

The Northernmost Ruins of the Globe

Eigil Knuth's Archaeological Investigations in Peary Land and
Adjacent Areas of High Arctic Greenland

Bjarne Grønnow and Jens Fog Jensen

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The Northernmost Ruins of the Globe

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Bjarne Grønnow and Jens Fog Jensen

– with contributions on faunal analyses
by *Christyann M. Darwent*

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Abstract

An important part of the heritage of Count Eigil Knuth (1903-1996) is his archaeological archive including contextual information on prehistoric sites gathered during six decades of research in High Arctic Greenland. The finds and observations are a key to the understanding of human life under extreme conditions in a long-term perspective and represent a unique piece of evidence concerning the early cultural history of the Eastern Arctic.

Knuth's expeditions from 1932 to 1995 took him to Greenland and Canada, in particular High Arctic Greenland. In a number of important articles Knuth published the findings dating back to the earliest human settlement in Greenland. However, he never managed to present the complete body of information and results from his many investigations. The present authors have thus compiled a computer database based on his archive, and this has formed the starting point of the present book. The book focuses on Knuth's most substantial contribution to archaeology: the prehistory of Peary Land and adjacent areas.

In the catalogue emphasis has been placed on topographical and architectural information, site structure, artefact statistics and radiocarbon dates. A total of 154 archaeological sites are presented. 51 sites with a total of 244 features are Independence I sites (c. 2460-1860 cal. BC), 23 sites with a total of 416 features belong to Independence II (c. 900-400 cal. BC) and 63 sites with a total of 626 features are of Thule origin (c. 1400-1500 cal. AD).

It has not been our ambition to re-analyse the finds or add new empirical data in connection with the production of this book. We do, however, present some new information on the faunal material from Peary Land based at Christyann Darwent's recent analyses as well as new data on the dwelling features on the Adam C. Knuth Site, which was visited by a multidisciplinary team in 2001.

The book is provided with an introduction presenting an overview and evaluation of Knuth's remarkable *curriculum vitae* as an independent arctic archaeologist.

In the concluding chapters some basic statistics on the archaeological sites are presented. We evaluate Knuth's radiocarbon dates for of the Independence I, Independence II and Thule cultures in High Arctic Greenland, and settlement distributions and settlement patterns for the three cultures represented in Peary Land are discussed.

Keywords: Palaeo-Eskimo; Peary Land; archaeology; Independence Culture; Thule Culture; faunal remains; Eigil Knuth; High Arctic Greenland; settlement patterns; radiocarbon dates.

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Preface

An important part of the heritage of Count Eigil Knuth (1903-1996) is his scientific archaeological archive including contextual information gathered during six decades of research in High Arctic Greenland. The finds and observations inform us about the northernmost human settlements in the World. They are a key to the understanding of human life under extreme conditions in a long-term perspective and represent a unique piece of evidence concerning the cultural history of Greenland and the Eastern Arctic.

Over the years, starting in the 1930s, Knuth published several epoch-making books and papers on the prehistory of the Farthest North. He worked for decades on a comprehensive publication which he planned to be the complete presentation of his finds and a synthesis on the cultural history of his beloved Peary Land. It is well known that he did not manage to compile all his collected information and that the book on *The Archaeology of Peary Land* was a dream that did not come true during his lifetime.

In his will Knuth expressed a great wish that his heirs should meet the task of publishing his huge body of evidence. In accordance with the will, a committee was founded in 1997 and in collaboration with the board of the Peary Land Foundation the archival material and incomplete manuscripts he left behind were registered and evaluated (Haagen 1997a and 1997b). On the basis of a proposal by the present author, Bjarne Grønnow, the committee decided to approve and support firstly the creation of a computerised database and secondly the publication of the scientifically most important parts of the archives. This book is the result of a four year process of extracting, organising and presenting the comprehensive archival material – a collaboration between Bjarne Grønnow, SILA, The Greenland Research Centre at The National Museum of Denmark, and junior researcher Jens Fog Jensen, Institute of Archaeology and Ethnology, University of Copenhagen.

According to Knuth's will, the total archival material – his contextual data – was to be kept in the Queen's Personal Library (Hendes Majestæt Dronningens Håndbibliotek), Amalienborg, after his death.

Access to this original archive is restricted. Only Bjarne Grønnow and senior researcher Jette Arneborg, SILA, The National Museum of Denmark, have access to Knuth's original scientific data concerning Inuit and Norse archaeology respectively. These restrictions will be in force until 2016, twenty years after Knuth's death.

