Nuussuarmiut: hunting families on the big headland; demography, subsistence and material culture in Nuussuaq, Upernavik, Northwest Greenland

Hansen, Keld

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Nuussuarmiut – hunting families on the big headland

Keld Hansen

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Nuussuarmiut
Hunting families on the big headland

Published in collaboration with the National Museum of Denmark

There are still millions of people around the world who live this kind of life and treasure it, and to whom nobody can offer anything better.
Their existence must not needlessly be sacrificed to urban civilisation.
It is simply a question of human rights.
Finn Lynge: Arctic Wars 1992

Nuussuarmiut – hunting families on the big headland

Demography, subsistence and material culture in Nuussuaq, Upernavik, Northwest Greenland

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Cover: A dead harpooned bearded seal is hauled up over a kayak paddle supported on the decksof the two kayaks. Melville Bay, August 1968. Photo by the author.

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The book's plates show the tools and equipment that were used in 1967-68 in Nuussuaq. The tools were measured and drawn on the spot and subsequently commented upon, corrected and approved by the respective users.

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Foreword

This description of a small hunting community, the settlement of Nuussuaq, Kraulshavn, in the northern Upernavik district on the west coast of Greenland, is based on fieldwork carried out in the period from 1966 to 1968. The main emphasis is on events during the course of the year from November 1967 to October 1968. During such a 'case study', when so many things naturally happen in the course of the year, subjective choices are necessarily made with regard to what to emphasise and pass on. The Norwegian anthropologist Frederik Barth said that "what we empirically observe is not 'customs' but 'cases' of human behaviour, it seems to me that we cannot escape the concept of choice in our analyses" (Barth 1966:1).

Daily life in the settlement itself and out on the hunting grounds is followed day by day for the year in question. However, when processing the information collected in the study year, two questions quickly presented themselves: How did these hunting families manage in the past and what has happened to them in the subsequent 30 years up to the present day? A good impression of their life in the settlements back into the 18th and 19th centuries can be provided by the archaeological evidence. The time from the establishment of the settlement of Nuussuaq in 1923 until the study period and the subsequent period can, on the other hand, be traced through church registers, the official population and hunting statistics, written and oral information and photographs.

A long-term ethnographic study presents the opportunity to reveal the continuity in society and to demonstrate changes. With a few exceptions the latter have not been of such radical importance for the inhabitants of these northern areas as has been the case in the majority of other places in Greenland and the rest of the Arctic. One would expect that the influences from north and south, from the administration, introduction of home rule, changing ecological circumstances, drastic reduction in the price of furs as a consequence of the anti-sealskin campaign in Europe and the USA in the late 1970s etc. would at times have prompted many families to give up. That they would have accepted the offer from the authorities to be relocated south to the promised new and better housing and with a change in occupation as a consequence. But the collected evidence demonstrates a surprising stability. The hunting families have retained a great part of their traditional way of life and the majority of their traditional tools. This is not due to conservatism but because experience has shown them that these are the most efficient under the given conditions. As will be apparent later, new tools and a number of other items have been introduced in recent times, but these have only been adopted when they proved to be more efficient than those already in use. In a large number of cases they are used in conjunction with the traditional tools.

The fact that, on the periphery of modern Greenlandic society, there are still families who continue to give the highest priority to this way of life is promising as it shows that the traditional occupation of hunter is not about to die out.

Acknowledgements

Now, 40 years after my fieldwork, I owe a great debt of gratitude to a large number of people and institutions who have made it possible for me to complete this publication. For great help with the comprehensive hunting statistics: chief administrative officer Philip Rosendahl and Viggo Jensen, the Ministry for Greenland, who both died long ago. They worked for many years on hunting statistics from Greenland.

Many thanks to the Viking Ship Museum in Roskilde which, as of autumn 2001, granted me six months leave from my position as museum curator in order to complete this work. The Viking Ship Museum paid three months' wages, whereas SILA, the Greenland Research Centre at the National Museum in Copenhagen, paid the other three months, in addition to a trip to Nuuk. During the latter I had the opportunity

to draw and measure the umiaq and sledge from Upernavik around 1930, which is exhibited there, in addition to being able to collect a series of recent data.

Archaeologist Bjarne Grønnow, Head of SILA, Professor Hans Christian Gulløv, archaeologist Martin Appelt, historian Einar Lund Jensen and the entire research group at SILA have given me great support and inspiration in the last phase of my work in organising the large body of data. Special thanks to archaeology students Marit Zimmermann, Sidsel Waahlin and Caroline Paulsen for production of maps and computer graphics. Eskimologist Bo Albrechtsen, Upernavik Museum, took on the great task of correcting the many Greenlandic place names and terms and has also helped me with most of the data from recent times. Thanks also to fishery biologist Finn Kapel, botanist Jon Feilberg, Jeppe Møhl at the Zoological Museum, H.C. Petersen and not least Robert Petersen and J. Balslev Jørgensen for many inspiring conversations and exchange of material.

A very special thanks to Ole Høiris, Centre for Cultural Research, University of Aarhus and Søren Thuesen, Institute of Eskimology, University of Copenhagen, for their thorough reading of the manuscript which led to a number of corrections and improvements to the text.

And thanks to the two translators, Anne Bloch and David Robinson, not only for the translation from Danish to English but also for their many corrections to the manuscript.

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Last but not least thanks to a large number of informants in the settlements of Upernavik district, Niels Møller and Jørgen Kleemann in the town of Upernavik, the inhabitants of Aappilattoq and of course the families in Nuussuaq to whom this publication naturally is dedicated.

Keld Hansen
Kellerød, August 2007

Introduction

The main emphasis in this study is on hunting technology and, accordingly, the material culture, terms, which particularly after 1970, have not been held in high regard amongst anthropologists.

The inspiration for me to work with the material culture came from the Etnografisk Samling (Ethnographic Collection) at the National Museum in Copenhagen where I worked as a student assistant from 1964 to 1976 with a break for fieldwork in Upernavik from 1966 to 1969. Among the ethnographers I gained an insight into the way people lived over more or less the whole of the globe but it was first and foremost the Arctic people, the Eskimos, today called Inuit that fascinated me. The grand old man of ethnography, Head of Department Kaj Birket-Smith who had, among other deeds, taken part in Knud Rasmussen's 5th Thule Expedition, and after him Professor of Eskimology Robert Petersen, were exciting acquaintances, as were archaeologists Helge Larsen and Jørgen Meldgaard who had carried out excavations in Alaska, Canada and Greenland. Eigil Knuth, Erik Holtved and Jens Rosing, as well as a series of foreign researchers, often visited the Department in those times for shorter or longer periods. People worked with material culture in Copenhagen because it was data in a scientific sense. It was data that could be used to reconstruct history in a society lacking history. No one knew Greenland's history prior to written accounts by Europeans. If one wished to penetrate further back in time then analyses of the material culture were just as much objective data as were language, myths etc. (De Laguna 1977; Gulløv 1997; Lynge 1955; Mathiassen 1930a,b).

Through the Arctic material culture we gain a picture of people's way of life prior to the advent of the industrial society. Investigations of subsequent developments show how much the industrial society has to offer and, accordingly, the extent to which the traditional society is able to survive in the face of all the new offers. Material culture was the pre-dominant basis for the analyses of museum-based anthropology. However, with the break-through in structuralism in Denmark in the latter half of the 1950s and the beginning of the 1960s the focus shifted solely to social relations. Here there was no use for material culture. An exception to this was, however, the human ecologists who could involve tools and the like in their analyses. From Labrador and Southern Greenland it was, in particular, the Norwegian Helge Kleivan who broke new ground at the University of Copenhagen (Kleivan 1964) and later Ole Hertz's work from Uummannaq (Hertz 1995).

A series of Eskimologists and anthropologists have, however, in various ways followed and described life in the Greenlandic settlements during the last 30 years. At the risk of missing some out, mention will be made of a few here, in addition to Kleivan and Hertz: Robert Petersen in Upernavik and Ammassalik districts (Petersen 2003); Francois Le Mouël in Naajaat (Le Mouël 1978); Albert Haller in Nuussuaq (Haller 1986); Regitze M. Søby in Kullorsuaq and Savissivik (Søby 1973 and 1977/78); Mark Nutall in Northwest Greenland (Nuttall 1992); Bo Albrectsen in Nuussuaq (Albrechtsen 1999); Jens Dahl in Saqqaq, Disko Bay, and Uummannaq district (Dahl 1989, 1990 and 2000); Helene Brochmann in Akunnaaq, Aasiaat district in Disko Bay (Brochmann 1992).

On Greenland's east coast, mention should be made of Gert Nooter, particularly in the settlement of Tiniteqilaaq (Nooter 1972/73 and 1988); Hanne Tuborg and Birger Sandell in Ittoqqortoormiit and Cape Hope (Sandell & Sandell 1991).

In parallel with my studies of material culture I have tried, in as detailed a way as was possible for me, to record the production and manufacture of the many artefacts, show them in use and explain their significance for the hunters concerned and their wives (cf. Quimby & Spoehr 1951; Sonnenfeld 1960). In the majority of cases this information is sorely lacking in connection with most museum artefacts. 'The technological aspects, the spears, clubs, hand-axes and all the other objects suitable for museum display, are essen-

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tially meaningless apart from the context in which they are used' (Laughlin 1968:304).

Many people will perhaps consider that an ethnographic study of this kind is 'old-fashioned'. My hope is that ethnographers and archaeologists will be able to use it as comparative material with reference to previous publications of a similar kind, e.g. the Egedes' at the beginning of the 18th century (1925 and 1939), Fabricius 1768-73 (1962), Holm 1884-85 (1887), Porsild 1911 (1914, 1921), Birket-Smith 1918 (1924) and Holtved 1935-37 and 1946-47 (1967).

Archaeological artefacts are often mere fragments. For example, the point is almost always missing from harpoon heads whereas the recent ethnographic examples are intact. In the majority of cases we know who has owned the artefact, how they made it, how it was used and the yield it produced. Accordingly, all tools used by men and women during the study year were measured and drawn during my stay in the settlement. The result was confirmed and often corrected by the respective owner and if possible supplemented by photographs of the tools in use.

Even though one stands as an anthropologist on the spot with a tool in one's hand, opposite the person who made it, and is told or sees what he or she uses it for, one occasionally is in no better a situation than the archaeologist who normally can only guess how a tool was produced and used. Occasionally the unequivocal and expected answer from the owner of the tool does not materialise. The answer to questions such as 'why did you make it like that' or 'where did you get the idea from' and so on, was often *asuki* (I don't know). Subsequent leading questions, 'You could have seen it used by people from the north or south?' and 'You could have seen a picture of the tool?' etc., are almost always answered with *immaqa* (maybe).

The relatively stationary winter settlement, together with the permafrost, is one of the most important reasons for the numerous archaeological finds being preserved for posterity at Inussuk and Nuugaarsuk, the sites of the two large archaeological excavations in Upernavik district.

This presentation of the evidence is not intended as a comparative study. The main aim is, as already mentioned, to show continuity in the hunter society. It will quite possibly come as a surprise to many people that there are hunter societies in modern Greenland who, to a very great extent, obtain and exploit natural resources in the same way as they have done for several generations (Hansen 2000; Knudsen 1997; Olsen 1964; Petersen 1967b).

In the 1960s it was difficult for children and adults in a settlement such as Nuussuaq to imagine that they one day would be forced to leave their homes. Then a small cluster of houses gathered around the store, school and church, half the year swathed in darkness, and now a settlement with electricity and, as a consequence, street lighting, much larger and better housing and so on. Then all the children were in no doubt that as adults they wanted to live from hunting like their parents. But the development of the settlement has, with its increasing population, resulted in a series of new occupational opportunities, which have given young people alternative possibilities when they choose to remain in the settlement. This has also resulted in the number of so-called full-time hunters not increasing above the level that the natural resources apparently are able to bear.

Today's preferred hunting grounds lie at the same localities as they did 80 years ago and the hunters' annual cycle is the same. The investigation also shows that then, as now, there were some hunters who managed to bring back more than twice as much as other hunters. It is very thought provoking that the official hunting statistics show that the catches of some of the previous great hunters were almost double that of the new generation. This could be due to changes in climate and in the abundance and occurrence of the game, and also the fact that today there are more hunters among which to divide the catch.

Changes in hunting technology have not been radical. The rifle has replaced the kayak lance. The cal. 22 rifle and the shotgun have replaced the bird dart and the bladder dart. The hunters in Nuussuaq have, however, understood how to combine the new technology with the traditional. The combination of motorboat and kayak, rifle and harpoon etc. shows how the hunters adapt the new elements to the traditional tools.

The number of sledge dogs is the same today as it was then and the dog teams are still a pre-condition for being able to bring home the desired hunting products, especially seal and whalemeat. However, the relatively large dog packs require amounts of fodder that can be obtained only with the aid of dogs for more than six months of the year. The hunters in Upernavik

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Fig 1. Sledge travel in convoy between Tasiusaq and Nuussuaq, spring 1968. Photo by the author.

district have not, like other Arctic hunters, been able to replace dog sledges with snow scooters. This is due in particular to currents under the ice, which render it thin and dangerous to travel on. Accordingly, it is a question whether dogs are kept to maintain the families' existing way of life or whether the hunting traditions are preserved in order to obtain the desired meat and other hunting products and to be able to keep the dogs.

The primary motivation for retaining the traditional hunting technology appears to be the desire for sufficient seal and whale meat for people and dogs as well as sealskin for sale and own consumption. There is also the recreational aspect which the hunters clearly value highly and, ultimately, the prestige associated with being able to provide for one's immediate family and neighbours, not forgetting being spoken of as a great hunter, especially a great polar bear hunter.

Fieldwork and methods

In 1966, when I was associated with the Ethnographic Collections at the National Museum in Copenhagen, there was a desire to initiate archaeological and ethno-

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graphical studies in Upernavik district. This resulted in my being there from the summer 1966 to November 1968, with a subsequent visit in the summer of 1969. In the first year I re-organised Upernavik Museum. The museum had been built by Andreas Lund-Drosvad, also called Suko, in close collaboration with one of the last kayak hunters in Upernavik, Niels Møller, who also found time to introduce me to hunting technology. Over and above a series of hunting trips, he taught me to make my first dog sledge, a harpoon and other hunting equipment. My neighbour Jørgen Kleemann taught me to make seal nets and a long fishing line, which we used together in the first winter.

When my first wife Netta Hansen had the opportunity to become the head of the Nursing Station at Nuussuaq in the north district for a year, I was able to follow the then 18 hunter families from November 1967 until October 1968 and gather the data that form the basis for the present work. The helpfulness of children and adults, already mentioned above, quickly proved not to be limited to the settlement of Nuussuaq alone, where we were immediately accepted almost as 'belonging'. This was the case everywhere in the district when I, primarily in winter, visited every occupied settlement by sledge (Fig. 1). Even when I arrived unannounced, as most often was the case, there were always people on the ice to bid welcome, hunters and their sons who helped me with my dogs and fed them. A family always invited me to spend the night with them, and a pot of steaming seal meat just 'happened' to stand ready. Once inside, the hunter's wife pulled off my kamiks in order to dry them and make them ready for the next morning while I gave news, as well as I was able, from the places I had come from. After a night's sleep, generally the next morning, when I made ready to continue my journey, several hunters usually also readied themselves and said that they intended to take the same route, without mentioning the fact that their intention was to guide me safely past the many places with dangerous currents under the ice.

With regard to the language, I have to admit that I learned much less than I had hoped but in daily life on hunting tours, in everyday life in the houses and at parties, there was seldom a great problem. We learned quickly that there is almost no missing word that cannot be mimed or drawn in the snow with the butt of a whip handle. As an example of my limited linguistic abilities there was an occasion when I sat talking with an older hunter and unexpectedly received a visit from a Danish doctor who spoke Greenlandic well. They spoke together while I made coffee. When I came in again the doctor asked me in amazement what the strange language was that the hunter spoke. Shamefaced I had to admit that he spoke in that way so that I was able to understand him. On a couple of occasions young Greenlandic interpreters visited us from various institutions in the south. Helpfully they offered to interpret but quickly had to give up because they had never heard of the things we spoke about.

In the summer of 1967 I took part in the National Museum's archaeological investigations at the settlement of Nuugaarsuk. And in the two subsequent summers I was the contact person for a large Scandinavian team of doctors who examined the inhabitants of Nuussuaq and Aappilattoq. This was part of a large project called 'International Biological Programme, Human Adaptability', in which data were collected from similar populations in Alaska, Canada and Sameland. The two projects resulted unfortunately in my reconnaissance in the area north of Nuussuaq in the snow-free period being neglected.

Our departure from Nuussuaq took place by the doctor's boat in the middle of October to ensure that the nurses were exchanged before the ice closed in. Unfortunately this resulted in me not being able to follow how the many white whales were caught at the end of the month. The information about the white whale hunt comes therefore from what the hunters later told me.

During my fieldwork I followed the hunting activities day by day with the four most important hunting methods: netting from the winter ice, *uuttoq* hunting in the spring, hunting from the ice margin and, finally, hunting from kayak and motorboat in the summer months. Data on the game brought home have been converted to quantities of edible meat. These data have then been compared with the bone material recovered from the archaeological excavations on the islands of Inussuk and Nuugaarsuk as well as the hunting statistics from the surrounding settlements in recent times. These two former settlement sites lie out in the archipelago and within the fjord complex respectively. They have different ecological conditions and this is reflected in the richness of the finds

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from both sites. The different ecological conditions, outer coast *versus* inner archipelago, have been sought revealed in the recent material through comparisons between the settlements of Nuussuaq and Aappilattoq.

I made a methodological choice in my own studies to accept an offer from the hunters in Nuussuaq to 'become an apprentice hunter', a so-called active participant observation. This also involved me, under expert supervision, manufacturing all the hunting equipment. It gave me a first-hand understanding of the many very specialised details regarding the tools and, later, of their utilisation. I owe particular thanks to two of Nuussuaq's most able hunters Jørgen Aronsen and Bendt Frederiksen for their untiring efforts in introducing me to hunting techniques and local knowledge. But thanks are due to all in the settlement, both men and women, who were always open and accommodating and with a full understanding for my work (Hansen 1969; Williams 1967).

An attempt to produce a monograph is by its very nature an ambitious project. However, it is my hope that the material presented here will be of use to both anthropologists and archaeologists who, with few exceptions, probably do not realise that there are, on the periphery of modern Greenland society, groups of people who still have a way of life which does not deviate significantly from the existence of their grandparents and great grandparents.

A monograph in which the information has been assembled by a single person has of course the weakness that one naturally cannot be everywhere in the study area around the clock for a whole year. A team of researchers would have been able to cover many more activities in and, particularly, around the settlement. A single investigator has, of course, only two eyes, two ears, two arms and two legs. In order to travel around as much as possible in the study period I had for half the year the great assistance of my sledge dogs that made it possible for me to follow the hunters and seek them out in the terrain. When I returned home to the settlement after a long or a short trip all the women and children were more than willing to report on events both large and small in the period that I had been away.

In the section on the tools and equipment an attempt has been made to show which of these have been preserved more or less unchanged for several centuries, which have been changed, which have gone out of use and, finally, which of them the hunters have adopted from Europe. Has a possible change in the choice of materials had an influence on the form and function of the tools? Are there in some cases differences between the potential and actual effectiveness of a tool?

All the place names, terms for tools etc. are as far as possible given by their local names. The Upernavik dialect is a so-called 'i-dialect' where a 'u' after some linguistic rules can become an 'i'. A 'g' is made nasal giving 'ng'. Use is not made of 'ff', 'gg' or 'rr' but conversely of 'll', and 'f' is most commonly pronounced as 'p' (R. Petersen 1986:119).

During the fieldwork names and terms were noted in close collaboration with the informants but in the official orthography of the time. The present spelling came into force in 1973. Accordingly, I am very much indebted to Robert Petersen and Bo Albrechtsen who took on the task of transcribing the lists to the present official orthography. Similarly, Bo Albrechtsen has contributed with a great deal of information on the situation in Nuussuaq and other settlements in recent times.

In the summer of 1966 an investigation team stood ready, comprising Eskimologist Robert Petersen, Professor of Ethnography Johannes Nicolaisen and his wife ethnographer Ida Nicolaisen, ethnographer Ole Hertz, archaeologist Jørgen Meldgaard and the present author. While the others carried out reconnaissance in Upernavik southern district, I accompanied Jørgen Meldgaard around the islands immediately south of Ikia, Upernavik Ice Fjord. One of the places we landed was the island of Kingittorsuaq. It was here that the little Norse runestone mentioned later was found.

On this trip Jørgen Melgaard found the settlement of Nuugaarsuk with a large number of small and large house sites, so-called communal dwellings, and hundreds of stone graves on the surrounding islands. The place was therefore selected for archaeological excavation in the summer of 1967 (Hjarnø 1969).

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Chapter 1

Upernavik district

Geographic location

As is apparent from the map, very few people today live as far north as the inhabitants of the Upernavik north district. Only the hunter populations north of Melville Bay live further north. If one follows the hunting area between 70° and 75° N around the world there are only a few inhabited places in Arctic Canada, while Alaska's northernmost point lies to the south of 72° N (Fig. 2).

The geographic location in itself says nothing, however, about the ecological conditions for potential human existence in the area. Accordingly, the perception that distance from the North Pole is inversely proportional to human ability to adapt to a given environment is incorrect. Examples of this are seen in the very harsh conditions that a group such as the Netsilimmiut in Canada have always had to adapt to, even though they live to the south of 70° N, while the resource-rich Qaanaaq (Thule) district lies to the north of 76° N.

Further to this are the temporal climatic fluctuations demonstrated by Dansgaard and Vibe, a consequence of which is that some localities can, in particular periods, be extremely rich in resources, whereas in other periods they do not provide a sufficient base to support human occupation (Dansgaard 1987; Vibe 1967). The fact that good hunting years have through time alternated with poor ones, resulting in larger or smaller groups of inhabitants either living in surplus or on the limits of survival has been characteristic of the presence of most Inuit groups both within and outside Greenland. This situation has required a flexibility that has been apparent, for example, in the nomadic existence of these peoples, their social structure and highly developed hunting technology.

One of the main objectives of the present work has been to establish how much remains of this flexibility in a modern hunting society. Of greatest significance for the present analysis is the location of Upernavik district as the northernmost district in West Greenland, bordered to the north by Melville Bay and cut off from Uummannaq district to the south by the large Svartenhuk peninsula. Melville Bay has been inaccessible for long periods due to snow and ice conditions, while Svartenhuk with its steep cliffs has been difficult to pass by umiaq and dog sledge, in particular because of the many treacherous sub-ice currents.

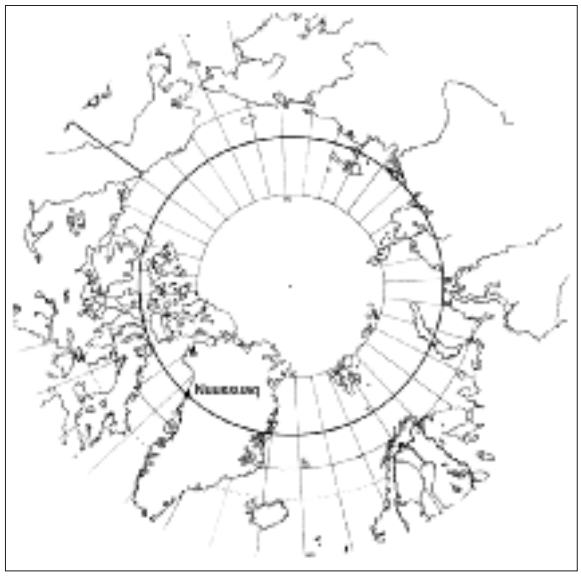

Fig 2. Map of the circumpolar area showing the location of Nuussuaq.

The present administrative boundaries to the north and south show that the district, at around 400 km, is the longest on the west coast of Greenland. The distance between the northernmost and southernmost settlement is, however, only 280 km as the crow flies, while the distance to Nuuk, the capital, is over 1100 km.

Upernavik district is normally divided up into a northern and a southern district between which the natural border is Ikia, Upernavik Ice Fjord, 72° 56` N (Fig. 3). To the south of the ice fjord where there are today, in addition to Upernavik, three settlements, Aappilattoq, Kangersuatsiaq and Upernavik Kujalleq, there are no productive glaciers. For this reason there are not, as is the case in the northern district, the par-

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Fig 3. View over Upernavik Ice Fjord from the top of the island of Kingittorsuaq, summer 1966. Photo by the author.

ticularly favourable ecological conditions for the stationary ringed seal. A further characteristic of the southern district is the relatively large amount of land cut through by deep fjords and with an abundant flora. This has given the inhabitants here the opportunity to exploit resources such as char and, to a lesser degree, caribou. These are resources that have been completely absent from the northern district since the 1920s.

Both north and south of the ice fjord there are numerous large nesting sites for eider duck and several large guillemot colonies. Of these, Apparsuit at Kuuk and that immediately south of the town of Upernavik were both considered to be among the largest in the world with several million nesting birds. In the 1990s a large reduction in the population was noted and this could well lead to them becoming totally protected (Fig. 4). Large continuous stretches of coast in the northern district include Qassersuaq behind the settlements of Tussaaq, Innaarsuit and Naajaat, the Nuussuaq peninsula and the islands of Tuttoqqortooq and Holm's Island. In the extended archipelago, the ecological conditions of which are heavily influenced by its outlying location at the sea and the large productive ice fjords, Giesecke, Ussing and Ryder Ice Fjord, there were in 1966 in all nine settlements. The

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Fig 4. The guillemot colony Apparsuit at Kuuk, June 1968. Photo by the author.

inhabitants up to and including Tasiusaq, and in occasional years as far north as Kuuk and Nuussuaq, have been able to fish for catfish and Greenland halibut. However, north of Tasiusaq fishing with long line seldom gave a catch that was in reasonable proportion to the investment of labour. This situation changed drastically, however, in the 1990s such that many families now have large incomes from the sale of Greenland halibut.

The distance between the settlements is apparent from Fig. 5. To give distances as the crow flies serves no purpose, as this will in the majority of cases be directly misleading. On the other hand, an approximate figure for the distances for the most oft-used sledge and sailing routes, compared with the duration of the ice cover and open water, gives an impression of each settlement's degree of isolation or potential for contact with the outside world. Accordingly, in the case of Nuussuaq in the study year 1967-68, these hunting families were about 170 km by boat from the supply centre of Upernavik for 151 days (19th June – 16th November) and 271 km by sledge for 99 days (13th January – 20th April). That is to say, apart from daily radio contact with the town and visits from the nearest neighbours, Nuussuaq was isolated for 115 days (16th November – 13th January and 20th April – 19th June).

Place names

In an extended archipelago such as that of Upernavik district it is no wonder that the great majority of place names are terms for promontories, islands and island groups. In particular the many promontories (around 450 named out of about 1750 place names) bear witness to how dangerous these places often are for sledge drivers. In addition there are peninsulas (46), rocks (9), stretches of coast (25), steep slopes (58), sounds (45), fjords (23), bays (98), crossings (29), rivers (15), tent sites (6), hillocks (4), mountains (69) and sledge routes (11).

All the places in the district have local Greenlandic names. Among these around 60 also have Danish or English names (Fig. 5). In the northern district these were mostly given by European expedition members and whalers on their way north to Melville Bay. Around Upernavik the place names are influenced by names being given by Danish colonists and missionaries. The European names are only rarely translations of or alignments with the Greenlandic

Fig 5. Map of Upenavik district with Danish and English place names. In italics, the place names from the European whaling period.

Populated places in the Upernavik District
1800-1900

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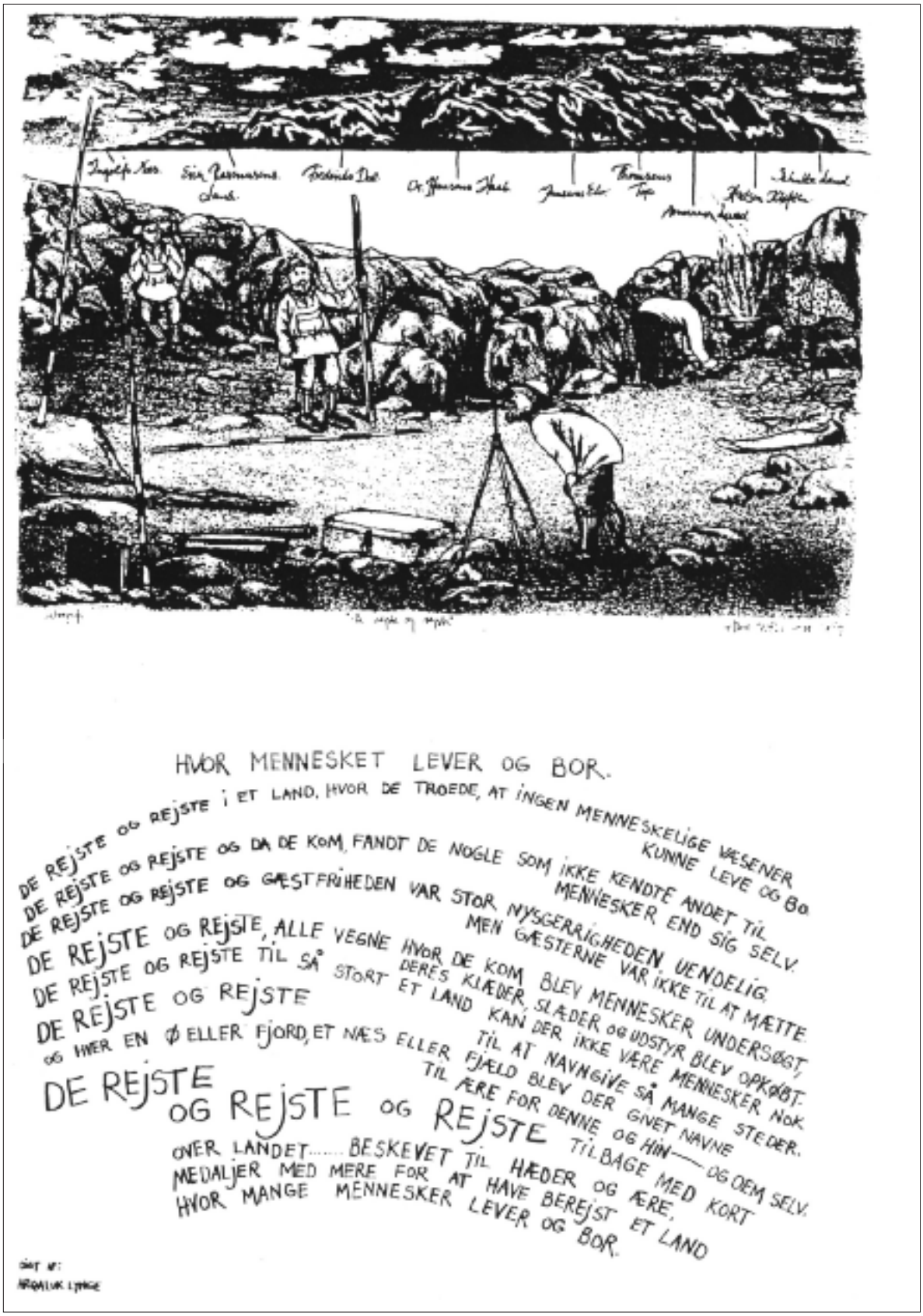

Fig 6. Poem by Aqqaluk Lynge. Illustration by Anne-Birthe Hove.

names, for example Avannarleq/North Island, Sioraq/Sand Island, Tuttulikassak/Little Caribou Land. Where the places are not named according to appearance or use, such as Smedeø/Smithy Island, Griseø/Pig Island, Tørveøen/Peat Island, Edderfugleøerne/Eider Islands etc., they are named after persons, something that is very rare in the original place names in Upernavik district.

From the European whaling period in the 17th, 18th and 19th centuries come names such as Cape Walker, Sanderson Hope, Cape Seddon, Sugar Loaf, De Geer Islands, Horse Head, Wilcox Head, Alison Bay, Dark Head, Red Head and Women Island.

Whereas the many expeditions have left place names such as Ryder Ice Fjord, Ussing Ice Fjord, Hovgaard Coast Land, Garde Islands, Bjørling Island, Bruun Island, Bloch Island, Hammer Island, Cape Seddon, Cornell Gletcher, Giesecke Ice Fjord, Bluhme Islands, Holm's Island, Amdrup Island, Bjørneborg (Knud Rasmussen) and J.P. Koch's Land (where his expedition descended after crossing the Inland Ice in 1913).

The Greenlandic poet and leading politician Aqqaluk Lynge clearly speculated about this cultural difference one encounters in naming places in the poem 'For the honour and glory', illustrated by the Greenlandic artist Anne-Birthe Hove (Fig. 6):

For the honour and glory

They explored and explored
in a country where they believed
no human beings
could live and dwell

They explored and explored
when they arrived they found people
who did not know any other
people except themselves

They explored and explored
and the hospitality was great
the curiosity boundless
but it was impossible to satisfy the guests

They explored and explored
everywhere they went
they examined the people
and bought their clothes, sleighs and equipment

They explored and explored
in such a big country
there cannot be enough humans
to name so many places

They explored and explored
and every island or fjord
river or mountain was named
to honour this or that or themselves

They explored and explored
and travelled back
with maps of the country
and descriptions of the lifestyle
for honour and glory
for medals and degrees
for having explored a country
where people live and dwell

© Aqqaluk Lynge
(Translation Ken Norris & Marianne Steenbæk)

The first people

No traces have yet been found in Upernavik district from the first two cultural periods in Greenland's history – the Independence and Saqqaq cultures. A wooden block, 14.5 cm high and with carved faces, is apparently the first glimpse we have of what possibly are the oldest inhabitants of the area (Fig. 7). It was found in a grave at Upernavik and submitted to the National Museum in Copenhagen in 1889. It was among the 11,731 West Greenland artefacts returned to the Greenland National Museum & Archives in 1995. The 30 carved faces have not, as far as I know, been interpreted in the way that I now, after 30 years' acquaintance, see them: Suffering, dying and dead people, perhaps portrayed by a sculptor who managed to survive for a while before he too fell victim to one of the great epidemics or periods of starvation which have afflicted the people of Upernavik through time. The stylistic features bear the unmistakable influence of the Dorset culture, as archaeologist Jørgen Meldgaard has demonstrated (Meldgaard 1959:42). But the possibility exists that this piece of driftwood

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Fig 7. A driftwood block, 14.5 cm high, with carved faces. Found in a grave at Upernavik in 1889. Greenland's National Museum & Archives.

could have been carved much later. It is now dated 1685-1955 AD cal. ±1 stand. dev. (Ka-6511). This was when Upernavik's inhabitants had, in several periods, quite literally to choose between plague, cholera or smallpox after close contact with the European whalers.

In his book *Inegpait* Hans Lynge (1955:26) gives an account of the terrible hardships suffered at the beginning of the 19th century by Kallaaq, who he considers to be 'the ancestress of Upernavik'. Hans Lynge's informant is the renowned narrator of legends Martin Nielsen, Marteeraq. His account is, very briefly, as follows:

People became ill in the middle of the summer and there were so many victims that several settlements stood empty. When the ice formed, the shaman Qupannaaq, the snow bunting, travelled to the settlements to look for survivors. At that time he and his family had settled in Aappilattoq in the southern district. At the settlement of Kittorsaq he found a young woman Kallaaq who he was unable to help due to the ice conditions. She was the only survivor here and miraculously she was able to flee south helped by her guiding spirit. She reached Aappilattoq where after a few days' care she was able to tell of her horrors:

Fig 8. Kallaaq. Upernavik's ancestress. Drawing by Hans Lynge.

The adults in the house died within a few days of each other and she had dragged them out of the house. She had not suffered much in her loneliness. Before the sickness they had caught some narwhal and seals and it was only when the dogs knocked over the blubber lamp that she had to manage in the cold and dark. Gradually the children died too, but one of them Kallaaq herself had killed in order to avenge a relative who the girl's father had killed.

Kallaaq admitted to this murder when she was christened and given the name Bolette (Fig. 8).

The Norse at Upernavik

The finding of a runestone at a cairn on the island of Kingittorsuaq is seen as certain evidence that medieval Norsemen had, on at least at one occasion, reached all the way up to Upernavik on their hunting trips (Fig. 9). According to the inscription, this event can be dated to between 1250 and 1300 AD. However, as the historian Finn Gad has pointed out, the date

Fig 9. Runestone from the island of Kingittorsuaq, dated to between 1250 and 1300 AD. Photo by the National Museum of Denmark.

given on the stone can be interpreted in various ways. As such, it cannot, as previously thought, be taken as evidence for the three hunters named on the stone having over-wintered in this region (Gad 1967:169).

A legend written down by Pastor Rossen (Rossen 1916) recounts that a shaman, *Angakkoq*, encouraged his fellow inhabitants to attack and kill the *Qallunaat* living on the island of Inussuk. The Eskimologist William Thalbitzer was later able to record two variants of the same legend at Upernavik. He did not, however, consider that the *Qallunaat* mentioned necessarily were Norsemen – they could just as well have been later stranded European whalers. The most common word for Norsemen, *Qallunaatsiaat*, is not known in Northern and Eastern Greenland (Thalbitzer 1945: 32).

The possibility that hunter families at Upernavik met Norsemen is suggested by the results of archaeological excavations. On the island of Inussuk Therkel Mathiassen found fragments of bell metal, woven cloth, a spinning top, a pair of small wooden dolls and a little carved face which could well be an Upernavik hunter's portrait of a Norseman. The features of the face, here reproduced as a drawing after Mathiassen, are more European than Eskimo and the technique used shows very little resemblance to those known from Eskimo art (Fig. 10). The reverse of the piece has a carving of which Mathiassen writes in 1930: 'Such scrolls are quite unknown in Eskimo ornament but are extremely common in the art of Roman Middle Ages and earlier too when it was one of the fundamental elements of art in the Viking period' (Mathiassen 1930b:292).

The above is one possible interpretation but in my view this 'ornamentation' can be explained much more simply. As shown on the drawing, this is the only way in which one can depict a clove hitch. If we assume that the Norsemen and the Upernavik hunters sat opposite each other, what would be more natural, as both were hunters and their vocabularies could not be sufficient to allow extended conversation, than simply to exchange knots? The clove hitch does not seem to have been commonly used by the Inuit and here perhaps is an example of a white man teaching the Greenlander a small technical detail which the hunter carved in the piece of wood so as not to forget.

The meeting with the Norsemen at these latitudes was, however, probably very short-lived. Accordingly, until the first whalers reached this far north in the 17th century we must assume that the geographically isolated hunter families did not encounter great disturbance from outside.

European whaling period

In 1616 the Englishman William Baffin reached the northern Upernavik district. However, apart from the fact that he named the group of islands around the present-day Upernavik, which then was known as Upernivik (The Spring Place), the visit does not appear to have been of great significance for the hunter families. He called the group of islands Women Islands. The name has been interpreted in different ways but is probably due to the fact that Baffin and his men only found women and children at home because the men were away hunting.

Fig 10. An Upernavik hunter's portrait of a Norseman with a carving of a knot (clove hitch?) on the back. Archaeological find from Inussuk.

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The Dutch

From the second half of 17th century onwards the Dutch whalers began their activities in the area (Haan 1915; Bobé 1917). On their way to the hunting grounds, especially Melville Bay, after great whales the island groups north of Upernavik provided good anchorage. From here, usually some time during the month of May, they could exploit the first available opportunity to penetrate further to the north through the ice masses. This waiting time may sometimes have only been a few hours before current and tides created cracks in the ice, but in particularly unfavourable years it could have been considerably longer. On these occasions there appears to have been lively trade as was the case along all of the west coast.

The historian Louis Bobé gives us an insight into the goods the Dutch had to offer in the 17th and 18th centuries:

'The cargo comprised striped and floral shirts of the poorest sort, stockings, mittens, cauldrons of copper and tin, knives, awls, bodkins, shoemaker's thread, fishhooks and glass beads in addition to wooden trays, laths, boards and chests. Gradually guns became the most sold articles' (Bobé 1917:267)

These and a significant number of other artefacts turn up in the archaeological excavations. Archaeologists use items such as glass beads as a basis for preliminary dates for the remains of a house or a grave which cannot originate from the time prior to contact with Europeans. In 1752 factor Lars Dalager writes that the main aim of the Dutch is to destroy trade (the Danish trade that is) by offering all forms of textiles in addition to flints and powder at low prices.

These items were traded for blubber, whalebone, unicorn horns (narwhal tusks) as well as caribou, fox and sealskins. The importance of the introduction of the above-mentioned items for the hunter families' occupational activities and cycle in relation to the value of the traded products will be dealt with later.

The Dutch continued their voyages in these areas until the end of the 18th century. From the middle of that century they were gradually replaced by English and Scottish whalers and whalers of other nationalities. As is apparent from the map (Fig. 5), there are a number of place names along the coast arising from whaling times.

English and Scottish whalers

In contrast to the scant historic source material available for the Dutch whalers' activity at Upernavik there are many accounts of the meeting with the English and Scottish whalers, the American expedition members and naturally the first Danish colonists and missionaries.

Right up until 1912 the European whalers continued to come to Upernavik and places further to the north and there is a great deal to suggest that their trade with the Upernavik population gradually became a welcome and enjoyable event. The spring trading voyages by umiaq and kayak from settlements within the fjord complex to the outermost part of the archipelago at the islands where the whalers regularly lay at anchor were often combined with spring hunting of narwhal, seal and walrus. Before machine power became common in the European vessels the great sailing ships sometimes had to lie at anchor for a longer period before continuing to the north (Rasmussen 1979:23). This, in conjunction with the fact that whole English-speaking crews from ship-wrecked vessels had on several occasions to be accommodated in the hunter families' turf-walled houses in order to await passage to the south, made for extensive contact between the two groups. Some Greenlanders had learnt so much English through this contact that they were able to function as interpreters between their fellow inhabitants and the whaler crews.

A certain amount of friction in association with this meeting of cultures was of course unavoidable. Martin Nielsen and other sources tell of the Greenlanders' theft from European ships and their caches of supplies. On the other hand, the settlement of Tasiusaq was attacked in 1811 by English whalers armed with flintlocks and cutlasses, whereby the English managed to steal 145 barrels of blubber, three narwhal tusks, as well as fox and sealskins (Gad 1974).

At the end of the 18th century, as already mentioned, plague ravaged the district and with very few exceptions all the settlements north of Upernavik Ice Fjord died out. There is no clear evidence that the survivors saw this catastrophe in relation to the meetings with Europeans. After the epidemic, and after Tasiusaq was abandoned following the English plundering, the settlement pattern was such that all the fami-

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lies were gathered together around and south of the ice fjord.

Trade with Europeans

In exchange for the wares which the first European whalers and later merchants had to offer the local inhabitants, the hunter families, gave up until then essential products such as blubber, sealskin, fox skin, whalebone, narwhal tooth and walrus tusk. This was a contributory factor in the changes in the tool culture. Attention here will, however, be focused primarily on the consequences of blubber from seals and whales becoming common commercial wares.

In Greenland blubber traditionally meant light and warmth in the houses, but it was also of great interest to Europeans. Blubber could be boiled to produce train oil that among other things was used in street lighting in the growing European towns. The great whales were almost wiped out or their populations heavily reduced in the 18th and 19th centuries when hundreds of whaling ships sailed every spring towards Melville Bay. The local population were the natural producers of seal blubber, as the Europeans, with the exception of ice-net hunting, were not able to exploit this resource as rationally as the local hunters. There are many examples of how the hunter families sometimes were tempted to dispose of more than they themselves could spare. In subsequent periods of poor hunting this could have catastrophic consequences. The fact that the opposite also could be the case is apparent from the records of Upernavik's first factor. Particular mention is made of an occasion when the hunters would not sell him blubber. Andreas Bruun wrote the following on the 30th August 1769, his first year in the place:

'Wherever I came I could not obtain the least amount of blubber. A white fish (white whale) was caught here and there but the fat hereof they would not trade, saying that they themselves had need of it' (Bruun 1997:55). This was due to the hunting that winter being very poor and on 3rd January 1770 Bruun writes: 'The 3rd. There came to the colony the first visit of the winter, three travelling Greenlanders. They told that there was great hunger out among them, they lacked blubber' (Bruun 1997:58). And later: 'The 2nd March. Came 4 sledges from north; foretold that they, as everywhere, caught nothing. Their actual purpose was to ask for blubber and some food for their children' (Bruun 1997:59).

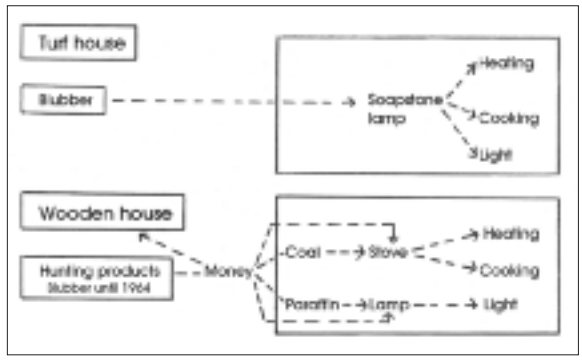

Fig 11. From natural economy to money economy.

Blubber was, accordingly, just as important a product for the hunter families as for the Europeans. In the time after the transition to wooden houses with coal stoves and paraffin lamps in the first half of the 20th century, the sale of blubber meant that this now almost locally superfluous hunting product could be converted *via* money to coal and paraffin. As a result the household's requirements for heat and light continued to be covered as shown schematically (Fig. 11).

From the middle of the 1950s onwards it was no longer possible to return to blubber lamps due to the changes in house construction and form. The families had also become accustomed to using coal as fuel, even though it had its disadvantages and was more troublesome. The coal had to be unloaded from ships in the summer. This was often the work of women and older children, although it was paid. The coal had then to be lugged from the depot by the harbour up to the houses and because the store lay outdoors, every single piece of coal had as a rule to be dried before it could be made to burn. This, of course, made the houses very dirty.

In the 1890s the price for blubber on the world market fell. In Europe there was no longer interest in blubber and buying in of blubber in Greenland finally stopped in 1964. This situation seemed particularly grotesque in the spring of 1968. The hunters brought the now worthless blubber home to the settlement in just as large quantities as before, because the great majority of seals were flensed in the settlement and, in the winter months, often in the houses. One could

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Fig 12a. Ikermiut, 18th August 1929. Marteeraq, Martin Nielsen with his family. Their wooden house, which they built themselves, is insulated externally with turf. Marteeraq is in the centre next to his wife Sara who is holding their youngest child. The girl on the far left must be their daughter Laurette, who was born in 1918 and 11 years of age when the picture was taken. She was married in 1938 to Mathias Frederiksen, and 30 years later they were still the catechist couple in Nuussuaq, when they were among the most important informants. Photo by Frederica de Laguna.

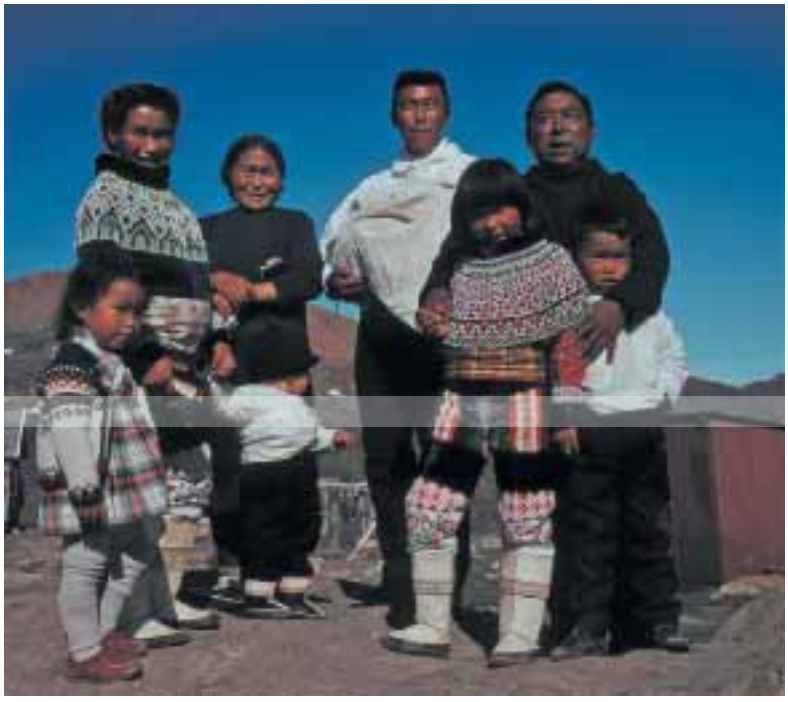

Fig 12b. Nuussuaq 1967. Three generations. From the left, the adults are Marianne, Laurette, Bendt and Mathias Frederiksen. Photo by the author.

therefore see large heaps of blubber around the houses and the dogs could barely be bothered to sniff at them.

Small qualities of blubber were, however, sold in Upernavik where there was a constant lack of blubber as a supplement to the sledge dogs' food of dried fish and shark meat. A little fresh blubber was used daily by the hunter families in that it was eaten raw, cut into small pieces with raw seal liver, dried meat and boiled birds. It was also boiled with seal meat so that the latter did not become dry. Quantities were sometimes used along with dried shark meat for dog food and also as bait on shark hooks, and a small amount was used in softening kayak skins, straps, kamiks, dog whips and the like.

In recent times the hunter families no longer obtained their heat and light directly from their game and since 1968 the inhabitants of many areas have been dependant on the outside world, that is to say on a daily basis KGH (*Den Kongelige Grønlandske Handel* – The Royal Greenland Trading Company) which subsequently in 1986 became KNI (*Kalaallit Niuerfiat* – Trade of Greenland). This dependence has, on the other hand, safeguarded the families in periods of

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poor hunting, when previously it was a question of life or death if one was without blubber and meat (Figs 12a,b).

When one today talks of cold, hunger and squalor in the small hunting settlements where people had to gather together in a single house in order to survive and where death in the dark winter months was a constant threat, one tends to think of it happening in the more or less distant past. But for the families in the northern Upernavik district, who now lie relatively safe and secure in the larger settlements, this past is not distant. On the contrary, it is something, of which every older person has had personal experience. A letter gives an example of this from the settlement of Ikermiut dated 3rd January 1944. It was published in an article by Jens Olsen in *Grønlandsposten* 1944 no. 20 with the title *Hvad Vinteren i 1943-44 bragte i Upernavik og Omegn* ('What the winter of 1943-44 brought in Upernavik and surroundings'):

"Shortly before freezing up several houses stood empty as people gathered with us to keep warm. The best-fed dogs were killed so that the children could be fed. Us adults ate three harp seal skins that were prepared for kayak hide and a hooded seal skin. The worst was though that we ran out of blubber and therefore had neither light nor heat. Since the ice cover came in December we have searched far and wide for seals and thrown nets but to date I have only caught a single seal. As we were so long without light the children are behind with their schoolwork. As the best teams have lost many dogs this has again had an influence preventing them from going far on hunting trips. We have now, however, started shark fishing which has given oil for the lamps and even the people who were not used to eating it developed an appetite for shark meat."

Here is an example of a report to the Ministry in Copenhagen from the then factor in Upernavik, 100 years prior to the study year. The contemporary language cannot of course be translated but the information is as follows:

"Report from the Colony of Upernavik for the six months from 1st January to 30th June 1867:

In the preceding six months the situation has been very changeable in that the weather for 21 days in January was so mild that the thermometer very rarely fell to -5° R (-6° C), causing the ice to become so waterlogged that all movement on it had to stop. At the end of January the temperature fell so sharply that in February and March it sometimes reached -35° R (-41° C), causing the ice to reach a thickness and stability which was exceptional and which resulted in the seals keeping a long way from the coast so that only those with fairly good teams could follow them. In this period more or less the whole district was short of meat and many Greenlanders had to slaughter their dogs in order to have enough to eat, just as the population everywhere fell into considerable debt.

Since April the weather has gradually become milder and in June it was warm and lovely; at this time the hunting was good in the whole district with the exception of Aappilattoq and Tassiusaq.

Production for the trading year 1867 comprises in all:

Blubber: 1441 barrels
Shark liver: 24 barrels
Bear skins: 46
Fox skins: 40
Seal skins: 6316
Dog hides: 58
Down: 259 pounds
Walrus tusk: 7.5 pounds
Narwhal tusk: 109 pounds.

The state of health has been rather good and the usual spring epidemic less serious than last year.
Distemper still occurs but in a milder form.

The Colony of Upernavik 30th June 1867
To the High Ministry of the Interior
Your humble and loyal subject
Rudolf"

The population

The first 'census paper' from the Upernavik district shows a total population of 403 persons. 103 are recorded as hunters (of which 40 'good'). The settlements are given below with their contemporary spellings and the present-day version in italics:

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Upernivik	*Upernavik*	86
Igdlúnguaq	*Illunnguaq*	54
Ikerasak	*Ikerasak*	23
Kaersorssuaq	*Qaarsorsuaq*	23
Augpilagtoq	*Aappilattoq*	19
Naujait	*Naajaat*	45
Târtoq	*Taartoq*	28
Tugssâq	*Tussaaq*	44
Pâgutsaq	*Paagussat*	48
Uigordleq	*Uigorleq*	33
Total population		403

In 1918 two married couples and nine children living in two houses and with two umiat and two tents also inhabited the northernmost settlement, Ikermiut.

These two families are not included in the above as they did not declare their catch for that particular year and as the only information given is that they are 'well-equipped with good tools'.

The figures clearly show how the social safety net comprised at that time the great hunters who were able to provide not only for their own families but also for widows and foster children. There can of course be many reasons for there in 1918 being a total of 11 widows and their children at four settlements. However, if one consults the church registers for the Upernavik district for the period 1900-1918 one finds the following among the causes of death for men between 15 and 50 years of age:

- Drowned by falling through the ice
- Died in a kayak
- Drowned
- Killed by an accidental shot

In addition to this there was the influenza epidemic in 1909 in which 12 men and 13 women died.

It is clear that these settlements apparently had more than enough meat for people and dogs. But even though people rarely lived more than a day's travel by

Average temperatures. Upernavik. Located at about 72.78°W.

GHCN 1. 1282 months between 1873 and 1987. °C.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
-19	-20.3	-20	-13.3	-3.3	2.1	5.3	5.2	1.1	-3.8	-8.9	-14.7

Upernavik 1967 - 68

-21	-20.8	-22.5	-7.5	-2.4	1.9	6.7	5.1	1.7	-2.4	-9.9	-11.5

Abs. Maximum

-9	1.8	-3	5	8.2	12.5	15.6	19.9	14.3	8.5	2	3

Abs. Minimum

-31	-32.9	-32.4	-20.6	-17.9	-4.3	-0.8	-0.4	-5.7	-12.2	-22.4	-20.5

Rain- and snowfall

GHCN 1. 1076 months between 1873 and 1987. mm. Upernavik.

11.5	12.2	13.9	13	14.6	12.6	25.5	26.7	31	28.3	28	15.6

Upernavik 1967 - 68

4.7	38.2	13.3	30.3	18.1	0.6	23.2	6.9	33.4	31.8	24	21

Fig 13. Average temperature and precipitation in Upernavik. Source: DMI (Danish Meteorological Institute).

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	Kuuk	Appalisiorfik	Kittorsaq	Itussaalik	Ikermiut
Houses	4	2	2	5	2
Inhabitants	42	19	11	30	13
Married couples	4	3	1	4	2
Widowers	1	1			
Single hunters		1	3	2	
Widows	6	1	1	3	
Children	27	11	7	16	4
Kayaks	4	3	3	8	3
Rifles	4	3	4	10	3
Dog sledges	3	2	2	8	3
Shark lines	6	3	2	5	
Seal nets	28	15	20	c. 40	17
Umiat	2	1	1	1	1
Tents	2	2	2	6	2
Total hunting lists	12	5	6	7	6
Catch 1917/18					
Narwhal & white whales	9	4	15	5	9
Large seals	71	26	60	43	40
Small seals	666	347	722	413	526
Polar bears			5		6
Sharks	135	92	90	112	1
Total meat kg*	25775	12175	28025	15750	19895
Kg meat per inhabitant	614	641	2548	525	1530

Table 1. Hunting statistics for the northernmost settlements in 1918 (Bryder 1921: 505-508).

*For calculations of the game in kilograms of edible meat and offal see the text.

umiaq and dog sledge from Tasiusaq, with the opportunity to obtain European provisions, settlement life was sometimes risky. Poor ice cover due to the many sub-ice currents, absence of game due for example to schools of killer whale or walrus in the area could result in hunger and want.

As the early hunting statistics, see Table 1, do not distinguish between narwhal and white whale and the seals are only recorded as large or small the following average figures are used here:

Narwhal and white whale	225 kg
Large seals	100 kg
Small seals	25 kg
Polar bear	120 kg

The population of the settlements is shown in Figs 17 and 23-29.

The climate in Upernavik district

Due to the many places with sub-ice currents around the southern settlements, a number of hunters, often together with the whole family, travel north every spring in April-May to take part in the *uuttoq* hunt. North of Upernavik Ice Fjord there are normally good sledge conditions until well into June when the families, together with their sledges and dogs, return home in motorboats. In June, the temperature, wind and current are decisive for hunting from the ice margin and at breathing holes. Large cracks in the ice determine in turn how early the boats can be pulled out of the open water using the dog teams.

Precipitation in the form of snow is of course of the greatest importance for sledge travel (Fig. 13). A deep layer of snow has, for example, in some years made it almost impossible to penetrate up into Melville Bay. When tending the nets at the end of the sea-

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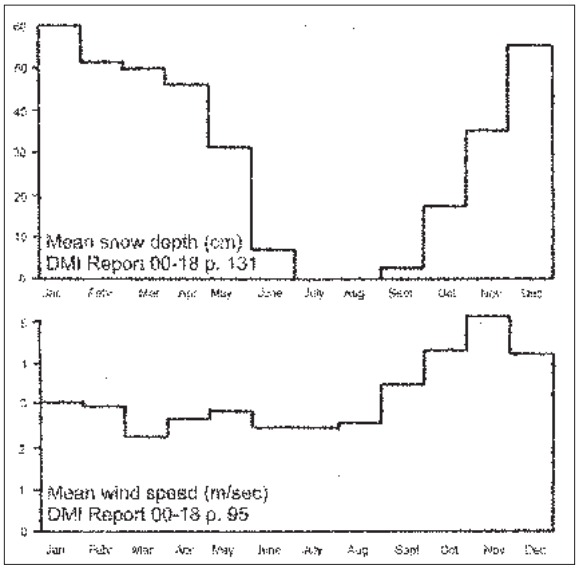

Fig 14. Average snow depth and wind speed. Source: DMI (Danish Meteorological Institute).

son, hunters in recent times take along a large shovel bought in the shop, without which they are unable to reach the netting sites.

The wind rose for Upernavik, which is based on 66,685 observations from 1958 until 1980, shows that the prevailing winds are from the east and northeast, whereas the fierce but less frequent storms come from the south and southeast (Figs 14, 15).

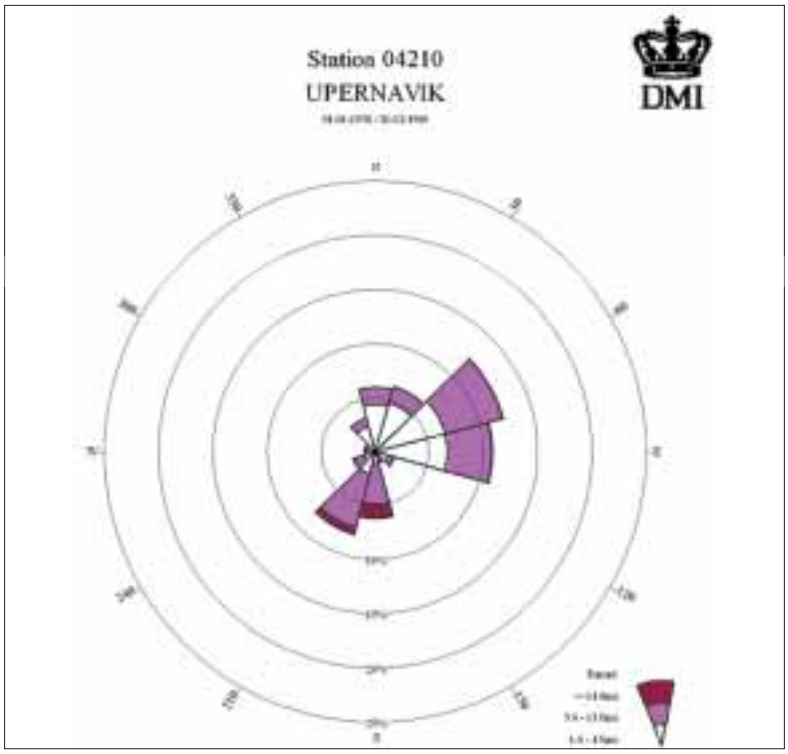

Fig 15. Wind observations at Upernavik 1958-1980. Source: DMI (Danish Meteorological Institute)

Table 2. Monthly mean temperature Upernavik 1832-38 and 1846-54 (° C) (H. Rink 1877).

January	February	March	April	May	June	July	August	September	October	November	December	Ann.
-21.7	-24.2	-20.2	-14.1	-3.8	2.7	4.4	3.2	0	-5.5	-11.7	-18.4	-10.4

Chapter 2

Nuussuaq

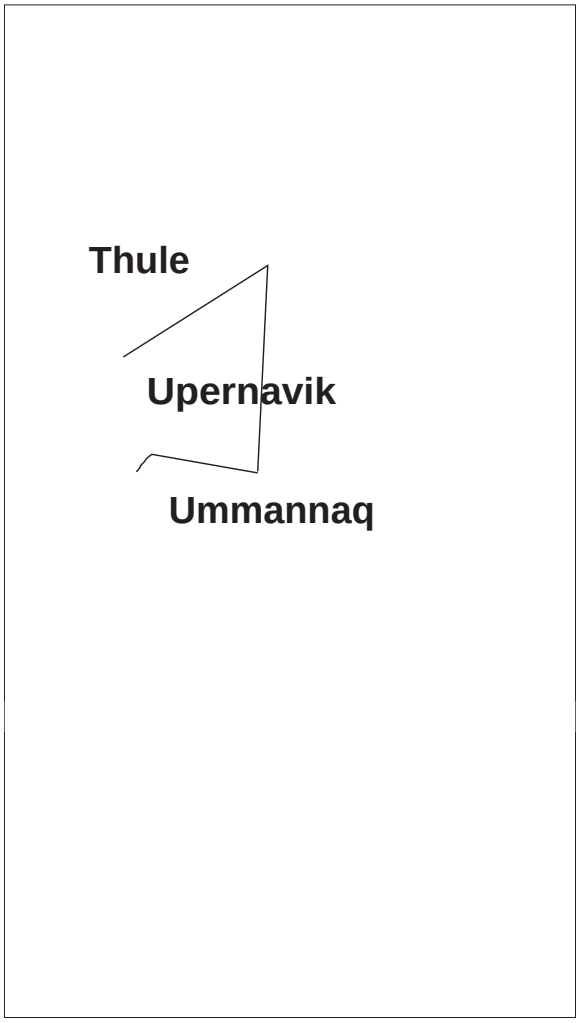

Fig 16. Map of Upernavik district (municipality) with adjacent districts (municipalities).

Nuussuaq, the great headland, is one of about a dozen hunting settlements in Upernavik district, northernmost on the west coast of Greenland. The district is isolated geographically to the north by Melville Bay and to the south by the large Svartenhuk peninsula (Fig. 16). The settlement lies in the northern district at 75° N and 57° W, outermost in the archipelago towards Baffin Bay. In the summer months there is a 170 km trip by boat south to the town of Upernavik and in the sledge season the distance is 270 km.

The settlement was established in 1923 when the then KGH built a shop with storage buildings and called the place Kraulshavn after H.P. Kraul who, with a few minor interruptions, was factor from 1894 to 1910. Accordingly, the hunter families moved here very late from the surrounding small settlements. The population moved voluntarily from their settlements to Nuussuaq, where they discovered that it required a great deal of adaptation when their existing primitive barter economy was partially replaced by a money-based economy.

The effects of this process, which took off seriously after 1950, did not, however, have a greater impact in this settlement than in the other remaining hunting districts. The hunters' existence that previously had been spared significant restrictions from outside appears to have been difficult to fit administratively into modern Greenland. The families had probably a more or less expressed wish to attain a modified Danish standard of living but so far they had not wanted to do this through a total break with the free existence they had enjoyed up to that point. From the administrative side there had been no lack of offers, especially under the concentration policy of the 1960s, but the great majority of families preferred to remain living in their usual surroundings for better or worse and hereby continue the hunter existence.

Life in a medium-sized settlement with a relatively large number of children and adults and, accordingly, reciprocal help between the households seems to be more attractive than the potentially larger production of hunting products which a smaller isolated settlement would give the opportunity for. It has become possible for many families to live together in modern times due to the introduction of motorboats, larger dog teams and the growing number of alternative occupations. Uncertainty with regard to the coming winter hunting was always a factor that had to be faced up to previously.

In the first half of the 19th century the Upernavik northern district lay abandoned and the settlement

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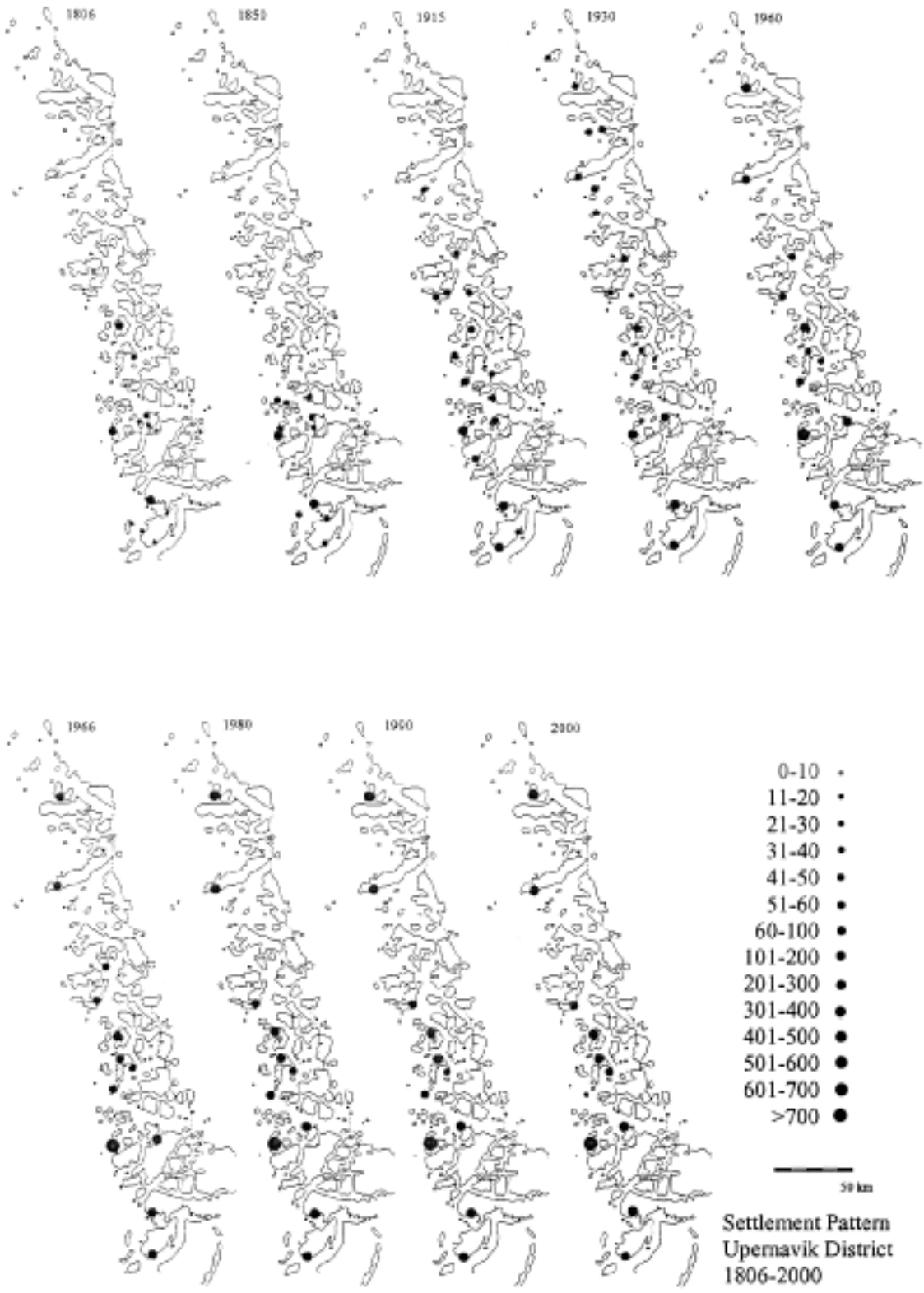

Fig 17. Settlement pattern, Upernavik district 1806-2000.

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Fig 18a. Abel Danielsen carrying his kayak at Itussaalik. In the background his umiaq. He was called *Aabillersuaq, Store Abel* (Big Abel). With a couple of other families he moved north to Inussulissuaq in 1908, but already the next summer they moved south again to Ikerasaarsuk. The family also lived at Itussaalik, where Frederica de Laguna photographed Store Abel in August 1929. In 1938 he lived at Kittorsaq, from where he accompanied photographer Jette Bang across Melville Bay. He died on the 10th May 1939 at Thule Hospital from where he was buried by Otto Sandgren. Note on the picture Abel's very large umiaq, a necessity when the family moved around so much. The kayak is of the presumed oldest type with a sharply upturned stern. Abel's arm obscures the kayak's foredeck, but he probably had a rifle holster as one can clearly see the shooting screen on the foredeck. According to the hunting statistics he reached his peak around 1915 at about 40 years of age. In 1916 the household at Kittorsaq comprised the following: Abel at 41 and a hunter of 22 had to provide for Abel's wife, their six children and two women of 55 and 31 respectively, the latter recorded as *kiffaq* (servant). According to the official statistics in 1915-16 Abel caught: 33 whales (probably narwhals and white whales), 32 large seals and 337 small seals, which gave a calculated 18 039 kg. Photo by Frederica de Laguna, 1929.

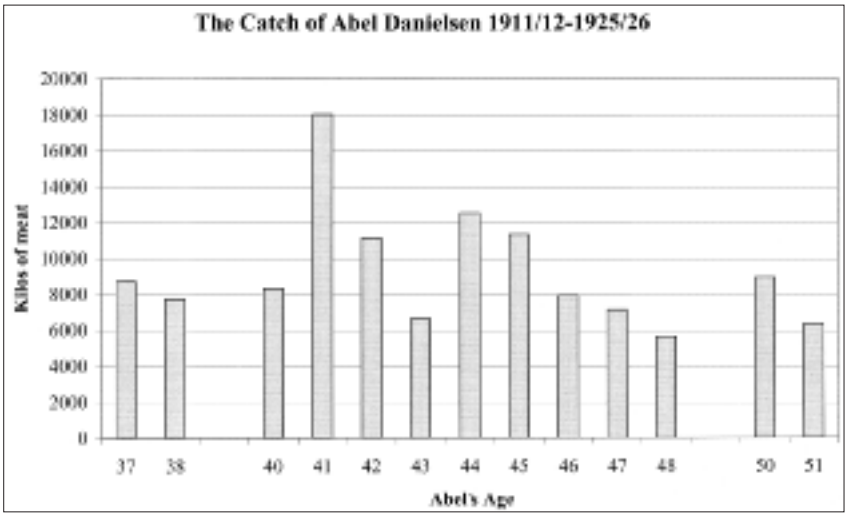

Fig 18b. The catch of Abel Danielsen 1911/12-1925/26

pattern in the 20th century was characterised by a few of the best hunters gradually moving north with their extended families. In addition to the need to search for new hunting grounds and the fact that the families at that time lived a much more nomadic existence, these northward migrations can similarly be seen as a social phenomenon. There is much to suggest that the traditional rules for distribution between settlement members in the form of catch sharing and gifts of meat could sometimes attain such dimensions that

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they became too great a burden for even the best hunters. It may have been too demanding if, over and above their immediate family, they had to feed a smaller or larger number of families, whose providers for various reasons were not able to bring home that necessary for the household's maintenance. Accordingly, one sees that these individuals move north and settle in places where for a time they were alone in the exploitation of the available resources (Fig. 17).

Rumours concerning good hunting did, however, spread rapidly even over very great distances and this prompted a number of less able hunters, together with their families, to follow after the great hunters in order to share in the catch. Some of the pioneers in the northward migration can be followed in the official hunting statistics and annual reports. It is clearly apparent how the great hunters moved steadily northwards in order to avoid the families, which had less able providers.

One of the great hunters was Aabillersuaq (Big Abel). With a couple of other families he moved north to Inussulissuaq in 1908, but already the next summer they moved south again to Ikerasaarsuk. The family also lived in Itussaalik, where Frederica de Laguna photographed him in August 1929. In 1938 he lived at Kittorsaq, from where he accompanied photographer Jette Bang across Melville Bay (Bang 1941). He died in 1939 at Thule Hospital where Otto Sandgreen buried him (Fig. 18a).

According to the hunting statistics he reached his peak around 1915 at about 40 years of age. In 1916 the household at Kittorsaq comprised the following: Abel at 41 and a hunter of 22 had to provide for Abel's wife, their six children and two women of 55 and 31 respectively. According to the official statistics in 1915-16 Abel caught: 33 whales, 31 large seals and 337 small seals, which gave a calculated 180,039 kg (Fig. 18b).

The northernmost settlement in 1915 was Illulik and in 1930 the hunters had reached as far as Qaarusulik, where Melville Bay, with the exception of shorter hunting trips, formed the natural boundary to the north.

The larger permanent hunter settlements that subsequently grew around school, church and shop have, accordingly, resulted in a radical change in the families' settlement pattern.

A great deal of the migration over Melville Bay could have taken place from the settlements of Kullorsuaq and Tasiusaq but the figures for Nuussuaq for the period 1981-2000 show that around 14 families came here from the north while just as many moved south (Fig. 19). Several of these families could, of course, have moved backwards and forwards but the composition of the population in Savissivik in 1980, comprising 22 married couples, shows a surprisingly mixed population with precisely the same number of men and women born north and south of Melville Bay. Five men from the north found their wives in Nuussuaq and five men from Nuussuaq found their wives north of Melville Bay (Søby 1985:245).

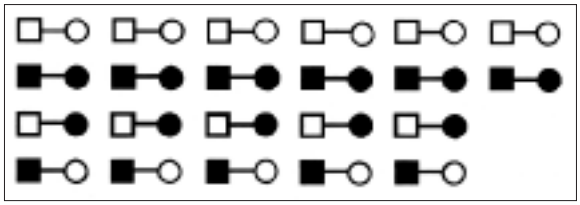
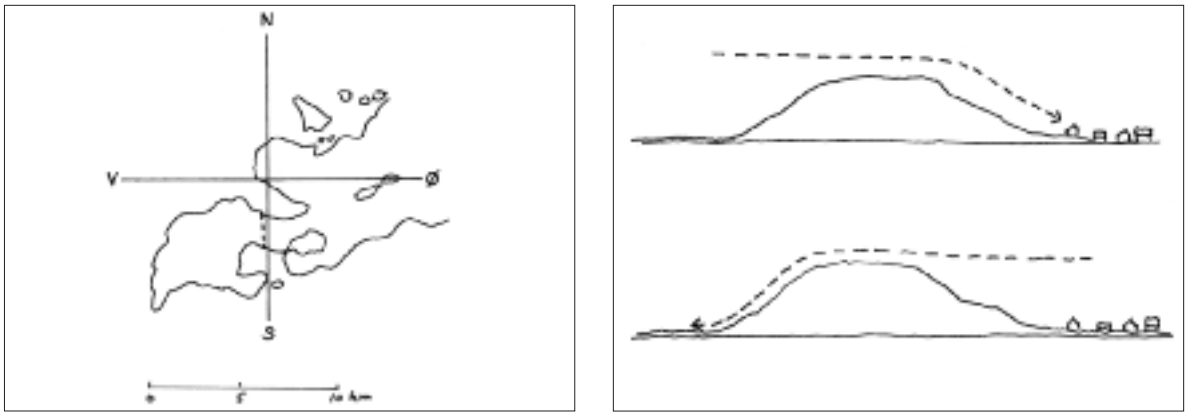


Fig 19. Composition of couples in Savissivik, Avanersuaq (Thule) district, 1980. Source: Søby 1985, p. 258. In 1980 there were 22 family units in Avanersuaq's southernmost settlement Savissivik. It is clear from the composition of the 22 married couples that, in recent decades, there has been steadily increasing contact between Inughuit and hunter families in the northern part of Upernavik district. In all four groups there are exactly the same number born in the settlement and immigrants from the north.
■ = Inughuit; ○ = immigrants from Upernavik district.

Melville Bay – *Qimusseriarsuaq*

Knud Rasmusssens Mindeekspedition (Knud Rasmussen Memorial Expedition) in 1979 found a few traces of Dorset people from around 600-800 AD and of people of the Thule culture around 1200 AD on some of the islands in Melville Bay (Grønnow 1981). Subsequently, the bay appears not to have been traversed, probably because of the ice conditions and the impenetrable snow masses. But from the beginning of the 20th century sledge travel between the northernmost settlements and those lying to the south became more and more common. Similarly, the bay is known as an exceptionally good hunting area with innumerable seals, narwhal, white whale and, especially, polar bear.

It was *Den danske litterære Grønlandsekspedition* (Danish Literary Greenland Expedition), under the



Figs 20a and b. Examples of wind direction at Nuussuaq. When the wind in the settlement blows fiercely from the north, many hunters travel over land to the north side of the Nuussuaq peninsula where there almost always is shelter. In a strong southerly or easterly wind in the settlement no one travels to the north side where one can be sure of poor weather. *Manngussaq* – easterly wind in winter when it is cold. It is often followed by a rise in temperature and fog. The verb *manngup-poq* – it is becoming milder.

leadership of Mylius Erichsen, which re-opened the sledge route over the sea ice in 1903. Knud Rasmussen, who took part in the expedition, writes that there was no lack of warnings prior to the first trip but: "Great was our joy when we in Melville Bay found the best conditions for sledge travel we yet had had in the whole of Greenland and since then during many journeys in almost all seasons have learnt that in the time from the middle of November until the middle of June one can with certainty reckon on good conditions for sledge travel" (Rasmussen 1979; see also Bang 1941; Hansen 1969/70).

Fig 21. Storm from the north, November 1967. Photo by the author.

Climate

As one would expect, the air and sea temperatures, wind strength and direction, precipitation and ice thickness were of great significance for the hunting, especially in the winter months in Upernavik district. Late ice cover in November-December resulted in delayed sledge travel and as a consequence delayed hunting with nets from the ice. On the other hand, extreme low temperatures in February, March and April can cause the formation of ice over a metre thick which was difficult to penetrate for laying out seal nets.

From the factor's yearly reports, the most common explanations for the decreasing catches are: fog and windy weather, temperatures above or below normal, ice cover that comes and goes and so on (Figs. 20a,b, 21).

The place names around Nuussuaq (Fig. 22 and Table 3) can be grouped approximately as follows:

Location according to the weather	20
Appearance of the terrain	25
Animal species	8
Resemblance to something	9
Activity/exploitation	7
Camping places	2
Habitation	2
Carrying across places (where vessels are carried from water to water over land)	3

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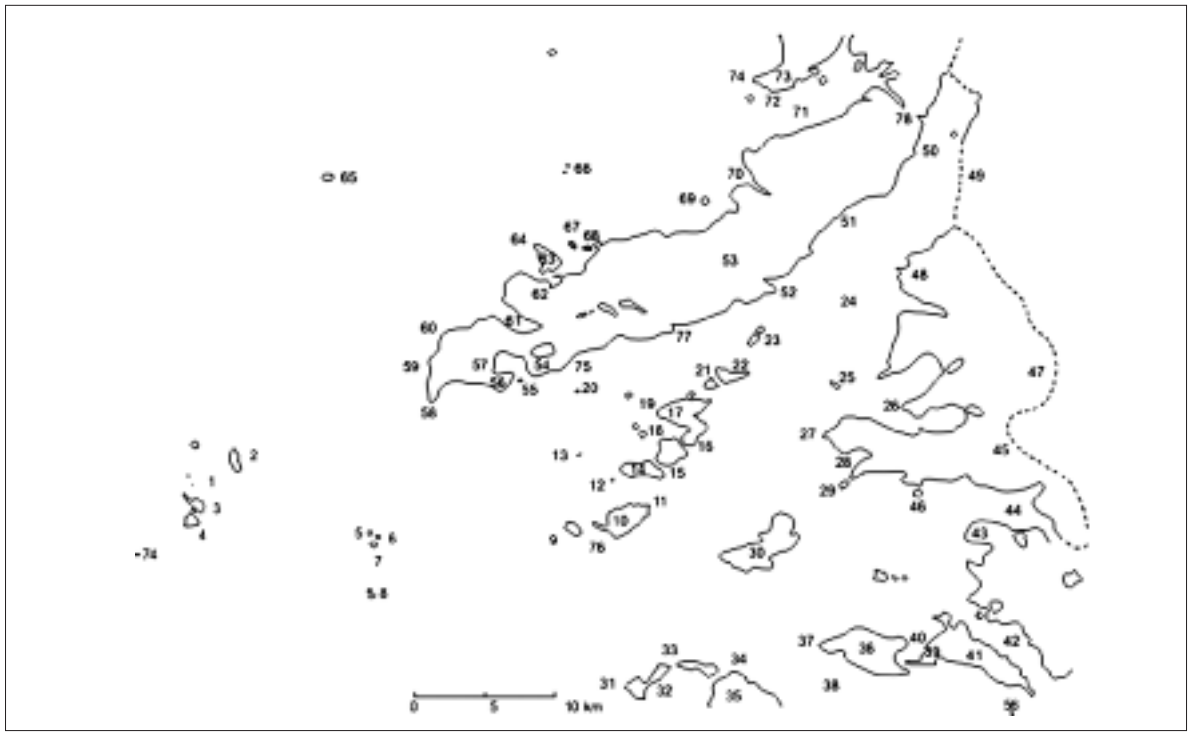

Fig 22. Map showing local place names around Nuussuaq.

Table 3. Place names around Nuussuaq. The numbers correspond to those on the location map, Fig 22.

41	Amitsorsuaq	Den store smalle ø	The large narrow island
42	Amitsorsuup sullua	Det lange sund ved Amitsorsuaq	The large sound at Amitsorsuaq
47	Anoritooq	Det stormfulde sted	The stormy place
4	Avallersuit	De yderste øer	The outermost islands
17	Daanialiup tupersuai	Daniels store teltplads	Daniel's great camping place
63	Illerfik	Kisten	The chest
62	Illerfiup akersua	Den anden side af kisten	The other side of the chest
64	Illerfiup qeqertai	Kistens øer	The chest islands
7	Illulik	Stedet med hus	The place with a house
32	Illukassak	Det sølle hus	The poor house
20	Ikkarlukassak	Det lille skær	The little skerry
30	Ikermiorsuaq	Den store ø i sundet	The large island in the sound
21, 40	Ikerasakassak	Det lille sund	The little sound
49	Ikissuup sermersua	Fjordens store bræ	The fjord's large glacier
78	Ikusik	Albuen	The elbow
23	Inussulikassak	Den lille varde	The little cairn
26	Iterlassuit	De store bugter eller vige	The large bays or inlets
77	Itissaarsuaq	Det store overgangssted	The large crossing
15, 17	Itussaalik	Overbæringsstedet	The place where vessels are carried over land
60	Innannguaq	Den lille stejle klippevæg	The little steep cliff
51	Innaarsussuaq	Den store stejle klippevæg	The large steep cliff
61	Qasigialissuaq	Det store sted for spraglet sæl	The large place for harbour seals
70	Qasigiarsuit	De store spraglede sæler	The large harbour seals
56	Qallunaaq arnaq	Den europæiske kvinde	The European woman
55	Qeqertannguaq	Den lille ø	The little island

5	Qeqertat	Øerne	The islands
8	Qeqertat saqqarliit	Øerne længst mod syd (af gruppen 6-8)	Southernmost islands (of the group 6-8)
68	Qimmersuit	De store hunde	The large dogs
3	Qiterliit	De midterste øer	The middle islands
29	Quassugarsuaq	Den store bjergryg	The large mountain ridge
28	Quassugarsuup iterla	Bugten eller vigen	The bay or inlet
11	Kangilerna	Landet mod øst	The land to the east
71	Kangerluarsuk	Fjorden	The fjord
52	Kangersuneq	Det mellemstore forbjerg	The medium-sized headland
33	Kittorsaq	Den tvedelte ø	The bi-sected island
18	Kittorsaaraq	Den lille tvedelte ø	The little bi-sected island
1	Kitsissorsuit	Øerne længst mod vest (Edderfugleøerne)	The islands furthest to the west (the Eider Islands)
13	Mannilikassak	Det lille ægsted	The little egg place
39	Milikassaa	Dens prop (dvs. nr. 40's prop)	Its cork (i.e. no. 40's cork)
12	Miteqqaarfik	Edderfuglestedet	The eider place
16	Nannuffik	Bjørnestedet	The bear place
36	Nasaasaq	Det der ligner en hætte	That which looks like a hood
37	Nasaasap nuua	Hættens næs	The hood's headland
38	Nasaasap saqqaa	Hættens solside (Ussing Isfjord)	The hood's sunny side (Ussing Ice Fjord)
72	Naajakassaat	Den lille mågeplads	The little gull place
50	Niaqornakassak	Det lille næs	The little headland
43	Niaqornarsuaq	Det store næs	The great headland
44	Niaqornarsuup iterlaa	Det store næs' vig	The inlet of the great point
31	Nuussua	Dets store næs	Its large headland
53, 54	Nuussuaq	Det store næs (Halvøen og bygden)	The large headland (peninsula and settlement)
24	Nuussuup kangia	Det store næs' østside (Ryder Isfjord)	The eastern side of the great headland (Ryder Ice Fjord)
58	Nuussuup nuua	Det store næs' næs	The big headland's point
48	Nuugutarsuaq	Det store næs	The big headland
45	Orsugissap qaqqarsua	Stedet med de hvide sten (feldspat)	The place with the white stones (feldspar)
46	Orsugissap qeqertaa	Øen ved det hvide fjeld	The island at the white fell
73	Paattorfik	Udspilningsstedet	The stretching-out place (for skins)
74	Paattorfiup nuua	Udslipningsstedets næs	The point of the stretching-out place
22, 57	Paarnarqortuut	Bærstederne	The berry places
65	Pukuluffik	Stedet hvor fuglene pikker noget op	The place where the birds pick something up
14	Saarlia	Den forreste	The foremost
69	Serfalikassak	Det sølle tejstested	The poor black guillemot place
76	Tikeraarsuaq	Det store mødested for tilrejsende	The great meeting place for travellers
2	Timerliit	De inderste øer	The innermost islands
10	Timilersua	Den store ø som ligger længere inde	The large island which lies further in
59	Tinumanersuaq	Den store højderyg	The large ridge
67	Tiitorfik	Thekoppen	The tea cup
6	Tukingasoq	Øen der ligger på langs	The island which lies lengthwise
75	Tupersuaqarfik	Det store teltplads	The large camping site
27	Tupersuarsuit	De store teltpladser	The large camping sites
25	Tupersuarsuit qeqertaat	De store teltøer	The large camping islands
34	Ujarassuit	De store sten	The large stones
9	Uummannaq	Det hjerteformede fjeld	The heart-shaped fell
66	Upernaviarsuit	De mellemstore forårspladser	The medium-sized spring sites

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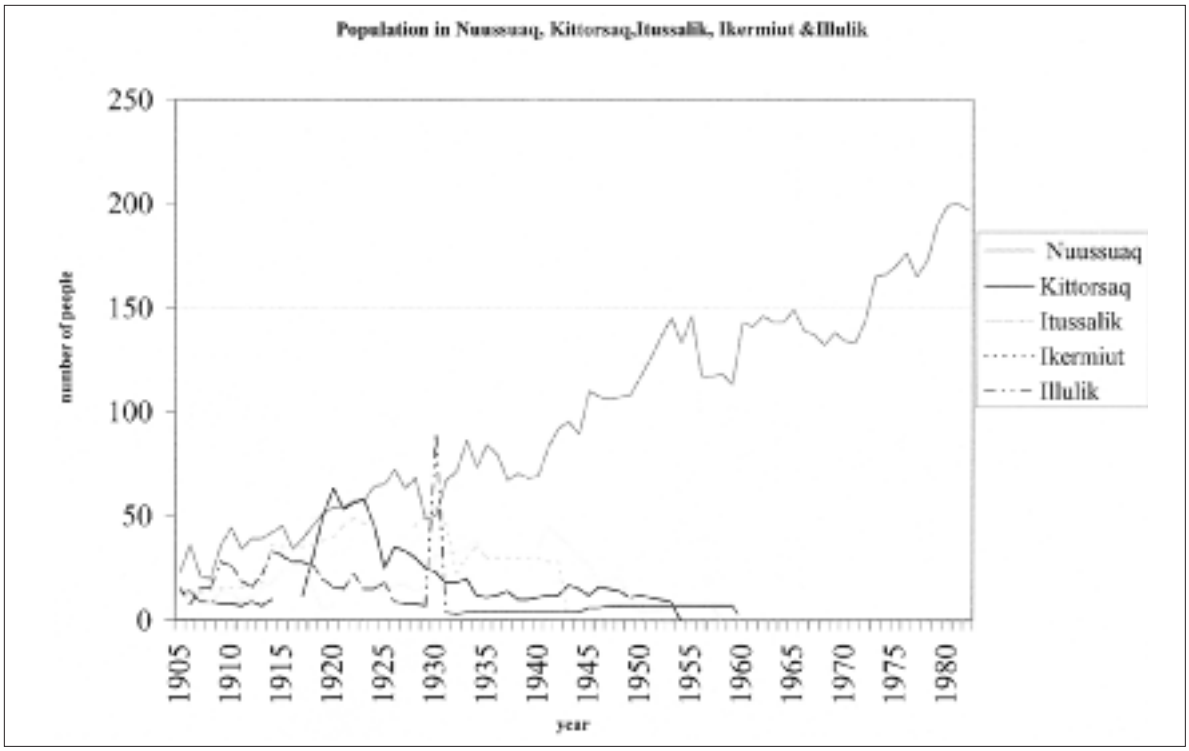

Fig 23. Population in Nuussuaq, Kittorsaq, Itussaalik, Ikermiut & Illulik.

It is clear that the great majority of local place names are primarily of significance for the hunters' knowledge of and orientation within the landscape, whether they are moving across open water or on ice. Large grounded icebergs of a characteristic form were sometimes given a name but these were of course only used in that particular season.

"People have at all times and in every place found it useful to give names to certain localities. When one has to talk about something one also needs a specific term for it, i.e. a place name has a communicative function" (Kleivan 1986:77). One could be tempted to believe that localities such as Qasigiliarssuaq, Qasigiarsuitand Nannuffik have in the course of time been alive with common seals and polar bears but places such as these are probably more likely localities where someone remembers that a particular animal was caught. As the hunting statistics clearly illustrate, over the years only very few common seals have been caught in Upernavik north district.

Demography

The growth in the population at Nuussuaq at the end of the 1960s was explosive (Fig. 23). So explosive that it was possible, using the great increase in the younger age groups, to demonstrate that this was one of the places in the world where the population grew most rapidly at this time (Hansen & Jørgensen 1970; Knudsen 1955).

