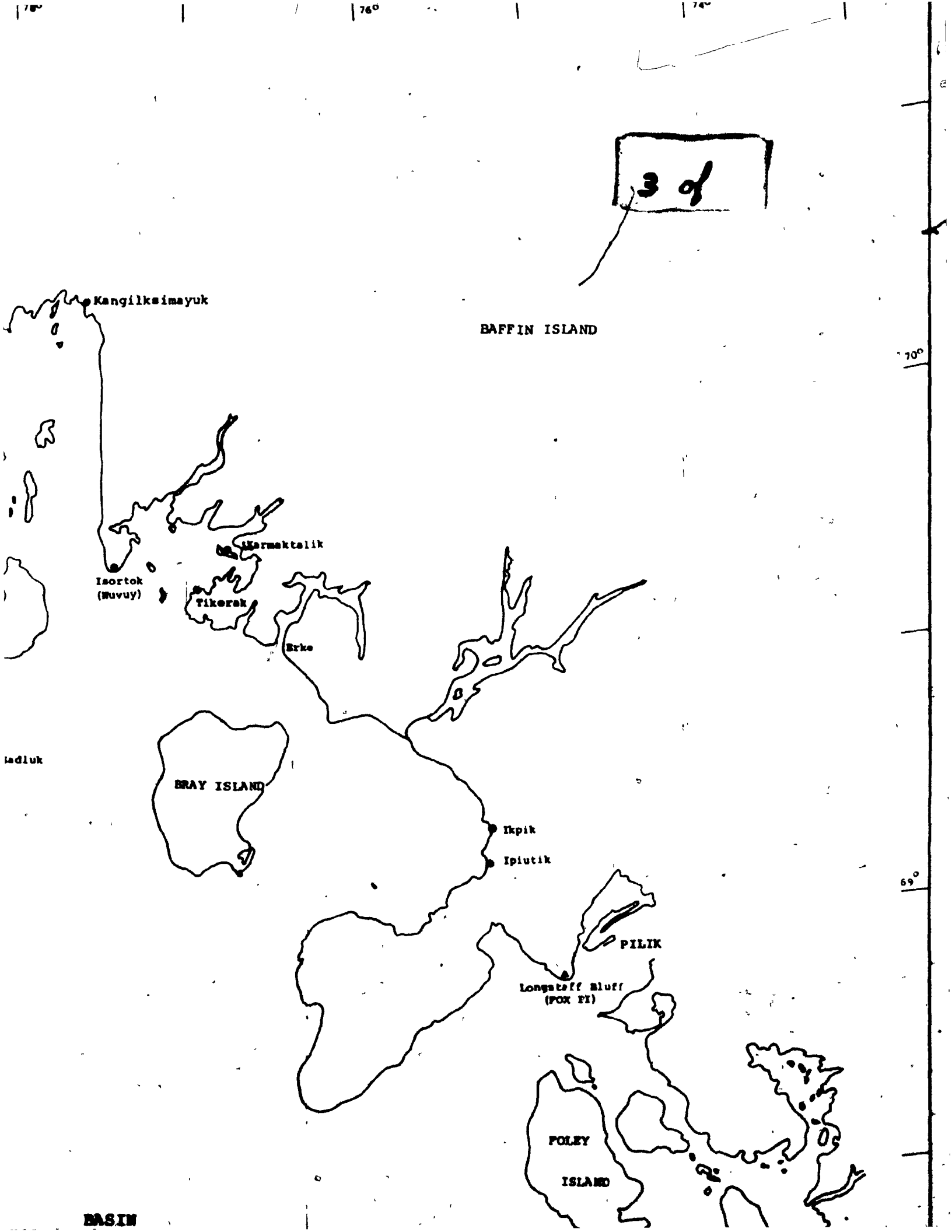
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Karmaktalik
Isortok
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Tikerak
Erke
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BRAY ISLAND
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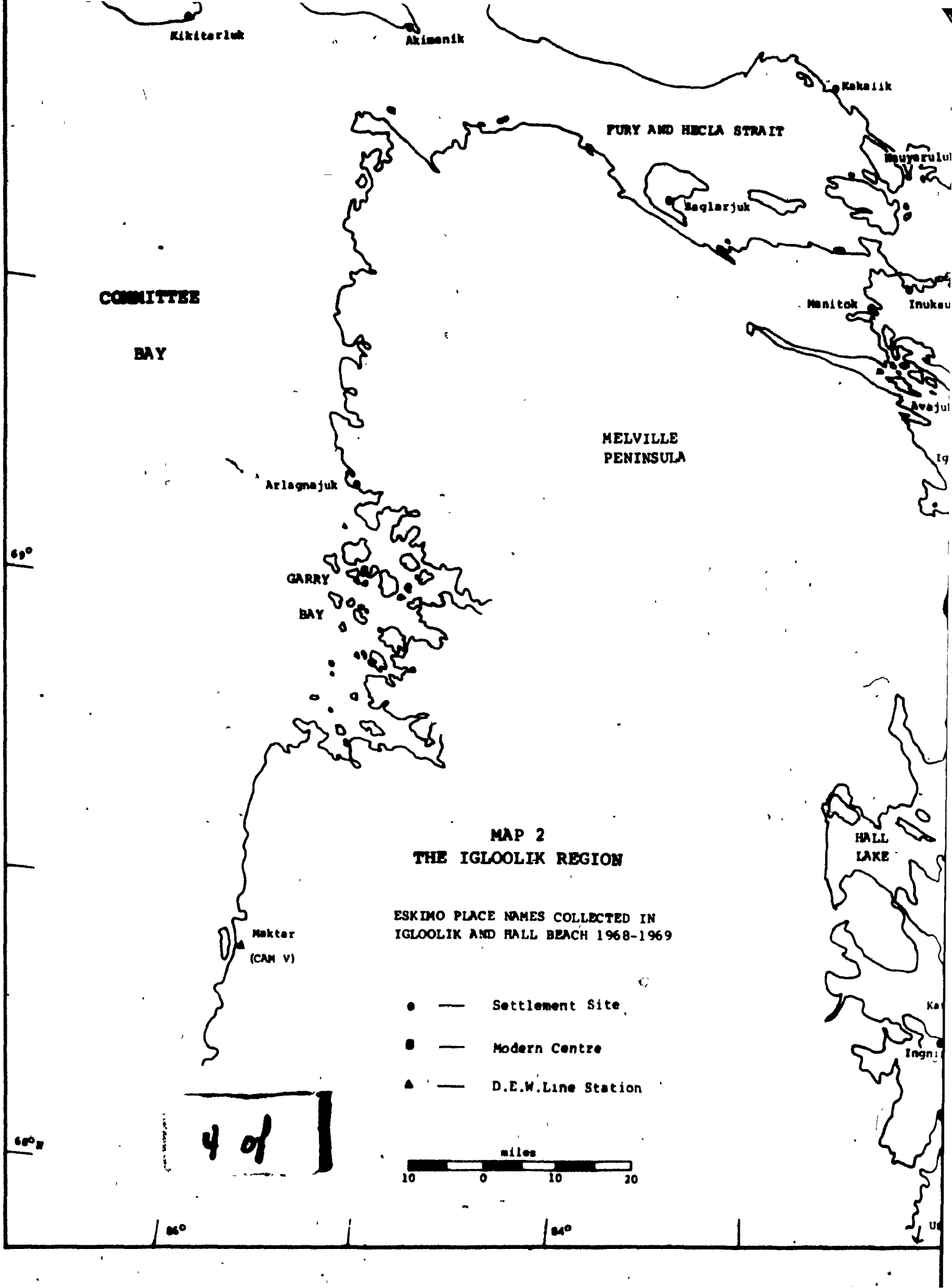