A few weeks after the death of Count Eigil Knuth in 1996 his solicitor contacted the present author. I was informed that I was mentioned in Eigil's will as heir to his archival information, specifically that concerning the High Arctic Palaeo- and Neo-Eskimo sites. He expressed the wish that I use his permission to compile and publish the material he had left. The permission included the archaeological information in his field books and diaries (1912-1995), which otherwise were to be sealed from public view for 20 years. On being left an inheritance of this kind I was surprised, thankful and worried – all at the same time.

The first time I met Eigil Knuth was in 1978 when I was invited to his studio apartment at Carl Johans Gade 10 in Copenhagen to tell him about the investigations at the Aasivissuit inland site in West Greenland (Grønnow, Meldgaard & Nielsen 1983). Over the next 18 years we often phoned each other and I visited him 3-4 times each year, in particular following on from my field seasons in Greenland. Every meeting was an experience: I gave him a brief account of some of the new results, but we always quickly ended up with a conversation, headed by Eigil, about his Independence sites, the running of his research projects, worries about the scientific station in Peary Land, the troublesome National Museum and his lack of time. Fine arts, classical music and his famous busts of the East Greenlanders were also on the agenda, depending on Eigil's mood and health. I suppose we continued to be friends partly because I never worked professionally with him either in the field or in Copenhagen. We did, however, at times have heated discussions on the telephone. I cannot know, only suppose, that throughout these 18 years my name was added and erased from his will several times.

I was deeply worried about the inheritance be-

cause the obligations connected with it seemed insurmountable. Was it at all possible to live up to Eigil's wish of producing a book on the archaeology of Peary Land?

However, little by little, the road to this presentation of Eigil's archival information on the High Arctic sites was paved through the support of institutions, committees and colleagues.

Firstly, the Peary Land Foundation took care of dividing up Eigil's archaeological finds, books and comprehensive archival material so that the scientific part of the heritage was 'rescued' from his apartment and sent to the Queen's Personal Library, Amalienborg, as specified in Eigil's will. Great thanks are due to Morten Meldgaard, then director of Danish Polar Centre, for facilitating this demanding task.

Secondly, curator Birthe Haagen, who was Eigil's secretary during his last couple of years, carried out an initial sorting and registration of the Knuth Archives, including the papers kept at the Danish Polar Center (Haagen 1997a, 1997b). Thirdly, Her Majesty's librarian Klaus Kjølsten, the Queen's Personal Library, took care of the archival material in an optimal way. They are both warmly thanked.

According to Eigil's will, a scientific committee was to be established in order to publish his partly finished manuscripts. Headed by then vice-chancellor Claus Andreasen, Greenland, the committee work ran over a couple of years. As a member I proposed a way of meeting Eigil's wishes with regard to a book on the archaeology of Peary Land. The first step was to enter all the archival information into an electronic database. The next step was to compile and present the material, site by site, in a scientific monograph in *Meddelelser om Grønland*. The committee and board of the Peary Land Foundation approved this plan in 1998. These two institutions, in particular the Foundation headed by former High Commissioner of Greenland Gunnar Martens, are thanked for their encouragement and economic support.

There was no doubt in my mind that archaeologist Jens Fog Jensen was the optimal choice as my collaborator on this project. Jens assisted Eigil during the fieldwork at Kap Skt. Jacques in 1988. He had a quite close friendship with Eigil and, first and foremost, he had a professional background in Arctic archaeology. Jens Fog Jensen was appointed to do all the hard work involved in establishing the database, entering the data and ultimately compiling the main chapters of this book. Funded by the Peary Land Foundation Jens was housed by the Danish Polar Centre for the first year of the project, 1999. During the period March 2001 – February 2002 he was employed at SILA, The Greenland Research Centre at The National Museum of Denmark, where he worked with the important part of the manuscript for this book. I owe Jens my warmest thanks. It has been a great pleasure and a great inspiration to work with him. Without Jens' professional touch and efforts this book could not have been written.

Furthermore, Jens and I wish to extend our thanks to the editor of *Meddelelser om Grønland*, *Man and Society* Professor H.C. Gulløv and technical editor Kirsten Caning. Thanks are due to David Robinson and Anne Bloch Jørgensen for translation and linguistic revision, to Søren Albek for computer assistance, and to photographer Geert Brovad.

Finally, the Augustinus Foundation and Det Kongelige Grønlandsfond are wholeheartedly thanked for generously supporting the layout and printing.

Eigil always put great emphasis on his birthdays – an unfinished manuscript entitled *Mine Arktiske Fødselsdage* (My Arctic Birthdays) is included in his archive. The publication date for this book is August 8th 2003, the day on which Eigil would have been 100 years old.