An investigation five years later showed, however, that there had been a significant fall in the number of births, both in Nuussuaq and Aappilattoq, but that there were still more boys than girls (Jørgensen, Hansen & Hansen 1978). Generally, the later figures show that the birth rate is still not as high as it was previously. Between 1973 and 2000 there were 124 births in Nuussuaq, 100 in Aappilattoq and 1732 in the whole of Upernavik district (Figs 24, 25).

In the same period there were 37 deaths in Nuussuaq, 28 in Aappilattoq and 542 in the whole district. The relationship between births and deaths is shown (Fig. 26).

The population pyramid shows that Nuussuaq in 1997 comprised 199 persons: 105 men and 94 women. In Aappilattoq there were 201 persons, 111 men and

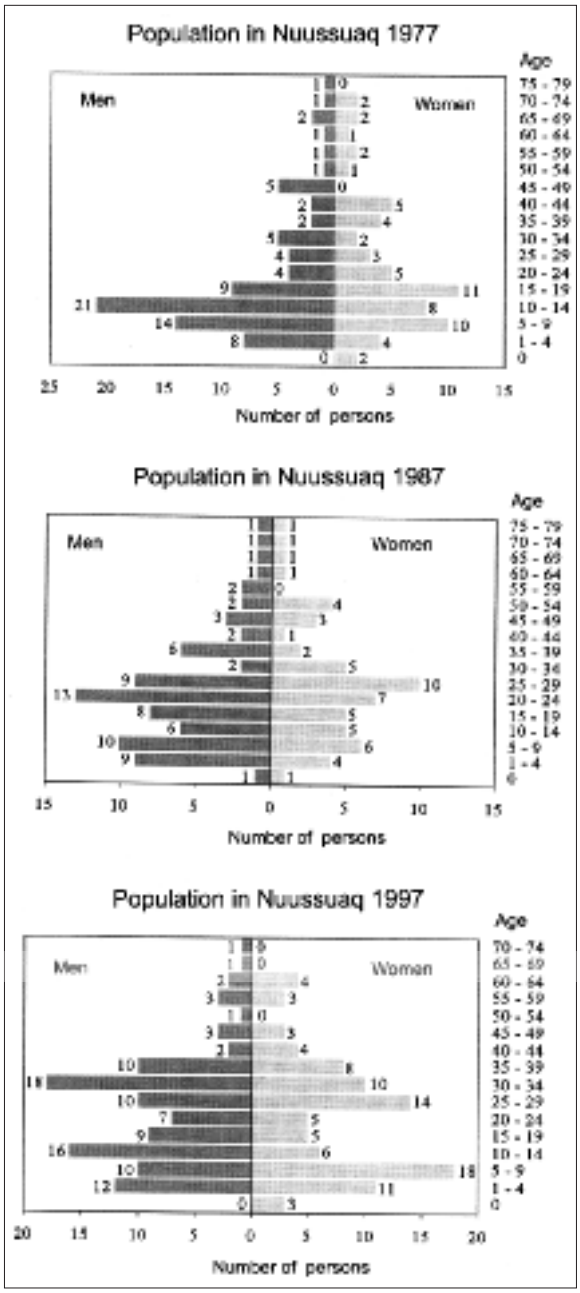

Fig 24. Population in Nuussuaq 1977, 1987, 1997.

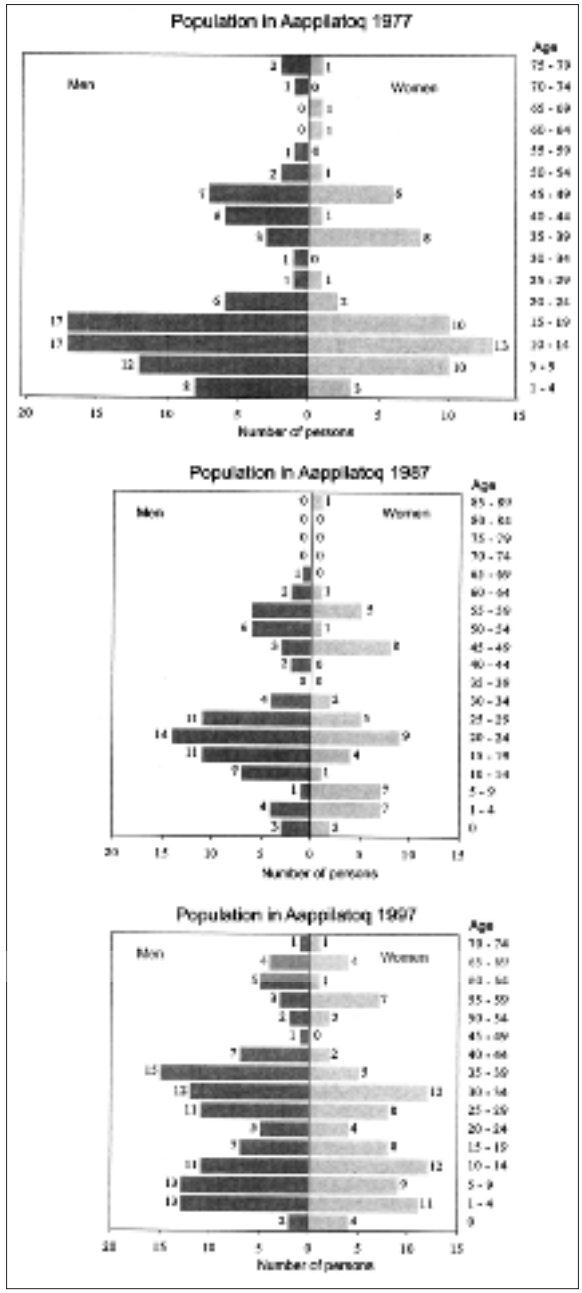

Fig 25. Population in Aappilattoq 1977, 1987, 1997.

90 women, whereas the figures for the whole district were 2,811 persons, 1,490 men and 1,321 women. If one looks at the intervening pyramids for 1977 and 1987 it is clear how the very large number of children in the age group 0-14 years in 1969, 47 boys and 32 girls, is significantly reduced in the subsequent 28 years. In the future this should give the people who would like to remain in their home settlement the opportunity to do so (Fig. 27).

As is apparent from the population curves there has, however, been considerable growth – in the case of Nuussuaq from 132 persons in 1969 to 188 in 1997. It is also apparent that a definite shift has taken place towards fewer children relative to the adult population (Figs 28, 29). This can be illustrated further by way of some simple calculations:

Firstly, it appears that in 1969, 50% of the population was under 15 years of age whereas the relationship in 1997 was that the youngest 50% included all up to the age of 30. Another way of looking at this re-

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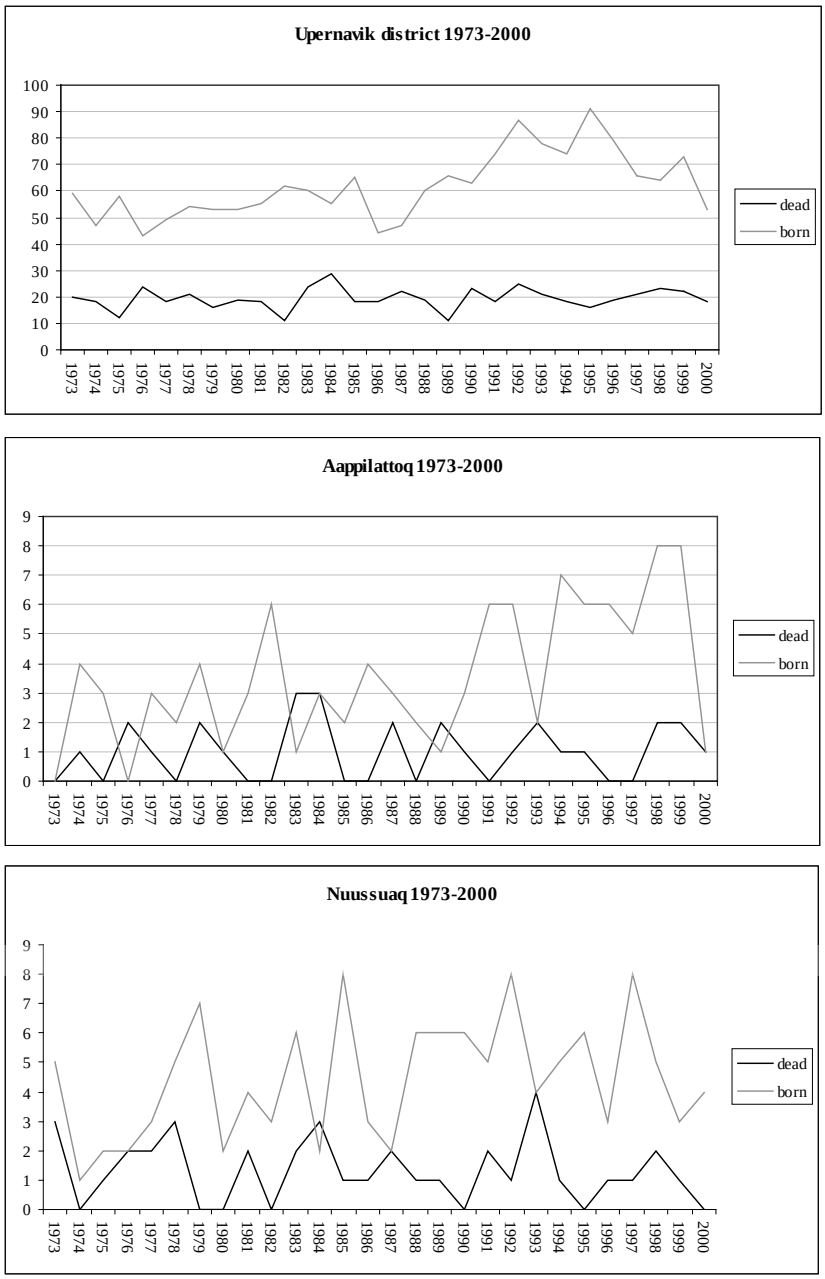

Fig 26. Births and deaths in Upernavik district 1973-2000, in Nuussuaq 1973-2000 and in Aappilattoq 1973-2000.

lationship is to calculate the proportion of the population below 20 years of age. This gives the following result:

In 1969, 68% of the total population was under 20.
In 1997, 42% of the total population was under 20.
In 1969, 69% of the boys and 66% of the girls were under 20.
In 1997, 42% of the boys and 42% of the girls were under 20.

Accordingly, there is no doubt that there has been a significant reduction in the number of children relative to the number of adults.

If one examines the distribution of the sexes, there are great shifts from year to year but there is no easy or obvious explanation for this.

In 1969, 56% were men and 44% were women.
In 1997, 52% were men and 48% were women.

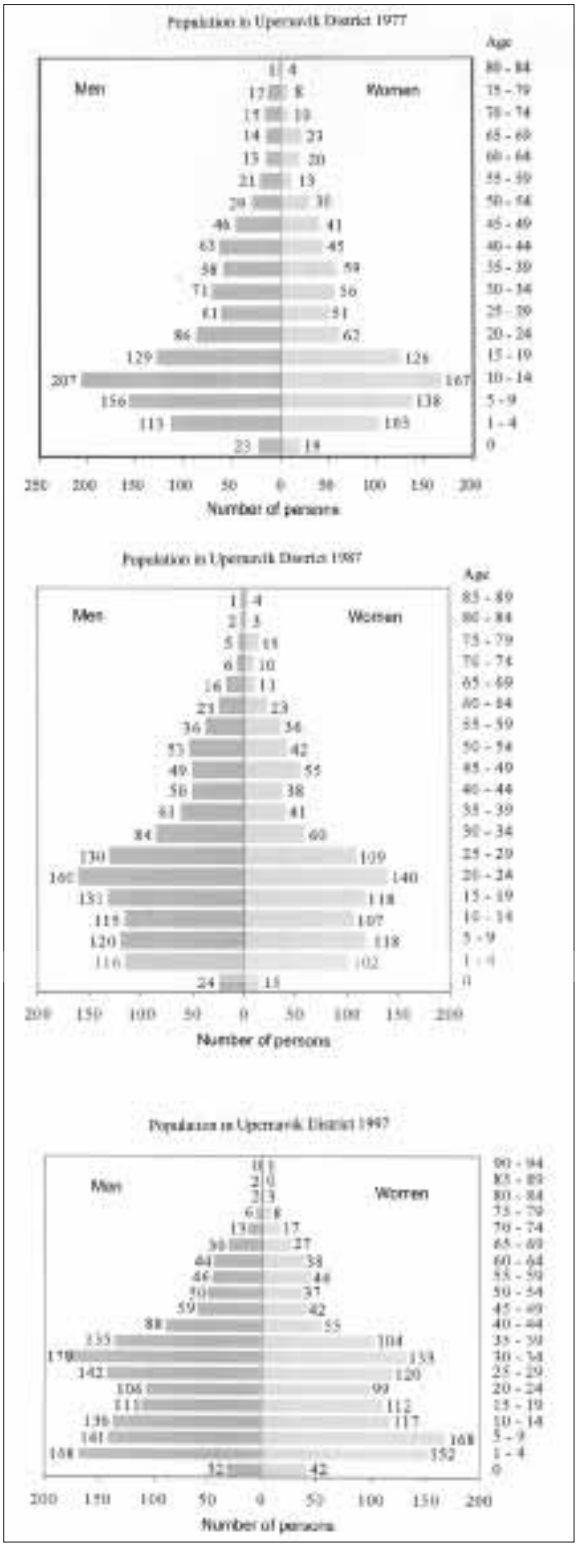

Fig 27. Population in Upernavik district 1977, 1987, 1997.

This shows a more standard relationship in 1997. For the children the corresponding figures are:

Fig 28. Population in Nuussuaq 1922-1999.

Fig 29. Population in Aappilattoq1882-1997.

In 1969, 58% were boys and 42% were girls.
In 1997, 53% were boys and 47% were girls.

The increase in the absolute number of people since 1969 is due exclusively to the large number under 30 years of age. There are a few people from outside but the great majority were born in Nuussuaq.

Family relationships and meat distribution

The overview of the individual households, inhabitants, providers and hunting equipment compared with the amount of meat per mouth to be fed can easily mislead. A realistic picture appears first when one compares family relationships with the distribution of meat. It is impossible for the two best hunters, even with large dog teams, to each exploit seven tons of meat in their households. This is why a good part of their surplus goes to families and friends in other households (Figs 30, 31).

This, among other things, is a factor of which there was no awareness in the so-called concentration

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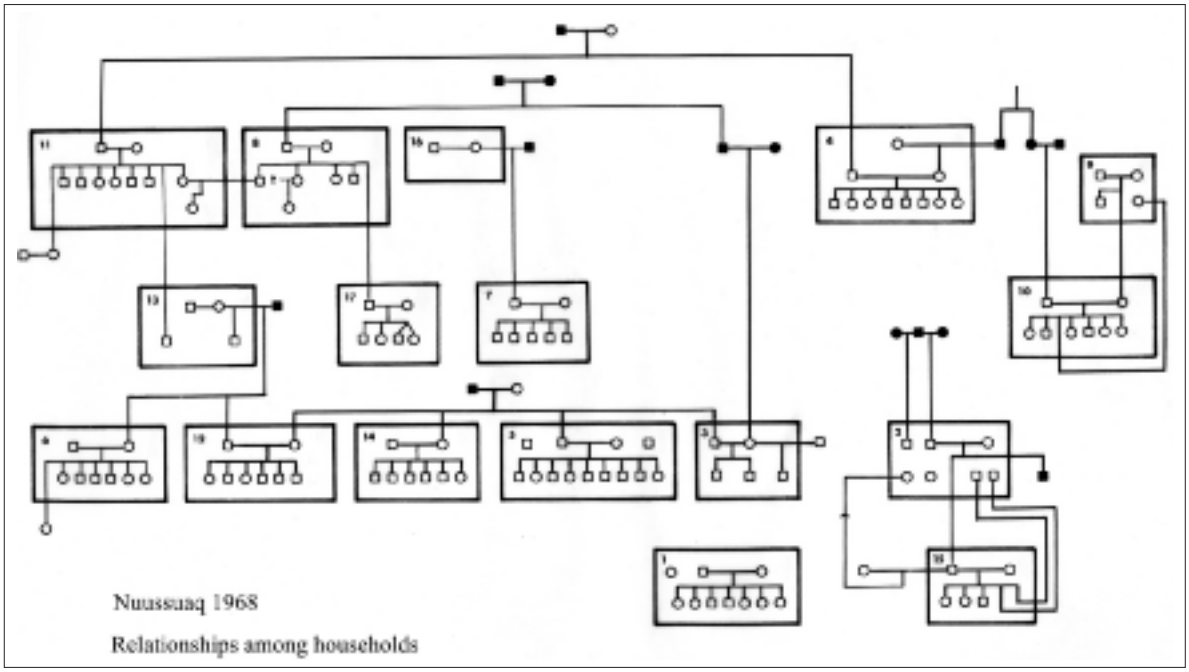

Fig 30. Family relationships, Nuussuaq 1968.

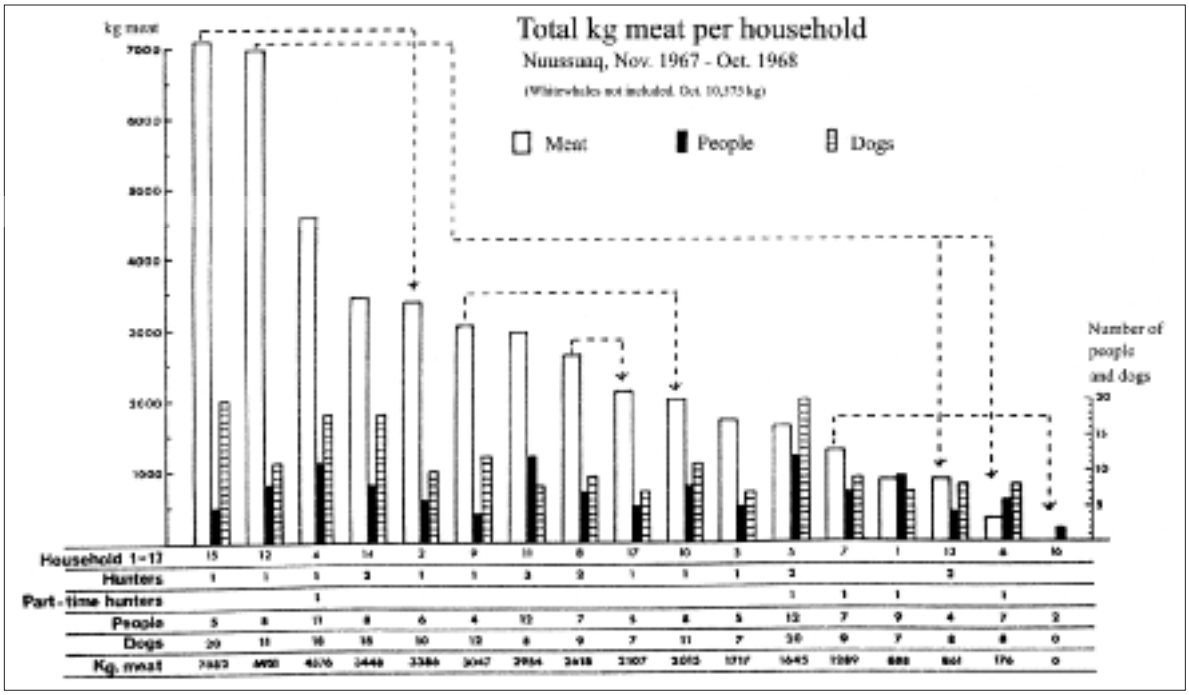

Fig 31. Meat distribution among the households in Nuussuaq, November 1967 to October 1968.

policy of the 1960s. On the basis of the official hunting statistics it was thought that a number of families could not manage and had to live on the limits of starvation. However, only few families took up the offer of moving south to a completely new life and many of these returned to their home settlement after a short time.

On the face of it, it appears that the number of hunters in Nuussuaq has almost doubled in the course of 30 years, from 23 in 1967 to 42 in 1997. The num-

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Fig 32. View from Nuussuaq, summer 1967.
Photo by the author.

Table 4. Occupations in Nuussuaq in 1967 and 1998 (Bo Albrechtsen pers.comm., Upernavik 1999).

	1967	1998
	135 persons	188 persons
	76 men	99 men
	44 women	89 women
Church	1 catechist	1 catechist
	1 caretaker	1 caretaker
School	2 teaching assistants (and the catechist)	5 teachers
		1 caretaker
KGH	1 factor	1 trading manager KNI
	3 store assistants	5 employees KNI
Nursing station	1 nurse	1 nursing assistant
	1 assistant	1 assistant
	1 caretaker	1 caretaker
Royal Greenland		10 employed in the winter
Local Government Offices		1 clerk
		2 refuse collectors
		2 home helps
		1 caretaker
Total in service sector	12	33
Hunters/fishers	23	42

ber of hunters is, however, officially given according to the submitted hunting statistics by which a person who in a particular year has perhaps only caught a couple of seals is recorded as 'hunter'.

A more realistic picture is obtained by comparing the number of dog teams and full-time hunters and the use of kayaks that surprisingly are approximately the same 30 years later. Boats are today mostly of fibreglass with an outboard motor and are largely used by men who are employed in the many service industries. They must be perceived as part-time hunters who hunt and fish primarily in open water in the summer (Fig. 32).

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Table 5. Hunters in Nuussuaq in 1969 by age, height and weight (Source: International Biological Programme H.A.) *Part-time hunters.

	Age	Height in cm	Weight in kg	Catch in kg meat
Jens Thorgeussen	15	169.5	50	553
Ludvig Kristensen	16	154	51	189
Poul Heilmann	17	163.2	65	850
Jens Eliassen	18	1552	47.5	198
Mathias Heilmann	23	1663	64.5	2002
Markus Eliassen*	23	161.7	60.5	1190
Markus II. Halsø	25	169.5	66	2107
Jacob Frederiksen	29	164	64	2819
Bendt Frederiksen	30	163.2	69.5	7082
Jørgen Jensen	31	163.7	56	1716
Jørgen Aronsen	32	169.5	72.5	6951
Johannes Jansen	33	172.7	65.5	3047
Hans Larsen*	36	166.9	64.5	1289
Kasper Jensen*	38	163.4	54	655
Peter Heilmann	40	164.5	63.5	2597
Rasmus Eliassen	46	156.6	55.5	3386
Ole Eliassen	46	167	60.5	2015
Otto Eliassen	49	157	60	2567
Markus I. Halsø	49	162.5	67	616
Søren Villadsen	49	157	60	308
Villads Lynge	60	154.7	54	572

If one looks exclusively at the immigrants and the emigrants to and from the north and Nuussuaq in the period between 1981 and 2000, the figures show that approximately the same number moved in each direction across Melville Bay. But, as with the other immigrants and emigrants, these are often the same families moving backwards and forwards. However, the composition of the 22 families in Savissivik in 1980 shows that at that time there were equal numbers of men and women from north and south.

Summary

Since the study year, when the population expansion was almost explosive, the number of children has fallen significantly relative to the number of adults. The total population has though increased with the large number of people below 30 years of age and a certain amount of immigration, in part due to the new service industries. In the years of high birth-rate there were, for reasons which are difficult to explain, many more boys than girls born which, especially in the last decade, has led to many young hunters finding their wives in other settlements.

If the present population development continues most people will be able to continue living in their home settlement on condition that the natural resources are as available as previously.

Hunters in Nuussuaq in 1969, and their age, height and weight according to the physical anthropological measurements of summer 1969, together with a statement of their catch for November 1967-October 1968 are shown in Table 5.

Aappilattoq – the settlement by the Red Fell

The settlement lies about 23 km northeast of the town of Upernavik as the crow flies, 72° N and 55° W, but the distance by sledge in the winter is considerably longer due to the many places with sub-ice currents. Aappilattoq was previously the centre for the population whereas Upernavik was probably, as the name suggests, only a spring residence. Here, in the archipelago, the climate is more pleasant with more days of sunshine than at the outer coast and with the great ice fjord as a neighbour there are good hunting and fishing opportunities (Fig. 33).

As early as 1799 Aappilattoq was supplied with white whale nets for ice hunting by KGH and there was a trading station here in 1850.

In 1918, 56 people lived here (26 men and 30 women) distributed among eight houses, four with a stove and four with blubber lamps. In addition, there was a trading station manager, a catechist and a midwife. Of the 10 men, six are recorded as hunters and three as fishers. Their equipment comprised six sledges with dogs, 12 kayaks, seven shark lines, three Greenland halibut lines, 12 rifles, three shotguns, four hide tents, one canvas tent, three umiat and two wooden boats.

There are figures for Aappilattoq's imports and exports for the year 1915-16 showing that the families apparently lacked nothing. The explanation for those apparently having bought goods for almost double the

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Fig 33. View from Aappilattoq, summer 1967.
Photo by the author.

Table 6. Exports, Aappilattoq 1915-16 (in DKK).

Seal and white whale blubber	212 barrels	1948.28 kr
Shark liver	2 barrels	19.41 kr
Hooded seal hides	3	2.25 kr
Seal skin, large	23	14.95 kr
Seal skin, ordinary	896	398.40 kr
Narwhal tusk	20.25 kg	60.75 kr
Down	15.00 kg	15.00 kr
Feathers	2.50 kg	1.25 kr

Table 7. Imports, Aappilattoq 1915-16 (in DKK).

Provisions and groceries (incl. coffee 976.50 kr)	2575.53 kr
Textiles	647.31 kr
Ironmongery, wooden articles, tools etc.	213.89 kr
Shooting equipment/supplies	286.27 kr
Tobacco	431.23 kr
Fuel	29.75 kr
Other commodities	289.81 kr

amount they had received for hunting products must be that they sold some of the latter within the colony of Upernavik itself. Similarly, they had already then the possibility of extra earnings in the colony, for example from loading and unloading ships.

In 1968, 146 people lived in Aappilattoq, distributed among 29 households. There were 50 school pupils, one teacher, one lay teacher, a midwife and a district bailiff. There was a hunters' association, sports club, *Blå Kors* ('Blue Cross' – a Christian temperance society), village hall, club and church association.

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Chapter 3

The ecosystem

Christian Vibe writes the following concerning the particularly favourable ecological conditions for game animals in Upernavik district:

"When these north-western areas of Greenland have a greater richness of sea mammals and sea birds than South-west Greenland, the reason is that the partially sterile layer of surface water from East Greenland's melting drift ice does not reach so far north in the Davis Strait, by which the warmer deep water more easily can reach the surface and here give nutrients to a rich plankton production at a beneficial time of year for the animals. At the same time the open northern waters in Baffin Bay offer favourable over-wintering conditions for ringed seal, walrus, polar bear, narwhal, white whale and occasionally also eider ducks and black guillemot. When the land mammals (in contrast to the marine animals) are few, this is also due to the up-welling warm deep water in Baffin Bay which gives the coastal land increased precipitation in the form of large amounts of snow, often rain and over-icing to the great detriment of terrestrial game" (Vibe 1970:587).

The game animals

In the summary of the natural resources the main emphasis is placed on the animals which are exploited and which previously were exploited by the hunter families in Upernavik district. For example, the seal species will be described in much more detail than the other species. The summary is primarily based on information from the local hunters and my own observations, supplemented by written sources (Fig. 34).

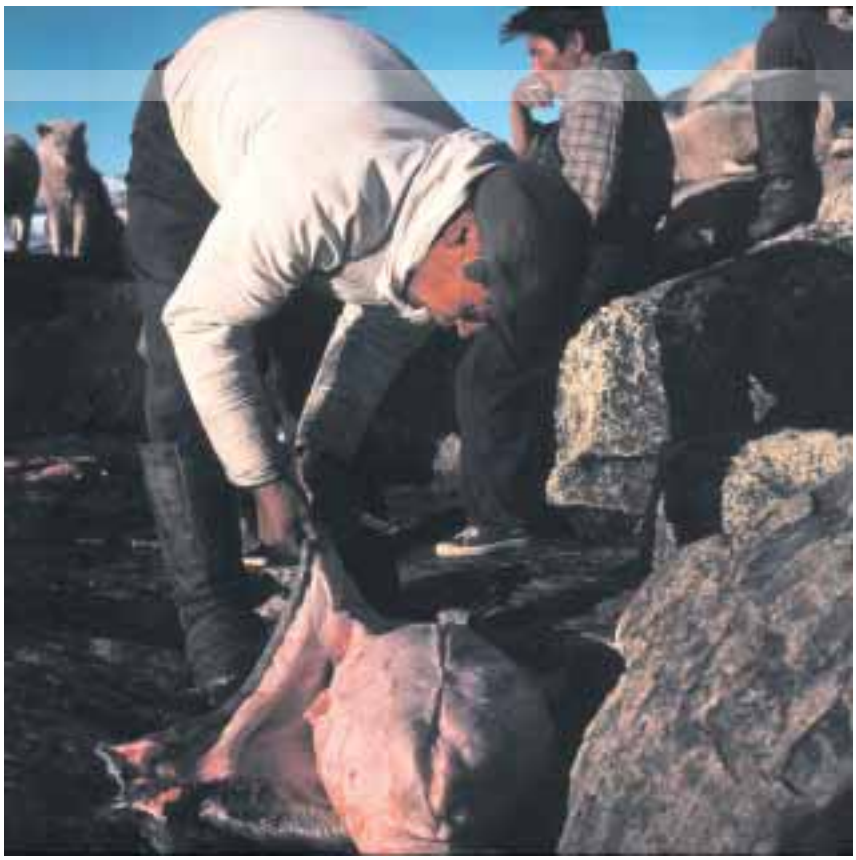

Fig 35. Knud Løvstrøm from Aappilattoq flensing a ringed seal at the ice edge, April 1968. Photo by the author.

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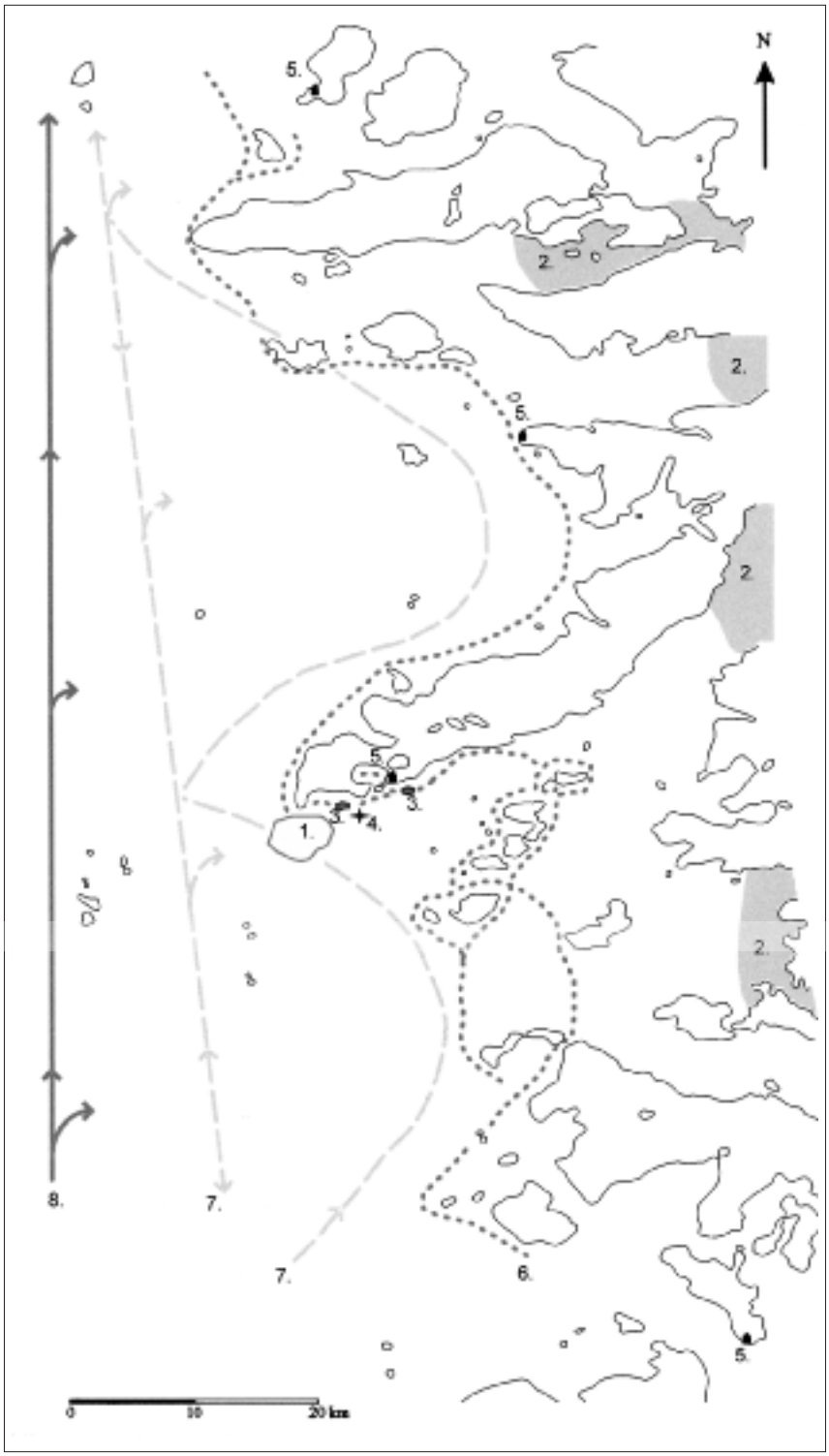

Fig 34. Game animals around Nuussuaq. 1. Walrus in the thin ice in December; 2. Ringed seal, rich breeding grounds; 3. Areas for shark lines; 4. Fishing areas, catfish and Greenland halibut; 5. Villages; 6. White whale migration route; 7. Narwhal migration route; 8. Polar bear migration route.

Special books and articles on the fauna and flora are listed in the references but the remaining Greenlandic literature does of course also include a great deal on these subjects (Hertz & Kapel 1986; King 1964; Muus et al. 1981; Vibe 1950). As far as possible the terms are given in English, Greenlandic and Latin but for the most important game animals it will be apparent that the hunter families often have a large number of terms for the same animal.

The terms for the game animals in Tables 8 and 9

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Table 8. Local terms for game animals.

Greenlandic	Danish	English	Latin
Puisi	Sæl - fællesbetegnelse, dog oftest ringsæl	Seal - common generic term, though most often ringed seal	
Illaaq	Ufødt sæl	Unborn seal	
Anineq	Nyfødt sæl	New-born seal (pup)	
Qiviulik	Den dunede unge, der har forladt fødehulen ved et isfjeld	The downy pup that has left the lair where it was born at an iceberg	
Illaalik	Drægtig sæl	Pregnant seal	
Torsusoq	Sæl, 1-1½ år gammel med lang pels	Seal, 1-1½ years old with long fur	
Saggaq	Sæl, 2 år, tyndhåret	Seal, 2 years old, thin fur	
Natseq	Ringsæl	Ringed seal	*Phoca hispida*
Natsiaq	Unge i det første leveår	Pup in its first year	
Natsillassiaq	Endnu ikke fuldvoksen	Not yet full-grown	
Tiggaq	Hansæl med stærk lugt og smag	Male seal with strong smell and taste	
Natsillak	Fuldvoksen ringsæl	Full-grown ringed seal	
Arnaruseq	Gammel steril hunsæl	Old sterile female seal	
Aataaq	Grønlandssæl, fællesbetegnelse for blå- og sortside	Harp seal, generic term for seals of all ages	*Phoca groenlandica*
Allattuuaraq	Ung blåside	Youngest harp seal	
Allattooq	Blåside	Young harp seal	
Angajullersuaq	Den ældste	The oldest	
Qernertoq	Den sorte	The black	
Aataanngulersuaq	Han, der er ved at blive sortside	Male almost adult harp seal	
Aataarsuaq	Fuldvoksen sortside	Full-grown adult harp seal	
Natsersuaq	Klapmyds, egentlig en stor ringsæl	Hooded seal, in fact a large ringed seal	*Cystophora cristata*
Natsersuaaraq	En unge i det første leveår	A pup in its first year	
Aalaanisaq	Dyr, 1-2 år gammel, bruges normalt kun om landdyr	Animal, 1-2 years old, normally only for terrestrial animals	
Terittoq	Den lille eller mellemstore	The small or medium-sized	
Arnaq	Klapmyds-hun	Female hooded seal	
Angut akunnattorsuaq	Middelstor han, hvis lugt forsvinder om efteråret	Medium-sized male whose smell disappears in autumn	
Angisoq	Stor han der som vred kan oppuste 'næseposen'	Large male who can inflate his 'nasal bladder' when angry	

were provided by hunters from Nuussuaq and corrected by Bo Albrechtsen, Upernavik. From my first time in the settlement I thought a seal was a seal but when I asked what they caught I was most commonly given these subtle variations which of course were confirmed by the hunters, their wives and in most cases their children.

Table 8. Continued.

Greenlandic	Danish	English	Latin
Taqammuaq	Remmesæl	Bearded seal	*Phoca barnata*
Qaqortaaaraq	Unge i det første leveår	Pup in its first year	
Teqilluk	Unge, 1-2 år, der er bange	Frightened pup, 1-2 years old	
Qaqortarsuaq	Unge, 1-2 år	Juvenile, 1-2 years old	
Qaqortaq	Den hvide, 2-4 leveår	The white, 2-4 years old	
Qaqortavik	4-5 leveår – overgang til mørk med sorte pletter i den hvide pels	4-5 years old – transition to dark with black spots in the white fur	
Qernersineq	Sæl med mørk pels med hvid plet på hovedet	Seal with dark fur with a white spot on its head	
Aviortoq	Voksen han som afgiver en karakteristisk lyd i vandet	Adult male which makes a characteristic noise in the water	
Arnarusaq	Stor steril hunsæl	Large sterile female seal	
Aaveq	Hvalros	Walrus	*Odobenus rosmarus*
Piaraq	Unge, 1-2 år, med sin mor	Juvenile, 1-2 years old, with its mother	
Nakalloq	Unge, 3-4 år, forladt af sin mor	Juvenile, 3-4 years old, abandoned by its mother	
Terittoq	Ikke fuldvoksen dyr, 4-5 år	Not full-grown animal, 4-5 years old	
Akunnattoq	Ungt, men ikke fuldvoksent dyr	Young but not full-grown animal	
Arnaq	Fuldvoksen hun	Full-grown female	
Angisoq	Stor han	Large male	
Nanoq	Isbjørn	Polar bear	*Ursus maritimus*
Atertalik	Hunbjørn med unge	Female bear with cub	
Pingajoqqat	Hunbjørn med to unger	Female bear with two cubs	
Atertaq	Lille unge der er gået ud af hulen, hvor den er født	Little cub that has left the lair where it was born	
Equttooq	Ung bjørn, 1-3 år	Young bear, 1-3 years old	
Arnatut angitigisoq	Hanbjørn på størrelse med en hunbjørn	Male bear of the size of a female bear	
Arnaq	Stor hunbjørn	Large female bear	
Angisorsuaq	Meget stor hanbjørn	Very large male bear	
Tikeraaq	Bjørn fanget i eller ved bygden; den betragtes som alles ejendom (tikeraaq egtl. 'den der kommer på besøg', også om mennesker)	Bear caught in or close to the settlement, considered to be everyone's property (Tikeraaq actually means 'the visitor', also used about people)	
Tuttu	Rensdyr havde man i 1968 ikke specielle betegnelser for	Caribou – in 1968 there were no special terms for this species	*Rangifer tarandus*

Ringed seal **(Natseq,** *Phoca hispida***)**

As over the greater part of the extended Inuit area, the ringed seal is the most commonly occurring species of seal in Upernavik district. It is non-migratory and as such is present all year round (Fig. 35). It is unconditionally of greatest economic importance for the hunter families. In earlier Greenlandic literature it also appears under the Danish names *Fjordsæl* and *Netside* (ringed seal).

Most of the older ringed seals are to be found at the heads of the ice fjords close to the calving glacier fronts. Here a favourable ecological environment is created due to the continually falling pieces of ice that

Table 9. General terms for seals.

Greenlandic	Danish	English
Qassimasoq	Sæl der ligger på en isflage eller klippe	Seal lying on an ice floe or on a rock
Qaattaq	Sæl fanget i garn	Seal caught in net
Angusaq	Skudt sæl, tidligere aflivet med lanse, anguigaq	Shot seal, previously killed with a lance, anguigaq
Paarnguliaq	Sæl der er krøbet op på isen og som ikke kan finde tilbage i vandet	Seal that has crawled up onto the ice and which cannot find its way back into the water
Uuttoq	Sæl der om foråret er krøbet på isen gennem det udvidede åndehul	Seal which in spring has crawled up onto the ice through an enlarged breathing hole

stir up the sea bed for the seals which live primarily on crustaceans, molluscs and small fish. These are the places that the hunters without hesitation identify as the greatest occurrences of seal but where out of regard to the population they never go hunting.

The ringed seal pups are born in March and April in caves under the snow. These are made by the pregnant female in association with a breathing hole in the ice. The pups are born on the ice under the snow cover. A hunter once witnessed a birth above the snow but this is perhaps the only example from the whole of Greenland (Lund-Drosvad 1938:28).

At birth the pups are about 0.5 m long and are nursed by the mother during the four weeks they stay in the lair. After changing their coat from downy white to short grey fur the young seals move out into the fjords around the beginning of July. They usually stay along the ice margin close to land and subsequently move a relatively short distance south, returning in the late summer. This continues until they reach sexual maturity at an age of 3-4 years, at which point they become stationary, i.e. non-migratory. The change of coat takes place in May-June when the hunters, especially in June, find them lying on the ice, often easy to come within rifle range of because they are reluctant to crawl back into the water when their fur has dried out in the sun.

The ringed seal is thought to see well under water whereas up on the ice it is very short-sighted and has a poor sense of smell. On the other hand it has good hearing and is apparently curious with regard to new objects and sounds. This is exploited by the hunters when they decoy (i.e. lure) the seals to the ice margin. The adult ringed seals have, like bearded seals, permanent breathing holes in the ice, which they hold open throughout the whole of the period of ice cover. They are normally encountered as single individuals and are never seen in large groups, as is the case with harp seals. The ringed seals' worst enemies, apart from humans, are polar bears, walrus and killer whales.

Harp seal **(juvenile: Allattooq – adult: Aataaq,** *Phoca groenlandica)*

The harp seal as a juvenile is called a *blåside* (blueside) in Danish as it has light grey fur with many small dark spots until it, as a full-grown adult, loses these and acquires the characteristic black almost symmetrical pattern on its back, prompting its English name 'saddleback'. It is not stationary along the coasts of Greenland and the herds that turn up in the summer months in Upernavik's archipelago have their breeding grounds northeast of Newfoundland in Canada.

In May and June harp seals often migrate from their breeding grounds to Mid Greenland from where they migrate further northwards to the north of Melville Bay. They migrate along the coast and in the fjords or far out to sea where they search in particular for capelin, arctic cod and Greenland halibut.

This seal species appears previously to have been of less significance for the hunters but the catch and export lists for sealskins show that it has been increasing steadily since the 1930s. At Nuussuaq these seals arrive as soon as there is open water and they disappear again as soon as the ice starts to form.

The hunters are all in agreement that of all the seal species the harp seal is the best swimmer and diver and it often reaches depths of between 100 and 200 m. The smaller herds are as a rule difficult for the hunters to get close to in their kayaks but as the skins are of great importance for the families these seals are

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Fig 36. Jørgen Aronsen flensing a bearded seal, Melville Bay, August 1968.
Photo by the author.

a much sought after game. A fully-grown harp seal can reach a length of about 2 m.

Harbour seal **(Qasigiaq,** *Phoca vitulina***)**

The harbour seal occurs rarely in the Upernavik archipelago and for this reason it has almost no importance in hunting. According to the official hunting statistics only three harbour seals were caught between 1957 and 1967. Whereas further to the south, down the west coast, it is the view that a pair of women's trousers for their festival dress should be made of skins from the harbour seal, the great majority in Upernavik district are made from skin of the ringed seal.

Place names such as Qasigialissuaq and Qasigiarsuit refer perhaps only to the fact that a harbour seal was once or occasionally caught here and not that these seals have been caught in great numbers.

Bearded seal **(Taqammuaq,** *Phoca barbata***)**

In the rest of Western Greenland the bearded seal is called *ussuk*, but after this name at some time became a taboo word at Upernavik, the name *taqammuaq* – the one that splashes when it dives – is used. After the walrus the bearded seal is the largest species and it can achieve a length of 3 m (Fig. 36). In contrast to the other seal species the full-grown female is as a rule larger than the male. It is, as is the ringed seal, non-migratory and is encountered both out at the coast and within the fjord complex. The pups are born in April and May.

Bearded seals appear to be virtually omnivorous but their very small teeth set a natural limit with regard to what they can manage to eat. Bottom living shellfish such as crustaceans, molluscs, prawns and smaller fish such as Arctic cod are therefore their most common food. The animals' skin cut into kamik soles, thongs and straps is much sought-after even though nylon rope, line and string are now common features of hunting equipment.

Hooded seal **(Natsersuaq,** *Cystophora cristata***)**

Like the harp seal, the hooded seal breeds in Newfoundland, Canada, from where it migrates at the end of April to Central Greenland. From here the great majority travel south. It is not known with certainty whether the animals that turn up at Nuussuaq between April and October are the result of these seal migrations (Fig. 37).

These large seals prefer deep water and keep themselves mostly to the drift ice (Fig. 38). Their most important foods are prawns, mussels, Arctic cod and Greenland halibut. The male is largest and can be up to 2.5 m long. It is easily distinguishable from the fem-

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Fig 37. Hooded seal harpooned on an ice floe in Melville Bay by Jørgen Aronsen and Bendt Frederiksen, August 1968. Photo by the author.

ale by its large inflatable nasal bladder that can clearly be seen when it feels threatened. Just like the walrus it can be very aggressive and it often attacks kayak hunters (see appendix 3). Its thick heavy skin is sometimes used for covering kayaks and, previously, umiat, in which case the skin was painted after fitting to make it completely waterproof.

Walrus **(Aaveq,** *Odobenus rosmarus***)**

The walrus is the largest seal species and fully-grown animals can reach a length of 4.5 m. The hunting statistics show that walrus are relatively seldom caught in Upernavik district but small herds do, however, regularly turn up around Nuussuaq in December, migrating from the north. They often disrupt seal netting as they chase away the ringed seals. On their way south they sometimes stay in the thin new ice that, due to the currents, is formed at the headland itself. This often makes it impossible for the hunters to reach the animals in the dark of winter but exceptionally a single animal is caught in the spring and summer.

The walrus' most important food comprises mussels and other shellfish but it often tries to catch seals when it is on the ice margin or near the coast in shallow water. The readiness of adult walrus to attack is well known among the hunters and examples of attacks by walruses on kayak hunters are recounted in another section.

Narwhal **(Qilalugaq qernertaq,** *Monodon monoceros***)**

The narwhal is perhaps one of the most sought-after game species for hunters in Upernavik district (Fig.

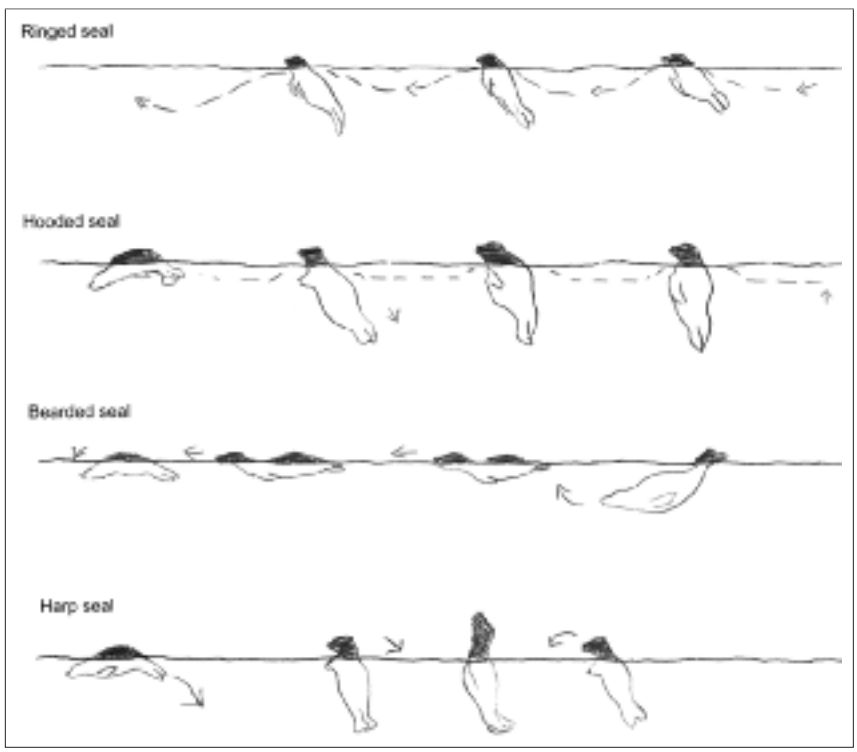

Fig 38. Sketches of seals in water.

Fig 39. Flensing a narwhal in Melville Bay. Jørgen Aronsen, Jakob and Bendt Frederiksen, August 1968.
Photo by the author.

39). On the northward migration the whales show themselves in openings in the ice at Nuussuaq around April after which they are hunted for the rest of the summer until they migrate south in the autumn. The narwhal's most important foods comprise shellfish, Arctic cod, Greenland halibut and prawns and in contrast to the white whales they rarely migrate further up into the fjords. They probably have no fixed breeding season but they are thought to give birth every second year. As adults they can reach a length of around 6 m, while the characteristic spiral tusk that sits in the left upper jaw can be up to 3 m in length. Exceptionally the right canine tooth can grow out but normally it sits, small and deformed, hidden in the jaw.

In addition to the valuable tooth and a large amount of meat the narwhal and white whale have thick tasty skin, *mattak*, from which the inhabitants obtain a great deal of their requirement for vitamins and carbohydrates. The sinews of the back muscles are prepared and used to sew leather clothing, dog traces and skin-covered kayaks and the stomachs are often used to make towing bladders.

White whale **(Qilalugaq qaqortaq,** *Delphinapterus laucas***)**

The white whale, like the narwhal, is a tusked whale and it can be just as big, i.e. 5-6 m. Its most important foods are Arctic cod and Greenland halibut and even though white whales often follow the narwhal schools along the ice margin, many move right in to the coast, following the same routes year after year.

Until around 1960 it was permitted to drive the white whale schools into bays and inlets where they were caught in barrier nets strung across the entrance. A heavy reduction in the population prompted a ban on this form of hunting. In the 1920s KGH started up a whaling station at Prøven in the southern part of the district and here, over a period of 30 years, more than 5000 white whales were caught.

Apart from the narwhal's valuable tusk and sinews, the white whale has the same economic and nutritional significance for the hunter families.

Greenland whale **(Arfivik,** *Balaena mysticetus***)**

This large baleen whale can attain 18 m in length and a weight of around 50 tons. The baleens can be up to

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3-4 m in length and there are more than 300 of them at each side.

In the 18th and 19th centuries European whaling here and in the northern regions was so efficient that whales had almost been wiped out by around 1910 when hunting was no longer profitable. The archaeological finds contain no Inuit whaling equipment but occasional bones of large whales are found.

Conversely, the very great number of implements and the like from the Thule culture which are made from baleen shows that this material was of very great importance for the hunter families. We know that there was sometimes very close contact between the local inhabitants and the Europeans. The latter were primarily interested in the whale blubber that burned in European street lights for generations. Baleen was also of interest in Europe, where it was commonly referred to as 'whalebone', but considering the enormous quantities that were obtained from the great whales, this can hardly all have been used in Europe to make combs, umbrellas and corset stays. Perhaps it was valued by the hunters as an object of barter that, even far out to sea, they had difficulties in obtaining themselves.

The possibility cannot be excluded that a stranded great whale would now and then have been available and, as Jeppe Møhl has pointed out (1979:387), it could sometimes have been so fresh that the nearby inhabitants were supplied with several tons of meat, blubber and other materials at a stroke.

Killer whale **(Aarluk,** *Orca gladiator***)**

Of the great whales now only killer whales haunt the northern parts of the district. Here they prey on most of the inhabitants' important game animals and they often disrupt the seal hunt. On the other hand, killer whales can often drive schools of white whales into the shore, that is to say into the arms of the hunters. Killer whales appear either singly or in small schools but they are rarely caught.

Polar bear **(Nanoq,** *Ursus maritimus***)**

The polar bear's most important foods are fish and seals, which is why they are encountered far out to sea on the drift ice. In summer the bears do, however, sometimes move onto land and as a consequence they can be found everywhere throughout the year in the Nuussuaq hunters' territory. The animals are, though, most numerous in Melville Bay where many breed, something that the northern settlements in particular benefit from.

In addition to meat and the prestige associated with polar bear hunting it is especially the skin that is of great value. More often hunters are seen today with trousers of polar bear skin but the great majority of skins are sold.

Fox **(Terianniaq,** *Alopex lagopus***)**

The barking of the Arctic fox, the blue fox and the white fox, is often heard across the mountains around Nuussuaq. They live primarily on fish, crustaceans, young birds and dead adult birds, eggs and insects. They are shot or caught in traps in the mountains but sometimes in the winter they venture out on to the ice. Hunters who have to leave their catches, seals etc., on the ice lay iron chains around them to prevent the foxes from taking them. Foxes cannot of course be eaten but their skin can either be sold or used for edging kamiks, gloves and furs.

Fish

For the hunter families in the northern part of Upernavik fishing with the exception of shark fishing was of no great importance. However, as mentioned in the introduction, this situation has changed since the end of the 1960s. Then the fish population was so small and inaccessible that one could not expect a catch that was in reasonable proportion to the work involved. Occasionally long lines were laid out close to the coast, mostly by very young or older hunters and even a single catfish or Greenland halibut on a line with 30-50 hooks was seen as a welcome variation to the diet.

In the following the fish species present during the study year will be briefly outlined.

Summer fishing with long lines in open water was virtually impossible due to drift ice from the glacier breaking the lines. On the other hand, the fish stocks were an important link in the food chain, even though the hunters were not able to exploit them efficiently. The fish were food for sea mammals, the presence of which formed the inhabitants' basis of existence.

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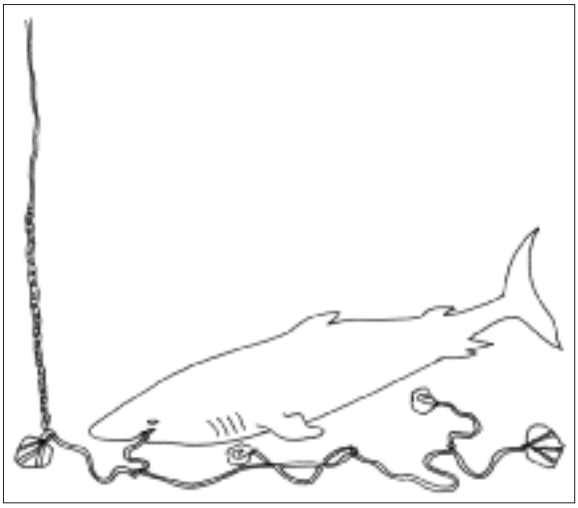

Fig 40. The shark line. Drawing by the autor.

Greenland shark **(Eqalussuaq,** *Somniosus microcephalus***)**

The Greenland shark is apparently present in large numbers throughout the year. The sharks normally attain 2-4 m in length but can sometimes reach as much as 5 m, with an average weight of 250 kg. The meat is used for dog food while the liver, which previously could be sold, is now purely a waste product, which is returned to the sea together with the mainly cartilaginous head.

After liver export was halted in 1962, because train oil extraction in Europe was no longer profitable, shark fishing has been in steady decline. This should, however, also be seen in the light of the hunters' reluctance to feed the dogs with shark meat for longer periods. Seal and whale meat give significantly better sledge dogs. The shark meat also has a further disadvantage in that if, in the cold, it is not used within 24 hours the meat develops a poison that renders the dogs unable to stand on their feet for a few days. The meat has therefore to be dried in strips on racks for several months out of reach of the dogs.

In periods of famine shark meat has been used for human food, which is possible if it is boiled in several changes of water. When the hunting was completely disastrous in the winter of 1943-44 even this possibility was excluded, as the inhabitants of several settlements did not have blubber or other bait for the shark hooks (*Grønlandsposten* 1944 no. 20).

The sharks are found in deep water near the coast and every settlement has, like Nuussuaq, normally one or more fixed fishing places (Fig. 40). The sharks feed on fish and carrion. Sometimes hunters find that seals, which have been allowed to stay too long in the nets, have been wholly or partially eaten by sharks which have been attracted up from the depths by the smell of the dead seal.

Char **(Eqaluk,** *Salvelinus alpinus***)**

Char, which traditionally were of great importance for hunter families in the whole of Greenland, appear since the 1950s to have completely disappeared from Upernavik northern district, whereas they are still fished for in the southern district, including at Eqarluarsuit. Char were previously present at a river mouth northeast of Nuussuaq in KangerluarsukFjord, where people from Illulik and Ikermuit had their summer hunting site. Char can live exclusively in fresh water and several older hunters recounted that previously it was possible to catch these fish in some of the lakes on Holm's Island. A hunter who moved to Nuussuaq in 1940 said similarly that in the freshwater lake used as a water supply for the settlement itself there were some small char, which were fished for.

Arctic Cod **(eqalugaasaq,** *Gadus saida***)**

This small but tasty and vitamin-rich member of the cod family can sometimes be encountered over the whole district and people recount that is was previously present in very large numbers. At Nuussuaq in some winters it comes into the harbour itself by way of breathing holes in the ice where the boys in particular fish for it with small home-made jigs with pins or in very shallow water with leisters. In their primitive shape these leisters are reminiscent of the larger versions for catching char, which are found archaeologically. They comprise a wooden shaft to which three shark hooks from the store have been bound. The hooks have been straightened out and honed to very sharp points.

Capelin **(Ammassak,** *Mallotus villosus***)**

Occasionally, these small vitamin-rich members of the salmon family show themselves at Nuussuaq where they are scooped up from boats or from the

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rocks. They are dried as winter food for humans and dogs. Several older people recounted, however, that it is no longer like the old days when there was a veritable glut.

Ammasaks are, however, important in the marine food chain and whales and seals benefit from their presence.

Catfish **(Qeeraq,** *Anarrhichas minor***)**

The catfish appears first to have come from the south around 1930 and in the 1960s it was fished with very good catches up to Tasiussaq. Hunters in Kuuk do, however, catch a good number while smaller examples are occasionally taken on the long lines at Nuussuaq. The catfish lives primarily on shellfish such as mussels, other molluscs, crabs and sea urchins.

Greenland halibut **(Qaleralik,** *Reinhardtius hippoglossoides***)**

Like the catfish, the Greenland halibut is a bottom-dwelling fish. It also appears to frequent the same localities as fish of both species are often caught on the same line with the same bait. The hunters in Nuussuaq were in agreement that large Greenland halibut could be found at the head of the fjord but because the ice there was in constant movement they did not dare put out long lines.

There must also be large Greenland halibut in Melville Bay as the stomach contents of hooded seals caught there have on several occasions contained large undigested pieces of Greenland halibut with large bones.

Since the middle of the 1970s fishing for Greenland halibut has become of great economic significance for the inhabitants. There are, however, great transport problems when selling the fish. The nearest export locations are Kullorsuaq and Tasiussaq and the administration has not been willing, even in 2000, to invest in the long-awaited cold store at Nuussuaq.

Fjord cod **(Uugaq,** *Gadus ogac***)**

Whereas ordinary cod apparently do not extend as far up along the coast, fjord cod are very common up until Tasiussaq. Its nutrient content is very poor relative to the other fish species. It is easily caught with a jig and as it does not taste particularly good it is mostly used as dog food along with seal blubber.

Sea scorpion **(Kanioq,** *Cottus scorpius***)**

At Nuussuaq, as in the rest of the district, the sea scorpion is found in very large numbers. It is more or less jigged all year round along the coast. Previously, in periods of hunger, it was important for hunter families. And it is still possible to see an occasional hunter, for whom the hunting has for various reasons been poor, stop on his way home from the seal nets or other hunting grounds to jig out at the coast so as not to return home empty-handed to his family.

Birds

Apart from the grouse in the mountains sea birds are of greatest importance for the hunter families. Numerous bones of guillemot and eider duck have also been found in the kitchen middens. Similarly, archaeological finds of bird darts and other equipment for catching birds are common. On the great bird colonies it is not uncommon for there to be many different bird species. Lowermost black guillemot and sometimes eider duck, then guillemot and gulls, whereas cormorants are found on the uppermost shelves (Fig. 41).

Guillemot **(Appa,** *Uria lomvia***)**

This member of the auk family can reach up to 40 cm in length. It reaches the bird colonies in April-May and flies south again in July and August. The guillemot has a long pointed beak in contrast to the razorbill which resembles it but which has a short broad beak, much like that of the puffin. Guillemot have suffered a catastrophic reduction in recent decades. This is perhaps due to hunting as the birds are thought of as an inexhaustible larder, but particularly because many birds drown in the fishermen's nets when they swim south before the juveniles can fly.

The largest colony, Apparsuit, about 20 km south of Nuussuaq, is considered by ornithologists to be one of the largest in the world where every year several million guillemot sit on their eggs. In the 1960s eggs were still collected from the shelves whereas the hunters, in a local agreement, undertook not to shoot birds

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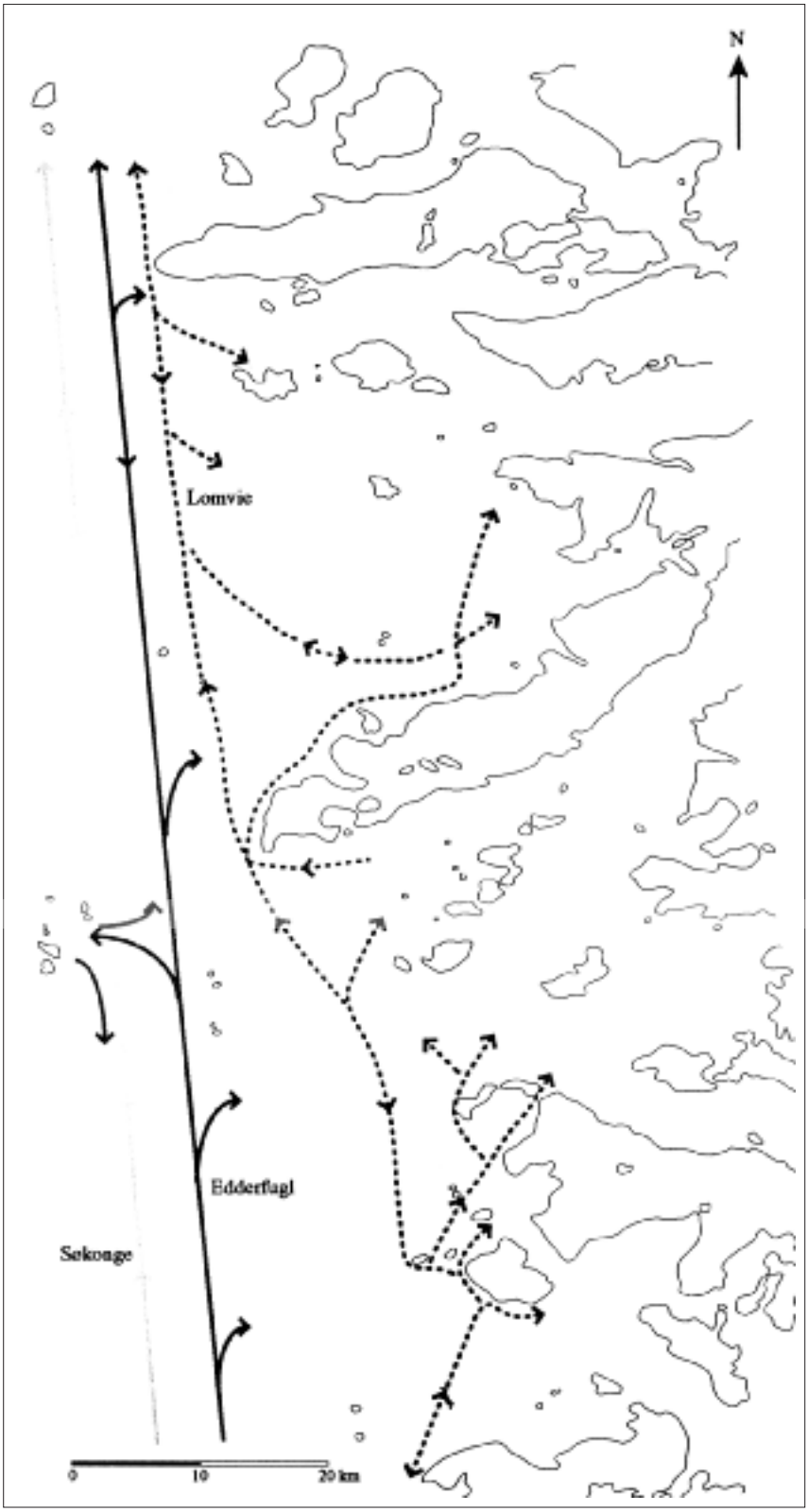

Fig 41. The birds' approximate migration routes. Eider duck (*edderfugl*), Guillemot (*lomvie*), Little auk (*søkonge*).

closer than 1 km from the cliff itself. The shelves on which the birds lay their eggs are very narrow and if they are frightened away there is a great risk that the eggs will fall over the edge. Nature has of course done its best to prevent this in that the shape of the guillemot egg is such that it rolls in a circle rather than roll-

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Fig 42. Collecting eggs at Apparsuit, May 1968. Photo by the author.

Fig 43. Hunters from Aappilattoq with a day's catch of guillemots, August 1967.
Photo by the author.

ing over the edge. The guillemot is a very tasty bird and its meat and eggs were previously of great importance for the hunter families (Figs 42, 43).

Eider duck **(Miteq,** *Somateria millisima***)**

Eider duck can reach around 60 cm in stature. The male is black and white with a black hood, green neck and light red breast. The female is brown with black spots. They breed on small islands, most numerously far out to sea on the island group Kitsigsorssuit, the Eider Islands, which are the westernmost point of Western Greenland. Here there are innumerable graves of European whalers. Now the birds nest under the tilting gravestones. A few hunter families still go out there by motorboat in order to collect down for duvets and sleeping bags. The eider is good to eat and at many settlements has the same or greater importance than the guillemot.

Ptarmigan **(Aqisseq,** *Lagopus mutus***)**

The ptarmigan, which can reach 35 cm, is a small gallinaceous bird. Both the male and the female are white in winter and mottled brown in the summer, and both have a characteristic red patch over the eyes. Ptarmigan are not of great significance for the hunter families but a good many are, however, shot in the mountains, especially by boys.

Plants

The collection of plant food in the mountains is now much less in extent than previously. Accordingly, the information given here was largely provided by older people in answer to the question as to what was done at the beginning of the 20th century, particularly prior to the store being built in Nuussuaq. At the end of the 1960s there were, however, still families who picked berries and collected a few mountain plants, which were eaten in various ways. All the families, without exception, collected some grass species in the autumn. The grass was dried in the course of the winter and used as mid-soles in kamiks. The grasses are shown here with a selection of the plants, which provided a supplement to the diet (Figs 44a-p).
Terianniaasaq nerumittoq, *Polar-rævehale*, Alpine Foxtail (*Alopecurus alpinus*) (Fig. 44l) and *Ivigaq*, *Fjeld-festgræs*, Alpine Holy-grass (*Hierochloë alpina*) (Fig. 44m) are used dried in *kamiks*.

Seernaq, *Fjeldsyre*, Mountain Sorrel (*Oxyria digyna*). Flowers, leaves and stalks are often eaten fresh on mountain trips, especially when thirsty and far away from drinking water. The plant is, however, sometimes taken home where it is either eaten fresh with blubber or scrapings from sealskin, *mamit*, or is stewed with flour and sugar to make a kind of gruel. The fresh red flowers taste almost like cauliflower (Fig. 44a).

Quperluusaq, *Topspirende pileurt*, Viviparous Knotweed (*Polygonum viviparum*). Only the root is eaten – raw with blubber or *mamit* (Fig. 44b).

Niviarsiaq, *Storblomstretgederams*, Broad-leaved Willow-herb (*Chamaenerion latifolium*). It is Greenland's national flower. The leaves are eaten raw, that is if the whole plant is not put away in a sack with blubber to be eaten later with dried meat or dried *ammassat* (Fig. 44c).

Qunguleq, *Grønlandsk kokleare*, Common Scurvygrass (*Cochlearia groenlandica*). This plant is sometimes eaten fresh mixed with blubber. The Greenlandic term *Qunguleq* is also used to refer to imported cabbage (Fig. 44d).

Ulannerusaq, *Lådden troldurt*, Hairy Lousewort (*Pedicularis hirsuta*). The whole plant, though without its root, can be eaten boiled with blubber. It can also be prepared without blubber but with sugar and then tastes almost like red cabbage (Fig. 44e).

Qupaloraarsuup akisaa (or *Aappaluttuaraq*), *Tue-Limurt*, Moss Campion (*Silene acaulis*). It is eaten raw or boiled with blubber as north of Melville Bay. The plant's poetic Greenlandic name means 'snow sparrow's pillow' (Fig. 44f).

Qajaasaq, *Grønlandsk post*, Labrador Tea (*Ledum groenlandicum*). The fresh leaves are boiled to make a refreshing strong tea. This is yellow and is said to be particularly good for colds. The plant's Greenlandic name refers to kayak-like leaves (Fig. 44g).

Kigutaarnat nagguii, *Mosebølle* (*blåbær*), Narrow-leaved Bog Whortleberry (Arctic Blueberry) (*Vaccinium uliginosum*). Blueberries are still collected when the opportunity presents itself and they are eaten as a great delicacy. Like crowberries, they are found on the mountain slopes in the immediate vicinity of the settlement and a few families still go out berry picking in small boats to the nearby islands in August, September and October. Even though there is snow on the ground it is still possible to collect the now frozen berries. With a shoulder blade from a seal or the like the berries are scraped down into a special sieve made of depilated sealskin. The leaves of the blueberry bush, *pilut*, are also eaten. Both blueberries and crowberries are either eaten as they are or with milk, seal blood and sugar. They are also included in a number of different dishes that are described in the section on food preparation (Fig. 44h).

Nunap paarnaa (or *Paarnaqutit*), *Fjeld-revling* (*sortebær*), Crowberry (*Empetrum nigrum* ssp. *hermaphroditum*). This plant is found in more or less the same places as blueberry and is collected in the same way. One of the ways the berries can be stored is to stuff them into cloth bags with the rest of the plant. These are raised up high on frames, but when the frost comes they are buried in the ground as winter supplies (Fig. 44i).

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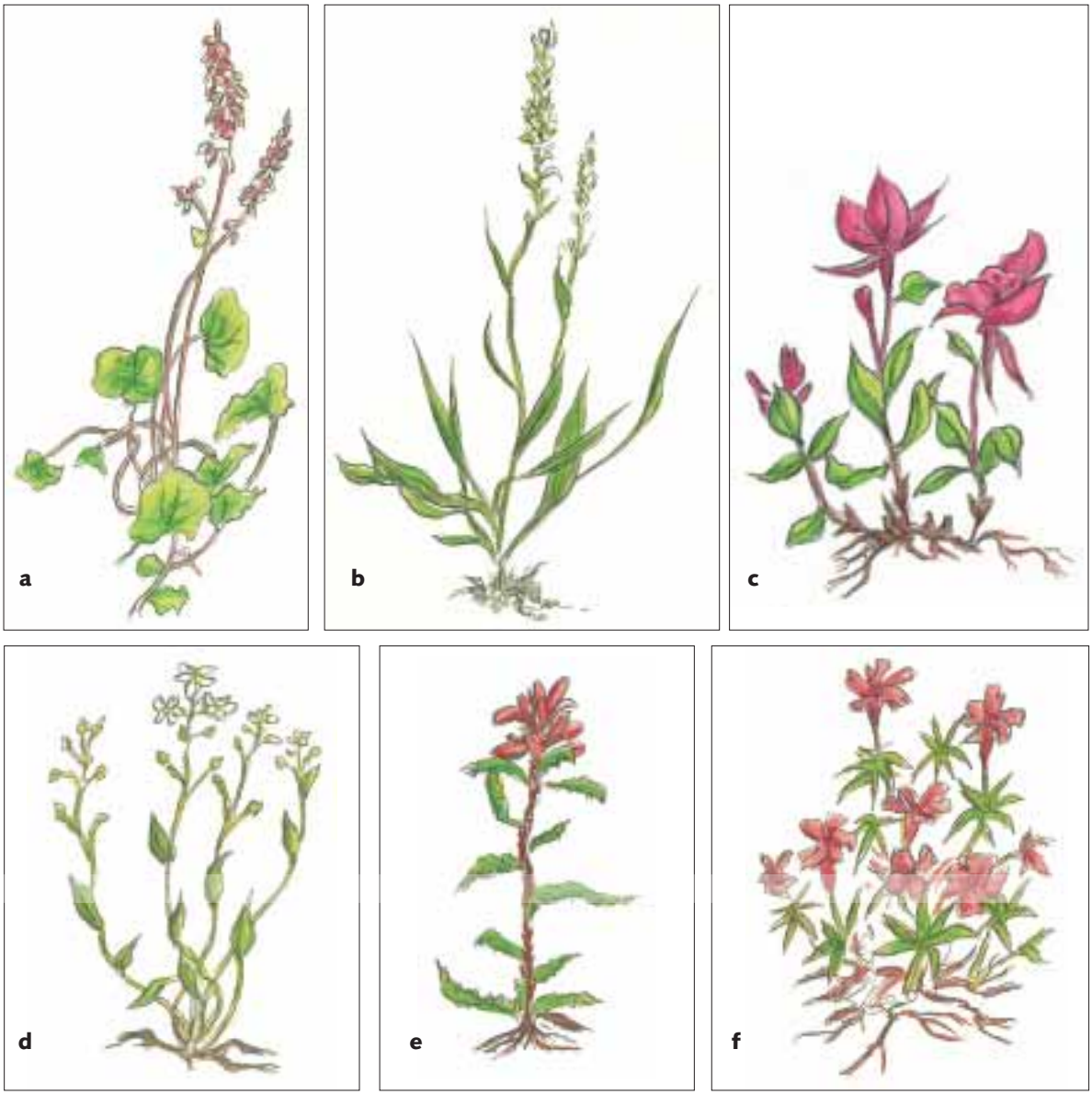

Figs 44a-p. Selection of plants and seaweed from Upernavik.
a. *Seernaq*, Fjeldsyre, Mountain Sorrel (*Oxyria digyna*). b. *Quperluusaq*, Topspirende pileurt, Viviparous Knotweed (*Polygonum viviparum*). c. *Niviarsiaq*, Storblomstret gederams, Broad-leaved Willow-herb (*Chamaenerion latifolium*). d. *Qunguleq*, Grønlandsk kokleare, Common Scurvy-grass (*Cochlearia groenlandica*). e. *Ulannerusaq*, Lådden troldurt, Hairy Lousewort, Pedicularis hirsuta. f. Aappaluttuaraq, Tue-limurt, Moss Campion (*Silene acaulis*). g. *Qajaasaq*, Grønlandsk post, Labrador Tea (*Ledum groenlandicum*). h. *Kigutaarnat nagguii*, Mosebølle, Arctic Blueberry (*Vaccinium uliginosum*). i. *Paarnaqutit*, Fjeldrevling, Crowberry (*Empetrum nigrum ssp. hermaphroditum*). j. *Kuanneq*, Fjeldkvan, Angelica (*Angelica archangelica*). k. *Sorlak*, Rosenrod, Roseroot (*Rhodiola rosea*). l. *Terianniaasaq nerumittoq*, Polar-rævehale, Alpine Foxtail (*Alopecurus alpinus*). m. *Ivigaq*, Fjeld-festgræs, Alpine Holy-grass (*Hierochloë alpina*). n. *Equutit*, Blæretang, Bladder Wrack (*Fucus vesiculosus*). o. *Sulluitsoq*, Vingetang, Badderlocks, (*Alaria esculenta*). p. *Aappilattut*, Søl, Dulse (*Rhodymenia palmata*). Drawings by the author.

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Summary

In the area around Nuussuaq the ecological conditions for game animals are almost optimal. Ringed seal, bearded seal and occasionally polar bear and walrus can be hunted all year round, whereas spring and autumn provide the opportunity for hunting narwhal, white whale, harp seal and hooded seal. Fishing for Greenland shark, catfish and in more recent decades especially Greenland halibut mostly takes place in the winter months, whereas bird hunting and egg collecting take place in the first part of the open water period. Great whales and caribou, which previously were important resources, have completely disappeared from these northern regions whereas a few Arctic foxes and ptarmigans are still taken. Only a few plants, in particular crowberries, are still collected by some families in the mountains.

It is clear, as also shown by the official hunting statistics, that most hunters concentrated their efforts on exploiting well-defined resources in the ecosystem, especially ringed seals, whereas others sought other hunting opportunities when these were available. Before it was possible to obtain European commodities it was necessary to hunt a larger number of animal species. There was a greater need for the different products and materials that accompanied them, along with variation in the diet, for example caribou antler and baleen.

The hunting statistics show that, with regard to meat, the most secure strategy is to go after the smaller seals, especially the stationary ringed seals. They provide meat for the pot all the year round but on the other hand they do not bring the hunter prestige. This comes almost exclusively from hunting polar bears, narwhal and walrus.

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Chapter 4

The annual cycle

Activities within and beyond the settlement will be described briefly in the following on the basis of my diaries and copious notes. Much of what happened is perhaps not an annually recurring event but following the diary has the advantage that the many activities can immediately be seen in relation to the other sections of the book such that information on climate, hunting methods, outputs and so on are found in other chapters.

There is of course no avoiding the fact that such a list will be very much a summary and in part subjectively chosen. But an attempt has been made in the description to give an impression of the events, which are of importance for the majority of members of this small society, and what is significant for the individual families.

In general it can be said that in the months when the hunters' activity is primarily concentrated on seal hunting the women's efforts are in direct proportion to those of the men. One often hears that in the spring months the women can barely keep up with skinning and scraping the seals that the men bring home from the *uuttoq* hunt.

The year's least productive month, November, must be seen primarily in the light of the very heavily reduced resources and the difficulty, due to the climate, of exploiting the seal resource. But this situation should, at the same time, be perceived in connection with a series of other factors. Like no other month, there is in November a sharp transition in which the surroundings are changed totally. The very fact that this is an annually recurring factor is not, however,

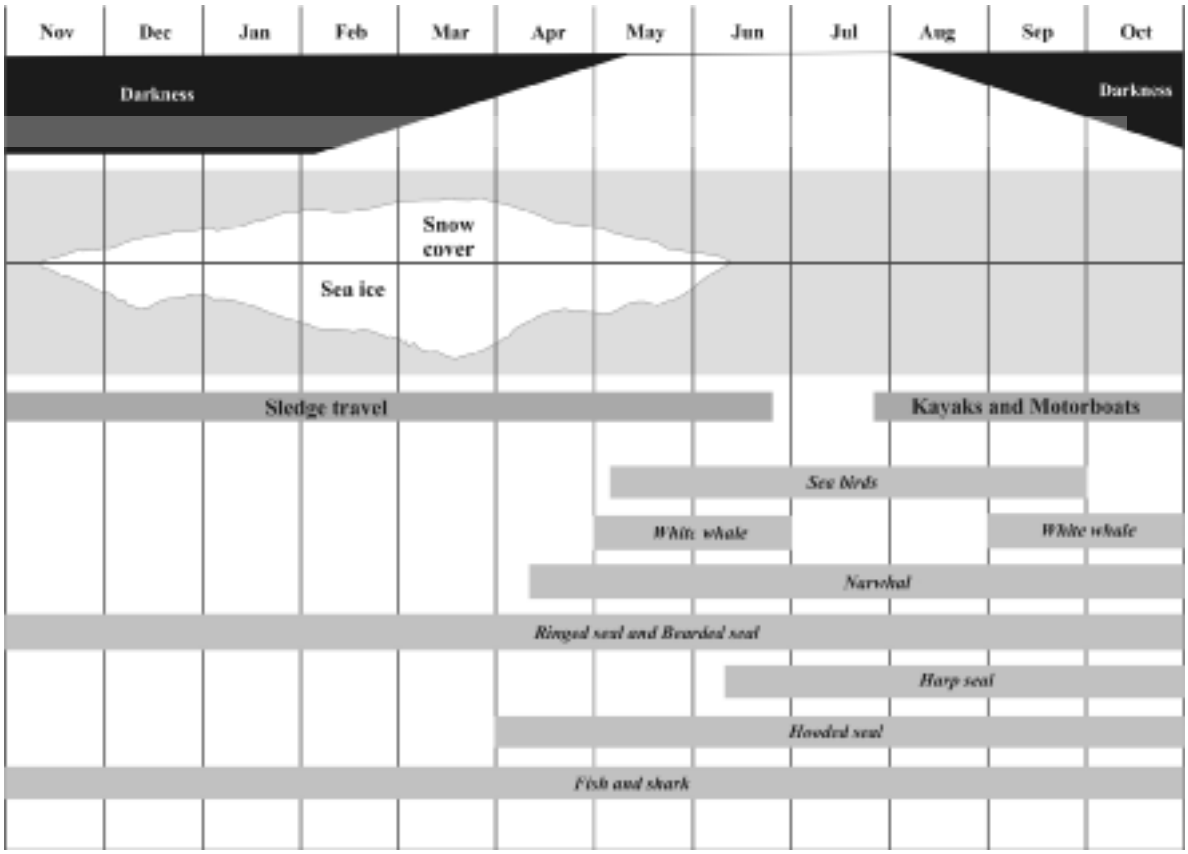

Fig 45. The annual cycle at Nuussuaq, November 1967 to October 1968.

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equivalent with the hunters being able to adjust from one day to the next and at the drop of a hat adapt to the natural conditions.

One moves quite literally from light to darkness. The sea freezes over and heat becomes cold, forcing a total change in hunting methods, equipment, clothing and so on. The partially collective hunting form from motorboats with the common exertions of all the men, boys and dogs in order to bring the boats ashore is suddenly replaced by individual activities such as the production of seal nets and later setting these out. The hunters appear to have a direct need for this breathing space as a transition from one form of hunting to another. Furthermore, nothing from the technology used in one four-month period can be transferred to the next. At the same time, November is also the month when the settlement, after regular visits from outside in the course of the summer, becomes isolated from the outside world and the supply town of Upernavik.

The annual sequence of events with information on the most important game animals, hunting methods and means of transport is shown in fig. 45. The dark period extends from the end of November until the beginning of February whereas there is the midnight sun in May, June and July. Information on the thickness of the ice has been obtained from the harbour in Upernavik where daily readings are taken of both the thickness of the ice and the snow lying on top of it.

November 1967

The last hunting trip with motorboat took place on the 28th October, after which all the boats were pulled ashore. The seal hunting is poor because the ice constantly comes and goes. In the first two weeks of November the temperature was stable around minus 10° C. On the evening of the 1st November the red-painted institutional ship 'Savfiok' succeeded in breaking through the new ice whereby the settlement received its last visit of the year from the police who sailed again early next morning so as not to risk having to over-winter. On the 4th there was new ice in the harbour. Very cold but clear weather. The sun now only follows the horizon as a red glow over the Inland Ice. At the start of the month the paraffin lamps in the houses could only be turned off for 4-5 hours in the middle of the day. A few seal nets have been set out in the harbour itself but most of them get torn away during the storms. Some hunters set off with a kayak on a sledge overland and spent the night in hunting huts from where they tried their luck with open-water nets and kayak hunting. On the 7th several hunters went out in the middle of the day with rifles to a crack in the ice but after some hours they all returned home empty-handed. The following day there was heavy snow drifting and cloud cover so we have seen the sun for the last time this year. The evening school has started with classes in Danish, sewing skins and arts and crafts with 14 in each class and there are often dances in the village hall until late at night. On the 11th the supply ship 'Blåside' managed to penetrate the ice. On the 15th the temperature rose to freezing point and a strong southeasterly raged all day and continued the following day when the doctor's boat only just managed to get through. After staying the night and running a morning surgery the medical team continued northwards to Kullorsuaq.

On the 19th, a few hunters were out in kayaks for the last time this year. They saw several seals but all returned home without a catch. On the 22nd the radio news announced that the seal catch at Upernavik in 1967 fell to a third of that of the previous year, which is why the state will not invest in cold stores in the settlements. On the 27th the first hunters set nets outside the harbour on the southern side of the headland. The first sledges travelled on the new ice on the 28th and a few hunters set out shark lines under the ice.

In all the houses the men are busy making seal nets, preparing dog traces and other sledge equipment. This is the time when the women and children see their men the most and when the families often visit each other. Only a few seals have been brought home but all have abundant meat and *mattak*, including that from the white whale hunt in October. At the end of the month the temperature fell to between -18° and -24° C.

December 1967

At the beginning of the month the temperature lay between -13° and -19° C. All the hunters had set out seal nets from the land on the northern and southern side

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of the headland but from the middle of the month many of the netting sites moved out to the frozen icebergs. Open water around the island of Tiitorfik (the Tea Cup) was the reason that the nets gave a poor catch in this period. Although it is also thought that, as in previous years, there could have been walrus in the waters, which frightened the seals into the fjord complex. A few hunters therefore tried to go out in the dark onto the thin ice west of the headland where they could hear the walrus blowing when they broke up through the ice. The hunt had to be abandoned though as the risk associated with going out onto the very thin ice was too great.

On the 4th the first sledges arrived from outside. Three hunters from the settlement of Kuuk reached the settlement after seven hours travelling on good ice. They came to trade at the store but also to visit friends and relatives. In Nuussuaq all activity is concentrated on preparations for Christmas. Seven young men and seven girls study Christmas hymns under the leadership of the catechist. Women and children make Christmas decorations and the 'Greenlandic cake' is given an extra handful of raisins.

The settlement radio announced that the first bear of the winter has been shot at Innarssuit. On the 24th a special Christmas service was held for the children, followed by a Christmas party in the classroom. For the rest of the afternoon, the children sang outside all the houses and in the evening it was the turn of the young people. All were invited indoors and fed on cake, biscuits, water or *immiaq*. Outside the temperature was about -14° C and on this and subsequent days people moved constantly in and out of the houses going to *kaffemik* (coffee parties).

On the 25th the actual Christmas service was held in the presence of all the children and adults. The young girls and older women in particular were in festival dress and the men, all with newly cut hair, were in dark trousers and gala anorak. Despite the darkness, the Danish flag 'Dannebrog' could be glimpsed flying from all the rooftops. Plastic trees from the store have now replaced the Christmas trees, formerly of heather, and Christmas decorations adorn the walls along with the telegrams the household has received. The young people again sang outside the houses from 8 o'clock in the evening until 5 o'clock in the morning.

On the 26th a Christmas party was held for all the married couples in the settlement where they danced around the tree, gave innumerable speeches, drank coffee and exchanged gifts. This and the following evenings they danced in the village hall to the tones of the harmonica most of the night.

On the last days of the year all the hunters were busy checking seal nets. On the 29th Bendt caught no less that nine seals in 13 nets and several hunters were so fortunate that they caught two seals in a single net.

On the 31st the New Year festivities commenced with a football match between the old and the young in the settlement in which anyone who was mobile took part. In the afternoon the boys shot in the New Year with shotguns and cal. 22 rifles. After the church service everyone drank coffee with everyone else until the church bell called them together in front of the church just before midnight. In the glow from the many bonfires lit by the houses the catechist gave a New Year speech outside the church. They sang a hymn and all the men fired their rifles into the air. A special custom is that one encourages a person to whom one wishes to give a present to come and shoot outside one's house. A nephew gave eight adult dogs for example to the catechist's brother, who at the time was short of sledge dogs.

On New Year's night they danced the whole night long in the village hall, while some people celebrated this special evening in a home filled with happy guests.

January 1968

On the first day of the year, in 24 degrees of frost, four sledges arrived from Kuuk in order to attend the New Year service, visit the shop and take part in the New Year festivities. Even though most of them danced and partied away the night, all the hunters were out at the netting sites on the 2nd and a few spent the night in tents north of the peninsula. Due to the poor snowfall the overland travel routes were icy and could only be used with the greatest of care. The ice at the icebergs was so thick that the hunters had to take along shovels in order to be able to reach the nets. On the radio there was a news story about *Sassat* near Upernavik where they were said to have caught around 50 narwhal. A couple of hunters considered travelling immediately

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to the town but abandoned the plan, as they probably would not reach there before it was all over.

On the 6th Twelfth Night was celebrated with *mitaartut* and dancing in the village hall and on the 9th two hunters from Illulik came to buy at the shop. They said that there were not many seals to the north and in the harbour in Nuussuaq there was a vain search for Arctic cod that at this time of the year can be caught with leister or jig. On the 13th the year's first sledges came with post from Upernavik.

In the middle of the month, when the temperature was around -25° C, most of the hunters have shark lines laid out and the only white fox of the winter was shot in the mountains. Several families took advantage of the good sledge conditions for visits south to Kuuk and north to Illulik and Kullorsuaq.

On the 22nd there was a visit from the doctor and on the 29th twins were born after the proud father had that same day shot two ptarmigan. The temperature on the 30th was -30° C. The evening classes ended as one of the first signs that the light time is on its way.

February 1968

On the 2nd the return of the sun was celebrated even though the cloud cover prevented its full appearance. The children had a day off school and the hunters stayed home from the hunting grounds. In the middle of the day all the children and adults gathered on the rocks scouting towards the south in order to have the first glimpse of the sun, which vanished in November.

A football match in the afternoon and a large party in the village hall with *kaffemik*, speeches and entertainment with guests from Kuuk, Illulik and Kullorsuaq. Dancing until 5 o'clock in the morning.

On the 10th the sun was seen properly in the sky for the first time after a couple of days of violent snowstorms, and as a living illustration of the old legend the sun and moon could be seen together in the sky. In February the temperature fluctuated greatly: -31° C on the 16th and -2° C on the 18th. The deep snow makes the ice unsafe around the icebergs at the netting sites and the sledges make only slow progress outside the fixed sledge routes. As a consequence the runners are smeared with an ice shoeing of blood or flour and water.

A few tried their luck with long lines but the result was seldom more than a few catfish and Greenland halibut. But all saw freshly caught fish as a welcome break in the meat diet. There were often beautiful mirages during the day but dense fog towards evening, although on numerous evenings and nights the great northern lights could be seen.

On the 13th several families travelled to Kullorsuaq to take part in the settlement's sun celebration party and at the end of the month two hunters travelled to Upernavik. Numerous guests came to Nuussuaq from the town and faraway settlements. On the last days of the month the temperature was -30° C and the hunters gave the cold the blame for there only being a few sharks on the lines which had been laid out.

March 1968

On the first day of the month the temperature was -31° C and in the subsequent period the nets gave such a poor return relative to the hunters' efforts that several concentrated more on shark fishing in order to solve the problem of the shortage of dog food. There were virtually no breathing holes and only a few ringed seals were caught in this way. Now and then unlucky hunters could be seen on their way home from the empty seal nets jigging sea scorpions at the shore and several families live almost exclusively on shop-bought food.

On the radio there was a report that in 1967 there was a deficit with regard to seal skin of 13 million DKK. The price for fish has risen but sealskin prices have fallen by 33% due to the fall in price on the world market. Therefore the local hunters' association held a meeting the same evening where they agreed to send a letter of protest.