MAP 2
THE IGLOOLIK REGION

ESKIMO PLACE NAMES COLLECTED IN
IGLOOLIK AND HALL BEACH 1968-1969

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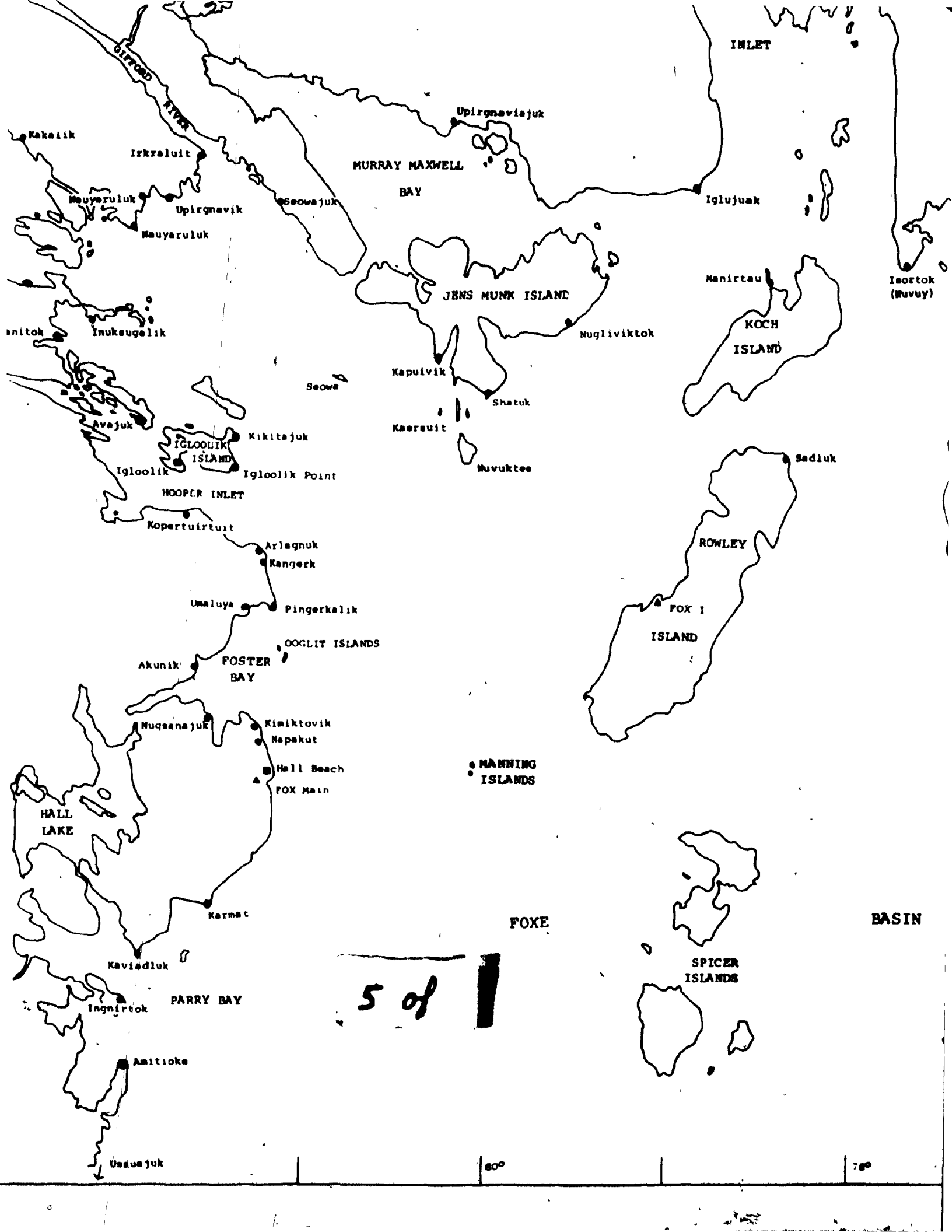
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Irkraluit
MURRAY MAXWELL
BAY
Mauyaruluk