Bjarne Grønnow
Gershøj, April 2003

Introduction

1.1 Aims of the Publication of the Knuth Archive

First and foremost this book is Knuth's book. The main chapters are based on extracts from his notes, drawings and photos kept in the archives at Amalienborg. The book's main goal is to give a systematic presentation of every archaeological site in High Arctic Greenland which Knuth registered and investigated throughout his long career – from West (Hall Land) via Peary Land to North-east Greenland (Île de France). He often returned several times to the same site and made supplementary observations and re-excavations. Now, for the first time, the data and descriptions from all the sites have been compiled in order to make them accessible to the scientific archaeological community in Denmark, Greenland and abroad. Hopefully the present book will provide a starting point for future analyses and interpretations of prehistoric life and cultural history in the northernmost Arctic.

It is well known that Knuth's expeditions took him to other parts of the Arctic – West Greenland, the Thule District and High Arctic Canada. We have chosen to focus this publication on his most substantial contribution to archaeology: High Arctic Greenland and, in particular, Peary Land.

Emphasis has been placed on topographical and architectural information, site structure, artefact statistics and radiocarbon dates. We have, furthermore, provided the book with an introduction presenting an overview and brief evaluation of Knuth's remarkable *curriculum vitae* as an independent archaeologist. This is important background knowledge in relation to an evaluation of the empirical material and its potential.

The introduction also includes information about the relational database Knuthbasen which was created as the starting point for our project. This database (in Danish) is the most detailed and systematic entrance for researchers wishing to examine Knuth's original data in further detail.

It has not been our ambition to re-analyse the finds or add new empirical data in connection with the

production of this book. We do, however, present some pieces of new information on the faunal material from Peary Land based on Christyann Darwent's analyses of the Palaeo-Eskimo material (Appendix 1-3; Darwent 2001a). This is because Knuth touched only briefly upon this important aspect in his published papers. In the concluding chapters we evaluate Knuth's radiocarbon dating of the Independence I, Independence II and Thule cultures in High Arctic Greenland. Finally, we present some basic statistics with regard to the sites, and the settlement distributions, sizes and patterns for the three cultures represented in Peary Land are discussed.

1.2 From the Western Settlement to Peary Land – Eigil Knuth's Archaeology

Background

The starting point for a presentation of Count Eigil Knuth's unique contribution to Arctic archaeology is a chronological overview of his 'scientific career'. First and foremost it deals with the part of Knuth's life which was devoted to archaeological research. It is, accordingly, not a biography. This chapter is an attempt to chart the key events in a spectacular archaeological career in a more or less self-elected position on the fringes of the professional scientific environment in Denmark.

Knuth's perception of exploration and research was formed during the early decades of the 20th century in an aristocratic and well-educated environment which had a profound interest in the Arctic. For example, Knuth's grandfather Augustin Gamél sponsored Fridtjof Nansen's crossing of the Inland Ice (1888-89). During the late 1930s, however, the exploration of Greenland underwent a transformation, from the romantic era of heroic deeds carried out by outstanding individual explorers, into a modern positivistic science, involving complex and expensive logistics and multidisciplinary teams. Knuth came to play an important part in this process of modernisation but due to his background his life-long commitment never



Fig. 1.0. Maps showing the location of places mentioned in chapter 1 (a. Greenland, b. North Greenland).

turned into 'applied science'. His discovery of the earliest Palaeo-Eskimo sites in Peary Land and the investigation of these past hunting societies, the Independence I and II cultures, filled six decades of Knuth's life. A desire to explore the unknown and a unique sense of history, architecture and fine art were ever-present in his archaeological research.

Count Eigil Knuth was born in Klampenborg, north of Copenhagen, on the 8th of August 1903, the son of captain Count Eigil Valdemar Knuth (1866-1933) and Marie Johanne Emma de Pasqualine Gamél (1877-1911). He died in Copenhagen on the 12th of March 1996 at the age of 93.

Even as a child he showed a keen interest in art and architecture and his educational career reflects this interest. After his General Certificate he graduated in 1922 from technical school and in 1924 from the Royal Academy of Fine Arts in Copenhagen, where he studied architecture and painting as well as the art of sculpture. In the turbulent years between the two world wars he travelled Europe like all young men of aristocratic families were expected to do as part of their general education. In between visits to 'classical sites and monuments' in Central Europe and the Mediterranean he studied wood-carving in Northern Italy (1926 and 1928). It was a most self-confident

and well-educated man (e.g. Knuth 1927) who in 1932 looked for possibilities of going to Greenland (fig. 1.1).

The 1930s: Art and Archaeology

The desire to explore the Arctic was deeply embedded in Knuth's mind. As mentioned above, he was exposed to the spirit of Arctic exploration during his childhood and youth. Knuth's diaries in the early 1930s express a strong wish to participate in the expeditions of Knud Rasmussen (1879-1933).