On the 8th there was the second doctor's visit of the winter and the day after the minister came from Upernavik.

On the 11th the District Council meeting started in Upernavik to which Nuussuaq, like the other settlements, sent its representative. The decision on the 110,000 DKK for the cold store was deferred until later discussion but the settlement was granted a hand pump with hose at 1,000 DKK and two public toilets at 1,500 DKK from the budget (*rådighedssum*) for 1968.

On the 19th the first *uuttoq* was shot at the Eider

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Islands and the boys shot a good number of grouse in the mountains.

On the 20th there was a visit from the police. And at the end of the month four hunters travelled out to look for bears west of the Eider Islands but they returned home with empty sledges two days later. Two hunters from Innaarsuit arrived a couple of days later after yet another unsuccessful bear hunt. Several families set off on a visit to Aappilattoq and Upernavik and a homesick boy was picked up after a hard sledge journey back to Nuussuaq lasting 10 days.

April 1968

The temperature fluctuated in the course of the month between 0 and -21° C. The *uuttoq* hunt began in earnest and the many cracks and breathing holes in the ice gave rich opportunities for hunting from the ice margin with the possibility of narwhal with its greatly missed *mattak*. Several hunters did, however, pay the price for not having their hunting equipment in order as several narwhal and bearded seal were lost after being hit from the ice margin without being secured with harpoon and hunting bladder.

On the 9th there was the third doctor's visit of the year and on the 14th everyone was in their Sunday best for Easter when many sledges arrived from Kullorsuaq, Ullulik and Kuuk. All took part in the church service; Blue Cross played football against 'the rest' and there was dancing for most of the night in the village hall.

On the 16th the bailiff and nurse travelled with two hunters to Kuuk in order to vaccinate and clip the canine teeth of the dogs. A total of 22 sledges with more than 40 people and around 200 dogs came from Kullorsuaq and Tasiusaq in order to play three football matches in the District Tournament. There were dances and parties several nights in a row and all the guests were housed and fed by 'cousins'.

On the 20th there was the only visit of the winter by the dentist. According to custom this resulted in numerous teeth being pulled and the establishment of the fact that most false teeth are to be found under the bed or somewhere else in the house and only rarely in the mouth of the men and women who own them. The bailiff clipped the canine teeth on all the dogs and the nurse vaccinated around 50 of them.

On the 23rd Nuussuaq was almost deserted. Only the trading manager, catechist, nurse and few of the older people were left behind as all families, with the Danish flag waving from the uprights on the front sledge, travelled north to one of the greatest events of the year, the 'Olympics' in Kullorsuaq. Many spent the night in Illulik on the way where one of the houses measuring 4 x 4 m slept nine adults and nine children. In Kullorsuaq many people took lodgings with relations – both close and distant.

There were competitions in football, tug of war, running, jumping, throwing the ice chisel, putting the shot (with a large stone), cal. 22 rifle shooting, sledge races and the traditional trials of strength. In the time leading up to the event most of the families had brewed *immiaq* for all they were worth and for several days the dancing in the village hall was interrupted only by the sports activities in the middle of the day. Accordingly, the problem of finding places for all these people to sleep was greatly reduced.

On the 28th the first hunter from Aappilattoq in the south district arrived with a kayak on his sledge in order to take part in the *uuttoq* hunt.

May 1968

It is now light almost 24 hours a day and many signs of spring have shown themselves. The temperature in May fluctuated between plus and minus. Laurette, the wife of the catechist Mathias, said at Christmas that the guillemot always comes to Nuussuaq on the 1st May and in the evening she was able to present a single bird which her brother-in-law had shot on the Uummannaq mountain. In the settlement itself snow buntings bob around and the hunters see black guillemot, guillemot, eider duck and gulls daily. Due it being light around the clock, and with the exception of school and store hours, one-day slips almost unnoticed into the next. At all times hunters can be seen leaving or returning, most often with heavily laden sledges as evidence of a good hunt. Most days are so warm that the sledge drivers wear only a shirt or a thin sweater under their canvas anoraks. Due to the strong light reflected by the snow it is not possible to go out without sunglasses. In order to prevent the sledge runners from sinking into the deep wet layer of

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snow everyone now replaces the narrow metal sledge runners with very broad metal ones.

On the 9th Bendt and Jakob caught the only walrus of the year. It was a young animal with small tusks, and because there is so much meat at this time of the year from seal and narwhal the two hunters could be generous and give every household a piece of walrus meat with blubber and skin.

Upernavik, Aappilattoq and Tasiusaq have reported open water and off Nuussuaq the great crack between the headland and Uummannaq Island becomes steadily broader. The stocks in the store are now very low but who thinks about that when both people and dogs can gorge themselves on a surplus of meat and *mattak*. A few hunters sold some whole seals to the store for 0.75 DKK per kilo, which minus blubber would have brought 2.50 DKK per kilo if there had been a small cold store.

June 1968

In the first two weeks the temperature lay around a couple of degrees of frost but from the middle of the month it was very largely above freezing point. After church services on Whit Sunday and Whit Monday all the families with children went on an outing to a headland on the southern side of the peninsula, where the snow has melted. A harmonica and two gramophones played music for dancing on the rocks the whole afternoon. Coffee, tea and cocoa were boiled ceaselessly over primus stoves and a single heather fire. Plastic containers with *imiaq*, soft drinks and *hvidtøl* (very weak beer) made seal meat, dried whalemeat, *mattak*, ship biscuits and various sweets slip down more easily. Towards evening the many sledges set off for home in order to put the smallest ones to bed before the evening's dancing in the village hall.

The *uuttoq* and ice margin hunting continues but sledge travel and especially *uuttoq* hunting was disrupted at the end of the month by a great deal of water on the ice. On the 11th a strong northerly wind risked blowing many hunters on the ice margin out to sea when a crack several metres wide with open water was formed in the course of a few hours. However, all the sledges came home safely during the night after long and difficult detours.

The seals' moulting period means that most animals loose their layer of hair, which is why they are made into *vandskind* (waterproof skins). But the hunting was good and one hunter caught 22 seals in the course of two days on the very thin ice at Upernaviarsuit. When the sun was strong in the middle of the day the hunters often had to roll themselves in the snow in order to cool their burning hot seal skin trousers.

On the 19th the doctor's boat docked at the ice margin as the first ship of the year and people are busy preparing the motorboats, which have stood on land since November. Numerous hunters, the oldest boys and several dog teams toiled for over a week to bring the boats down through the narrow canals formed in the ice to open water where the seals are. Their communal efforts were rewarded in the last days of June when a large number of seals were caught on the drifting ice floes to the west.

July 1968

Summer weather with many sunny days gave temperatures of around +10° C with only a single night with a couple of degrees of frost. The settlement's partial isolation from the rest of the world was broken the same day as the ice completely disappeared. The school children from the boarding house returned home on holiday and hunter families who, in the *uuttoq* period, had stayed in the settlement now returned home with dogs and sledges on board the boats.

Hunting in open water from kayaks and motorboats took place both close to the settlement and on more distant hunting grounds. The harp seal had arrived and was now hunted together with the ringed seal. Only a single narwhal and a hooded seal were caught in July.

In addition to hunting, the motorboats were used frequently for visits around the district, and there was continually increasing traffic from outside comprising families, institution ships and not least supply boats with long-awaited wares for the store.

August 1968

The summer's activities continued more or less as in July with many sunny days and temperatures ranging from around freezing point to around +10° C. The

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families were almost only indoors when they needed a little nap, and one family moved out from their house into a canvas tent. A small group of children and adults would gather around a heather fire and a gramophone every day by the freshwater lake. Another family often rowed in their wooden boat with the boys' kayaks in tow out to the group of islands south of Nuussuaq by the abandoned settlement of Itussaalik. Here there were abundant ringed seals and harp seals and rich bird life. On the mountainsides quantities of berries were picked but none of the families gathered these for storage for the winter, as was previously the case.

The motorboats were still well used for visits when they were not being employed in hunting in the fjord complex or out on the open sea. The greatest chance for large game animals, i.e. narwhal, bearded seal and hooded seal, came with longer hunting trips up into Melville Bay. It was also from here that two hunters from Illulik just returned home with three polar bears.

The materials for three new type-built houses arrived and most people in the settlement, especially women and children, took part in the unloading with and without payment.

September 1968

The month began and ended with frost, whereas in the middle there were temperatures around +10° C. On the 2nd school started again which, especially for the families whose children are going to school for the first time, gave occasion to great festivities. On the same day the first snow fell and on the 4th there was a white carpet everywhere.

Most hunters have had very poor catches. There were only a few ringed seals, no whales, and the harp seals have begun to migrate south. There were, however, still many birds and a good number of guillemots and eider ducks were shot. The autumn storms often forced the hunters to stay at home and a large part of the diet was bought in the store.

October 1968

The temperature was now below freezing point with only a few days slightly above zero. The hunters were very largely at home in the settlement and were therefore together with their families a great deal of the time. There were only a few seals but still many sea birds. In the first weeks there was a restless and excited atmosphere when the hunters were busy making large open-water nets. And suddenly the great southward white whale migration was literally on the doorstep. A number of whales were caught in the nets laid out but the greatest catch occurred when one of the motorboats succeeded in blocking a large school of animals in a small inlet where the hunters could shoot a good number from land. As a result, the whole settlement gorged itself for a while on meat and *mattak* and numerous families obtained so much that they had enough to last well into November and December.

One day a young hunter shot a snowy owl in the mountains. A good many people saw this bird for the first time and it must be rare in this region, as a lot of people did not even know its name.

Hunters in Nuussuaq 1967-68

In figures, plates etc. where it has not been possible to fit in the hunters' names they are denoted by the following numbers:

1. Jørgen Aronsen
2. Rasmus Eliassen
3. Markus Eliassen
4. Bendt Frederiksen
5. Jakob Frederiksen
6. Mathias Heilmann
7. Markus I. Halsø
8. Markus II. Halsø
9. Peter Heilmann
10. Poul Heilmann
11. Johannes Jansen
12. Kasper Jensen
13. Jørgen Jensen
14. Hans Larsen
15. Villads Lynge
16. Jens Thorgeussen

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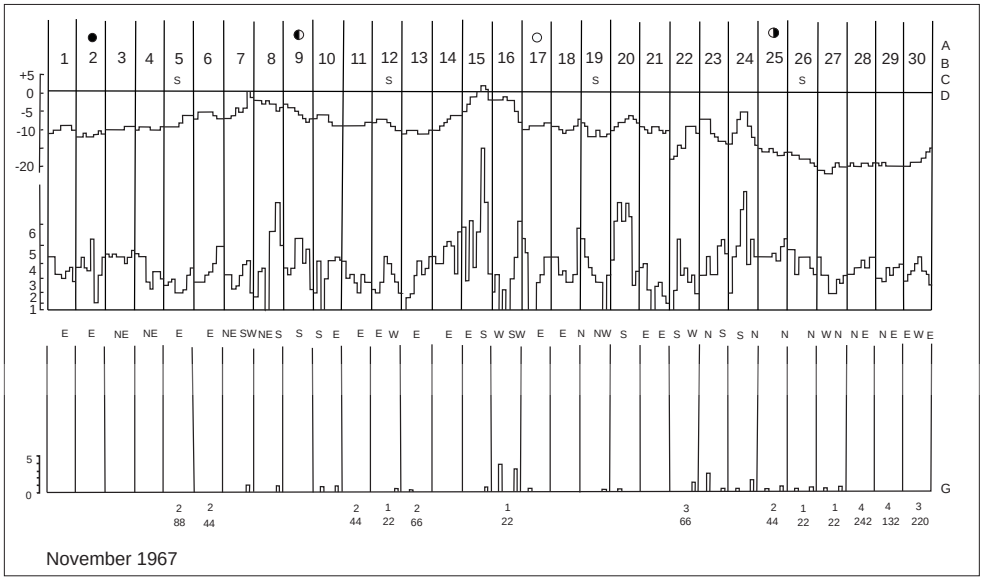
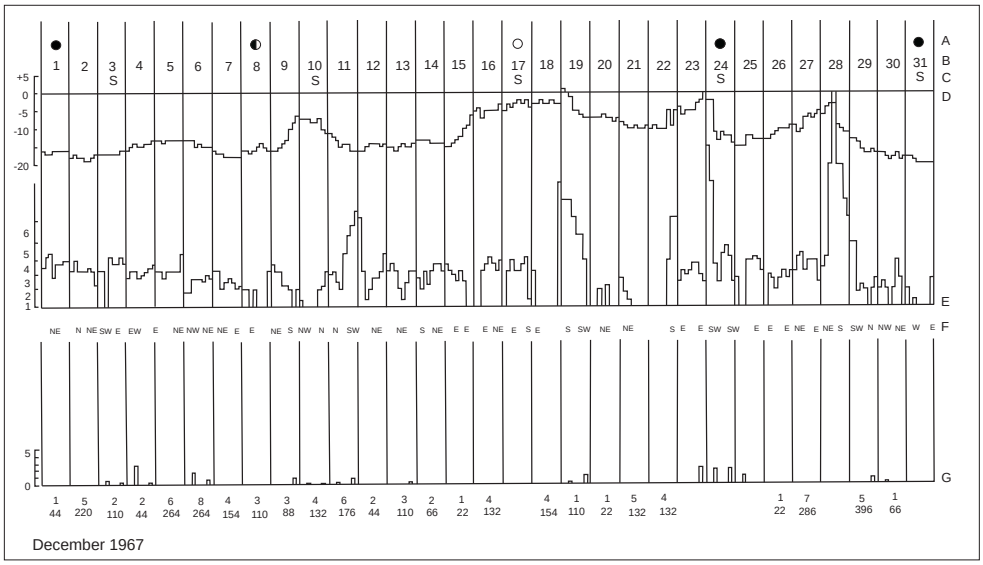
17. Johannes Thorgeussen
18. Søren Villadsen
19. Ole Eliassen
20. Otto Eliassen
21. Jens Eliassen
22. Ludvig Kristensen
23. Rasmus Jørgensen
24. Peter Petersen

The importance of the weather for hunting

In the town of Upernavik there is meteorological station associated with the telecommunications and radio station. Observations are made here eight times within each 24-hour period. Nuussuaq lies considerably further to the north so the observations apply accordingly only approximately. However, as both places face out towards the sea, unprotected by the archipelago, the climatic conditions at the two are very similar, being characterised by a relatively large number of days with storms, fog and sleet. Often there is a much more pleasant climate in the fjords, which a settlement like Aappilattoq benefits from.

In the following figures all the weather observations for each day are compared with the number of hunters in Nuussuaq who brought back a catch on that day (Figs 46a-l).





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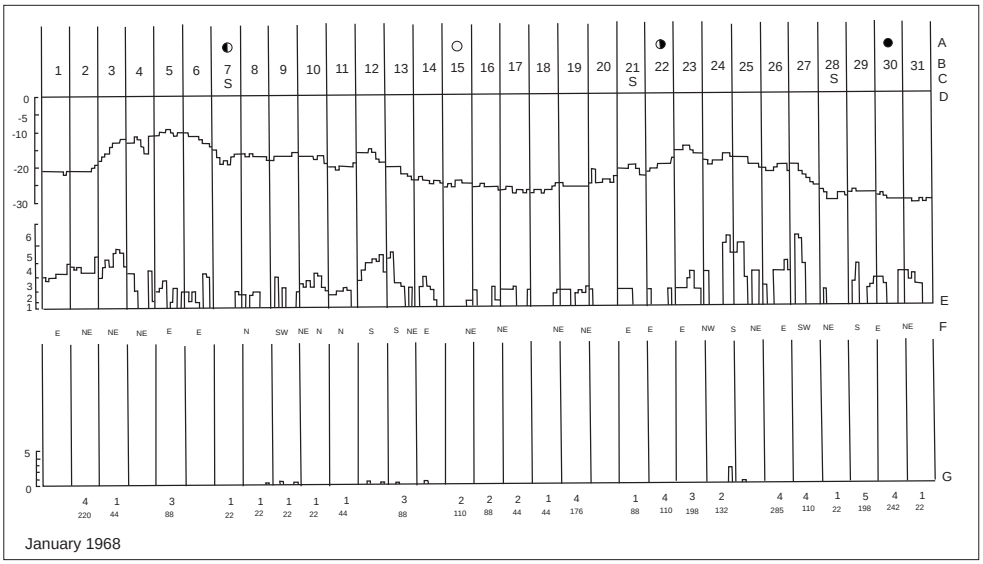
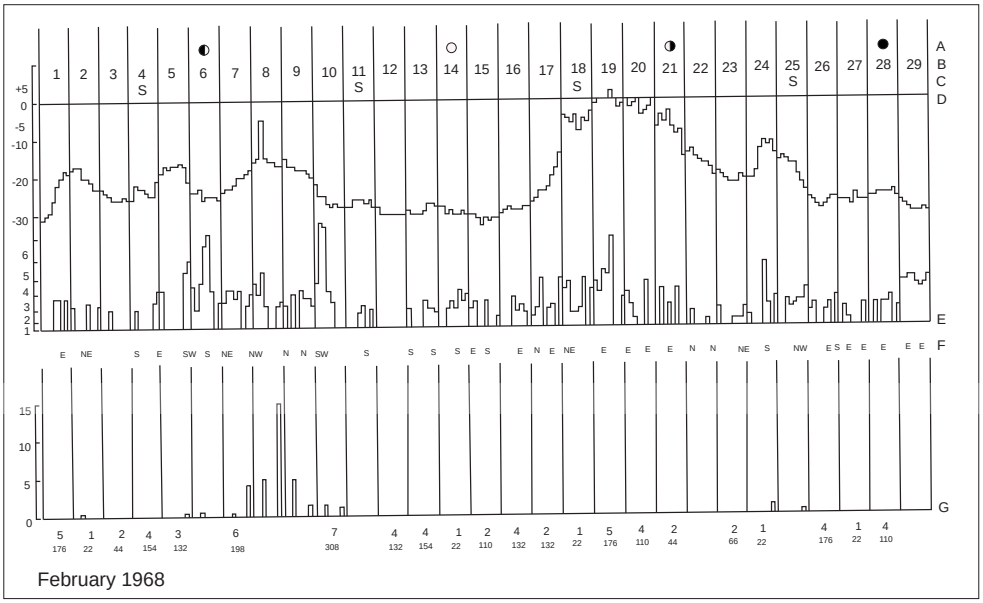
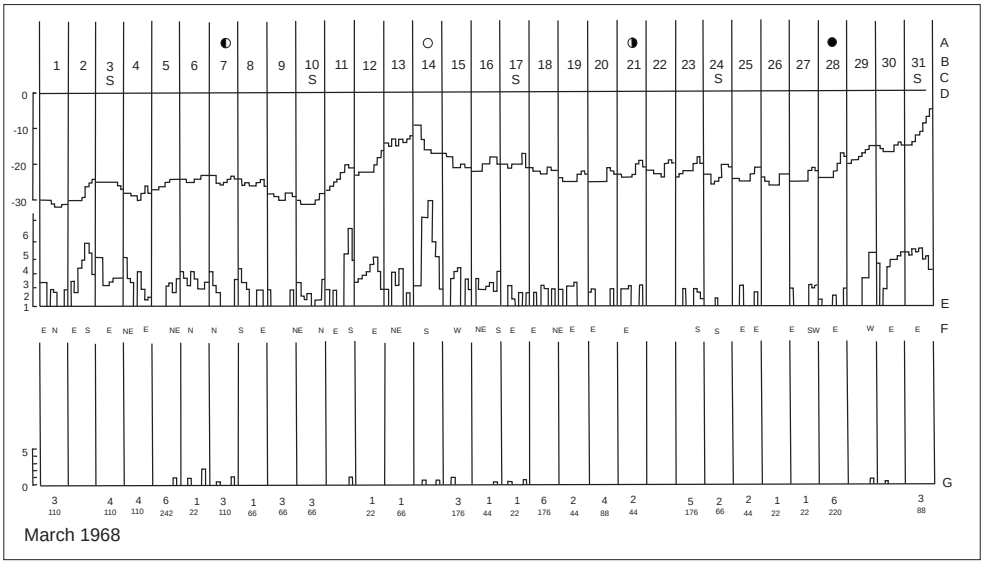


January 1968



February 1968



March 1968

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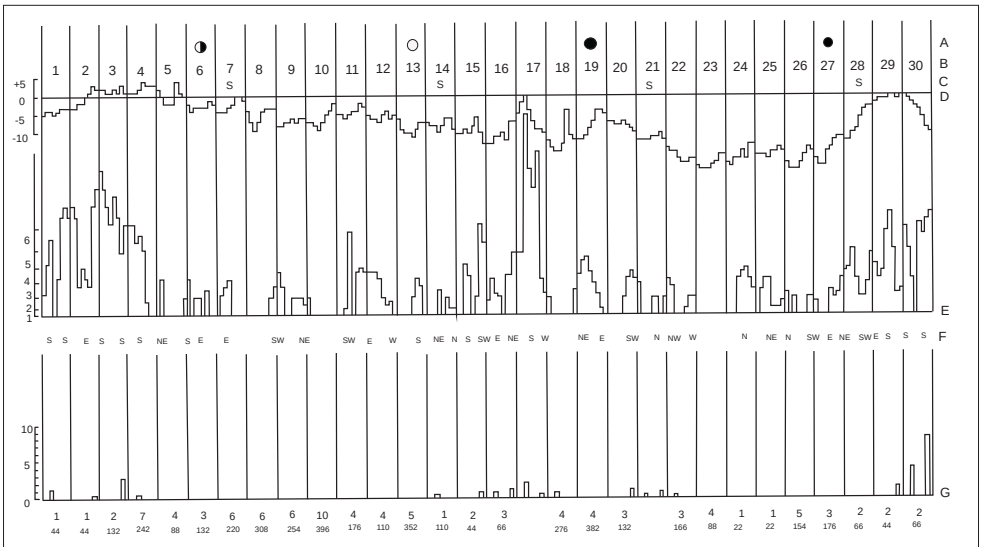
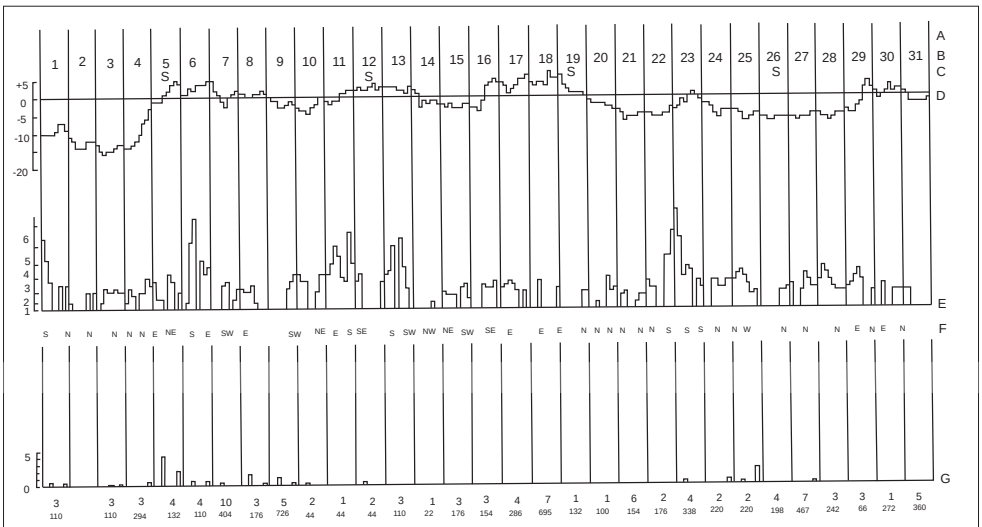
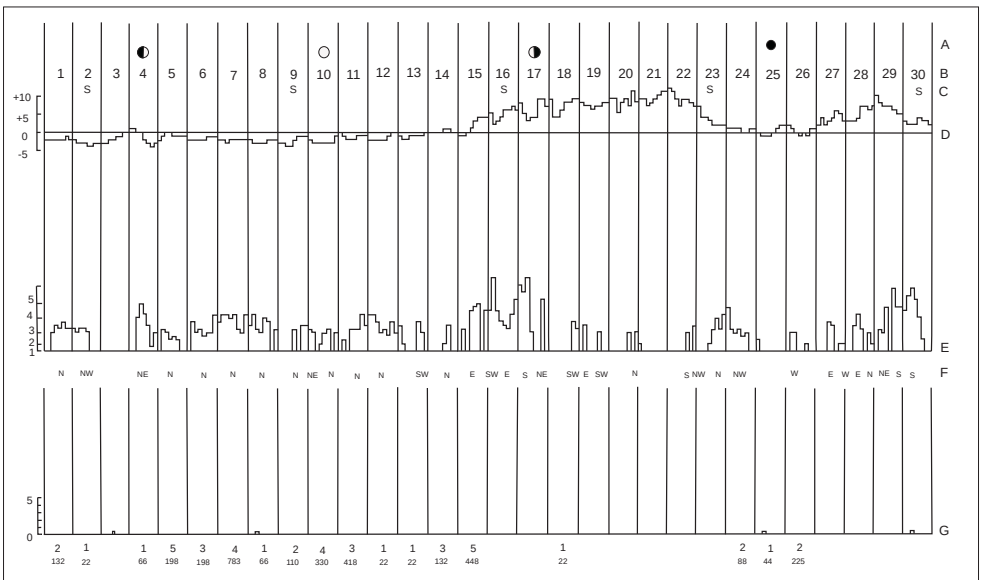


April 1968



May 1968



June 1968

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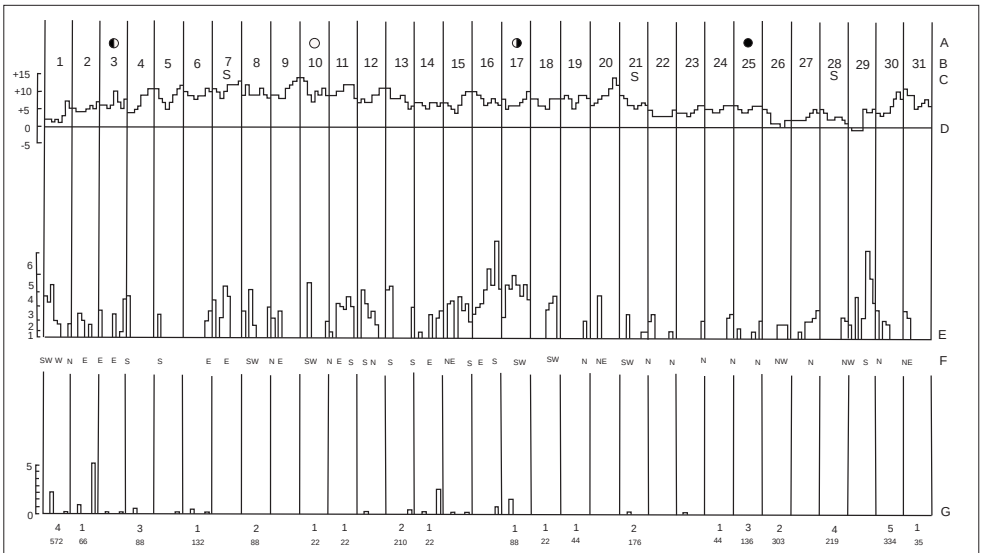
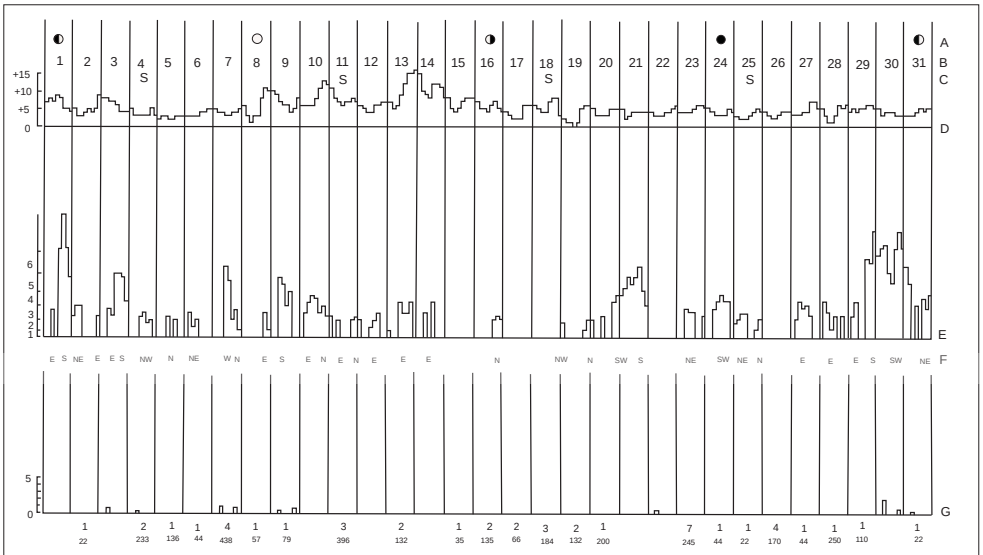
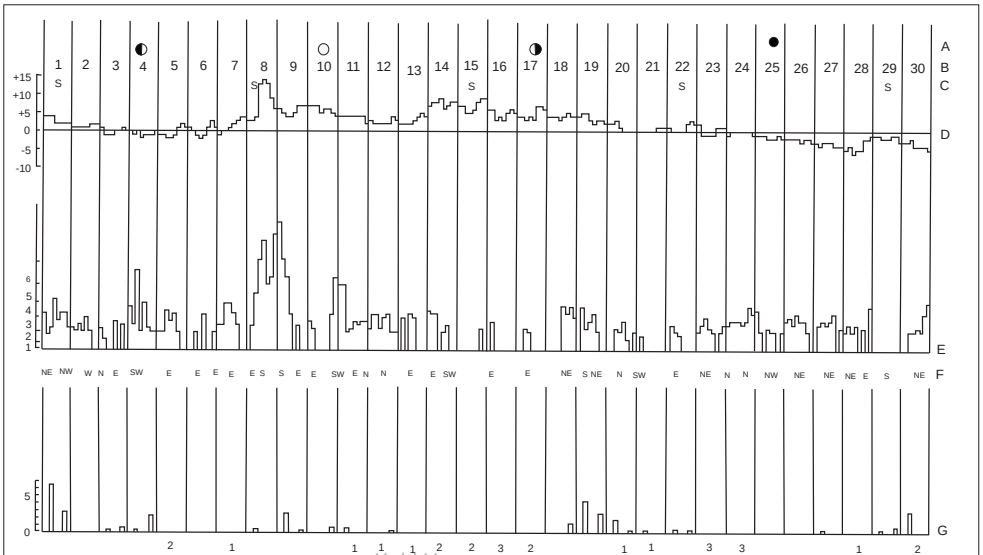


July 1968



August 1968



September 1968

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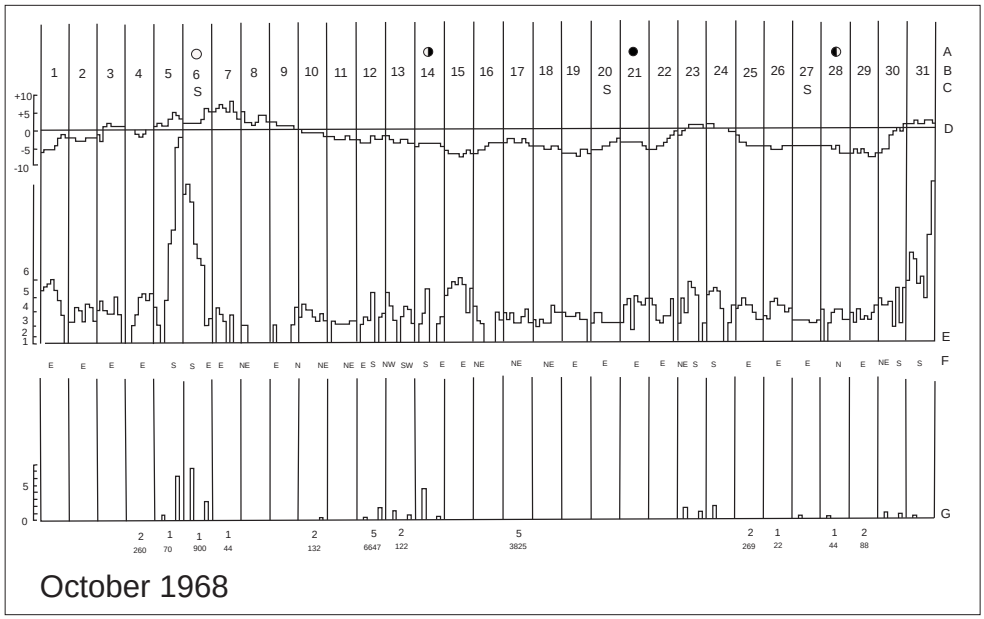

Fig 46. The importance of the weather for hunting. A. Phase of the moon; B. Date; C. Day of the week; D. Surface temperature; E. Wind speed in knots; F. Prevailing wind direction G. Number of hunters who in the corresponding 24-hour period brought home a catch; below that, the catch converted to kilograms of meat.

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Chapter 5

Materials and tools

In many places in the Arctic, in Alaska, Canada and therefore probably also in Greenland, there was in prehistoric times a sharp division between land and sea with regard to the choice of materials for the production of tools and equipment. This is demonstrated both in the Thule culture's tools and their mythology. It appears that, in addition to purely functional properties, people consciously chose materials such that marine game was not disturbed by material from land animals. The contrast was primarily between caribou and seals and whales (McGhee 1977).

The archaeological and the ethnographical evidence from the Upernavik district appears to show no such distinction. The materials were probably chosen, before as now, because they were the most suitable and therefore the most functional for a particular purpose.

Of the 85 harpoon heads from the earliest layer (around the 13th-14th centuries) in the excavations at Inussuk, 58 were of caribou antler or bone, whereas only one was of narwhal tusk (Mathiassen 1930b:180). Of the 44 harpoon heads found at Nuugaarsuk, 43 were of caribou antler and one was of narwhal tusk (Hjarnø 1969:22). In comparison, the 16 harpoon heads used in Nuussuaq in 1967-68 comprised 12 of metal, three of caribou antler and one of walrus tusk.

Materials from caribou appear accordingly to have been virtually indispensable for hunter families during the last 500 years. In the study year caribou skins were still used on plank beds, sledges and for the hunters' outer clothing because their hollow hair gives the greatest insulation against the cold in the often extreme winter frosts (Fig. 47). Caribou antler was previously, as now, used for a large number of items because the material is easy to work and because it is tough and flexible in contrast to walrus and narwhal tusk which easily splits or breaks up in the cold.

As already mentioned, the last caribou at Nuussuaq was shot around 1920 but on hunting trips in the subsequent years it was possible to gather caribou antler in the southern part of Melville Bay at sites such as Tuttulissuaq. The hunter families' dependence on caribou skin and caribou antler in recent times has been assisted by KGH (later KNI) buying these products in Southern Greenland in order subsequently to offer them for sale in stores in the northern districts.

Fig 47. Still a large consumption of caribou skin. Here is the hunter Hans Larsen, Nuussuaq 1968. Photo by the author.

The choice of materials is shown in Table 10 for the items used in 1967-68 for 16 kayaks and 16 sledges and associated equipment, in addition to the nine strap smoothers and seven *ulu* handles which were recorded. All the hunters made seal nets. Most used twisted nylon cord but a few still used twine, which was intentionally darkened.

With regard to the costumes, the figures denote the number of hunters who owned the individual costume components in the year in question.

Most people now use modern European tools but a few older people, former hunters, still have an adze and a bow drill in their tool box (Plate 1; Figs 48, 49a, 50). Whereas everyone, in addition to the indispensable and always sharpened pocket knife, makes himself a little awl and a so-called 'strap smoother' for softening and rounding the cut straps for lashings, harpoon lines, dog whips etc. (figs 49b, 51).

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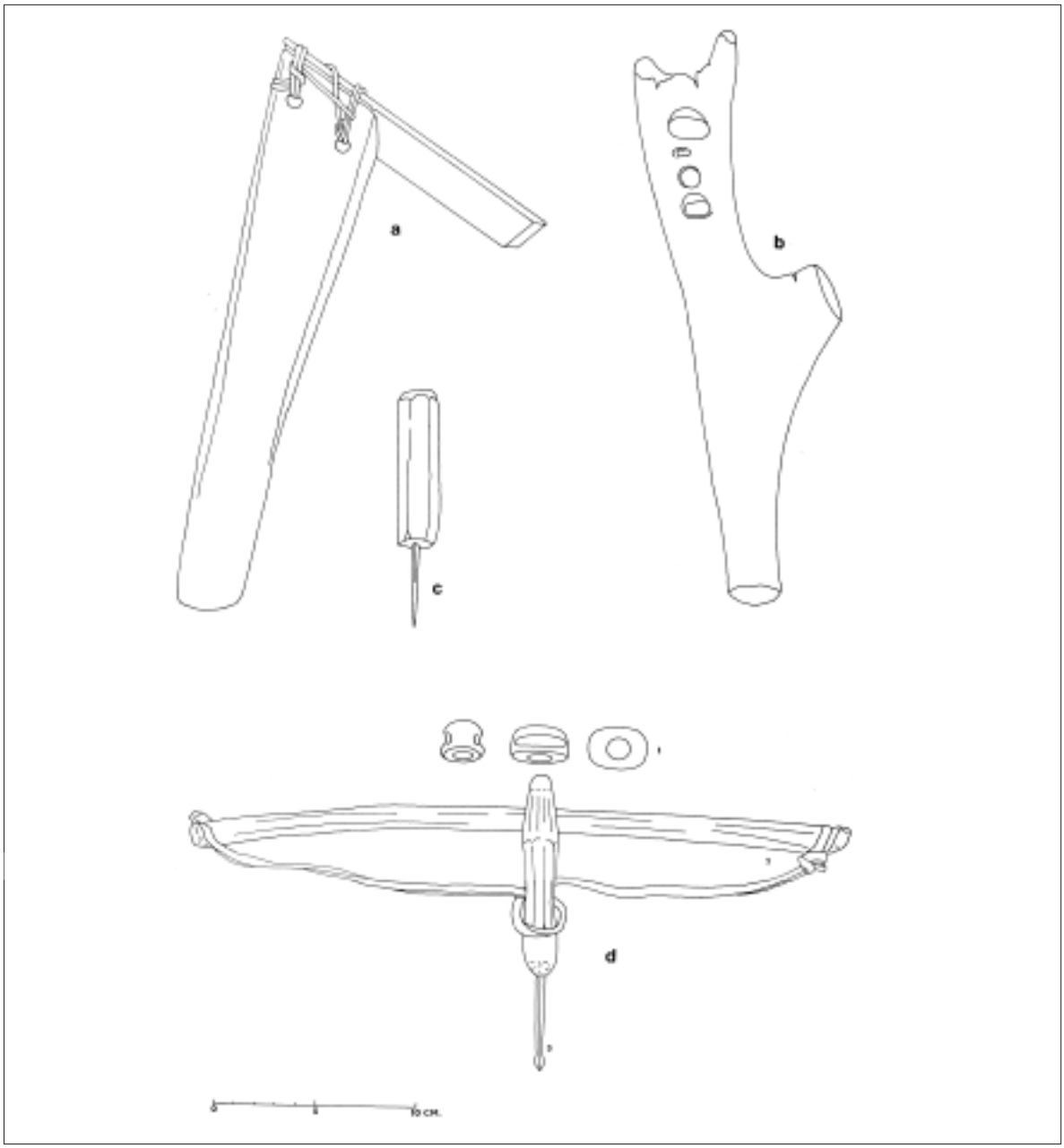
Table 10. The choice of materials in 1967-68 for 16 kayaks and 16 sledges and associated equipment.

	Narwhal tusk	Walrus tusk	Whale bone	Caribou antler	Wood	Metal	Seal skin thongs	Seal skin	Canvas	Nylon	Plastic	Caribou skin
Kayak cover	-	-	-	-	-	-	-	6	10	-	-	-
Harpoon shaft	-	-	-	-	16	-	-	-	-	-	-	-
Harpoon foreshaft	1	-	4	-	-	11	-	-	-	-	-	-
Harpoon base	-	-	4	4	-	-	-	-	-	-	-	-
Harpoon head	-	1	-	3	-	12	-	-	-	-	-	-
Blade for harpoon head	-	-	-	-	-	16	-	-	-	-	-	-
Harpoon line	-	-	-	-	-	-	10	-	-	6	-	-
Line tightener	4	-	2	10	-	-	-	-	-	-	-	-
Line tierce	4	-	2	10	-	-	-	-	-	-	-	-
Hunting bladder	-	-	-	-	-	-	-	10	-	-	6	-
Hunting bladder holder	4	-	2	4	-	-	-	-	-	-	-	-
Hunting bladder button	2	-	2	3	5	-	-	-	-	-	-	-
Towing line	-	-	-	-	-	-	-	10	-	6	-	-
Towing line tierce	2	-	2	4	8	-	-	-	-	-	-	-
Towing line button	2	-	2	4	8	-	-	-	-	-	-	-
Towing line navel piece	2	-	2	10	-	-	-	-	-	-	-	-
Sledge lashing	-	-	-	-	-	-	6	-	-	10	-	-
Sledge front strap	-	-	-	-	-	-	10	-	-	6	-	-
Dog trace	-	-	-	-	-	-	6	-	-	10	-	-
Dog brace	-	-	-	-	-	-	-	2	14	-	-	-
Buckle	2	1	6	6	-	-	-	-	-	-	-	-
Sledge skin	-	-	-	-	-	-	-	-	-	-	-	16
Strap smoother	-	1	-	8	-	-	-	-	-	-	-	-
Ulu handle	-	-	-	5	1	1	-	-	-	-	-	-
Kayak suit	-	-	-	-	-	-	-	1	-	-	-	-
Kayak jacket	-	-	-	-	-	-	-	14	2	-	-	-
Kayak mittens	-	-	-	-	-	-	-	16	-	-	-	-
Kayak sleeves	-	-	-	-	-	-	-	3	-	-	-	-
Timmiaq (outer garment)	-	-	-	-	-	-	-	-	-	-	-	12
Hunter's trousers	-	-	-	-	-	-	-	16	-	-	-	-
Kamik	-	-	-	-	-	-	-	16	-	-	-	-
Anorak	-	-	-	-	-	-	-	-	16	-	-	-

Plate 1. A man's tools – *Sannat*. a. *Ulimaat* – Adze. European mortice-chisel tied with electrical wire to the wooden handle. This kind of adze was still in use in 1968 by two elder craftsmen who preferred the horizontal cut rather than European axes from the shop. Only the materials has changed in the adzes while their form and function was retained through generations. b. *Navitsit* – Strap smoother. This tool here, made of antler, is used for smoothing sealskin straps, both from bearded seal and



smaller seals, when the straps are to be smoothed and the edges rounded. The strap is usually smeared with seal blubber, and then pulled through the holes in the smoother. The strap smoothers are found in archaeological excavations made of different materials such as tusk, bone, antler or hard driftwood, but today beerbottle openers, adjustable spanners and the like are also used for smoothing the straps. c. *Puttut* – Awl. A small handle made of bone, wood or antler, fitted with an iron nail, flattened and sharpened at the point, is used when the point of a knife is too broad. Awls are found in excavations and sometimes they may be mistaken for drills from bow drills, but they could easily have been used for both purposes. d. *Niiortuut* – Bow drill. 1. *Oqummiaq* – Mouth piece made of tusk, bone or antler. 2. *Niggit* – The bow. This bow is made of driftwood and thong but often these bows are made of antler or a seal's rib. 3. *Niiortuut* – The drill has the same Greenlandic name as the whole bow drill. It is made almost like the awl (c), but the wooden shaft is cut with vertical grooves so that the strap gets a better grip. Before 1970 these northern villages had no electricity, and most of the men used hand drills with a crank. Only Pavia Jansen in Nuussuaq and David Eskildsen in Kuuk still used the bow drill. It could be easily made at no cost, and it was just as functional as the European drills. The obvious advantage of the bow drill is that no vice is needed because the object being drilled is held in the free hand.

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Fig 48. Pavia Jansen working outside his house in Nuussuaq, summer 1968.
Photo by the author.

Fig 49a. Pavia Jansen working with his axe.
Photo by the author.

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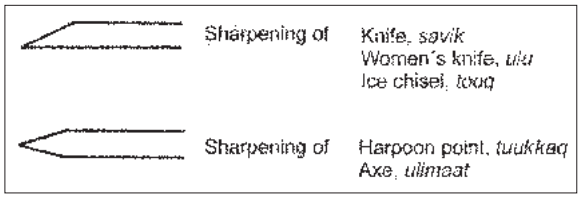

Fig 49b. Sharpening tools.

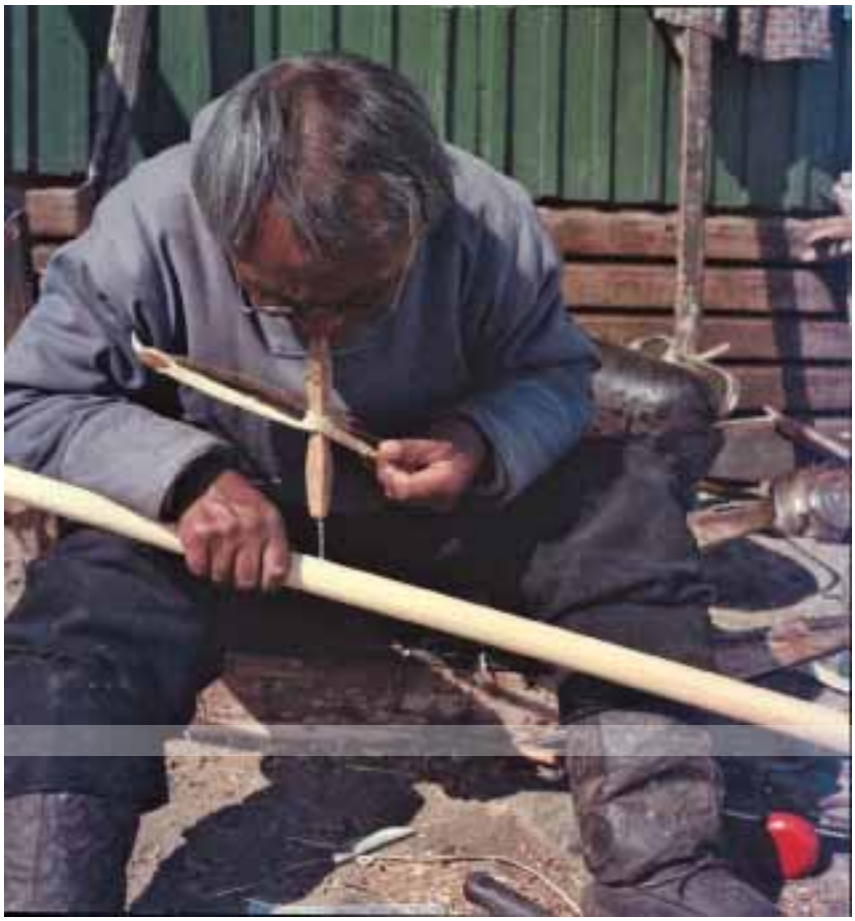

Fig 50. Pavia Jansen demonstrates his bow drill, summer 1968. Photo by the author.

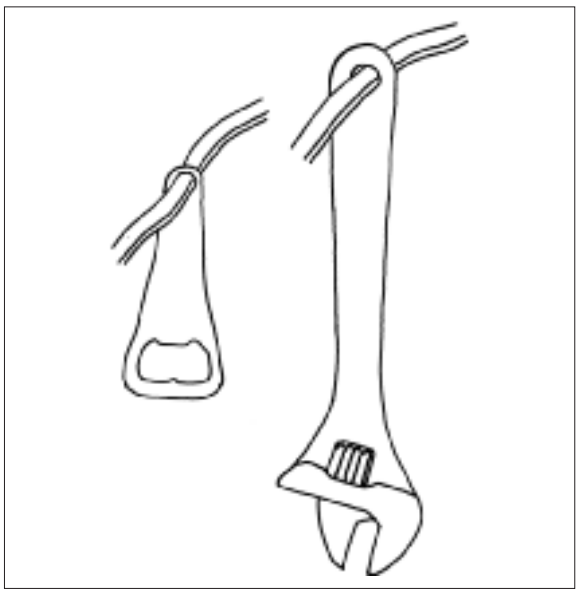

Fig 51. Adjustable spanner and a bottle opener used as "strap smoothers".

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Chapter 6

Transport

Sledges

If one compares two Upernavik sledges from 1930 and 1967 respectively, there is no great difference in their shape and the materials used (Fig. 52; Plate 2). On the sledge from 1930 the runners are higher than on most recent sledges and this is naturally an advantage in deep snow. Compacted snow and ice has a tendency to lodge between the runners and the crosspiece. When this hinders movement the sledge is turned over and the hunter scrapes it away. Many use a triangular metal scraper (in Denmark used as a paint scraper) that can be bought at the store (fig. 53). The points and edges of the scraper are often rounded off to prevent them from cutting the bindings on the sledge. Several of the unidentified archaeological artefacts of bone, tooth and whalebone from Inussuk could perhaps have been used in this way as sledge scrapers. The published 'umiaq scrapers' have, for example, not been heard of by any previous owner of an umiaq. The boat was taken ashore and turned over in the evening. The following morning the dirt and rubbish could be banged out of it.

Contact with Inughuit north of Melville Bay has meant that, especially in Upernavik's northernmost settlements, there are sledges that have many of the features of the northern sledge types (Hansen 1969/70; Silis 1970). This is seen most clearly in the straight, almost vertical uprights, less marked curve of the tips of the runners and binding along the runners (Plate 2).

The sledges in Nuussuaq varied from 2.5 m to about 4 m in length and the width of the cross pieces was about 0.5 m.

In general it can be said that a long sledge with straight vertical uprights is suitable for travel on flat, smooth sea ice, whereas the shorter sledge with curved uprights is suitable for travel over pressure ice and on land with exposed bedrock (Fig. 54). By tipping the sledge backwards, the speed can be reduced so that it can be steered around the blocks of ice and stone.

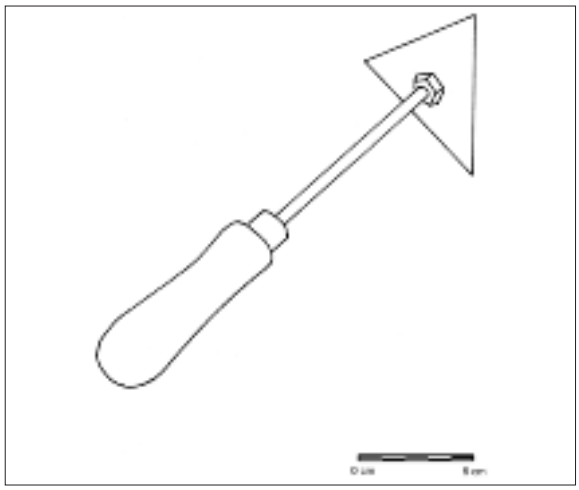

Fig 53. The European 'paint scraper' used as a sledge scraper.

The runners on the sledge from 1930 are of whalebone, whereas the hunters in the 1960s used screwed-on metal runners, narrow in the winter and broad in the spring. The latter function as skis in deep snow and therefore prevent the sledge from sinking and getting stuck (Fig. 55). There are also sledge runners of whalebone from the Inussuk excavations (Mathiassen 1930b).

Depending on the conditions and the nature of the snow, 'shoeing' of the iron runners was employed in Nuussuaq in 1968. Over land it was often unavoidable that both deep and shallow cuts and scratches appeared in the metal. Many hunters carried a coarse metal file, which they used to smooth off the damaged runners on the up-turned sledge. The edges of the metal runners were similarly rounded off so that they did not cut the traces if the sledge happened to run over them.

In soft or waterlogged snow, *putsinneq*, many hunters laid a 'shoeing' on the runners, comprising mud and water or flour and seal blood which was smoothed out with a layer of ice. Prior to sledge trips (Fig. 56), hunters could, accordingly, be seen running out of the houses in the intense cold to the up-turned sledges with the thawed-out material which they quickly formed on the sledge runners. Then they filled

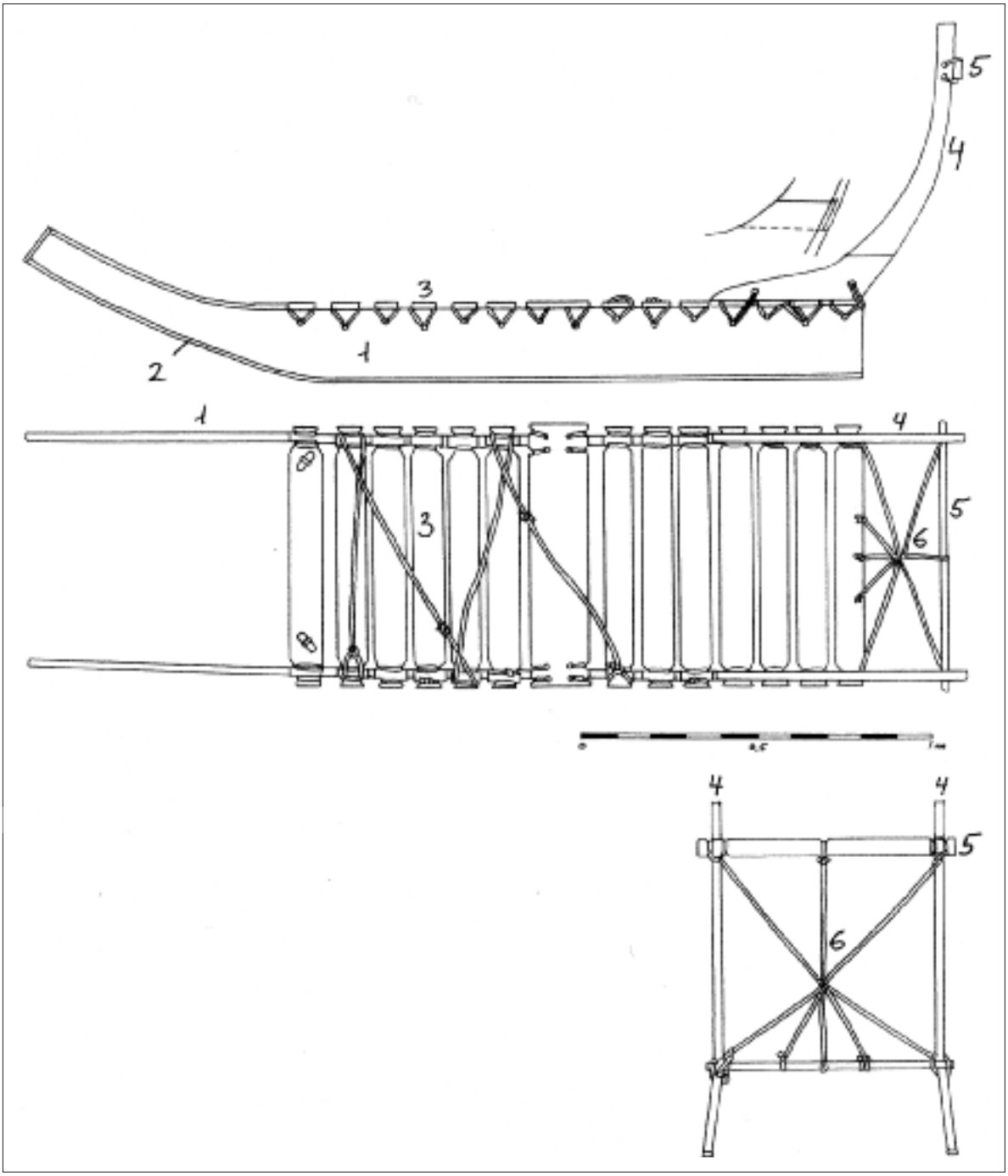

Fig 52. Local terminology for parts of the sledge – *Qamutit*. 1. Sledge runner – *Qamutitat*; 2. Runners – *Alaavi*, with shoeing – Perlaaq; 3. Cross-beams – *Napui*; 4. Uprights – *Napariai*; 5. Cross-beam – *Sannerut*; 6. Cross-straps – *Nuluutit*. Drawing by the author.

their mouths from a bottle kept under their anorak and spat the water out over the shoeing, which was immediately smoothed out with a piece of hide before it froze to ice. A shoeing such as this could, in the most fortunate cases, last a day's travel but it could also be quickly destroyed if, on overland journeys, one was unlucky and ran over an exposed piece of bedrock.

The sledge's many bindings were, in the 1960s, still of sealskin thong on most sledges, whereas a few hunters had changed to nylon or other types of rope. Sealskin thongs have the advantage that the bindings

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Fig 54. Hunter and district bailiff (*kommunefoged*) Peter Heilmann in front of the family's kit house. He is working on a new shooting sledge, and in the foreground is seen the two types of sledges used. Foremost the Thule-type and rearmost the West Greenland-type. Photo by the author.

tighten in use and wedge tight, whereas nylon and other rope slips in the bindings. In order to get the bindings as tight as possible they are first pulled by hand, then using the teeth and finally by winding the end of the rope around a stout wooden stick.

If the dogs are tethered so that they can reach the sledge at night they naturally find the new nylon bindings less tempting to gnaw than the seal skin thongs that smell of blubber.

The fact that the bindings appear to be different on the sledges shown here is due solely to the fact that on a newly-built sledge they appear as on Plate 2a, whereas they can be further tightened subsequently with the aid of small wooden wedges as shown on Plate 2b.

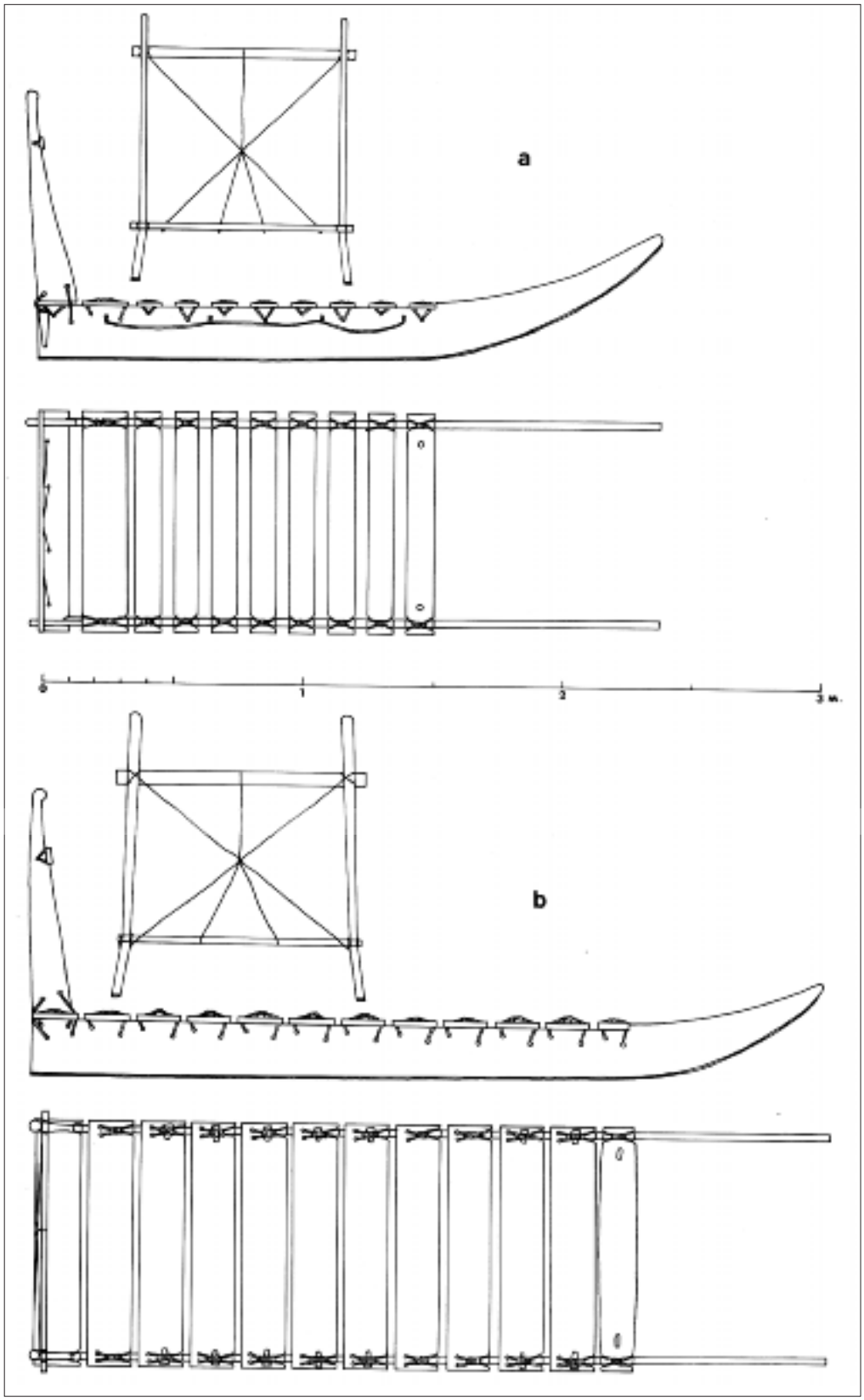

Plate 2. Dog sledge – *Qamutit*, from Nuussuaq. a. The West Greenland type with lashing cords running along the outside of the runners, copied from the Thule sledges. b. The Upernavik type, copied from the Thule type.

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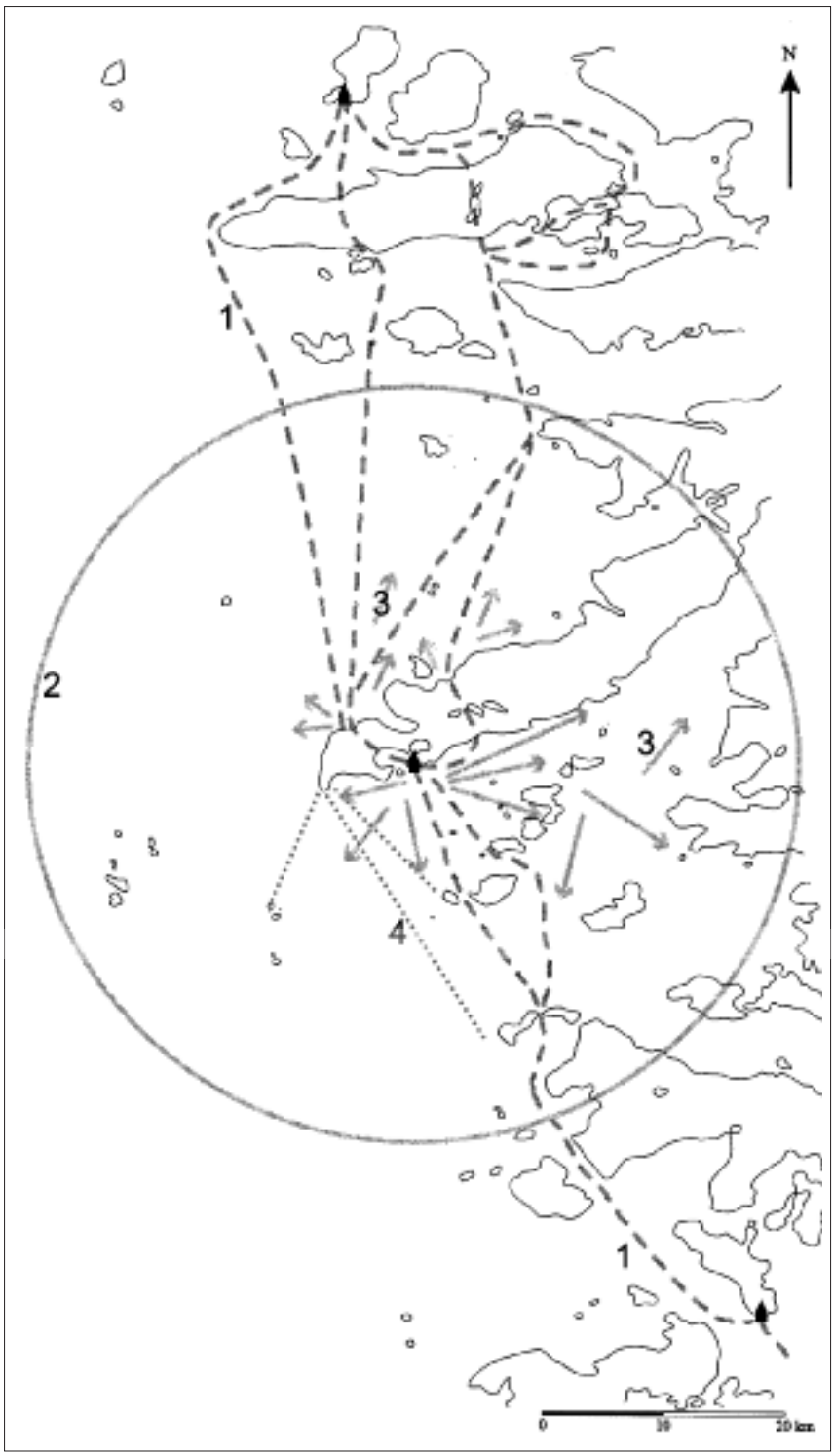

Fig 56. The most commonly used sledge routes around Nuussuaq (1). On the daily hunting trips in winter the hunters rarely move outside a circle with a radius of about 30 km (2). Sledge routes, the most commonly used sledge routes for hunting (3). The first cracks in the ice in spring (4).

Dog traces(anu), traces and front strap (Plates 3 and 4; Figs 57 and 58).

For a medium-sized dog *asineq* is measured in the following way:

Aariagutaa over the back of the dog's neck measures a fist plus 2-3 fingers.

Niisorarutaa over the front of the dog's neck measures 2-3 fingers.

Sakiagutaa on the dog's breast measures 1-2 fingers.

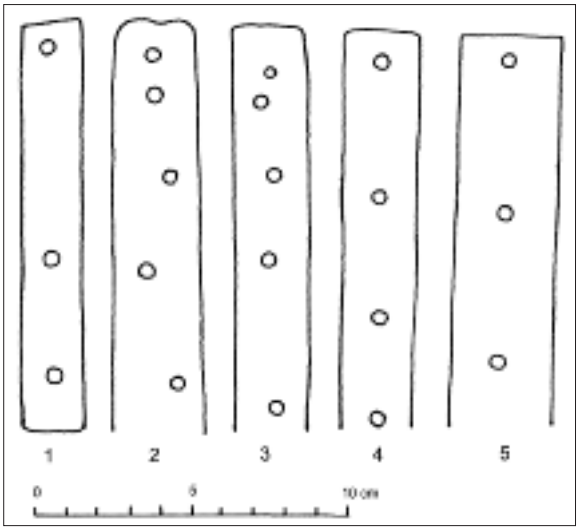

Fig 55. Examples of sledge runners from the excavations at Inussuk and Nuugaarsuk, and from Nuussuaq 1967. 1. *Inussuk* (whalebone); 2. *Inussuk* (whalebone); 3. *Nuugaarsuk* (whalebone); 4 and 5. *Nuussuaq*, winter and spring 1967 (iron). Since about 1980 the sledge runners are made of nylon (*perlaassiaq*).

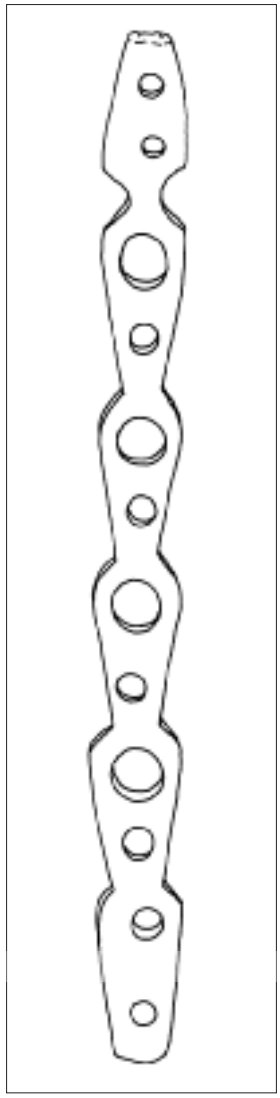

Fig 57. Rough-out for trace buckles in walrus ivory (tusk) from the excavation at Inussuk.

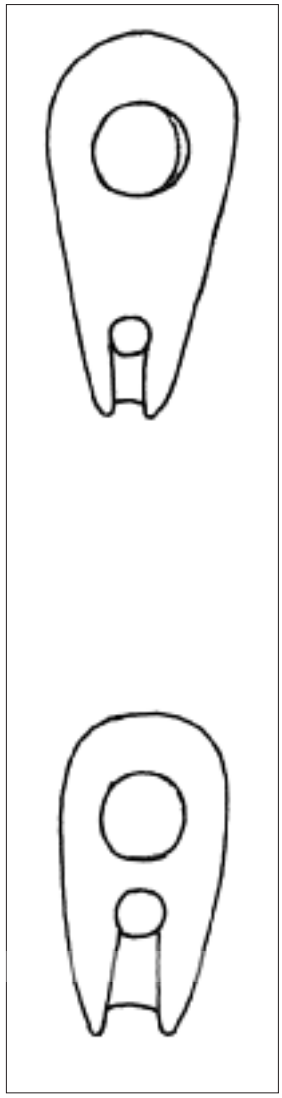

Fig 58. Top: trace buckle from Inussuk. Bottom: dog buckle from Nuussuaq 1967.

Sledge equipment

- Normally 5-14 dogs are used.
- Dog harness (sealskin thong or linen girth)
- Traces (sealskin thong or nylon rope)
- Front strap (sealskin thong or nylon rope)
- Trace buckles (bone, tusk or metal)
- Lashing strap (sealskin thong or nylon rope)
- Sledge skin (caribou skin)
- Extra sealskin thong or nylon line
- Ice chisel
- Dog whip
- Ice scraper
- In the sledge bag or wooden box:
- Large flensing knife
- Small knife
- Whetstone
- Large file (for sledge runners)
- Small file (for knives and ice chisel)
- Flour (for runner shoeing)
- Tent (used as with motorboat)
- Primus stove
- Methylated spirits
- Paraffin oil
- Pot
- Mug
- Dried meat, mattak
- Ship biscuits
- Tinned food
- Margarine
- Tea (instant coffee)
- Sugar
- Salt
- Tobacco, cigarettes
- Matches
- Hurricane lantern or torch with batteries

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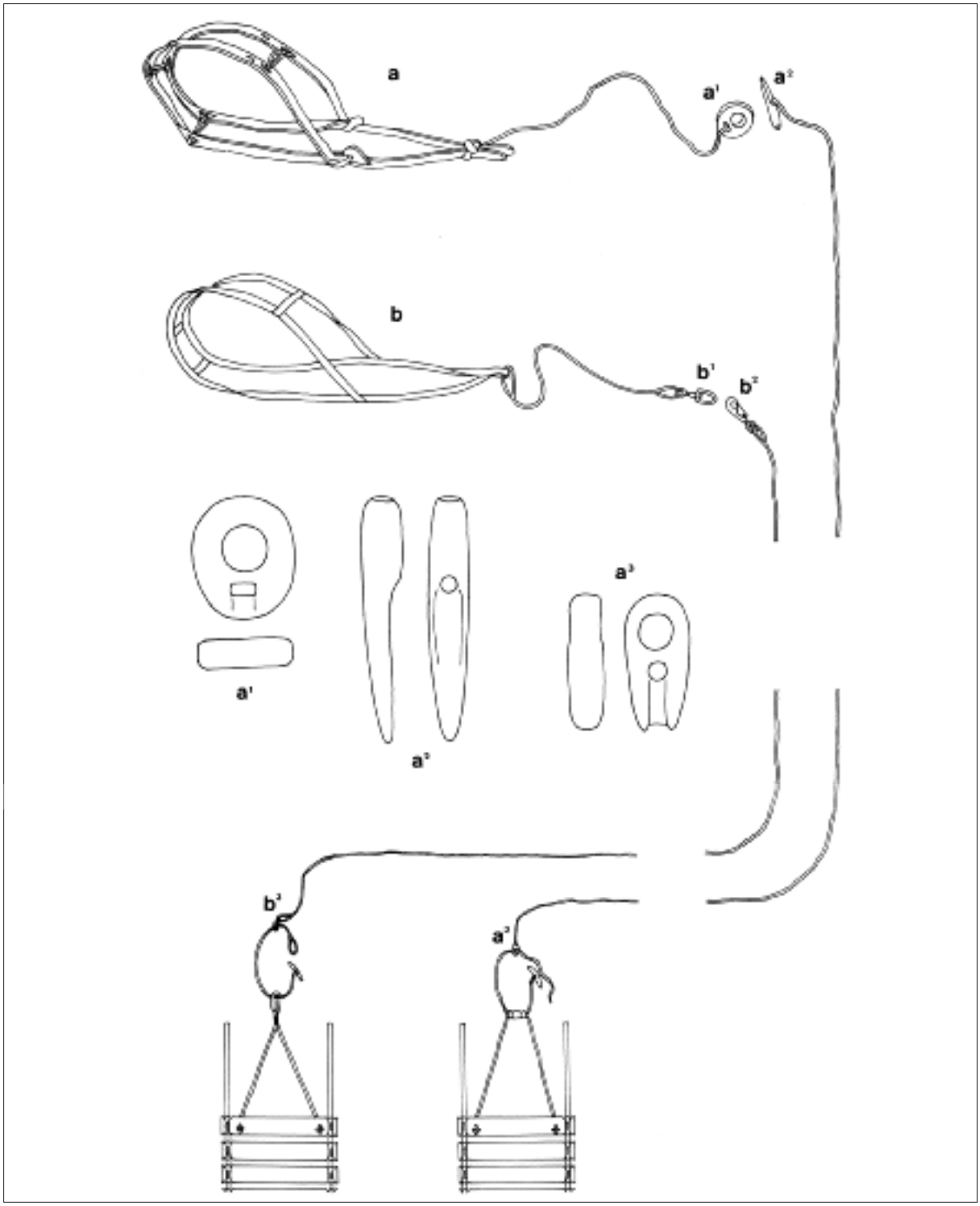

Plate 3. Dog harness – *Anu*, and trace – *pituutaq* (a. old type, made of seal skin with trace buckles of tusk, bone or antler; b. modern type, made of canvas with trace of nylon and buckles of metal. Comprises *Aariagutaa* (section of the back between the dog's shoulder blades), *Nuilaa* (the harness opening), *Niisorarutaa* (neck section over the dog's breastbone), *Asineq* (spacer, that which keeps apart), *Sakiagutaa* (breast-piece), *Papilleraq* (tail), *Pituutaq* (the trace) and *Nuffit* (actually bird dart, here where the traces leave the front strap they form a fan). a1. *Peersaat* – the one that releases the dog; a2. *Sannerut* – cross-piece; a3. *Orseq* – trace buckle; b1. *Qissarut* – the one that releases a dog from the team (modern type, ring and swivel); b2. *Peersaat* – here a snap hook but same function as a2; b3. *Orseq* – as a3 but here of metal.

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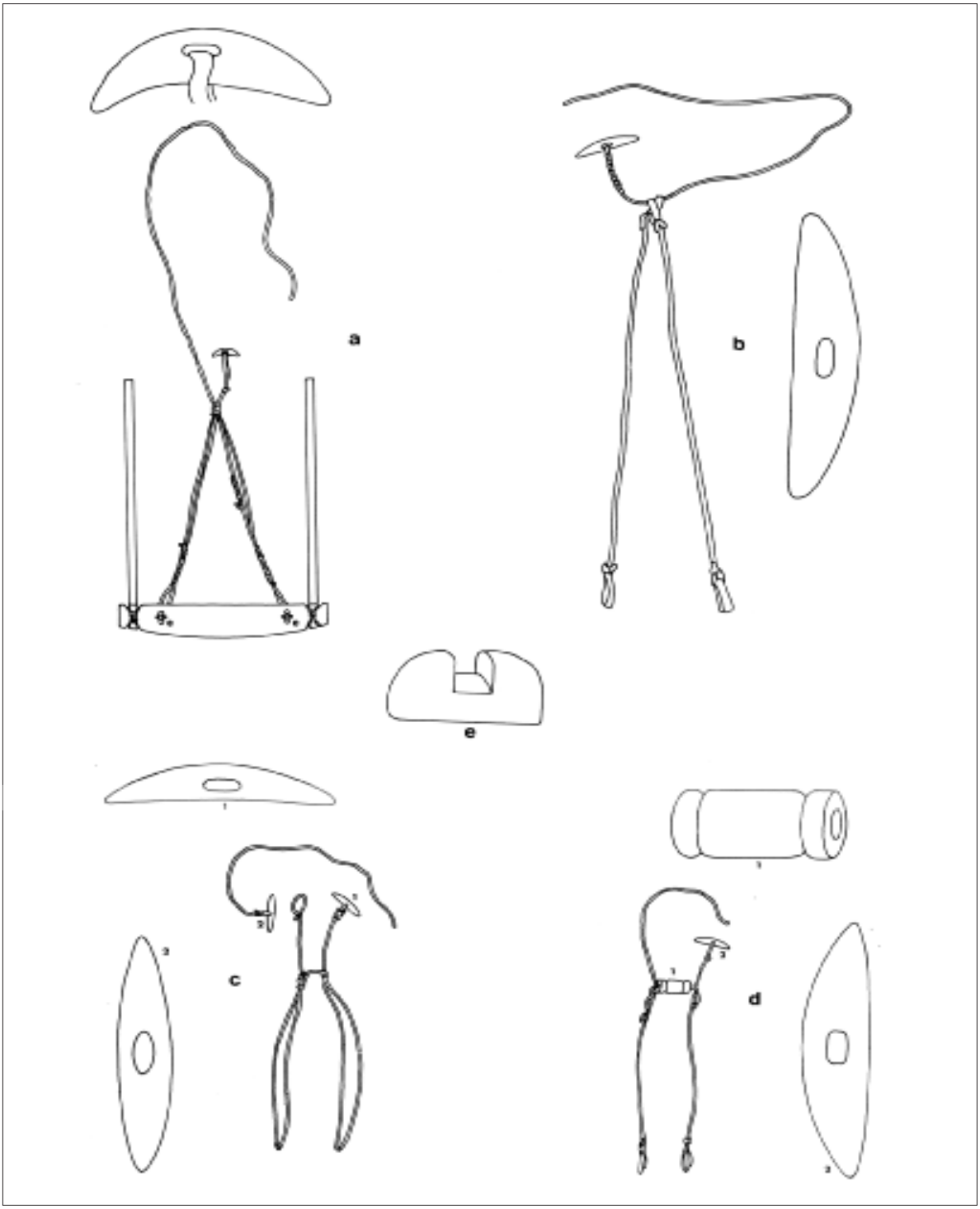

Plate 4. Front straps for sledges – *Pitu* (a-d), made of seal skin with buckles of bone or tusk. e. *Pitup sannerutaa* – wooden piece that holds the front strap at the cross-beam. c1-2 and d2 cross-pieces to assemble the *nuffit* (where the traces leave the front strap), same function as the *sannerut* in pl.4(a2). d1. *Akunnequt* – spacer, that which keeps apart.

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Fig 59. *Abel Danielsen's hobbled dogs and umiaq* is the title given by Frederica de Laguna to this photograph from Itussaalik, August 21st 1929. It is, however, only the two dogs in the centre of the picture that have had their right forelimb pushed up in to their harness, probably so that they cannot run around and make trouble. The dog on the far left appears to be a so-called *meqqujooq*.

The dogs

Definite evidence for dogs having been used for sledge travel in Greenland appears first in archaeological excavations of sites from the Thule culture dating to around 1200 AD. It is known that dogs immigrated with the Saqqaq people who probably used them as pack animals, i.e. without sledges.

The original and, up to the present day, most used sledge dog (*Canis familiaris*) is heavily built, up to 60 cm tall at the shoulders and with a weight of up to 35 kg. It has a robust chest and strong legs – a highly specialised work dog (Jensen 1961; Meldgaard 2004:87-90). As is apparent from the summary of bone material from Inussuk and Nuugaarsuk, dog bones were found in the two excavations, 40 and 155 respectively, and they all come from this original heavily built breed (Møhl 1979:387).

Since the advent of whaling, colonization, missionary work and foreign expeditions, mongrels have appeared among the sledge dogs. Even today examples of these can turn up in litters of pups. It is obvious to think of the whalers' ship's dogs when very curly longhaired, flap-eared dogs with very large bushy tails turn up. One of the greatest inconveniences for these dogs is that they also have long hair on their legs, all the way down to their pads. Here, especially in the spring, large clumps of ice often accumulate which must be continuously removed. These dogs are referred to, as *meqqujooq* (Fig. 59), the longhaired, and they are often unsuitable as sledge dogs, lacking strength and endurance. Similarly, they are not able, as the other dogs are, to roll up into a ball and make a den in the snow, so that they can minimize heat loss and spend the night completely covered by snow even in extreme temperatures and drifting snow. The hunters also spoke of other types of mongrel but these were not present in Nuussuaq in 1967-68.

Marteeraq draws attention to the fact that dogs right up to present day go round and round in circles and stamp, even on rocky ground, when they are about to lie down. In his opinion this is due to the fact that for thousands of years dogs lived on the steppe where it was necessary to trample a sleeping place before lying down (Lynge 1955:111).

It is frequently written and said that sledge dogs do not bark but that they howl like wolves. Often, however, they yelp and growl in warning and show their teeth when there is something they are unhappy about.

Their period of gestation is about two months and shortly before a bitch is due to give birth, she is usually, especially in winter, given a place inside the house or in the porch (Figs 60, 61 and 62). When the hunter can feel that the hair around the bitch's nipples has fallen off, he often binds a cover under her belly, especially in very low temperatures. As long as the pups suckle she is given plenty to drink and very nutritious food. Similarly, efforts are made to keep her and her pups on a clean bed. Training of the pups normally

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Fig 60. The bitch Taggalik gave birth to two fine litters of pups in 1967 and 1968. In fog and blizzard she was the undisputed best dog in the team to find the way. Photo by the author.

Fig 61. A pup from Taggalik's first litter. It is difficult to see that he would turn into a rowdy, but from the scars on his muzzle a year later, it is seen that he often challenged his father with regard to leadership of the team. Photo by the author.

Fig 62. The pup from fig. 61 one year later, when he had challenged his father. Photo by the author.

Fig 63. District bailiff (*Kommunefoged*) Peter Heilmann clips the dogs' canine teeth. Photo by the author.

starts when they are six months old. Prior to this, according to law, they must have been vaccinated against rabies and have their canine teeth cut. In Nuussuaq and the nearby hunting settlements the nurse and the district bailiff did this (Fig. 63).

In 1967-68 in Nuussuaq around 170 dogs ran freely about, although the individual teams formed their own territories around the houses where they were born. As a consequence, children and adults threw stones against the house wall when they came visiting, after which the owner generally came out and led them into the house in safety. Gathered in a pack, especially in the dark winter months, the dogs could be a serious threat, especially to children. How-

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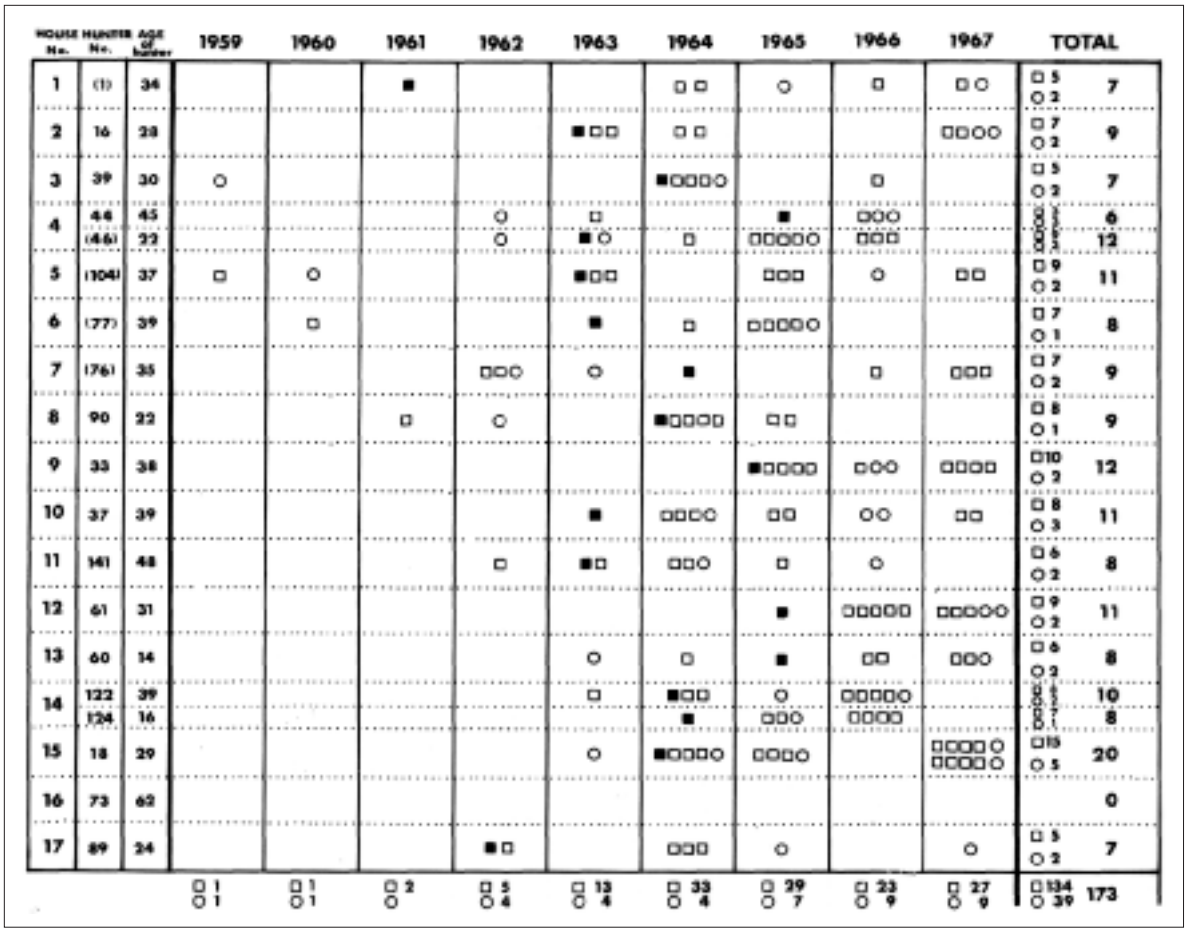

Fig 64. The dogs in Nuussuaq in the sledge season of 1967-68 and their year of birth. Squares represent male pups, circles are female pups.

ever, since 1970 all sledge dogs on the west coast must be chained up when they are not being used. Attacks by dogs occurred annually in the district, a few of these with deadly consequences. In the event of an attack, all the dogs that took part had to be put down. In order to reduce the danger if there was an attack it was made compulsory around 1960 for all the dogs to have their four sharp, pointed canine teeth cut. Several older hunters explained that the dogs become crazy at full moon and it was also clear that the many teams howled more, louder and for longer at this time than was normal.

After an attack the district bailiff shot the dogs. Otherwise the most common method of killing was by hanging because the skins were needed for inner kamiks, fur edgings and the like. The older people, especially, were fond of dog meat, although mostly pups were eaten as the adult dogs often had trichinae. This could, however, be overcome, as with the polar bear and walrus meat, by cooking the meat at 60-70° C. However, as mentioned elsewhere, the families could be forced to use their dogs as 'emergency rations' in periods of starvation.

Rabies was the most feared of canine diseases and whether the disease was reported in one's own settlement or elsewhere, wooden signs were put up 1 km out on the approaching sledge routes. The signs warned people coming from outside that they must tether their dogs and continue to the settlement on foot.

It is apparent from the factor's reports from North Greenland that the dog populations in several settlements were poor due to poor hunting and subsequent lack of dog food. 'Flux ilness' is often mentioned and, in other cases, rabies.

On 1st January 1968 there were in all 173 dogs in Nuussuaq, 134 males and 39 bitches, distributed between 18 teams. The schematic overview shows in

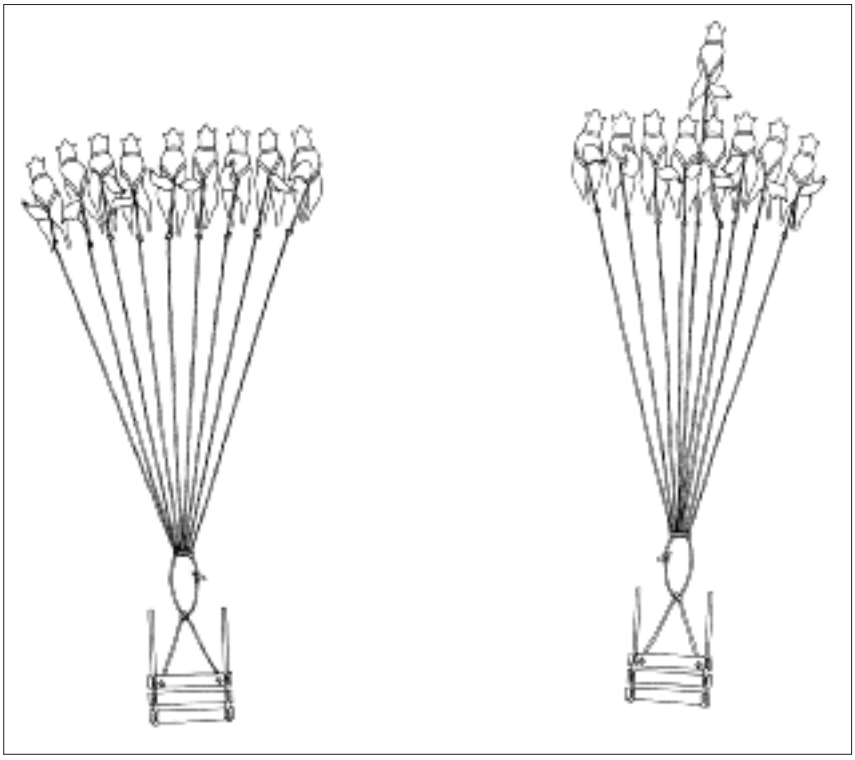

Fig 65. Left, the formal dog-team formation. Right, the lead dog or the best 'pathfinder' on a longer trace.

which year the pups were born, the black squares are lead dogs and, as is apparent, most hunters used only one or two bitches (fig. 64). For seven months of the year the hunters are dependant daily on the dogs. The bitches coming into season and several litters of pups in the sledge season means that they prefer to keep the male dogs. However, the bitches often prove to be very strong and resilient. Similarly, they are often hitched at the head of the team on a longer trace in fog and snowstorms. Bitches are generally better able to find their way than the male dogs, especially of course when travelling off the usual sledge routes.

Training sledge dogs

Makorsuaq from Upernavik's northern hunting grounds is said to have been the undisputed best dog handler. He was able to understand and train his dogs like no other. One of his secrets was that he smoked the pups with *Oqaasat*, Arctic rhododendron (*Rhododendron lapponicum*) – a plant that was also used in amulets for dogs. On being smoked, the pups secreted mucus that was said to come from their mother's womb. As a consequence they were better able to endure hardships than other dogs (Lynge 1955:78).

The training itself began as a rule first when the pups were six months old. Singly or in pairs they were included in the team. The first few times they were perhaps bound to their mother or another experienced dog. Some hunters, however, started by keeping the pups away on short traces and pulled back when they frantically tried to rejoin their mother. In this way they gained their first experience of what it is like to pull when there is resistance. Another method is to give the pups shorter traces than the adult dogs so that they will try to reach their mothers. At first, the pups often have problems in keeping up and therefore lag behind. In order that they do not fall in under the sledge runners the traces would be tied together a couple of metres in front of the runners.