Upirgnavik
Seowajuk
Iglujuak
Mauyaruluk
Manirtau
Isortok
(Muvuy)
JENS MUNK ISLAND
Inuksugalik
KOCH
ISLAND
Nugliviktok
Kapuivik
Seowa
Shatuk
Kaersuit
Avajuk
Kikitajuk
IGLOOLIK
ISLAND
Sadluk
Igloolik
Igloolik Point
Muvuktee
HOOPER INLET
Kopertuirtuit
ROWLEY
Arlagnuk
Kangerk
Umaluya
Pingerkalik
FOX I
ISLAND
OOGLIT ISLANDS
Akunik
FOSTER
BAY
Nuqsanajuk
Kimiktovik
Napakut
MANNING
ISLANDS
Hall Beach
FOX Main
HALL
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Karmat
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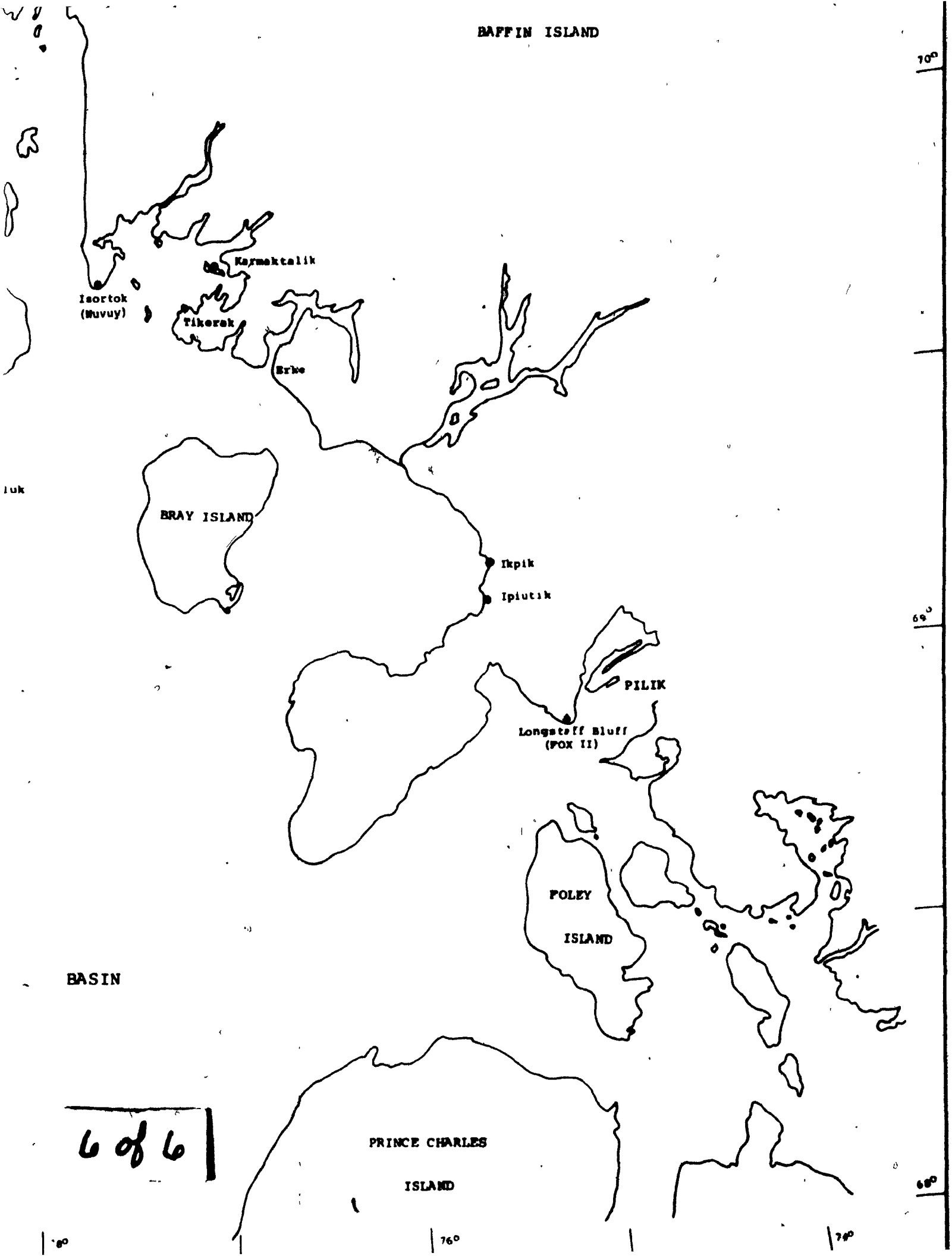
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