Knuth was introduced to Arctic archaeology in 1932 when the architect and archaeologist Aage Roussell from the National Museum of Denmark initiated large scale investigations of Norse farms and churches in the Western Settlement in central West Greenland (Roussell 1941). Knuth joined the expedition as his assistant and learned methods of excavation, documentation and surveying from Roussell and his team (fig. 1.2). Knuth's discoveries of Norse sites during extensive reconnaissance in the hitherto unknown interior of the Nuuk area guided by native Greenlanders spurred his sense of exploration and interest in archaeology. Again in 1934 he returned to the Western Settlement as Roussell's assistant (Knuth 1944). Roussell's focus on the architectural aspects of

the Norse society was in accordance with Knuth's educational background and areas of interest.

In 1935 the National Museum was invited to participate in the Anglo-Danish East Greenland Expedition – basically a mountaineering expedition headed by the British explorer Augustine Courtauld. The expedition had, however, a scientific aspect, i.e. archaeological investigations along the Blosseville Coast, in particular the Kangerlussuaq area. Dr Helge Larsen was head of this research programme on the East Greenland Thule culture. Larsen appointed Knuth as his assistant. This quite short summer campaign, covering sites around Skærgårdshalvøen and Cape Irminger, was of great importance for the young Knuth. He was introduced to the 'classical Danish school of Eskimo archaeology' as founded by Therkel Mathiasen and followed up by Helge Larsen and Erik Holtved. Their approach was based on the cultural-historical school of archaeology. Great emphasis was placed on comparative studies founded on identification, description and systematic comparison of different cultural elements of the material culture including architecture. This was in line with the dominant contemporary approach to ethnography as represented by



Fig. 1.1. Self-portrait drawn at the end of the field season, Ameralik. Pencil drawing in diary, 26.09.1932 (I):32.



Fig. 1.2. Knuth inspecting the excavation area at the Norse farm, Kilarsarfik, Ameralik, August 1932. Knuth's photo album, 1932.



Fig. 1.3. Pencil sketch of a Thule harpoon head excavated at Skærgårdshalvø, East Greenland. Diary, 1935 (I):117.

Kaj Birket-Smith of the Department of Ethnography, The National Museum of Denmark.

Knuth's two diaries from this campaign include several drawings of artefacts (fig. 1.3) and notes on the spectacular Inuit architecture of East Greenland. Several well preserved winter houses were excavated during the short field season and the positions of the finds were not recorded in detail, as was typical of archaeological documentation at this time. However, most of the surveys and drawings of the ruins are of high quality (Larsen 1938) (fig. 1.4). In his diaries, Knuth writes about the difficulties of documenting the ruins as they were often situated on the most exposed and icy cold promontories of the rugged Blossville Coast.

A meeting with Ebbe Munck (1905-1975) on this expedition had a great influence on Knuth's later career as an explorer and archaeologist. A friendship

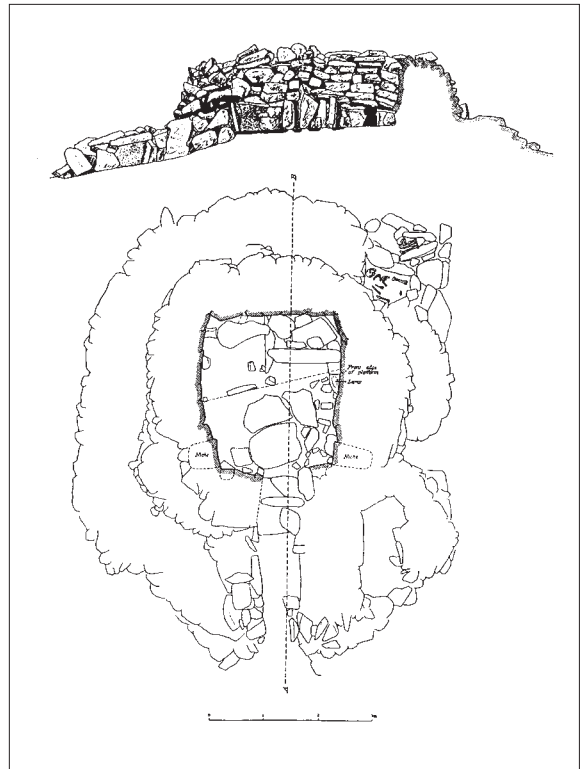


Fig. 1.4. Survey of a Thule Culture winter house at Skærgårdshalvø, East Greenland, based on Knuth's detailed registration (Larsen 1938: fig. 5).

formed during the expedition in 1935 became decisive for the modern epoch of scientific exploration of North-east Greenland and Peary Land. Like Knuth, Munck was a visionary, self-confident and multi-talented man, a journalist with Arctic experience from Einar Mikkelsen's Scoresbysund expedition (1924) and Dr Jean Charcot's expedition on board the Pourquoi Pas (1925). Together, Munck and Knuth envisioned an expedition to North-east Greenland in memory of the fatal Denmark Expedition (Danmark Ekspeditionen) (1906-1908). It was of great importance to demonstrate Danish activities in an area which, at this time, was the subject of a dispute between Denmark and Norway: '...(it is) due time for our generation to make a contribution to Danish research on Greenland' (Knuth 1940:9).