All the sledge drivers in Upernavik District, like those along the whole of the west coast and at Qaanaaq, have the dogs on traces of equal length so they pull in a fan shape (Fig. 65).

There is a series of signals or commands that the dogs must learn and these vary a great deal from hunter to hunter. Some sledge drivers use the dog whip more hard-handedly than others but most only give a disobedient or lazy dog a little lash over its back. Otherwise they just crack the whip above the dogs. The commands are seldom shouted and when

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Fig 66. Very poor sledge conditions with water under the ice. Photo by the author.

Fig 67. Sledge travel over very thin ice, spring 1968 – the reason for the 'air beds' on the sledge. Photo by the author.

the dogs have learnt them they can be given very quietly.

Most hunters crack the whip several times and pull on the sledge uprights when the dogs are to set off. Subsequently they can steer them to the left with the command 'iju-iju' and to the right with 'ili-ili', most commonly cracking the whip in the snow by the side of the dogs at the same time. In especially well-trained dog teams the hunter has two dogs permanently on the wings which, on being given the command, push the whole team to one side or the other with their shoulders. The lead dog, *ittoqut*, usually runs in the middle and keeps an eye on the other dogs underway. Sometimes it hangs back and nips a lazy or disobedient dog that is not pulling properly. A bitch is often very resilient and frequently better able to find the way in fog and snowstorm than the male dogs. Therefore she is sometimes put in the middle on a slightly longer trace than the others, after the lead dog has been pulled back on a short trace. The command for stop is 'ai' or 'uniit', whereas others use a low whistle. The sledge drivers try to keep this and other commands a secret but sometimes, when many sledges are travelling together, they tease each other, for example by whistling so that the other hunter's dogs stop.

In an area such as Upernavik's elongated archipelago, with its many treacherous sub-ice currents, which often cut the ice paper-thin under the snow cover, it is vital that the dogs learn that on thin flexing ice they must spread out and not bunch together (Figs 66, 67). If not they will invariably fall through the ice into the water and sometimes pull the sledge with them. In transcripts from the church registers where the cause of death is most often correctly given, numerous hunters have died in an accident of this type, despite their knowledge of currents and ice conditions. It is said that a hunter is able to teach the dogs to pull him up from a hole in the ice in the following way. During training he stops the dogs and walks away from them. He then hides behind a snowdrift or an ice pack and calls the dogs so they will rush to him and pull him up onto the ice.

On the way to and from Nuussuaq there are some relatively steep sections of terrain which, when iced up, can be difficult to pass, especially with a heavy, fully laden sledge. When travelling downhill, the dogs must learn to keep behind the sledge so that they act as brakes at the same time as the sledge driver uses 'brakes' on the runner in the form of two rings made of straps, rope or iron chains.

A final command which should be mentioned is used when the dogs are trotting and the hunter wants them to go a little faster. The hunter strikes the side of his kamik with the whip handle, a sound which, when they are used to it, causes the dogs to pull harder on the traces.

Depending on the weather, sledging conditions and the dogs' state of nutrition and condition, day

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Fig 68. Tired dogs after a day's journey of 90 kilometres. Photo by the author.

Fig 69. Sledge travel in convoy between Tasiusaq and Nuussuaq. Photo by the author.

trips can optimally be around 100 km (Fig. 68). The dogs cannot, however, manage this without very necessary days of rest with abundant and nutritious food. In perfect sledging conditions they travel at about 10 km/hour but over shorter distances on flat sea ice their speed can be considerably greater, for example during dog races, dependant on the number of dogs and the sledge driver's ability (Figs 69, 70).

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Fig 70. Spring sledge travel 1968. Perfect conditions. Photo by the author.

Feeding the dogs

As is apparent from the annual cycle, the hunters in Nuussuaq have about seven months of sledging conditions per year. In the summer months the dogs run freely around, in contrast to other places where the dogs are gathered and sailed out to a small island near the settlement and are fed once or twice a week at the most. These dogs are often in a terrible state in the summer months, skinny and with a poor coat smeared in blubber, fish waste and earth – a stark contrast to the proud sledge dogs of winter. Some weeks before they start work again, at the end of October or the beginning of November, they are fed up, ideally with 1 kg seal meat or other meat per day, the same ration that they ideally should have every day throughout the whole season. It is remarkable how quickly the dogs are restored in the course of a few weeks and regain the strength of the previous season. Their coats are naturally much more beautiful when they gambol and roll in newly fallen snow instead of in refuse and old blubber heaps.

If seal, walrus or whale meat is in short supply for a period they have to be fed with dried shark meat and seal blubber but the hunters are in agreement that this does not have nearly the same nutritional value.

When the dogs today are tethered on chains so they cannot reach each other, feeding is much easier than it was when they ran freely around. Arranged in a row or a semi-circle they previously followed the hunter's every movement when he cut up their evening meal and only a smack on the nose with the whip handle could prevent one dog stealing a lump of meat quite literally out of the mouth of another. In most dog teams the exception was the lead dog, *ittoqut*, who could often leave his piece of meat in order to go round and ensure that no dog had received more than him. If none of the others had the desire to take up the challenge they just lay on their backs whimpering and whining until the 'inspection' was over.

In the sledge season the dogs are always fed in the evening, which means that the next morning they have to get rid of that which they have digested in the course of the night (Fig. 71). When harnessed to the sledge it is not possible for them move away to answer a call of nature before they fall into the rhythm in

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Fig 71. Hans Larsen is feeding the dogs, Nuussuaq, spring 1968. Photo by the author.

Fig 72. Jørgen Aronsen on one of the land routes, March 1968. Photo by the author.

their respective positions in the team. Insecure dogs will continually change position, resulting in the traces, smeared in their droppings, becoming twisted into a long thick plait, which, especially in severe frost, is hard work to unravel. The situation is worst when the dogs have been fed with shark meat and too much seal blubber on the previous day. This inevitably results in diarrhoea.

Sledging conditions

Frost and a light, not too deep, layer of newly fallen snow gives perfect conditions for sledge travel (Figs 72, 73). When there has been heavy snow and drifting even the most used sledge route can appear almost impassable when the dogs, much against their will, disappear into the snow masses. On the other hand, the dogs are very unhappy with thin, very shiny ice on which they slide like on a skating rink. They can often feel the ice flexing under them and there is a danger of them falling through. Pressure ice, with fast-frozen ice floes, which in particular are formed around the ice foot at the transition from rocks to sea ice, can often create problems when the traces and the sledge get stuck (Fig. 74). With very hard frost after a warm period the ice often forms knife-like crystals, which can cut the dogs' pads to shreds. When this is the case the dogs are fitted with small hide bags like a kind of *kamik*.

In late spring there is often a layer of water on the ice, sometimes caused by the tide, called *immatsinneq*, which naturally is not very pleasant to paddle around in (Fig. 75). Finally, perhaps worst of all is *putsinneq*, a deep wet layer of snow on the ice, where the dogs move in a kind of slush. On the changing ice and snow surfaces the hairs between the dogs' toes readily freeze up, which is very uncomfortable for them. If the hunter sees the dogs lie down and bite

Fig 73. Sledge travel in the north district, spring 1968. Photo by the author.

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Fig 74. Sledge travel at the ice margin near Aappilattoq, April 1968. Photo by the author.

Fig 75. On sledge trips in late spring it is sometimes necessary to use boats, as here near Aappilattoq. Photo by the author.

their feet to remove the offending ice he cuts the hair off their paws with a little pair of scissors. Otherwise they will bite their feet until they bleed as in the cold they cannot feel when they bite into their own paws.

The dogs' names

Only two of the 18 dog owners had not given their dogs names, which they explained in terms of it not being necessary. This seems to be strange as the dogs with names clearly reacted on hearing them, which of course is a great advantage when on the move.

A list of all the dogs' names would be too comprehensive, therefore only a few examples will be given here. It can be seen that some hunters are less pretentious than others, that Greenlandic, Danish and English names are included and that the children, who often have the very small pups as playmates, have also had a say in the naming of the dogs.

- Aamaruutissaq – piece of coal
- Aaqqati – the gloved one
- Aataaq – black side i.e. adult harp seal
- Ajoqiuneq – head catechist
- Aminnguaq – little skin
- Angussuaq – big boy
- Angutikassak – poor boy
- Astrid – name of a former nurse in Nuussuaq
- Augusta – name of a former nurse in Nuussuaq
- Banana – banana
- Goorpo – cowboy
- Illorput – Greenlandic version of 'In the Mood'
- Meqqujooq – the longhaired
- Ipeq – the smelly one
- Kammak – comrade
- Kamaasiat – the one with leggings
- Kunngi – the king
- Meeraa – the child
- Milattooq – the spotted
- Ministeri – the minister
- Nissiaraq – the gnome
- 'Oh, what a Kiss' – popular American song
- Pamiuata nuua susoq – the one with a new tail
- Qilluttoq – the one that yelps
- Qulleq – the lamp
- Rudolfi – Rudolph
- Seqineq – the sun
- Serminnguaq – the little glacier
- Silaqanngi – the crazy, the naughty
- Singarnaq – the brown one
- Suluk – the wing
- Teqilluk – the young bearded seal
- Tulugannguaq – the little raven
- Tulugaq – the raven
- Vaavaa – woof woof

In some settlements and in the town of Upernavik there were dogs that were called after actual people either living or dead. Different people perceived this differently. Some would point out a particularly fine dog and proudly say that it was called after them. Whereas others, in particular a couple of older women, were clearly cross as they definitely did not wish to be compared to a dog.

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Dog food

In the short summer months outside the sledge season the dogs are normally only fed every second or third day, mostly with dried shark meat. But from the middle of November until the middle of June, the hunters have about 217 days a year when the dogs should ideally to be fed with 1 kg of meat per day (Fig. 76). With Nuussuaq's 173 sledge dogs (counted 1st January 1968) this corresponds to a total of 37,191 kg meat that had to be used for dog food that year. Calculations of the meat production show, however, that a number of hunters were, necessarily, for shorter or longer periods forced to feed shark meat, although all of them consider this as a poor replacement for seal, walrus and whale meat. The 217 feeding days do not take account of the fact that the most enterprising hunters start feeding up again before the middle of November in order to bring the team up to scratch for the sledging season.

Of the total of 58,895 kg meat that was brought back to Nuussuaq, dogs were used to transport 34,330 kg or about 58%. Meat from all the animals obtained by hunting along the ice margin, net hunting, hunting at breathing holes and *uuttoq* hunting is included in this calculation, distributed amongst the following game animals:

1325 ringed seals: 29,150 kg meat
4 hooded seals: 400 kg meat
8 bearded seals: 880 kg meat
12 narwhals: 3,000 kg meat
4 white whales: 900 kg meat

In total: 34 330 kg meat

Accordingly, every dog, including pups, hauled just less than 200 kg back to the settlement during a season and, together with open-water hunting and, especially, white whale hunting in October, this gave abundant meat for both humans and dogs.

Fig 76. Untangling the traces while the seal nets are being checked, spring 1968. Photo by the author.

Summary

Two different types of sledge are used in Upernavik district. One is the West Greenlandic type with curved uprights, which is easiest to manoeuvre in pressure ice and over land. The other is the usually larger polar Eskimo type of sledge with almost vertical uprights which is best suited to flat sea ice.

An improvement to these sledges in the 1960s, the so-called *akit* (kayak pillow), was developed because the hunters had difficulties in taking their kayaks on their sledges to the ice margin in the spring. With *akit* the prow of the kayak was raised from the sledge so that it did not run into rocks and pressure ice (see Plate 5).

The many sledge dogs in Nuussuaq, 173 in 1968, have not been reduced in the subsequent 30 years. Accordingly, there were 26 sledges and dog teams in 1998 despite the fact that many had acquired a snow scooter. The dogs are still indispensable, especially for spring hunting, whereas the snow scooters are primarily used to transport Greenland halibut and other hunting products along the safe and stable sledge routes to the trading centres in Tasiusaq and Kullorsuaq.

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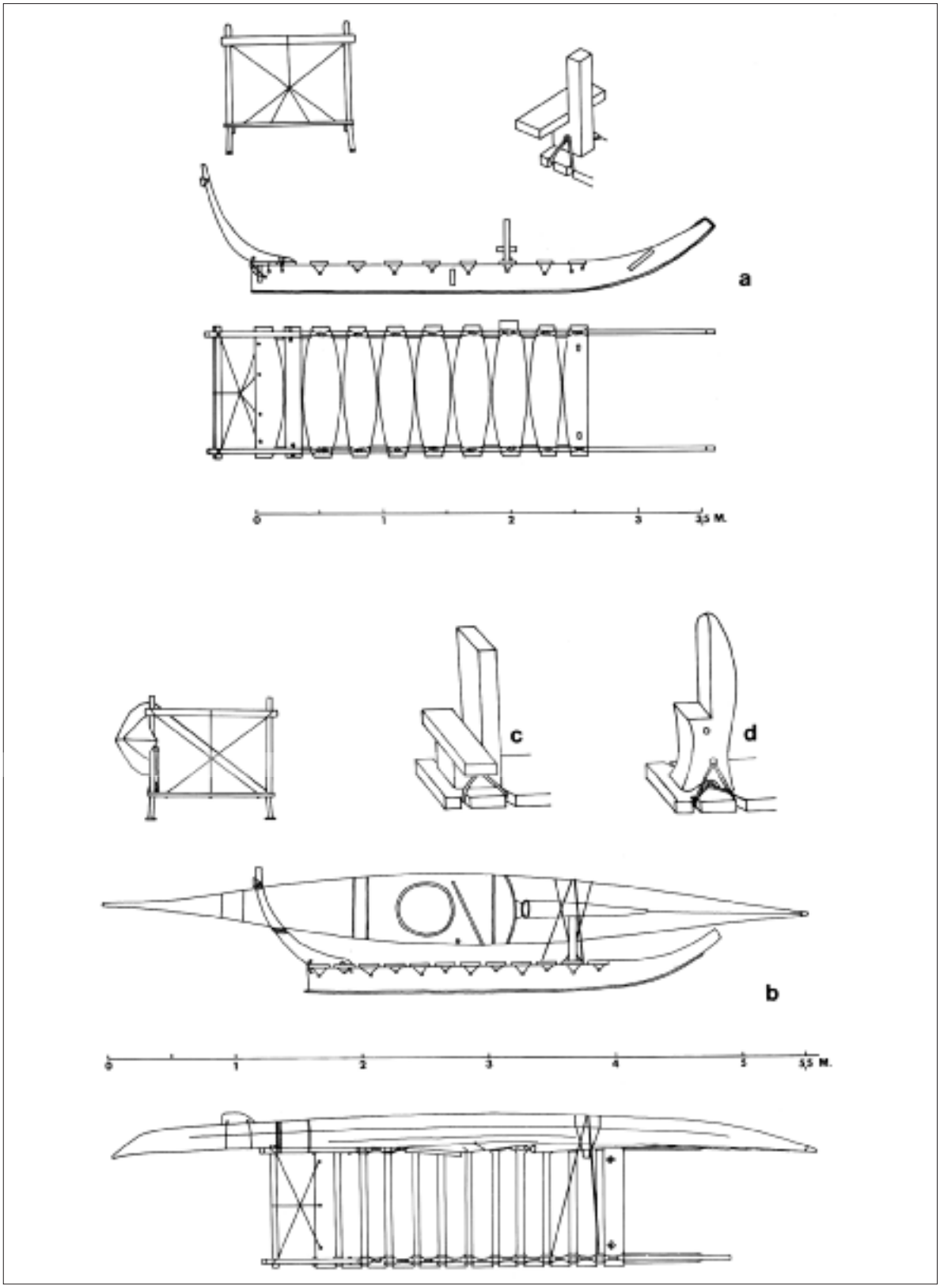

Plate 5. Upernavik sledges (a and b) of usual West Greenland type with kayak support, the so-called *akit* – kayak pillow. Improvements (the supports a+c and b+d) invented in the 1960s.

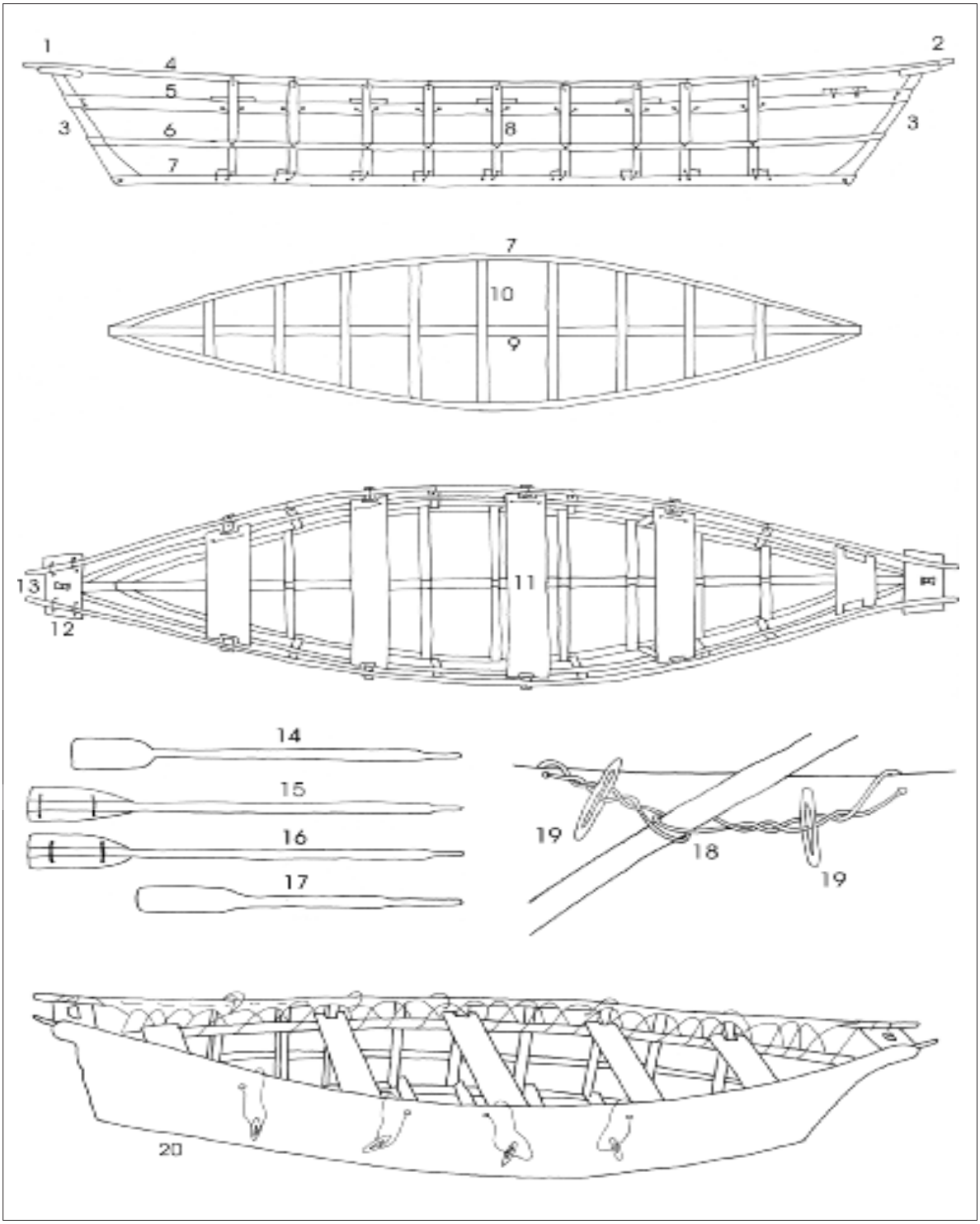

Plate 6. Umiaq model – *Umiaasaq*, built by David Eskildsen, Kuuk 1967. 1. *Siu* – stem; 2. *Aqu* – stern; 3. *Niutaaq* – stem and stern stanchion; 4. *Quleruaq* – gunwale; 5. *Tuuffik* – inner stringer; 6. *Amitsuaq* – side stringer; 7. *Aku* – chine stringer; 8. *Napasoq* – side stanchion; 9. *Kujaaq* – keel; 10. *Nammik* – bottom rib; 11. *Issoraq* – thwart; 12. *Killoq* – stem plate; 13. *Kannaaq* – horn; 14-17. *Iput* – umiaq oar, and *Iputip mulinga* – oar blade; 14. *Siukkaq* – the forward oar; 15. *Siukkap tullia* – the second foremost oar; 16. *Salleq* – rearmost oar, i.e. actually the furthest forward in the direction of travel; 17. *Aquut* – steering oar; 18. *Ipuserfik* – oar grommet; 19. *Qipput* – clamp, i.e. *qippuppaa* – bind it together with something; 20. *Alliaq* – bottom skin to be trod on.

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Fig 77. An umiaq sails from Aappilattoq, August 1935. Photo by William Thalbitzer, © Danish Arctic Institute.

Umiaq

Umiaq model (Plate 6) made in 1967 by David Eskildsen, Kuuk, as a copy of his own umiaq, that he built around 1930. It was rowed by four women and was used for travel and hunting trips (Fig. 77) (Petersen 1986).

All the woodwork was made of wood bought from the store and seven large skins of bearded seal were needed to cover it. These were sewn with twine from the store but previously plaited sinews were used for sewing both kayaks and umiat. David often used a sail but had never seen one made of casings. The mast was secured through a hole in the second seat. David has never heard of paddles being used instead of oars and he has never used a special umiaq cleaner. The boat was turned over on land and the dirt etc. was knocked out. It was completely clean when it was dry again.

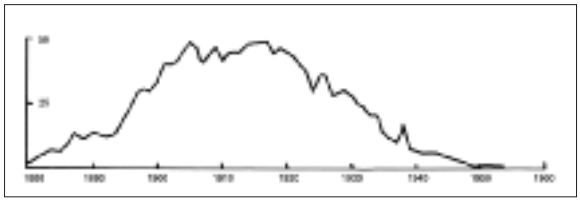

Fig 78. Number of umiat, Upernavik district 1880-1954.

On some hunting trips David and I searched unsuccessfully for possible remains of umiat. Ludvig Karlsen's umiaq in Upernavik Kujalleq (Southern Upernavik) was probably the last in Upernavik district (Figs 78, 79). David saw it sail for the last time in 1956. The Karlsen family sold this umiaq to the Upernavik Community. However, it was sent to Denmark around 1960. H.C. Petersen surveyed it here in 1997. That same year, the boat was returned to Upernavik Museum and is now exhibited with a new umiaq that was

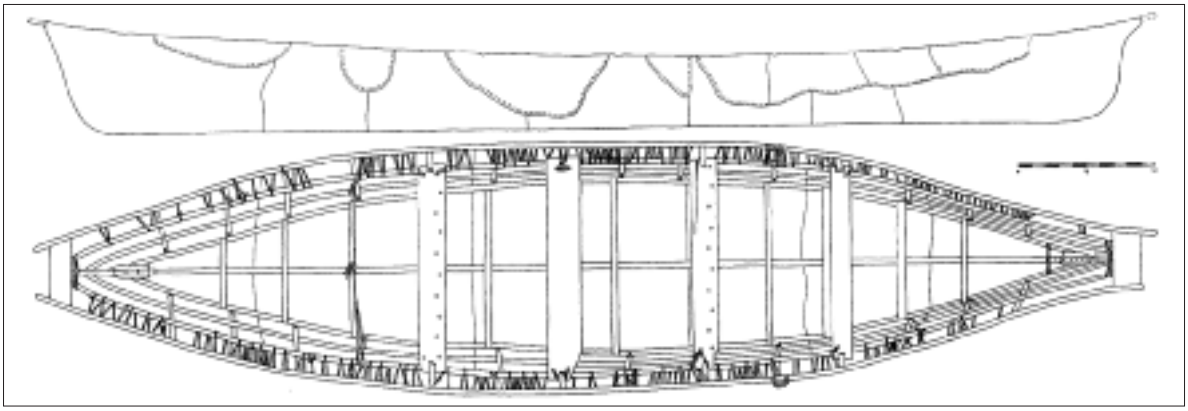

Fig 79. Umiaq measured and drawn at Greenland National Museum & Archives, Nuuk 2001. The boat was sent from Upernavik to the Danish National Museum, Copenhagen, in 1930 by factor Lemcke Otto and transferred to Nuuk in 1998.

built in 1997 by elderly boatbuilders in Aappilattoq. It was donated to the community on the 225th anniversary of the founding of Upernavik town. Several foundations provided grant totalling DDK 25,000 for the construction of the umiaq.

Umiaq models were also built in the 1960s by Wilhelm Grimm, Aappilattoq, and by Pele Juliussen, Upernavik Kujalleq.

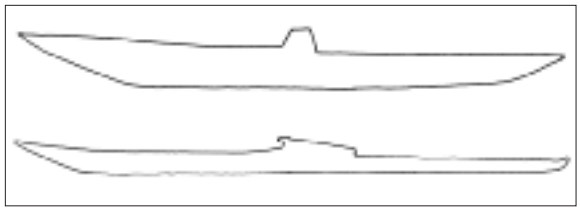

Fig 80. Toy kayaks from Inussuk.

Kayaks

You wretched kayak-less
Don't give us (women) your sideways glances
Shame on you beyond all measure
You are just like great cormorants
Sitting on the top of a rock

(Satirical song by Vite, Kullorsuaq
(Lynge 1955:138))

It is remarkable that such a rich archaeological site as Inussuk has only produced a few traces of kayaks. A few small toy kayaks carved from wood, and one of whalebone do, however, give an indication of the type of kayak used (Fig. 80). Contrary to all expectations, they are all without an upturned stern. The toys do, however, include two kayak paddle blades that are worthy of note (cf. Mathiassen 1930b:pl.20). One is a whole blade, the other a bone fitting. They are both pointed, leaf-shaped – a shape which is mostly known in Alaska and islands in the Bering Strait but also found in Qaanaaq and in North-East Greenland.

The oldest preserved kayak with equipment was sent by factor Otto Lembcke to the National Museum in Copenhagen in 1930. From here it has now been transferred to Greenland's National Museum and Archives in Nuuk (Museum no. KNK 2237). This kayak measures 5.2 m in length and 55 cm at its broadest point. The skin cover is painted brown. It has collapsed and is severely degraded. The associated equipment comprises a harpoon with throwing stick, harpoon head with line and hunting bladder and a large lance. These are all well preserved whereas the kayak paddle lacks one wooden end-piece. The kayak was surveyed and recorded by Harvey Golden in 2000 (Golden 2006), whereas the equipment was surveyed and recorded by myself (Figs 81a,b).

The stern of the kayak is, as can be seen from the

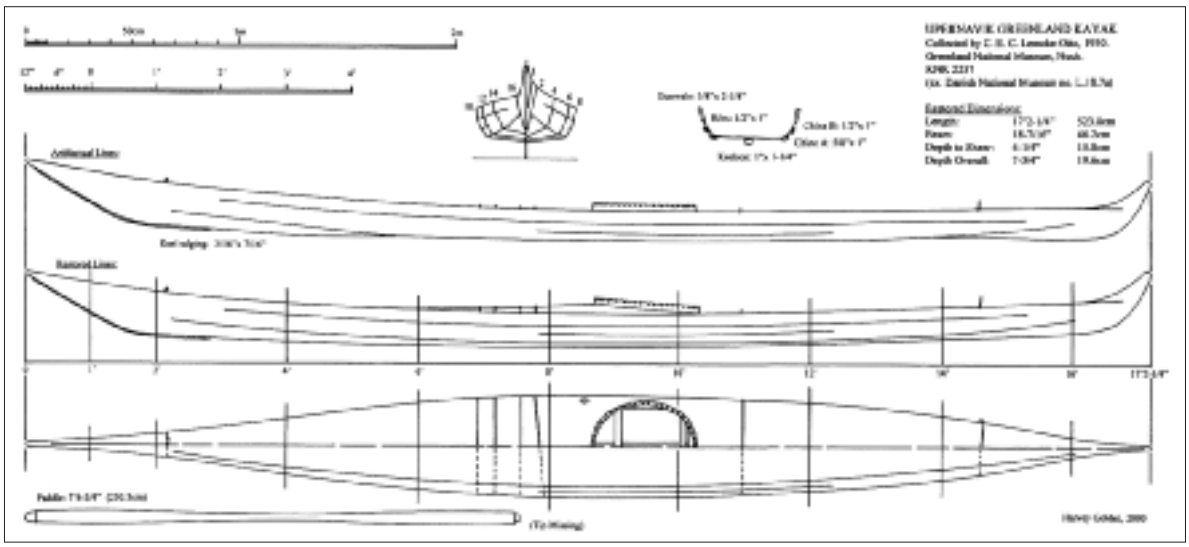

Fig 81a. Kayak from Upernavik sent to the Danish National Museum, Copenhagen, by Lemcke Otto. It has now been transferred to Greenland National Museum & Archives, where it was surveyed and drawn by kayak expert Harvey Golden.

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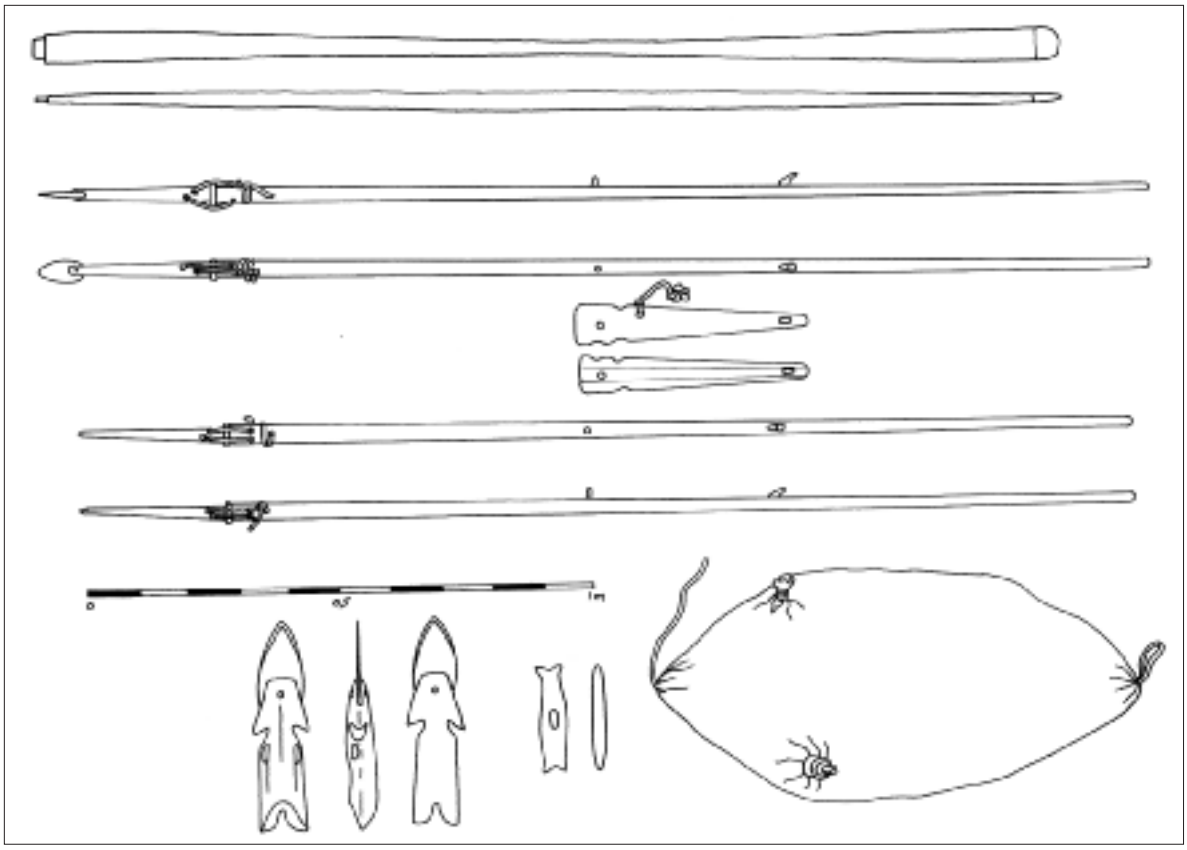

Fig 81b. Hunting equipment from the kayak recorded by the author.

drawing, sharply upturned. This is thought to be the original kayak type. However, as is apparent from some of the kayaks built at the end of the 1960s, several kayaks still have an upturned stern, whereas the forward part is straight, almost horizontal. This is thought to be a consequence of hunters beginning to use rifles in kayak hunting.

At Upernavik Museum there is a kayak of approximately the same age built in Kuuk in 1928, where catechist Mathias Løvstrøm bought it for 75 DKK. It measures 5.3 m in length and is in very poor condition, partially lacking its skin covering and without equipment.

From Upernavik there is a further kayak gifted to the Viking Ship Museum in Roskilde around 1970. Written on one paddle with large clear letters is 'Ole Nielsen, UPV'. At the end of the 1960s Ole Nielsen was manager of the trading station at the settlement of Kangersuatsiaq, south of Upernavik and he was also formerly manager in Nuussuaq. The kayak, which need not necessarily be Ole Nielsen's own kayak, was clearly built in the south district where the kayak rudder or fin was normally built into the frame itself so that it was incorporated under the skin cover. According to the seams it appears that four depilated sealskins, probably from adult harp seals, were used in covering it (Figs 82, 83, 84).

According to Kaj Birket-Smith, the upturned stem/stern is characteristic of the Upernavik kayak (Birket-Smith 1924:270). According to H.C. Petersen it was straightened out and made more horizontal as a consequence of the introduction of the rifle as a kayak weapon at the end of the 19th century (Petersen n.d., 1986).

Birket-Smith reveals further that "the Upernavik kayak is particularly interesting because of some very old features: The crosstrees rest in cavities and are not directly pegged through the gunwale, whereas the ribs are lashed to the keel with thongs through holes in the latter" (Birket-Smith 1924:270). These 'very old features' are perhaps not so old as he presumes. Letting the crosstrees into the gunwale is a considerable more time-consuming and technically demanding technique whereas pegging into the gunwale can be

Fig 82. The kayak was sent from Upernavik by trading station manager Ole Nielsen, Kangersuatsiaq, south of Upernavik, at the end of the 1960s. Photo by Werner Karrasch, Viking Ship Museum.

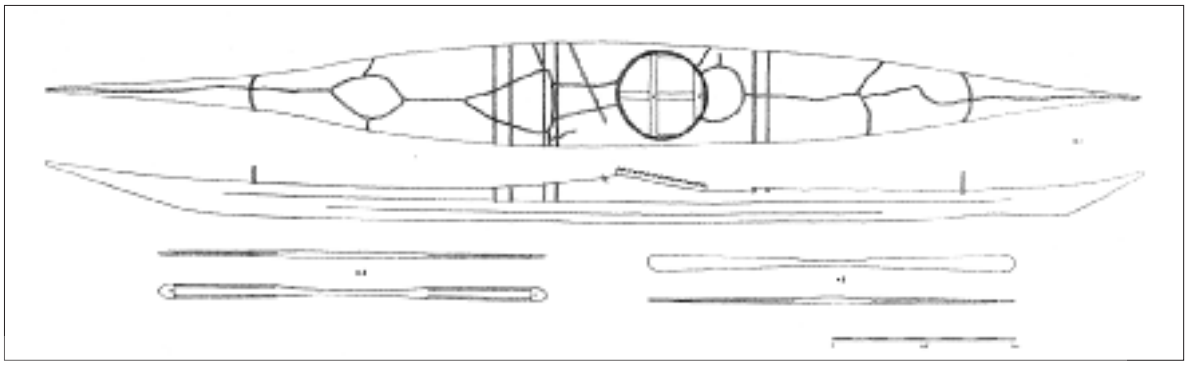

Fig 83. The Upernavik kayak given to the Viking Ship Museum in Roskilde, Denmark. Length 5.9 m, breadth 60 cm at its broadest point.

Fig 84. The kayak is very flat-bottomed and a glance inside the vessel for and aft shows clearly that most of the ribs in the frame have been pressed up, probably because it has lain directly on a flat floor for more than 30 years. On the drawing in fig. 83, the keel has, however, been straightened out in that the distance from the keel to the upwardly bowed ribs has been added from the bottom of the keel. It has a length of 5.9 m and is 60 cm at its broadest point. Two paddles accompanied the kayak, one lacking fittings whereas the other, which was made from very fine-grained dark driftwood, has both fittings and bone knobs. Photo by Werner Karrasch, Viking Ship Museum.

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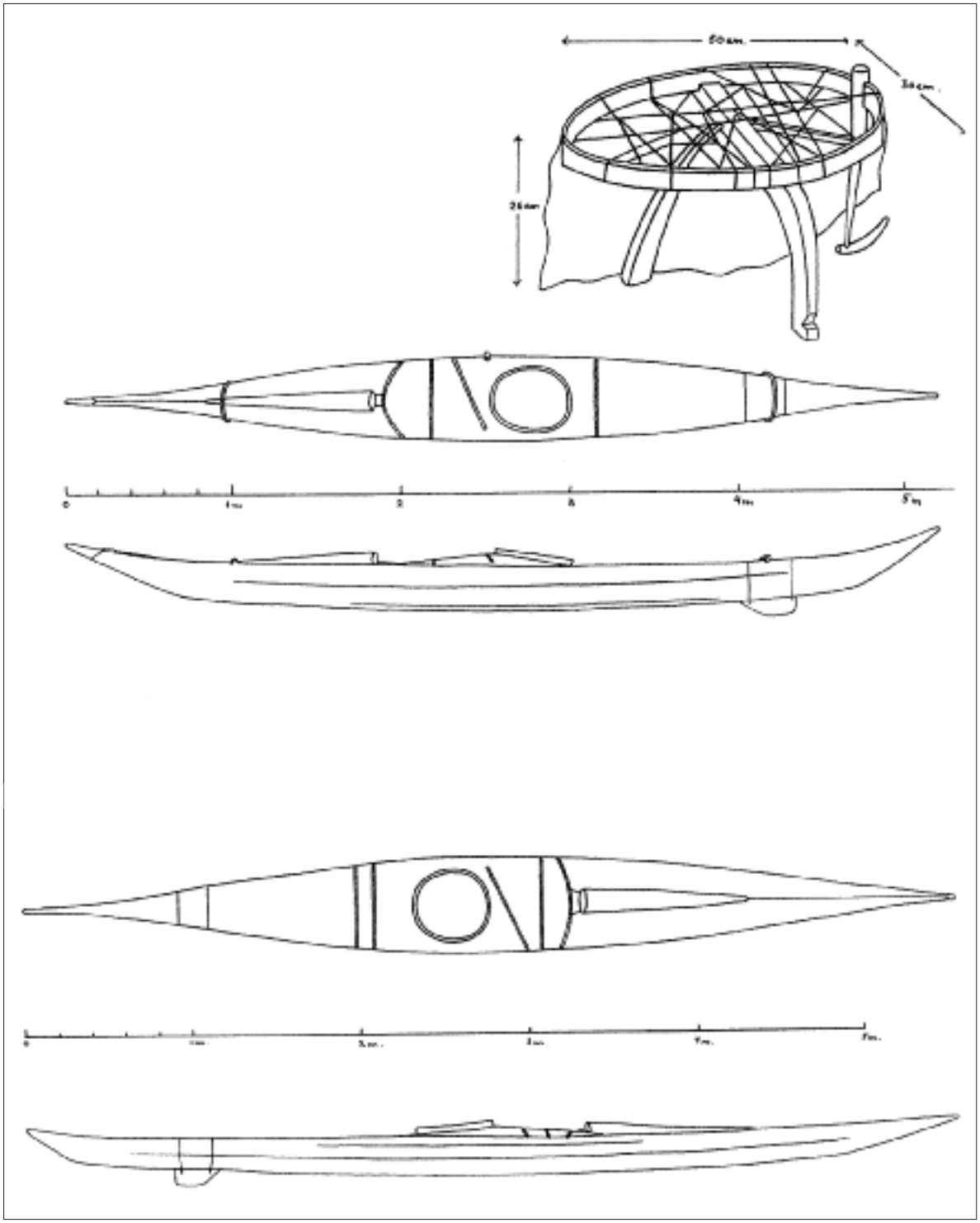

Fig 85. Two kayaks used in Nuussuaq in 1968. The upper belonged to Johannes Jansen, who built it together with his father Pavia Jensen. The lower is Jørgen Jensen's kayak, which was built by the hunter Frederik Danielsen in Kullorsuaq.

achieved in a very short time. This technique is one of the reasons for it being possible at the end of the 1960s to build a kayak in one or two days.

The classification of kayak types on the basis of such details is, under any circumstance, open to question (Jensen 1975). Among the kayaks recorded in

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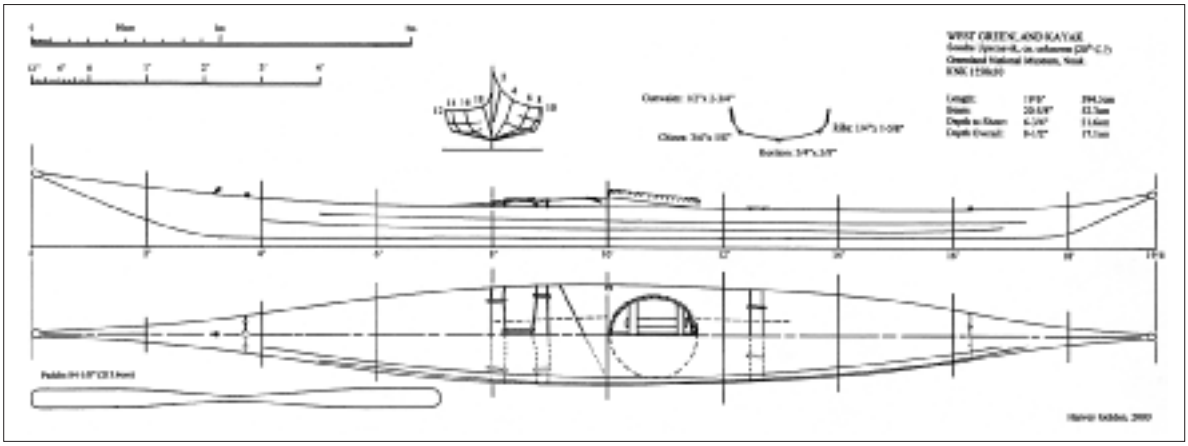

Fig 86. Kayak from Søndre Upernavik surveyed and drawn by Harvey Golden at Greenland National Museum & Archives.

Fig 87. A newly built kayak skeleton photographed at Nuussuaq in August 1956 by Jette Bang/Danish Arctic Institute. The cowl and the paddle are probably from the owner's previous kayak, whereas the kayak rudder appears to be new. The periodical census of hunting equipment etc. is only a guide. Were all the items operational at the time of the census – or would a kayak such as this be included? The kayak could also have been built shortly before the count and covered the day after.

1967-68 there were kayak frames with the deck ribs attached in several ways, as was the case with the mortices in the shooting sledges.

Another detail which naturally cannot be seen when the kayak is covered is the number of twisted thongs or strings which are held tight with wooden wedges under some of the cross-ribs. They serve to pull the gunwales into the desired form and give the desired shape (Figs 85, 86, 87, 88).

The foremost cross-strap immediately in front of the kayak cowl reaches, however, only halfway across the deck where it is fastened to the *masik* under the cover. In this way it is said to be easier to push the kayak paddle in under the cross-strap when this was necessary.

The kayaks registered as being used by the hunters in 1967-68 show that there were still a number of skin-covered kayaks for which the skin from large

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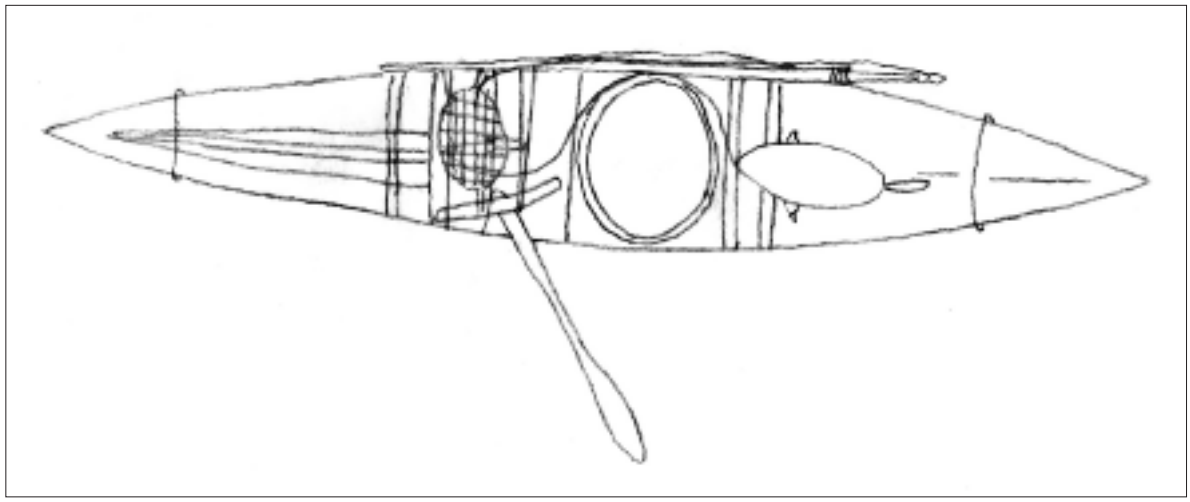

Fig 88. Drawing of a kayak by Mathias Løvstrøm, Aappilattoq 1966.

Fig 89. Jakob Frederiksen from Nuussuaq hunting in Melville Bay. Photo by the author.

harp seals was preferred. In the absence of this, depilated skins of large ringed seals were used. Some of these kayaks were, like those covered with canvas, painted white, partly as camouflage among the icebergs and partly to increase the covering's lifetime by a year or two (Fig. 89). Many hunters were forced to use the paint that was available from the store, but the hunters were as a rule not in agreement as to which paint was best. My own attempts on two kayaks, painted with oil-based paint and emulsion paint respectively, proved to be approximately of equal durability. If an accident should result in a tear in the kayak, many hunters had, especially in the spring at the ice margin, needle and thread and a little tin of almost

Fig 90. Canvas boat built by Hans Larsen and his son Edvard, summer 1969. Photo by the author.

dried-out paint, which they could rub over the repair with their finger so the kayak could quickly be used again.

Until 1970 one could presume that the number of hunters corresponded more or less to the number of kayaks. After the use of modern dinghies (Fig. 90; Plate 7) with outboard motors was permitted locally, the official hunting statistics show that almost half of the hunters had replaced their kayak with a glass fibre dinghy (Kapel 1973).

A kayak built in a day

The best and most beautiful kayaks will normally take the kayak builder several days to produce, but a functional and useable kayak can be built in a single day, as both Bendt Frederiksen and Thimotius Løvstrøm have shown. The timesaving aspects are especially that metal frames (fencing wire), nails, staples and cramps are used instead of lashings.

Their tools comprised a little saw, a drill, a knife, sandpaper, small galvanised nails, tacks and cramps, a hammer, twine for bindings/lashings, glue, a hacksaw or a pair of pliers. Clamps are a great help and are often used instead of temporary bindings during construction.

The materials, which could all be bought in the store, were as follows:

- Keel: 1 piece (450 x 2 x 2.5 cm)
- Bow and stern pieces: 2 pieces (70 x 25 x 2 cm)
- Side frames: 2 pieces (450 x 1.5 x 2.5 cm)
- Gunwales: 2 pieces (530 x 6.5 x 1.7 cm)
- Reinforcement of bow and stern: 2 pieces (60 x 15 x 0.9 cm)
- Deck beams: in total 650 cm (3 x 1.7 cm)
- *Masik* and back supports: 2 pieces (60 x 2 x 10 cm)
- Deck lists: in total 500 cm (2.5 x 0.6 cm)
- Fencing wire: c. 12 m (thickness 0.5 cm)
- Canvas: 6 m (width: 140 cm) or 12 m (width 90 cm)
- Kayak paddle: 1 piece (750 x 3 x 12 cm)

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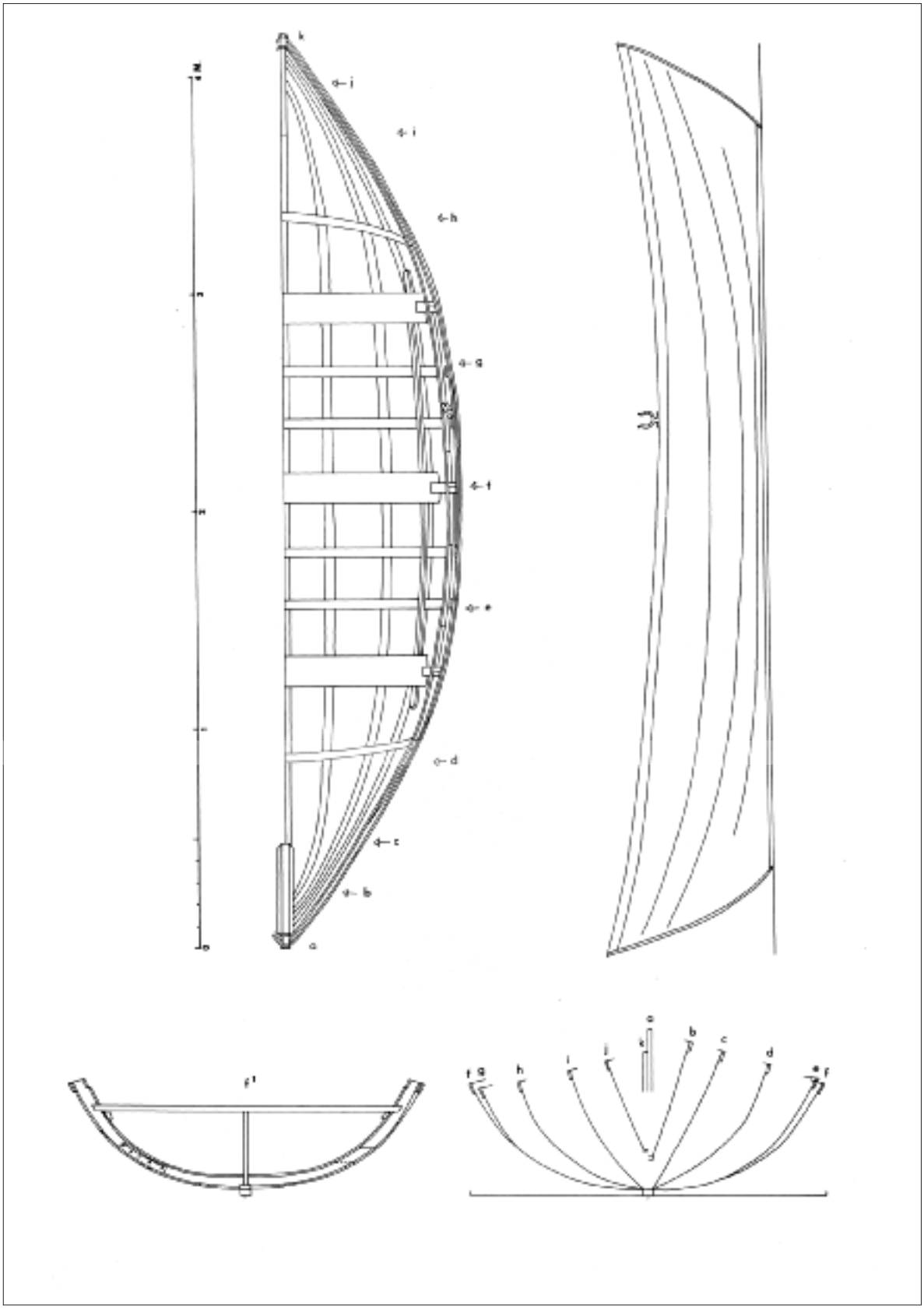

Plate 7. Canvas dinghy – Umiatsiaaraq, built by Hans Larsen, Nuussuaq 1968.

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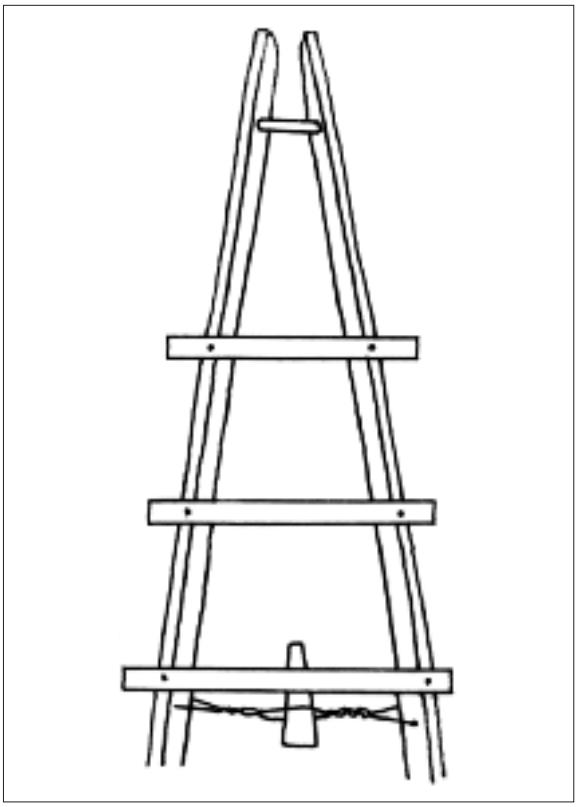

Fig 91. When the gunwales' shape has been fixed, the ends of the ribs are sawn off along the edge of the gunwales.

- Cost of materials in 1967:
- Wood: 64 DKK
- Fencing wire: 5 DKK
- Mast hoop: 25 DKK
- Canvas: 80 DKK
- Paint: 35 DKK
- Nails, needle, thread: 6 DKK

- Total: 215 DKK

The construction process can be briefly described as follows:

The deck with the deck beams is made first, after which holes (5 mm) are drilled in the underside of the gunwale for the metal hoops which are fixed with small nails that are bent over, or staples. Side frames are then bound with twine to the hoops after cuts have been made to let in the bindings. Deck lists are stapled or bound to the deck beams. Before the kayak is covered, all sharp edges are rounded off with sandpaper, especially on the keel and gunwales. The covering is attached to the upper edge of the gunwale us-

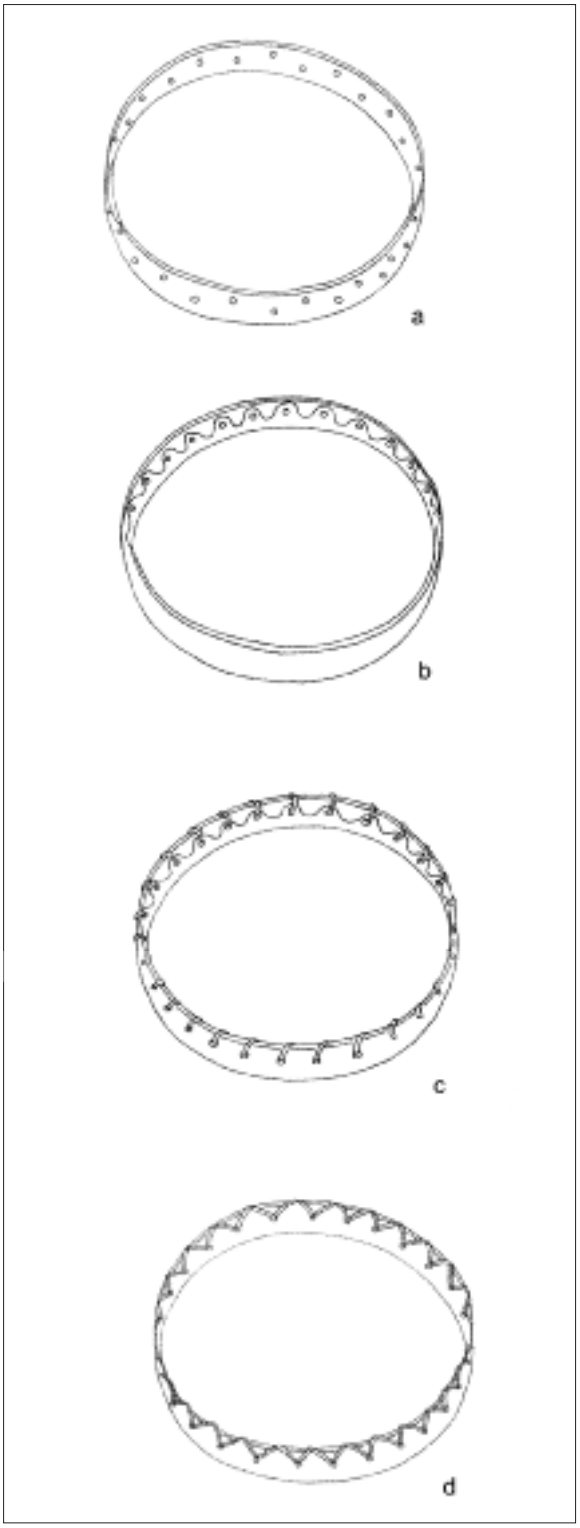

Fig 92. Three methods used when the kayak cover is attached to the kayak coaming. a. Drilled holes in driftwood (seldom seen); b. The cover fastened with metal nails (normally used); c. The cover secured by a string; d. The cover secured by drawing the string twice through the same hole (seen rarely but seems to be the best covering method).

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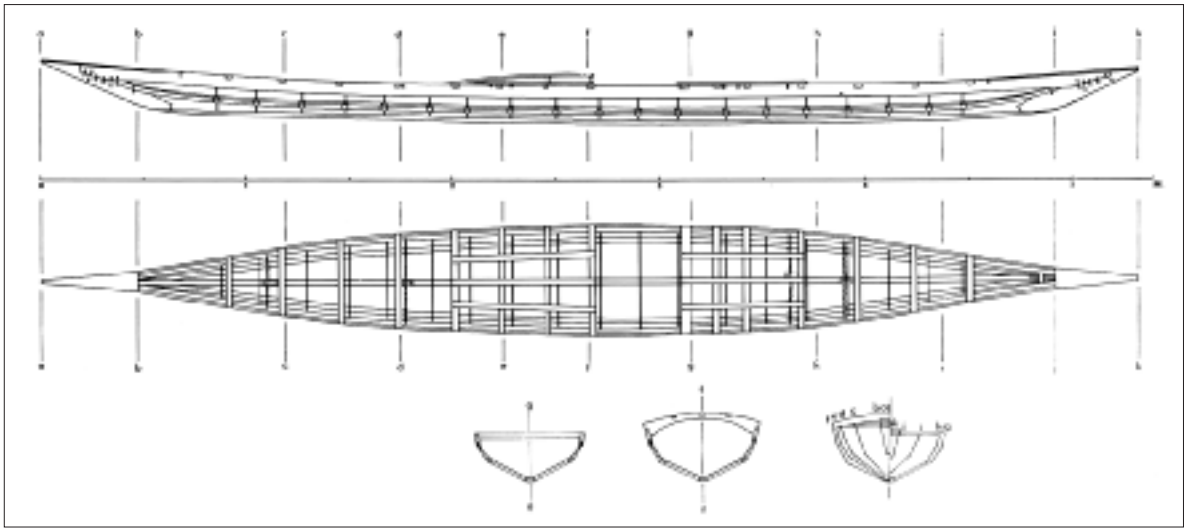

Plate 8. Kayak frame – *Qaannaq saarna*; built at Nuussuaq 1968.

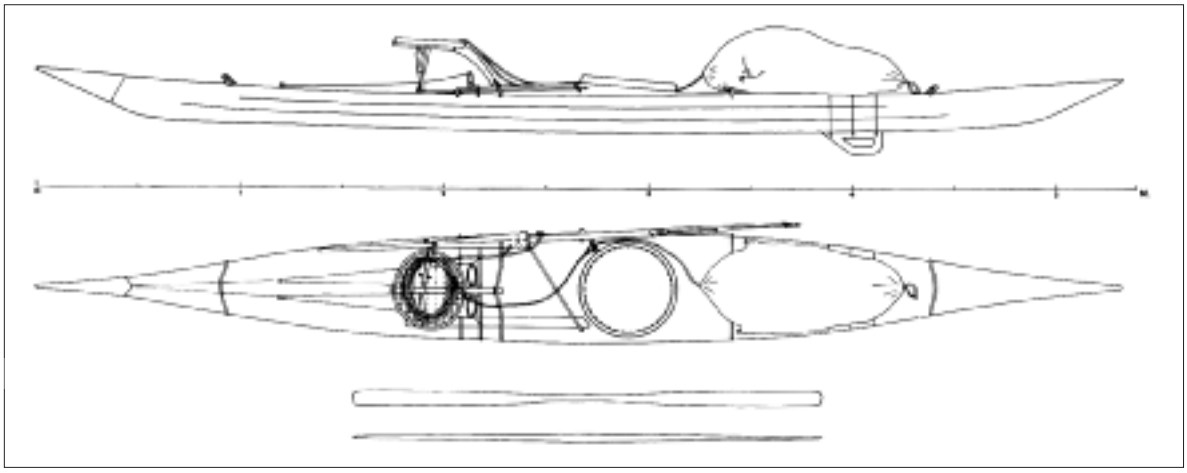

Plate 9. Kayak with equipment – *Qajaq pisatarisartagaalu*; and Kayak oar – *Paatit*. The same kayak as shown in plate 8.

ing tacks (Fig. 91). The canvas on the deck is also attached at the same time using the same method. Sewing the covering, as in the case of the skin-covered kayaks is, of course, more time-consuming. The kayak cowl is placed loosely (or possibly attached with a nail for and aft) and the covering is pulled up and attached with small tacks internally in the ring (Fig. 92). Finally, the vessel is painted with 2-3 coats of emulsion or oil-based paint. Particular attention is paid to the joints and seams (Plates 8, 9).

The kayak

The terms for the individual parts of the kayak and frame are given here on a kayak model 1.1 m in length, made by hunter and district bailiff Peter Heilmann in 1967 (Table 11) (Fig. 93). This gave the opportunity to discuss the individual details with Peter and the other hunters both before and after covering.

Plate 10. Hunting equipment for a kayak – *Sakkuutit*. a. Harpoon (*naaligaq* – actually a spear). 1. Harpoon head (*tuukkaq*); 2. Foreshaft (*igimaq*); 3. Harpoon shaft (*unaaq*) with throwing board (*norsaq*); 4. Harpoon line (*aleq*); 5. Harpoon-line tightener (*saviffik*); 6. Harpoon-line tierce (*sannerut*); 7. Hunting bladder (*avataq*); 8. Hunting bladder holder (*paaguaq*); 9. Inflation nozzle for the hunting bladder (*puerfik*); 10. Wooden bung (*simik*) also used as button (*uartaq*) for repairing the hunting bladder. b. and c. Line racks or supports (*asallut*); b. old type, c. modern type. d. Special knot (*qillaq*) for fastening the bladder to the line.

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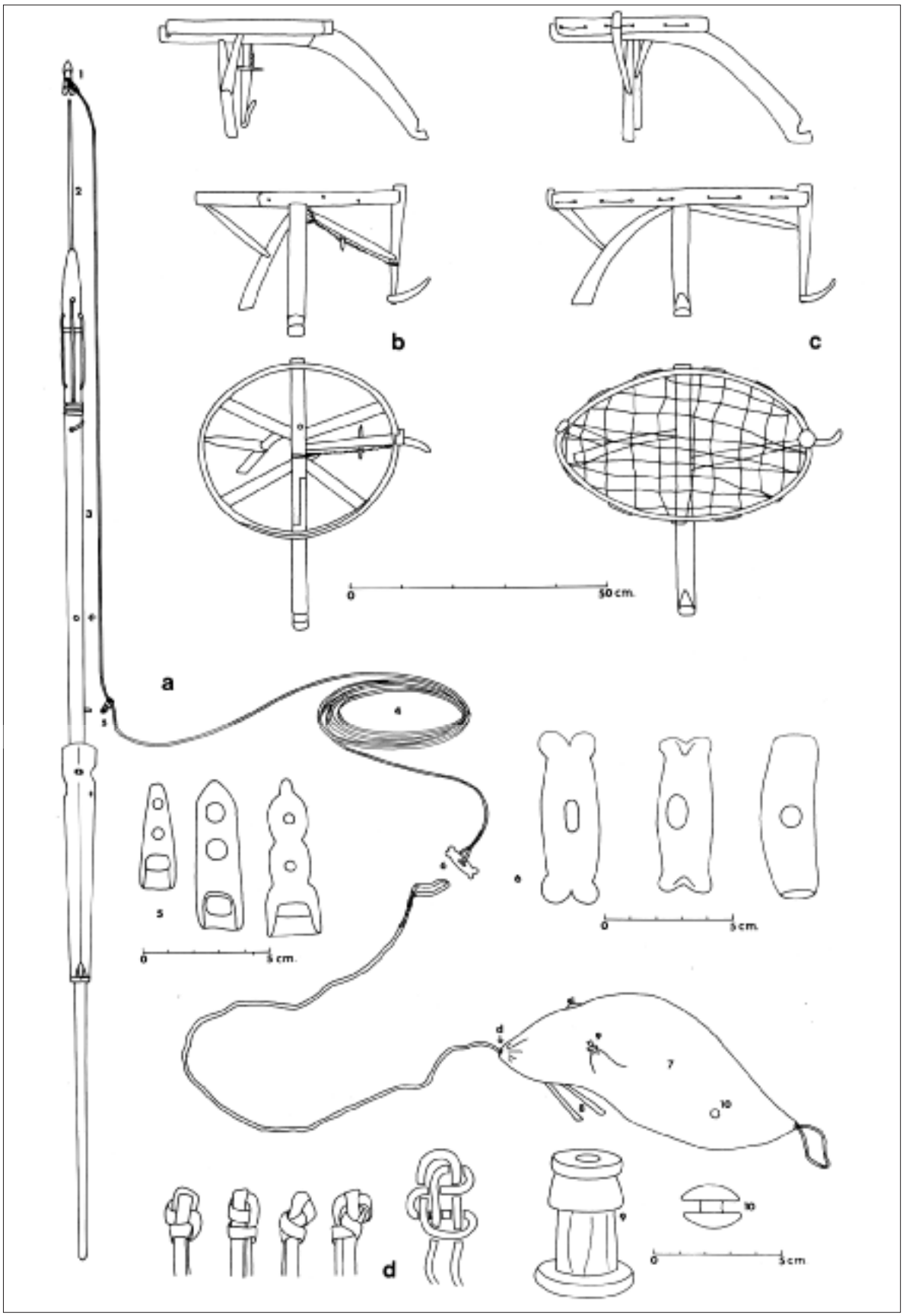

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Table 11. Greenlandic terms for the kayak and its equipment.

No.	Greenlandic	English	Danish
1.	Qaannap saarna	Kayak frame	Kajakskelet
2.	Kingu	Stern tip	Agterspids
3.	Usuusaq	Stem and stern post	Stævnstykke
4.	Qalliut	Stitching	Syning
5.	Kikiak	Wooden dowel/trenail	Trænagle
6.	Ajaaq	Cross-beam	Tværtræ
7.	Noqarut	Lashing	Surring
8.	Tunersuit or Kuutsiit	Deck stringers	De bagerste dæklister (egtl. bækkenbenene)
9.	Igartarfik	Back support	Lændestøtte
10.	Apummak	Sheer board	Rælingsbrædt
11.	Masik	Masik	Masik
12.	Seeqqortarfik	Knee support	Knæstøtte
13.	Taqqarfiit	Rebates for cross-straps	Udskæringer til tværremme
14.	Tippik	Rib	Ribbe
15.	Kujaaq	Keel	Køl
16.	Sianeq	Chine stringer	Sidelægte
17.	Niutaaq	Stem and stern profile	Stævnprofil
18.	Qajaasaq	Kayak model	Kajakmodel
19.	Kiluit	Seam	Sømmen, sammensyningen
20.	Qaava	Deck	Dæk
21.	Taqqaq	Cross-strap	Tværrem
22.	Paaq	Cockpit cowl	Kajakring
23.	Assagiikkut	Harpoon support	Harpunholder
24.	Poortaq	Gun holster	Riffelpose
25.	Siu eller Usuusaq	Stem	Stævn
26.	Anguigaq	Lance	Lanse
27.	Taqqaasaq	Foremost cross-strap	Forreste tværrem
28.	Avataq	Hunting bladder	Fangstblære
29.	Paassiaq	Lashing on cockpit	Surring på kajakring
30.	Orsiutit	Towing rope	Bugserrem
31.	Qisoqut	Wooden board	Træstykke
32.	Aleq	Harpoon line	Harpunline
33a.	Kussuaq	The broad strap between the harpoon line and the hunting bladder	Den brede rem mellem harpunlinen og fangstblæren
33b.	Qitsuusersuineq	The broad strap between the harpoon line and the hunting bladder	Den brede rem mellem harpunlinen og fangstblæren
34.	Asallut	Line rack	Linestativ
35.	Taalutaq	Shooting screen	Skydesejl
36.	Aquut	Kayak rudder	Kajakror (styrefinne)
37.	Paggersuut	Attachment of the kayak cover to the cowl	Fastgørelse af kajakskind til kajakringen
38.	Ipu	Bottom post	Nederste støtteben
39.	Ajaappiaa	Support for line rack	Støtte på linestativ
40.	Qilaanngusaq	Ring on line rack	Ringen på linestativet
41.	Ataa	Under side	Undersiden

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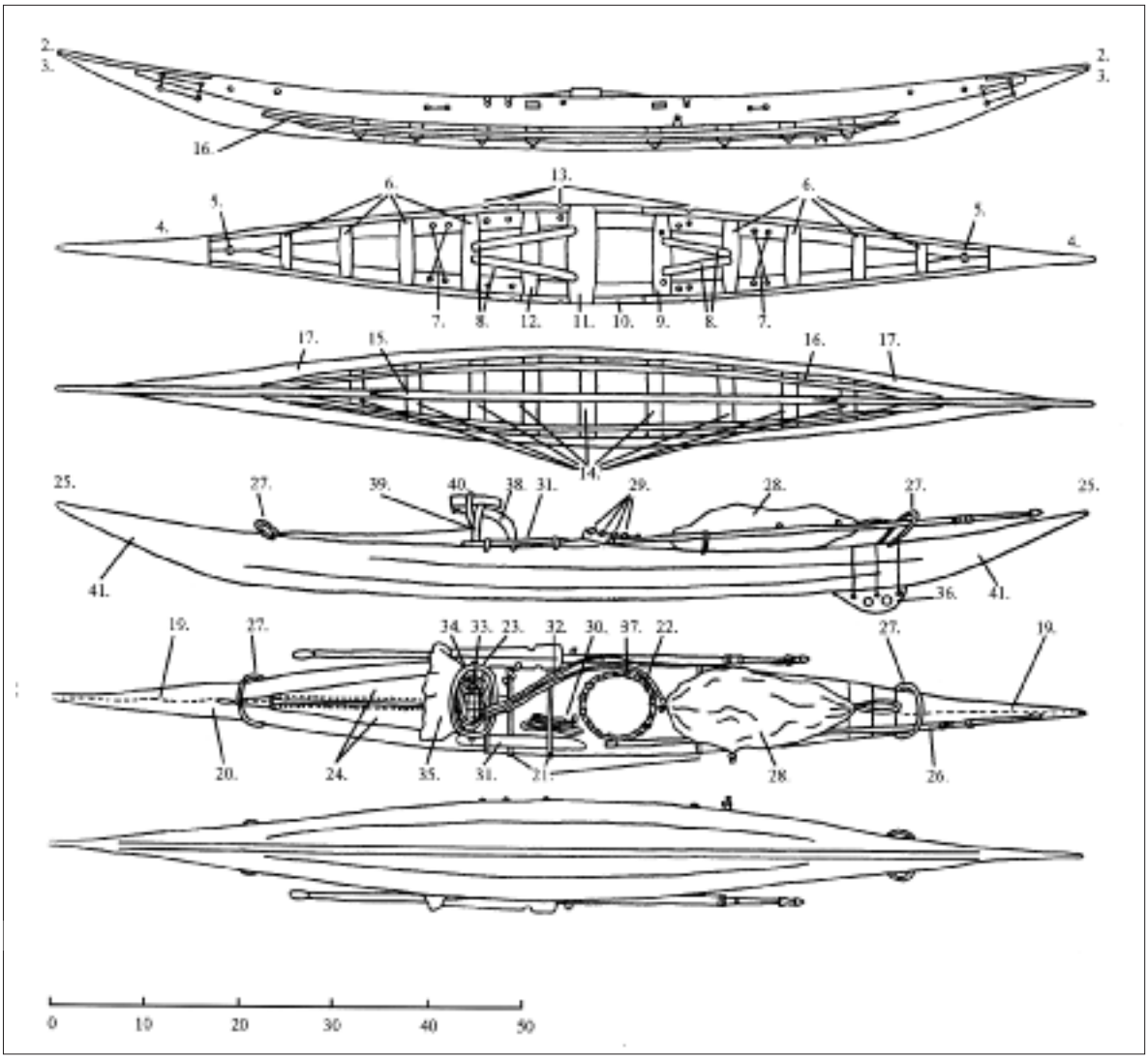

Fig 93. Model kayak made by Peter Heilmann, Nuussuaq 1967.

Kayak equipment (qaannap pisatai)

The most important components of the kayak equipment are still used by many hunters (Plates 9, 10, 11). The double-bladed kayak paddle and the harpoon with line and hunting bladder are, of course, the most necessary tools. The traditional lance has been replaced by the rifle and the bird dart with the shotgun or cal. 22 rifle which has made rifle cases necessary on the kayak's foredeck. The harpoon shafts can vary slightly in form.

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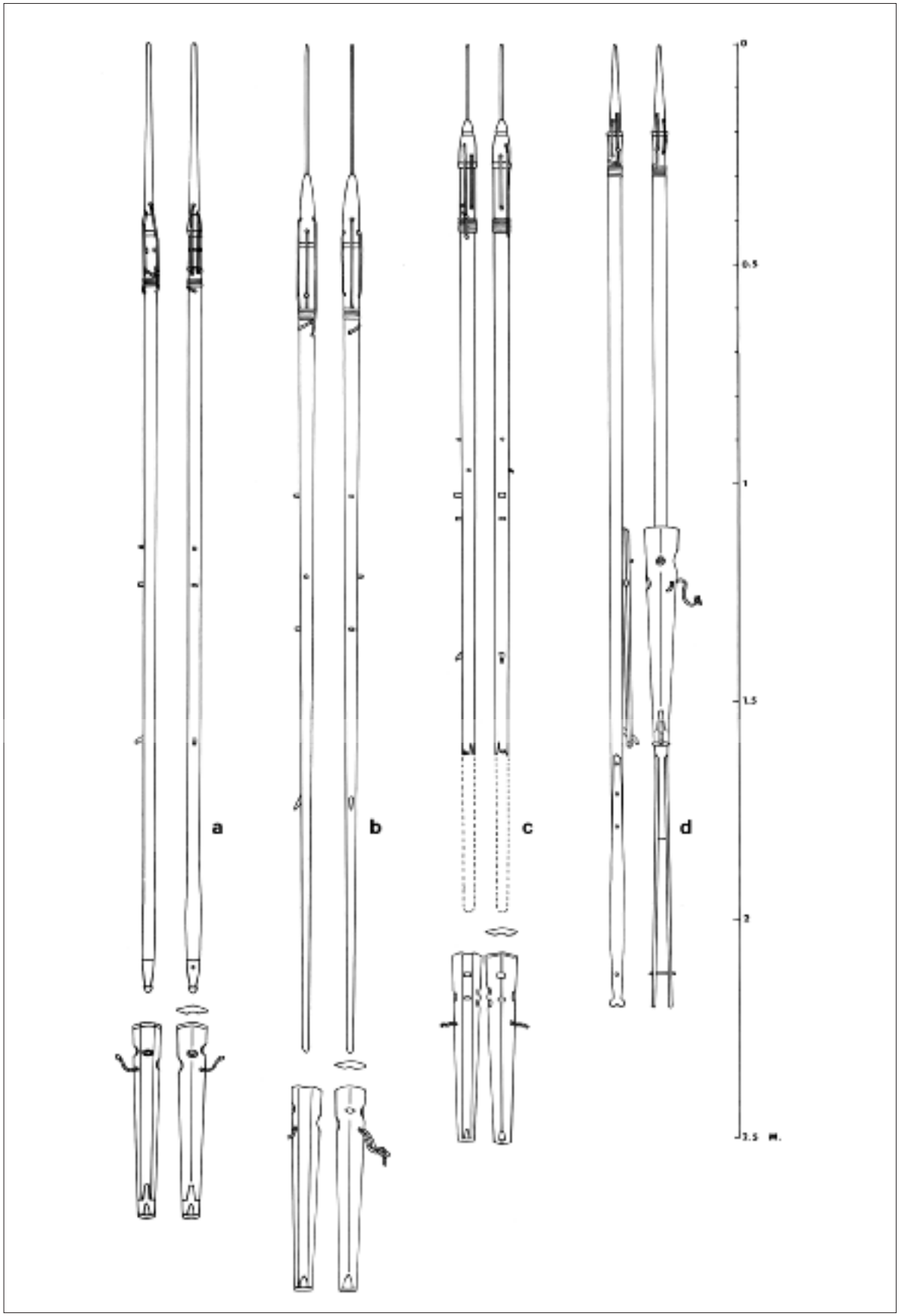

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Harpoons

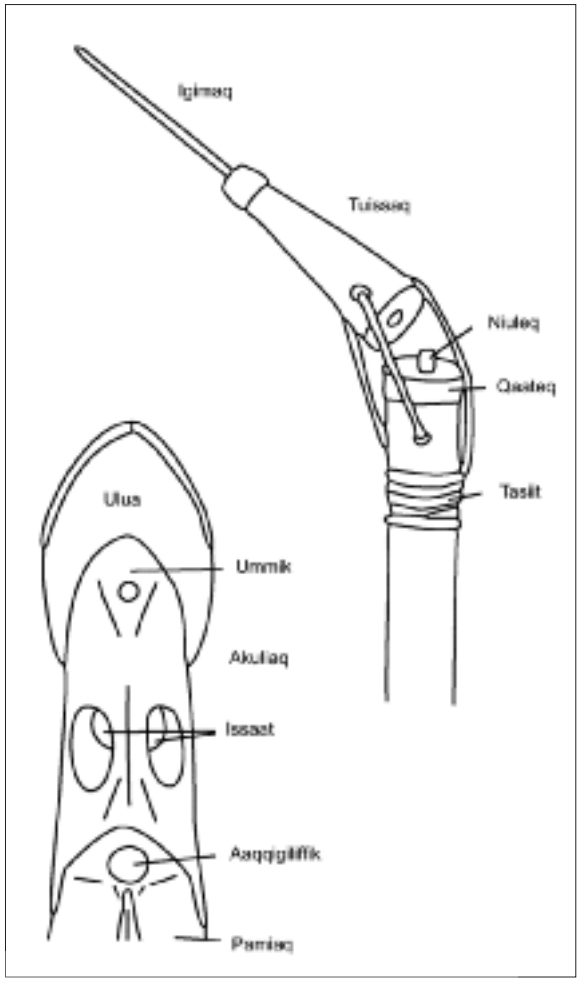

Fig 94. Local terms for the harpoon head and fore-shaft.

Harpoon heads – *Tuukkat*, singular: *tuukkaq*
Modern harpoon heads can be roughly divided into two main groups: the large flat types, primarily for narwhal and white whale, and the smaller round examples of the so-called 'sakko type' intended for large and small seals. They all have a closed socket, no barbs and with the harpoon blade at right angles to the line hole. The blades are of steel or iron made from re-used material, for example saw blades. They are all sharpened from the tip back towards the blade's broadest point and no further, so that they corresponded to the broadest point of the harpoon head itself. If they were sharpened further down, the sharp edge would cut the line when the harpoon head turns in the harpooned animal. For the same reason, the binding on the line, which formes the loop through the line holes, is so short that the harpoon head with its rearmost part is just able to turn in the loop.

The open socket has gone completely out of use and where, in a few cases, ribs and furrows can be seen in the harpoon heads around the socket this is due to a repair or extra reinforcement with metal wire, for example copper.

With regard to material, it is obvious that a harpoon head of metal is stronger than one of walrus or narwhal tusk. Tusk in particular splinters easily if the point hits the ice or a bone in the harpooned animal. The use of the new materials such as iron and brass has, however, not had an influence on either form or function (Fig. 94).

A comparison between recent and archaeological finds of harpoon heads shows that barbs have now gone completely out of use, whereas some types are largely identical and unchanged in form through several generations. With regard to function, the barbs

Plate 11. Harpoon – *Naaligaat*. All in use in the hunting season 1967-68. a. The so-called knob or stud harpoon, *unaaq* (old type). It measures 2.5 m in length and was recorded in Kuuk, made by hunter David Eskildsen. The fore-shaft, the knob, other studs and reinforcements of the throwing stick are, as is the associated harpoon head, made of narwhal tusk. David made it for me in 1967 when the other hunters recommended him as the best. I can add, furthermore, that it functions perfectly for large game animals. Bendt Frederiksen harpooned a narwhal with it and I did the same with a large hooded seal on a hunting trip to Melville Bay. b. The most common unaaq harpoon is 2 m long and is used by most hunters (modern type from Nuussuaq). As can be seen, it lacks a terminal to the shaft and the fore-shaft is often, as is the case here, a piece of iron rod which, however, fits the most commonly used small harpoon heads of iron or brass. c. Jørgen Aronsen's unaaq harpoon (modern type from Nuussuaq) which, even though the rear part of the shaft was broken off, functioned well during the whole of the hunting period without being repaired. d. The traditional winged harpoon, *ernannaq*, is 2.1 m long and was made and used by a young hunter from Aappilattoq in 1967. The fore-shaft is of narwhal tusk and the wings (*suluusat*) of whalebone. There is some doubt with regard to the function of these wings. Some hunters maintain that the wings make the harpoon more stable in flight both in the air and in the water, whereas others believe that they are only of significance when the whole harpoon shaft is under the surface of the sea. The knob harpoon has certainly a tendency to lose direction in the water whereas the winged harpoon appears to continue along its trajectory.

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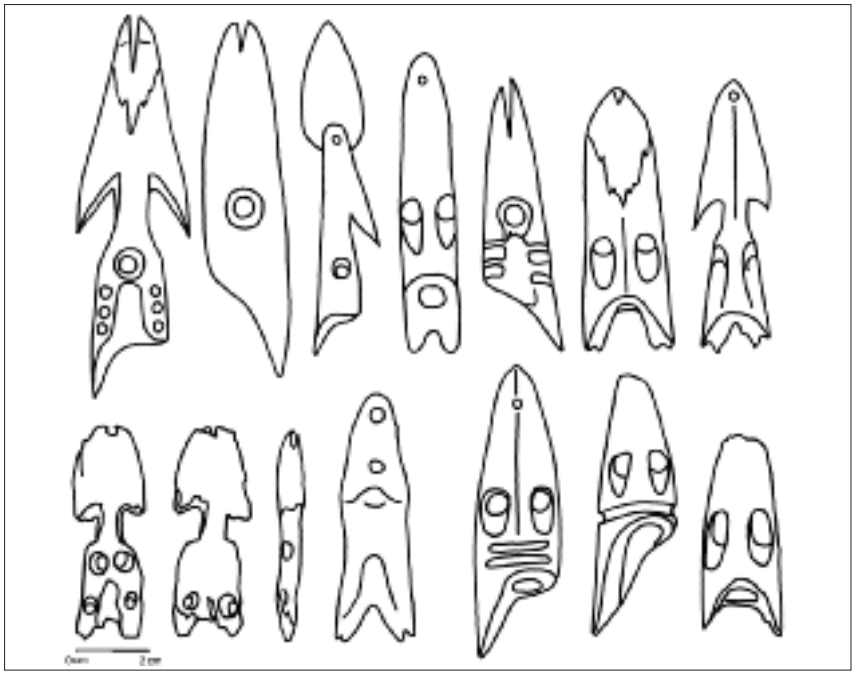

Fig 95. Examples of harpoon heads from Inussuk.

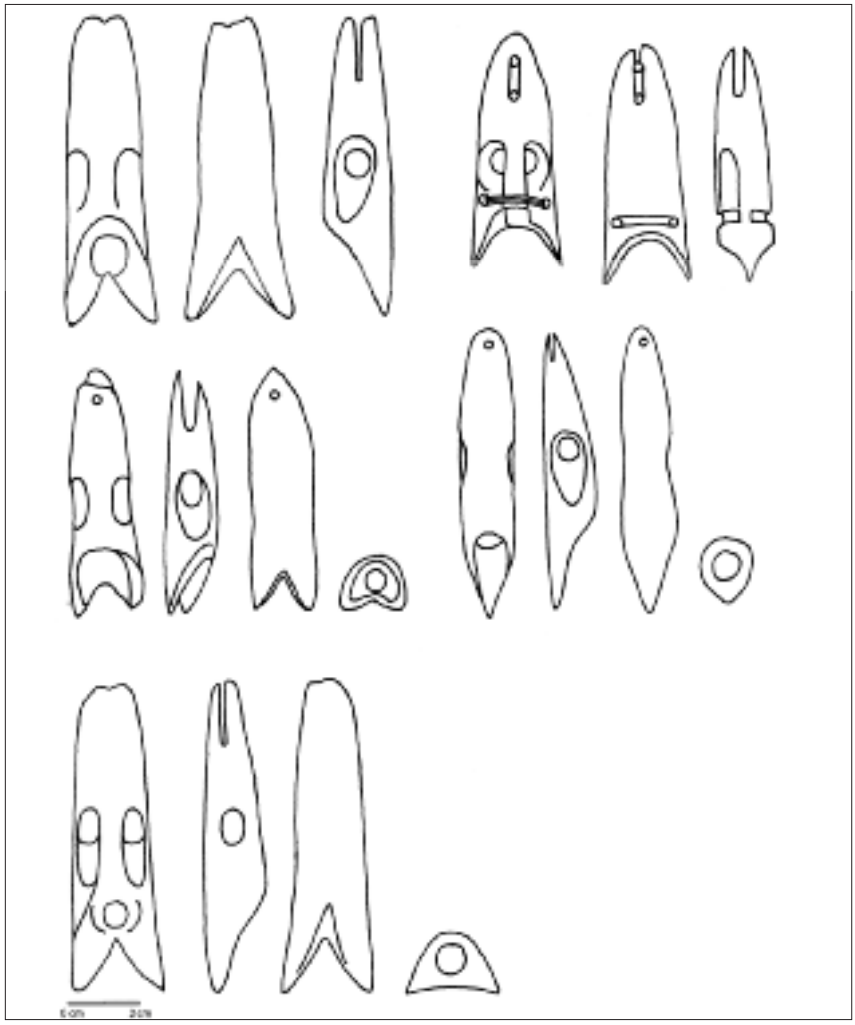

Fig 96. Examples of harpoon heads from Nuugaarsuk.

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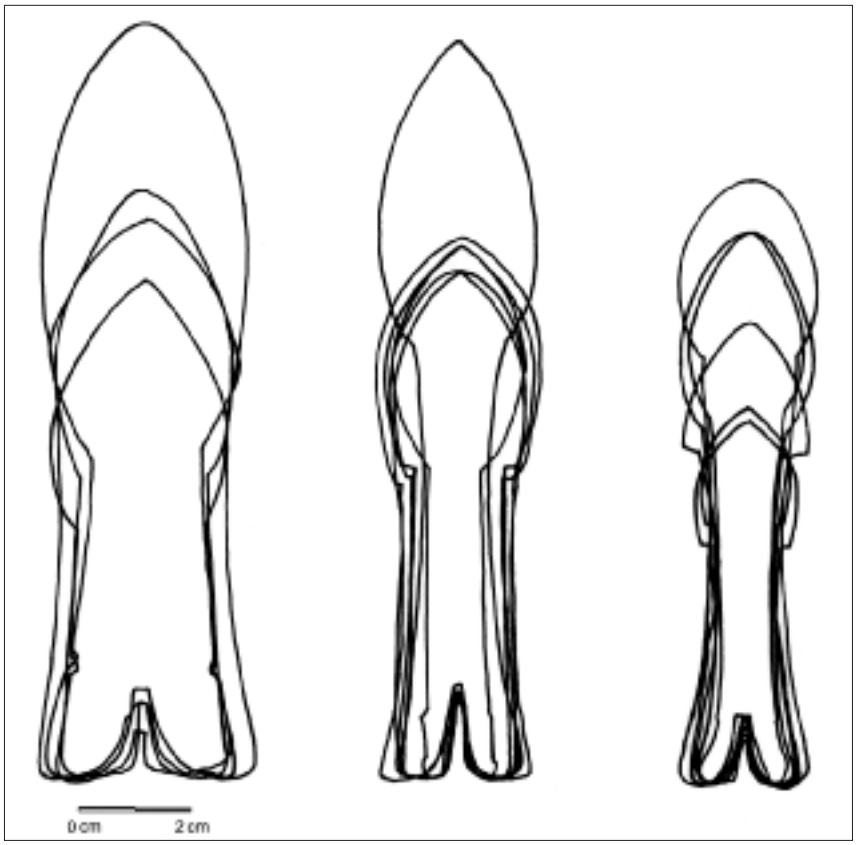

Fig 97. Three categories of harpoon heads used by hunters from Nuussuaq in 1967-68.

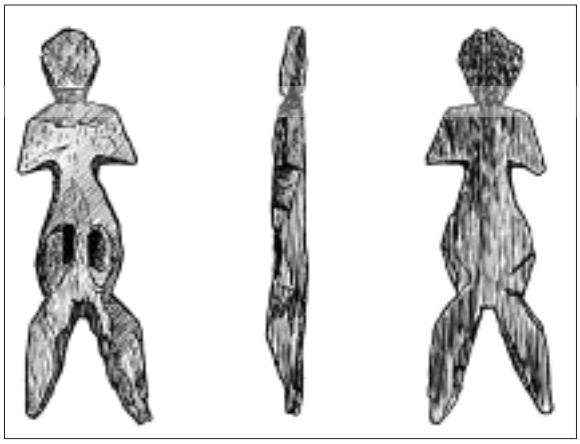

Fig 98. Harpoon doll from Nuugaarsuk. Is it a doll that has become a harpoon head or the opposite?

were probably only important if the harpoon head did not penetrate sufficiently into the animal's body. If the point, on tightening the wire, lodges itself transversely in the animal's body, barbs are of no significance.

The archaeologist Jørgen Meldgaard has described the transition from Pre-Dorset to Dorset, with a gradual, continuous development of harpoon heads over 2-3000 years, as a 'stress period'. The types changed, some disappeared, new ways were sought while the shape was less fixed, variations more frequent and greater (Meldgaard 1986:24). A similar, though very short, stress period of about 100 years could possibly have been a contributory factor in the changing of the harpoon heads in the Upernavik district from the 19th until the middle of the 20th century (cf. the section on settlement with clearance and re-establishment of most of the district).

If the harpoon heads from the excavations at Inussuk and Nuugaarsuk are compared with recent harpoon heads from the 1960s it is clear that the barbs and the open socket have disappeared (Figs 95, 96, 97, 98). The present types can be roughly divided into small round harpoon heads, most commonly of iron or copper, and slightly larger, flat and broader examples of caribou antler. These are both primarily for seal hunting from a kayak or from the ice margin and in a few cases for hunting at the seals' breathing holes. The other main type is significantly larger and flatter, most commonly of walrus or narwhal tusk or brass with a metal blade, being used from a kayak for narwhal, white whale or large seals.