The entries in Knuth's diary (1935 II:179) show that his mind from now on was set on the Arctic, but at the same time he felt that he had to devote himself to an artistic career. Returning in September 1935 to the 'moist and disgusting' atmosphere in Copenhagen, he

immediately made plans for a new Greenland adventure which would unite his two passions, Greenland and the Fine Arts.

In 1936, as a member of the French Victor-expedition, Knuth travelled by sledge across the Inland Ice from Disko Bugt (south of Qasigiannugit) to the Ammassalik area (Knuth 1937). Here a shipload of building materials and sculptor's gear had been sent in advance and he set up a workshop for the summer. For several months he worked among the Ammassalik Inuit creating his famous series of portrait busts – the peak of Knuth's artistic achievements (Knuth 1943). The exhibition of the busts at Grønningen, Copenhagen, in the autumn of 1937 was a great event. The critics reviewed the exhibition quite favourably but Knuth had great emotional concerns and worries about both artistic and economic issues during these months. It was thus a relief when Ebbe Munck returned from Persia and all attention could be focussed on their original plans for a North-east Greenland expedition.

Knuth has vividly described (1940:11-25) how the two young partners managed to raise funds and to 'navigate through the rugged seas' of the established Danish scientific and political environment. In the summer of 1938 they left Copenhagen aboard their own expedition ship 'Gamma' bound for North-east Greenland. The interdisciplinary scientific team had representatives from zoology, geology, botany and meteorology and there were three Greenlandic hunters as assistants and sledge drivers. Encouraged by Erik Holtved of The National Museum of Denmark, Knuth conducted a comprehensive archaeological research programme. Inspired by the modern logistics of the geological expeditions by Lauge Koch, an aeroplane – a Tiger Moth – was carried on board the ship and it served the expedition well (fig. 1.5).

Based at Mørkefjord close to the wintering quarters of the Denmark Expedition, the Danish North-east Greenland Expedition 1938-39 (also called the Mørkefjord Expedition) included Knuth's first independent contribution to Arctic archaeology. He based his surveys on notes and drawings by Mylius-Erichsen and Bendix Thostrup from the Denmark Expedition in 1906 (Thostrup 1911). In particular, his journey by sledge during the spring of 1939, in continuation of the over-wintering at Dove Bugt, all the way to Amdrup Land was rewarding in its archaeological observations. In spite of difficult conditions Knuth excavated



Fig. 1.5. Knuth in pilot outfit, Mørkefjord, 1938. Initial topographical surveys on the 'Mørkefjord Expedition' were carried out by means of a Tiger Moth biplane. Knuth's photo album. Photo by Ebbe Munck.

important Thule culture sites such as Eskimonæsset and Sophus Müllers Næs around Ingolfssfjorden in northernmost North-east Greenland. On his way back south to the base camp at Mørkefjord several sites were investigated. The climax for Knuth, however, was the discovery of a small ivory figurine, Venus of the North-east Cape (Nordostrundingen's Venus), at the Thule site, Sophus Müllers Næs (fig.1.6). Artist and archaeologist unite in his description of this little female figurine in the midst of a High Arctic desert (Knuth 1940:133-136):

'That I, in the furthest corner of the world on a desolate snowy coast, should have such an intense artistic experience, I had not even dreamed, but that is how it was. She was boldly simplified, the arms, according to ancient Eskimo traditions, only hinted at as extensions from the shoulders, and the whole figure, as a consequence, forming a cross, frontal and



Fig. 1.6. 'Nordostrundings Venus' – a small ivory figurine, which touched Knuth deeply, was found at Sophus Müllers Næs, North-east Greenland, 1939. Photo by Knuth.

symmetrical like the figure of Christ on the oldest Romanesque crucifixes.'... 'I sat with this small masterpiece between my fingers alone out there in the snow and observed her carefully in order to find out as much as possible about this being – the first person I had met after more than a month's travel and the first

woman in three quarters of a year. What had she been like, Queen of the Point, she who had once filled this house in which I sat with her talk and her scents'....' And she, this vivacious woman, whose stomach I now pressed, was sentenced to incarceration in a prehistoric museum: To be given a number and arranged with scores of trivial items, killed like a butterfly fixed on a pin. Or she would be hidden away in drawer number something or other at the bottom of the cellar, mixed up with piles of other bone pieces, only to see the light of day every ten years, when a bespectacled archaeologist searched through the drawer. She, who once ruled over the North-east Cape and the endless ice sea beyond, and who, when I woke her from her many years of slumber in her great clean world, was just as irrepressibly fresh and was able to remove everything else around from my consciousness. No, if she was going back she should be placed on a pedestal all of her own as the monument she was,...'... 'By a stroke of fortune I had been completely natural and primitive myself as I came sledging from the south, just as primitive and natural as the Eskimo hunter who once came from the north and carved her in walrus tooth, and therefore I was sure that my judgement of her was correct. If only one had the opportunity more often to see a work of art in this way, as this is how it should be seen: as a thing one takes up from the earth with a hunter's curiosity and is completely alone with for hundreds of kilometres around. So neither trickery nor affectation plays any part.'

During the return trip from Greenland in September 1939 the Second World War broke out and plans for continuing investigations had to be put aside. Munck hurried home to Denmark where he immediately was engaged as a war correspondent. Later he became a key member of the Danish Resistance. Knuth wanted to concentrate on describing his finds, writing books and working with his sculptures. He was, however, soon engaged as a journalist and newsreader with the Danish State Radio (Statsradiofonien). Like Munck, he was involved in the Resistance and coordinated secret contacts with allied forces. Knuth's diaries are almost silent about events during the War.

A volume in *Meddelelser om Grønland* (127 (1)) was reserved for the publication of Knuth's archaeological investigations in North-east Greenland. There are various versions of a manuscript, including archaeological descriptions and illustrations, in his archive

but he never submitted a manuscript for publication. He 'fought' with the text, cut it into sections several times and attempted to combine the chapters in different ways but he never managed to complete the work. The conclusions soon became outdated by his own research immediately after the War.

The 1940s: The First Peary Land Expedition

Already in June 1945 Eigil Knuth was back in the field engaged in Arctic archaeology. He managed to get on board the first civilian ship to Greenland and spent a summer in Godthåbsfjord engaged in surveys and test excavations of Thule winter houses (Gulløv 1983:16-29). Knuth also investigated a cave with mummified bodies at Pississarfik that same year (Knuth 1945a). However, plans soon emerged for a scientific expedition on a much larger scale.

We must return briefly to 1944 in order to examine the beginnings of the long series of Peary Land Expeditions. At a meeting in Stockholm, Sweden, a group of Danish war refugees met: Ebbe Munck, Peter Freuchen, Einar Mikkelsen and Henning Haslund-Christensen. They were all engaged in the Resistance and were prominent explorers. At the meeting they founded the Danish Expedition Foundation (Dansk Ekspeditions Fond) which became active immediately after the War. Accordingly, Munck's and Knuth's idea of conducting multidisciplinary research with the aid of modern logistics in the farthest North Greenland, the almost unknown Peary Land, could be realised (Munck 1968).

With the combined economic support of the Danish Expedition Foundation, the Danish Government and the Danish Navy, the 1st Danish Peary Land Expedition could be launched in 1947. A rigorously planned three year programme, including two overwinterings in the Far North, was the starting point for this initiative (Seehusen 1947; Knuth 1948a, 1948b, 1950, 1951a, 1951b, 1951c; Winther 1950).

Like the earlier Mørkefjord Expedition, the team consisted of scientists from different disciplines within the natural sciences. A generation of important researchers emerged from this initiative, among others: Ulrik Møhl (zoology), Keld Holmen (botany), Børge Fristrup (glaciology) as well as Eigil Nielsen and Knud Ellitsgaard Rasmussen (geology). The archaeological research in Peary Land was conducted by Knuth but two young, professional archaeologists,

Hans Georg Bandi from Switzerland and Jørgen Meldgaard from Denmark, carried out investigations in the area around the southern base camp during the 1948 campaign (Dødemandsbugten) (Bandi & Meldgaard 1952).

Supported by two ships and, from the second year, by no less than three Catalina seaplanes – the entire fleet of heavy transport planes of the Danish Navy – the expedition established a southern base camp at Zackenberg near Clavering Ø. In the first year, 1947, a flight camp was established for 16 days at Jørgen Brønlund Fjord in Peary Land (figs. 1.7 and 1.8). The team returned to Denmark, but in summer 1948 the Peary Land camp expanded into a permanent base camp. The all-year scientific station Brønlundhus was built from tons of material transported from Zackenberg by means of an air bridge between the two base camps (fig. 1.9).