The fact that the open socket has disappeared

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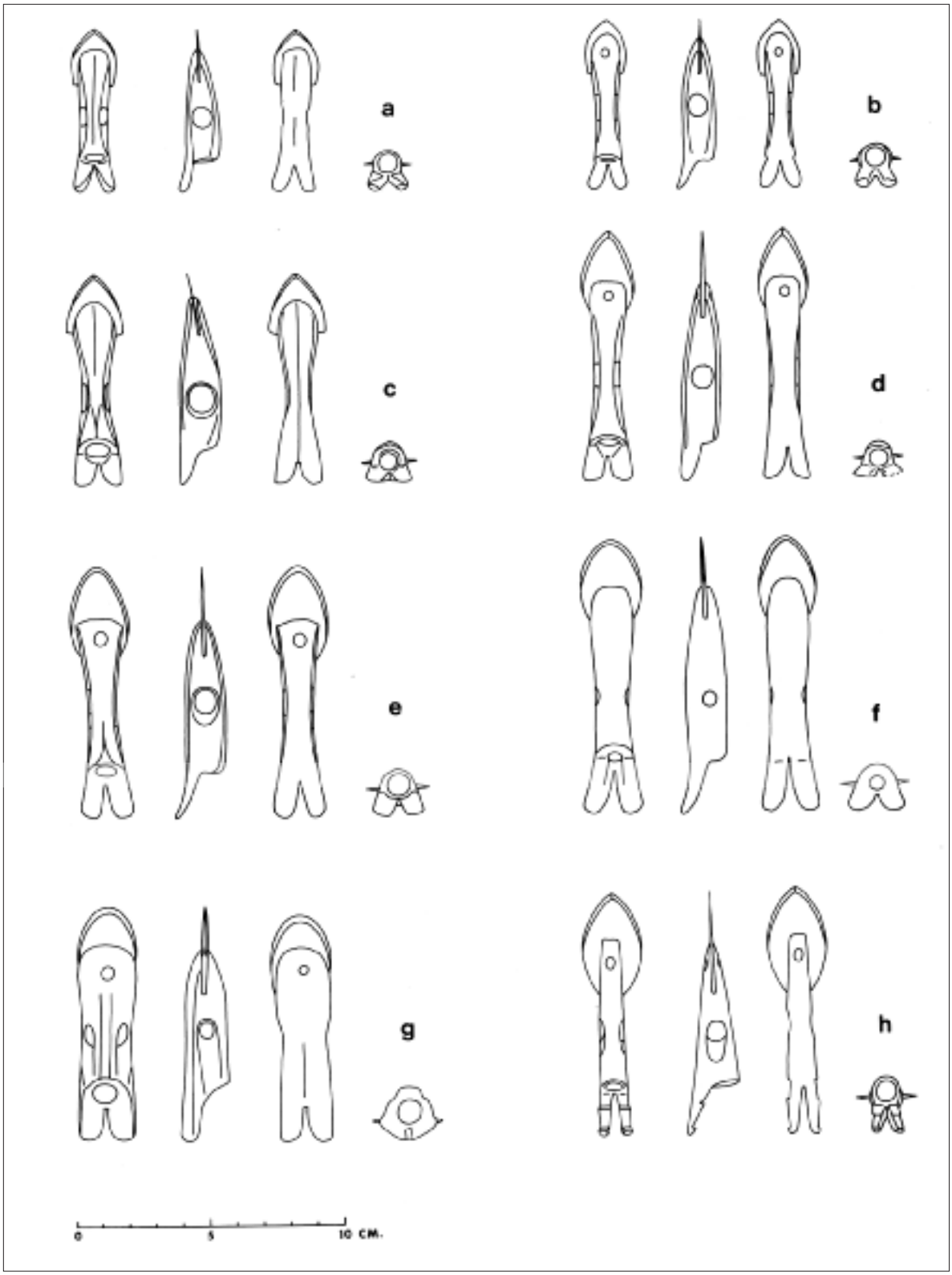

Plate 12. Harpoon heads – *tuukkat* (pl.), *tuukkaq* (sing.). a. Iron, belonged to hunter no. 12; b. Iron, belonged to hunter no. 9; c. Iron, belonged to hunter no. 18; d. Iron, belonged to hunter no. 10; e. Iron, belonged to hunter no. 1; f. Iron, belonged to hunter no. 13; g. Antler, belonged to hunter no. 2; h. Brass, belonged to hunter no. 24.

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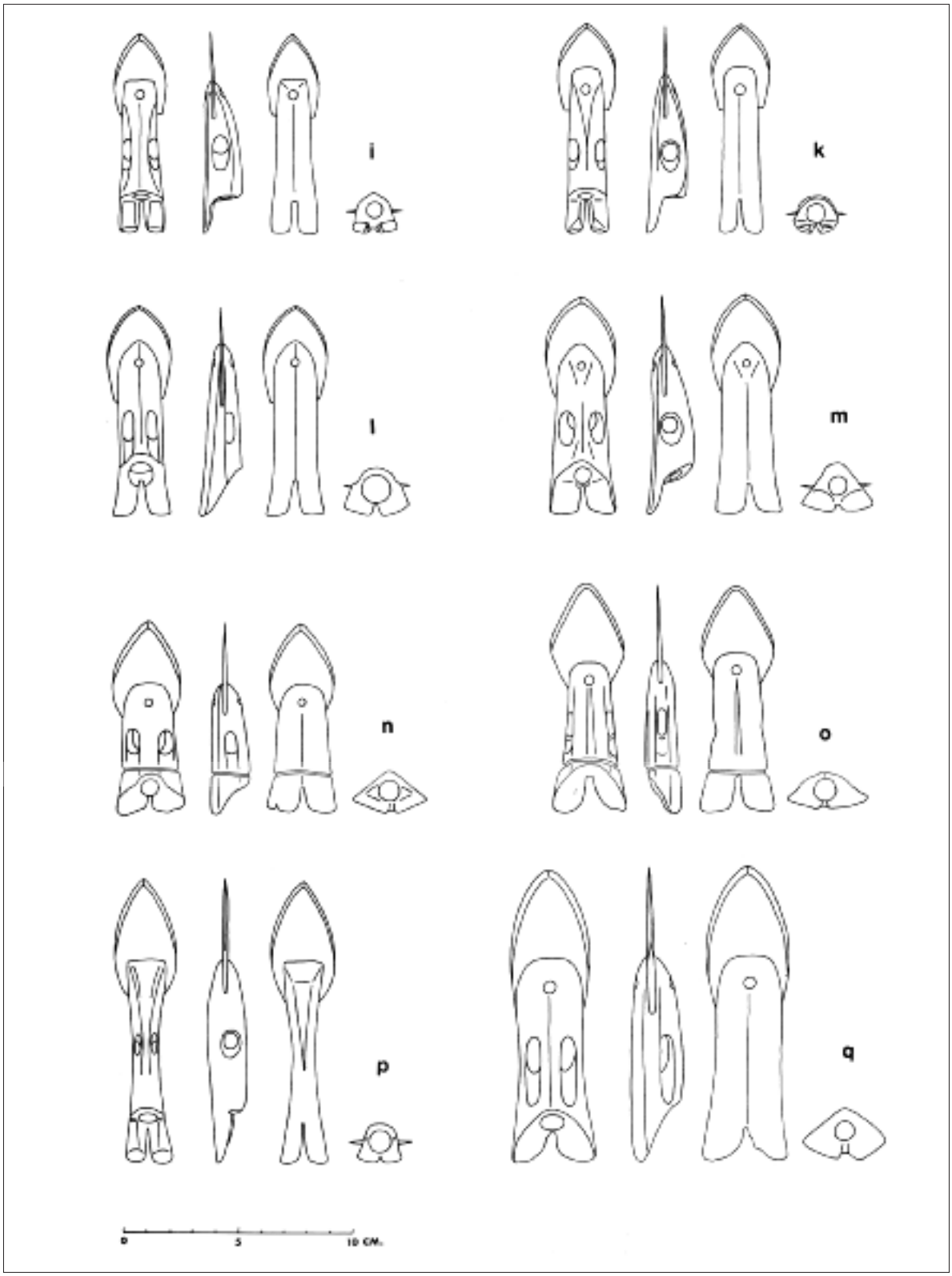

Plate 13. Harpoon heads – *tuukkat* (pl.), *tuukkaq* (sing.). i. Brass, belonged to hunter no. 11; k. Iron, belonged to hunter no. 11; l. Brass, belonged to hunter no. 4; m. Brass, belonged to hunter no. 4; n. Antler, belonged to a hunter from Aappilattoq; o. Antler, belonged to a hunter from Aappilattoq; p. Iron, belonged to hunter no. 3; q. Walrus tusk, belonged to hunter no. 1 (present from a hunter in Illulik).

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Fig 99. Bendt Frederiksen demonstrating harpooning from a kayak, Melville Bay, August 1967. Photo by the author.

could of course be associated with the use of European drills, which have made drilling the hole for the shaft both easier and quicker.

A well-balanced harpoon head, where the line hole was located precisely such that the head always lodged itself transversely in the animal, was what all hunters aspired to.

With regard to the shaping of a harpoon head, all the hunters were in agreement that is was important that the line holes be located very precisely in order for it to have the desired effect. When the line holes are located differently on the recorded harpoon heads, this is never due to chance but, on the contrary, to the individual hunter's adaptation to the form, material and weight of the head. Similarly, the eye fitting to the fore-shaft of the harpoon is very important. The harpoon head must be firmly fixed at a right angle without wobbling. At the same time it should leave the shaft precisely when the harpoon enters the animal.

As is apparent from the selected harpoon heads that were in use in 1967-68 all have iron blades (Plates 12, 13). One was made of tusk, three of antler, eight of iron and four of brass. They were made by hunters from Nuussuaq, with the exception of h – Kuuk, n and o – Aappilattoq and q – Illulik which are included because these four hunters were in Nuussuaq and hunted from there in April-June 1968.

Harpoon line – *Aleq*

Harpoon lines in the 1960s were mostly cut from the skin of bearded seals, although a few were of nylon rope. They varied in length from 10 to 14 m. At the harpoon head they were attached with a sturdy lashing of sinew thread. The line tightener, *saviffik,* was fastened about 1 m down the line. Sometimes this just consisted of a little loop sewn to the line. At the opposite end there was a tierce, *sannerut*, which fitted through the loop on the broad strap of the hunting bladder, *kussugaq*. Both *saviffik* and *sannerut* were made of tusk or caribou antler (Fig. 99).

Hunting bladder – *Avataq*

The hunting bladder's most important function when attached to the harpoon line is, of course, to prevent the harpooned animal from diving or, in the worst case, sinking to the bottom when it has been killed. The large bladder is also used when towing large prey such as whales, walrus and other large seals. Often several floats are used for one animal.

The length of the bladder varies according to the sealskin used to produce it. Those measured varied

from 1-1.5 m. Usually the skin of a harp seal, *aataaq*, is preferred, but if this is not available many hunters use the skin of a large ringed seal, *natsillak*.

Production of the bladder is normally seen very much as men's work, but in Upernavik district it is commonly done in partnership between the hunter and his wife. Firstly, the hunter must bring home a seal of suitable size and quality for the purpose and without too many holes. The seal is not skinned in the usual way. It is cut open at the head, neck and flippers, and the meat and bones are removed through these holes using knives and hands. The speed and sureness of hand shown during this work demonstrates clearly the precise knowledge both men and women have of the anatomy of their prey. The skin is then turned inside out and the majority of the blubber is removed with an *ulu*. The skin is turned again and the layer of hair is removed as described in the section on preparing hides. Bullet-, harpoon- and other holes in the skin are sometimes closed by a robust double stitching with sinew thread, whereas a small hole is closed quickly and effectively with a little button, *uartaq*, made of tusk or bone, about which the skin is easily tightly lashed. A handle, such as a loop of thong made of bearded seal, is attached at the same time as the hole at the back is closed internally. The hole left at one flipper is bound externally, while the other is occupied by a mouth-piece or nozzle, *puerfik*, made of tusk or bone, if use is not made, as some do, of a wooden thread bobbin from the shop, with a corresponding little wooden plug, *simik*.

Two rounded, approximately 20 cm long pieces of wood, bone or tusk are attached about a hand's length (20 cm) apart on the dorsal side of the skin. These will face downwards, towards the deck of the kayak, when the hunting bladder is put in place on the quarterdeck. The rods will protrude backwards under the first cross-strap and prevent the float from sliding into the water when the kayak is moving. Sometimes two deformed narwhal teeth are used. These are secured internally before the float is closed at the front, and without holes being made in the skin. The tough, softened skin is pulled inwards using the rods until there is enough room for the lashings to be made with strong sinew thread.

The front, where the strap is attached to the harpoon line with a loop, *sanneruserfik*, is the most critical part of the bladder. A special knot, *qillaq*, is made within the hunting float on the c. 2 cm broad thong made of bearded seal. This particular knot is only used here and the hunter can be sure that it will never come undone even with the greatest tension on the harpoon line. A solid lashing finally closes the hunting bladder about this strap.

The hunting bladder is softened like ordinary waterproof seal skin and on completion is dried first inside and then out. Subsequently, one or two cups of liquid blubber are poured in through the *puerfik*. The bladder is then turned and rolled in order to make the blubber flow everywhere inside, to make it completely watertight. Great care is taken to ensure that no blubber reaches the outer surface. Later it is softened exclusively in salt water.

Towing implements

Kalutit, Towing gear (Plate 14)

Despite the effective use of motorboats in connection with kayak hunting, towing gear is still an indispensable part of the kayak's auxiliary equipment. This is because kayak hunters occasionally go on shorter hunting trips alone at the mouth of the fjord that lies off the settlement. On longer trips, where motorboats are used, it is often necessary to follow the prey for a long time and as a result then have to tow the catch a long distance back to the waiting boat. In spring and autumn, when the ice prevents motorboats from leaving the settlement's natural harbour, towing gear is used to drag the prey to the edge of the ice. It is, however, only used for small and medium-sized seals such as ringed seal, harp seal and possibly younger animals of the larger species, whereas for hooded seal, bearded seal, walrus, white whale and narwhal, often caught communally, use is made of harpoon lines for towing and large hunting floats to keep the dead animals afloat.

Birds, fish and occasionally small ringed seals are placed on the deck of the kayak, and also pieces of seal meat when the hunter has butchered the animal on the spot on the point or island where it was caught. The kayak's cross-strap serves here to hold the catch in place on the deck. In Upernavik southern district two wooden strips are often seen lashed to the quarterdeck along the sides of the kayak. These prevent the catch from sliding off. This feature is doubtless an

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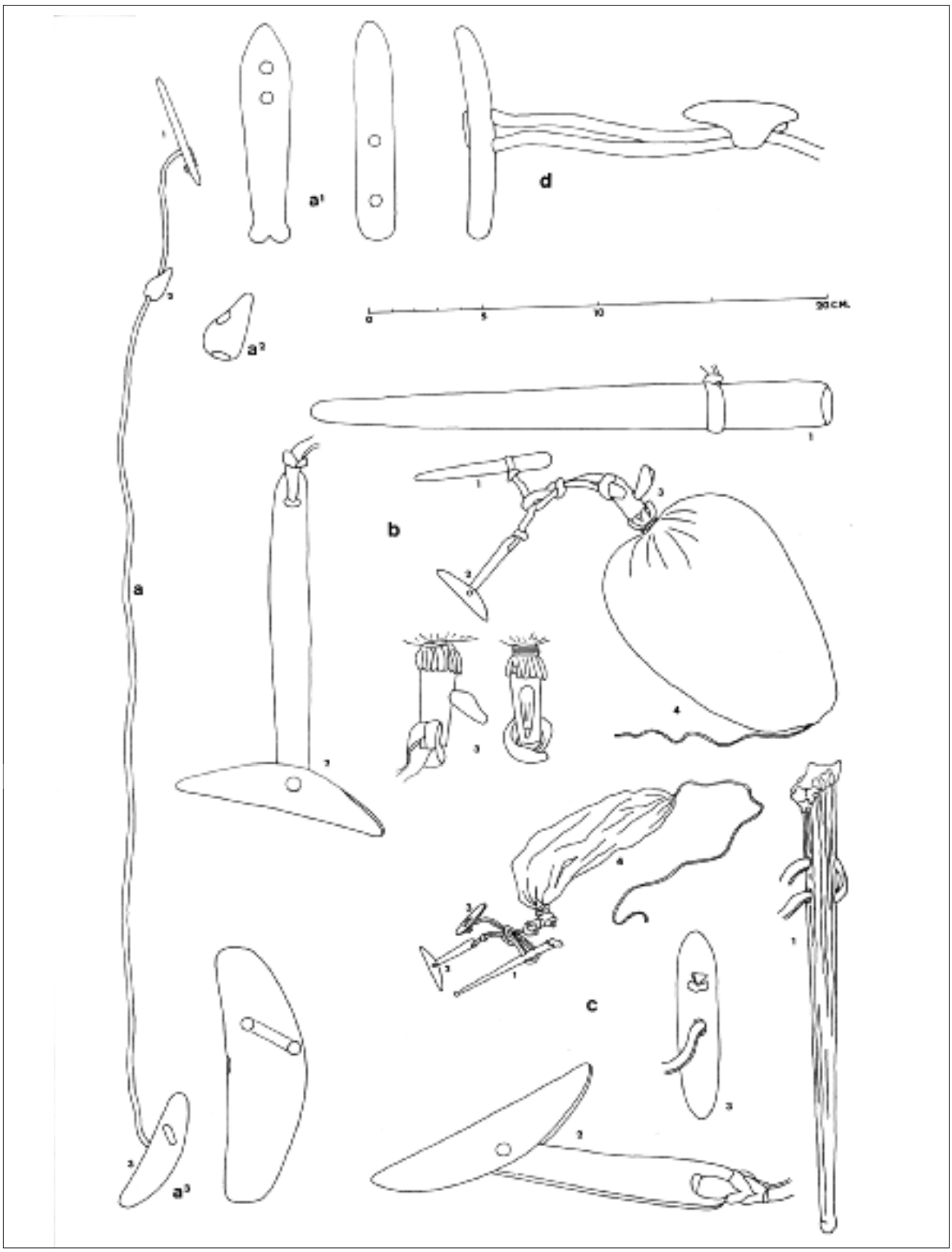

Plate 14. Towing gear - *kalutit*. a. *Orsiut* – towing line; a1. *Malasiut* (or *Sannerut* – tierce) – the neck-piece (or towing line toggle); a2. *Arsaaraq* – bone stop on towing line; a3. *Qisuttaasaq* – i.e. resembles a stopple (wooden handle on towing line), toggle to be fastened on the kayak. b and c. *Avataasaq* – towing bladder; b1. *Qisuttaasaq* – same function as a3; b2. *Kingullersiutit* – the navel piece, thrust under the skin through a small incision at the navel; b3. *Puerfik* – blow tube for towing float; b4. *Avataasaq* – towing bladder. d. *Orsiut* – adjustable dragline.

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influence from further south, where it is linked to kayak fishing. In Nuussuaq, where fishing stocks are very poor, these wooden strips are, consequently, not found on a single kayak.

The two forms of towing gear which, it should be noted, are used together, have previously been described in detail by Otto Fabricius (1962), Morten Porsild (1914) and Kai Birket-Smith (1924) among others, but as the forms described there deviate from those dealt with here on several points of detail and in their Greenlandic terms, they will be briefly dealt with in the following.

Orsiutit, Towing line

The length of the towing line varies from 1.5 to 2 m. It is cut from a c. 1 cm broad thong made of bearded seal to which has been attached two pieces of bone or tusk and a piece of wood. The line is used to secure the dead seal so that it lies alongside the kayak when being transported.

Sannerut, tierce, length c. 10 cm, secured at one end of the line through two holes. It is best made of tusk or reindeer antler. The two most common forms are shown on the drawing. It is pushed through the mouth of the dead seal and out through one eye. In this way the hunter avoids making unnecessary holes in the skin.

Arsaaraq, button, length 3-5 cm, is located 10-16 cm from the *sannerut*, where it is often held in place solely by a single knot on the line. The material used is the same as for a., and it is attached to one of the cross-straps on the fore-deck of the kayak so that the towed seal is held securely, but can also be released with a single pull when the hunter comes home or if the towing operation should be interrupted by a storm or an attacking walrus, so that the hunter is forced to release his catch in order to save himself and the kayak.

Qisuttaasaq, wooden handle, length 8-15 cm, is attached at the opposite end of the line, such that the distance between b. and c. is 1.5-2 cm. As the name suggests, it is always made of wood and serves two purposes: The piece of wood keeps the line afloat so that it is easy for helpers to grasp from the beach or cliffs. It is usually the kayak hunter's wife and children who come to help bring the seal on land. This wooden handle is also used in the winter when the towing line is used to move seals over the ice.

Avataasaq, towing bladder

Avataasaq, the float itself, is usually made from the stomach of a narwhal or, if this is not available, from waterproof seal skin. Its length is usually 35-50 cm. At the open end it is heavily lashed with sinew thread to the *puerfik*, as with the larger hunting float.

Puerfik, mouth-piece or nozzle, length about 6 cm, made of tusk or bone and always has the same shape with a groove to hold the external lashing in place. A wooden plug, *simik*, is placed in the nozzle. A few are now made from a wooden bobbin from the shop.

Kingullersiutit, navel piece, usually about 18 cm long, made of tusk, bone or reindeer antler. It is fitted with a hinge of the same material, which is pushed into the blubber layer through the seal's navel, where it sits transversally and prevents the navel piece from sliding out. A short line joins c. with d. through a loop on the line from b.

Qisuttaasaq, length 16-22 cm, attached to the strap through two holes or with a lashing in a deep groove. This piece is most commonly made of wood, but sometimes examples of bone, reindeer antler or the little deformed narwhal tusk are seen. When it is pushed under the cross-strap on the kayak's quarter-deck, the hunter keeps the seal at the surface of the water when it is being transported. In this way it lies close to the kayak and causes as little hindrance as possible.

Sannerut is identical with a. on the towing line in shape and material.

At the opposite end of the towing float, a c. 1 m long thin strap or cord is attached which is lashed around the whole of the towing gear when it is not in use. It is normally placed under one of the cross-straps on the kayak's foredeck or down inside the kayak.

Asallut – Line rack

The line rack was previously called *kajakstolen* in Danish (English: 'the kayak chair'). This was rather unfortunate as one could be tempted to believe that it was here that the kayak hunter sat, which is an impossibility. As shown on Plate 10 some of these racks could be formed, as they were along the rest of the west coast, with rebated pieces of wood on which the rolled-up harpoon line lay. But on most of the kayaks in Upernavik district the line lay on a network of twine

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Fig 100. Bendt Frederiksen's cutter in Melville Bay. On this trip three kayaks have been brought along.
Photo by the author.

or a stretched piece of fabric. The three legs and the ring of the line rack were most commonly of wood but a few were made of caribou antler or whalebone. At the right side, the left if the hunter was left-handed, all of them have a small curved point of caribou antler to support the harpoon.

At the front edge of the line rack there was a white screen which, around and to the south of Upernavik Ice Fjord, was further supplemented by a smaller screen foremost on the kayak. Under the line rack one or two rifle cases were secured to the deck immediately in front of the hunter. These were made of 'water skin' (waterproof seal skin) or canvas and intended for a large rifle and shotgun or cal. 22 rifle.

The kayak rudder (cf. Fig. 85), which perhaps should rather more correctly be termed a fin, became common on all the Upernavik kayaks when the hunters began to use firearms from their kayaks. This modification means that the kayak continues more or less on its course after the last paddle stroke, while the hunter grips his harpoon or rifle. A disadvantage of the rudder is, however, that the kayak is difficult to turn. To counteract this many of the rudders have been made with one or more holes in the plate. The rudders are of wood, in a few cases with reinforcements of bone, tusk or caribou antler. They are most commonly attached by a couple of cords tied above the deck but in the south district many were attached to the keel before the kayak was covered with skin or canvas.

Motorboats

Starting in the 1950s, some of the Upernavik hunters recognised the potential of the combination between kayak and motorboat (Fig. 100). The first hunter from Nuussuaq, previously Kittorsaq, who obtained a cutter was Pavia Jansen, whose son Johannes still hunted from the vessel in the 1960s. This was the third cutter in the district and in 1957 catechist Mathias Frederiksen followed suit. His son Bendt and his half-brother Jakob used it for hunting and for the family's travels around the district. It was a 22 foot wooden cutter, GR. 16-23, which at the time cost 15,500 DKK – a sum which was borrowed through the trade support programme. In 1962 the whole sum had been repaid, even though it was recorded that he had spent 3-400

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Fig 101. Using manpower and several dog teams the motorboats are brought through the cracks in the ice in the spring. Photo by the author.

DKK on maintenance each year. He had, however, to replace the boat's engine in 1967 with a Saab diesel motor of 16 HP, which cost 11,000 DKK.

The fourth cutter, which operated from Nuussuaq, was also 22 foot and owned by the then store manager Rasmus Jørgensen. It often sailed with different crews (3-6 kayak hunters). Each hunter kept what he caught but then gave a third of his catch to the boat's owner in payment.

In 1968 Kasper Jensen, employed by KGH and part-time hunter, bought a cutter from the fishery investigation project and in 1969 the Danish KGH employee J. Jensen came with his own cutter so that in 1970 there were four cutters in the settlement.

The use of motorboats for hunting white whale, narwhal, walrus and seal has, as was the case with the introduction of the rifle, resulted in great changes, not only in the hunting technique itself but also in a whole series of other areas of hunter society.

First and foremost the hunters' radius of action was increased significantly. By using the motorboats as 'mother ships' for the kayaks they were able to seek out distant hunting grounds in contrast to previously where they had to go directly out from the settlement in a kayak or umiaq. A few seals were all that an individual hunter was able as a rule to bring home with the kayak's towing equipment, whereas the cutters could take more than a ton of meat (Fig. 101).

The motorboats have similarly made a contribution to an acceleration in the changes in settlement pattern with the advantages and disadvantages associated with the move to fewer, larger communities from the original smaller, scattered settlements. It is often the case, as at Nuussuaq, that the best and therefore most frequented hunting grounds are found in the areas around the former settlements (Fig. 102).

In addition to the actual summer hunting, motorboats were used with great effect in October for bat-

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Fig 102. Hunters from Aappilattoq moor the cutter at Nuugaarsuk and subsequently go hunting in the kayaks they brought with them.
Photo by the author.

tue of schools of white whale on their migration southwards through the district until this form of hunting was banned around 1980.

The motorboats have been very important for communication between the settlements in the vast district and for contact between settlement and the main town of Upernavik. In the summer months the population was able quickly and comfortably, even with a large number of children, to visit friends and family.

The disadvantages of the use of motorboats in the hunter districts appear to be small in comparison to the above-mentioned advantages. Accordingly, there has been much discussion among the hunters with regard to the degree to which the noise from the motor could frighten away the game animals, especially seals, for shorter or longer periods. The most common view in the 1960s was that these large inboard motors were very preferable to the outboard motors, which at that time were forbidden according to local byelaws. With a few exceptions, the hunters only used the motorboats for transport to and from the hunting grounds. Battens, spruce trunks or worn-out paddles were attached across the deck to which the kayaks were then lashed. The motor was stopped when the game animals turned up, after which the actual hunting took place from the kayaks.

The motorboats' equipment:

- Dinghy
- Fuel (diesel)
- Tools for the motor
- A few spare parts
- Rope
- Boat-hook
- Bird net
- Ice chisel

- Tent*

- Primus stove (camping gas)
- Hurricane lantern
- Methylated spirits
- Paraffin
- Large pan

- Tea (instant coffee)

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- Household beer
- Dried meat, mattak
- Canned food
- Ship biscuits
- Margarine
- Sugar
- Salt

- Every hunter:
- Kayak with equipment
- Large rifle
- Cal. 22 rifle
- Shotgun
- Ammunition
- Cleaning rod
- Flensing knife
- Pocketknife
- Blanket or caribou skin
- Sunglasses
- Mug
- Tobacco
- Matches

* A tent was taken along if there were more hunters than could sleep onboard, i.e. normally two-three persons. However, the boat often docked at hunting huts where people spent the night and had the opportunity to meet hunters from other settlements.

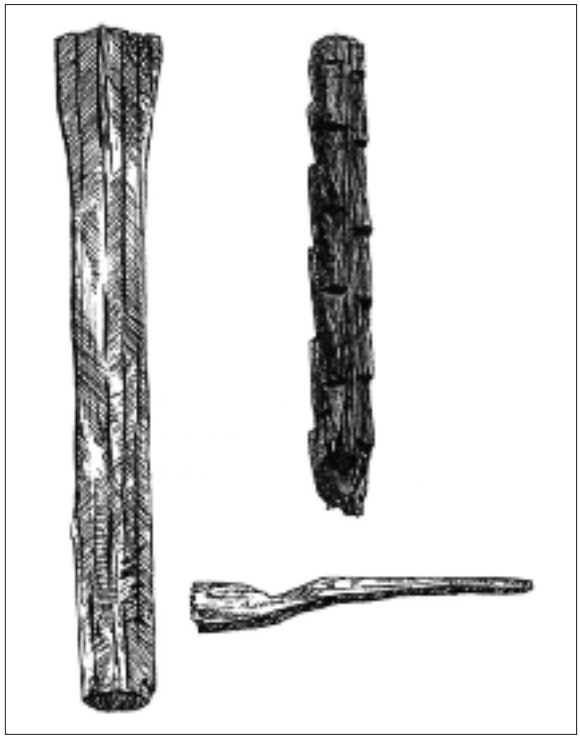

Fig 103. Toy rifle – a stray find from Upernavik, wooden stick used in refilling shotgun cartridges and a home-made cleaning rod (*Allarterut immiit*, i.e. actually the one that wipes), around which a cloth is wound.

Firearms

There is no doubt that there were firearms in the possession of the Upernavik hunters before Danish colonisation in 1769. The Dutch whaling period, which began in the second half of 17th century, was the population's first long-term contact with Europe. The main Dutch interest was naturally in hunting the great whales but a long series of historical sources bear witness to their vast trade with the hunter families. It was a welcome annual event for the local population when the large ships came in the spring and waited for the first opportunity to go up to Melville Bay.

Of the European trading goods on offer, rifles, powder and bullets were undoubtedly in particular demand. The inhabitants were able to offer vital hunting products such as blubber, seal skin and narwhal and walrus tusk in return. One must, however, presume that the acquisition of these first flintlock muzzleloaders had more to do with prestige than an actual wish to improve hunting techniques.

Unfortunately, the archaeological evidence for these first muskets in the area is exceptionally sparse. The large Inussuk site produced only 'a main plate for a so-called Kühl inside flintlock, invented in 1806 and used as the Danish army musket from 1808 to 1811'. In addition to this there was a small part of a flintlock dated to the beginning of the 19th century and a single flint, which it is not possible to date (Mathiassen 1930b:317). The Nuugaarsuk excavations revealed only a pair of foundry tongs with a pair of iron bullets dated to around 1900.

It was first in the middle of the 19th century that the muzzleloaders appear to have been used for hunting caribou in Upernavik southern district. Later they were used for hunting from the ice margin and then at the end of the century they were taken into the kayak. At the turn of the century, rifle cases appeared on the kayak deck, other modifications being the kayak rudder and the white screen. The later much used method

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Table 12. Censuses of occupational tools and equipment carried out between 1880 and 1948 showing the number of rifles in Upernavik district compared to the number of kayaks.

	1880	1900	1910	1915	1920	1930	1940	1948
Rifles	180	207	251	262	247	326	336	378
Shotguns	-	-	-	-	-	143	174	295
Kayaks	198	201	211	262	262	267	276	240

of hunting, in which the hunters shoot seals from a kayak, dinghy or motorboat without killing them, in order subsequently to harpoon them, was first learned by the Upernavik hunters after 1930.

Breechloaders could be bought from 1907 and from 1939 rifles of calibre 8 mm were sold with a magazine holding five cartridges. Shotguns came into use somewhat later than the large rifles but were similarly sold as breechloaders from 1907. Smaller cal. 22 rifles became first widely available from 1929 (Fig. 103).

The number of rifles (Table 12) corresponds quite closely to the number of kayaks. This should not, however, prompt the conclusion that there were, for example, 180 kayaks with rifles in 1890, as at this time rifles were only used for hunting caribou and hunting on the ice.

A comparison of the two figures can, however, give an indication of the number of hunters in that particular year, as these figures are not always in agreement with the stated occupational distribution.

Rifle, calibre 8 x 57 – *qoorortooq*

The most common rifle in the study year was the American military rifle Eddystone, model 1917. Even though it was far from up to date the hunters preferred it because it was sold very cheaply, was incredibly solidly made and was relatively accurate. Its greatest disadvantage was that it was very heavy at 4.13 kg. Although this was of almost no consequence when it was taken along on a sledge, used for *uuttoq* hunting, hunting at air holes and for bear hunting or from the motorboat. Only when hunting from a kayak was the weight of any significance. In order to ascertain which hunters used these rifles it was often necessary to take the rifle in one's own hands as many, particularly younger, hunters made them resemble modern hunting rifles by removing the foremost piece of the wooden stock. Most maintained that this was in order to make the rifle lighter but it was probably more to do with prestige, as the few grams of wood removed were insignificant relative to the weight of the barrel, the lock and the magazine.

A rifle type from 1917 was naturally not designed for the fitting of a telescopic sight, but numerous hunters bought them and filed grooves uppermost on the old rifles such that a telescopic sight could be fitted.

As a rule the shooting in of a newly acquired rifle was a great and enjoyable event which attracted the other hunters and boys. Without a telescopic sight, the rifle's back- and foresight were adjustable. However, the rifle was often adjusted by the hunter firing some shoots and thereafter putting the still warm barrel into a hole in the ice, for example at the ice foot, and then, with their body leaning against the stock, bending the barrel a little in the desired direction. Whether this is due to some memory from the old muzzleloaders is unknown. The foresight was almost always filed down because a small foresight was preferred, with a correspondingly small notch in the back-sight. In the sharp spring light the foresight was blackened with soot in order to avoid reflections from sun, ice or snow.

Other, newer but also significantly more expensive rifles were in 1967/1968 the Swedish Stiga, calibre 8 x 57, and the Savaga rifle, calibre 30 x 30, but 30 years later rifles such as the Parker Haley: 3006, Greko: 0.22 magnum and Sako 222 were taken in use.

The combination harpoon-lance versus *harpoon-rifle*

The large rifle, and later the cal. 22 rifle, have been of the greatest importance for hunters in Upernavik district when hunting large marine animals. In kayak hunting the rifle replaced the lance, which was used to kill harpooned animals. The rifles' greater range made it safer for the hunter, who could keep a suitable distance from the injured and sometimes aggressive animal. This applied especially to walrus and hooded seals but also to narwhal and white whale which, with

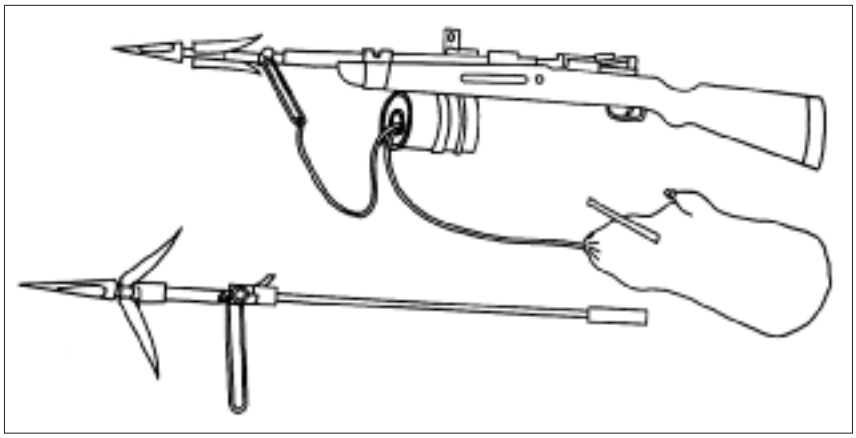

Fig 104. Harpoon rifle, a Remington with 35 m of line. Acquired by hunter and district bailiff (*kommunefoged*) Jens Svendsen, Tasiusaq, who bagged a narwhal from the ice edge with it in 1965. The weapon had a very heavy recoil and was therefore unsuitable for use from a kayak.

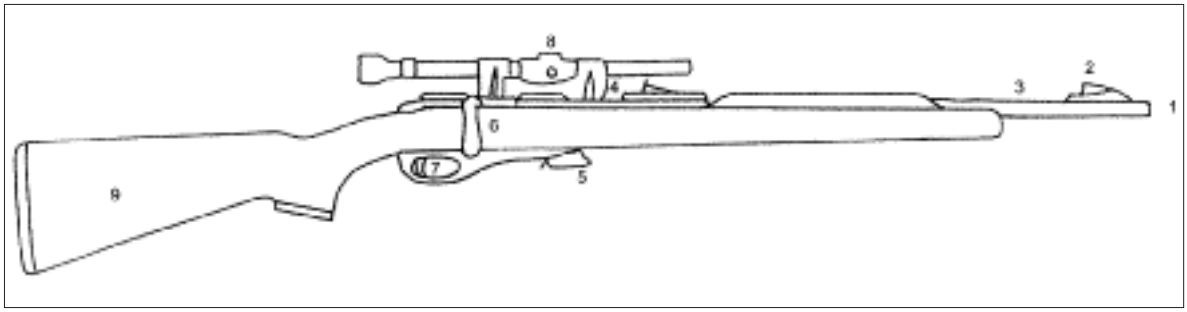

Fig 105. Local terms for parts of the cal. 22 rifle. 1. Muzzle (*Paava*) or aperture (*Sulloq*); 2. Bead (*Nalunaaqutaq noorleq*, i.e. that which is closest to the tip); 3. Barrel (*Savissaq*); 4. Back sight (*Nalunaaqutaq kingilleq*, i.e. actually that which sticks up high); 5. Magazine (*Immersarfik*, i.e. literally 'the place where you fill it'), cartridges (*Imassaatit*); 6. Bolt (*Taliussaa*); 7. Trigger (*Eqittartoq*); 8. Telescopic sight (*Qinngutitaq*); 9. Butt (*Eqqua*).

one stroke of their tail, can capsize a kayak hunter. The rifle's killing power is much greater and its effect much quicker than that of the lance. Accordingly, the transition from lance to rifle saved both time and energy. The power with which a lance was thrust or thrown was dependant on the strength of the individual hunter and his ability as a kayak hunter. Whereas the rifle's power is potentially much greater in that both strength and killing power are produced by a light squeeze on the trigger with the index finger.

For polar bear hunting it is similarly obvious how the rifle, both potentially and in reality, is more effective than the lance or harpoon and how much less risky it is to have an appropriate distance between the ferocious dogs, the fighting bear and oneself. The rifle has, together with the screen and the little sledge, made *uuttoq* hunting possible, and can be seen as a further development of the traditional stalking. The hunter with his lance or harpoon endeavours to resemble a seal in appearance (costume), sounds and movements in order to be able to creep as close as possible towards a seal lying on the ice that he can kill it and secure his prey. Several accounts tell of how the best hunters using this method could sometimes move forward between the seal and its enlarged air hole before it suspected anything was amiss. *Uuttoq* hunting is much less demanding in time, as the hunter does not need to creep right up to the animal, but the loss percentage is possibly greater as a large seal will always try to get back to the water before the hunter reaches it. Therefore the hunter's accuracy is very important. The seal must be hit with the first shot in the head or the shoulder region. In most cases this will cause instantaneous death. Only exceptionally will a seal hit elsewhere in the body, as a result of a chock effect, remain lying if not mortally wounded, allowing the hunter the opportunity of a second shot. With the magazine rifles used now there are only a few seconds between the first and second shots, in contrast to the old muzzleloaders.

With regard to hunting technology in Upernavik district, even in the year 2000, it is more correct to say

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that the combination of harpoon-lance has been replaced by the combination harpoon-rifle, in contrast to most other places in the Arctic where the harpoon has been replaced completely by the rifle (Fig. 104).

Calibre 22 rifle – *qoorortuuaraq*

As mentioned earlier, cal. 22 rifles were first sold at KGH's stores from 1929 (Fig. 105). In the first instance they were intended as beginner weapons for boys and a first introduction to learning to hunt with a rifle. However, it quickly became apparent that even experienced hunters found this lightweight weapon useful for a number of purposes as a replacement for the long heavy rifle or shotgun. As the sales figures from KGH's stores in the District show, most of the hunters adopted the new weapon. It was relatively cheap to buy and especially cheap to use. For seal hunting, ringed seal and harp seal in open water from a kayak or dinghy, it was possible to hit swimming seals from a very great distance. The intention was not to kill the seal but instead to wound it or shoot above or to the side of it. In this way the hunter managed to tire the seal so that the previously often very prolonged chase was significantly shortened. The seal is frightened into diving as soon as it comes to the surface so that it does not have enough time to take in air. Many hunters today even use the cal. 22 rifle, with or without a telescopic sight, for *uuttoq* hunting and hunting from the ice margin. As an older experienced hunter expressed it: 'It is just a matter of hitting them in the eye'.

For bird hunting, guillemot, eider duck or gulls, the cal. 22 rifle is used when the birds are on the water or resting on the ice or on the rocks. Conversely, migrating bird flocks are often shot with a shotgun due to the spreading of the shot and, accordingly, the greater chance of hitting several birds with one shot. The cal. 22 rifle is naturally much more effective with regard to range than the traditional bladder lance and bird dart but the greater killing power is of less significance for bird hunting as it is more a matter of where the bird is hit than the power of the shot. Cal. 22 rifles occur in several variants, from the cheapest single-shot models, through magazine rifles with magazines carrying 5 or 10 shots to expensive semi-automatic rifles. All are calibre 6 x 22 and are designed for cartridges called 'short', 'long' and 'long rifle'.

In the 1960s numerous hunters acquired Remington cal. 22 rifles with a nylon stock. They were told that these rifles, in contrast to the Anschutz rifles with wooden stocks, would float on the water if one was so unfortunate as to drop them from a kayak, dinghy or motorboat which, however, no hunter could remember ever happening. What the manufacturers of Remington rifles with nylon stocks, and KGH who sold them, did not draw attention to, was the fact that this artificial material becomes as brittle as glass in intense cold. In winter if one was unfortunate enough to run over the rifle with a sledge runner, or if it received a minor knock against a rock or a piece of ice, the stock splintered. Similarly, there was little weight advantage as is apparent from the following specifications:

Remington 22, weight 1.88 kg, nylon stock, floats on water, brittle

Anschutz, weight 2.2 kg, wooden stock, sinks in water, robust

The cal. 22 is very popular for shooting competitions and for practice and is also used for grouse shooting in the mountains in the winter, especially by boys.

Shotgun calibre 16 – *timmiarsiut*

In the 1960s the most used shotgun was the American single-barrelled Stevens 16-bore, but a few hunters invested in the much more expensive double-barrelled 12- or 16-bore. The double-barrelled examples were, however, relatively heavy, most commonly weighing more than 3.5 kg while the single-barrelled guns only weighed 2.7 kg.

Ammunition was expensive and the shotgun, as already mentioned, was mostly used when guillemot and eider duck came in flocks. Often a flock of birds was fired at from a kayak, dinghy or motorboat or from a hiding place on a little point, killing or injuring several birds. The injured birds dived and were finished off with a cal. 22 rifle when they turned up in the water. If they were badly injured they were just gathered up and killed by hand or by a bite to the neck.

The shotgun has, together with the cal. 22 rifle, completely out-competed the traditional three-pronged bird dart. Firearms must be seen, both potentially and in reality, as being much more effective than the bird dart. Even with a throwing stick the latter had a much shorter range and gave, at the most, the possibility of one or two birds per throw. After every attempt it had to be collected from the water. On

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the other hand it was silent, in contrast to the loud report of the shotgun in particular. This does, however, matter less when the birds arrive in a flock because one very rarely has the opportunity for more than one shot.

A few hunters sometimes use a shotgun with heavy shot to wound seals in the water before harpooning them, but this has the disadvantage that the seal skin naturally has several small holes which then makes it difficult to sell to KGH.

In order to compensate for the expense of shotgun cartridges many hunters, especially the older ones, re-loaded the cardboard cartridge cases two to three times.

Maintenance of firearms

When visiting summer guests have the opportunity to sail across the district in one of the smaller local boats and they see weapons, often loaded, left leaning carelessly in the bow, they often express their astonishment that the hunters are at all able to hunt effectively with these rusty weapons. But they see quickly how perfectly they function when a seal or bird comes within range.

That which has been written about the East Canadian Inuit's care and maintenance of their weapons could very well have been written about the Upernavik hunters (Manning 1944:138). One must remember that these weapons are in almost constant use every day for three-quarters of the year. Due to the climate they are exposed to very hard treatment, the combating of which the hunter regards as a waste of time. The fact that the outside of the barrel is not shiny and the butt not highly polished is of no consequence for the weapon's effectiveness. Everyone knows that the functional, mechanical parts and the inside of the barrel must be kept spotlessly clean. This is why one often sees hunters on motorboats, in tents, hunting huts or their homes spending a great deal of time cleaning and lubricating their firearms.

Telescopic sight (*qinngutitaq)*

The telescopic sight for larger rifles (2.5 x 20 or 4 x 20) and for cal. 22 rifles (4 x 15) first became common among the hunters in the 1960s. As Robert Petersen points out, this has meant that a number of older hunters with poor eyesight have, in particular, resumed the *uuttoq* hunt (Petersen 1967a). It is also in the *uuttoq* hunt that a better rifle sight is an advantage and as the rifles used have an accuracy that is much greater that the normal eye can see, it is possible with a telescopic sight to shoot from much greater distances. In almost all circumstances the telescopic sight requires a solid support, which the hunter has on the ice but very rarely in a kayak or boat on open water. A telescopic sight was, however, perceived by many hunters to be an unnecessary further expense on a rifle, regardless of how effective it was. Further to this, it should be said that the most experienced hunters understood how to handle a rifle so well that the author would estimate the accuracy of the majority of them under normal conditions to be over 90%.

Binoculars (*qinngut)*

A pair of binoculars is an indispensable part of the modern hunter's equipment, both around on the ice and on open water. This is an example of a working tool which the hunters have been able to accept from outside without it replacing or supplementing anything from their traditional culture.

In *uuttoq* hunting it has saved both time and energy, enabling the hunter to cover a very large area of the ice fields from the top of the ice-locked icebergs. The same is true of hunting from the ice margin where it is possible to cover a long stretch of a crack in the ice on both sides. The hunter is therefore aware at an early stage of the direction in which seals and whales are moving. As a rule this gives him plenty of time to prepare for the actual hunt, whether he chooses to take to his kayak immediately or start the hunt with rifle or harpoon from the ice margin itself. With the binoculars he is able to follow the movement of game animals in the water, see if they are undisturbed, frightened and so on. And what applies to *uuttoq* hunting of course also applies to polar bear hunting.

In the summer months the binoculars are used from the deck or mast top of the motorboats. That is if the hunter does not prefer to keep a look-out for the game animals on their migration routes from a rocky vantage point on land. Where the ice conditions are poor with many sub-ice currents and cracks in the ice, the sledge driver can often avoid venturing out onto bad ice or unnecessarily following a several kilometre long crack in the ice the wrong way by first checking out the terrain with his binoculars.

A further energy-saving use of binoculars in *uut-*

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toq hunting is that the hunter can find out where the other hunters are on the ice so that the greatest natural spread of hunters is achieved. This distribution is decisive if this method of hunting is to be carried out effectively by as many hunters as possible within the hunting grounds.

Telescopes could be bought from around 1890 and for many years they were 12 or 14 inches in length, like naval telescopes with three telescopic sections. This is perhaps the reason that one often today sees sawn-through binoculars, originally intended for two eyes but which two hunters can use just like the earlier telescopes. Two hunters can, accordingly, acquire a telescope for half price. Telescopes of more than 7 x 35 are very rare, as large telescopes are difficult to hold still, especially in a rocking kayak or on the deck of a motorboat.

The fact that telescopes have been of the greatest significance is seen from the number of *uuttoq* sold in the different districts. The greatest number was sold in Upernavik, followed by Uummannaq and Aasiaat.

Summary

Of the materials used in the production of a range of tools and equipment, bone and baleen from the great whales is no longer available, while caribou antler continues to be used thanks to imports from districts further south, after these animals disappeared from Upernavik northern district.

Metal, nylon, plastic and other imported materials have been used in some cases but the use of these new materials has rarely changed the form and function of tools and other equipment.

A division between materials from terrestrial and marine animals, as is observed elsewhere in the Arctic, does not appear to have been observed in Upernavik district. For example, the great majority of harpoon heads for hunting seal and whale found at the above-mentioned archaeological excavations are made of caribou antler.

The 'hunting' equipment includes some imported items which, if a settlement such as Nuussuaq were to be excavated in 100 or 200 years, invariably would lead the archaeologists to draw the wrong conclusions. Some of these items should be mentioned here:

In the netting season a little coal shovel was a standard part of the sledge equipment. The hunters used this as an ice bailer to remove chipped-off pieces of ice from the water in the holes made for the seal nets. The traditional ice bailer was made of wood or whalebone. The presence of large shovels could lead archaeologists to believe that they were used, for example, for snow clearing by the houses. Whereas they were primarily taken along on the sledges in the last months of the winter net hunting and in the spring, when it was often necessary to dig through 1-2 m of snow in order to reach the ice itself.

The European chisel was used without its original shaft as the blade for an adze. Whereas the triangular scraper, which in Denmark is intended for scraping old paint from windows, doors and the like, was used by the hunters to remove compacted snow and ice from between the sledge's runners and cross-pieces. For this reason the scrapers were never sharpened so as to avoid them cutting the lashings on the sledge. Thin fishing line of green nylon may have been used for fishing but from around 1965 it was used as an improvement on equipment used in seal netting under the ice. Many hunters used plastic containers and plastic buoys as hunting floats. Cotton reels were used as inflation mouthpieces on hunting bladders of skin, and when split they were used as tierces for the sledge's front strap. Beer bottle openers and adjustable spanners with suitable apertures were sometimes used as strap smoothers. And the women's flattened liver pate cans would also undoubtedly be difficult to place in the category of skin scrapers. By use of the term *uiloq* the tin can was equated by metaphor to a mussel shell, which was previously used as a scraper.

Finally, the toy fire station from Denmark mentioned later could make the archaeologists believe that a boy had played with small cars. But this locally unknown plaything was hung up on the wall as a bric-a-brac shelf in one of the pre-fabricated houses.

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Chapter 7

Clothing – *atisat*

Whereas the men's clothes are in almost all cases well maintained and suited to their occupation, where they stay out and work hard in extremely low temperatures and with biting winds, most of the women and, with a few exceptions, the children do not have clothing suitable for spending longer periods outdoors in the winter.

In the short summer months the men usually manage with a cotton shirt, a thin sweater, European trousers, socks and 'water-skin' kamiks, wellington boots or so-called scooter boots. In the kayak season footwear is not so important because the hunters take their footwear off before they climb into the kayak. A hat or cap and sunglasses complete the kayak hunter's clothing, with the exception of a kayak jacket or suit, detachable sleeves and mittens as described under kayak equipment.

The men's winter clothing has, in contrast, retained many of the traditional elements. The original inner garment of bird skin has been replaced by European underwear and under a canvas anorak there is a shirt and sweater. Over the European trousers, sealskin or polar bear-skin trousers are usually worn for most of the year. Most important of all is the footwear, which must be seal skin kamiks. In particularly cold weather a few of the older hunters wear a further pair of short over-kamiks of dog or caribou skin. On their hands they wear bought or home-knitted mittens innermost with leather mittens outermost. On their head most have a white home-knitted 'hunter's cap' or the so-called 'Korea cap' with flaps which can be let down over the ears. But especially in the dark time of the year, and on longer sledge journeys in the spring, this is not enough even though the hunters often jump

Fig 106. Kasper and Margrethe Jensen's 12-year old son Simon, Nuussuaq 1968. He is wearing a perfect sledge costume. Trousers and *kamiks* of seal skin and outer garment of caribou skins with an edging of dog skin around the hood.
Photo by the author.

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off the sledge and run beside or behind it to keep warm (Fig. 106). Therefore most have a further outer garment of caribou skin that usually lies ready on the sledge. These are incredibly warm but they are as a rule too heavy and stiff to work in.

Generally the women sew and maintain the hunter's costume in an exemplary way but a few hunters and especially boys are so poorly equipped that it is very difficult for them to remain outside for a longer period of time in the coldest winter months. Many families are forced to sell a quantity of their seal skin in order to have any cash at all for coal, paraffin, ammunition and a range of other necessities. But a good-sized seal skin, which could have been used to make a pair of good warm kamiks, rarely brings in more than it costs to obtain a pair of much poorer European boots.

Anorak (Parka) – *annoraaq*

All women sew the family's anoraks of cotton fabric. For everyday use a great diversity of coloured material is employed, but for hunting and special occasions those of the men and boys are white. Several of the oldest men do, however, prefer a dark colour and in church the catechist's anorak is black. In the coldest period hunters can be seen with anoraks made of dark *Holmen's klæde* (wool serge) as a replacement for the outer garment of caribou skin (Plate 15).

The development of the anorak can easily be followed by way of the pattern after which it is cut. The front and back, all in one piece with a hole for the head is, in reality, the simplest piece of clothing one can imagine – a poncho. When this is sewn together and is fitted with sleeves it produces a shirt. The hood completes the basic pattern in the Inuit jacket, which is preserved in the modern anorak.

Outer garment of caribou skin – *timmiaq*

The word *timmiaq* actually means birds or inner garment of bird skin, so why the word today is used for an outer garment of caribou skin is probably inexplicable (Plate 15). Caribou are no longer found in Upernavik district but the hunter families can still buy their skins in the store, to where they are imported from districts further to the south. The pattern is cut from three skins, of which two form the back, *tunussaa*, which continues up into the hood, *nasaq* and the front, *saassaa* respectively. The third skin is normally enough for the sleeves. The garment is best sewn with sinew thread using ordinary chain stitch.

Caribou skin is probably the warmest of all skins because every one of its densely packed hairs is hollow and therefore particularly insulating. On the other hand, this means that the individual hairs are easily broken off. On sledge journeys where the sledge skins are of caribou skin one has to live with caribou hair in everything one eats and drinks. As already mentioned, these skins are difficult to work in and one often sees hunters helping each other in and out of their jackets. The pattern is much simpler than is the case with most others. It lacks, for example, gussets at the shoulders, unlike similar garments of the Inuit north of Melville Bay and in Canada.

Sealskin trousers – *qarliit*

Most of the men and the older boys wear seal skin trousers for most of the year (Plate 16). They are not nearly as warm as trousers made of polar bear skin but conversely they are easier to wear and move around in. They are made from skin of the ringed seal. The uppermost border, *matertissaa*, like the rest of the trousers, is made of skin with the hair intact, whereas the lowermost borders, *paassaat*, with casing for a cord, *ungerutaat*, and the reinforced edge on the front flap are made of depilated seal skin, *tungujorsiaq*. A cut is made, *iterpalua*, uppermost at the back in the waistband, which is then laced with a leather thong. The trousers are kept up with braces and are fitted with internal pockets. At the front, under the flap, two pieces of depilated skin, *ilipaqut*, are fitted. These are closed with buttons, to which the pockets, *kaasarfik*, are sewn. This pattern of dress was previously common in Europe and the advantage of the flap is that it is wind tight to the front while, at the same time, making it easier for the hunter to pass water.

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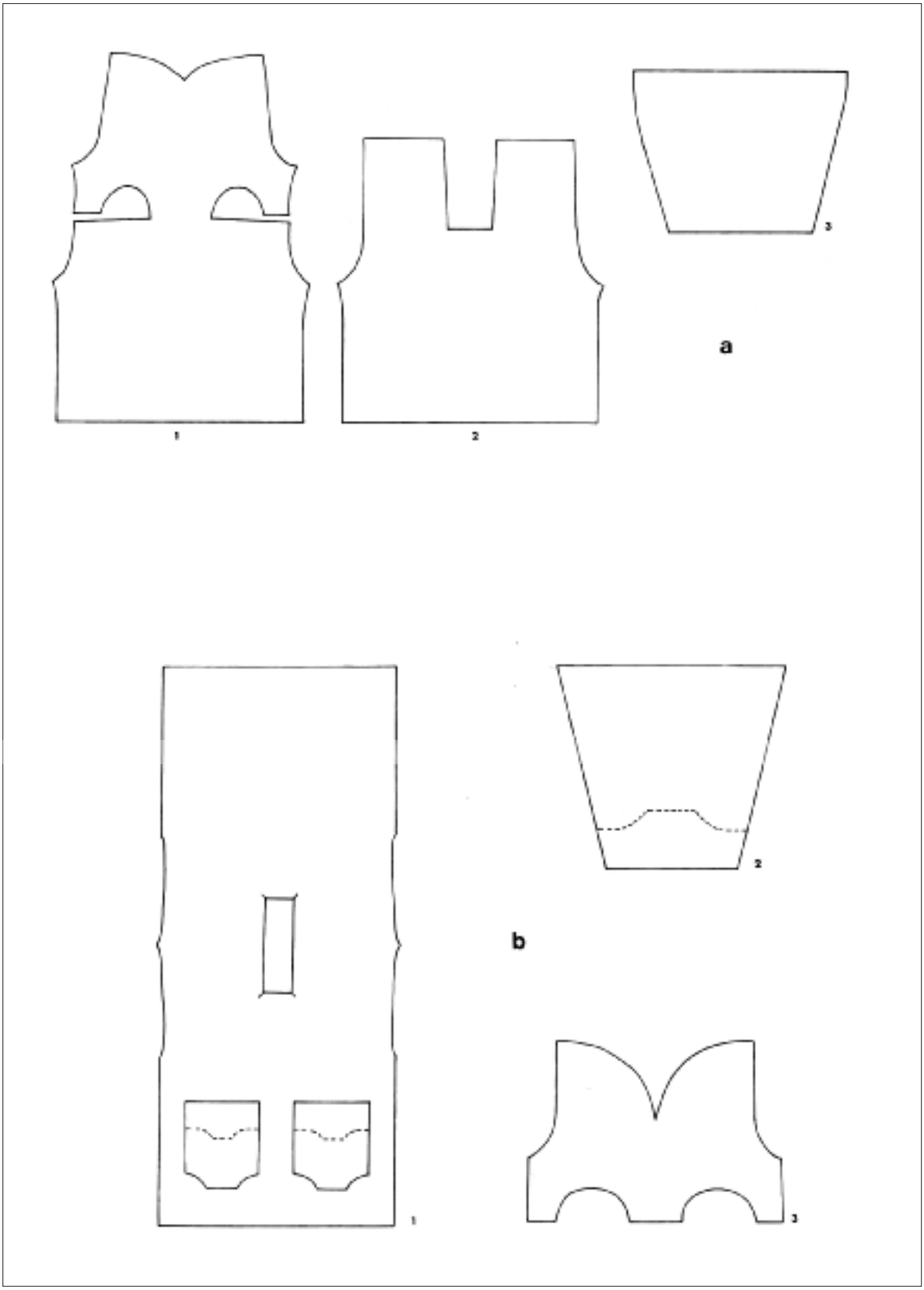

Plate 15. a. Outer coat of caribou skin – *Timmiaq* (actually birdskin coat). 1. Back piece (*tunussaa*); 2. Front piece (*saarsaa*); 3. Sleeve (*talissaa*). b. Parka – *annoraaq*. 1. Front and back in one piece (poncho-style); 2. Sleeve (*talissaa*); 3. Hood (*nasaa*).

Fig 107. Bear-skin trousers. Photo by the author.

Bear-skin trousers – *qarliisat*

Bear-skin trousers are only owned by a small number of hunters, naturally dependent on a successful bear hunt, and they are perceived almost as a status symbol (Fig. 107; Plate 16). They are much warmer and more hardwearing than seal-skin trousers but conversely movement is less free in the heavy bear skin. The pattern deviates only slightly from that used north of Melville Bay, which confirms the fact that the making of these trousers was learnt from the Polar Eskimos. Uppermost and lowermost they are fitted with a seal-skin border and they are fastened like sealskin trousers with a thin thong though a lower casing. Similarly, braces are also used to keep them up and some today have internal pockets.

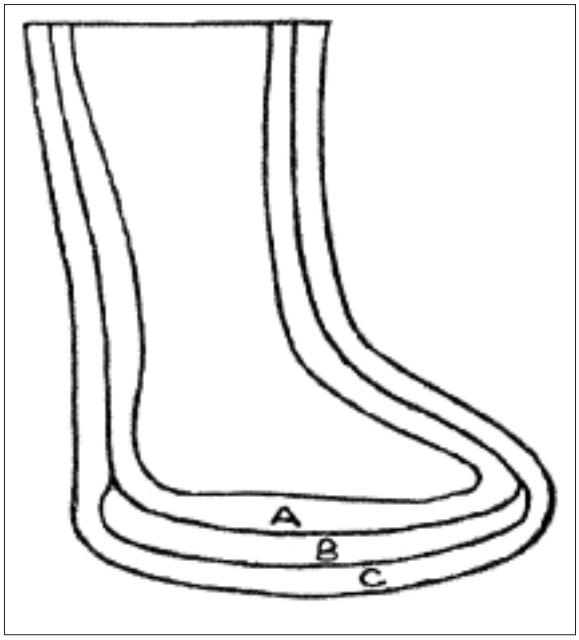

Fig 108. The construction of kamiks. a. Stocking – inner *kamik* with hairside inwards (caribou, seal or dog); b. dried grass (Alpine Holy-grass); c. *Kamik* – outer *kamik*, hairy or depilated skin (normal ringed seal but sometimes harp seal and hooded seal). The sole is of bearded seal.

Due to the many sub-ice currents and consequent weak ice, many hunters consider it dangerous to wear trousers of polar bear skin because if a hunter falls through the ice they may pull him down. For the same reason tanned leather is never used. In the absence of fat it absorbs water. The broad upper 'belt' of seal skin on bear-skin trousers is said to be due to Knud Rasmussen who needed a little warmth over his lower back because of his lumbago.

Kamiks – *kammit*

*Kamik*s of 'water-skin', depilated seal skin, *erisaaq*, are the most common footwear all year round and only in winter are *kamik*s made from seal skin with the hair intact, the so-called travelling *kamik*s, seen (Fig. 108; Plate 16). With an inner and an outer *kamik,* the Upernavik kamiks are normally the same as those known from everywhere on the west coast of Greenland. They extend up to just below the knee and the seal-skin trousers are pulled down over the kamiks where they are tightened with a cord in the middle of the shinbone.

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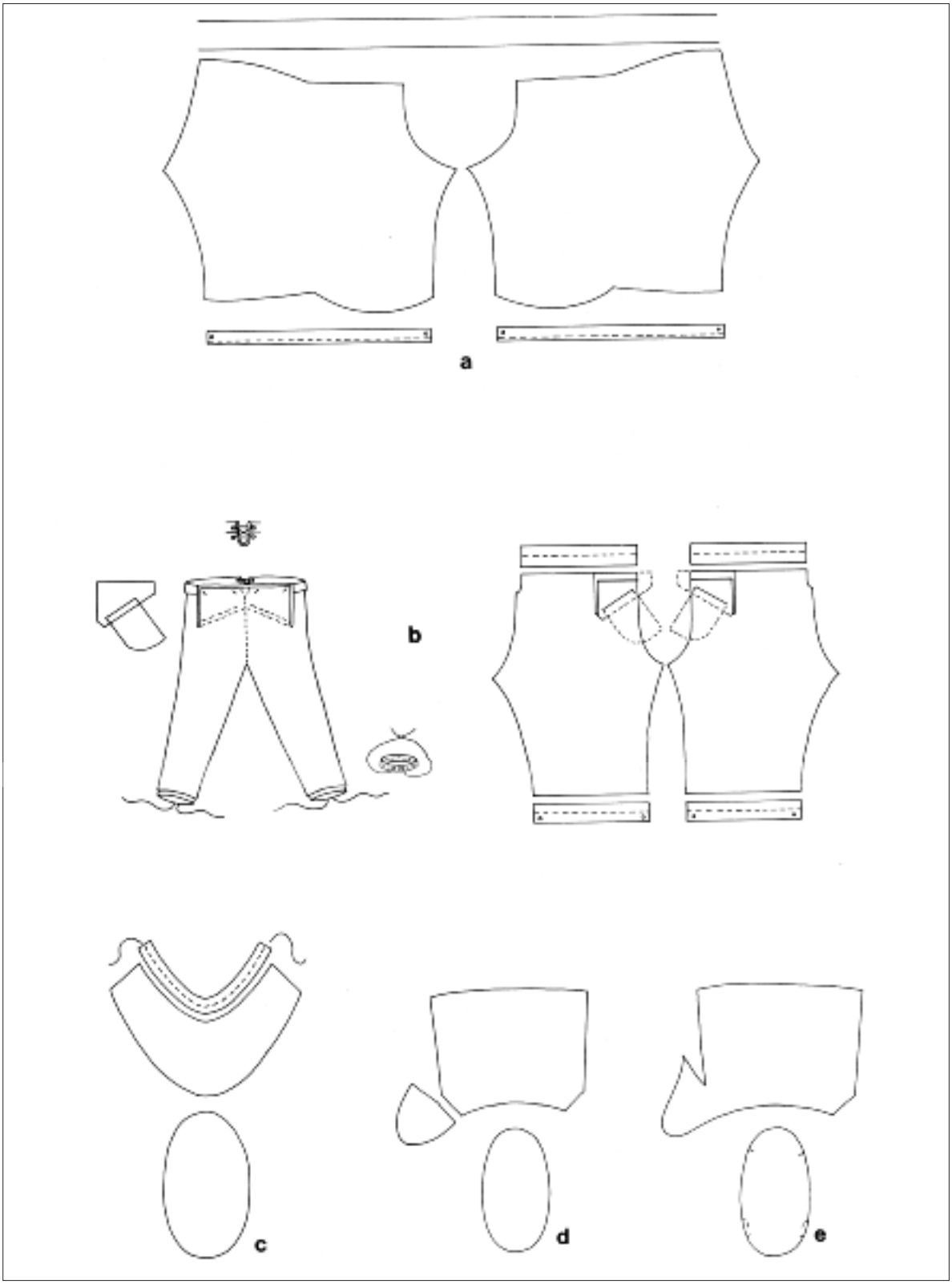

Plate 16. a. Men's trousers of polar bear skin – *nannut qarliisat*; b. Men's trousers of seal skin – *ammit qarlissat*; c. Overshoe of dog skin – *kamippaat*; d. Inner shoe of seal-, caribou- or dog skin with hair side innermost; e. Outer shoe of waterproof skin or seal skin with hair side outermost.

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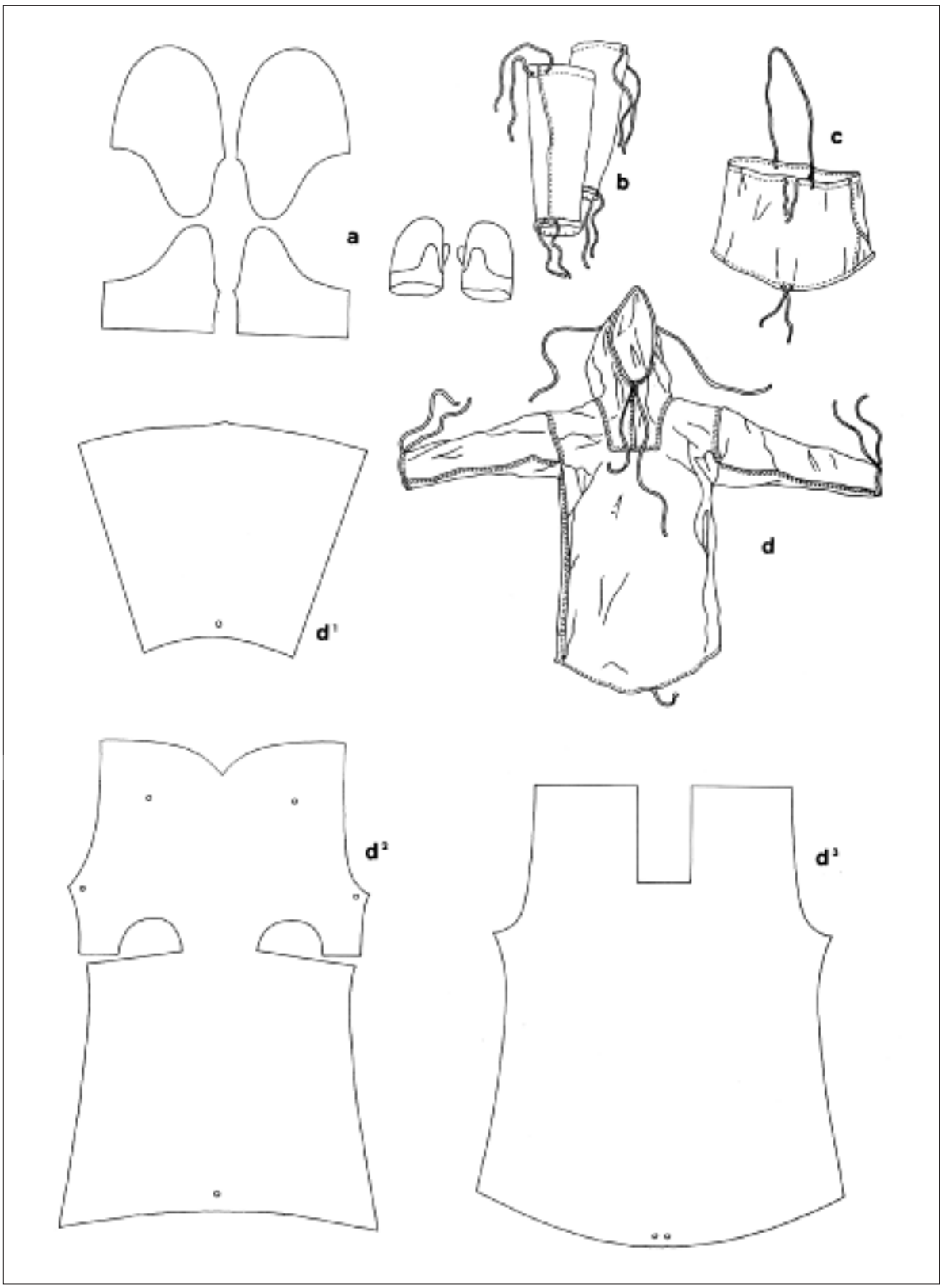

Plate 17. The kayak hunter's dress. a. Kayak mittens – *qajartuutit*; b. Kayak sleeves – *talissat*; c. Kayak jacket to be tightened over the cockpit coaming – *tuiitsoq* (i.e. that without sleeves); d. Kayak suit – *tuilik*; 1. Sleeve (*talissaa*); 2. Back piece (*tunussaa*); 3. Front piece (*saarsaa*).

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Fig 109. The kayak suit. Bendt Frederiksen in the harbour at Nuussuaq, summer 1969. Photo by the author.

Fig 110. Kayak turning as demonstrated by Bendt Frederiksen. Photo by the author.

The outer *kamik* consists of a thick sole of skin from a bearded seal or adult harp seal, whereas the shaft and uppers are cut from a piece of skin from a ringed seal with the hair outermost. This results in the form being very tight over the instep, which is why *kamik*s for children are often made in the so-called 'Thule shape'.

The inner *kamik*, or sock, *alerseq*, is made of seal, caribou or dog skin; the hair layer is always turned inwards.

A mid-sole, most commonly called *kamik* hay, is placed between the two boots. The material for this is collected in the mountains before the snow covers the ground in the autumn. It is dried and stored for the

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long winter months. A cord or thong is pulled through two small holes in the front edge of the hide of the soles. This is bound around the ankle and is fastened over the instep with a special buckle made of tusk or bone. This cord helps of course to keep the boot secure on the foot. Sometimes two soles are cut from caribou skin. These are warm but they wear out quickly and are difficult to keep in place for longer periods.

Older hunters sometimes use a particularly short-shafted over-*kamik* of caribou or dog skin.

Kayak suit – *tuilik*

The *tuilik,* which is often called a kayak suit, is made of 'water-skin' sewn with sinew thread to make it completely waterproof. Only Bendt Frederiksen owns a garment of this type, made by his mother Laurette (Figs 109, 110; Plate 17). It is laced around the face at the edge of the hood and two further cords, *nasalleqqutit*, are fastened at the back of the neck. It is secured at the wrist and along the kayak cowl. It is now totally without buckles and buttons of bone or tusk. When the wearer stands upright it extends down to just below his hips.

Kayak jacket – *tuiitsoq* (the one without shoulders)

Tuiitsoq, the half-fur coat is called *akuilisaq* further south down the west coast (Plate 17). It is also made from 'water-skin' and is a kind of skirt which, like the full-fur coat, is fastened around the kayak ring cowl but it extends up to just below the armpits and is kept up by a belt, strap or cord over one shoulder, or by European braces. In calm water the kayak jacket prevents water from slopping down into the kayak, whereas in rough weather the kayak suit must be used.

Kayak mittens – *qajartuutit*

The kayak mittens always have two thumbs and like the jacket and suit they are made from 'water-skin' (Plate 17). The two thumbs make it possible to turn the mittens when the inner surface becomes wet and the kayaker cannot therefore hold on to the kayak paddles and other equipment. It was thought that these mittens were an Arctic invention, but 18th century illustrations of Danish fishermen clearly show this extra thumb on their mittens. So perhaps the idea reached Greenland *via* European whalers.

Summary

Despite the availability of European clothes the men preferred to use the major part of the traditional costume on their hunting trips. This of course was only possible because all hunters' wives had maintained the tradition of producing the many costume components. The patterns and seams are so uniform from woman to woman that it is almost impossible to see who has made what.

Only underwear, socks, shirts, sweaters, a few parkas, wellington boots and material for anoraks were bought in the store. All the women made the men's and boys' anoraks for hunting, everyday wear and special occasions. The outer jacket, *timmiaq*, made of caribou skin is still the warmest garment but it has the disadvantage relative to a European parka that it is difficult to move about in, which is why it is most often used on longer sledge journeys. The mittens were most commonly a combination of knitted mittens in an outer mitten of seal skin with the two aforementioned thumbs. In extremely low temperatures only the traditional double boot can keep the feet warm.

The children and women's clothes, with the exception of those for special occasions, show much greater European influence. This is because the women and children were rarely included in the longer sledge journeys. In the winter period they stayed inside and around their houses a short distance from the store, school, church and neighbours. On visits in the spring to, for example, Tasiusaq, Illulik or Kullorsuaq one could see women and children wrapped in quilts on the sledges where they sat and froze with dignity.

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Chapter 8

Hunting and fishing

Hunting methods

Uuttoq hunting

The hunters have always seen the area around Nuussuaq as a perfect place for *uuttoq* hunting in the spring months. Even hunters from the settlements in the mid and southern parts of the district still gladly make the long journey along the sledge routes for a share in the good hunting when the ice further south becomes too dangerous to travel on, as a rule in April. Everyone says that the further north one travels the greater the number of seals there are lying spread out over the ice. This is despite the fact that older hunters can recount that a long way south, between Prøven and southern Upernavik, there was, and sometimes still is, exceptionally good hunting at this time of the year. Hunters who have crossed Melville Bay to Savissivik in April or May give vivid accounts of how the seals in the large deserted ice fields lie scattered like 'coal dust' on the ice. The hunting statistics also show that very many seals are shot in the spring months from Kullorsuaq, Illulik and Nuussuaq. Unfortunately the hunting returns are always completed such that the hunter must declare the number of animals shot to the hunting returns officer in his home settlement. This means that animals shot, for example, at Nuussuaq by hunters coming from outside, can in this way be recorded for Kuuk, Aappilattoq or other settlements.

The hunters from other settlements come and stay for a shorter or longer period. A few of them bring along the whole family, to be sailed back with sledge and dogs in June when the ice has gone. I asked a hunter who had arrived with his wife and three children in April when he intended to return home. He answered: 'When the hooded seals turn'- i.e. in the course of August! The District Council has had two hunting huts built on the settlement's southern point so that they are available for families such as these. However, many prefer the comfort and hospitality they can be sure of when they move in with family, close or distant. On one occasion this resulted in five adults and nine children living for a couple of months in a house of 24 m^2.

When the ringed seals and, in some cases, the bearded seals, the two only non-migratory seal species, start to chew and scratch at their breathing holes at the end of March and the beginning of April in order to be able to crawl up onto the ice and, like people, benefit from the sun's rays, this is the signal for one of the most popular forms of hunting to commence. Hunters, who in the winter months have shown very little interest and energy in net hunting, suddenly wake up and spend almost 24 hours a day in the company of their dogs, either far out to sea or in the fjord complex.

It can be difficult in this period to keep track of what each hunter brings home in the way of seals. The hunters leave and return home at all hours of the day and night and in the best period they are only home for a few hours in order to eat and sleep. In many places whole seal carcasses lie outside in the snow because there simply is not room on racks and in the larder for the great quantity of meat. The dogs live off the fat and one asks oneself what it is that makes the provincial council in Nuuk year after year turn down the very modest request for investment in a cold store located in Upernavik's northern district, while inhabitants further down the coast long for seal meat.

The time of the *uuttoq* hunting is also the period where the hunters notice that, in contrast to the former scattered and smaller settlements, there are now rather a lot of hunters wanting a share in the seals. The hunter decides before he leaves home where he will try his luck according to the weather, wind direction and so on. He travels away from the fresh sledge tracks of the other hunters. Usually after an hour's travel, or about 10 km, he finds himself a suitably large frozen iceberg where there is not too much risk and difficulty involved in climbing up with his telescope to scout for *uuttut* (sing. *uuttoq*). These appear as small black dots in the distance on the ice. From his lookout point he will usually be able to see other

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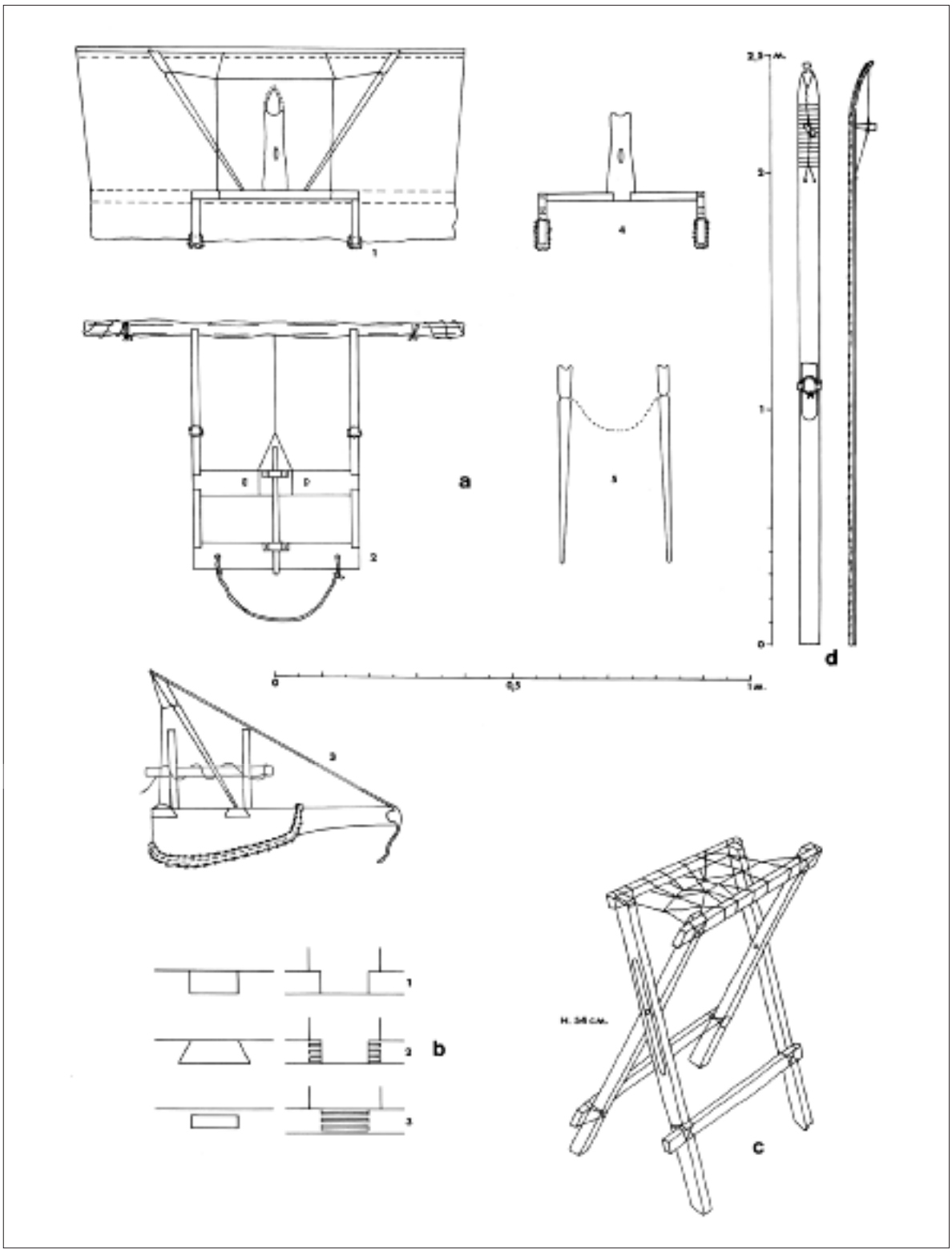

Plate 18. Shooting sledge – *qamutaasaq* (a-b), skies – *sisoraatit* (d) and a stool – *issiavik* (c) for hunting at the breathing hole, used by Esaias Pjetturson, Illulik 1967-68. a1. Sledge seen from the rear with unfurled sail (*taalutaq*); a2. Sledge seen from above with furled sail; a3. Sledge seen from the side with unfurled sail; a4. Sledge seen from the front without sail; a5. Wooden braces (*napaqqut*) to tension the sail; b1-3. The most common ways in which the shooting sledge's cross-piece is fitted to the runners.

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Fig 111. Mathias Halsø uuttoq hunting off Illulik, spring 1968. Photo by the author.

sledges moving in various directions and he must choose the direction which will give him the greatest chance of hunting alone.

In that same spring from a lookout post such as this I was witness to a fantastic dog race between two hunters who unfortunately had, at the same time and from opposite positions, selected the same sleeping seal. This did not, however, lead to a conflict between hunters – far from it. They had a great time and out of politeness could barely agree as to which of them should creep forward and shoot the seal.

For a successful result with this method of hunting it is absolutely essential that the hunter has full control of his dogs, especially when he is travelling against the wind towards the seal. Many dog-team drivers can make their dogs behave impeccably when they scent a seal. However, it is not much use if a hunter has pulled his white anorak hood up over his black hair and hidden himself behind his shooting sledge (Fig. 111; Plate 18), if his dogs then follow after him in a pack when he creeps forward. Especially if they are travelling with many pups, many hunters take along their sons or another older boy in order that he can keep the dogs back with a whip. In this way many coming hunters learn the first basic rules of the *uuttoq* hunt.

A well-trained dog team will, however, remain completely still without a sound until the second the shot rings out. This is the signal for them to rush forward with the sledge to the hunter who has by now run right up to the seal. Most often the seal will be lying close to its breathing hole in the ice. If it is only wounded he must prevent it from disappearing into the water.

When the hunter has brought his dogs to a halt some hundred metres from the sleeping seal and made the shooting sledge with rifle and sail ready, he moves calmly in an upright position the first part of the way towards the seal. The rifle is held pointing obliquely downwards in front of his feet so the shooting screen covers his dark kamiks and sealskin trousers. A seal does not look up into the air after possible predators but along the ice. The seal becomes uneasy as if it has sensed the danger without it necessarily having seen anything. At this point the hunter lies down completely still behind the shooting screen until the seal has settled down again. Then he creeps forward on his knees pushing the sledge before him until the seal again raises its head. He then lies completely still again. This sequence of event can be repeated many times, according to how uneasy the seal is, until the hunter is within range, i.e. usually 35-50 m. However, with a telescopic sight many hunters do shoot from a distance of up to 100 m. The hunter usually has only one chance and the shot should be fired at exactly the moment when the seal raises its head in order to check the scent. The first shot must kill and he therefore aims at the head or neck region that is often all that

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Fig 112. Hunter Knud Løvstrøm from Aappilattoq at the ice edge off Nuussuaq, spring 1968. Photo by the author.

protrudes up above the snowdrifts and other irregularities on the ice. Sometimes, however, the seal is so soundly asleep that the hunter must wake it up when he comes within range. The seal will then lift its head so that the hunter is able to shoot it. He imitates the seal's bark, something approaching a 'groo-groo' sound made at the back of the throat. If the seal is only injured it will immediately try to get back into the water and will often be lost to the hunter. In modern times small mirrors have been used bound to the ice chisel or whip handle. These make it possible to find a seal under the ice. When the water in the hole has been cleared of blood and blubber, the mirror is lowered into the water and turned in all directions until the seal is found. Then a new hole must be made in order to pull the animal up on to the ice.

Normally, larger rifles are used for *uuttoq* hunting but a few hunters use exclusively the much smaller cal. 22 rifles. In June the ringed seals begin their moult and the seals shot in the course of this month often have a very poor coat, which makes their skins unsuitable for sale. The skins are therefore depilated and used for 'water-skins'.

Hunting from the ice edge (*sinaasiorneq*)

Hunting from the ice margin can, according to the weather and ice conditions to the south and west of Nuussuaq, last two-three months, as a rule from the beginning of April to the end of June (Fig. 112). This is a period when the hunters, in combination with individual *uuttoq* hunting, gather in larger or small groups at holes in the ice, *imarnersarsiorneq*, and by large cracks in the ice, *sinaasiorneq*. It is here that large game animals such as a narwhal, white whale, walrus

Fig 113. Narwhal hunting at the ice edge off Nuussuaq, spring 1968. Photo by the author.

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and hooded seal may turn up in the water (Fig. 113). In the most fortunate cases the animals come so close into the ice margin that they can be harpooned or shot from the ice. However, the hunters usually have to take up the chase in the kayaks they have brought along for the purpose.

The waiting time, when the hunters take turns to keep a sharp look out around the clock, can be long but the light has returned and there is great conviviality among those waiting. The hunters often stay out for many days, sometimes with their older sons and, exceptionally, with the whole family if they have clothes that can withstand the often very low temperatures. They sleep in tents pitched over the sledges and, in order to be ready around the clock, are fully clothed and as a rule with a caribou skin both under and over them. The primus stoves hiss virtually uninterrupted in order to warm up the tents a little and so that they can brew tea and coffee and boil seal meat.

If one asks the hunters when they intend to return home the answer is usually: 'When we have enough meat and *mattak* to fill the sledges or if the weather changes so there is a danger of floating away on an ice floe or the route home being severed by broad cracks in the ice' (see example in appendix 1).

The results of hunting from the ice margin are seen in the hunting statistics. As already mentioned, a feature of this form of hunting is that many traditional rules for the distribution of the catch are maintained.

Fig 114. Jørgen Aronsen netting from the ice, April 1968. Photo by the author.

Hunting from kayak/motorboat

As mentioned elsewhere in this book, kayak hunting, in which motorboats are primarily used as transport vessels to and from the hunting grounds, is a highly specialised and effective hunting method that combines very traditional hunting methods with new technology. It can take the form of short one-day hunting trips or longer trips such as the example given in appendix 1. Or there can be visits or shopping trips by motorboat to Tasiusaq or all the way to Upernavik town. On these trips the hunters always take along one or more kayaks and hunting equipment on the boats, ready to lower into the water if seals, birds or other game are seen.

The acquisition and maintenance of motorboats has resulted in the emergence of new rules for the distribution of catches. These apparently differ from boat to boat.

Netting (*qaattorneq*)

Some doubt has been raised as to whether the use of nets for catching seals under the ice was known prior to the arrival of Europeans on the west coast of Greenland in the 18th century (Figs 114, 115; Plates 19, 20). Finds of whalebone nets could, however, suggest that

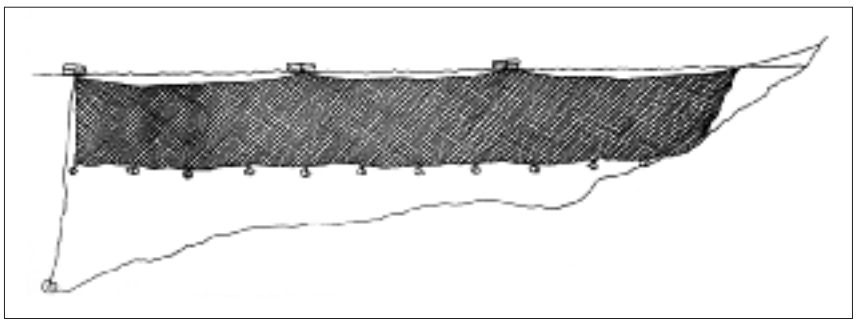

Fig 115. Sealing net (*qassutit imarsiutit*) used in open water. Number of meshes: 13 x 94. Three floats of cork or wood. 12 sinkers of stone. Fastened 3 m from land. In November 1967 Jørgen Aronsen caught two, Markus ten and Søren two ringed seals with this net. Johannes caught one bearded seal.

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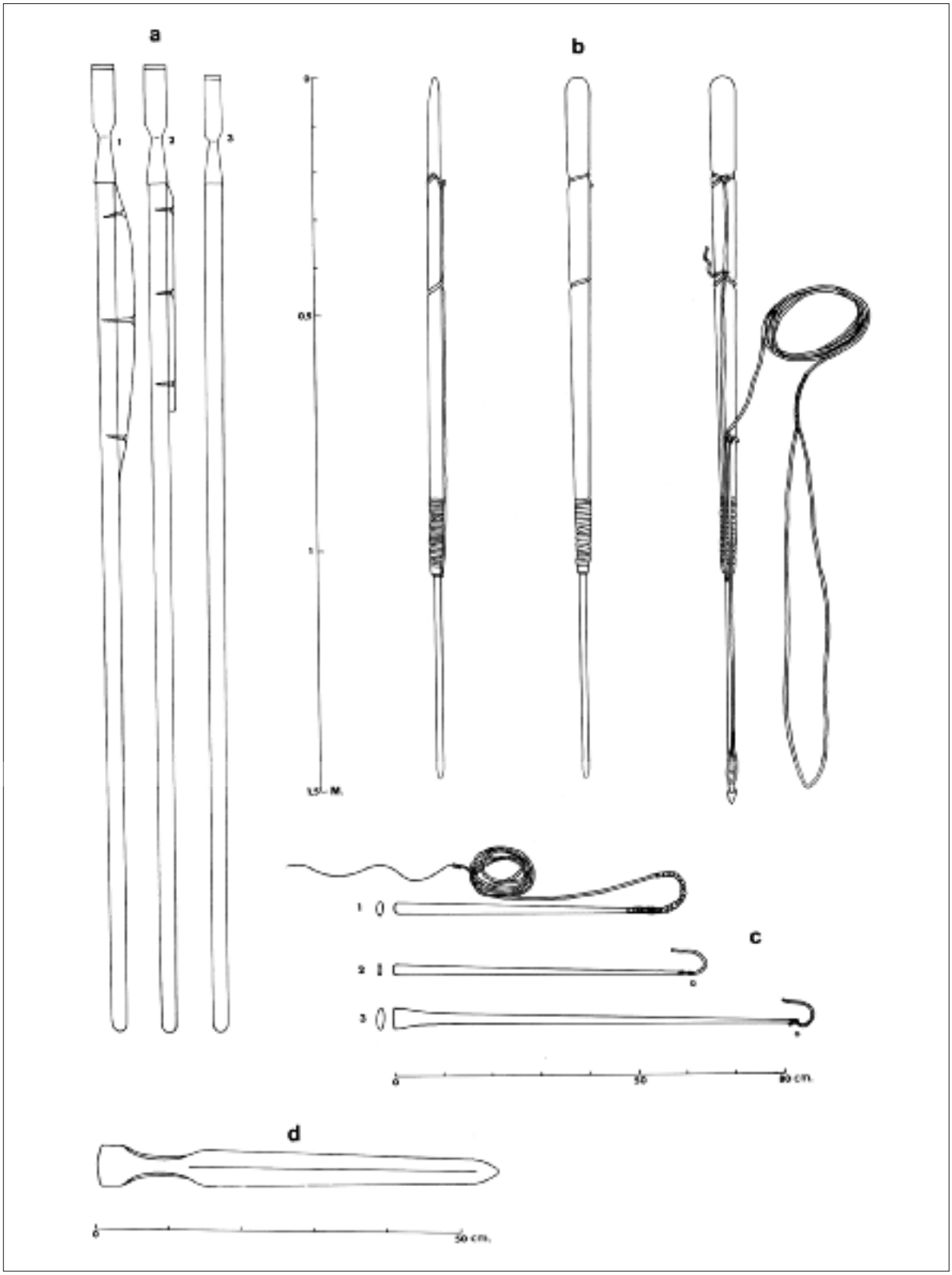

Plate 19. Implements for ice hunting. a. Ice chisel – *tooq*; 1. With a large blade and extra wooden piece screwed to the skaft; 2. With a large blade and extra iron piece screwed to the shaft; 3. With a small blade. b. Ice-hunting harpoon – *iimaq*, copied from the Thule hunters. c1. Dog whip – *iperaataq*, consists of handle (*ipu*), plait (*perlaagassaq*), not made by all hunters, cf. 2-3, and the whiplash (*suloraq*). d. Snow beater – *tiluttuut*, copied from the Thule hunters.

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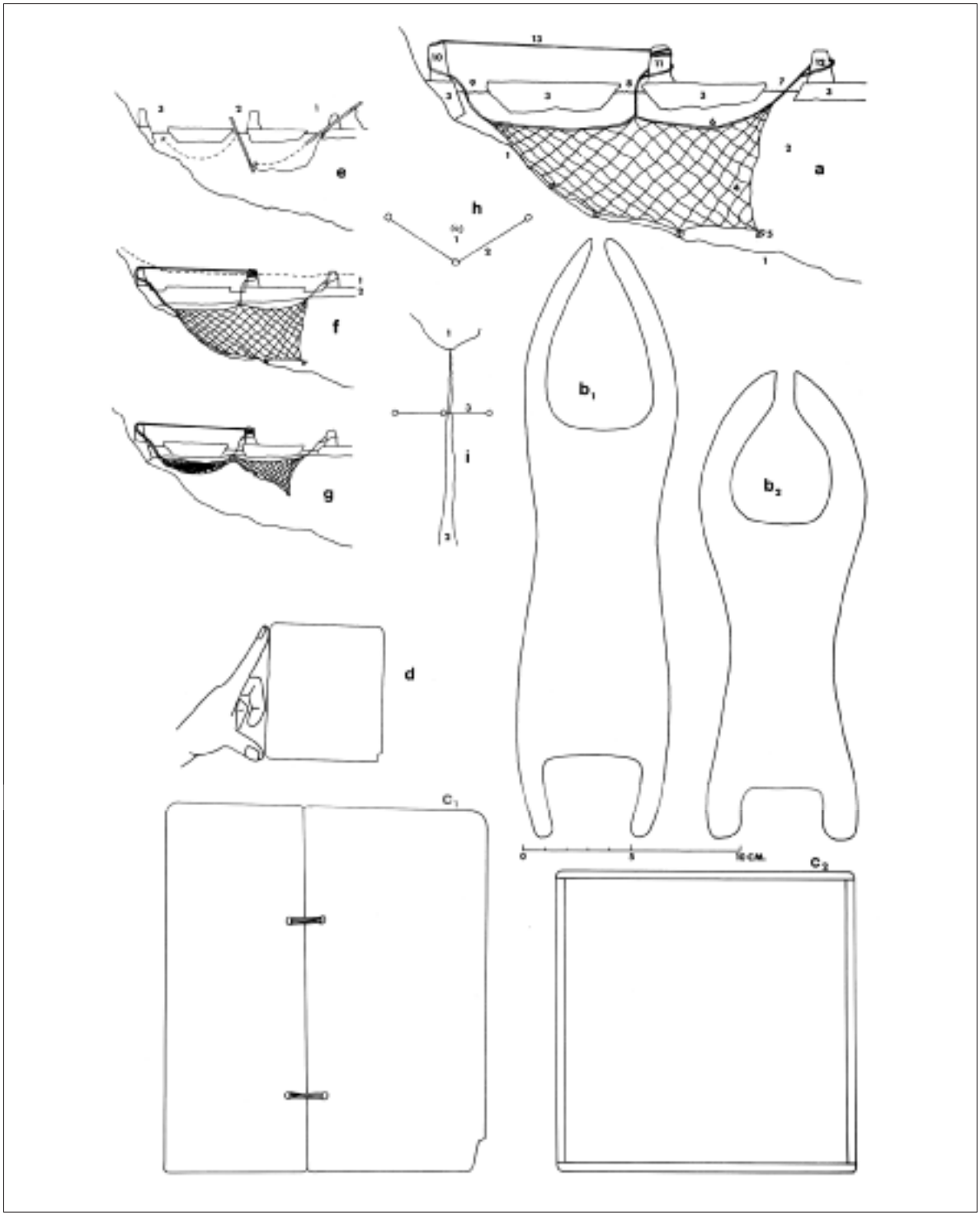

Plate 20. Winter sealing net - *Qassutit*. a. Net (4 – *Nigartaq*) under ice in water (2 – *Imaq*) along the coast or an iceberg (1 – *Nuna iluliarluunniit*), upper cord (6 – *Qimiaq*) and nylon fishing line (13) fastened through holes (7 – *Avalleq* (outer net-hole), 8 – *Qiterleq* (mid net-hole) and 9 – *Timerleq* (inner net-hole)) in the ice (3 – Siku) to cut out ice blocks (10-12 – *Napasoq*); bottom line secured by net sinkers (5 – *Ujarak*). b. Needles of different sizes (1-2 – *Meqqutit* (pl.)). c. Measure for mesh size (1-2). d. Size of a mesh. e. Throwing the ice chisel with the upper line through the holes made in the ice (1-3). f. Laid net showing how snow (1) and the thickness of the ice (2) can make it difficult to locate and take care of the nets. g. Tending the net by hauling the drowned seal through the hole. h. Placing the net (2) around a breathing hole (1). i. Placing the net (3) across a crack in the ice (2) running from the coast or an iceberg (1).

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Table 13. Returns for the netting in Western Greenland's northern inspectorate, 1799-80 and 1807-08.

	Danish netters	Seals	Blubber in kg	Seal skin
1799/1800				
Upernavik	4	791	28	480
Uummannaq	12	4485	389	4098
1807/08				
Upernavik	11	2266	311	1757
Uummannaq	11+1	5379	597	5122

Table 14. The catches of polar bear hunters between 1915 and 1920.

Isak Simonsen	Itusaalik	1915/16	18 years	1 bear
Karl Simonsen	Itusaalik	1915/16	22 years	3 bears
Karl Simonsen	Itusaalik	1920/21	27 years	1 bear
Karl Simonsen	Itusaalik	1924/25	31 years	5 bears
Abel Danielsen	Illulissuaq	1908/09	35 years	2 bears
Abel Danielsen	Kittorsaq	1918/19	44 years	5 bears
Abel Danielsen	Kittorsaq	1920/21	46 years	8 bears
Markus Johansen	Ikermiut	1919/20	62 years	3 bears

netting was known prior to this. However, these finds are few and are scattered from the southernmost part of Greenland up to around Disko Bay. With regard to Upernavik, the evidence comprises a single knot of whalebone found during the excavations at Nuugaarsuk.

Factor Andreas Bruun is said to have set out the first seal nets at Upernavik in 1773 'in order to show the Greenlanders the use hereof, which was quite unknown to them' (Bruun 1997:66). In the first winter the nets gave 27 seals and subsequently almost all the Danes, even the missionaries, then laid out seal nets. Seal meat was naturally very welcome but blubber in particular, for lighting and heating, was difficult for the Danish colonists to buy from the local inhabitants in the first severe time as they themselves had great need of it.

If one looks at the returns for a couple of individual years (Table 13) for the netting in Western Greenland's northern inspectorate it is apparent that this method of hunting was more common in Uummannaq than in Upernavik. And in the winters of 1799-1800 and 1807-08 it was still the Danish colonists and a single Greenlander who used the nets. The fact that this method of hunting was also then associated with expense in the form of lost nets is shown by figures from Upernavik where in the winter of 1807-08, 267 nets were laid out, of which 59 were lost.

Polar bear hunting (*nannunniarneq*)

'And if the sun had not erased the tracks on the ice, they would tell us about the best of the North Greenlanders' dreams, of polar bears and of the man who had the luck to catch bears.' (Obituary in *Avangnâmioq* 1924 for Simon Simonsen, called 'Simon Bear Hunter' from Upernavik north district.) At the beginning of the 20th century polar bear hunting in the southern part of Melville Bay was instrumental in enticing the most enterprising hunters to settle north of Tasiusaq. The most well known were Simon Simonsen and his sons Isak and Karl, Abel Danielsen and Markus Johansen. A summary of the catches (Table 14) some of these hunters brought home to their settlements in the period between 1915 and 1920, when Simon Bear Hunter had ceased hunting, can be seen from the official hunting statistics, which at the time were published with the names of the individual hunters.

A polar bear gives on average 120 kg of meat to the household and it is considered as a great delicacy but the value of the skin and the prestige brought by the shooting of a bear are probably of greatest significance. In money terms a skin in 1968 represented about 2,000 DKK, as the hunter family could normally reckon on 1,500 DKK in cash plus 500 DKK later after the skin had been sold at auction in Denmark. Several bear skins were, however, in the winter of 1967-68 sold privately to Danes who paid 2,000 DKK in cash. With an average price of 35 DKK per seal skin, the value of a polar bear skin corresponded accordingly to more than 50 seal skins, if the latter were not used for making trousers rather than being sold.

Of the 16 bears shot from Nuussuaq (Table 15) it has been possible to obtain further information on seven of these from the hunters responsible for shooting them. This was not difficult as bear hunts in particular are something everyone is very happy to speak of and which children and adults love to hear about. These examples and a few others are included in appendix 2.

The possibility of encountering a polar bear exists all the year round but all the above-mentioned were,

Table 15. The polar bears shot in Upernavik in the period between 1958 and 1967.

	Nuussuaq	Total for the Upernavik District
1958/59	0	5
1959/60	2	7
1960/61	4	9
1961/62	6	14
1962/63	1	8
1963/64	0	2
1964/65	1	4
1965/66	0	6
1966	2	4
1967	0	8
Total for 10 years	16	67

however, brought home in March and April on dog sledges. Hunters from Kullorsuaq also used these spring months for bear hunts in the southern part of Melville Bay. A few hunters did, however, tell of bears, which had over the years been harpooned and shot in open water in the summer. An example of this is also included in appendix 2.

Prestige associated with polar bear hunting

Of all the game animals, the polar bear is one of the most welcomed catches throughout the whole of the Arctic area. Accordingly, an accomplished bear hunter is now, and was in the past, perceived and spoken of with great deference and respect. Information from Upernavik north district shows, however, that a person who has shot a bear more or less by chance is not necessarily entitled to this much coveted title. Accordingly, the two hunters' wives from Illulik and Qaarusulik, as well as the few hunters from Nuussuaq who shot bears during *uuttoq* hunting or on another task close to the settlement, should not necessarily be termed bear hunters.

The question of when a hunter is a bear hunter appears to be very closely linked to the question of when a person can justifiably be said to be on a bear hunt. Three situations can be considered:

a. Where the hunter, as a rule together with one or two others, prepares himself and intentionally sets out to find bears and subsequently returns home with his catch.
b. As a. but where his efforts are unsuccessful.
c. Where the hunter, during the execution of another method of hunting or on a journey, encounters a bear by chance and shoots it.

Re. a. Under these circumstances there can be no doubt that all the conditions have been met and if this proves to be a recurring event in the hunter's career he is perceived as a bear hunter.

Re. b. If this situation is always the case, or with but a single exception, no one will speak of him as a bear hunter. The fact that, in addition to expertise and a number of other abilities, it is often simply a matter of good or back luck applies to both a and b.

Re. c. A characteristic of cases such as this is the uncertainty which the hunter and his dogs find themselves in if a bear turns up. Will the dogs take up the chase or will they be frightened, put their tails between their legs and run? The hunter will normally remember, perhaps all the way from childhood, other hunters' detailed accounts and behave accordingly. And this clearly shows the great importance for everyone, but especially for the young, of the always very detailed hunting stories.

A few examples of hunters in category b who often return home empty-handed year after year but who are still spoken of as practising a particular form of hunting are some caribou hunters from Aappilattoq. Every year they set off into the hinterland with rifles and supplies in August when it was still possible to find traces, albeit very old, of caribou. The official hunting statistics show, however, that one must go back to 1950 before finding three caribou brought home by hunters from Aappilattoq, but people till told me anyway, at the end of the 1960s, that these hunters went caribou hunting.

To be called a bear hunter must be seen first and foremost as a social role, a differentiation of people involved in hunting along the lines of 'great hunter'. The fact that both roles were often combined in one and the same person serves to emphasise further the hunter's high social status.

There is most commonly a division between acquired roles and roles which are bestowed upon people. However, the fact that someone is the son of a

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Table 16. Nuussuaq's population and means of transport in 1967 and 1997 (Albrecthsen 1999).

	Population	Men	Women	Hunters	Cutters	Dinghies	Kayaks	Dog teams
1967	133	75	58	23	4	5	16	24
1997	188	99	89	33	5	26	15	28

Table 17. Hunters per settlement.

1918	9 hunters
1970	17 hunters

great hunter or bear hunter will often lead to the young hunter, after he has completed his 'apprenticeship' with his father, himself acquiring his father's rank and prestige.

With regard to the use of dogs in bear hunting, many hunters mentioned that they sometimes used special secret bear signals during the chase but most hunters just used their ordinary hunting signals. All the informants were of the opinion that it was difficult to differentiate between special training for the dogs for bear hunting and just ordinary training.

All of them were, however, in agreement that dogs which had just once taken part in a successful bear hunt could be considered as 'bear dogs'.

Input – output

In order to examine the hunters' efforts at the transition from one method of hunting to another it is necessary to examine the uncertainty with regard to the size of the yield which can be expected relative to an individual hunter's investment. In general it can be said that most of the new technological elements introduced from Europe have not made the occupation less vulnerable. They have primarily served to make the exploitation of the already exploited resources in the ecosystem more effective.

Accordingly, hunters at the start of ice netting at the beginning of November will be unable to say anything of the expected yield of the next 4-5 months. Regardless of how able and experienced a hunter is at hunting at the seals' breathing holes, and how functional his equipment is, he can obviously not exploit this if there are only few breathing holes that particular year. At the transition to *uuttoq* hunting at the beginning of April, the preceding hunting at air holes can, however, be an indicator of the number of *uuttut* in April, May and June. There is a great deal to suggest that a year with few air holes gives many *uuttut* and that the reverse is also true.

Hunting from the ice margin in the same period, at cracks, air holes and later out towards the open sea, is totally governed by the ice conditions, especially with regard to the occurrence of narwhal and white whale on their northward migration in May and June. The ice conditions vary from year to year. Sometimes the open cracks that the animals follow are formed so far out to sea they are completely inaccessible to the hunters. In other years schools and herds of animals of various sizes become enclosed in the ice and are unable to slip away to the open water, the so-called *sassat*.

The hunting statistics show that the yield from the four months of open-water hunting clearly fluctuates a great deal from year to year. Especially the occurrence of migratory game animals, hooded seal, harp seal, narwhal and white whale is very uncertain. The use of motorboats has made it possible to find and follow these animals over significantly larger areas than was possible previously when kayak and umiak were used. However, the hunter can still be unfortunate, for example when the white whale schools in October migrate south very far out to sea or when, due to storms or for other reasons, the hunters are unable to follow them.

When I asked Bendt Frederiksen in a letter which hunting equipment he used in 1998-99 he replied on behalf of himself and his son, Hans. Both considered themselves to be hunter/fishers. Bendt was then 60

Table 18. Nuussuaq's population classified by occupation in 1967 and 1997 (Albrecthsen 1999).

	Hunter/fisher (full time)	Hunter/fisher (part time)	Hunter's wife (full time)	Hunter's wife (part time)	Men in other occupation	Women in other occupation
1967	23	6	18	5	3	4
1997	33	5	16	11	16	15

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and Hans 30 years old. Bendt had a 23-foot glass fibre cutter and Hans two 15-foot glass fibre dinghies. Both still had a kayak and used a harpoon, they had sledges and dogs; each had a snow scooter and used long-lines to fish for Greenland halibut.

Some hunting methods which have gone out of use

A brief account will be given here of three hunting methods which appear with time to have been abandoned at the start of the 20th century, as winter hunting with nets from the ice became widespread. Older hunters could remember them from their childhood and catechist Mathias Frederiksen in Nuussuaq recounted that peep hunting, *itsuiarniarneq*, in particular gave a large yield in some years. In the Upernavik Archive there was a manuscript from 1799 *Upernaviks distrikts beskrivelse* ('A description of the Upernavik district') in which *langstangsfangst* is mentioned from most settlements (Brandt 1939).

The following description of the hunting methods is from hunters Jonas Kristiansen, Kangersuatsiaq, Johan Henningsen, Uummannaq and Peter Dalager, Qeqertarsuaq. Their guidance came from *Lærebog i Fangst, Nordgrønland* 1923 ('A hunting text book, North Greenland 1923') published in 1971 as 'Greenland Hunters Recount' (Hansen 1971). These guides, intended for young prospective hunters, are extremely detailed and as they previously have only been published in Greenlandic and Danish they are reproduced here in a slightly abridged form.

Smooth ice hunting (quasassiorneq)

by Jonas Kristiansen & Johan Henningsen

Smooth ice hunting is practised either on new ice or during a milder period in the winter when it has rained so that the ice has become smooth. This method of hunting is best in harsh winters when the ice is thick and the seals are therefore less likely to move away from their breathing holes. When you are out on the ice you must listen and if there are places with snow, these should be avoided as far as possible. If you hear a seal breathe far away you must rush towards the sound without having to show any particular caution. If you get close to it put in your extra soles. These can be made of dog skin or a piece of an old Icelandic sweater. If the seal is still far away, its breathing is heard as a falsetto note. If it is closer the note sounds deeper. If you think you are so close to the breathing hole that you have a chance of reaching it before it dives again, you must only go forward every time it breaths in. Your harpoon, with its head affixed, is held under your left arm. Take your mitten in your mouth and cock the hammer on your rifle as carefully and silently as possible. Shoot the seal at the moment it breathes in. You should aim just on the edge of the ice – it is all right to graze the edge of the ice. If you have hit the animal you should hurry and harpoon it before the current carries it away or, if there is still a little life in it, before it escapes under the ice.

Stalking (maanneq)

by Jonas Kristiansen & Johan Henningsen

When considering catching seals from the ice, breathing hole hunting and *lurefangsten* should not be forgotten, as these methods are amongst the most fruitful. Unfortunately they are now in decline. In North Greenland it is possible to hunt seals in this way even in the dark times, but it is not possible alone; many participants are required. On arrival at the hunting grounds, some hunters should remain at the breathing holes that have been discovered, while the remainder continue in order to look for other breathing holes. When the seals hear footsteps on the ice, they will flee, try to cross the path of those walking above and, accordingly, move back towards the breathing holes, which are already covered by hunters and where there is now silence. The hunters standing there will then have a chance to shoot. Hunting in this way often produces a great catch.

(Hunting by the breathing hole with rifle and harpoon is no different from that described for smooth ice hunting and the two hunters continue by describing hunting by breathing holes for bearded seal and walrus.)

Peep hunting (itsuartorniarneq)

by Peter Dalager

Not so very many years ago peep hunting was common and often gave a good yield, even securing several seals at once. But for some reason or other it has

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now been abandoned, in some places totally forgotten. It is conceivable that hunters, after net hunting has been introduced, find the peep hunting tiring and consider it to be easier and more convenient to let the nets take care of the hunting while they themselves have their hands deeply buried in their trouser pockets. But why should the work of our ancestors' manfolk and good hunting methods, which could also be used by us, go completely out of use alone on the grounds of idleness? There is no doubt that if someone tries again they will have good results and therefore let us, before this hunting method is completely forgotten, hurry to recount what we can remember of it.

Peep hunting requires two participants, one who looks and entices the seal towards him and one who holds the harpoon and is ready to harpoon the seal. On arrival at the hunting site a suitably sized hole is chopped in the ice and the slush ice is thoroughly cleared away so that it does not get in the way. Directly beside this hole, another small hole is made which is just big enough to allow the harpoon to be thrust through it.

The one who lies down must have a warm soft underlay, for example a dog skin. He has to lie flat on his stomach and have a skin or something over his head and shoulders so that all light is excluded, and in this position he must try to entice the seal towards him – I believe by whistling.

If a seal appears under him he must calmly wait for the moment when it is precisely under the harpoon head and so give a sign with his foot that a thrust is to be made after the animal. When the seal approaches he can also make the sound 'ké-e-e' and as the seal pass just under the point he says 'kig'.

The harpoon is held down in the water. It must be slender and have a length of about 7.5 m and be fitted with a narrow sharp knife blade with barbs and a line 10-12 m in length. On the strap, which binds the harpoon head to the harpoon, some small pieces of bone must be carefully bound as bait.

The one who stands up must control the harpoon with his right hand and with his left hold tightly onto the cross-piece that sits at the end of the line.

This is the way they carried out peep hunting in the old days and several seals could be caught without moving from the one place.

Comment [by the author (Keld Hansen)]: After following the netting for a whole winter at Nuussuaq I think that Peter Dalager is probably being a little unfair when he describes the net hunters as lazy, with their hands pushed into their trouser pockets standing and waiting for the net to do all the work. As described in the section on fieldwork in 1967-68, the hunters went out in almost all weathers. The laying out and checking of the many nets was carried out with their hands far away from their pockets. At the end of the season they often had to chop through ice a metre thick. But, on the other hand, Peter Dalager mentions himself that net hunting was a contributory factor to this method going out of use.

The hunting statistics for 1880 from Tasiusaq and Aappilattoq, respectively, make available a range of important information. It is particularly worth noting that the catches of the most important game animals, whales and seals, are given according to the method of hunting employed: kayak, netting and shooting, where it is to be presumed that 'shooting' is largely *uuttoq* hunting. It is surprising that netting at this early stage had attained such a great importance as the figures suggest.

The number of hunters at both places is almost the same: 29 in Tasiusaq and 30 in Aappilattoq, and there is no great difference in the number of game animals. It is clearly apparent, however, that it was necessary to travel to the north of the district in order to hunt animals such as walrus and polar bear. The hunting statistics also show that, as is the case in recent times, especially in Tasiusaq, there were hunters who were able to catch significantly more than the other hunters. And if one knew the family and housing circumstances of these great hunters these would probably show that they managed to provide for a large number of people within their circle of acquaintance. It must be presumed that the Greenland shark was easily accessible at both places and it is therefore strange that there is such a great difference in the figures for these animals, whose meat is of such importance as dog food. With much less meat available from whales and seals in Aappilattoq one would think that they would have made at least as much use of it as at Tasiusaq.

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Hunting as a risk-filled occupation

According to Upernavik's church register for September 1909 two men of 40 and 23 years of age were drowned and at the same time five females of 39, 7, 5, 1 year and 7 months of age were 'swept away by the sea'. This could very well have been an umiaq accident, cf. Thalbitzer's photograph from Aappilattoq 1935 (Fig. 77).

Over and above catastrophic situations such as violent epidemics or other illnesses almost all periods of hunger and need were due to climatic conditions: storms, sudden changes in the weather, changes in ice conditions an so on. For example, numerous hunters have experienced drifting away on ice floes when hunting from the ice margin. Over longer and shorter periods the ice can break up and disappear or become so unsafe that it can prevent all sledge travel around the settlement. The hunters are not able to come out and any help possible from outside cannot reach them. Finally, the game animals, especially the non-migratory and essential ringed seals, can be frightened away from the area for longer periods by walrus or killer whale.

If the weather suddenly changes from the severe frost of winter to a thaw due to the Foehn winds, the accumulated winter supplies can rot and be destroyed in the course of a few days.

When travelling by sledge it is crucial to know the places where there are sub-ice currents. Here the ice under the snow cover is often paper-thin and there is great danger of falling through with dogs and sledge. Through time the church registers show that 'fell through the ice' and 'drowning' were the most common causes of death in the winter months. Ultimately, it is the sledge driver's and hunter's ability to 'read' the terrain that is decisive. Snow drifts, the consistency, texture, shape and colour of the ice, the size and shape of the icebergs, the strength and direction of the wind and cloud formations and their movements are, together with many other conditions, important indicators of the occurrence of game animals and of safety in the terrain.

Deaths according to Upernavik's church register:

- October 1861, 30 years of age, accidental shot.
- September 1867, 40 years of age, drowned – kayak and hunting bladder found, was lodged in an adult harp seal.
- 1874, 40 years of age, kayak accident, body not found – only hunting bladder and bird dart.

Table 19. Out of a total of 250, 90 men between the ages of 16 and 50 died in accidents, from 1850 to 1900.

Age	Died in kayak	Drowned	Accidental shot	Accident on the ice	Hunger, cold
16	-	1	1	-	-
17	-	-	-	1	-
18	1	-	1	-	-
19	3	2	-	1	-
20	1	1	1	1	-
21	5	1	-	-	-
22	3	3	1	1	-
23	-	1	2	1	-
24	1	2	1	-	-
25	-	1	-	-	-
26	1	-	-	2	-
27	1	1	-	1	-
28	1	1	1	-	-
29	1	-	1	2	-
30	2	1	2	1	-
31	-	1	-	1	-
32	1	-	-	1	-
33	1	1	1	-	-
34	-	-	-	-	-
35	2	-	-	-	1
36	1	1	-	1	-
37	-	1	1	1	-
38	2	1	-	-	2
39	-	-	-	1	-
40	1	1	-	-	1
41	-	-	-	-	-
42	-	-	-	-	-
43	-	-	-	-	-
44	-	-	-	1	-
45	1	-	-	1	-
46	1	2	-	1	-
47	-	-	-	-	-
48	-	-	-	-	-
49	-	1	-	-	-
50	-	-	-	-	-
Total	30	24	13	19	4

There can be links between several of the causes of death in Table 19. For example, many accidental drownings could have happened from a kayak or from

Table 20. Hunting at Nuussuaq 1922-23 to 1932.

	1922-23	1923-24	1914-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32
Number of hunters	3	6	10	10	11	9	9	8	8	10
Ringed seal	182	605	385	462	723	729	712	702	785	693
Great seals	8	15	20	4	4	14	9	26	5	
Narwhal/white whale	1	6	7	3		1	1	7	2	19
Polar bear								1		
Caribou	5		2							
Greenland shark	6	322	23	150	148		65	89	140	15

the ice. However, it is clear that of the total of 250 male deaths, 90 died as a result of carrying out their occupation. In the period 1900-50, 58 died in a kayak, 20 by falling through the ice and only three in shooting accidents.

Around the turn of the century, the hunters began to use rifle holsters on the deck of their kayaks and this undoubtedly made a contribution to the reduction in accidental shootings. Prior to this, they had the loaded rifle down in the kayak.

Hunting at Nuussuaq 1922-23 to 1932

The hunting returns for the first ten years in Nuussuaq (Table 20) show that after a few years the number of hunters became very stable and that the ringed seal (here including young harp seals) was, as expected, the most important game animal. For the year 1923-24, when the total rose from 182 to 605, the person responsible for the hunting statistics draws attention to the fact that 'outsiders' had also traded their catches here. This could well have been the case in the subsequent years when many families chose to remain in their small settlements in the area.

The recorded 'great seals' also include adult harp seals, bearded seals and hooded seals. No harbour seals or walrus were caught and only a single polar bear, whereas it was still possible to shoot a few caribou in the first years.

The fact that there will always be danger lurking in open water, even for experienced kayak hunters, is obvious. The smallest mistake in these flimsy vessels with their highly specialised equipment will in many cases be fatal. If the harpoon line does not uncoil as intended, the harpoon cast goes wrong, the hunting bladder gets stuck in the kayak and so on. This situation has cost many hunters their lives. Small seals rarely present major problems but the larger game animals such as narwhal, white whale and polar bear have enormous strength. However, the most dangerous animals for the kayak hunter are without doubt walrus and hooded seal. Both the latter are known to attack kayak hunters and there is much to suggest that the walrus, in particular, fears nothing and is always ready to throw itself into a fight even against apparently superior enemies. Some hunters are said to have seen a single walrus attack a school of killer whales. It managed to scatter the school, after which it dived. When the largest killer whale came into view at the surface again the walrus was hanging on its back with its tusks driven deep into the whale's back.

Table 21. Catches in Nuussuaq converted into weight of meat (kg).

	Nov.67-Oct.68	1997	1998	1999
Inhabitants	133	199	200	197
Meat, total weight	58895	54504	48022	81650
Meat, per inhabitant	442	273	240	414

Summary

The official hunting statistics show that, of the hunting methods used, the two most productive at Nuussuaq are *uuttoq* hunting in the spring and netting in the dark of winter. Whereas the dark period from November to February was previously, apart from hunting at the seals' breathing holes, a time when stored reserves were exploited, netting under the ice has in the 20th century steadily led to it becoming a very active

period for the hunters. Traditional hunting methods such as peep hunting and, in part, stalking and smooth ice hunting by the breathing holes have largely gone out of use and have been replaced by ice netting.

Living exclusively from hunting demands now, as previously, a versatility that is only rarely found in other occupations. Some hunters have naturally specialised in particular hunting methods but an all-round hunter has to have many skills, qualities and abilities (Nelson 1969). He must be able to read the terrain, have knowledge of the animals' behaviour, know how to produce and maintain hunting equipment, have strength, foresight, the ability to – particularly in the light of the weather – suddenly re-organise from individual activities to tasks that require the participation of several hunters, and so on. The hunter at Nuussuaq needs to be an able kayaker, to look after and control a larger or smaller dog team, maintain his motorboat, be accurate with harpoon and rifle, and so on. The hunting statistics also clearly show that a hunter's abilities peak at around the age of 30 and in most cases end around the age of 60.

The fact that both hunting from the winter ice and from a kayak in open water is not without danger is shown by the examples given of cause of death from the church registers.

There are also examples of female hunters who are probably the exceptions that prove the rule and gender role models. But there is nothing to suggest that women are physically or mentally less suited to being hunters. Pregnancies and the innumerable domestic tasks, especially processing of the products of hunting such as the many seal skins, are largely irreconcilable with hunting trips which is why a hunter is unlikely to marry another hunter.

Fishing – *aalisarneq*

Shark fishing (eqalussuarniarneq)

So-called 'hand lines' were previously employed for this kind of fishing (Plate 21). The hunter used a line with a single large baited hook either from his kayak or through a hole in the ice. However, in the late 1960s everyone used shark lines, each with 3-6 hooks. The line itself was 200-400 m long and sometimes only comprised ordinary three-stranded twine, but as this very easily wears through and breaks, significantly heavier sisal twine was more commonly used. To this was fixed about 4 m of wire, chain or nylon-manila rope of 7 mm in diameter *via* a swivel, to which – again *via* swivels – about 85 cm long 3-6 pieces of wire with the hooks were attached about 3 m apart. A large stone was lashed on about 1.5 m below the lowest hook, which made the line sink to the sea floor.

By using wires or chains the sharks were prevented from cutting the line with their pointed and very sharp teeth. Similarly, their rough skin could not wear through it. The hooks were bought ready-made from the store but as a rule they were filed sharper and the notch in the point was made deeper. The preferred bait was half-rotten blubber, preferably with a little blood and meat, pieces of prawn-eaten sealskin or strips of shark gills, *masik*. Great care was taken to ensure that the bait covered the whole hook.

When the line had been laid it had to be checked every day but as the shark fishing area only lay half an hour by sledge from the settlement this could easily be managed even by older hunters with few dogs. Most often, however, the hunters checked their shark lines on the way home from the netting sites. If the line was allowed to be submerged for several days, other sharks would often eat those sharks caught on the hooks so that only the large worthless heads were left when the lines were hauled up. In contrast to long line fishing for Greenland halibut and catfish, where the hunter remained standing by the hole in the ice as he hauled the line up, in this case the hunter took the line over his shoulder and walked about 50 m over the ice, laid it in the snow and walked back to the hole, repeating this until the shark turned up. This was possible without loosing the shark because the large hook most often sat deep down in the animal's throat with little risk that it would slip out.

When the shark came to the surface it seemed very lethargic which undoubtedly was due to it having been hauled up over a relatively short period of time from a depth of several hundred metres and as a consequence was suffering from the bends. There was, however, always a risk that the shark would open its jaws only to snap them shut again. This could very easily cost the hunter a finger or his whole hand. Therefore a cut was made with a large flensing knife at both corners of the shark's mouth so that it was un-

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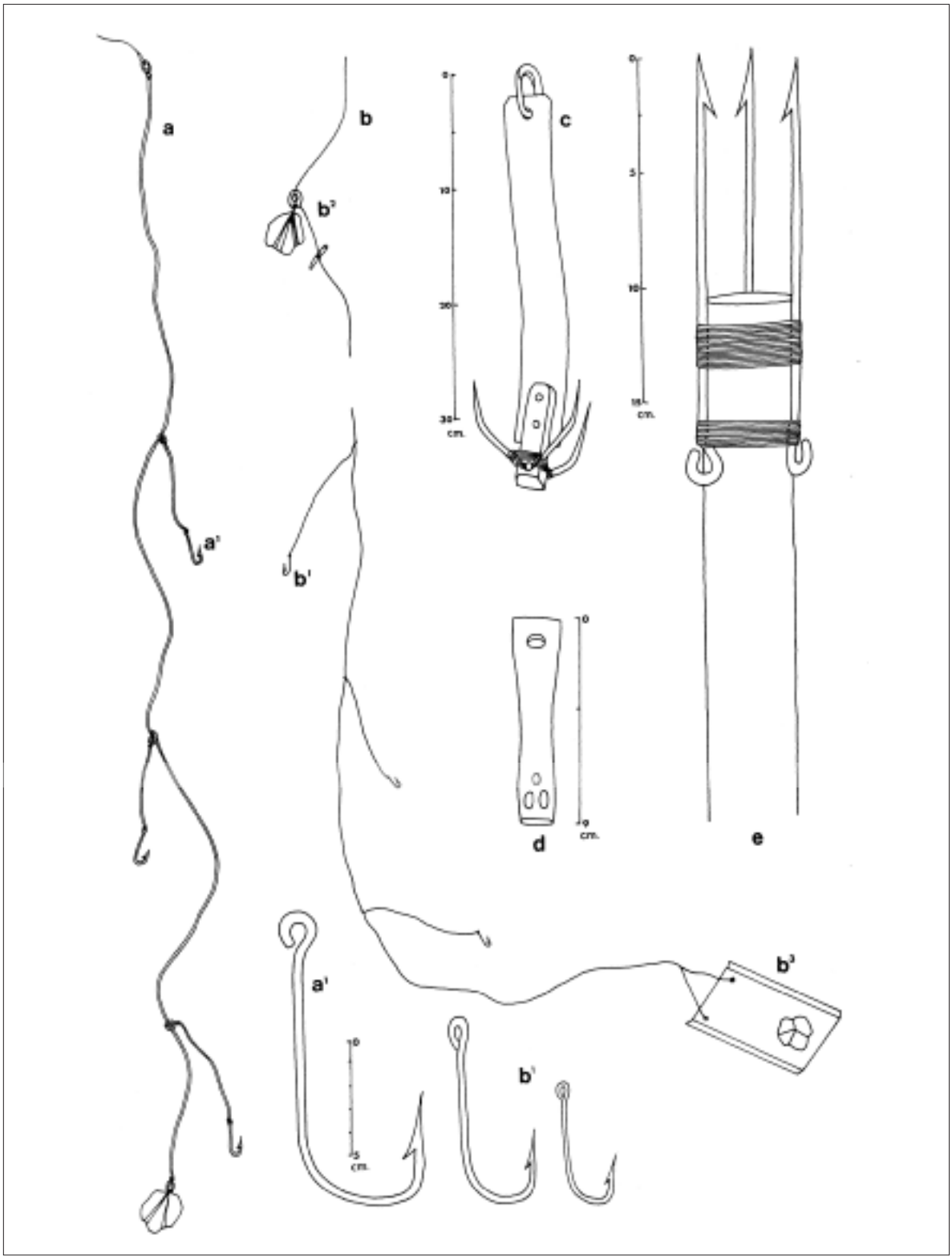

Plate 21. Fishing implements – *Aalisarnermut sakkuutit*. a. 4 m long line (*eqalussuarniut*) for shark fishing with hooks (1) attached about 3 m apart and with a swivel fixed to a 200-400 m long line. b. Long line (*ningittakkat*), 200-400 m with about 200 hooks (1) and sinkers of stone (2) and a metal plate or 'glider' (3 – *saarlisaartoq*) for fishing Greenland halibut. c. Jig (*qarsorsaq*) for fishing sea scorpion with brass plate and nails lashed to a piece of bone. e. Jig shank of antler. e. Leister (*kakiak*) with metal prongs of straightened shark hooks lashed to a wooden shaft for fishing char or lumpfish.

able to open its jaw. The practice of cutting a hole in the frontal cranial cartilage of the shark, through which the hunter can push the spinal cord out with his hand, appears to be unknown in Upernavik district (see for example Rosendahl 1967:264).

The sharks were skinned and jointed on the spot before the meat froze. On returning home it was cut into strips, which were hung on frames to dry. The head, which comprised exclusively cartilage, was left on the ice. The previously so valuable shark liver was put back into the water so that the dogs could not eat it and become ill as a consequence.

Exporting of shark livers stopped in 1962.

Fishing with a long line (ningittakkerneq)

Fishing with a long line for Greenland halibut, especially in the winter months, has since the 1980s contributed to the inhabitants of the settlements in Upernavik northern district achieving a much higher standard of living and more secure sources of income than previously. Most men no longer refer to themselves as 'hunters' but 'hunter/fishers'. Provided the Greenland halibut continue to move into the west coast of Greenland from the Davis Strait and Baffin Bay this positive trade development will hopefully be permanent.

The founder of the Greenland Fisheries Survey, Professor Adolf S. Jensen, is credited with having said the following in a lecture in 1910: 'My ideal Greenlander is a man who takes seals when there are seals and catches fish when there are fish' (Smidt 1989:14).

In the 1960s long lines laid out off Nuussuaq gave a very poor catch, as a rule a few catfish and Greenland halibut on a line with 50-100 hooks. A few lines laid in open water further into the fjord near the Inland Ice were torn away by icebergs, and in the winter they were cut through, probably by sharks. These long lines were, however, probably improved in subsequent years. Many more hooks were used and a windlass for hauling in the line, as used by fishermen further south on the coast, was set up on the ice. Disko Bay, especially the ice fjord at Ilulissat, but also Uummannaq district, has long been known for its productive long line fishing for Greenland halibut. However, in the case of Upernavik it is probably a question of whether Greenland halibut have not always been so far to the north, even up into Melville Bay. Martin Nielsen, Marteeraq, recounts that around 1900 fishing was practised with so-called hand lines (jigging) and that up to 15 Greenland halibut could be caught on a single day. At the time these were very much sought after.

Table 22. The archaeological bone remains from Inussuk and Nuugaarsuk. (Mathiassen 1930b:171 (Inussuk); Møhl 1979: 382 (Nuugaarsuk)).
* unidentified, incl. great whale
** plus 22 338 unidentified seal bones

	Inussuk	Nuugaarsuk
Caribou	37	318
Dog	40	155
Polar bear	11	5
White whale & narwhal	44	248*
Bearded seal & hooded seal	203	261
Harp seal	495	313
Ringed seal	961	2967**
Great whale	26	
Unidentified	691	
Total	2508	26999

In recent times the men in Nuussuaq have had a choice between going fishing at Kullorsuaq or Tasiusaq where it has, in periods, also been possible for them to sell their catch, or staying at home and looking after the seal nets. Trade in Greenland halibut normally took place in February and from July to October, being sold either to the new factory or purchasing ships. Although around 1997-98 competition between the state-owned enterprises Royal Greenland and Polar Seafood created problems for people in Nuussuaq who then had difficulties in disposing of their assigned quota of eight tonnes of Greenland halibut. It did help a little, however, when snow scooters began to be sent north from Tasiusaq in order to collect the fish.

The archaeological bone remains

Inussuk and Nuugaarsuk (Table 22) lie close to bird colonies, especially those of black guillemot, which unfortunately have been in serious decline since 1970. Similarly, both places were very rich in eider ducks and several species of gull. The excavations have, however, revealed very few bird bones. The same was the case for fish bones despite the exceptionally good

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Table 23. Ringed seal as percentage of total catch.

	Period	Source	Ringed seal %
Inussuk	Old culture	Mathiassen	59
Inussuk	New culture	Mathiassen	51
Kittorsaq	1915	Official hunting statistics	62
Itussaalik	1915	Official hunting statistics	76
Nuussuaq	1967-68	This study	61
Nuugaarsuk	c. 1650-1850	Møhl	80
Aappilattoq	1915	Official hunting statistics	74
Aappilattoq	1967-68	Official hunting statistics	80

Fig 116. A small portion of the bone material from game animals at Nuugaarsuk. Photo by the author.

conditions for preservation. In the course of the study year it became apparent that in two settlements, each with more than 200 freely roaming dogs, the dogs would immediately eat all bird and fish refuse. Subsequently, any possible bone remains were naturally spread out over the terrain. Although finds from both excavations, such as bird darts, gull hooks, arrowheads etc. do show that bird hunting was practised.

The archaeological bone remains compared with recent hunting practice

The distribution of the archaeological remains of ringed seal is given as a percentage of the total material for game animals in Table 23. The recent distribution as a percentage is calculated after conversion of the game animals to kilograms of meat.

The percentages given for 1915 must be presumed to have been a little lower, as in the older hunting statistics no distinction was made between the individual species of seal, reference being made only to large and small seals. As a consequence, it is quite possible that the group of smaller seals includes some younger harp seals which would, however, have comprised a very small proportion relative to the ringed seals.

The figures show that where the ecological conditions are largely the same there is great agreement. Accordingly, the ringed seals caught at Nuugaarsuk and Aappilattoq comprise the same percentage of the total catch. Both localities lie in the fjord complex close to the ice fjord and therefore the ringed seals' preferred area. On the other hand Inussuk, Kittorsaq, Itussaalik and Nuussuaq lie out towards the sea where the hunting of the larger migratory sea animals is often given a higher priority by the hunters.

The bone material from Nuugaarsuk (Fig. 116), when compared with the hunting returns from the nearby settlement of Naajaat, also shows that the settlement was at times, probably, inhabited all year round as most of the ringed seals were caught from the winter ice (Møhl 1979:380).

Distribution of the catch

Narwhal and white whale

Hunting from the ice margin in the spring is often a communal activity. Unlike the use of motorboats, no major economic investment is required from the indi-

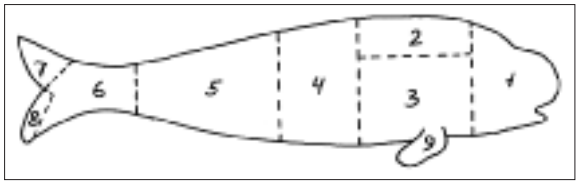

Fig 117. Catch distribution from narwhal and white whale.

vidual hunters and therefore the traditional rules for the distribution of the catch area are observed. All those who come hurrying up have perhaps not participated directly in the hunt. However, as many men are required to haul the heavy animals up onto the ice, and they often have to use their dog teams, all receive a share of the whale, which they each cut from the animal.

The hunter who is the first to plant his harpoon in the whale as a rule chooses his part first, then the second and third harpoons, and then those who have shot and hit the whale.

The hunters share 1 + 5 + 6 (*mattak*, meat, blubber and bone) as well as the heart. The others can have *mattak* or meat from either 2 + 8 + half of 3 or 2 + 3 + 4 + 7 + 8 + bowels and ribs. *Singerneq*, 6, is particularly sought after, as it is from here that sinews are taken for *ujaloq*, sinew threads, which is why it is often divided into four pieces.

The hunters' share (Fig. 117):

1. *Niaqoq* – head
2. *Tunuata mattaa* – skin from the back
3. *Taleroq* – fin
4. *Napu* – cross-piece or mid-piece
5. *Paperoq* – rearmost part of the body
6. *Singerneq* – Tail
7. *Sarpik* – tail fin that sticks up
8. *Sinarsuk* – lower edge of the tail fin
9. *Saavata mattaa* – skin from the part of the fore-fin that is hidden in the water

In the case of motorboats being used, new rules will undoubtedly arise but generally the catch is distributed such that a certain part is due to the boat owner. In one case this caused a great deal of fuss when two hunters from the cliffs on the outskirts of the settlement saw a motorboat owner returning from many days up north with a white whale in tow along the side

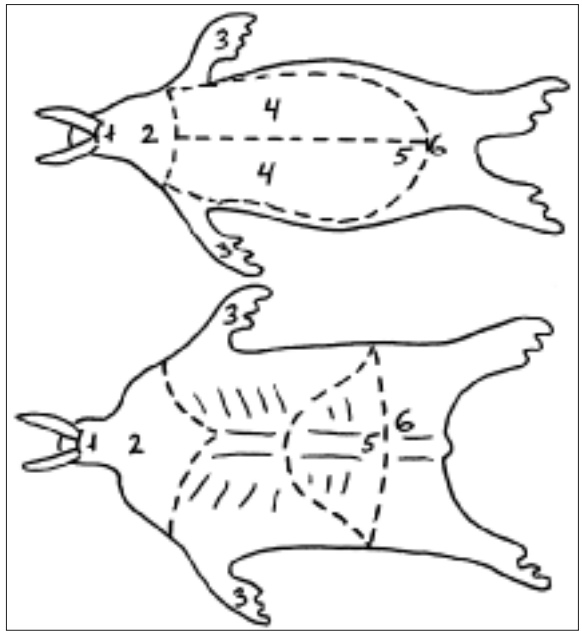

Fig 118. Catch distribution from walrus.

of the boat. The two hunters paddled out in their kayaks and touched the whale before it had been landed which traditionally entitled them to have a share of the catch. The boat owner who had caught the whale single-handedly was not prepared to go along with this.

Walrus

Every hunter cuts off his part of the animal when it has been hauled out of the water.

The hunters' share (Fig. 118):

1. *Niaqoq* – head
2. *Qungaseq* – neck
3. *Tallit* – flippers
4. *Sakissat* – breast
5. *Erlaviit* – bowels (incl. intestines)
6. *Kujak* – lower back with kidneys

Kujak is normally shared among those who have caught the walrus, whilst those who have been helping share the remainder. The skin is only used with blubber and some of the meat as dog food. The tusks are sold if possible while the molars are used for making embellishments on various tools and equipment.

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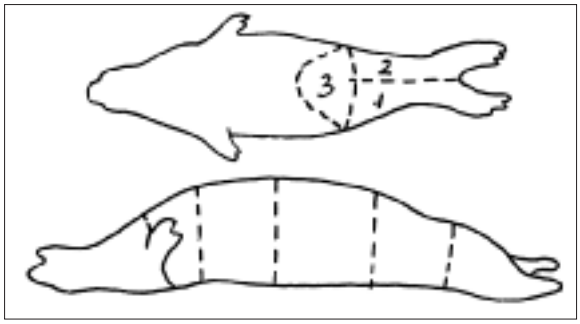

Fig 119. Catch distribution from bearded seal

Bearded Seal

The bearded seal is not flensed as the other seals. The foremost piece is most often cut for kamik soles whereas the remainder is cut into rings for thongs, straps and belts. The hunters share all the meat and skin while those who came hurrying up receive pieces of 1, 2 and 3 (Fig. 119).

Polar Bear

There appear to be no rules for sharing the catch in the case of polar bears. Polar bear hunting is also normally an individual activity. In those cases when several hunters together followed and shot a bear the meat was shared equally while the much sought-after white skin was sold or was used to make 2-3 pairs or trousers.

The figures give a total of 229,362 kcal per day for everyone in Nuussuaq. As the requirement was 274,050 kcal, if all the meat brought home, with the exception of birds and fish, was eaten be humans, this would only cover 84% of the total calorie requirement. 208 kg seal meat was required per day, corresponding to nine seals, to meet the total calorie requirement. Accordingly, 3,285 seals would have to be caught in a year, corresponding approximately to twice the number of seals brought home in 1967-68.

With regard to the protein requirement for active hunters this can be fixed at about 60 g per day. However, if it is presumed that each individual (men, women and children) arbitrarily weighed 45 kg then each person would require 45 g per day.

The whole population's protein requirement was accordingly 5,058 g per day and if this was to be met exclusively from seal meat it would require 20 kg, corresponding to a single ringed seal.

In general, it can be said that given that the population's calorie requirement was met then the requirement for vitamins, proteins, iron etc. would also be covered. With regard to 'shop-bought goods' special note should be made of the very great consumption of sugar and ship biscuits. A very great part of the calorie requirement was met by sugar and sweets but this unfortunately resulted in a great problem of tooth decay. The ship biscuits, in addition to wheat flour, also have added iron.

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Chapter 9

Women's work and equipment

Fig 120. In the winter, due to the cold, seals must be flensed inside the houses. Here Othilie Eliassen demonstrates her expertise without a single splash of blood reaching the white washing. Photo by the author.

Whereas the men were, of course, out hunting for most of the year the women, especially in the winter months rarely left the settlement. Unlike the Polar Eskimos, most did not have clothing that was warm enough for them to be able to go along on a hunting trip or on visits by dog sledge in the winter. When the sun began to show its power in the spring there were, however, occasions such as sports days and other festive events described below when everyone must take part. But most women froze in dignified silence while the smaller children were wrapped up in blankets, quilts and skins on the sledge.

Daily life for the women consisted of processing hunting products, cooking, washing and cleaning to a greater or lesser extent, possibly shopping at the store, fetching water and coal and, of course, looking after the children. Out of school hours the women in most homes had great help from the older children, both boys and girls, who looked after their younger siblings. However, the school children came home in the middle of the day for an hour or two to eat.

Sometimes the hunters returned home with full sledges and in the coldest periods the many seals had to be taken into the houses, where there already was a shortage of room, to be thawed out before they could be flensed (Fig. 120). Subsequently, the time-consuming work of preparing the seal skins for sale or own use sometimes took most of the day and night.

Processing seal skins

After flensing the seal skins were scraped on a scraping board with an *ulu* in order to remove the last layer of blubber and any pieces of meat. The women most often sat with outstretched legs on the floor of the

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Fig 121. Stretching out seal skin in Nuussuaq 1930. Photo by Jette Bang, © Danish Arctic Institute.

Fig 122. Stretching out seal skins on the wall of a house, Nuussuaq 1967. Photo by the author.

Fig 123. Half a skin from a bearded seal stretched on a drying frame, Nuussuaq 1967. Photo by the author.

house or outdoors with the board between their legs. If the seal skin was small and therefore requiring only of a short process it was also possible to see women crouched side by side behind the scraping board. The skin was then rinsed in several changes of cold water, followed by washing in soda or soapy water, after which it again was rinsed.

Stretching of the skin took place most commonly using twine on a drying frame or with nails on the house wall (Figs 121, 122, 123). In wet weather the

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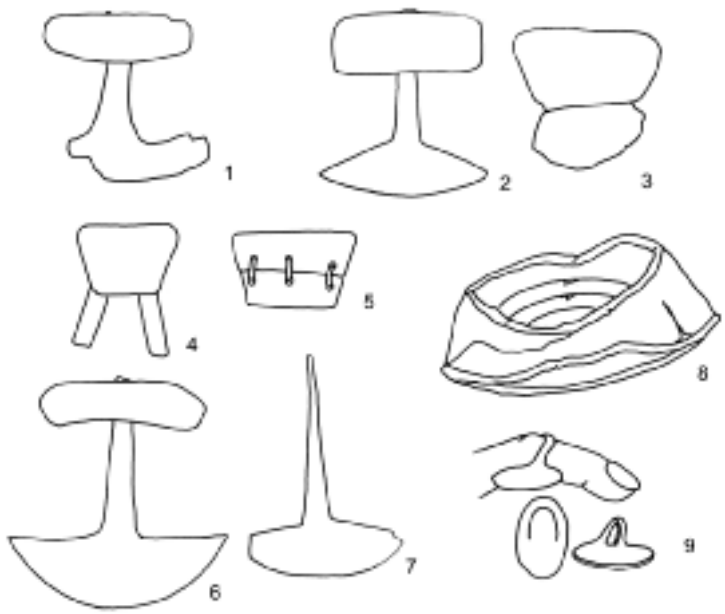

Fig 124. Examples of *ulu*s (1-7), scrapers (8, 10-13) and finger protector (9) from archaeological excavations at Inussuk (2-3, 10-12) and Nuugaarsuk (4-7, 13), and from Nuussuaq 1968 (8-9). 1. From a communal house near Upernavik; 2-3. From 19th century Inussuk; 4-7. From 17th and 18th century Nuugaarsuk; 8. Squashed liver pate tin used as a scraper; 9. Finger protector; 10-12. Two-handed scrapers from 16th and 17th century Inussuk (12 is 30 cm); 13. Two-handed scraper and a whale rib used as a scraping board from 18th century Nuugaarsuk.

skins had to be dried indoors where the frames were hung up around the stove. If the skins were to be used as 'water-skin', *erisaaq*, for example for kayaks, kamiks and mittens, it was laid in very warm water, after which the hair layer was 'plucked off' with the blade of the *ulu* pressed against the thumb. This was also done on the scraping board, as a rule with ash from the stove being scattered over the smooth hair layer. If the 'water-skin' was required to be light in colour or, better, completely white, it was laid again in very hot water after which the darker outer skin could be scraped off. Then it was again washed and rinsed in several changes of water and again stretched out on a drying frame. The white skins were only produced in spring when they were dried outdoors in the strong light and cold.

In the past the white skins, *unneq*, could be dyed using local plants.

Dyeing of depilated seal skins

The white skins could be dyed for making gala kamiks or for cutting out for use in skin embroidery, *avittat*. In the winter of 1967-68 some women dyed skins by rubbing in dye powder from the store using seal blubber, which appeared to be a durable method. Others boiled the pieces of skin with a coloured cloth of the required colour, similarly with a good result. A few used paint, either oil or emulsion. This was, however, less effective as these layers of colour had a tendency later to peel off together with small pieces of skin.

Skins were undoubtedly dyed before the introduction of dyestuffs from Europe, when local natural dyes were used. Several older informants were of the opinion that previously bark and roots from driftwood (pine) were chewed for this purpose, whereas Ole Hertz was told in 1966 that a yellow colour was ob-

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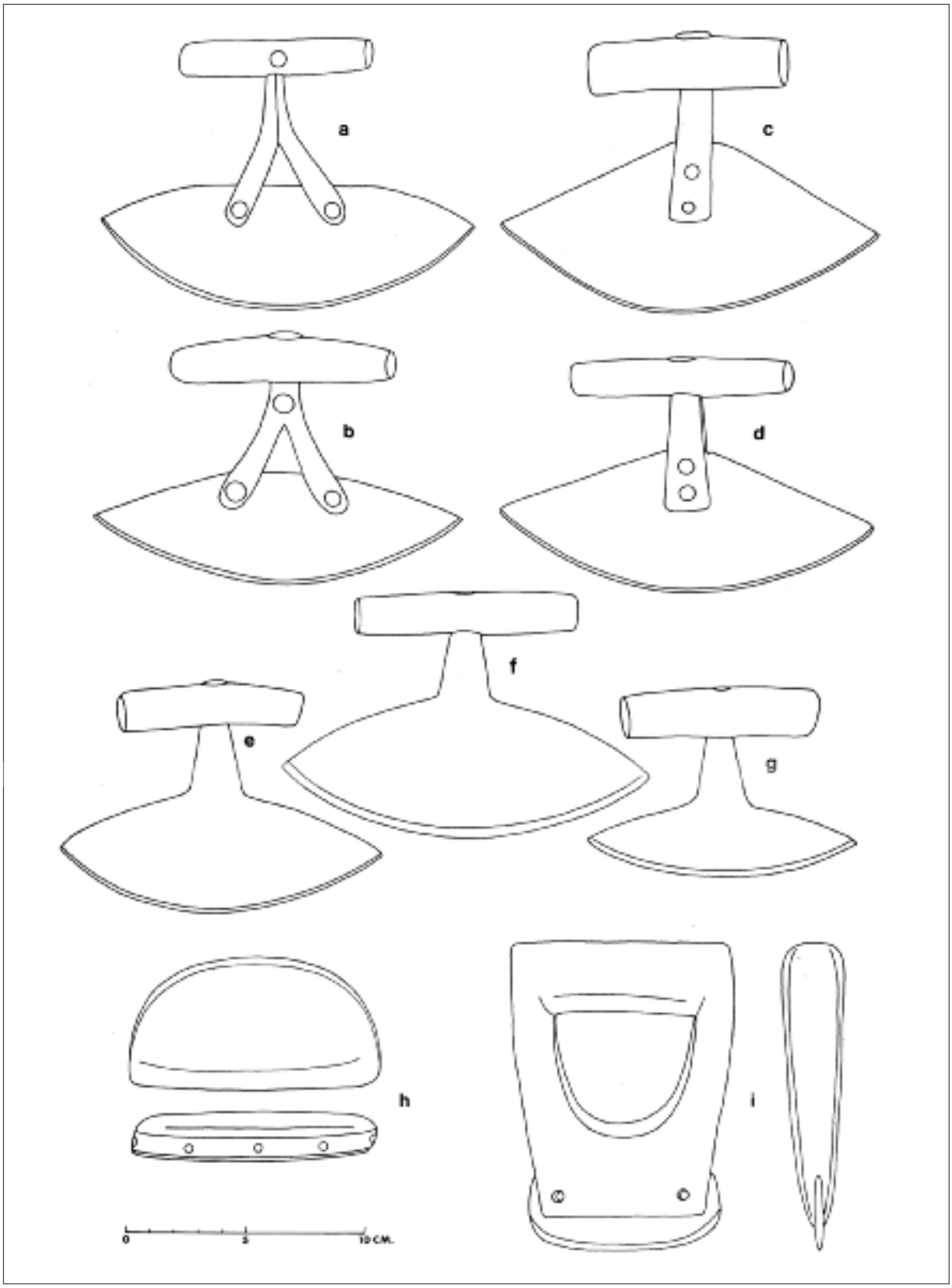

Plate 22. Woman's knife – *Ulu*. a-b. from Illulik. c-e. from Nuussuaq. a-e are made from saw blades. f. *Ulu* bought in the KGH shop. g. Worn *ulu* used as a skin scraper. h. *Kiliut* – the same word as mussel, previously used as scraper – here made of wood with a metal blade. i. *Tasitsaat* – skin scraper or hand *kammiut* used for softening skin.

tained previously from white Arctic Mountain Heather and Upright Lousewort (Hertz 1968:41f).

Skins of other animal species

Dog skins, especially from pups, after scraping, washing and stretching, were softened using the hands and teeth. They were used especially for children's inner kamiks, children's mittens and edging on anoraks.

Caribou skin was bought from KGH and was used directly for sleeping mats and sledge skins. For the hunters' outer jackets, *timmiaq*, the purchased skins were softened manually before cutting out and sewing.

Cutting out of skins – *ilisserineq*

None of the women used ready-made patterns or templates. A new garment was cut by eye according to a pattern drawn directly on the reverse of the skin, measured out according to hands, fingers and creases, *tigusarneq*, and small marks made with fingernails, *nalunaaqquttat*. The individual garment pieces were then cut out with a sharpened *ulu* and when the skin still retained its hair layer great care was also taken not to cut through this.

Women's equipment

The traditional women's knife (*ulu*)

All women used the curved women's knife as a universal tool for seal flensing, scraping skin, jointing meat and a large number of other tasks in and around the house (Fig 124; Plate 22). In contrast to scrapers it was always sharpened on one side only, being ground continuously with a small file or whetstone. Most women did this themselves but when there were many seals or large portions of whale-meat one could often see women pass their *ulu* up to the men who stood ready to sharpen.

Most of the *ulu* blades were of the common type bought in the store, imported from Denmark and equipped on the spot with a handle of tusk, bone, wood or caribou antler (f), and (g) the same worn and used for working skins. The others shown (a and b from Illulik and c, d and e from Nuussuaq) were made from saw blades which the women much preferred being thinner in the blade and of a little harder steel so they keep their edge longer.

Scrapers and scraping boards

At both Inussuk and Nuugaarsuk there was a good quantity of so-called double-handed scrapers as known from most archaeological sites in West Greenland. These skin scrapers, made from thighbones or caribou antler with two parallel concave surfaces, cannot have been used on a usual flat scraping board of driftwood or whalebone. At Nuugaarsuk there was in one of the communal houses just such a two-handed scraper which lay beside a c. 1 m long whale rib with a curved surface about 25 cm broad, corresponding to the curvature of the scraper. It seems very likely that the two-handed scrapers were used through time for scraping skins over a curved bone such as this or a scraping board shaped to fit the scraper (cf. Fig. 124).

In Upernavik district a skin scraper was still called *kiliutaq* (mussel) and this name was also used, for example, for a squashed liver pate tin, the curved edge of which served as an effective scraper. A mussel shell was, of course, one of the original scrapers and the metal tin became, in a remarkable way, a mussel (cf. Fig. 124).

Needles and thread

All needles, *meqqoq* in the singular, were store-bought metal needles of various lengths and thicknesses depending on whether they were used for thick leather, such as for example kamik soles and kayak covers, or for finer skin embroidery or fabric. Whereas women elsewhere used needles with a triangular point for skin all the women in Nuussuaq preferred a needle with a round point. The traditional needle cases of tusk or bone had disappeared and the needles were for the most part stored in a piece of depilated skin. Most of the women used bought metal thimbles, *tikeq* (the same word as index finger), while others preferred home-made finger protectors, *qiterleq* (if it was used on the middle finger), made of thick depilated skin by means of which the needle was pushed through

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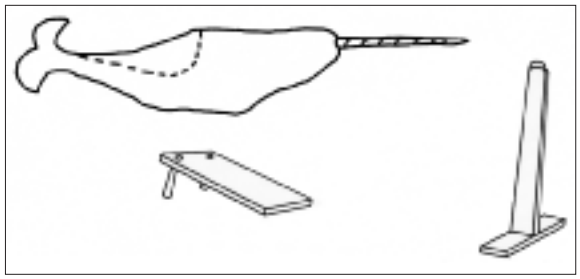

Fig 125. The part of the narwhal from where the best sinew threads can be cut. Scraping board and *kammiut* stick.

using the inside face of the index finger. They always sewed from right to left, in towards themselves.

Sinew thread, *ujaloq*, was and is often in short supply in Greenland but thanks to the many narwhal and white whale which were caught in the northern part of Upernavik district they usually had an abundance of this indispensable thread (Fig. 125). It has the great advantage over European thread and the 'artificial sinew thread' produced in recent times in Canada (a nylon thread treated with wax) that it swells up when wet. Garments of skin, for example kamiks and gloves, were therefore sewn with as thin a needle and as thick a sinew thread as possible so that the thread closed the needle holes.

All the women agreed that the best sinew thread came from narwhal and white whale. From each animal it was possible to cut away four flat muscles from the tail. These were scraped free of meat and blubber using an *ulu* after which they were carefully washed in fresh or salt water and great care was taken to remove all the blood. If left this would later make the threads weak. The sinews were either dried spread out on a board or allowed to hang freely for subsequent softening and splitting.

Kammiut

For the softening of kamiks and other skin a stick, *kammiut*, or a hand scraper, *tasitsaat* (i), was used (cf. Fig. 125). If a whole seal skin was to be softened the woman stood in the characteristic position, bent over forwards with legs straight. She held one end of the skin in her mouth, stretched it out with her free hand or foot and scraped with her *ulu* and softened with her hand scraper as illustrated.

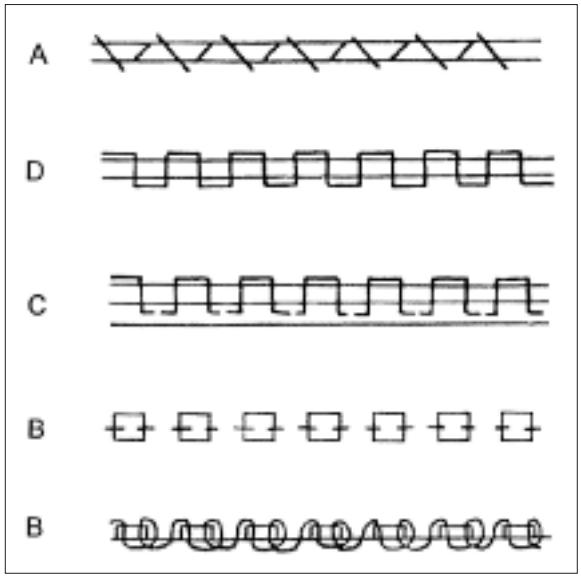

Fig 126. The four most commonly used stitches in Nuussuaq 1967-68.

Sewing technique

When the sinew thread had been split it was rolled on the cheek and softened between the teeth before sewing. A knot, *qilersineq*, was made by holding the thread between two fingers after which the needle was turned round a few times (thick sinew thread can, however, only be turned once around the needle), after which the needle was pushed through the loops and the thread tightened.

The four stitches shown were the most commonly used by the women asked (Fig. 126). This does not exclude the possibility that other stitches could have been used elsewhere in Upernavik district.

A: Darning stitch, *akussinneq*, used for kamiks, mittens of 'water-skin' etc. that need to be watertight.

B: Skin embroidery stitch, *avittarneq,* only for skin embroidery on kamiks, women's trousers for gala costumes and bags, cushions and the like with a view to sale.

C: Stitch for sewing on kamik soles, *atunngerneq*. When this stitch is tightened fully it is watertight.

D: Backstitch, *mersuinarneq*, for caribou skin, inner kamiks and sometimes mittens.

For sewing skin-covered kayaks and, previously, umiat, A and C were used, where the outer seam is called *qallineq*. When sewing these, the sinew thread was plaited, as when a torn harpoon line was to be sewn together.

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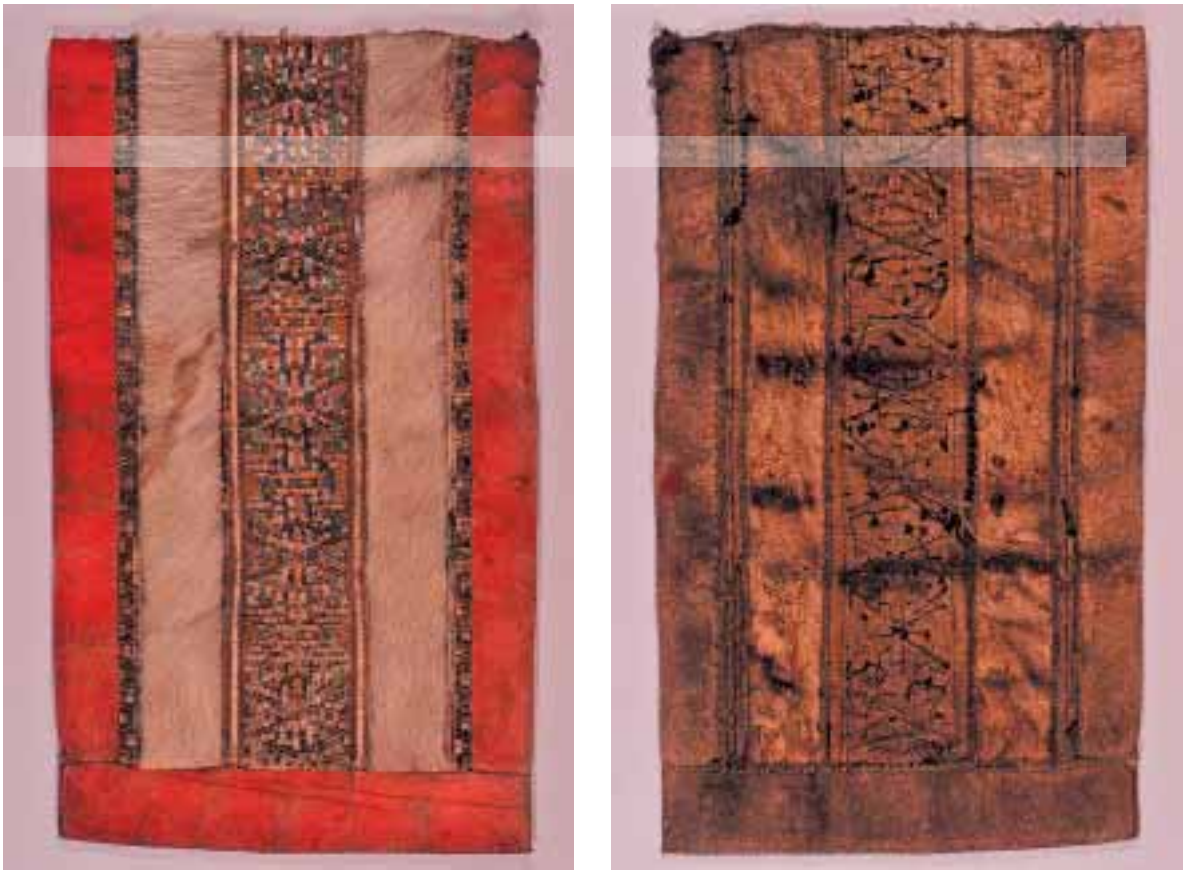
Patterns for the garments

In the course of the winter the patterns shown for the individual parts of the costume were measured and drawn up life-size on a large piece of paper, i.e. 1:1, and subsequently corrected by the women who had sewn them. A seam or a wedge could, for example, prove to be superfluous if its presence was due solely to the skin used not being large enough for the purpose. After the last re-drawing the patterns were discussed with and approved by the women.

Fig 127. Elisabeth Heilmann scrapes thin then cuts out coloured seal skin for a girl's red festival costume, Nuussuaq, winter 1967. Photo by the author.

Skin embroidery – *avittat*

In all around 70 patterns were drawn in the winter of 1967-68 but even though there are several examples of skin embroidery produced by grandmothers, their daughters and grandchildren, it was not possible to see family-specific characteristics in the patterns and motifs employed. Only the choice of the colours was often the same within a family, which was, however, probably due to the women cutting strips from the same coloured pieces of skin (Fig. 127).



Figs 128a and b. *Avittat*, skin embroidery for trousers, front and back, sewn in Upernavik 1922. Photo by the author.

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Fig 129. Cecilie and Annike Frederiksen, Nuussuaq, Easter 1968. Photo by the author.

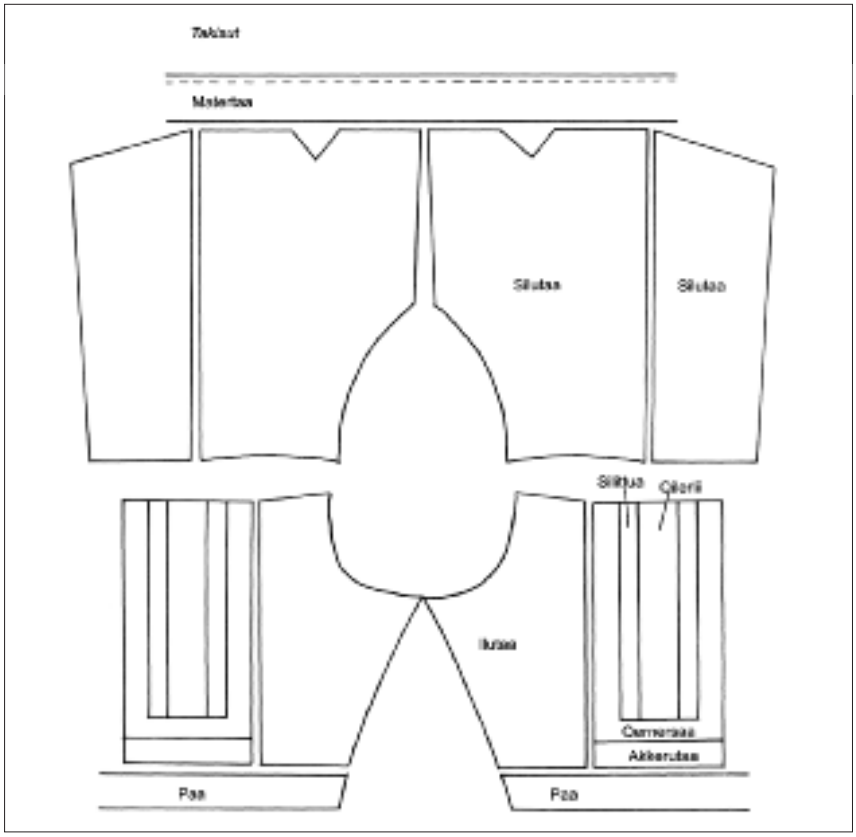

Fig 131. Patterns with local terms for women's trousers for the festival costume.

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Fig 130. *Kamik*s used in Nuussuaq 1967-68.

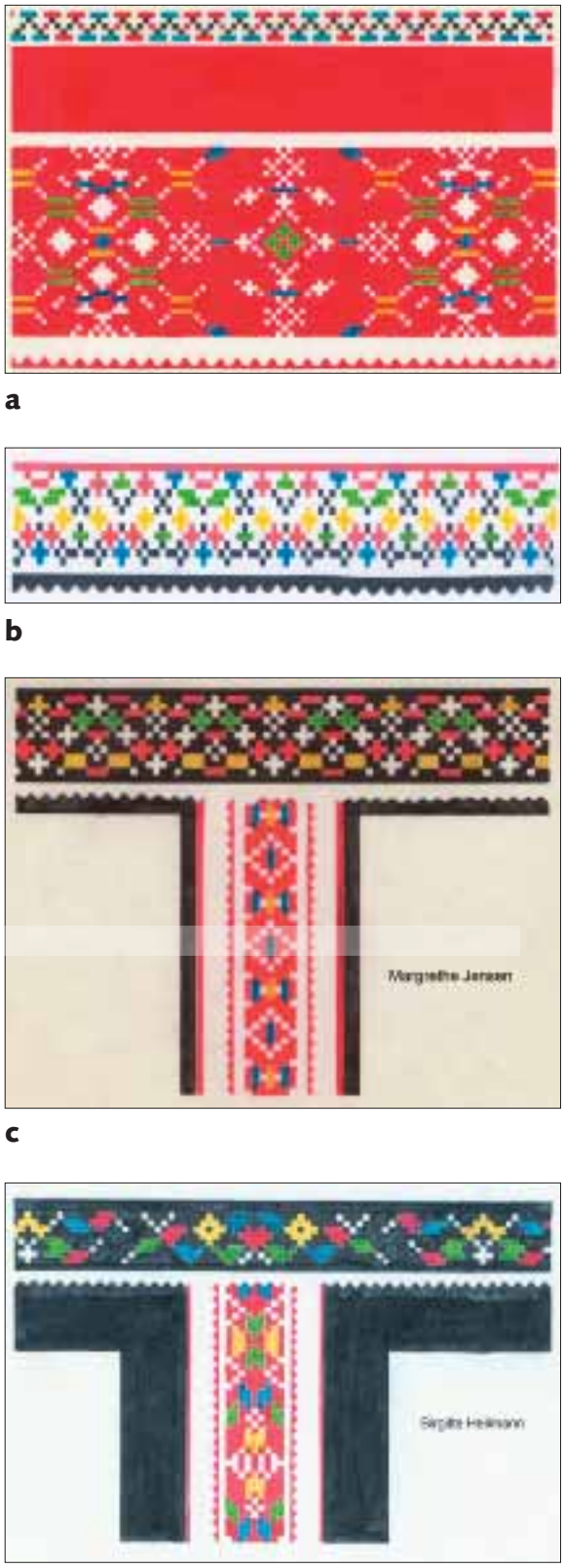
Fig 132. Examples of trouser patterns, *avittat*, for women's festival costumes 1967-68.

Skin embroidery was used first and foremost for festival or gala costumes, for the boys and men's kamiks and for the kamiks and trousers of the women's gala costumes. *Sioqqat*, where longer strips of skin are used for women's trousers, were not used in Upernavik district. Further to this, skin embroidery was used on bags, purses, cushions, hairbands, slippers, small rings and the like which were sewn with a view to being sold (Figs 128a, b, 129, 130, 131, 132).

When the coloured pieces of skin were cut with an *ulu* into strips of the required breadth – which could vary from 1 to 3 mm – they were first sewn on at one end after which the little square was cut free with the *ulu* for then to be joined along the opposite edge. It is a difficult technique which requires good eyes and great precision which was difficult for the smallest girls to master. As a consequence they often started with *avittat*-like patterns in cross-stitch (Danish: *korssting*) (Figs 133a-k, 134a-j).

Beads – *sapanngaqqat*

Beadwork was produced for the large collars and cuffs of the women's gala costumes (Fig. 135). As was the case with the *avittat* patterns it did not prove possible to find family-based traditions in the bead patterns.



a

b

c

d

Figs 133a-k. Examples of *kamik* patterns, *avittat*, for women's festival costumes 1967-68.

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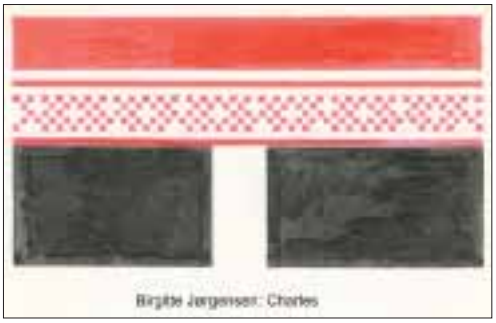

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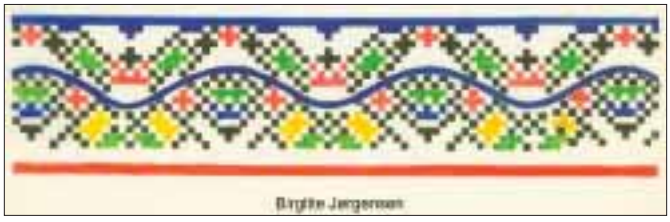

k

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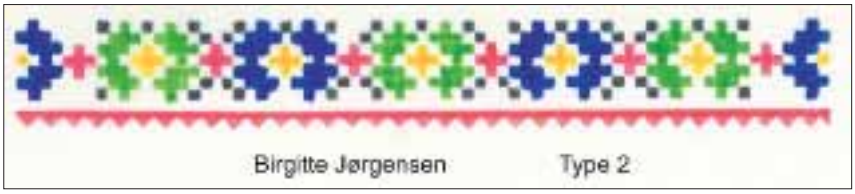
a



Birgitte Jørgensen Type 2

b

Birgitte Jørgensen Type 1

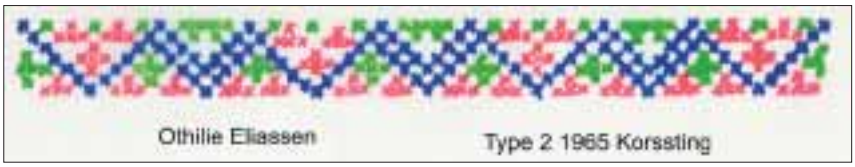
c

Birgitte Heilmann

e

Markus Eliassen Filippine 1966 Type 4

f



Othilie Eliassen Type 2 1965 Korssting

g

Filippine Eliassen Type 2 1965

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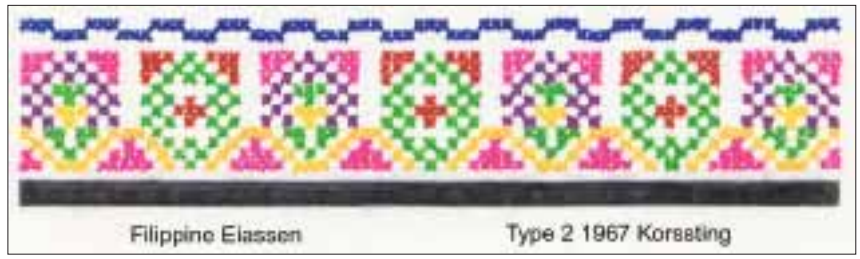

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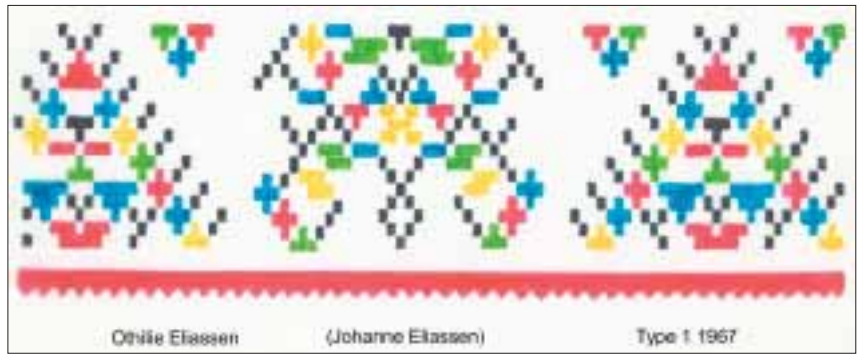

j

Figs 134a-j. Skin embroidery, *avittat*, on festival *kamik*s, Nuussuaq 1967-68.

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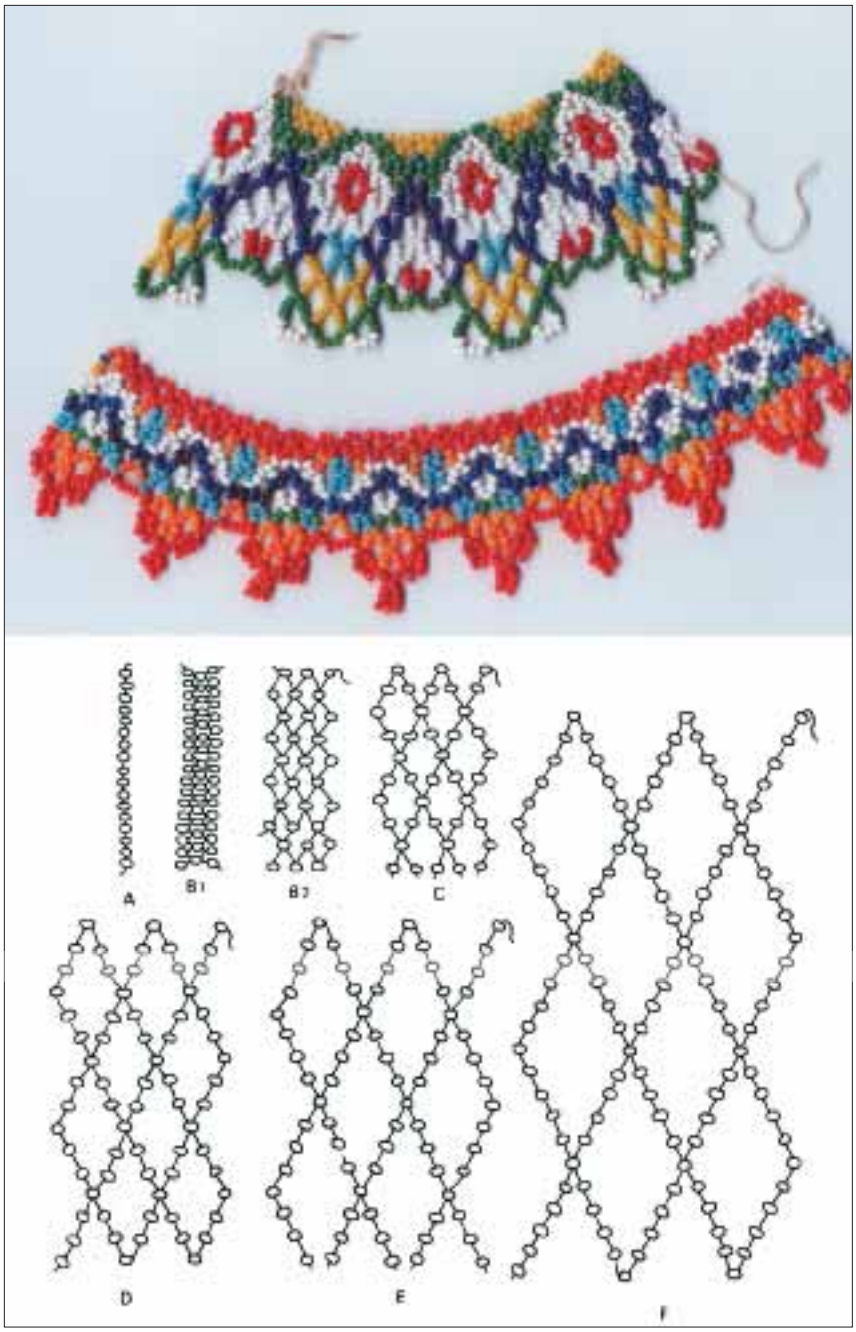

Fig 135. Bead embroidery 1967-68. Photo by the author.

Small pieces of beadwork, such as table mats, candlesticks, teapot stands, box covers etc., were sewn to be sold to Danes passing through.

The simplest form of beadwork is naturally just to put the beads onto a thread one after the other, producing a single row (Fig. 135 A). This is the first thing that even very small girls can manage. If, however, one sews back again, i.e. sews in every second bead as a new bead is added, a compact chain is made when the thread is tightened (Figs 135 B1 and B2). If instead of skipping one bead three beads are skipped, and three beads are added at the same time (Fig. 135 C) the holes in the net-like pattern become larger. In this way the apertures produced can be increased by adding more and more beads before sewing, but every time with an uneven number of beads. Accordingly, Fig. 135 D shows five beads, Fig. 135 E seven beads and Fig. 135 F nine beads.

This is the principle that is used in the large bead collars where the apertures are small and closely

bunched uppermost at the neck but gradually and evenly increased down over the shoulders.

When one thinks of the innumerable tasks a hunter's wife must deal with both in the past and in today's Greenland it is a source of wonder that she can find time for something so time-consuming as beadwork and skin embroidery. However, among all the women and small girls who were asked there was a very great desire to preserve the beautiful gala costume in the future. Many costumes are required during a person's lifetime – when they become too small the costume or parts thereof are passed down. Most women have, accordingly, owned a gala dress when very small, one when she was confirmed, one for her wedding day and, finally, one in the old age, which most often has skin embroidery on the long kamiks but as a rule without bead work.

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Chapter 10

Houses

In 1929 Therkel Mathiassen registered two large houses, both measuring about 9 x 5 m, on the southern side of Nuussuaq, west of the settlement. He wrote, furthermore, that there were also ruins on the

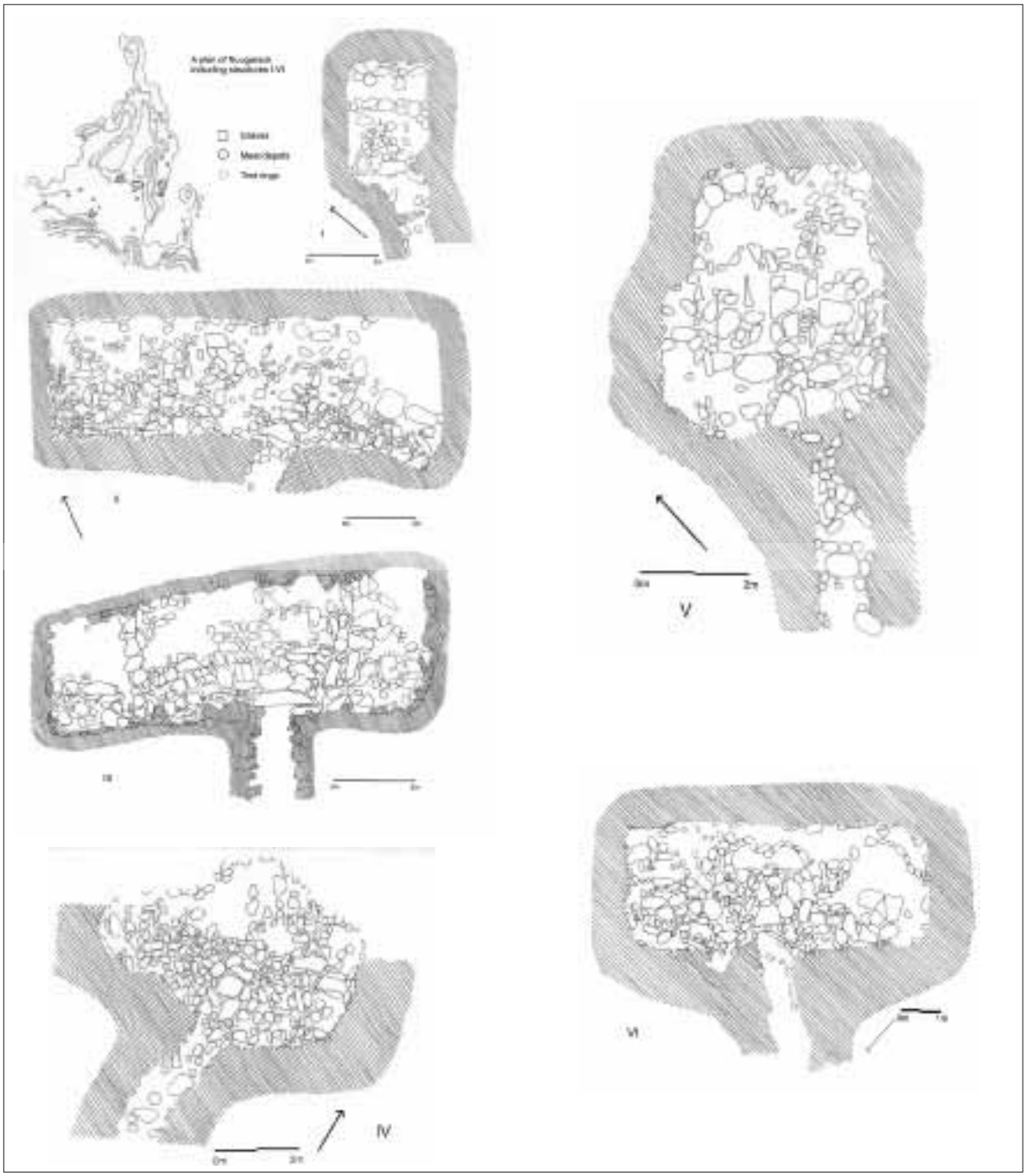

Fig 136. Ground plans for the six houses excavated at Nuugaarsuk, summer 1967.

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Figs 137a and b. The excavation at Nuugaarsuk 1967. Photos by the author.

north side. In a little valley south of the settlement there were five collapsed and destroyed house ruins. They all contained glass beads and must therefore be dated to between 1650 and 1850, just like the 'communal dwellings' at Nuugarsuk which were in use in Upernavik district during this period (Fig 136).