In 1947 Eigil Knuth made his first discovery of Palaeo-Eskimo presence in Peary Land. The following extract from Eigil's unfinished manuscript about the 1st Peary Land Expedition reflects the spirit of 'the pioneers' at Jørgen Brønlund Fjord:

July 30th 1947: 'After an hour of walking Ulrik and I stop in front of a circle of large stones set on edge close together. We are both aware at first glance that human hands have been at work. The wind has rushed past for centuries smelling nothing but clay and gravel, but for us stands here, mid in the emptiness, a series of thoughts that add up. This is architecture at the primeval stage – a primitive hunting shelter built by the Eskimos as a station on their long wanderings from Arctic Canada to the east coast of Greenland. The discovery does not come completely unexpected. Knud Rasmussen found old tent sites at the mouth of Jørgen Brønlund Fjord and Lauge Koch picked up a piece of a wooden bow in the delta at the base. But this is still a great experience that touches other strings within us than those that have so far resounded. Memories of our own race's past and glimpses of the developments through time set the imagination moving. The stone circle in Brønlunds Fjord has neither grown larger nor changed appearance since similar stone circles were used 30-40 000 years ago by big game hunters at the edge of the ice front in Central Europe....' (p.20-21).

July 31st/August 1st 1947: 'Next day the investigations continued. The Norwegian doctor Kåre Rodahl



Fig. 1.7. The pioneer flight camp of the 1st Peary Land Expedition, Jørgen Brønlund Fjord, summer 1947. Knuth's photo album, 1947.



Fig. 1.8. The Catalina hydroplane ('Mallemuk') delivers the team at Jørgen Brønlund Fjord, 1st Peary Land Expedition, summer 1947. Knuth's photo album, 1947.



Fig. 1.9. Knuth's watercolour of the research station 'Brønlundhus' on the southern shore of Jørgen Brønlund Fjord. Built in 1948, the station served as the headquarters of several interdisciplinary Peary Land Expeditions for almost five decades. Diary, 1971:289.

and I make a twelve hour trip right out to Kap Knud Rasmussen (Knud Rasmussen Cape) at the corner of Independence Fjord. Every single point we go round has a stone circle in evidence of earlier Eskimo occupation and on Vandfaldsnæsset (Waterfall Point) we find a large settlement...' (p.21).

'As we towards midnight reach Vandfaldsnæsset again, I take a closer look at the largest and highest situated Eskimo tent ring. The floor is covered with small wind-polished stones which are bound tightly together by the hard clay underlay. I lie down on my stomach and stare at the cobbles in the intense hope of finding just one small item. I choose a sharp stone and begin to scratch the others loose with it. Then a small flake of black flint-like material appears which I can see has been worked by human hands and this is followed by a second and a third of the same type. There are thousands of similar small flakes round about, worn into facets by the wind, but these do not seem to be wind-worn and there is the suggestion of a percussion bulb at one end on the flat lower surface. So it is very tiny things one has to focus one's attention on, a microlithic culture like that of the Early Stone Age (Mesolithic) at home in Denmark! I call Rodahl, who is sitting down

by the river, and at the same moment he reaches me I flip out a small arrowhead, finely shaped from half-transparent whitish chalcedony. Were these things not the very evidence of the oldest Eskimo culture in Greenland, the Dorset culture, which I had in advance expected to find in Peary Land?

I cannot tear myself away from the spot and Rodahl and I agree that he should go on ahead and brew tea while I continue scratching in the earth a little longer. It produces no further results but I am also fully satisfied and eventually go back to the camp at two in the morning with my treasures hidden in a matchbox.

Ulrik has fried musk ox steaks for me and lies asleep on his back beside them. The only tent with signs of life is Rodahl's furthest away and there he and I heat the steaks and eat them. But as I creep into my sleeping bag at Ulrik's tent I cannot resist waking him and showing him the arrowhead. And although I thought I knew him well something quite unexpected happens which makes it clear how very different from all the other occupants of the world this man is with whom I share a tent. He takes the small thing between his big dirty fingers, becomes quite silent and sits



Fig. 1.10. Sketch of a Thule lamp found at Midsommersøerne, summer 1949. Diary, 1949 (II): 324.

quietly with it while a couple of tears appear in his eyes. Embarrassed he rubs them away with the back of his hand and when he finally expresses his happiness at the find in words, a double meaning lies in the outburst: “No – you must excuse me”.

We discuss the flint items in detail, their technique and what they can say about the immigration history of the Eskimos. In honour of the event Ulrik serves me up a piece of candied peel he has brought from home. And when I finally put the arrowhead and the small flakes back into the matchbox at my bedhead and turn in they have become even more precious to me than they were before. I understand in a completely new way that they are glimpses of touching human tenderness in the rough hunters hands that created them. And as long as I live small Stone Age tools will be evidence of primitive, uncorrupted human minds.' (p. 22-23).