Of the six excavated houses at Nuugaarsuk, three were typical multi-family houses of 22.5 m^2, 27 m^2 and 38.5 m^2 respectively. A house of 26 m^2 could have been a so-called 'clover-leaf house' whereas the remaining two were small single-family houses of 6 m^2 and 20 m^2 respectively. European artefacts were found in all of the houses which is why they, as already mentioned, must have been in use in the period between 1650 and 1850, some of them perhaps later (Hjarnø 1969). As is apparent from the account many of the locally produced tools and equipment found during the excavations at Inussuk and Nuugaarsuk (Figs 137a,b) were still in use in the study year 1967-68.

In 1918 there were 28 settlements in Upernavik district, ranging from the settlement of Uluaa in the south to Illulik in the north. In the northern district, where there was adequate blubber, the only source of light and heat in most houses was still the blubber lamp. Most houses were turf-walled, about 75 cm thick at the base, tapering upwards towards a flat roof. The internal height was about 1.75 m. There was window of intestine skin facing south and always towards the sea. The hallway was often at the same level as the house floor but sunken if the house lay on sloping ground. If the inhabitants could afford it the inside walls were covered with seal skin.

Depending on the family's economic situation this type of house was with time fitted with an internal lining of wood, which was covered with newspapers and pages from pulp magazines. Only very few houses had stoves for heating and cooking (Amdrup *et al.* 1921).

In 1941 there were 261 houses in the district, of which 98 were wooden houses with two layers of wood separated by wood-flock or heather as insulation. Some were covered in roofing felt, a house type that was still used by a few families at the end of the 1960s. A medium-sized house measured 2 x 3 m internally. 22 houses had heating stoves, 173 had cooking stoves, 19 had both of these while 46 only had blubber lamps, of which 17 lay north of Nuussuaq. On average 5.3 people lived in each house (Beck 1942:133-137).

From 1958 onwards the housing situation in Nuussuaq improved significantly. Three families built new do-it-yourself houses, while GTO (Greenland Technical Organisation) craftsmen in the summers up to 1971 built eight houses of type 1 of 22 m^2 and 11 houses of type 3 of 33 m^2 as well as three hunting huts in the settlement itself (Figs 138, 139). Visiting hunter families used the latter especially in the spring months. In this period all the houses were heated by coal stoves and lit by the so-called Petromax lamps and candles. The toilets at this time comprised two wooden sheds in the middle of the settlement, each with a chute leading down to a shutter at the rear of

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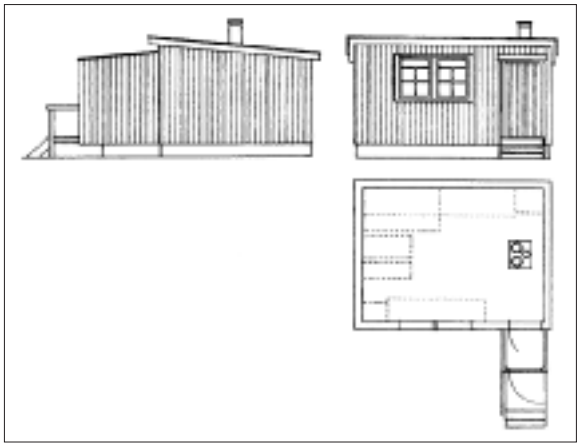

Fig 138. GTO's type house 1.

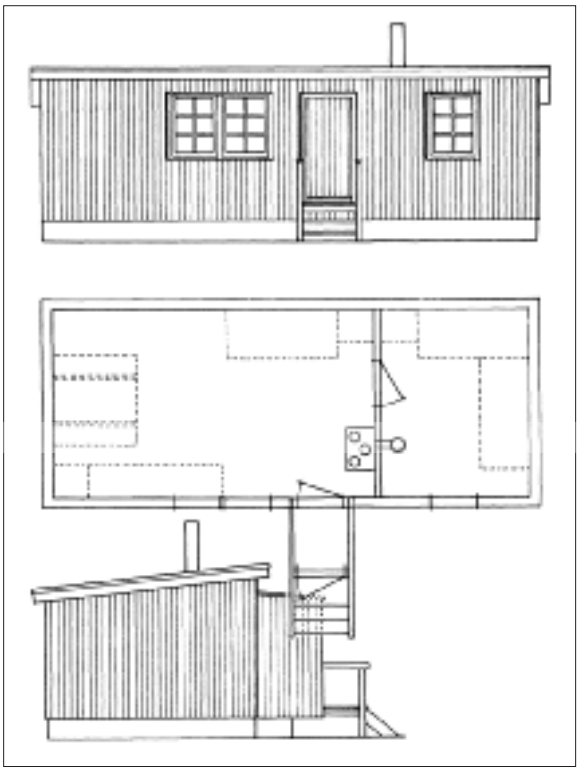

Fig 139. GTO's type house 3.

the building where the dogs took care of the final disposal.

Between 1974 and 1997 there was naturally, in time with the greatly increased population, the greatest change in the housing stock towards much better conditions for the families. A total of 28 Illorput do-it-yourself houses were constructed, most of 40 m^2 and some types with an extra two rooms up under the roof (Figs 140a-c). Oil tanks were installed in the houses with 2-3 reflex ovens, gas stoves in the kitchen and a washroom with a copper and an earth closet.

The most revolutionary step was quite possibly when the settlement obtained its first electricity generator in 1980. Light and a series of electrical installations, radio and television, gradually became a natural part of most homes. Whereas previously one fumbled around from house to house in the winter darkness, the roads became illuminated.

In addition to the family houses mentioned above a large number of larger and smaller building buildings were constructed in Nuussuaq over the years, of which most appear in the summary below:

1922 Store, provisions store and two warehouses
1926 New store with warehouse
1937 School chapel
1939 New store with warehouse
1947 New residence for the manager after the old one burned down in 1945
1949 Infirmary built – a former refugee barracks from Kløvermarken in Copenhagen
1953 Residence for the catechist
1953 Village hall
1966 New village hall
1969 Shed for fire-fighting equipment
1969 Electricity generator shed
1971 School head teacher building
1971 Midwife's quarters
1971 GTO (Greenland Technical Organisation) quarters
1971 New settlement school
1979 Midwife's quarters
1980 Power plant
1980 Fire-fighting shed
1985 Fish-drying house
1988 Aluminium shed for tele-communications
1989 Aluminium shed for tele-communications
1996 Refuse incinerator
1997 Health Centre
(Source: Grønlands Hjemmestyre, Direktoratet for Boliger og Infrastruktur 1999).

One-family pre-fab houses in Nuussuaq built between 1958 and 1998 (Table 24).

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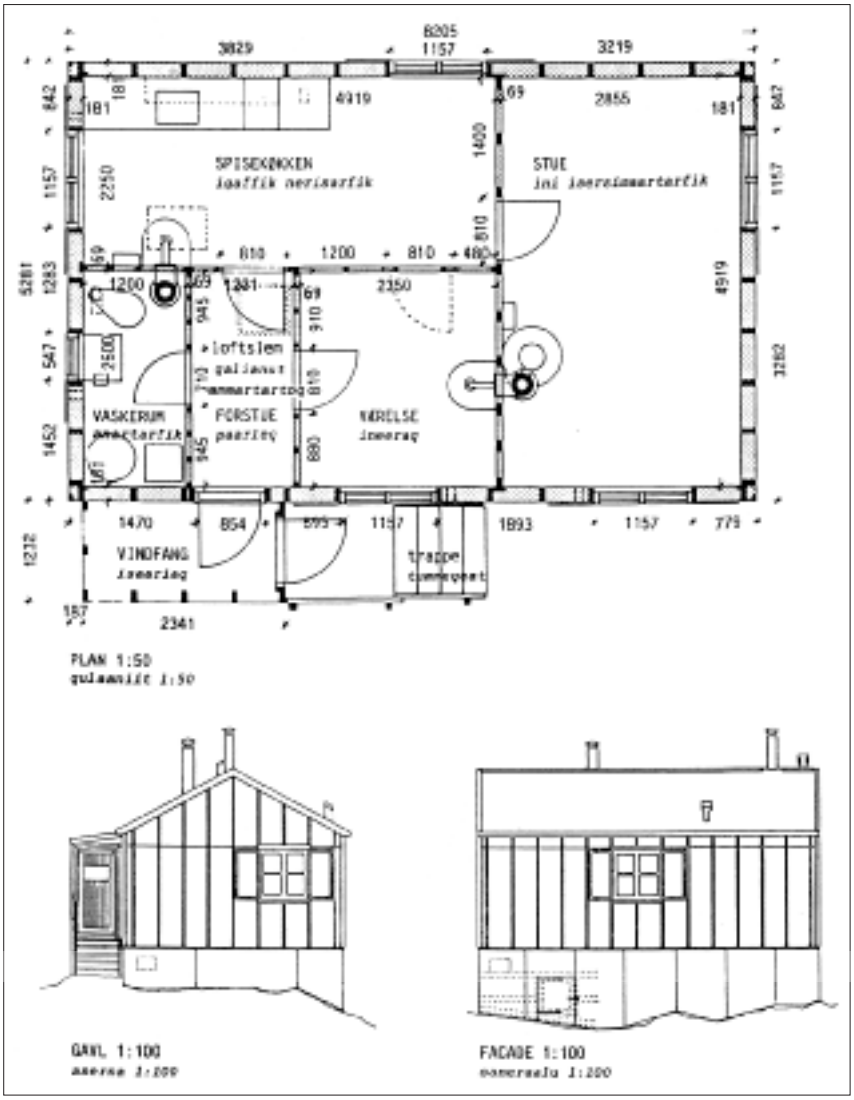

Figs 140a-c. Illorput 82. Kit-house.

Fig 140a.

Table 24. One-family houses built between 1958 and 1998.

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GTO type 1						3		3			2			
GTO type 3	4										1		4	2
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Illorput pre-fab houses				1	1	2						2		
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Illorput pre-fab houses		1			1	1		4	8	1		4		

Heating the houses

Traditional heating and lighting of houses with blubber lamps was in use in several small settlements right up to the 1950s (Figs 141, 142a,b). Many families did, however, acquire stoves for heating while they were still living in turf-walled houses. In 1918 when there was but a single wooden house, 47% of the houses had stoves. Accordingly, blubber lamps were in use in Upernavik district for longer than was the case further south on the west coast of Greenland (Fig. 143). In 1941 46 houses were said to still have had blubber

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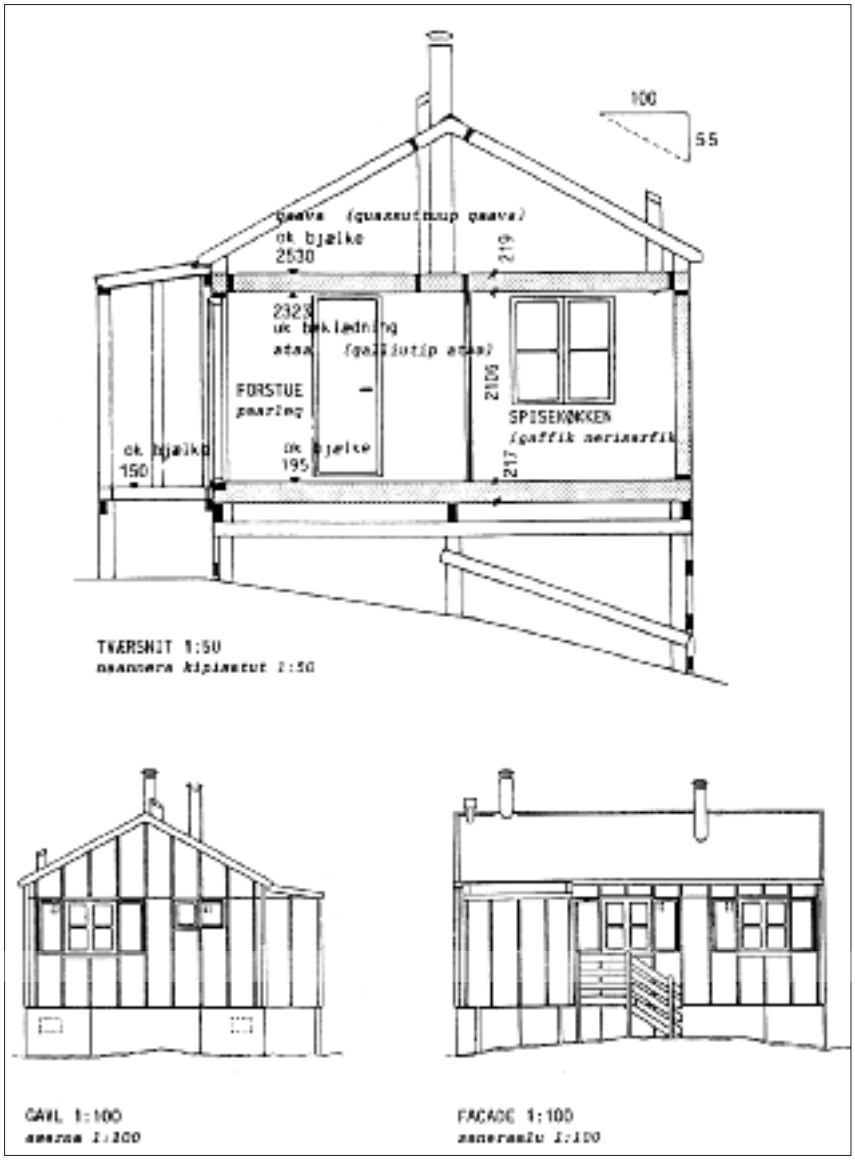

Fig 140b.

Fig 141. A nap on the platform, Nuussuaq 1956. Photo by Jette Bang, © Danish Arctic Institute.

lamps, of these 17 lay to the north of Nuussuaq (*Grønlandsposten* 1942 no. 12).

The effectiveness of heating with blubber lamps is shown by a study from the winter of 1936-37 on the east coast of Greenland (Høygaard 1938:88). The heating consumption of a turf-walled house with internal wooden wall covering, a house type at that time was also the most common in Upernavik, was investigated. It appeared that a house of 27.5 m^3 with nine inhabitants used a total of 278 kg blubber or, on

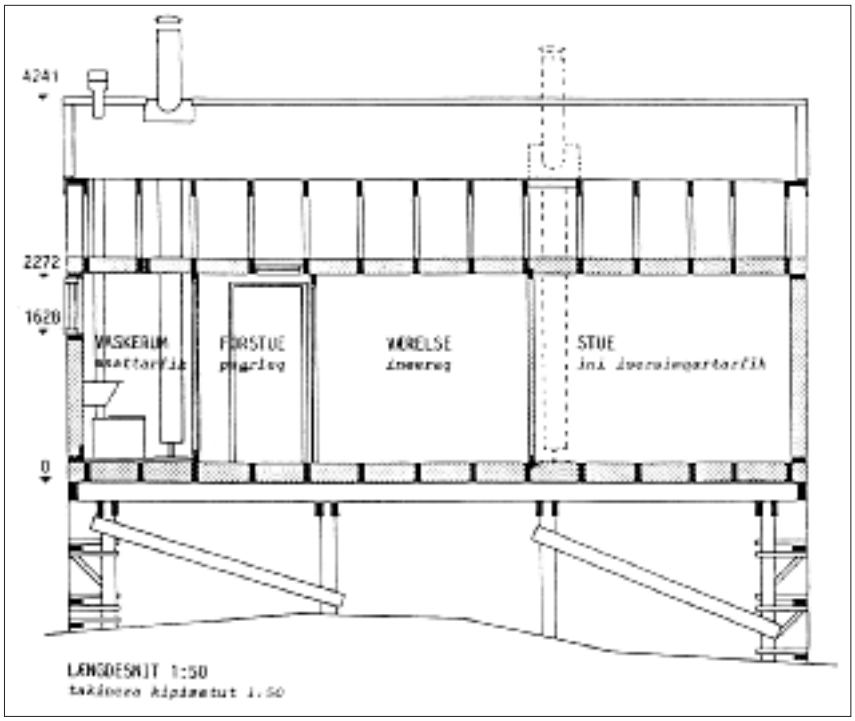

Fig 140c.

Fig 142a. Dorthe and Esaias Pjetturson often had guests and parties in their little kit-house in Illulik. On this and the following photograph the guests have retired to bed. Photo by Jette Bang in 1939, © Danish Arctic Institute.

average, 1.2 kg per day for the winter from 5th October to 11th May. This corresponds to a heat production of 11 kg/cal, or as Høygaard writes: 'the blubber lamp's heat production corresponds to that from an electric fire of 1 kw/hour, whereas one third of the house's heat comes from the bodies of the inhabitants'.

If we presume a consumption of 1.2 kg blubber per day to heat a house, a family could manage on 438

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Fig 142b. The same corner of the house in 1967. The platform and the interior arrangement is the same, the post has been removed and pages from Danish magazines have been put up on the walls. Photo by the author in 1967.

Fig 143. Beathe Lynge with a soapstone lamp in her turf-walled house in Nuussuaq 1936. Photo by Jette Bang, © Danish Arctic Institute.

kg blubber if they wished to heat the house all 365 days of the year. This, of course, was not the case as they moved into a tent in the summer where the blubber lamp was, however, used for cooking. The 438 kg of blubber corresponds approximately to 44 ringed seals, if one presumes on average of 10 kg blubber per small seal. Accordingly, in 1967-68 the 17 houses in Nuussuaq, if they had been turf-walled constructions with blubber lamps as their only source of heating and light, would have been able to manage with the blubber from 748 seals or about half of the number caught. The whole district's consumption could have been met by blubber from white whale and narwhal. In comparison, the families in Nuussuaq, including the school chapel, infirmary and store, used a total of 80 tonnes of coal and 10,000 litres of paraffin, or just more than 10 kg coal per household per day all year round.

Changes in houses

The archaeological investigations (Mathiassen 1930a, b; Hjarnø 1969, 1974) and the ethnographic studies carried out by Robert Petersen in 1967 show that until the middle of the 17th century winter quarters comprised relatively small one-family houses built of turf and stone. From this time on and in the course of the subsequent 200 years most people lived in large communal houses. These were built of the same materials as the previously small houses, though of necessity with a greater use of driftwood for posts and rafters in the roof construction. Robert Petersen drew attention to the fact that just as these large multi-family houses appear to have originated in the northern part of Western Greenland, the Upernavik families appear to also have retained this house form longer than along the remainder of the west coast. After 1880 there were numerous communal houses but subsequently people moved back into small houses which were later

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Figs 144a and b. From the south side of Nuussuaq. The photo to the left (144a) was taken by Jette Bang in 1956 (© Danish Arctic Institute); the photo to the right by the author at the same place in 1967. Formerly, most houses lay here, and now almost all the new kit-houses built since 1980 lie on this slope.

replaced in many settlements by wooden houses, beginning in the colony of Upernavik itself.

In 1918 there were 163 houses in the whole district, of which 27 were turf-walled houses, 61 were turf-walled with internal timber cladding and only three were completely of wood, whereas the rest were included under transitional types. In the 1960s the situation was such that most of the hunter families lived in pre-fab houses of wood, built by craftsmen from GTO, i.e. most often by Danish craftsmen according to drawings produced by Danish architects. Whereas the people who were to live in the houses were just passive spectators without influence on how, and also often where in the settlement, their future home was to be built (Figs 144a,b).

There were, however, a few newly built do-it-yourself houses such as, for example, Bendt Frederiksen's house in Nuussuaq. This was of 28 m^2 and cost between 12,000 and 15,000 DKK in materials, which he was able to pay in cash. Construction started in August 1960 with materials which, for the most part, were brought from Upernavik in the family's own motorboat. The house was ready to move in to in November, to which Bendt added the comment that during the construction period he also had to go out hunting.

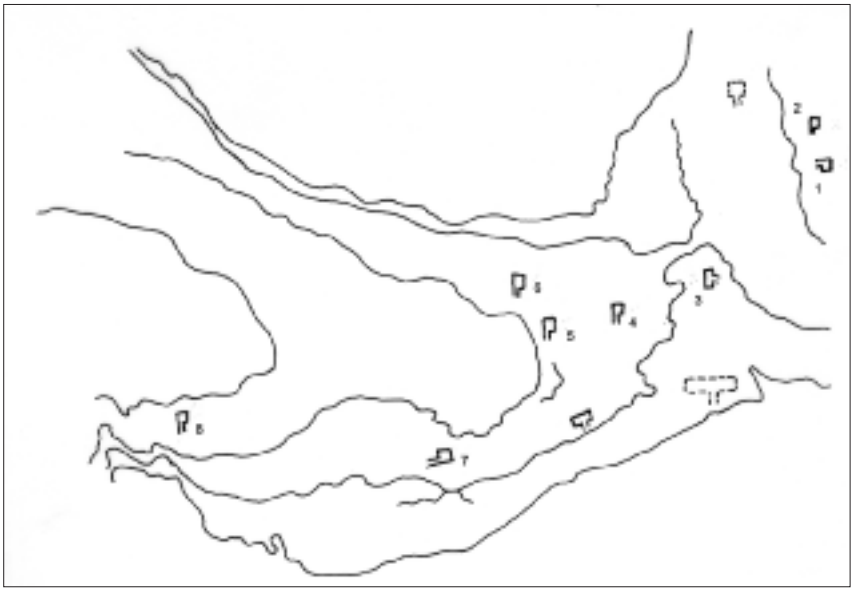

Fig 145. The location of the houses in Nuussuaq around 1950.

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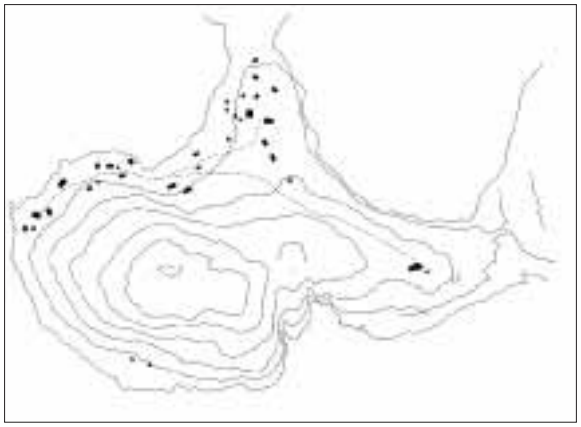

Fig 146a. The location of the houses in Nuussuaq around 1968.

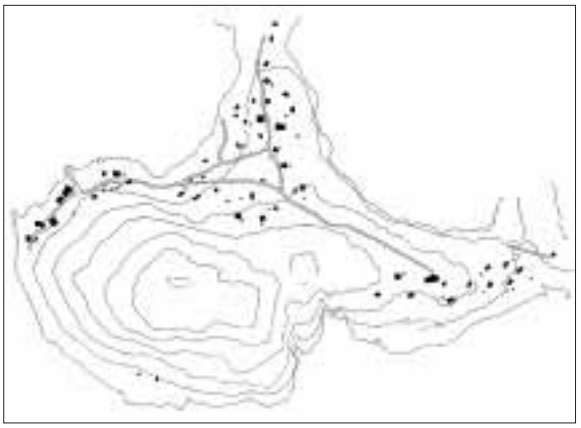

Fig 146b. The location of the houses in Nuussuaq around 1998.

Turf-walled houses had at that time completely disappeared from Nuussuaq but a number were still inhabited in, for example, Kullorsuaq and Upernavik Kujalleq, respectively the northernmost and southernmost inhabited settlements in the district. It was clearly the families' response to the concentration policy practised from 1950. The expansion of these two settlements was not wanted – as a result of which many families were refused housing grants time and again.

Location of the houses in Nuussuaq

Of the 11 overgrown house sites on the south side of Nuussuaq, most of which had the passage in the house orientated to the south and therefore towards the sea, the families in 1968 could recall who had lived in all of the houses. Only the communal house presented a problem in this respect but all were in agreement that it must have been from the time before the settlement was founded in 1923 (Fig. 145). Several of the informants had lived on the south side as children and a few also as adults. The last two families moved out in 1958 when they obtained houses *via* housing grants (type 3).

As can be seen from the map from 1968, only the infirmary then lay on the southern side whereas all the inhabited houses lay on the western side between the bay and the lake that was also the water supply (Figs 146a,b, 147). The fact that this location was not

Fig 147. Dorthe and Esaias Pjetturson by their kit-house in Illulik 1968. Note the radio aerial on the roof.
Photo by the author.

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in all cases chosen by the respective inhabitants is illustrated by the following example:

In Upernavik district there were around 50 applications for housing grants in the course of a year, that is to say that a young couple who wanted their own home had to reckon on several years waiting time. In 1968 the *Boligstøtteudvalget* (Housing Grant Committee) in collaboration with *Grønlandsrådets Sekretariat* (The Secretariat of The Greenland Council) determined that a total of 13 housing grant houses could be built in Upernavik district. The Housing Grant Committee, according to a recommendation from the District Council, carried out the allocation of these houses. In this case, however, the decision was made in Nuuk and Copenhagen in direct contradiction of the District Council's wishes, as technical and other factors stood in the way. A district engineer in Aasiaat responded when consulted that the technical capacity did not allow distribution of the building work over more than two, at the most three, settlements in Upernavik district (*Landsrådsforhandlingerne* 1968:95).

With the very large number of Danish craftsmen present in the summer in Upernavik and with a weekly transport service to all settlements, a decision and explanation such as this must have been completely incomprehensible to the local population. This was also clear from the district representative's statements at the subsequent session of the Provincial Council.

In Nuussuaq they had no cause for complaint, as three of the in all 13 houses were allocated to their settlement. These went to the three families with respectively three, four and six children, who until then had lived in very small, old and draughty houses belonging to the District Council. The final location of the three new houses was chosen by the GTO's office in Upernavik finding 'suitable' sites on a map of the settlement. Subsequently, an assistant construction manager, who was in the settlement on other business, found time to push three sticks in the ground in the previously chosen places. Shortly before the building work was due to start the construction manager arrived from the town. Together with the three applicants, the local catechist and the author he took a closer look at the proposed building sites and wanted to hear the coming owners' views and possible requests if any.

All three hunters drew attention to the unfortunate location of the proposed sites on a steep slope, which particularly in June and July would cause the meltwater from the cliffs to run under and around all three houses. Furthermore, it had been hoped that houses could be sited closer to the water, by which many lost hours of work in the summer months could be saved when seals and other game animals had to be brought from boats and kayaks up to the houses. The catechist also drew attention to the fact that the previously used graveyard could not yet be slighted and that in summer all the waste water from house 17 would run down into the graves. Similarly, the white crosses would be covered by snow drifts in winter such that the hunter living there would for seven months of the year their dog sledges be forced to drive daily over the crosses and probably break them.

The final result was, however, that shortly afterwards Danish craftsmen built the three houses in exactly the places where the original three stakes were pushed into the ground.

The map from 1998 shows how all the more recent homes are located on the southern slope, approximately like the houses abandoned in the 1950s (Fig. 146b). The inhabitants have, as a result, not a longer trip to the water supply and have a shorter distance over which to transport their catches to their houses. Conversely, they are more exposed to the powerful storms, which always come from the south and south-east.

Tents

The hunter families' summer hunting trips, which previously were a permanent feature in the annual cycle of the settlement inhabitants, would, one would presume, require one tent per family. It is true that the large leather tents could perhaps accommodate several families but even so it seems remarkable that, according to the statistics, only one in three hunters owned a leather tent in 1915. One explanation could be that at the good summer hunting grounds former hunting huts were re-built and used and that in good weather it was possible to spend the night in the open air or in caves in the cliffs. On the journeys it was also possible to sleep under the upturned umiaq that had to be pulled ashore each evening so that the leather covering could dry out.

The traditional tents with two layers of seal skin

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Fig 148. Traditional type of tent in Nuussuaq 1929. Photo by Frederica de Laguna.

Fig 150. A combination of the two types of tents in Nuussuaq 1929. Photo by Frederica de Laguna.

Fig 149. European type of tent in Nuussuaq 1929. Photo by Frederica de Laguna.

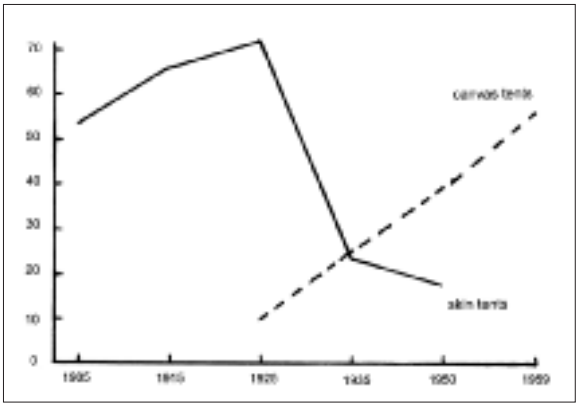

Fig 151. Number of skin- and canvas tents 1905-1959. Source: Greenland Statistics.

were without doubt warmer and also more water- and wind-proof than the European canvas tents used subsequently. But they weighed more and took up more space when being transported from place to place. This was, however, of less significance in an umiaq, which with its flat bottom and high sides could accommodate much equipment and bear a considerable weight. The leather tents could at the same time serve as a protective lining in the bottom of the umiaq.

Friederica de Laguna's photographs from Nuussuaq in August 1929 reveal that both the traditional form of tent and the European-inspired type were in use, even when seal skin was used to make both forms (Figs 148, 149, 150). The transition from skin to canvas tents in the whole of Upernavik district is apparent from Fig. 151.

In the early summer of 1968 a few families or parts of households moved out into tents pitched just outside their houses in which there probably had been cramped conditions throughout the winter. Others pitched their tents on the islands south of Nuussuaq for shorter or longer periods. The tents were also used for longer hunting trips by motorboat north of Kullorsuaq if not all hunters were able to spend the night on board.

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Fig 152. Bendt Frederiksen *uuttoq* hunting, spring 1968. The tent has been pitched over the sledge that functions as a bed, and the kayak rests on the *akit*. Photo by the author.

Spending the night in a tent pitched over one or two sledges in the darkness of winter also sometimes occurred even though it was often a cold experience (Fig. 152). Even with a primus stove hissing throughout the night, fully clothed in winter garments and with caribou skins above and below it was difficult to keep warm when the temperature fell below -30° C, especially if there was a wind. Some hunters used tents in the same way in spring on longer *uuttoq* hunting trips and at the ice margin. Here it was, however, often warm enough in May and June to get a little sleep on the sledge in the open.

The household

The core family is now as in the past the absolute minimum economic unit in the hunter society. Regardless of how vulnerable this little group is with regard to poor hunting, illness and other misfortunes there are a series of examples, especially from the beginning of the 20th century, of small households isolated from the surrounding world being able to survive for longer or shorter periods. It is true that some of these were extended families. This may, however, have far from favoured their potential for survival. Being an extended family does not necessarily mean that there were more providers. On the contrary, the most enterprising hunters often felt obliged to take single members of the community, for example widows, unmarried women with or without children and orphans, into their households. The hunter's prestige rose as a consequence but in many cases there were more mouths to feed.

An important reason for these small production units being able to manage in isolation must necessarily be seen in the light of the strict division of labour between the sexes within the household. Before the introduction of present-day state benefits, a single woman must necessarily be associated with a household. Similarly, the man was always very dependent on a woman who could take care of the game he brought home. There is an example from the 1960s of a hunter of about 40 years of age from Aappilattoq who, after the death of his wife, skinned all his own seals. Then, using both persuasion and payment, he had to ask women in various other households to scrape, wash and dry the seal skins and make the leather clothing he needed such as kamiks, trousers and mittens. He always returned home to an unheated house where he had to make his own meals, dry his leather clothing and so on.

The distribution of work in Nuussuaq in the study period shows that only one of the settlement's hunters

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Fig 153. Raw seal meat at a 'first catch' celebration, Nuussuaq 1968. Photo by the author.

skinned all the seals he brought home whereas in all other households this was seen as women's work. With regard to cooking on longer hunting trips, the men must necessarily be able to look after themselves when they were normally without women. At home, however, no man would ever think of taking part in cooking and only in very few cases would they even put a kettle of water on the stove for tea or coffee.

Fetching water or ice, coal from the store, unloading at the harbour and looking after the children were similarly all considered to be women's work in which boys would exceptionally take part. Two exceptions will, however, be briefly dealt with in the following. The first concerns an older single man who lived with a family with many children and where the father in the family was a part-time hunter with a part-time position with KGH. The older man was a diligent assistant for the housewife in her daily work in addition to him looking after a shark line and a few seal nets in the winter and in the summer he went on a few short hunting trips by kayak. The second concerns a young man of 20 years of age in another household. In addition to helping his mother around the house he occasionally also helped other hunter's wives with looking after the children, fetching water and the like. With regard to the latter case it can be added that the boy had never experienced hunting with his father or his two older brothers and had no wish to do so.

It is also apparent that the man's workplace, apart from the production and maintenance of hunting equipment, was outside the settlement. In a few cases whole families moved into summer camps, either in tents or hunting huts, whereby the women's work was largely the same – just in different surroundings. On warm summer days some women moved the task of looking after the children out into the hills. Here the children played and the women chatted around the heather fire with the murmuring kettle. In August and September they collected grass for kamik hay and berries for the winter. Accordingly, the women spent the greater part of the year either in the house or in its immediate vicinity. The exceptions comprised a few trips to visit family and friends in other settlements, either in the spring months by sledge or in summer by motorboat.

In addition to the above-mentioned pattern of male or female roles there was also a division of labour by age. In most families girls took part in the work of looking after younger siblings, cleaning and the like earlier than the boys. Girls of ten years of age could, in the case of their mother's illness or absence, manage a whole household. In addition to looking after the children this involved cooking, baking, cleaning and drying, softening and possibly repairing the leather clothes. Skinning seals and scraping skins, however, rarely took place before the girls reached about 14 years of age.

Some boys went hunting with their fathers, an older brother or an uncle around the age of ten. When they shot their first seal aided by the adult, the event was always celebrated with great festivities where all the invited guests had to taste the seal, just like the ritual 'first-time party' described by a great number of authors (Fig. 153).

The parents considered it natural that their children, in addition to keeping up with their schoolwork, spent most of their time playing. This was, however, often an important part of their training as a hunter or a hunter's wife. As they grew up, the girls bonded naturally most with their mothers and the boys with their fathers but when the family was together no distinction was made between the sexes. The relatively small houses with one or, at the most, two rooms meant the children were involved in everything that took place and all pairs of parents devoted a great deal of time to their children. The position of adopted and foster chil-

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dren in the family was no different to that of the rest of the children.

Preparation of food

Otto Fabricius, who was a missionary in Greenland from 1768 to 1773, writes that the Greenlanders 'consume all kinds of animals, clean and unclean, boiled, dried and half-rotten, seldom smoked, only few in a raw state, and also some plants' (Fabricius 1962:16). And Fridtjof Nansen (1891:81, 83): 'Their cooking is simple and easy to learn', and later with regard to *mattak*: 'I must give the Eskimo my full recognition for the invention of this dish! I can assure the reader that now as I write about it, my mouth waters around my few remaining teeth just at the thought of *mattak*.'

If seal meat is not dried in strips for later use it is boiled with a little salt. One would think that this meat would always taste the same but this is far from the case. Meat of the different seal species has a different taste and, as is the case with all other meat, the taste is, of course, also dependant on the age of the animal in question. Older people are convinced that seal meat as once boiled over a blubber lamp tasted better than that boiled over a primus stove and everywhere in Upernavik district there was agreement that their boiled meat never tasted as good as when Dorthe in Illulik prepared it.

Very few households in Nuussuaq own more than the most essential kitchen equipment in the form of a pan, possibly a kettle, the indispensable coffee pot and, exceptionally, a frying pan. Tableware is limited to a couple of plates, spoons, forks and knives. The curved women's knife, the *ulo*, is used daily by all women. Further to this are a few cups, mugs and glasses, as a rule in the guise of mustard and jam jars.

Food is prepared indoors on the coal-fired stoves or in the summer, when the latter is only exceptionally lit, over a primus placed on top of the stove, on the floor or in the porch. Outdoors on travels or hunting trips food is preferably cooked over a heather fire with the pot resting on some stones. A couple of families acquired small gas stoves, which are quick and easy to light but expensive in gas and almost impossible to use in the heavy frost of winter.

Most women bake excellent wheat bread, rye bread and cakes, which the children especially enjoy for breakfast and lunch. Many hunters leave in the morning without eating though most often drink a cup of tea, coffee or water. In the dark period, the netting season, the majority set off on an empty stomach and as a rule without taking along supplies of any form. A few do, however, have a box on the sledge in which there is a primus stove, teapot, salt, sugar, some ship biscuits and perhaps a little dried meat. At home the women and children spend the day without proper meals. A slice of bread or a piece of cold seal meat from the night before is taken in passing but they rarely eat together.

In the evening, on the other hand, the family gathers for a large meal comprising boiled meat, fowl or fish. Chunks of meat are cut off with pocketknives and the soup, to which is often added a handful of rice, raisins or herbs, is drunk from mugs (*suaasat*). Several families sit together on the floor while others sit at a table. Washing up is as a rule minimal due to the difficulties of fetching water from the lake or ice, which must be melted. Conversely, it is an established custom that after the meal, during which it is impossible to avoid getting greasy hands and as a rule also grease over most of the face, a bowl of water is brought out with a piece of soap and a towel. First guests, then the house's inhabitants, wash themselves and the knives they have used. Both meat and *mattak* have a tendency to lodge between the teeth so one usually carves a little toothpick of wood or bone. Toothpicks are often recovered among the archaeological finds.

Some recipes using crowberries and blueberries

Aalaat: berries, seal blood and blubber boiled together to form a mass.
Tingulaat: berries and fish liver blended together to form a gruel.

Liver of cod, catfish and Greenland halibut are used and there are no incidences of illness mentioned in connection with the fish liver. In *Kogebog for Grønland* ('Cookbook for Greenland') it states that liver of catfish, Greenland halibut and halibut are not used and the liver of Greenland halibut contains such large quantities of vitamin A that it is dangerous to eat it (Hansen 1963). However, the fact that there have been no problems in Upernavik northern district is perhaps due to the relatively poor access to fish. Con-

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versely there is awareness of the very great vitamin A content in bear and shark livers, which are neither eaten by humans nor given to dogs.

Qarassalaat: berries, seal brain and blubber blended together.
Iginneq: berries and runny blubber, which is stored cold, for example in meat pits, and is eaten later in the course of winter together with dried meat, *nikku*, or dried capelins, *ammassat*.

Drink

As a rule nothing is drunk at meal times, perhaps a little water or more rarely light (household) beer *hvidtøl*. Milk made from water and milk powder is drunk almost exclusively by small children and pregnant women.

A lot of tea is drunk, usually very weak with a lot of sugar. It is most often made by adding a small handful of tea leaves to a pan of boiling water. Many people often half-fill the mug with rolled oats or a couple of ship biscuits so that the tea is almost like a small meal in itself.

Coffee is also drunk very weak and with a large proportion of sugar. Only exceptionally is granulated sugar used as lump sugar or rock candy are preferred at the side of the cup. On birthdays and other festivities such as Christmas, Easter, the first day of school etc. usually everyone present is invited for coffee. One does not come unannounced but everyone is formally invited family by family. The hosts expect accordingly that people drop whatever they are doing and rush over to their house. The time is in fact carefully planned due to the small houses and the small number of coffee cups at their disposal. As a guest, one often sits for 15 minutes or half an hour, after which one rises and leaves to make room for the next group of guests. All children are naturally welcome at these events, where they are given cake, biscuits, wafers and, if available, juice and fizzy pop.

Spirits cannot be bought at the store but sometimes one or two people, in connection with particularly festive occasions, make the long journey to Tassiussaq or Upernavik, an expensive and difficult trip both summer and winter.

Conversely, *immiaq*, home-brewed beer, is made and drunk by most families and a few households always have a brew in progress all year round and they are always able to offer guests a glass or two. The beer is made from 1 kg malt, 50 g hops, yeast and 2-3 kg granulated sugar – depending on how strong a beer is desired. With the addition of a little sugar, the product is light beer (*hvidtøl*) so the children are also able to drink it. Conversely, with the addition of 3 kg sugar, the beer becomes very strong and intoxicating. Especially in winter some people get very drunk and a few families drink many litres every evening, but the 2-3 days needed for completion of the brew partly prevents some people from being drunk every evening. In this respect, it should be mentioned that it is only in very rare cases that the hunters or their wives can be said to have neglected their hunting, their children or their house due to a hangover. Later, *Grønlands Hjemmestyre* (the Greenland Home Rule) banned the production of *immiaq*. First and foremost, this raised large sums for the public purse due to the high taxes on beer and spirits, but it has had a very negative effect on the families' finances.

Sweets

In this respect children in particular show great inventiveness, especially in winter and spring before the first ship of the year comes with fresh supplies in June. If a couple of children have acquired a crown or two they often buy a packet of biscuits or a packet of sugar. After they have eaten half of the contents they fill up the packet with fizzy pop so that the biscuits or the sugar dissolve into a porridge-like mass. They then press the contents of the packet out through a hole and into their mouths. Another favourite is rolled oats mixed with brown sugar in a mug, from which it is eaten with a spoon. The consequences of this very great consumption of sugar and sweets are, unfortunately, even in the best hunter societies a great health problem; especially as teeth brushing is for most adults and children an unknown phenomenon. Studies have shown that an exclusively 'hunting diet' would virtually ensure the families teeth free of decay (e.g. Pedersen 1966:17).

In Nuussuaq the annual sugar consumption per individual was 57.3 kg and in Aappilattoq it was 58.8 kg, calculated from the sales figures from the store. To this should be added a good quantity of sweets sold by

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private kiosks. In Denmark the corresponding consumption per individual was 48.3 kg.

In Nuussuaq 95.7% of the population had caries and in Aappilattoq the figure was 98.6%. All those without caries were under six years of age. Around the age of 40 the situation was worse among the women than among the men. In Nuussuaq only one of the seven women in the oldest group had teeth remaining – she had seven, all with caries (Jakobsen 1970:74).

Tobacco

Everyone, both men and women, over the age of 16 is, with few exceptions, very dependent on tobacco. People smoke whatever they can lay their hands on which is why it is difficult to classify them as cigarette, cigar or pipe smokers. With the qualifying comment that some people fall into two or all three groups there were in Nuussuaq in 1965 the following:

- c. 40 cigarette smokers: c. 10 cigarettes per person per day
- c. 8 cigar and cheroot smokers: c. 950 in all per year
- c. 14 pipe smokers: c. 323 packets in all per year

Most hunters and a few older women smoke a pipe but at the same time they have a very large consumption of cigarettes relative to their income. When the cigarettes run out many, especially older people of both sexes, show great skill in rolling their own cigarettes from finely cut or ordinary shag tobacco and tissue paper from the store.

A few older hunters use chewing tobacco and in their company it is a matter of course that the contents of a pipe, when it has been smoked, are emptied into their hands after which they quickly disappears into their mouth and are chewed together with chewing tobacco.

Large things such as rifles, radios and clothes were ordered from Upernavik, whereas some money was spent in the settlement kiosk that was owned by the catechist. People began to pay income tax in Greenland in 1975 but in that year no one in Nuussuaq earned so much that they came above the minimum threshold.

Sales from KGH's store 1965

A selection of what was sold from the store in Nuussuaq in 1965 gives an insight into how the families' expenditure was distributed, even though people from Illulik and Kuuk and from the infirmary occasionally also used the store (Fig. 154). The greatest expenditure was on light and heat: 80 tonnes coal and 10,000 litres of paraffin in a year.

The extent to which shop-bought food, stimulants etc. were consumed is apparent from the following:

Table 25. The total income and expenditure of the 17 families.

Sale of hunting products	506 500 DKK
Wages	469 900 DKK
Old age pension	95 400 DKK
Child allowance	33 300 DKK
Maintenance & child support	20 400 DKK
Other state benefits	2 800 DKK
Total income	1 128 300 DKK
Repayments on houses	16 000 DKK
Repayments on boats	5 000 DKK
Purchases at KGH's store	915 700 DKK
Total expenses	936 700 DKK

Fig 154. The store in Nuussuaq 1967. Photo by the author.

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- Canned foods such as herring, sardines, sausages, hamburgers, pork, pigs' hearts, luncheon meat etc.: 866 tins
- Mixed vegetables, peas etc.: 97 tins
- Jam: 120 tins
- Canned fruit: 590 tins
- Household beer (*hvidtøl*): 2,000 bottles
- Fizzy pop: 5,896 bottles
- Mixed juice: 180 bottles
- Tea: 33 kg
- Coffee: 147 kg
- Coffee substitute: 170 kg
- Dried yeast: 42 kg
- Hops: 10 kg
- Malt: 90 kg
- Ship biscuits: 3,747 bags
- Crackers, biscuits, wafers: 6,433 packets
- Chocolate: 605 bars
- Boiled sweets: 1,335 bags
- Cigars: 2,072
- Cheroots: 5,520
- Cigarettes: 16,2690
- Pipe tobacco: 4,535 packets
- Tobacco, finely cut: 105 packets
- Chewing tobacco: 305 packets
- Toothpaste: 38 tubes
- Toilet paper: 25 rolls
- Hand soap: 560
- Potatoes: 330 kg
- Apples: 120 kg
- Milk powder: 658 kg
- Wheat flour: 2,318 kg
- Rye flour: 1,120 kg
- Sugar: 6,209 kg
- Rock candy: 80 kg
- Baking powder: 3,666 packets

Summary

The traditional male and female roles were, by and large, preserved in the settlement, meaning that the women spent the greater part of their lives in the home. Preparation of the many sealskins naturally took up a great deal of the women's time in the spring and in the cold winter months when the seals must necessarily be thawed out and flensed in-doors.

The families' total income and expenditure, as shown in the example for 1965, reveals that there was almost a balance between income and expenditure. But further to this it should be mentioned that some of the hunting products, which the families did not use themselves, were sold to private visitors, to the hospital and to the town of Upernavik. Whereas a good deal of wares, especially children's and adult's clothes were bought by post from catalogues direct from Denmark.

As shown, family relationships were of great significance for the distribution of, in particular, seal and whalemeat such that a household almost without or with only few hunting possibilities was supplied from the surplus of family members and friends.

The church

The people of Upernavik were the last in Western Greenland to become Christian. Accordingly, the last adult heathen was baptised as late as in 1864, although it is stated that heathen ways continued to flourish among the baptised.

Upernavik's first missionary was the Icelander Olaver Gundløgson Dahl from 1779 to 1787. When he, due to poor health, had to leave the area, 80 people from the whole district are said to have been baptised. Of these about 50 remained in 1803. It was not until 1825 that mission work was resumed and the missionary Kragh, in Greenlandic called Kalaaq, writes that for example newborn children of heathen parents were baptised.

At the time around the founding of Nuussuaq there were, in addition to the parish of Upernavik, a further six school chapels in the district. At the latter, the weekly services were taken by the catechist who as a rule after two years of training was responsible both for the church and the education of the local children. Christenings, weddings, funerals and communion were, however, to be taken by the minister when he visited – by boat in the summer and by dog sledge in the winter (Fig. 155).

As is clearly apparent from the hunting activities for the individual months, almost all the hunters remained in the settlement on Sundays and religious holidays, even when the circumstances were ideal for a hunting trip. More or less everyone, children and adults alike, went to church on Sundays when the cat-

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Fig 155. Minister Ilannguaq Jensen on a spring visit in Nuussuaq in 1967 in order to confirm the new class. The girls are wearing the traditional festival costumes and the boys are up to date with their ties and white anoraks.
Photo by the author.

echist was kept busy both speaking to the congregation and playing the organ for the hymns.

The school

In 1967 there was on average 34 pupils per school in the whole of Upernavik district, in contrast to 12 pupils 30 years previously. 150 of the district's 412 school children were educated in the town, where the school could best be compared with a small Danish central school. In the 11 settlements there was an average of 24 pupils per school. The 25 school children in Nuussuaq lay, accordingly, almost on the average whereas the largest number of children of school age was in Aappilattoq with a total of 43 (Fig. 156).

At that time children were taught for the mandatory number of hours, although the lessons were distributed in a slightly different way than that required. In the dark winter months the school days were very long, interrupted by an hour when both the children and the catechist went home to eat. With this arrangement it was easier to ignore the fact that in the light spring months the children often went on hunting trips with their parents.

In Upernavik there was a boarding house with room for 14 children from the settlements. In 1967-68 there were, however, only nine older children, of which only six remained in April. Three of them who had travelled home for the Easter holiday were unable to return due to the adverse ice conditions. A boy from Nuussuaq, whose letters to his parents at home throughout the winter told in no uncertain terms of his home sickness and inability to fit into life in the town, prompted his father to come for him by dog sledge – a trip which due to adverse ice conditions ended up taking 11 days.

The adults in Nuussuaq had the opportunity to take courses in Danish at evening school, which we extended with some English lessons because the hunters wanted to listen to the hourly weather forecast from Thule Airbase. There were also courses in interpreting, leatherwork, arts and crafts and a short first aid course. 11 men and six women between the ages of 15 and 30 took part in the evening classes. Several of the hunters organised their hunting so that they were at home on the evenings of the classes.

In the district's smallest settlement, Illulik, the youngest of the two hunters was only 14. He was said to have refused to go to school since he was ten. De-

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Fig 156. Catechist Mathias Frederiksen teaching in the school chapel, Nuussuaq 1967. Photo by the author.

Fig 157. Elisabeth Heilmann teaching the girls to sew skins. Note the picture on the wall of the three Danish princesses wearing Greenland gala costumes. Photo by the author.

spite his young age he provided for his ageing foster parents. He was seen by all as a skilful hunter both by kayak and by dog sledge. He had a large number of seals, narwhal and a single polar bear on his hunting returns. He avoided going to school either in Kullorsuaq or Nuussuaq by promising to listen to the school radio programmes on the radio when weather conditions permitted. Unfortunately he died a few years later in his kayak while hunting narwhal.

In 1997 the school situation was, as one would expect, very different in Nuussuaq. A head teacher, four teachers and an assistant teacher taught 38 pupils, 21 boys and 17 girls.

Training in hunting

Although training in hunting has a central role in the curriculum, these teaching situations must necessarily be a surrogate for the traditional training of coming hunters and their wives. Today the promising youngsters are almost exclusively to be found among the few fortunate that have been 'apprenticed' and have grown up in the most skilful hunter families. A couple of hours a week on the school timetable cannot compensate for the daily 'teaching' by parents or older siblings in the innumerable tasks that are linked with locality, annual cycle and much, much more.

A well-intentioned and very energetic head teacher in Upernavik expressed the opinion in a lecture in 1958 that boys and girls should be involved in a kind of communal hunter training and that in these lessons the school should become a small hunter society in itself. The idea sounded promising and the headmaster imagined that in the future there would be a frame in the fine new school on which the children's catch would hang and dry under the small well-made sledges. The boys were to work together to build kayaks and sledges, while individually they made whips, shooting sledges, harpoons and so on. Meanwhile, the girls were to work in the skin room where they were to flense the boys' seals, prepare skins, make kamiks and prepare food (Fig. 157). Mention was made of the fact that in 1958 only one girl in the school in Upernavik had learned how to make a pair of kamiks. The edible part of the catch was of course to go to the school kitchen. The boys were to cut and soften thongs from 'the bearded seals we perhaps will shoot'. Further to this there was to be a team of dogs associated with the school that would in turn be harnessed to the small sledges. It was assumed that the dogs would live on the boys' catch.

Ten years later, the situation at Upernavik's fine new school was as follows: There was no frame with dog food hanging outside the school and no small sledges. The dogs were not running impatiently around and waiting for the lucky pupils who in the

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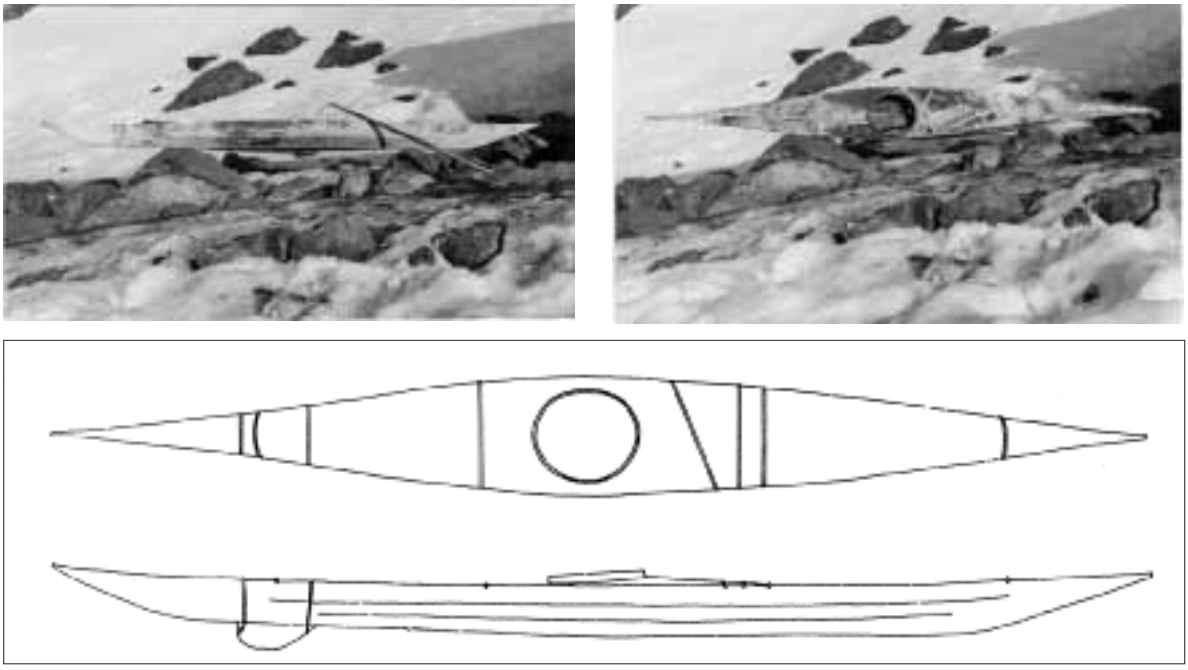

Figs 158a-c. School kayak in Nuussuaq built by Johan Halsø around 1960. Length 2.2 m. Photos by the author.

next lesson were due to go out and lay seal nets and check shark and fishing lines. In the woodwork room the boys were not building kayaks but wooden cars and other toys, while the girls sewed bead embroidery because there is almost always a shortage of seal skin in the town.

The situation is luckily not so desperate in the settlements. Here hunter training at school is still only a supplement to the training the children receive inside and outside the home.

Kayak training

In 1968 every settlement school had 1-2 so-called school kayaks that were of a suitable size for boys of 10-14 years of age. With their parents' permission pupils could be taught by an older hunter, paid by the hour, who was also responsible for maintaining the kayaks (Figs 158a-c). This teaching had, however, due to autumn storms, freezing up and so on to take place in the summer months outside the actual school year. In July and August these kayak teachers could be seen in their kayaks with one or two boys paddling in calm sea along the coast for an hour or two. This did, however, at the best of times only teach them to keep their balance in the kayak.

As mentioned previously, only a few hunters were able to perform a 360 degree kayak turning, although in recent times this situation has changed thanks to many kayak clubs and competitions. A study from the census in 1911 showed that 38% of the hunters in Western Greenland were able to perform a kayak turning and of these 21% in North Greenland (Bertelsen 1937: 185).

In fair weather and flat calm water, paddling a short trip in a kayak along the beach can only be seen as a first introduction to later being able to manage difficult circumstances where weather conditions, hunting situations etc. threaten the kayak hunter. This situation was so much more unfortunate as most of the boys wanted to become hunters like their fathers and older brothers.

On only one occasion, a Confirmation Sunday, could two hunters from Nuussuaq and Kullorsuaq, respectively, be seen demonstrating various kayak turnings as they took turns to use the settlement's only kayak suit. Here was a good opportunity to let some of the youngsters have a go. However, the half-grown boys who expressed a wish to try, with dinghies in attendance and a rope bound to the stem of the kayak, were told here, as on other occasions, that it was much too dangerous.

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Chapter 11

Sports, games and pastimes

As mentioned previously, the hunters in the northern part of Upernavik district have sometimes been accused by others of being lazy and having a tendency to have too relaxed an attitude to life, rather then concentrating constantly on hunting. The truth is, however, that these hunters who wait for hours and days, spring and summer for seals, white whale and narwhal, spend their time in greater social interaction than found elsewhere along the west coast. If a group of hunters passes the time having fun with games, playing cards etc. there will most often be someone on watch around the clock looking for migratory game. Should this turn up, all of them will be ready immediately to push their kayaks into the water when the signal comes.

Naturally there are sometimes differences between the children's and the adults' games and especially between the sexes. However, as often described from a traditional hunter society, in many cases there is no great difference between the games played by children and adults. The children's games often reflect the adults' tasks as a natural part of their training as hunter and hunter's wife. Even though new European toys had appeared it was still possible at the end of the 1960s to see inside and outside the homes examples of traditional toys such as 'the feeding birds', sling shoots and small bows with arrows, harpoon games, seal bones used for games and as sledge dogs, *pulaartut* etc. which will be described in the following. Although the children very often played, both with and without the adults' knowledge, by the water's edge, on the ice and in the snow.

Toys

In a settlement such as Nuussuaq, which in the study year had a large number of small children, it is remarkable that in KGH's shop there were neither children's clothes nor children's toys. That which the families owned had for the most been bought on trips to Upernavik or ordered from catalogues directly from Denmark. A couple of exceptions should, however, be mentioned. On one of the uppermost shelves in the store stood all year round a c. 0.5 m long yellow-painted wooden tram. This, of course, was of no great interest to either children or adults, as most of them had never seen a car. The other example was an ornamented shelf in one of the homes. At first I wondered why the plate uppermost was painted green whereas the rest was painted white. On closer examination I suddenly recognised the 'Falck' fire station of my childhood that was now hung upside down. The green part was meant to signify grass whereas the small doors that could be opened were where the fire engines were meant to drive in and out. The owners were also very surprised and did not fully believe my strange explanation.

Fig 159. Children playing – undoubtedly a game they have learned from a Danish nurse. Photo by the author.

Some of the games, especially those of the girls' such as skipping and chain games like *to mand frem for en enke* (a kind of 'tag'), *bro, bro brille* (almost the same as 'oranges and lemons') and the like were probably learned from the constantly changing staff of Danish nurses who in the course of time had passed through the local infirmary (Fig. 159).

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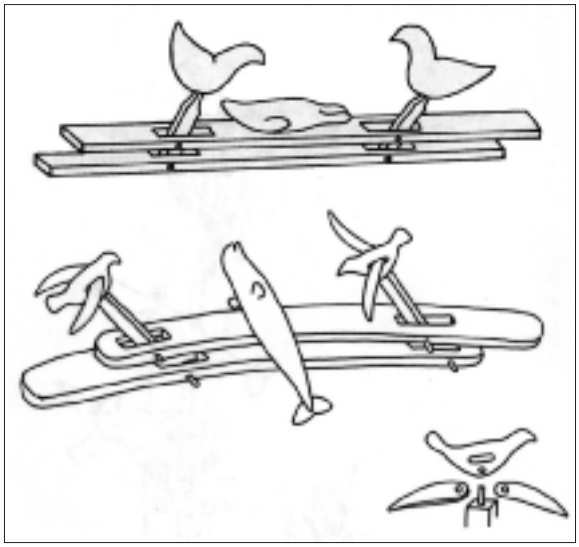


Fig 160. A toy 'The feeding birds' (*pukuttut*).

The following account of the toys that were still in use in the 1960s is hardly comprehensive. It deals exclusively with that which I observed. As is apparent, some had gone out of use but people could still remember how the toys were produced and used.

The feeding birds (*pukuttut*)

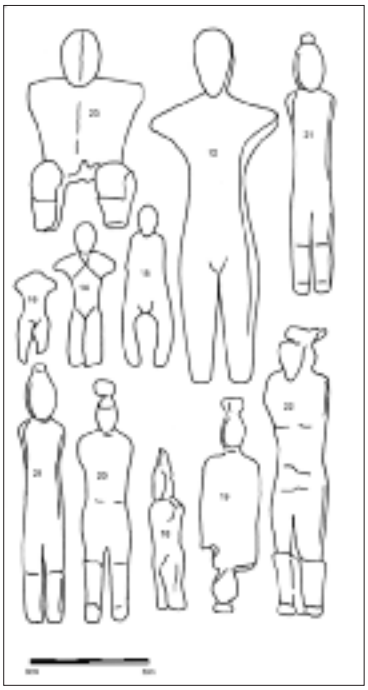
The only example I saw in use was carved in wood, representing two grouse pecking a seal. When I saw this, I asked David Eskildsen in Kuuk to make one in narwhal ivory which resulted in the piece shown here. It is 21 cm long and the birds with moving wings are 4 cm. They peck a white whale 8 cm in length (Fig. 160).

Seal bones used as small sledges and dogs (*qimussiaq*)

Several small children played inside and out with miniature sledges, sometimes just the pelvic bone from a seal. Whereas the dogs were shoulder bones attached with traces of twines or thin thongs. Parts of toy sledges have been found archaeologically at both Inussuk and Nuugaarsuk.

Dolls (*inuusat*)

Whereas the two above-mentioned archaeological excavations produced many small, carved wooden dolls, made like the well-known dolls from the Thule culture with or without the suggestion of arms and face (161a), there were in Nuussuaq in the 1960s only a few examples of home-made dolls. The rag doll shown here was made in January 1968 as a present for our daughter's first birthday by Lydia Aronsen in Nuussuaq (Fig. 161b).



Figs 161a and b. Wooden dolls from the excavation at Inussuk 1929 (Mathiassen 1930b, pl. 18). The rag doll is from Nuussuaq 1968.

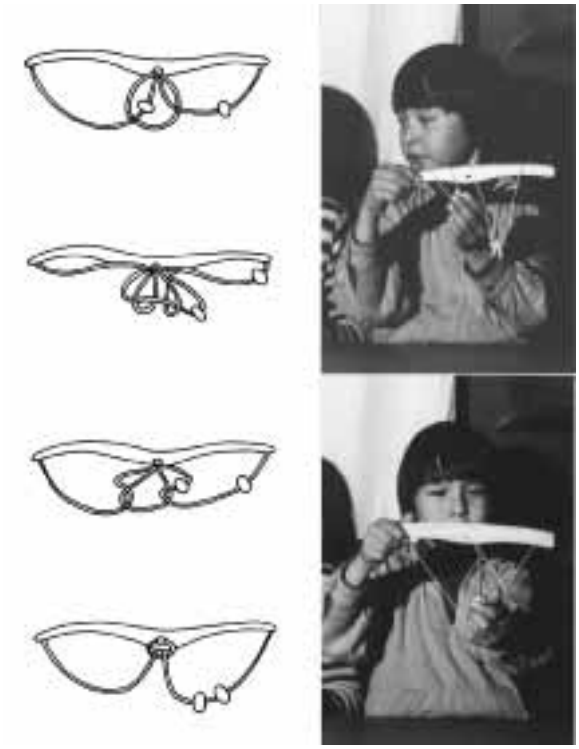


Fig 162. 'The visitors' (*pulaartut*). Photos by the author.

The visitors (*pulaartut*)

In a few places in the settlements it was still possible to see these toys in use. The aim is to move the two figures over onto the same side of the string and back again without loosening the knots at the end of the sticks. One example was made of narwhal ivory as a man and a woman, whereas others had two bone beads (Fig. 162).

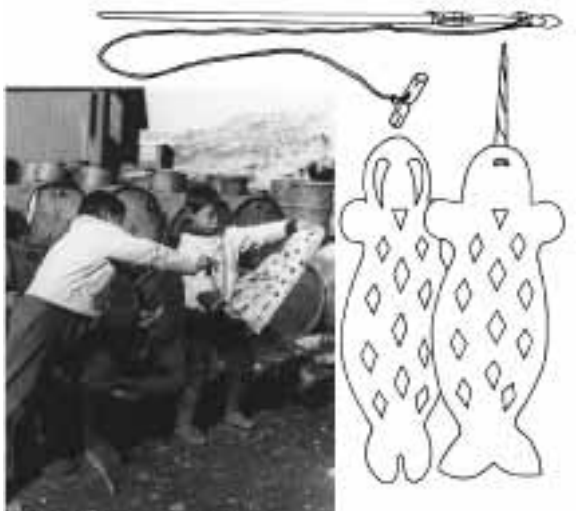
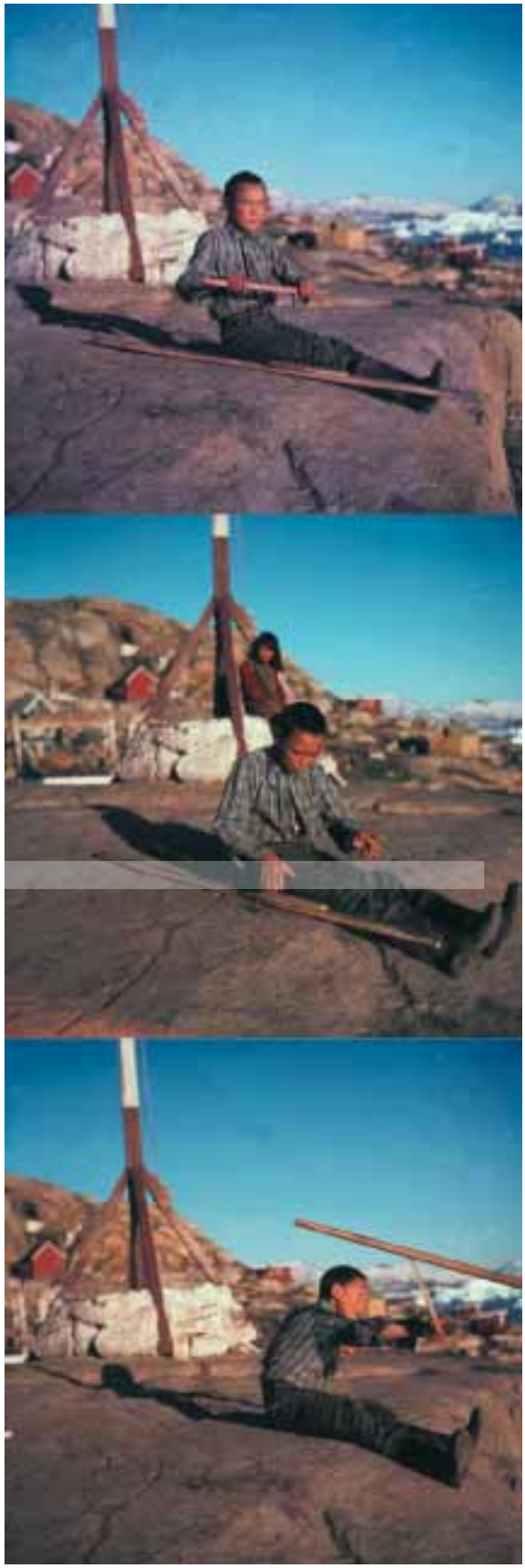


Fig 163. Harpoon game 1967. Photo by the author.



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Outdoor games

Outdoor stone-throwing, at times with sling shots, shooting with small bows and arrows and practicing hitting targets with dog whips were favourite games for boys, both large and small. In early spring the coming hunters had, however, become so accurate that in the course of several days they hit too many snow buntings. Accordingly, the catechist and the boys' parents decided to put a stop to these games.

Harpoon games

Sometimes boys could be seen throwing homemade miniature harpoons at a piece of depilated sealskin with holes cut in it. The examples shown here shaped as a walrus and a narwhal were, however, made to order for me by David Eskildsen in Kuuk (Figs 163, 164).

Ball games (*arsaanneq*)

With Marteeraq and Eevarteeraq from Kullorsuaq as informants Hans Lynge writes that traditional ball games with a seal skin filled with stones and earth took place in these northern regions.

Marteeraq tells that *arsaq* in daily usage means a ball. It actually means 'to wrest something from someone'. In this case this 'something' is a seal skin which has been made in the same way as a hunting bladder, i.e. removed from the seal at the head and filled with all kinds of heavy material such as stones, sand and earth.

One team is meant to take the *arsaq* far away, no matter where, just far, far away, whereas the other has to try to bring it back to the settlement.

Eevarteeraq tells that the skin was of an old common seal filled with stones and earth, which they used as *arsaq*. It was so heavy that a man of normal strength could only lift it by using all his strength. The game started in a place where the distance to the various settlements was more or less the same and the aim was to reach one's home settlement with the sealskin bag (Lynge 1955:133-134).

< Fig 164. Practicing harpoon throwing. A broom handle with a nail and a throwing stick, Aappilattoq summer 1967. Photos by the author.

At Inussuk a single little ball made from depilated sealskin and with a diameter of about 6 cm was found. It was probably used in children's games.

Football was very popular in the 1960s in Nuussuaq and the other settlements but the lack of suitable flat areas for a football field limited the game to the ice in spring. Sometimes the women played against the men but most commonly the two teams were equally divided when members of the 'Blue Cross' played against the 'others'. The result of these matches was, as a rule, a draw as was also the case with the tug of war (*allunaasamik noqqunneq*) to the great amusement of both teams.

Normally the game was played as in Europe with two goals set up on the ice but on a few occasions they played 'as in the old days' across the ice in the harbour where everything was permitted – like a form of rugby where everyone played against everyone else, especially boys against girls. The aim was to take the ball to the opposite side of the harbour.

Sports competition in Kullorsuaq 24th-26th April 1968, temperature –15-–20° C

At the sports event for Upernavik northern district, with participants from Tasiusaq, Nutaarmiut, Kuuk, Illulik, Nuussuaq and Kullorsuaq, they competed for a couple of hectic days in the following disciplines:

- Football (*arsaanneq)*
- Tug of war (*allunaasamik noqqunneq)*
- Long jump (*siumut pissinneq)*
- Javelin throwing with ice chisel (*naakkiarneq*)
- Shooting with cal. 22 rifle (*seqqortaarneq)*
- Dog-sledge racing (*qimussimik sukkaniunneq)*

The sports competition was a long-awaited opportunity for the many families to meet and space was at a premium when all towards morning had to find a place to sleep. For most it was a welcome opportunity to be together with family and friends after the long dark winter, whereas a few people took the sports performances very seriously. For example, at that time there was a regular correspondent for *Grønlands Radio* (Greenland Radio) in Nuuk and one could hear the results from here in the evenings. Great emphasis was

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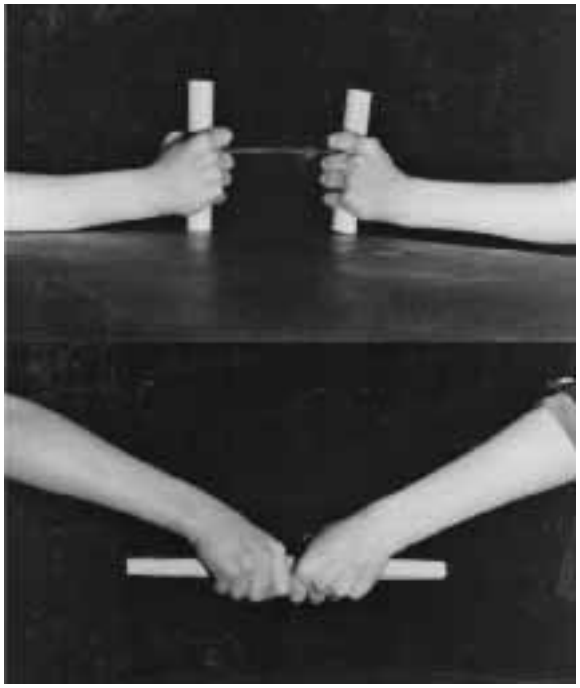


Fig 165. Equipment for trials of strength. Photos by the author.

placed on the fact that Kullorsuaq's ladies had beaten Nuussuaq 8-0 in the final, while Kullorsuaq's men had lost 4-0 to a select team from Nuussuaq, Kuuk and Denmark (the two latter were the young hunter Severin Adamsen who had moved to Nuussuaq a short time previously and the author from Denmark).

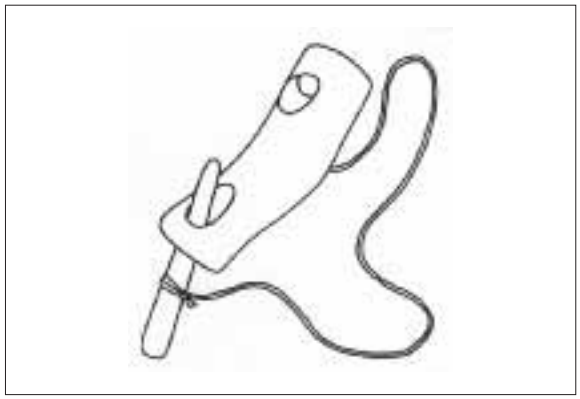
In the evenings they competed in the traditional trials of strength that the hunters and boys practised on any available occasion all year round:

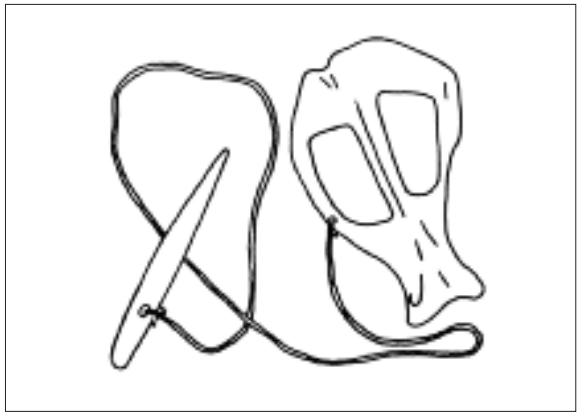
Arsaararneq – with the piece of equipment *arsaaqqat*, i.e. two wooden handles bound together with a short strap. This was used to train up the muscles of both the upper and lower arm.

Eqitarneq– a round, sharpened and smoothened wooden rod covered in blubber so that it slips through the hand. The equipment builds up strength in the fingers so that hunting equipment can be held securely.

Without equipment there are 'pulling matches' (*assoruunneq*) with the following (Fig. 165):

- Index finger (*tikeq*)
- Middle finger (*qiterleq*)
- Ring finger (*mikileraq)*
- Little finger (*eqeqqoq)*
- Wrist (*paffik – pakassinneq*)
- Arm (*taleq)*





Figs 166a-c. Ring and pin game (ajagaq). Carved ajagaq made from antler, Dorset culture.

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Ring and pin game (*ajagaq*)

Ajagaq actually means 'that which one pushes away' and the equipment could be made of bone, tusk (ivory), caribou antler and wood. There are two or more holes, which must be hit with a pointed stick (Figs 166a,b). There is an unusually beautiful carved example from Upernavik made from caribou antler. Stylistically it is dated to the Dorset period (Fig. 166c).

During the study year I saw none of these games in the houses with the exception of children who played with a trace buckle and a single instance when some hunters used a bottle opener on a string. But I had copied a game from Upernavik Museum and on one winter evening it lay on the table when the catechist's family and a few other guests were visiting. So the game started and as it turned out it continued until the next morning, although without reaching a conclusion. The catching game was passed from one to the next. A hit meant the player could continue, otherwise it had to be passed on. There were discussions as to which 'list' or 'story' we should play according to. As one of the possibilities was to cover a stretch of country where a long series of local place names was mentioned, this suggests that it is not very many years since the game went out of use. Here, however, the choice has been made to reproduce the following long list from the National Museum's Greenland Surveys in the 1950s (unpublished). It was written down in Aappilattoq and with the exception of a few details it resembles closely the game played in Nuussuaq in 1967 – on the evening mentioned above and on many subsequent evenings. As will become apparent it is about a princess in somewhat unaccustomed surroundings but it is also reminiscent of the marriage by capture of past times where the chosen one despite her resistance is a willing captive:

1. I yawn and stretch
2. I throw the bedclothes to one side
3. I get up
4. I take my kamiks down from the clothesline
5. I put on my kamiks
6. I take my trousers down from the clothesline
7. I put on my trousers
8. I get up from the plank bed
9. I put on my jacket
10. I take my mittens down from the line
11. I go over to the lamp
12. I go to the doorstep
13. I go down into the passage
14. I am in the middle of the passage
15. I reach the outer door
16. I push open the door
17. I go outside into the open air
18. I stand outside
19. I close the door
20. I go to where they hammer blubber
21. I am on the ice
22. I reach a 'lung' in the ice
23. I reach another 'lung' in the ice
24-33. I travel
34. I drive up in front of the door
35. I throw the door open
36. I close the door after me
37-60. I open a door and close a door
61. I go over to the princess
62. I am by the princess
63. I catch hold of the princess
64. We turn towards the passage
65. We have arrived at the door
66. We open the door
67. We have gone through the door
68. We close the door behind us
69-92. We go through the doors
93. We stand outside
94. We have reached the sledge
95. I lay the princess on the sledge
96. I turn the sledge
97. We have reached the princess' drying rack
98. We have reached the stone where they hammer blubber
99. We have reached the foot of the ice
100. We are on the bit between the ice foot and the ice
101. We are out on the ice
102. We travel homewards
103. We get a dog
104-112. We get another dog
113. Then we drive
114. We reach a 'lung'
115. We have reached the smooth bit by the beach
116. We are up on the ice foot
117. We have reached the frame
118. We have reached the stone where they hammer blubber

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119. I take the princess out of the sledge
120. We stand outside the door
121. We stand by the outer door
122. We open the door
123. We go through the door
124. We close the door
125. We are by the inner door
126. We cross the doorstep
127. We stand by the lamp
128. We stand in the middle of the floor
129. We sit on the plank bed
130. I take off my gloves
131. I take off my hat
132. I take off my fur
133. I take off my kamiks
134. I take off my trousers
135. I lie down on the plank bed
136. She takes off her mittens
137. She takes off her hat
138. She takes off her fur
139. She takes off her kamiks
140. She takes off her trousers
141. She lies down on the plank bed
142. We make the bed
143. We lie down
144. We fall asleep

From number 93 the players must take turns holding the stick and catching *ajagaq* with their left hand.

An *ajagaq* could, as mentioned above, have many holes which had different names, here reproduced from Hans Lynge (1955:131) with Marteeraq as his informant:

- *Kappua*: the stab hole; he who hits this must stab himself to death.
- *Iperaartarpii*: the whip holes; he who hits one of these is allowed to whip a member of the company of his choice to death.
- *Mamillinga*: my wounds have healed.
- *Anersaarlinga*: I have got my breath back.
- *Makillinga*: I stand up again.
- *Sangilerpunga*: I am in a critical state of health; he who hits this hole is, after some time, declared to be dead.
- *Sippiilerpunga*: I have become lame.
- *Seqimippoq*: is crushed.
- *Killinnippoq*: is put in the earth.

Fig 167. Rasmus Eliassen from Nuussuaq demonstrates his skill with string figures. Photo by the author.

- *Nakkaalaaq*: decomposes.
- *Aqitartit*: is demolished.
- *Manngerterneq*: rust.
- *Sisak*: steel.
- *Ornavak*: on crutches.
- *Ajarnginnaveeq*: he who is excluded from the game.

String figures (*ajaraarnit*)

In connection with the fieldwork the opportunity arose for me to collect 28 string figures (Figs 167, 168). This pastime has almost completely died out in the Upernavik area but it is not, however, many years since it was common among both children and adults. This is shown by the fact that in the winter of 1967-68 it was possible to collect 25 different figures in Nuussuaq alone.

Of the 25 figures, 21 were made by seven men and four figures were made by two women. No children were able to produce anything other than the most simple examples. Only a few people were able to make one or more figures immediately. Most of them had to spend a long time trying to remember how it was done.

All the informants agreed that people had formerly been aware of the danger of overdoing these unproductive pastimes (string figures, catching games

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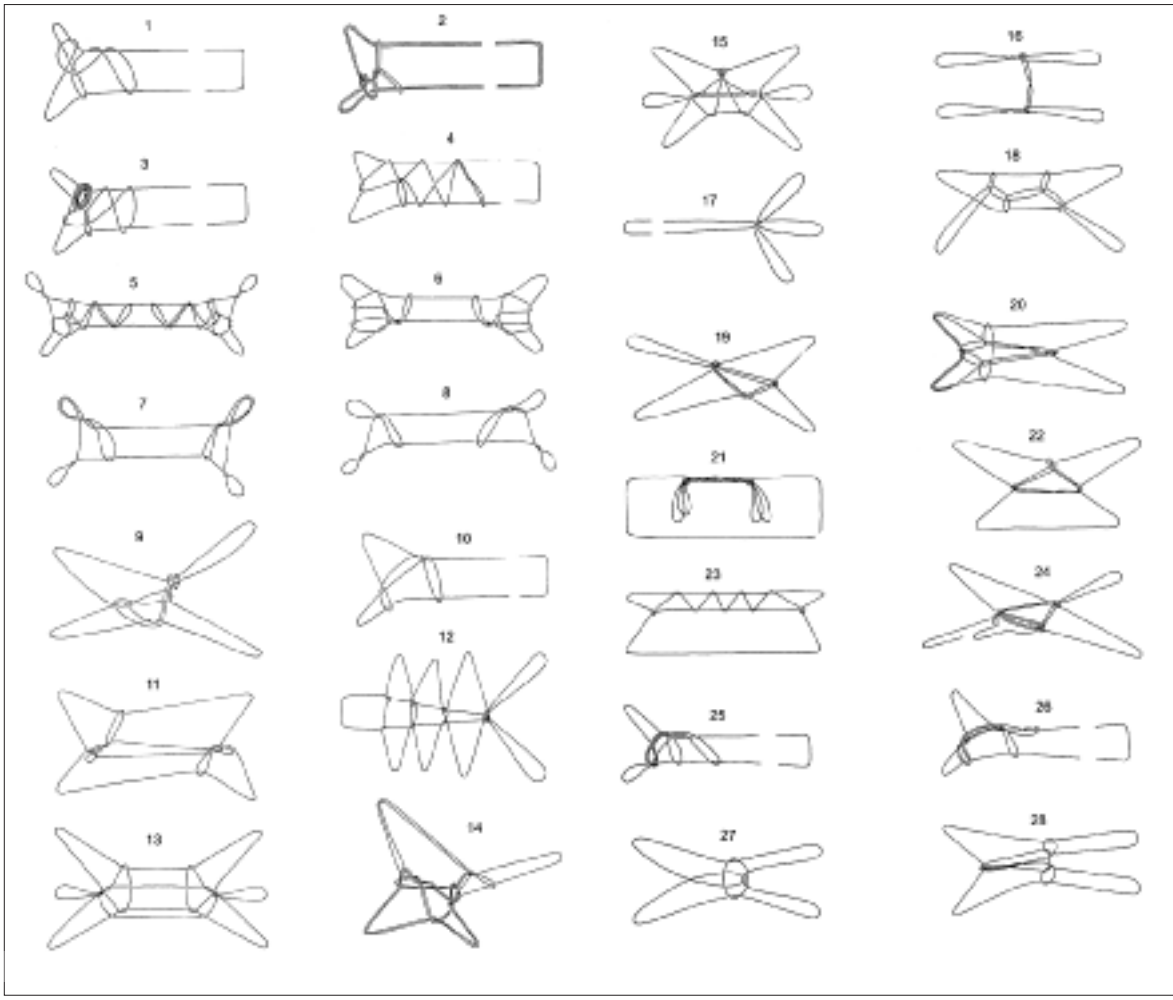

Fig 168. String figures (*ajaraarnit*).

Table 26. String figures and their Upernavik names translated into English.

1.	Tuttoq	The caribou
2.	Mikeriartoq	That which bites at something
3.	Ukaleq alerminik nammattoq	Hare with line on its back
4.	Kiliffarsuaq	Big mammoth
5.	Kiliffarsuit	Two big mammoths
6.	Talersuit	The strong arms
7.	Tuutannguit	Labrettes
8.	Tuutaqqillugit	Labrettes (again)
9.	Aqajarortortoq	The stomach eater
10.	Qimminngortoq	It has turned into a dog
11.	Tulimaat	Ribs
12.	Sakiassuit	Breastbone
13.	Kiasisuit	The big shoulder blades
14.	Tulugaq	The raven
15.	Qarsaapiarsuk	The loon
16.	Tingivoq	It flies away
17.	Nuffit	Bird dart
18.	Aarluarsuit	Those who jump (killer whales)
19.	Panik-aa panik	Daughter, oh daughter
20.	Puisi	The seal
21.	Kissatut	Clothes hung out to dry
22.	Avataq	Hunting bladder
23.	Innitsiaat	The flames (of the soapstone lamp)
24.	Nanorsuk	The polar bear
25.	Terianniaq	The fox with lowered tail
26.	Terianniaq	The fox with raised tail
27.	Iteq	Anus
28.	Qiuutit	The scissors

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etc.). They said that it was important to be careful always to stop in time so that it did not end in disaster. Hans Lynge was told by Iisaaqabout of an occasion, which almost did so (Lynge 1955:132):

'Once several families were staying at Nuussuaq's autumn settlement at Aappilattoq to hunt walrus, and one evening they entertained themselves playing ajaraarneq. At midnight my uncle Aadarsuaq went out to relieve himself and was surprised to see a gigantic iceberg obstructing the view. It was so big that he could not see all of it because some of it was hidden to the south and some of it to the north. He went in and told everybody about it so that they came out to see it. The iceberg was so high that the summit was only visible if they threw back their heads. They were gripped by fear so that no one dared speak out loud. Timuutarsuaq and my uncle had to fetch water, as the women were too frightened to approach this monster of an iceberg. Early next morning it had gone. There was only a smallish iceberg in view. Then they understood that they had almost been overdoing the game. So they always said when the youngsters were playing *ajagaq* or *ajaraarneq*: "Stop in time or it will end in disaster".'

All the string figures mentioned have been described in a comparative study and published before (Hansen 1974/75:213-226); Table 26 shows a list of their Upernavik names and translations.

Fig 169. Dancing in the village hall, Nuussuaq, winter 1967-68. Photo by the author.

Fig 170. Dancing in the village hall, Nuussuaq, winter 1967-68. Photos by the author.

Dance in the village hall 1967-68

Danish craftsmen built the village hall in Nuussuaq in 1966. Prior to that, use had to be made of the local carpenter's workshop, which was used by the hunters for building kayaks, sledges and other large pieces of equipment when the weather did not permit the work to be performed out of doors. The workshop was, however, much too small and difficult to heat, further to the disadvantages of having to move work benches, half-finished kayaks, sledges and tools when people wanted to hold a dance (Figs 169, 170).

The village hall was used for meetings of the various clubs and associations, for evening lectures and as a gathering place for children and young people who played carom billiards, draughts, ludo and so on. But first and foremost the adults used it for dances. The fact that this was a popular activity can be seen from Table 27, which includes only three dance evenings that took place in private houses.

The occasion for the in all 67 dance evenings was, as a rule, visitors coming from outside, religious holidays and other celebrations and family events such as christenings, birthdays and the like. In the coldest

Table 27. Dance evenings in the new village hall in Nuussuaq 1967-68.

November	December	January	February	March	April	May	June	July	August	September	October
2	4	7	7	7	7	5	4	6	8	6	4

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Fig 171. Minna Pjetturson dancing to her husband Robert's accordian. Illulik 1968. Photo by the author.

winter months the new village hall was not much easier to heat than the carpenter's workshop. A little coal stove and two hanging Petromax lamps could only with difficulty bring the temperature above freezing point, which is why many first turned up after 10 o'clock in order to avoid being involved in warming up the place. Conversely, the dance rarely finished before 3-4 o'clock in the morning, which did not, however, prevent most hunters from setting off to go hunting the following morning. Only rarely were children under 14 years of age seen in the village hall in the evening. This was a natural consequence of all the parents being in agreement about keeping the children home after 8 pm in the dark period in order, among other things, to reduce the danger of attacks by dogs.

In 1842 the Russian Lieutenant L.A. Zagoskin participated in an Eskimo celebration by the Youkon River in Alaska and he wrote: 'To sing was to breath and to dance was to live' (Zagoskin 1967). It would be appropriate to write something similar about the village hall evenings in Nuussuaq in 1967. The new times saw expression in the form of gramophones and records with dance music such as the twist, jive and jinka etc. Some of the girls had replaced kamiks with high-healed shoes and nylon stockings, stiff underskirts or tight skirts, make-up and hairstyles that during the day were built up with curling papers. A few young men changed from kamiks and anoraks to white shirt and tie and pointed European shoes. Despite all this the accordion was still the most popular with all age groups and the settlement had several able accordion players, of which two owned large, expensive instruments ordered directly from Denmark. A few hunters still played with great virtuosity on the small accordions, concertinas. Especially Robert Pjetturson, from the settlement of Illulik, could entertain visiting guests for hours on this instrument. He played the old European whaler's dances, *kalattuut*, while the dancing took place in the family's very small self-built house (Fig. 171).

Kalattuut was still extremely popular and the most common examples are described below:

Saqisaaq: Rhinelander polka, from the verb *saqisaarpoq* – to go backwards and forwards.
This is the most used dance for both older and newer tunes. It is danced in pairs, one goes four steps forwards and four back then turns round. Particularly enthusiastic couples continue, especially with the quick tunes, to turn round and round and round so that the dance quickly turns into *tukkartaaq*.

Tukkartaaq: polka, from the verb *tukkarpoq* – to stamp or kick.
In this polka the couples whirl around and around, quicker and quicker at the accordion player's will.

Kalattoorneq: the word is also used for the traditional ball game, from the word *kalak* – a real Greenlander.
The dance is performed by two or more couples. The men stand back to back and the women face to face with their respective partners. The men stamp in time with their kamiks while the women move their feet horizontally backwards and forwards to produce a dragging sound from the kamik soles on the wooden floor. Then they change places and end by spinning around in pairs.

Inalugaarsuk: from the word *inalugaq* – intestine.
The dancers stand in pairs forming a ring and begin to weave past one another by gripping the next person's hand. This continues around the circle until one finds one's original partner who one spins around after stamping one's feet and clapping one's hands. Then some of the men or women form a smaller ring within

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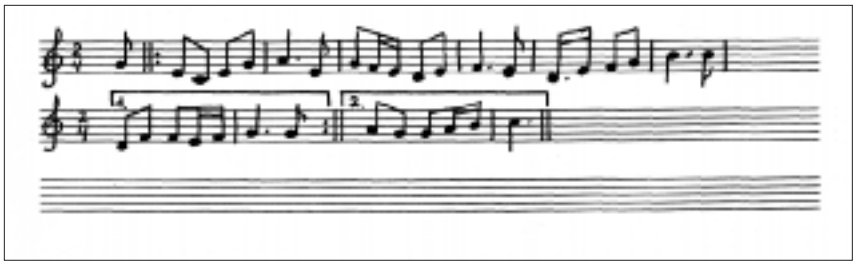

Fig 172. *Kakkissartaq*, the kerchief – a whaler's dance.

the large ring, as a rule comprising four persons who, while the outer circle watch, stamp, clap and spin very rapidly around.

Naanngisaariaq: waltz, from the verb *naanngisarpoq* – to hop or jump around on one leg. The couples take some introductory small gliding steps after which they turn.

Kakkissartaq: from the word *kakkissaat* – scarf. When the accordion starts this tune one person jumps up, either a man or a woman, and begins to walk round in circles with a scarf in his or her hand. Then the person throws the rolled-up scarf to one of the opposite sex, takes him/her about the waist and continues round in time with the music. This continues until all those present, in pairs and with one arm about their partner's waist and one hand resting on the shoulder of the person in front, are moving around the dance floor. When the last person has been taken along, those in the innermost ring take hold of the scarf with their free hand. At this point the music becomes very quick, gradually increasing in tempo throughout the whole dance and the dance ends as a rule with a large rippling and muddled mass that spins round and finally rips the scarf to shreds (Fig. 172).

Some sayings and phrases

- *Tulukkat qaqortippata*: when the ravens turn white.
- When a young hunter does not catch much he should find himself a new girlfriend.
- Pains in the knee mean that fog is on the way.
- When your tongue itches someone else is talking about you.
- When women have an itch between their upperlip and nose their men will catch seals.
- Headache gives windy weather.
- When your hand itches you will soon have money or seals.
- Dreaming of swarms of lice means many seals or money on the way.
- A little wound that itches gives bad weather.
- At full moon the dogs want to make humans afraid. Therefore they howl and rise up on their back legs.
- On the first catch, *pernarneq*, everyone must taste the animal, as a rule a boy's first seal but often also his first fish or bird.
- The seal bone, used as a toy dog, *qimmiusaq*, is thrown into the air and if it lands the right way up seals will be caught.

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Chapter 12

Conclusion

Thanks to an extensive set of statistical data it has been possible to follow the families from the time before Nuussuaq was founded in 1923 up to the study year and then beyond through the subsequent 30 years up to the year 2000. The evidence has accordingly, in addition to that collected during the actual fieldwork, been also taken from population statistics, housing statistics, hunting statistics, climatic observations and periodic counts of occupationally-related tools and equipment etc.

Of the many archaeological finds, the majority of which can be dated to the 18th and 19th centuries, a large number of the traditional tools and pieces of equipment are still in use in Upernavik district. Some previously used materials such as whalebone are of course not found as the large baleen whales have disappeared. After the disappearance of the caribou, the hunters had to buy the much-used caribou antler in the store, which imports it from Mid- and South Greenland. New materials such as metal, plastic and nylon have been introduced but only a few tools have changed form, without it appearing to have changed their function and effectiveness.

Most remarkable is the way in which these hunters have preserved so great a part of their traditional equipment in combination with that of European origin. This is seen most clearly in the combination harpoon-rifle and kayak-motorboat. In other areas of the Arctic, in Alaska, Canada and Greenland, the kayak and harpoon were abandoned in favour of the speedboat and long-range precision rifle with telescopic sight. With this came the great risk that, in the summer months, the shot animal would sink before the hunter reached it. It is true that in the years following the study year there were significantly more dinghies with outboard motors among Nuussuaq's hunters but particularly when hunting in open water and from the ice margin a harpoon is by far the most certain method of securing, in particular, narwhal, white whale and larger seals.

A settlement such as Nuussuaq has of course, albeit gradually, felt the development of modern Greenlandic society. From political quarters they have experienced a swing from a desire to shut down a series of settlements in order to concentrate the population in the larger towns to the south, to a policy where there was a desire to invest in and encourage the settlements. Fortunately the development shows that the families in the remaining small communities have acquired greater and greater influence on their way of life and development of the local society that they desire.

The greatest changes in daily life took place after about 1970 when electricity was introduced giving light inside and outside the houses in the long dark period. Communication with the outside world is no longer a problem thanks to the telephone, radio, television and helicopter links. The number of households in Nuussuaq has more than doubled in the course of the last 30 years. From 17 in 1967 to 39 in 1997, while the number of full-time hunters has risen at approximately the same rate, from 19 in 1967 to 33 in 1997. This development in the settlement, from 113 inhabitants in 1967 to 188 in 1997, has only been possible because the natural resources are apparently unchanged and the advent of many service occupations, many of which are more or less seasonal, which provide many opportunities for hunters to take part in hunting and fishing on a part-time basis. For most families their financial situation is also considerable better due to the successful fishing for Greenland halibut combined with hunting. But life in the settlement is by no means always idyllic. Far too many people die due to accidents and a few suicides have unfortunately also occurred.

If one looks at the development in the previous and the present hunting/fishing settlements, both in Greenland and the other Arctic areas, Nuussuaq is not typical and it has been said that the hunters in Upernavik northern district are a little lazy and not very accomplished hunters. I hope to have disproved this assertion through the data I have presented. It is probably correct that one consequence of the sometimes very rich resources is that the hunters do not set out to

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hunt at every given opportunity. However, as Robert Petersen has highlighted, the hunter families' capital is not necessarily that which they bring home but that which they have available (Petersen 1965, 1967b, 2003). With low prices for seal skins and with no opportunity for an income from other hunting products, then hunter Jørgen Aronsen's reason for not going hunting – 'we have enough meat' – is understandable.

There has, particularly since the year 2000, been intense criticism of the Greenlander's exploitation of natural resources and there is a general opinion that Greenland's nature is threatened with extermination within the foreseeable future (Hansen 2001; Herscovci 1985). This is not, however, a perception which is shared by all Greenlanders (Lynge 1992). Both biologists and hunters are in agreement that white whale, guillemot and eider duck are seriously threatened species. From the politicians' side there have been measures to restrict the hunting of these resources. The problem seems to be intensified in South Greenland where part-time hunters in particular, in fast, powerful speed boats and with long-range rifles, shoot without the use of a harpoon, resulting in the seals much too often sinking before they can be reached. Similarly, there are many examples of the hunting products not being exploited in the traditional way. Against this background, the hunters of Northwestern Greenland must stand as an ideal example of how the use of traditional hunting methods combined with modern imported technology is one of the solutions to the problem. The fact that this has taken place over the course of many years provides hope that many hunter/fisher communities will, despite everything, be able to continue the way of life they have practised up until now. As hunter Bendt Frederiksen expresses it: 'The country's character makes it necessary to eat nutritious food. We must, like our ancestors, always eat meat, both seal and whalemeat. Therefore we cannot do without hunting. We have never had written rules about how we should hunt. We have an inheritance from our ancestors who we succeed and that is, among other things, to be careful with the exploitation of game animals. Our seal hunting is carried out close to where we live. Most of the seals we catch, ringed seals, have their fixed breeding grounds and the hunters never go near these in the breeding season.'

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Appendix 1

Some examples of hunting trips

No two hunting trips are ever the same and those described in the following are only examples of how they actually took place. They have not been chosen as the most dramatic, most fortunate or most productive but hopefully they give an insight into how the individual hunting methods were practised and a picture of the hunters' daily life when they had left the settlement for a longer or shorter period. A long series of usually unpredictable factors have an influence on the hunter's output relative to his input – for example wind and weather, ice and snow conditions, the occurrence of animals, problems with the hunting equipment and many, many more.

In order that these accounts, which are based on entries in my diary, notes etc., could be as accurate as possible the hunters involved offered to take me with them (Fig. 173). And as such an active participant observation of course encompasses the term 'learning by doing', I was able to take part in actual hunting situations. Even though the hunters were probably delayed more than is usual by my presence on the trips I never heard complaints on these grounds. As mentioned elsewhere, the hunter's family never knows precisely when the he will return home – perhaps after some hours, perhaps after one or more days. When I carefully asked whether we would return in the evening or if we would be home by Saturday the answer was always *immaqa* – maybe.

For me, all the trips were great experiences. The only disadvantage of being active oneself and feeling the excitement of the hunt was that in my enthusiasm I did not manage to observe everything around me and that in these situations I often forgot, or more correctly did not have time, to take photographs.

The following examples were chosen to give the reader an insight into the four most important hunting methods:

Netting from the winter ice, uuttoq hunting from the spring ice, hunting from the ice margin in the spring and hunting from kayak and motorboat in the summer months.

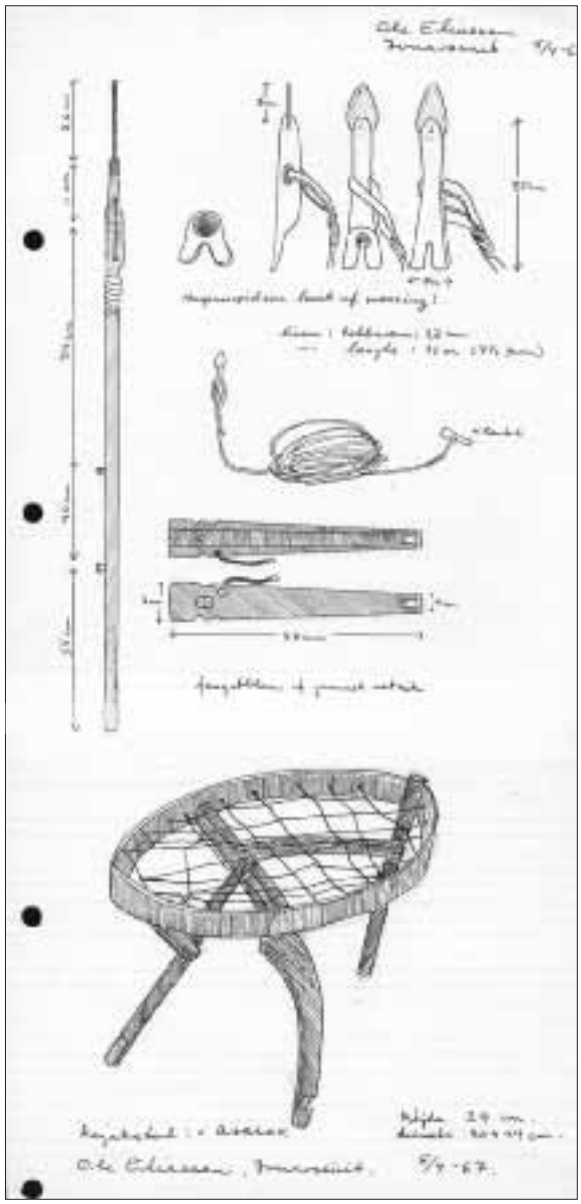

Fig 173. Author's diary sketches from 1967 of Ole Eliassen's hunting equipment.

Fig 174. Bendt Frederiksen with a full-loaded sledge off Nuussuaq, spring 1968. Photo by the author.

Uuttoq hunting with Bendt Frederiksen, 21st-23rd May 1968

After filing the broad iron runners with a metal file, Bendt's sledge is packed and everything is bound carefully with long seal-skin straps. He suggests that on this trip we should use his large solid sledge with 14 of his dogs. As it is decided that we both should try to hunt, a lot of equipment is needed: 1 kayak, 1 tent, 2 shooting sledges with sail, 2 ice chisels, 1 harpoon, 2 large rifles, 1 cal. 22 rifle, 1 shotgun, 2 telescopes, 4 caribou skins (2 as underlays and 2 to keep all the loose equipment together under the bindings), 2 caribou outer jackets, extra seal-skin straps and thongs, 1 reserve dog whip, 1 primus stove, 1 paraffin can and 1 pan. In the sledge bag: cartridges, a file, knives, whetstones, lighters, matches, methylated spirits and two mugs plus a few provisions such as dried meat, ship biscuits, sugar, dried fruit, tea and salt.

On the 21st May we leave at 7 am and head south in good weather and perfect sledge conditions (Fig. 174). We see a few older hunters on their way to and from the ice margin. West of Uummannaq Island, from the top of icebound icebergs, we see through the telescope the first *uuttut* on the ice. Some seals we leave alone as we can see other hunters on their way

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out towards them but Bendt succeeds in shooting three ringed seals while he generously allows me to shoot two. At about 8 pm we arrive at the hunting hut at Kittorsaq where hunters from Kuuk and Tasiusaq welcome us. An ice chisel is used to chop a hole in a solid ice floe through which the front strap of the sledge is passed and secured and the 14 dogs are tethered in the untangled traces at an appropriate distance from the other dog teams. One of the seals is flensed and we share the raw liver with the others. After most of the blubber has been cut off, the seal's skin is folded up and the dogs are fed liberally. The best pieces of meat are, however, carried into the hunting hut to be eaten later for our meal with the others who can contribute whalemeat and *mattak*. The pot is continuously on the boil while hunting stories from north and south fly around in the air. We do, however, get some sleep, eight men together on the plank bed fully clothed with seal skin trousers and kamiks, and with caribou skins under and over us.

On the 22nd May we leave at 7 am and travel about another 10 km south but see no seals in the morning. About noon we find holes in the ice c. 10 km west of the seabird colony of Appaarsuit, where a flock of several hundred guillemots has settled, probably because the ice still lies below the colony itself. We could have shot as many as we wanted but agree to stop when we have 22 birds that Bendt has gathered up from his kayak. Then we decide to turn for home and Bendt gets two further *uuttut* south of Timilersua and Uummannaq. However, in the course of the day we have made so many detours to look for seals that it is first at around 10 pm that we catch a glimpse of one or two lights from the houses in Nuussuaq.

We are between the islands of Miteqqaarfik and Mannilikasak, normally only 1-1½ hours' journey from home, when Bendt points backwards towards the clouds pouring over the hilltops to the south. At a medium-sized iceberg he decides that this is where we will spend the night. The dogs are tethered securely and are fed with yet another seal. The tent is pitched as securely as possible and bound to the sledge with extra straps. The now frozen seals are used to hold the guy ropes and the guillemots hold the tent skirt down against the ice on the inside. Half an hour at the most was what we had to make these preparations before the storm was upon us and shortly afterwards it had created a large crack in the ice 10-20 cm wide. Of course everything could have gone very badly wrong if I had insisted on travelling directly home.

On the 23rd May at around 9 am we hear the barking of dogs. It is the young hunter Thimoteus Løvstrøm who has travelled east along the southern coast of the Nuussuaq Peninsula until he found a safe place to cross the crack. We must travel south of Itussaalik and in towards the glacier in order to be certain of being able to travel home to the settlement. He told us that several hunters had been out on the previous day to look for us. When the wind dropped, he himself had travelled the c. 40 km to tell us how we best could reach home in safety. We were able to cover these 40 km in seven hours including a couple of unproductive detours to look for more seals.

- The first day we travelled c. 50 km and it took c. 13 hours.
- The next day we travelled c. 50 km and it took c. 15 hours.
- The third day we travelled c. 40 km and it took c. 7 hours.

On this trip it was clear that most *uuttut* lay in the triangle between the islands of Kitsissorsuit, Uummannaq and Kittorsaq. As mentioned previously, Kittorsaq has, especially in the spring months, been a very good hunting place since the hunter families first migrated north in the 19th century right up until today.

Hunting from the ice edge, 4th-7th May 1968

The first signs of spring: snow bunting, black guillemot, guillemot, gulls and very large flocks of eider duck. I leave at about 6 am on the 4th May and travel to the west towards the open water. The ice margin out to the open sea is not a straight solid edge, more a series of large and smaller holes in the ice in continuous movement due to the changing weather conditions.

Two hunters have just shot a narwhal, which they lost because they had not harpooned it first. At another hole in the ice I hear that Johannes, Søren, Rasmus and Kunuunnguaq have had much better luck. Together they have bagged a large narwhal, partly from the ice margin and partly from their kayaks. Other hunters have waited days and nights by the holes in the ice, now and then with detours in over the ice after

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Fig 175. Otto Eliasen on the sledge by the edge of the ice, spring 1968. Photo by the author.

uuttut in order to provide food for themselves and the many dogs.

On the 5th May the weather is very warm with rain and sleet and neither seals nor whales show themselves for hours so most of the hunters return home. However, on the 6th May the weather clears up in the afternoon after a strong south-easterly storm and I travel again to the west with six adult dogs and two of the frisky pups in order to train them. At the first hole in the ice I meet Johannes who has just caught a large seal from his kayak and we travel together to a large hole in the ice off Nuussuaq headland where he knew that Peter from Kuuk and Kunuunnguaq from Aappilattoq were hunting. Here Peter has shot an *uuttoq* so we have abundant meat for both the four dog teams and ourselves. We take turns to keep watch and doze a little on the sledges through the night but it is first towards morning that the first narwhal turn up as the ice opens. For a long time we run backwards and forwards along the edge of the ice to come within range but the crack in the ice becomes quickly so broad that several hunters decide to go out in kayaks.

The sharp edge of the ice puts a tear into Johannes' skin-covered kayak. It is pulled up onto the ice, the tear is sewn up and the seam covered with viscous leftover paint brought along for the purpose. After

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Figs 176a and b. Working with the seal nets in deep snow, spring 1968. Heavy, sharpened ice chisels are used to make holes for the nets by a frozen-in iceberg. It is hard work here where the ice is about 1 m thick. After a heavy snowfall it can be difficult to find the netting sites. But if the dogs have run the same route a few times they often find them on their own (Fig 175a). A seal is hauled up and freed from the net that will be laid out again. Usually the net can only be unravelled with bare fingers – cold and unpleasant work in -30° C and a strong wind. Before the seal freezes to a hard clump of ice it is trampled a little with a *kamik* so that it becomes flatter and therefore easier to lash onto the sledge when it is being transported. During the work at the netting sites it is often necessary to unravel the tangled traces from each other (Fig 175b). The net is laid out again and should ideally be checked within a couple of days so that prawns and shrimps do not damage the skin and make the seal bleed which can attract sharks from a great depth. Photos by the author.

some hours the four kayak hunters return with a large narwhal, though without a tusk. Together they tow the great animal, to which they have attached their hunting bladders, into the edge of the ice (Fig. 175). Ole Eliassen shot first, followed by Johannes and Peter, after which Ole, Peter and Kunuunnguaq harpooned the animal. Their shouts 'hy-hy' attract the other hunters and everyone helps to haul the whale up onto the ice. In drifting snow and strengthening wind the whale is flensed quickly and precisely according to the hunting rules. The hunters hand over a large piece of meat with *mattak* and a good quantity of offal to be shared amongst us 'spectators'.

We travel home together with heavily laden sledges leaving two hunters who have borrowed Peter and Kunuunnguaq's kayaks and harpoons. Back at the settlement we are told that Julunguaq and Thimotius also caught a narwhal last night, even though Juulunnguaq lost his harpoon head when the line was severed on the ice.

Netting with Jørgen Aronsen, winter 1967-68

18/12 1967

The temperature has risen to just a few degrees of frost. In clear moonlight with a weak red stripe on the horizon to the south the three hunters Jørgen Aronsen, Jens Thorgæussen, Mathias Halsø and I leave at noon on two sledges, each drawn by 11 dogs. After a difficult journey over land we meet Bendt Frederiksen who is polishing the runners on his upturned sledge. In the past few days there have only been very few seals in the nets (cf. Figs 176a,b). This could be the result of a school of killer whale or walrus around the Nuussuaq Peninsula. Jørgen and Bendt therefore arrange that we will first check some of the nets that have been laid out and then travel west together to look for walrus.

At the first six nets there are two seals in Jørgen's and one in Jens'. We leave the three seals on the ice and pull an iron chain around the catch so that foxes will not gnaw them. Jørgen thinks that the clouds are warning of a storm and soon the heavy sound of thun-

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der can be heard from the hills. We check our nets at Upernaviarsuk but here, as at some nearby icebergs, the nets are all empty. With Bendt we drive the three sledges a way out to sea on very bad, thin and bouncing ice but unfortunately we do not hear the walrus' characteristic puffing. So we turn back and take all the nets up at Upernaviarsuk but secure, however, a further three seals on the way home in the beginning storm.

As we can no longer see the others' hurricane lanterns we reckon that they have also turned for home. We abandon laying new nets and Jørgen and I are home in the settlement again about 10 pm. However, Mathias and Jens are not home until 1 am, after we have been out again for a couple of hours to look for them.

27/12 1967

Jørgen and I set off at 5.30 pm, as even though it is dark around the clock sledging conditions are often better at night when it becomes colder. We travel on a sledge with nine of Jørgen's dogs and two of my still rebellious large pups. At the land route we wait for Jørgen Jensen and Jens and together we check three of my nets, 11 of Jørgen's and three of Jens'. Mine are empty. Jørgen has caught four and Jens one seal. Again we meet Bendt who has caught three seals in four nets by an iceberg. Around midnight Jørgen catches two seals in one net. He opens one of them straight away and serves it raw. Still warm liver with blubber on the ice. Afterwards we travel home in starlit and completely still conditions and are home at about 2 am.

29/12 1967

On the last hunting trip of the year Jørgen and I set off at 10 am on one sledge with eight of his and four of my dogs. We meet several other hunters and spend the rest of the day with Jørgen Jensen and Jens. None of us others is lucky but Jørgen catches three seals, one of which is very large. Towards evening we meet Bendt who has caught nine seals in 13 nets laid out by icebergs. One of our sledge runners splits in the pressure ice and we abandon trying to repair it on the spot. To lighten the sledge we leave the seals, tent, sleeping bags and primus stove etc. on the ice and can with care drive home where we arrive about 10 pm.

2/1 1968

After the hardships of the New Year's Eve celebrations, Jørgen, Jens and I set off in the middle of the day at about 1 pm with two sledges and a total of 17 dogs. My nets are empty but one of them, that is laid by land, is tangled up and ripped to pieces so it has had a visitor. We take the net with us for repairs. Jens catches a single seal and Jørgen four plus the two we had left on the ice when the sledge runner broke. At 10 pm we pitch the tent by a large iceberg, across the two sledges positioned side by side. Jørgen flenses one of the seals and after we have taken the best cuts of meat the 17 dogs are fed with the rest. We chop holes in two frozen-up ice floes for the dogs' traces. The tent is difficult to warm up after lying for several days on the ice. The primus stove hisses all night after we have boiled several pots of seal meat and drunk two pots of tea. We lie on the sledge skins (caribou skins) with all our clothes on but we all have difficulties sleeping in -21° C while the smoke of the primus stove stings our eyes.

After morning tea and ship biscuits on the 3rd January we lay out one of my nets, after which we pack up and travel further out towards the sea to find suitable icebergs. We lay one more net each with some difficulty because the ice is now about 1 m thick. We could not have managed it without the large shovel we had brought along. In the middle of the day it is very light but as darkness falls a slight wind makes it bitterly cold and we therefore decide to head for home. The land route is very difficult, completely iced over and the sledges and dogs slide constantly, even though we try to hold them as brakes behind the sledges. All reach home safely about 1 pm.

By motorboat and kayak in Melville Bay, 22nd-28th August 1968 (Hansen 1970).

Participants: The boat's owner Bendt Frederiksen, Jacob Frederiksen, Jørgen Aronsen and the author.

The motorboat GR. 16-23 is a 22 foot cutter, a so-called 'number boat', acquired in 1958. The three hunters take along their kayaks with full hunting equipment: harpoons with hunting bladders and rifles. Jørgen's kayak is covered with skin whereas the others are covered with canvas. Bendt finished building his new kayak the day before so it is covered and

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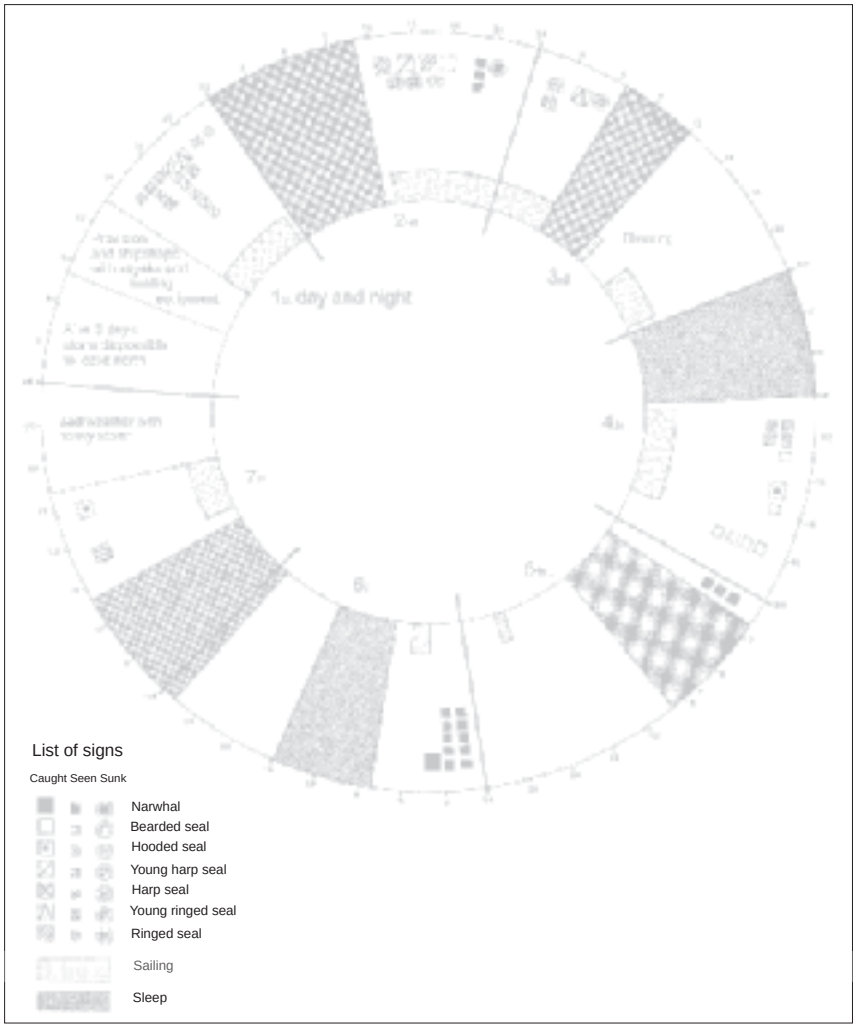

Fig 177. Schedule for the hunting trip to Melville Bay.

painted on the boat's deck during the journey northwards (Figs 177, 178).

A strong northerly wind has delayed our departure for some days but on Thursday 22nd August at about noon we manage to slip out of the little natural harbour with Bendt's wife Marianne, their three children and a young mother from Kullorsuaq with her small child aboard. The weather is still not completely calm so of the many seals observed only a single ringed seal is taken on the way.

23rd August

After spending the night in Kullorsuaq with provisioning the next morning, paraffin, methylated spirits, tea, instant coffee, sugar, brown sugar, rolled oats, a couple of loaves of bread, ship biscuits, a few bottles of household beer (*hvidtøl*), tobacco and ammunition are brought on board. The boat is fuelled up before continuing northwards, leaving behind the women and children. In the course of the first few hours Jørgen harpoons a young harp seal and Jacob a ringed seal from their kayaks (Fig. 179). Only Bendt has the good fortune to shoot a ringed seal from the deck of the boat. The seal does not sink before we manage to get hold of it with a hook. A few seals have, however, sunk before we can retrieve them. This again confirms the effectiveness of the harpoon. It is almost flat calm as we sail alternatively through open water between large icebergs or through thick slush ice. In the course of the afternoon Bendt puts the final touches to his newly made kayak. The canvas covering has had a third coat of white emulsion paint, which renders it completely watertight and resistant to sharp pieces of ice in the water.

A little to the north of the abandoned settlement Qaarusulik a large bearded seal turns up some way

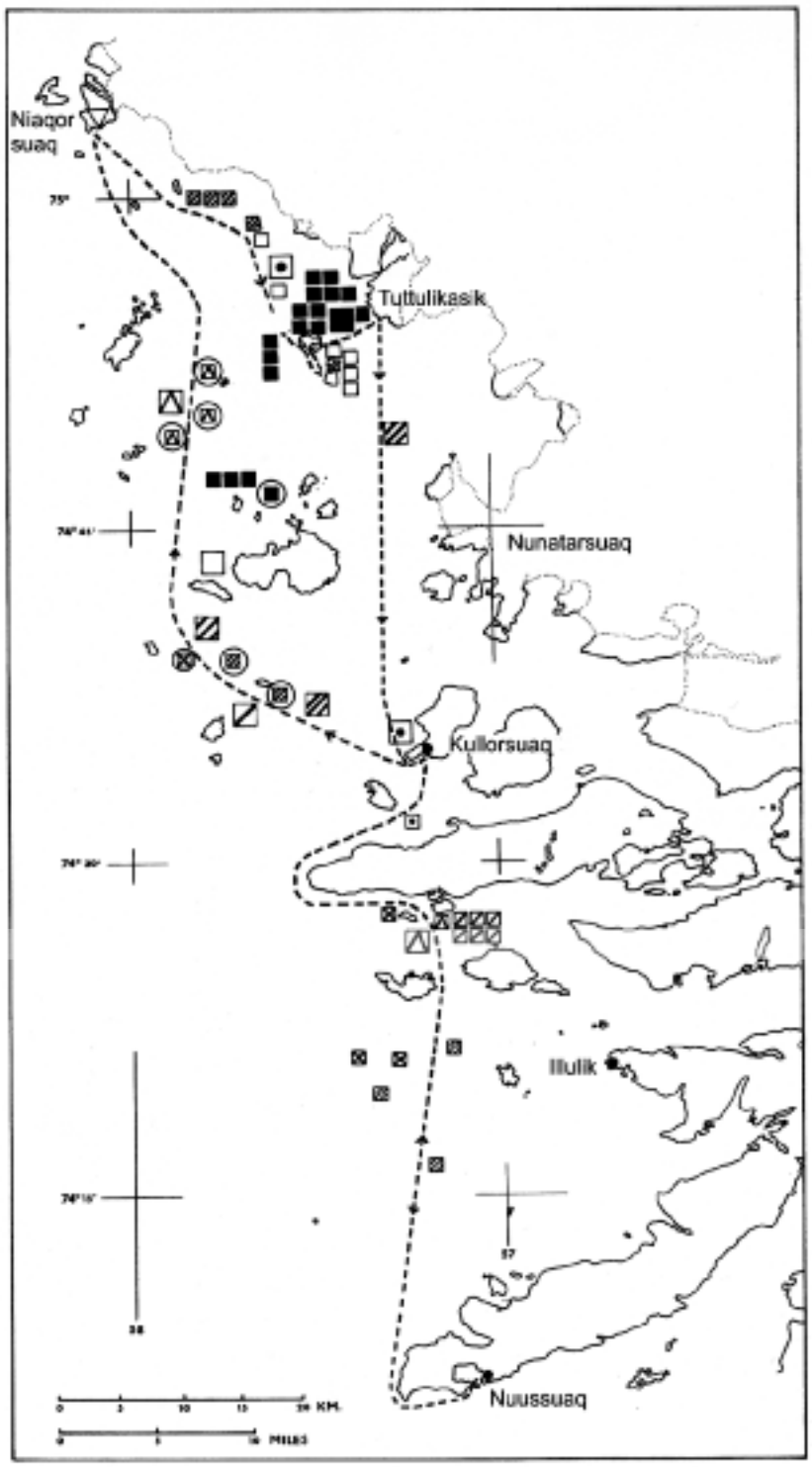

Fig 178. The course sailed on the hunting trip to Melville Bay. See key on Fig 177.

from the boat. In the water even at great distance it is easy to distinguish this from the other seal species as it swims in a virtually horizontally position so both the head and part of the back can be seen at the surface. It is not unusual for these large seals to stay down for 10 to 15 minutes when they dive. As a consequence it is often difficult to pursue the animal in the ice-filled water. After a 30-minute hunt in the kayaks Jørgen manages to harpoon it at a range of a few metres. The harpoon head sits securely under the seal's left front

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Fig 179. Jakob Frederiksen with a harpooned ringed seal. Photo by the author.

flipper. The great animal, which, despite its size does not, like the hooded seal and the walrus, attack the kayak hunter, threshes powerfully on the surface and manages to break the harpoon shaft. The line whips out and soon only the large hunting bladder is visible, which prevents the injured animal from escaping. Bendt arrives just as the seal again breaks the surface. His first harpoon thrust misses its target as the animal dives again but after a few minutes it shows itself again and now both harpoon heads with the line and bladder are secure. A well-aimed shot ends this exciting hunt. With Bendt's paddle resting on Jørgen's quarterdeck they are able together to pull the seal up and tow it over to the motorboat. It measures 2.5 m so several long seal skin straps can later be cut from its skin, while more than 100 kg meat can be stowed in the hold.

At about 8 pm we see three large narwhal gambolling between the icebergs but this could be a much larger school. All the hunters take up the chase in kayaks but several hours elapse before Jacob returns with the happy and long awaited shout: 'Bendti naalqaaq' (Bendt has harpooned). In the distance we hear clearly Bendt's 'hy-hy', the signal that he has secured a narwhal and is asking for assistance. We agree, however, that I should keep my distance with the motorboat for some time yet so as not to frighten the school away. Jacob disappears again in his kayak between the icebergs, after first drawing my attention to a little black dot on an ice floe in the opposite direction. *Imaqa qassimasoq*, maybe a seal that has crawled up onto the ice. 'You could try sailing over there for a look'. About 100 m from the ice floe it is, despite the twilight, clear in the telescope that it is a large male hooded seal, taking an evening nap outside its element. After shutting off the engine about 50 m away, with my finger on the trigger I have to mimic the seal's characteristic bark in order to wake it so as to be sure to hit with the first fatal shot to the head. As I abandon the idea of manhandling the large heavy seal alone down onto the deck of the boat I decide to let it lie until I have found the two others.

Events have taken a less fortunate turn with regard to the narwhal. Jørgen has, uncharacteristically, missed with his harpoon while Bendt, from a range of 3 m, has harpooned a very large male which responds by disappearing in the ice with the harpoon head, line and hunting bladder. We search for the hunting bladder for a long time in the ice-filled water but as it becomes very dark around midnight we unfortunately have to give up. After collecting the hooded seal from the ice floe we set course towards north. Here three small ringed seals sink before we can reach them, whereas we manage to haul one on board.

At night at these latitudes, even at this time of the year, progress is slow. The boat must weave between large icebergs, burst through thick slush ice or cut a path through 2-3 cm-thick new ice.

At 6.30 am we eventually reach our destination Niaqorsuaq, a fairly large island close to the Inland Ice. This place is known for its great migrations of narwhal and on the beach two hunters from Illulik had shot three polar bears a few days previously. We drop anchor and a short visit to the shore reveals innumerable whalebones from previous flensings.

24th August

At noon the boat is moved in hard against the flat rocky beach where the flensing is to take place. The hooded seal is quickly slit open along its length and soon the dark-spotted skin is lying on the rocks. The bearded seal, however, takes significantly longer as it is flensed in rings of about 0.5 m in breadth. Later, on returning home, these will be cut into straps and thongs. In the course of a couple of hours the animal has been cut up and laid on top of the small seals caught previously. Flensing these is normally women's work but so as not to destroy the skins with dried blood and the great quantities of blubber in the hold the hunters must manage this part of the work themselves when they are away for several days.

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The main meal of the day is eaten on the rocks. It comprises large pieces of undigested white Greenland halibut from the inside of the hooded seal, the seal's strong tasty meat, four bottles of the household beer (*hvidtøl*) we had taken along with us, numerous mugs of coffee, and tobacco. From 5 to 11 pm we sail along the glacier on constant watch for seals and narwhal but to no avail. Therefore we drop anchor in a little bay in order to rest fully for the next day.

25th August

Eventually calm and wonderfully sunny at about 9 am. Even here the slopes are unbelievably fertile with masses of crowberries. From the island's highest point we gain an overview of the ice formations and then raise the anchor and set course south. The hunt gets off to an unfortunate start as four ringed seals and two bearded seals disappear in the ice. First at about 4 pm Jørgen spots yet another hooded seal on an ice floe and it is easy prey for the three kayak hunters. With three rifle shots and a well-directed harpoon they secure yet another large skin and over 100 kg of meat.

At about 8 pm we drop anchor beside the factor's large cutter from Kullorsuaq, off the island of Aavilikassak, where we are invited for coffee and ship biscuits. In Melville Bay one can feel oneself alone in the middle of the wilderness, miles from the nearest people. Then one finds a factor and his family, six kayak hunters and a further two women, each with a flock of children. Here we wait as hunters have waited for as long as anyone can remember for the narwhal migration, which passes the island every year at this time. Children and adults talk, play and enjoy each other's company until that moment when everything suddenly becomes deadly serious. A shout from a hilltop: *anileqaat* (narwhal from the east) or *pulaleqaat* (narwhal from the north) immediately transforms the playing and sleeping men to expectant and hopeful hunters. As quick as lightening they push their kayaks into the water and then quickly disappear between the icebergs.

This time, shortly after arrival, it is four bearded seals that have drawn six hunters into their kayaks. They all return after a couple of hours, though without a catch.

Around the heather fire and the murmuring kettle they all discuss enthusiastically and with expressive hand and arm movements how unlucky each of them was. Only Bendt, contrary to his normal practice, does not take part in these social activities. From the cabin of the motorboat can be heard, hour after hour, the piercing sound of a file. Before the narwhal arrive this must transform a piece of brass from the boat's old propeller shaft into a new harpoon head.

In the large tent the 70-year-old Martin from the settlement of Nutaarmiut entertains those gathered there with stories, string figures and card tricks. This Martin has, despite his age, no difficulties in looking after a fishing- or shark line and a few seal nets in winter. Therefore it is no surprise to anyone to find him so far north with his kayak and full hunting equipment.

26th August

We wait all day in vain for the migrating narwhal so we decide to move the boat over to the neighbouring island while the people from Kullorsuaq pass the time by throwing stones, pulling fingers, telling stories etc.

On the neighbouring island three grouse, killed with thrown stones, end up in the pot and are eaten as a kind of starter for the subsequent boiled seal meat. We think all the time that we can hear the whales blowing but because of the fog and the large quantities of ice it is impossible to see the dark animals in the water. Jørgen and Bendt leave anyway in their kayaks and at 3 am Bendt finally turns up and tells that he has caught a large narwhal with tusk. We are quickly over to where Jørgen is waiting with the dead male narwhal, to which his hunting bladder is secured. We take the catch in tow, securely bound to the side of the ship, and we moor for an hour or so by the other's camp where the three hunters who are awake are invited on board for *mattak*, coffee and tobacco. We think we have been friendly but the three are clearly not happy with the fact that we do not intend to flense at the beach below their tent which would give them a not inconsiderable part of the catch as 'catch shares'.

We moor the boat over by the large peninsula Tutulissuaq where the narwhal, the bearded seal and the hooded seal are pulled up at high tide onto the rocks on a small promontory using the motorboat. Soon large piles of meat lie scattered on the rocks, a pile for each man. The narwhal head with the tusk belongs of course to Bendt who harpooned the whale alone. Similarly, the greater part of the meat and *mattak* goes in the same pile, as he is the boat's owner. By

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8 pm everything has been stowed in the hold and we lie down in order to sleep.

27th August

All day the kayak hunters search a large area but unfortunately without luck. Now and then they return to the boat to stretch their legs, eat, drink tea or coffee, and to smoke. Almost all the talk is of the animals in the water and hunting. The best hunters consider it almost a sport even though it is not without its dangers. The narwhal's enormous strength is not to be trifled with when one finds oneself in a fragile kayak. Added to this is the risk of loosing harpoon head, line and hunting bladder, which both Jørgen and Bendt have experienced several times in recent years. Sometimes in a narwhal school they are able to choose the largest and most impressive male with the longest tusk and so concentrate exclusively on this one animal as they manoeuvre the kayak between the other animals.

28th August

We awaken to sunshine but as the wind is beginning to gain in strength we raise anchor at 9.30 am and set sail on a course for the south. On the way we shoot and secure a large ringed seal from the boat but shortly before Kullorsuaq we see through the telescope a large hooded seal in the water. Jørgen and Bendt are quickly out in their kayaks. The seal dives and stays down a very long time. All the time they are able to work out where it will surface next. A usual hunting method is to shoot with a cal. 22 close to or just over the seal, which usually causes it to dive immediately. In this way it is prevented from breathing out properly and filling its lungs again sufficiently.

The hooded seal surfaces suddenly about 30 m in front of Jørgen's kayak. It is clearly annoyed about still being chased, and as a result it decides to attack. Calmly, with powerful strokes, Jørgen steers towards it and at a range of a few metres harpoons it. The line rolls out and the hunting bladder is pulled under the surface of the water for about five minutes. But as the water is almost ice-free here the bladder is then easy to follow. Two shots sound almost simultaneously from cal. 22 rifles as the seal surfaces again. Once more we are made aware that four is absolutely not too many when hauling so large an animal up onto the deck of the boat.

Around 4 pm we moor the boat again at Kullorsuaq, shortly before a new storm breaks loose. We lie down for a couple of hours, eat our fill of raw seal liver and blubber and a pot of boiled seal meat. Then on to coffee, tea and *immiaq* in several houses and we end the evening dancing in the village hall to Jonas' excellent accordion playing.

We are then stuck for several days due to the storm. In order that the seal skins will not be damaged some hunter's wives offer to scrape them for us.

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Appendix 2

Examples of polar bear hunts

The following seven examples of polar bear hunts are accounts given by hunters in Nuussuaq in the winter of 1967-68:

Example 1

In April 1960 Kasper Jensen was alone *uuttoq* hunting off the island of Pukuluffik where he caught sight of a bear in the pressure ice. He first let two of his nine dogs loose, then a further four and finally the last three. His dogs were not trained for bear hunting but they all took up the chase and surrounded the bear. Kasper had left home at 8 am and returned again at 4 pm with the bear and a seal. He himself, his two little sons and his brother Jørgen Jensen, all received trousers made from this bear skin.

Example 2

In April 1961 Jørgen Aronsen, Johannes Jansen and Søren Villadsen found themselves a little to the north of the Eider Islands. After several hours' chase they caught up with a large male bear, which the dogs surrounded far out on the sea ice (when the hunters talk of a place 'far out to sea' it means that they are somewhere where they do not have a landfall). Two of the hunters shot the bear, after which all three shared the meat and the 2,000 DKK, which the skin gave when sold to KGH, The Royal Greenland Trade Department.

Example 3

In April 1961 Bendt Frederiksen and the Kullorsuaq hunter Jørgen Hansen followed and shot a large male bear far to the west. The two hunters had hunted together for a number of years when the Frederiksen family lived in Kullorsuaq. On this occasion they drifted away for a whole week on a large ice floe, from which they managed to catch two seals in the water. They managed to reach land and save themselves by driving the two sledges a long way over new ice.

Example 4

In April 1961 Johannes Jansen and Søren Villadsen shot a large female bear with a cub northwest of the Eider Islands. They shot a bear each and each kept the skin and meat from their respective bears.

Example 5

In April 1961 Jørgen Jensen shot a male bear at Qeqertat east of the Eider Islands, about 10 km west of the settlement. He was alone *uuttoq* hunting but when he was close to the bear he saw his brother-in-law Peter Heilmann approaching on a sledge from UummannaqIsland. He waited therefore and did not shoot the bear before his brother-in-law had gone off in another direction. The bear had crawled up onto an iceberg and he shot and missed twice before he hit and killed the bear. His brother-in-law is said to have thought it very funny when he was told the story that evening.

Example 6

In April 1962 Bendt Frederiksen, Johannes Jansen and Jørgen Villadsen caught a female bear. It had escaped from Johannes and Søren who were hunting together, but Bendt met them by chance and he caught up with the bear and killed it. The two others arrived about half an hour later but they all three shared both the meat and the skin.

Example 7

In April 1966 five hunters, Markus Eliassen, Johannes Jansen, Søren Villadsen, Markus II Hvalsø and factor Rasmus Jørgensen, discovered a female bear with two cubs immediately west of Nuussuaq headland. A total of 42 dogs surrounded the bears but the female bear

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managed to escape whereas Jørgen and Markus shot the two cubs. All five shared the skins and the meat.

The circumstances in which bears were caught in examples 1 and 5, where Kasper and Jørgen Jensen respectively were the only ones to have the catch, are different from the other examples. In both cases the hunters were *uuttoq* hunting when they came upon bears by chance. The bears were then shot after a short chase. Both hunters told how uncertain they had been in that situation, about the bear and, especially, about how their dogs would react.

Example 7 can be partially compared with the above, even though two of the hunters involved had previously shot several bears. Their expertise was, however, not exploited which resulted in the adult bear managing to escape. The two examples illustrate that the bear usually comes to the hunters rather than the other way round. The scene had seemed rather panicky, with the use of the many un-tethered dogs and the five hunters who by their own account had difficulties in agreeing as to who should shoot.

Under normal circumstances a hunter confronted with a game animal with young will either let the animal go or first kill the mother. This is, for example, the case with white whales shot from the ice margin because it is said that a young animal will always stay with its mother even after she has been killed. However brutal this may appear to outsiders, it has to be admitted that a young animal would anyway be unable to survive without its mother in these surroundings.

In contrast to the above, the four other accounts are examples of how bear hunts normally take place. Two or three hunters plan a trip and reckon on being away some days. However, as the hunting returns show, hunters from Nuussuaq shot no bears in the winter of 1967-68, even though old tracks were seen on several occasions. One of these tracks led north in the head of the fjord complex close to the Inland Ice, whereas most of them were found west of the Eider Islands. Jørgen Aronsen and Bendt Frederiksen decided therefore at the end of March to take two of the younger hunters, Poul Heilmann and Jens Thorgeussen, with them on their sledges and travel west to look for bears. They left on the morning of the 25th March but returned home with empty sledges on the 28th March in the evening after Bendt had shot a single seal at a breathing hole. They had followed some fresh bear tracks but some kilometres north of the Eider Islands they were halted by a broad crack in the ice with open water.

This trip involved four hunters and produced no catch. In the light of the fact that they could have spent this time checking the many seal nets that had been set out it could perhaps be seen as a waste of effort, but the hunters perceived it quite differently. They had all had a wonderful trip during which the two prospective 'bear hunters' had gained a wealth of experience by following the seasoned hunters. They had had a much-needed diversion from the rather tedious netting and the possibility that a bear could have turned up behind the next ice pack was constantly present. A bear skin would have brought them 2,000 DKK, but there would not have been much of the c. 120 kg meat from the bear to take home if the hunters and the 28 dogs were to have been fed adequately. The hunters' decision to turn for home in time proved in the following days to have been well grounded. On the 30th and 31st March a strong easterly wind of 5 knots caused broad cracks to form in the ice. This could have made it very risky to travel over the sea ice so far to the west.

A similar example of a bear hunt without a catch took place at approximately the same time. Two hunters from Innaarsuit, after following fresh bear tracks for several days, had to give up the chase a little to the north of Nuussuaq. As they had not caught any seals on the way they arrived at Nuussuaq very exhausted and chilled with hungry, worn-out dogs. The reception they received in Nuussuaq, with generous feeding of the dogs for two days prior to their departure for home and the holding of a *dansemik* in the village hall, showed that none of the local hunters considered it inappropriate that the two hunters from the south had entered their hunting territory.

In none of the seven examples of bear hunts did the informants mention that the situation had been dangerous. One could say that the people involved were fortunate when one hears about earlier episodes. One example of a bear hunt, where the hunter first after many hardships and with the loss of half his dog team manages to kill the bear is to be found printed in *Avangnâmioq* 1949 where Martin Nielsen tells of Pângo and his family. Here there is an account of how Pângo, after becoming an adult and getting married, travelled north from their settlement, which lay at Ta-

siusaq, sometime in the middle of the winter. He used 10 dogs for bear hunting which he found adequate as they were trained to hunt bears, unfortunately without us being told how.

After his dogs had found the scent of a bear he followed the tracks and loosed the usual dogs. At this point he was, however, not aware that the bear was both very large and very hungry. Later he let off more of the dogs and eventually, when he could see his prey, he loosed the last of them.

The first dog that attacked was killed immediately and eaten by the bear. At the same time Pângo's flintlock musket failed him because the powder just burned out without exploding. The bear continued to attack the dogs so Pângo could see no alternative to fleeing on foot and running home, a distance of about 10 km.

The next day he set off with one of his housemates and when they reached the spot the bear was still there and by now it had killed and partially eaten half of the dogs. Pângo who, with a certain justification, maintained that the bear must be considered to be his, demanded to shoot first and he killed the bear with his first shot. This bear story ends with the account of how the other hunter returned home first to the worried members of the settlement and decided to tease them before they received the happy news. He told them that the bear had eaten all the others and that he was the only survivor. All cried and complained until he told them that he only wanted to tease them a little and that Pângo had shot the bear. This was a great source of amusement, also on the next day when they relived the events of the previous day.

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Appendix 3

Two examples of walrus attacks on kayak hunters

Saanniartoq, the one that turns against one, is what the Upernavik hunters call the deadly dangerous red or red-brown walrus (Hansen 1995). By all accounts it has a large number of dead hunters on its conscience (Figs 180a,b). A couple of examples with fortunate outcomes are given here:

Around 1960 Johannes Jansen had caught a small seal at the ice edge off Nuussuaq which he collected in his kayak. As he stood bent over at the edge of the ice in order to pull the seal and his kayak up onto the ice, a large red walrus turned up at great speed and drove the end of one of its great tusks through the seal and the other into Jørgen's back. But as one of the hunters present remarked, Johannes' skin was fortunately tougher than that of the seal and they managed to pull him up onto the ice. They actually thought he was dead but it turned out that the violent blow had only rendered him unconscious. The walrus turned up a moment later with the seal in its grasp and they thought that it looked as if it grinned at them as it disappeared with its prey. Johannes made a full recovery after the doctor had patched him up and he was able to continue his occupation without any after-effects.

Everything suggests that a walrus fears nothing and that he or she is always ready for a fight even against the most superior of opponents. Accordingly, some hunters have seen a solitary walrus attack a school of killer whales. It managed to spread the group after which it dived. When the largest of the killer whales came into sight again at the surface the walrus was hanging on its back with its tusks bored into the animal's back.

Peter Heilmann told of yet another walrus attack with a happy ending, in which his brother Jonathan had taken part. In May 1958 four kayak hunters were out in the Davis Strait when a large walrus with long tusks attacked one of them. The powerful animal overturned the kayak hunter but miraculously he managed to wriggle out of the kayak under water and

Figs 180a and b. Walrus attacking kayak hunters. Drawings by Jeremias Karlsen, Upernavik 1967.

hold tight onto the foremost cross-strap on the deck. Together, the three other hunters managed to kill the walrus and when they hauled the lifeless hunter up they could see that the walrus had pierced the kayak from below with its teeth just by the cockpit. They brought both man and kayak to the edge of the ice by lashing them across two of the kayaks. Once on the ice they laid the man in their tent.

In this case too they were convinced that he was dead and therefore they sat outside the tent on one of the sledges for six hours because none of them wanted to go home and tell the bad news. However, just as yet another pot of coffee was finished over the primus stove 'the deceased' had stuck his head out of the tent and asked for a mug of coffee and a cigarette.

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Appendix 4

Women as hunters

Both in Greenland and Arctic Canada there are exceptional examples of female hunters, both as eyewitness accounts and in myths and legends (Hansen 1986:11). From Upernavik district Marteeraq, Martin Nielsen, tells of a hunter who at the end of the 19th century trained his eldest daughter as a hunter. With regard to Pângo and his family the story goes that:

'The eldest sons in the family were great hunters but they had left home and therefore the father taught the family's eldest daughter to drive a dog sledge. At first she caught sea scorpions and Greenland halibut but after a while became an excellent shot and sometimes came home with both birds and seals. The girl's name was Elisabeth but was known as Arnaviaq, daughter of Ersatoq. One day when he had caught a large narwhal at the ice margin he drove home to fetch his daughter so that she could help him to transport the meat home. Arnaviaq took her younger brother, who had just begun to use firearms, along with her on the sledge.

While they were flensing the narwhal they caught sight of a school of white whales which was approaching them along the edge of the ice and when they came into range Ersatoq shouted that they were to shoot the nearest, a completely white whale, next time it surfaced. Arnaviaq shot first and her younger brother's shot hit just after. The white whale surfaced with its front flippers uppermost and when Ersatoq harpooned it from his kayak he could see that the whale was already dead. In the middle of their jubilation at the catch they saw a sledge approaching and the proud father ran to meet it shouting, "Arnaviaq has shot a chalk-white white whale. She shot it together with her younger brother."

This made Arnaviaq ashamed. What would people in the neighbourhood think when they heard that a woman had shot a white whale, how strange it would sound. She sat down on her sledge and cried.

Later, however, she married a great hunter and she stopped hunting. But it is said that after she was widowed she began to hunt and fish again. She benefited from that which she had learnt in her youth until shortly after the turn of the 18th century when she became a midwife' (Nielsen 1949, translated from Greenlandic to Danish by Robert Petersen).

There is nothing in this account to suggest that the father did not train his daughter in exactly the same way as his sons. Unfortunately there is also nothing in the story about whether the girl was accordingly excused from the training girls were normally given in household work, flensing, scraping skins, sewing etc. However, the fact that she married a great hunter is unlikely to have been due to her prowess as a hunter but more probably because she could, at the same time, manage those duties required of the great hunter's wife.

Her whole attitude to her hunting, and the decreased chances of being married associated with it, are perhaps an explanation for why there are so few widely known examples of female hunters. As long as knowledge of the girl's role stayed within the family, and was not known outside the settlement, she probably thought no more about it, especially as she did as her father wished.

In 1968 hunters from Nuussuaq and Kullorsuaq told that two elderly women, Dorte Pjetturson at the settlement of Illulik and Signe Petersen from the settlement of Qaarusulik, had both shot bears and caught a number of seals from kayaks in open water and from the ice.

When I had the opportunity to visit Dorthe and her husband Esaias in Illulik they both confirmed that what I had heard was true. Dorthe did, however, emphasise that she had always first and foremost taken care of the work at home with flensing seals, scraping skins and keeping house but with a smile she added that going hunting was undeniably more exciting. And when Esaias later went over the ice to his long line she told me:

'You can probably see that Esaias is almost blind and he can unfortunately no longer shoot a seal on the ice.

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Fig 181. Signe and Jonathan Petersen with their foster son Gert Ville, Kullorsaq 1956. Photo by Jette Bang/Danish Arctic Institute.

One day I saw in the telescope here from the window a large ringed seal that had crawled up onto the ice. Esaias took the rifle and crept up on it. But he shot and missed and the seal disappeared into its hole. He then leaned the rifle up against an ice floe and continued on to his seal nets. Later I looked out for him but could not see him. I could, however, see that the seal had crawled out of its hole again. I crept out there, shot the animal, which was a large old male. It was only with great difficulty that I was able to drag up here to the house. You can bet Esaias was surprised when he came back empty-handed and the seal lay on the floor. Since then we have laughed a lot about the story. I don't remember how I caught my first seal but it is many years ago and I think that Esaias and I have always helped each other in this way.'

Later I visited Signe and Jonathan Petersen in Kullorsuaq. They had moved there as they felt that they had become too old to continue in their isolated settlement of Qaarusulik at the entrance to Melville Bay. Jonathan is known as one of the greatest of the district's great hunters and bear hunters. Signe said that it was correct that she had shot a few bears but she emphasised that she was definitely not a bear hunter on those grounds. She had often been with Jonathan on bear hunts but it was always him, the great bear hunter, who had given chase with the dogs and caught up with the bear in order sometimes generously to allow his wife to shoot the prey. 'And that means only that I can shoot and hit the target – not that I am a hunter.'

Signe also told that she first and foremost had taken care of her duties as a hunter's wife but that when a man and wife lived as isolated as they had done they did not on a daily basis think so much about who did what. She was of the opinion that it probably had always been like this (Fig. 181).

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Appendix 5

List of Greenlandic words in the text

Aalaat	Ret m. bær, sælblod og spæk	Dish with berries, seal blood and blubber boiled together to form a mass
Aamaruutissaq	Kulstykket (her hundenavn)	The piece of coal (dog's name)
Aappaluttuaqqat	Tue Limurt	Moss Campion
Aappilattoq	Det røde fjeld (stednavn)	The red cliff (place name)
Aaqqat	Vante	Mitten
Aaqqati	Den med vanter (hundenavn)	The dog with gloves
Aaqqigiffik	Midten af harpunspids mellem de to linehullser	The middle of a harpoon head between the two line holes
Aariagutaa	Den del af hundesele som hviler på hundens nakke	The part of the dog harness which rests on the dog's neck
Aarluarsuit	De der hopper (snorefigur)	Those who jump (string figure)
Aarluk	Spækhugger	Killer whale
Aarneq	Krybefangst	Stalking
Aataanngulersoq angutiviaq	Han grønlandssæl, der er ved at blive sortside	Male harp seal about to be black-sided
Aataaq	Sortside (også hundenavn)	Harp seal (also dog's name)
Aataarsuaq	Fuldvoksen sortside	Full-grown harp seal
Aaveq	Hvalros	Walrus
Ajaappiaa	Støtte for linestativet på kajak	Support for line rack on a kayak
Ajaaq	Tværtræ på kajak	Cross-beam in a kayak
Ajagaq	Gribespil	Ring and pin game
Ajaraarnit	Snorefigurer	String figures
Ajoqiuneq	Overkateketen (her hundenavn)	The head catechist (here dog's name)
Akiarsarneq	Nordøstenvind, egtl. vinden fra den anden side	Wind from northeast (literally, the wind from the other side)
Akimmiffik	Skaglespænde	Trace buckle
Akit	Kajakstøtte forrest på slæde (egtl. hovedpude)	Kayak rest in front of sledge (literally pillow)
Akunnattoq	Ung hvalros, som endnu ikke er blevet voksen	Young but not full-grown walrus
Akunnequt	Afstandsstykke	Spacer
Akussinneq	Systing til vandtæt sælskind	Darning stitch used for watertight seal skin
Aleq	Harpunline	Harpoon line
Alerseq	Inderkamik (sok)	Inner kamik (sock)
Allarterut immiit	Rensestok til riffel	Cleaning rod for a rifle
Allattooq	Blåside	Young harp seal
Allattuuaraq	Ung Blåside	Very young harp seal

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Alliaq	Bundskind i umiaq	Bottom skin in an umiaq
Allu	Sælers åndehul	The seal's breathing hole
Allunaasamik noqqunneq	Tovtrækning	Tug of war
Allusiorneq	Fangst ved sælernes åndehuller	Hunting at the seal's breathing holes
Aminnguaq	Det lille skind (hundenavn)	The little skin (dog's name)
Amitsorsuaq	Den store smalle ø (stednavn)	The large narrow island
Amitsorsuup sullua	Den store smalle ø's pust	The large sound at Amitsorsuaq
Amitsuaq	Sidelægte i umiaq	Side batten in an umiaq
Ammassak	Lodde	Capelin
Angajullersuaq	Den ældste grønlandssæl	The oldest harp seal
Angakkoq	Åndemaner	Shaman
Angisoq	Stort handyr	Large male animal
Angisorsuaq	Meget stor han-isbjørn	Very large male polar bear
Anguigaq	Lanse	Lance
Angusaq	En skudt og hjembragt sæl	A seal shot and brought home
Angussuaq	Den store dreng (hundenavn)	The big boy (dog's name)
Angut akunnattorsuaq	Middelstor klapmyds-han	Medium-sized male hooded seal whose smell disappears in autumn
Angutikassak	Den stakkels dreng (hundenavn)	The poor boy (dog's name)
Anileqaat	Hvalerne søger ud af fjorden eller vigen (udråb)	The whales are seeking out of the fjord or the inlet (a shout)
Anineq	Nyfødt sæl der har forladt fødehulen	Newborn seal (pup) that has left the cave where it was born
Annoraaq	Anorak	Anorak/parka
Anoritooq	Det stormfulde sted	The stormy place
Anu	Hundesele	Dog trace
Appa	Lomvie	Guillemot
Apparsuit	Lomviefjeld (stednavn)	Guillemot cliff (place name)
Appalisiorfik	Stedet hvor man søger efter lomvier (stednavn)	The locality where you look for guillemot (place name)
Apummak	Rælingsbrædt i kajak	Sheer board in a kayak
Aqajarortortoq	Indvoldsædersken (snorefigur)	The stomach eater (string figure)
Aqisseq	Fjeldrype	Ptarmigan
Aqoq	Agterstævn i umiaq	Stern in an umiaq
Aquut	Styreåre i umiaq og kajakror	Rudder oar in an umiaq and kayak rudder
Arfivik	Grønlandshval	Greenland whale
Arlaanisaq	Et dyr i andet leveår	Animal 1-2 years old
Arnaq	Kvinde (bruges om fuldvoksen sæler)	Woman (female full grown seal)
Arnaruseq	Gammel steril hun-remmesæl	Old sterile female seal
Arnatut angitigisoq	Isbjørnehan på størrelse med en hunbjørn	Male polar bear of the size of a female bear
Arsaanneq	Boldleg, fodbold	Ballgame, soccer
Arsaaqqat	Redskab til kraftprøver	Piece of equipment used to train up muscles
Arsaaraq	Benknap bl.a. på bugserrem i kajak	Bone button amongst others on a towing line

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Asallut (pl.)	Linestativ på kajak	Line rack on a kayak
Asineq	Den der holder dem adskilt på hundeselen	The one which keeps them apart on the dog harness
Assagiikkut	Harpunholder på kajak	Harpoon support on a kayak
Assarneq	Østenvind (egtl. den der slår)	East wind (literally, the one which strikes)
Assoruunneq	Kraftprøver med fingrene	Training up finger strength
Assuutit (pl.)	Festdragt	Festival costume
Ataa	Underside	Under side
Ataasialik	Sort, mands festkamik med hvid stribe	Black, man's festival kamik with a white stripe
Asuki	Det ved jeg ikke	I don't know
Atertalik	Hun-isbjørn med unge	Female polar bear with cub
Atertaq	Lille isbjørneunge som har forladt fødestedet	Little polar bear cub that has left the cave where it was born
Atisat	Klædedragt	Clothing
Atunngerneq	Det at sy sål på en kamik	Sewing on a kamik sole
Avallersuit	De yderste øer (stednavn)	The outermost islands (place name)
Avangnâmioq	Tidligere avis for Nordgrønland	Former newspaper in Northwest Greenland
Avannaa	Nord	North
Avannaata kangia	Nordøst	Northeast
Avannaata kitaa	Nordvest	Northwest
Avannaq	Nordenvind	North wind
Avannarleq	Nordlandet	Northern land
Avataasaq	Bugserblære	Towing bladder
Avataq	Fangstblære	Hunting bladder
Aviortoq	Voksen han-remmesæl	Adult male bearded seal
Avittarneq	Systing eller dét at sy skindbroderi	Skin embrodery stitch or sewing
Avittat	Skindbroderi	Skin embrodery
Eertarpoq	Giver signal ved narhval- og hvidhvalfangst, råber om hjælp	Signal when narwhal- and white whale hunting, shouts for help
Eqalugaasaq	Polartorsk	Arctic cod
Eqaluk	Fjeldørred	Char
Eqalussuaq	Havkal (haj)	Greenland shark
Eqalussuarniarneq	Hajfiskeri	Shark fishing
Eqalussuarniut	Hajline	Shark fishing-line
Eqeqqoq	Lillefinger	Little finger
Eqitaq	Redskab til kraftprøver	Piece of equipment to build up strength in the fingers
Eqittartoq	Aftrækker på riffel	Trigger on a rifle
Equttooq	Ung isbjørn 1-3 år gammel	Young polar bear 1-3 years old
Erlaviit	Indvolde, tarme	Bowels and intestines
Ernannaq	Vingeharpun	Winged harpoon
Hy-hy	Signal der tilkendegiver, at en fanger har harpuneret et stort fangstdyr	Signal which signifies that a hunter has harpooned a big animal

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Igimaq	Forskaft til harpun, men også den specielle Thuleharpun	Fore-shaft for harpoon but also the special harpoon used by the Polar Eskimos
Iginneq	Ret m. bær og selvløbent spæk	Dish with berries and runny blubber
Iigartarfik	Lændestøtte i kajak	Back support in a kayak
Iju-Iju	Signal til hunde (mod venstre)	Command to the dogs (turn left)
Ikerasaarsuk	Det mærkelige sund (stednavn)	The strange sound (place name)
Ikerasakassak	Det lille sund (stednavn)	The little sound
Ikermiorsuaq	Den store ø i sundet (stednavn)	The large island in the sound (place name)
Ikermiut	Folket ved mundingen (stednavn)	The people at the mouth of the fjord (place name)
Ikia	Upernavik Isfjord (stednavn)	Upernavik Ice Fjord (place name)
Ikersuup Sermersua	Fjordens store bræ	The fjord's large glacier (place name)
Ikkarlukassak	Det lille skær (stednavn)	The little skerry (place name)
Ili-Ili	Signal til hunde (mod højre)	Command for the dogs (turn right)
Ilisserineq	Udskæring af sælskind	Cutting out seal skins
Illaalik	Drægtig sæl	Pregnant seal
Illaaq	Ufødt sæl	Unborn seal
Illerfik	Kisten (stednavn)	The chest (place name)
Illerfiup Akersua	Den anden side af kisten (stednavn)	The other side of the chest (place name)
Illerfiup Qeqertai	Kistens øer (stednavn)	The chest's islands (place name)
Illukassak	Det sølle hus (stednavn)	The poor house (place name)
Illulik	Stedet med huse (stednavn)	The place with houses (place name)
Illulissuaq	Det store sted med huse (stednavn)	The big place with houses (place name)
Ilua	Det indre (stednavn)	The inner region (place name)
Imanersarsiorneq	Fangst ved våger	Hunting at openings in the ice
Imassaat	Patron	Cartridge
Immaqa	Måske	Maybe
Immersarfik	Magasin til riffel	Magazine for rifle
Immiaq	Øl	Beer
Inalugaarsuk	En dans	A dance
Innaarsussuaq	Den store stejle klippevæg (stednavn)	The large steep cliff (place name)
Innanguaq	Den lille stejle klippevæg (stednavn)	The little steep cliff (place name)
Innarsuit	De bratte klipper (stednavn)	The steep rocks (place name)
Innerfik	Tørreramme	Drying frame
Innitsiaat	Flammerne (snorefigur)	The flames (string figure)
Inussuk	Varden (stednavn)	The cairn (place name)
Inuusaq	Dukke	Doll
Ipeq	Den beskidte (hundenavn)	The dirty one (dog's name)
Iperaataq	Hundepisk	Whip
Iperariarpallanneq	Lyden af piskesnerten	The sound of the whiplash
Ipu	Piskeskaft eller støtteben til linestativ	Whip handle or rest for line-support
Ipuserfik	Årestrop	Oar grommet
Iput	Åre	Oar
Iputip mulinga	Åreblad	Oar blade
Isarussat	Snebriller	Snow goggles
Issoraq	Tofte	Thwart

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Iteq	Anus (snorefigur)	Anus (string figure)
Iterlassuit	De store indsænkninger	The large bays or inlets
Itsuartorniarneq	Kiggefangst	Peep hunting
Itussaalik	Overbæringsstedet (stednavn)	The place where boats etc. are carried across (place name)
Ivigaq	Fjeld-festgræs	Alpine holy-grass
Kakiak	Lyster	Leister
Kakkissartaq	Tørklæde-dansen	The scarf dance
Kalattoorneq	Traditionelt boldspil og dans	Traditional ball game and dance
Kallaaq	Kallaaq (kvindenavn)	Kallaaq (woman's name)
Kamik	Kamik	Kamik
Kamik assuut	Festkamik	Festival kamik
Kamaasiat	Den med gamacher (hundenavn)	The dog with gaiters
Kammak	Kammeraten (hundenavn)	Comrade (dog's name)
Kanannaq	Vestenvind el. vind fra nordvest	Wind from west or northwest
Kangerluarsuk	Fjorden (stednavn)	The fjord (place name)
Kangersuatsiaq	Prøven (stednavn)	The test (place name)
Kangersuneq	Stedet med mange forbjerge (stednavn)	The place between the many headlands
Kangia	Øst	East
Kangilerna	Landet mod øst (stednavn)	The land to the east
Kanioq	Ulk	Sea scorpion
Kiasissuit (pl.)	De store skulderblade (snorefigur)	The big shoulder blades (string figure)
Kiganngaq	Vind fra syd – den varme	Wind from south – the warm
Kigutaarnat	Småbladet mosebølle (blåbær)	Arctic bilberry
Kikiak	Trænagle eller søm	Wooden dowel or nail
Kiliffak	Mammut (snorefigur)	Mammoth (string figure)
Kiliut	Skindskraber	Skin scraper
Killoq	Stævnplade i umiaq	Stern plate in an umiaq
Kiluk	Sømmen i bådebetræk	Seam in boat cover
Kingittoq	Det stejle fjeld (stednavn)	The steep rock (place name)
Kingittorsuaq	Det store stejle fjeld (stednavn)	The big steep rock (place name)
Kingu	Agterspids på kajak	Stern tip on a kayak
Kitaa	Vest	West
Kitsissorsuit	Øerne længst mod vest. (Edderfugleøerne)	The islands furthest to the west. The Eider Islands)
Kittorsaaraq	Den lille tvedelte ø (stednavn)	The little bi-sected island (place name)
Kittorsaq	Den tvedelte ø (stednavn)	The bi-sected island (place name)
Kujaaq	Køl	Keel
Kujak	Lændestykke af sæler m. nyrer	Lower back of seal with kidneys
Kujataa	Syd	South
Kujataata kangia	Sydøst	Southeast
Kujataata kitaa	Sydvest	Southwest
Kullorsuaq	Djævelens Tommelfinger (stednavn)	Devil's Thumb (place name)
Kunngi	Kongen (hundenavn)	The King (dog's name)
Kussugaq	Den brede rem mellem harpunline og fangstblære	The broad strap between the harpoon line and the hunting bladder

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Kuuk	Elven (stednavn)	The river (place name)
Maanneq	Fangst ved sælers åndehuller	Hunting at the seals' breathing holes
Mannilikassak	Det lille ægsted	The little place with eggs
Mannguppoq	Det bliver mildere i vejret	The weather gets milder
Manngussaq	Vind fra øst om vinteren	Wind from east in winter
Marteeraq	Martin Nielsen	Martin Nielsen
Masik	Spant foran kajakringen	Rib in front of kayak coaming
Mattak	Mattak (hvalhud)	Mattak (whale skin)
Meeraq	Barnet (hundenavn)	The child (dog's name)
Meqqujooq	Den langhårede (hundenavn)	The long-haired (dog's name)
Meqqut	Nål	Needle
Mersuinarneq	Systing til rensdyrskind, inderkamik og vante	Backstitch for caribou skin, inner kamik and mitten
Mikileraq	Ringfinger	Ring finger
Milattooq	Den plettede (hundenavn)	The spotted (dog's name)
Milikassaa	Den lille prop (stednavn)	The small plug (place name)
Ministeri	Ministeren (hundenavn)	The minister (dog's name)
Miteq	Edderfugl	Eider duck
Miteqqaarfik	Edderfuglestedet (stednavn)	The eider place (place name)
Mitaartut	Udklædte personer Hellig tre Konger	People dressed up on the evening of Epiphany
Naajakassaat	Den lille mågeplads (stednavn)	The little gull place (place name)
Naajat	Mågestedet (Stednavn)	The gull place (place name)
Naakkiarneq	Spydkast	Javelin throwing
Naaleqaaq	Han har harpuneret et fangstdyr! (udråb)	He has harpooned a game animal! (a shout)
Naaligaat	Harpun eller spyd	Harpoon or spear
Naanngisaariaq	Vals	Walz
Nakalloq	Hvalros 3-4 år, forladt af sin mor	Juvenile walrus 3-4 years old, abandoned by its mother
Nalasoq	Sæl der ligger i vandet	Seal lying in the water
Nalunaaqutaq kingulleq	Bageste sigtekorn på riffel	Back sight on a rifle
Nammik	Bundstok i umiaq	Floor timber in an umiaq
Nannuffik	Bjørnestedet (stednavn)	The polar bear place (place name)
Nannunniarneq	Isbjørnejagt	Polar bear hunting
Nanoq	Isbjørn	Polar bear
Napariaq	Slæde-opstander	Upright on a sledge
Napasoq	Sidestøtte i umiaq	Side stanchion in an umiaq
Napu	Midterstykke af fangstdyr	Mid-section of game animals
Nasaasap Nuua	Hættens næs (stednavn)	The hood´s headland (place name)
Nasaasap Saqqaa	Hættens solside (stednavn), Ussings Isfjord	The hood´s sunny side (place name)
Nasaasaq	Den der ligner en hætte (stednavn)	That which looks like a hood (place name)
Natseq	Ringsæl	Ringed seal
Natsersuaaraq	Klapmyds-unge i første leveår	A hooded seal pup in its first year
Natsersuaq	Klapmyds	Hooded seal

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Natsiaq	Ringsælens unge i det første leveår	The ringed seals pup in its first year
Natsillaassiaq	Endnu ikke fuldvoksen ringsæl	Not yet full-grown ringed seal
Natsillak	Stor ringsæl	Ringed seal pup in its first year
Navitsit	Remjævner	Thong or strap smoother
Niaqoq	Hoved	Head
Niaqornakassak	Det lille hoved (stednavn)	The little head (place name)
Niaqornarsuaq	Det store hoved (stednavn)	The big head (place name)
Niaqornarsuup Iterlaa	Det store hoveds indsnævring (stednavn)	The inlet of the big head (place name)
Niggit	Bue til bor	Bow for the drill
Niiortuut	Buebor	Bow drill
Niisorarutaa	Halsstykket på hundeselen over hundens bryst	Neck section over the dog´s breastbone
Nikku	Tørkød	Dried meat
Ningittakkat	Langline	A long fishing line
Ningittakkerneq	Fiskeri med langline	Fishing with a long line
Nissiaraq	Nissen (hundenavn)	The gnome (dog's name)
Niuleq	Tap på harpunen hvor forskaftet fastholdes	Peg on the harpoon where the foreshaft is fixed
Niutaaq	Stævnprofil i kajak eller umiaq	Stem and stern profile in a kayak or an umiaq
Niviarsiaq	Storblomstret gederams	Broad-leaved willow-herb
Noqarut	Surring	Lashing
Norsaq	Kastetræ til harpun	Throwing stick for a harpoon
Nuffit	Fuglespyd	Bird dart
Nuilaa	Hundeselens åbning	The dog harness´ opening
Nulooq	Personnavn	Name
Nuluutit	Tværremme på slæde	Cross-straps on a sledge
Nunap paarnaa	Fjeld-revling (sortebær)	Crowberry
Nuugaarsuk	Det stærkt fremsprinde fjeld (stednavn)	The most projecting rock (place name)
Nuuk	Næsset (stednavn)	The headland (place name)
Nuussuaq	Det store næs (stednavn)	The big headland (place name)
Nuussuarmiut	Folk ved det store næs	The people on the big headland
Nuussuup Kangia	Det store næs' østside (stednavn), Ryders Isfjord	The eastern side of the big headland (place name)
Nuussuup Nuua	Det store næs' næs (stednavn)	The headland of the big headland (place name)
Orseq	Skaglespænde	Trace buckle
Oqummiaq	Mundstykke til buebor	Mouthpiece for a bow drill
Orsiutit	Bugserrem til kajak og på isen	Towing strap for a kayak and on the ice
Orsugissap Qaarsua	Stedet med de hvide sten (stednavn) Feldspat	The place with the white stones (place name)
Orsugissap Qeqertaa	Øen ved det hvide fjeld (stednavn)	The island at the white fell (place name)
Paaguaq	Holder til fangstblære	Hunting bladder holder
Paangutsit	(stednavn)	(place name)
Paarnaqqortuut	Bærstederne (stednavn)	The berry places (place name)
Paarnaqutit	Fjeld-revling	Crowberry
Paaq	Kajakring	Cockpit in a kayak

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Paarliaq	Sæl der er krøbet op på isen og som ikke kan finde trilbage til vandet	Seal that has crawled up onto the ice and which cannot find its way back into the water
Paassiaq	Surring på kajakring	Lashing on cockpit in a kayak
Paattorfik	Udspilningsstedet (stednavn)	The place where seal skins are streched out (place name)
Paattorfiup Nuua	Udspilningsstedets næs (stednavn)	The headland of the place where seal skins are streched out (place name)
Paava	Mundingen på en riffel	Muzzle of a rifle
Paggersuutaa	Fastgørelse af kajakbetræk til kajakringen	Attachment of the kayak cover to the cowl
Pakassineq	Håndled	Wrist
Pamiutaa nuutajusoq	Den med en ny hale (hundenavn)	The dog with a new tail (dog's name)
Panik	Datter	Daughter
Paperoq	Det bageste stykke på hvaler og fisk	The rearmost part of a whale or a fish
Papilleraq	Halestykket på hundeselen	The tail piece on the dog harness
Peersaat	Spændet der løser en hund fra skaglen	That which releases a dog
Peersaq	En hund der er løst fra spandet	A dog that is released from the team
Perlaagassaq	Fletning på piskesnert	Plait on a whiplash
Piaraq	Ungt dyr 1-2 år med sin mor	Young animal 1-2 years old with its mother
Pitu	Forrem på slæde	Front strap on a sledge
Pitup sannerutaa	Tværstykke på slædens forrem	Cross-piece on the front strap of a sledge
Pituutaq	Hundeskagle	Dog trace
Poortaq	Riffelhylster	Rifle holster
Puerfik	Pusterør til fangstblære	Inflation nozzle for the hunting bladder
Puisi	Sæl	Seal
Pukuluffik	Stedet hvor fugle pikker noget op (stednavn)	The place where the birds are picking something (place name)
Pukuttut	"De spisende fugle" (legetøj)	„The feeding birds" (a toy)
Pulaartut	"Drillepind", egentlig de besøgende (legetøj)	"The visitors" (a toy)
Pulaleqaat	Hvalerne søger ind i fjorden (udråb)	The whales are seeking into the fiord (a shout)
Puttaarsiorneq	Fangst fra isflager	Hunting from ice floes
Puttut	Syl	Awl
Qaanaaq	Qaanaaq (stednavn)	Qaanaaq (place name)
Qaannap pisatai	Kajakudstyr	Kayak equipment
Qaannakkut piniarneq	Kajakfangst	Kayak hunting
Qaannap saarna	Kajakskelet	Kayak framework
Qaarsorsuaq	Den store klippeflade (stednavn)	The big rock (place name)
Qaarusulik	Stedet med klippehuler (stednavn)	The place with rocky caverns (place name)
Qaattaq	Sæl fanget i garn	Seal caught in a net
Qaava	Dæk på kajak	Deck on a kayak
Qajaq	Kajak	Kayak

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Qajartuutit	Kajakvanter	Kayak mittens
Qajaasaq	Kajakmodel	Kayak model
Qajaasat	Grønlandsk Post	Greenland Labrador Tea
Qaleralik	Hellefisk	Greenland halibut
Qalliut	Syning	Sewing
Qallunaaq Arnaq	Den europæiske kvinde (stednavn)	The European woman (place name)
Qallunaat	Udefra kommende (nu brugt mest om danskere)	People coming from outside (now mostly used about Danes)
Qallunaatsiaat	Nordboere	Norse
Qamasoq	Fanger der lurer på sæl	Hunter waiting for a seal
Qammavik	Fangstplads	Hunting site
Qamut	Slædemede	Sledge runner
Qamutaasat	Skydeslæde til uuttoqfangst	Shooting sledge for uuttoq hunting
Qamutit	Slæde	Sledge
Qaqortaq	En hvid remmesæl, ca 2-4 leveår	A white bearded seal 2-4 years old
Qaqortaaraq	Ung remmesæl i det første leveår	Bearded seal pup in its first year
Qaqortavik	Klapmyds ved overgang til mørk ca 4-5 leveår	4-5 years old hooded seal in transition to dark fur
Qarassalaat	Ret med bær, sælhjerne og spæk	Dish with berries, seal brain and blubber blended together
Qarliisat	Bjørneskindsbukser	Bear-skin trousers
Qarliit	Bukser	Trousers
Qarluisaarisoq	Fanger der lokker en sæl til iskanten	A hunter who lures a seal to the ice edge
Qarsorsaq	Pilk	Jig
Qasigialissuaq	Det store sted for spraglet sæl (stednavn)	The big place for common seals (place name)
Qasigiaq	Spraglet sæl	Common seal
Qasigiarsuit	De store spraglede sæler (stednavn)	The big common seals (place name)
Qassimasoq	Sæl der ligger på en isflage eller på en klippe	Seal lying on an ice floe or a rock
Qassutit	Sælgarn sat fra isen	Sealing-net placed under the ice
Qassutit imarsiutit	Åbenvandsgarn	Open water sealing net
Qeeraq	Havkat	Catfish
Qeqertanguaq	Den lille ø (stednavn)	The small island (place name)
Qeqertat	Øerne (stednavn)	The islands (place name)
Qeqertat Saqqarliit	Øerne på solsiden (stednavn)	The islands on the sunny side (place name)
Qernersineq	Remmesæl med mørk pels og hvid plet på hovedet	Bearded seal with dark fur and a white spot on its head
Qernertoq	Den sorte (grønlandssæl)	The black harp seal
Qilaanngusaq	Ringen på kajakkens linestativ	The ring on a kayak's line rack
Qilalugaq qaqortaq	Hvidhval	White whale
Qilalugaq qernertaq	Narhval	Narwhal
Qilalugarniarneq	Narhval- og hvidhvalfangst	Narwhal and whitewhale hunting
Qiluttoq	Den der gør (hundenavn)	The one that barks (dog's name)
Qillaq	Specielt knob, som bindes indvendig i fangstblæren	Special knot inside the hunting bladder

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Qimmeq	Hund	Dog
Qimmersuit	De store hunde (stednavn)	The big dogs (place name)
Qimminngortoq	Den der er blevet en hund (snorefigur)	It has turned into a dog (string figure)
Qimmiusaq	Sælknogle brugt som legetøj	Seal bone used as a toy
Qimusseriarsuaq	Melville Bugten	Melville Bay
Qimussimik sukkaniunneq	Hundeslæde-væddeløb	Dog-sledge racing
Qinngut	Kikkert	Binoculars
Qinngutitaq	Kikkertsigte til riffel	Telescopic sight on a rifle
Qiorfik	Maskebrædt til knytning af sælgarn	Netting needle for making seal nets
Qippuppaa	Snor eller holder noget sammen	String or straps something together
Qipput	Skruetvinge	Clamp
Qipputit	Fastspænding af årer i umiak	Fastening of oars in an umiaq
Qisoqut	Træstykke på kajakdækket	Wooden board on a kayak deck
Qissarut	Det der løser en hund fra spandet	That which releases a dog from the team
Qisuttaasaq	Træstykke for enden af bugserrem	Wooden piece on a towing strap
Qiterleq	Den midterste finger	Middle finger
Qiterliit	De midterste (stednavn)	Those in the middle (place name)
Qiuutit	Saks	Scissors
Qiviulik	Ringsælens dunede unge	Ringed seal´s downy pup
Qoorortooq	Riffel	Rifle
Qoorortuuaraq	Salonriffel	Rifle cal. 22
Quasassiorneq	Glatisfangst	Smooth ice hunting
Quassugarsuaq	Den store bjergryg (stednavn)	The large mountain ridge (place name)
Quassugarsuup Iterlaa	Den store bjergrygs indsænkning (stednavn)	The large mountain ridge bay or inlet (place name)
Quleruaq	Ræling	Gunwale
Qulleq	Lampe	Lamp
Qungaseq	Hals	Neck
Qunguleq	Grønlandsk kokleare	Common scurvy-grass
Qupannaaq	Snespurv (her åndemaners navn)	The snow bunting (here shaman's name)
Quperluusaq	Topspirende pileurt	Viviparous knotweed
Saavata mattaa	Hvalhud fra den underste del af forfinnen på hvaler	Whale skin from the part of the fore-fin that is hidden in the water
Saggaq	Tyndhåret sæl, 2 år gammel	Ringed seal 2 years old with thin fur
Sakiagutaa	Bryststykket på hundesele	The breast-piece of the dog's harness
Sakiarsuit (pl.)	Brystben (snorefigur)	Breastbones (string figure)
Sakissat (pl.)	Bryststykke på sæl og hvalros	Breast-piece of a seal or walrus
Salleq	Forreste åre, roer i umiaq	Foremost oar in an umiaq
Salliup tullia	Den næstforreste åre, roer i umiaq	Penultimate oar in an umiaq
Sannat	Værktøj	Tool
Sannerut	Tværstykke eller ters bl.a. på slæde	Tierce or cross-piece, for example on a sledge
Sapangaaraq	Glasperle	Glass bead
Saqisaaq	Rheinlænder polka	Rhineland polka
Saqqarsarneq	Sydøstenvind – Føhnvind	Wind from southeast

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Sarpik	Hvalens halestykke der stikker op af vandet	Whale's tail fin that sticks over the water
Sassat	Hval- eller hvalrosflok spærret inde i isen	Whales or walrus trapped by the ice
Saviffik	Harpunline-strammer	Harpoon-line tightener
Savik	Kniv	Knife
Savissaq	Riffelløb, jernbeslag, knivblad	Barrel, iron mounting, blade of a knife
Savissivik	Stedet med jern (stednavn)	The place with iron (place name)
Seeqqortarfik	Knæstøtte i kajak	Knee support in a kayak
Seernaq	Fjeldsyre	Mountain sorrel
Seqineq	Solen (hundenavn)	The sun (dog's name)
Seqqortaarneq	Skydning med salonriffel	Shooting with 22 cal. rifle
Serfalikassak	Det sølle tejstested (stednavn)	The poor black guillemot place (place name)
Serminnguaq	Den lille gletcher (hundenavn)	The little glacier (dog's name)
Siaaneq	Sidelægte i kajak	Side stringer in a kayak
Silaqanngi	Den skøre, uartige (hundenavn)	The crazy, naughty dog (dog's name)
Simik	Træprop til fangstblærens pusterør	Wooden bung for the inflation hole of the hunting bladder
Sinaasiorneq	Fangst fra iskanten	Hunting from the ice edge
Sinarsuk	Underkanten af hvalens halefinne	Lower edge of the tail fin of a whale
Singarnaq	Den brune (hundenavn)	The brown (dog's name)
Singerneq	Halestykke på hvalen	Tail piece of a whale
Sioqqerfilik	Mands-festkamik med skindbroderi	Man's festival kamik with skin embroidery
Sioraq	Sandøen (stednavn)	Sand Island (place name)
Sisoraatit (pl.)	Ski	Skies
Siu	Forstævn	Bow
Siukkap tullia	Den næstforreste åre, roer i umiaq	The second foremost oar in an umiaq
Siukkaq	Den forreste åre, roer i umiak	The forward oar in an umiaq
Siumut pissinneq	Længdespring	Long jump
Suloraq	Piskesnert	Whiplash
Suluk	Vingen (hundenavn)	The wing (dog's name)
Saarullik	Havtorsk	Cod
Taalutaq	Skydesejl	Shooting screen
Taaniaalup tupersuai	Daniels store teltplads (stednavn)	Daniel's great tent place (place name)
Taartoq	Den mørke (stednavn)	The dark (place name)
Takisut (pl.)	Sælskindsbukser til kvindens festdragt	Seal-skin trousers for the woman's festival dress
Taleq	Arm, også aftrækkerbøjle på riffel	Arm, also bolt on a rifle
Taleroq	Hvalfinne	Whale fin
Talissat (pl.)	Kajakærmer	Kayak sleeves
Taqammuaq	Remmesæl	Bearded seal
Taqqaasaq	Forreste tværrem på kajak	Foremost cross-strap on a kayak
Taqqaq	Tværrem på kajak	Cross-strap on a kayak
Taqqarfii (pl.)	Udskæringer til tværremme i kajak-ræling	Rebates for cross-straps on a kayak
Tasitsaat	Skindskraber	Skin scraper

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Tasiusaq	Bugten med det smalle udløb (stednavn)	Sand Island (place name)
Tassiitit (pl.)	Surringer på harpunskaft	Lashings on a harpoon shaft
Teqilluk	Ung remmesæl, der er bange, 0-1 år	Frightened bearded seal pup, 0-1 years old
Terianniaasaq nerumittoq	Polar-rævehale (græsart)	Alpine foxtail (grass)
Terianniaq	Ræv	Fox
Terittoq	Ung klapmyds eller hvalros 4-5 år	Young bladder nose or walrus 4-5 years old
Tiggaq	Ringsæl med stærk lugt og smag	Male ringed seal with strong smell and taste
Tiitorfik	Thekoppen (stednavn)	The tea cup (place name)
Tikeq	Pegefinger	Index finger
Tikeraaq	Den der kommer på besøg, menneske eller dyr	A visitor, an animal og a human being
Tiluttuut	Snebanker	Snow beater
Timerliit (pl.)	De inderste (stednavn)	The innermost islands
Timilersua	Den store ø, der ligger længst inde (stednavn)	The innermost big island (place name)
Timmiaq	Her: Yderpels af rensdyrskind	Here:Outer garment of caribou skin
Timmiarsiut	Haglbøsse	Shotgun
Tingivoq	Den flyver bort (snorefigur)	It flies away (string figure)
Tingulaat	Ret med bær og fiskelever	Dish with berries and fish liver
Tinumanersuaq	Den store højderyg (stednavn)	The large ridge (place name)
Tippik	Ribbe i kajak	Rib in a kayak
Tooq	Ismejsel	Ice chisel
Torsusooq	Ung sæl med langhåret pels, 1-1½ år	Young seal, 1-1½ years old with long fur
Tuiitsoq	Kajak-halvpels	Kayak-halfjacket
Tuilik	Kajak-helpels	Kayak jacket
Tuissaq	Del af forskaft til harpun	Part of a harpoon fore-shaft
Tukingasoq	Øen der ligger på langs (stednavn)	The island which lies lengthwise (place name)
Tukkartaaq	Polka	Polka
Tulimaaq	Ribben	Rib
Tulugaq	Ravn	Raven
Tunersuit (pl.)	De bagerste dæklister på kajak	Back deck stringers on a kayak
Tunuata mattaa	Hud fra hvalens rygstykke	Skin from the back of a whale
Tupersuaqarfik	Den store teltplads (stednavn)	The large tent place (place name)
Tupersuarsuit Qeqertaat	De store teltøer (stednavn)	The large tent islands (place name)
Tuttorsuaq	Det store rensdyrsted (stednavn)	The large reindeer place (place name)
Tussaaq	Smalhalsen (stednavn)	The island with the narrow part (place name)
Tuttoq	Rensdyr (snorefigur)	The caribou (string figure)
Tuttu	Rensdyr	Caribou
Tuttulikassaq	Det sølle rensdyrland (stednavn)	The poor caribou land (place name)
Tuttulissuaq	Det store rensdyrland (stednavn)	The large caribou land (place name)
Tuukkaq	Harpunspids	Harpoon head
Tuutannguit (pl.)	Labretter	Labrettes

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Uartaq	Benknap til lukning af hul i fangstblære	Bone button for repairing the hunting bladder
Ujaloq	Senetråd	Sinew thread
Ujarassuit	De store sten (stednavn)	The big stones (place name)
Ukaleq	Hare	Hare
Ulannerusaq	Lådden troldurt	Hairy lousewort
Ulimaat	Økse	Adze
Ullulik	Stedet med dun (stednavn)	The place with down (place name)
Ulu	Kvindekniv	Women's knife
Umiaasaq	Umiaqmodel	Umiak model
Umiap saanii	Umiakskelet	Umiak frame
Ummik	Forreste del af harpunspids	Upper part of a harpoon head
Unaaq	Knobharpun eller harpun-forskaft	Knob harpoon fore-shaft
Uniit	Signal til hundene (stop)	Command to the dogs (stop)
Unnaat	Kvinde-festkamikker af hvidt sælskind	Woman's festival kamiks of white seal skin
Unneq	Hvidt afhåret vandskind	White depilated seal skin
Upernaviarsuit	De mellemstore forårspladser (stednavn)	The medium-sized spring sites (place name)
Upernavik	Forårsstedet (stednavn)	The spring site (place name)
Upernavik Kujalleq	Søndre Upernavik (stednavn)	(Place name)
Ussuk	Tidligere remmesæl, nu tabu i Upernavik	Previously bearded seal, now taboo in Upernavik
Usuusaq	Stævnstykke på kajak	Stern and stem on a kayak
Uugaq	Fjordtorsk	Fjord cod
Uummannaq	Det hjerteformede fjeld (stednavn)	The heart-shaped fell (place name)
Uuttoq	Sæl der om foråret er krøbet op på isen	Seal which in spring has crawled up onto the ice
Uuttorniarneq	Uuttoqfangst	Uuttoq hunting

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