From the Brønlundhus research station Knuth carried out substantial archaeological surveys and excavations during the next two years, 1948-1950. Journeys



Fig. 1.11. Sketch of a chert biface (knife blade with side notches) found at Jørgen Brønlund Fjord, 1950. On this page in his diary Knuth discusses the properties of knapped flint as opposed to ground slate. One line reads: 'A flint blade is full of life, a slate blade is dead' (author's translation). Diary, 1950:138.

by sledge took him and Jens Geisler, his Greenlandic assistant, as far north as Frederic E. Hyde Fjord where the Thule site, Qissivik, was found at Frigg Fjord in 1950 (Knuth 1983:9) and east to Kølneæs where, in 1949, Knuth discovered an umiaq frame and associated artefacts almost hidden by snowdrifts at Herlufsholm Strand (Knuth 1951c, 1952, 1980a). The Palaeo-Eskimo finds from the 1947 season only represented the top of the iceberg. Approximately fifteen sites were identified along the shores of the narrow Jørgen Brønlund Fjord, Deltaterrasserne at the head of the fjord being the most important site. The Palaeo-Eskimo dwellings were investigated during the summers of 1949 and 1950.

Travelling along part of the Musk-Ox Way (Steensby 1916) upstream along the river at the head of Jørgen Brønlund Fjord, Knuth discovered the first of

several inland sites along Midsommersøerne in the Wandel Dal (figs. 1.10 and 1.11).

Knuth expected to find remains of the Dorset Culture in Peary Land. This view was based on finds in Peary Land's neighbouring areas to the south: Lauge Koch's finds at Kap Buddington, (Mathiassen 1928), Erik Holtved's excavations in the Thule area (1944) and Knuth's own find from 1938 of a harpoon head of Cape Dorset type from Sophus Müllers Næs (1940: 133). Accordingly, the 'tent houses' with 'mid-passages' and stone tools found during the 1st Peary Land Expedition were published under the Dorset culture designation (Knuth 1948a, 1948b, 1952). However, based on comparative typology and observations of preservation conditions, Knuth argued that his finds were earlier than the above-mentioned material from the Thule area. They were related to the Denbigh Flint Complex (Giddings 1951) and, accordingly, represented an early Dorset phase in Greenland comparable to the newly (re-)discovered Palaeo-Eskimo finds from West Greenland (Meldgaard 1952). The results of the 1st Peary Land Expedition brought Knuth recognition and a solid standing both among scientists and in the public eye.

The 1950s: Archaeology of the Farthest North

By 1950 Knuth found himself in an optimal position to continue research in Peary Land. He had gained a 'stronghold' at The National Museum of Denmark among the professional archaeologists at the Department of Ethnography and the preconditions for carrying out field work were perfect. The scientific station Brønlundhus had proved its worth. In addition, a military base and meteorological station Station Nord was being established in 1952 by US and Danish forces at the north side of Kronprins Christian Land. Station Nord soon became Knuth's entrance to his Arctic study area.

In 1952-1954 Knuth carried out reconnaissance from Station Nord adding several localities at Prinsesse Ingeborg Halvø and Kap Holbæk to the list of Palaeo-Eskimo sites (fig. 1.12). Based on these investigations and on his material from Jørgen Brønlund Fjord, Knuth introduced the definition of the Independence culture. Accordingly, from now on he separated the Peary Land sites from the Dorset 'label' and a paper in *American Antiquity* marked this event (Knuth 1954a).



Fig. 1.12. Knuth making dinner in his tent during the surveys and excavations at Prinsesse Ingeborg Halvø, summer 1954. Knuth's photo album, 1954.

A visit to Kap Holbæk in the summer of 1954 by means of a Catalina seaplane from Station Nord lasted only four frustratingly brief hours. Much to his regret Knuth was now dependent on external logistics and goodwill from state and military authorities at Station Nord (1958b:9). However, the finds confirmed his definition of the Independence culture and encouraged him to return.

Provoked by the fact that the authorities at Station Nord did not intend to assist him with the transportation of men and heavy gear to Kap Holbæk, Knuth decided to ski the 180 kilometres over the ice of Danmark Fjord. Knuth and his assistant, telegrapher Kristen Sørensen, pulled the gear on pulkas all the way south to Kap Holbæk and subsequently stayed at the head of the fjord the entire summer (figs. 1.13 and 1.14). They were picked up by a Catalina in mid-August (fig. 1.15). The Independence sites, Kap Holbæk (Røde



Fig. 1.13. Knuth and Sørensen hauling their pulkas from Station Nord to the head of Danmark Fjord, June 1955. Knuth's photo album, 1955.

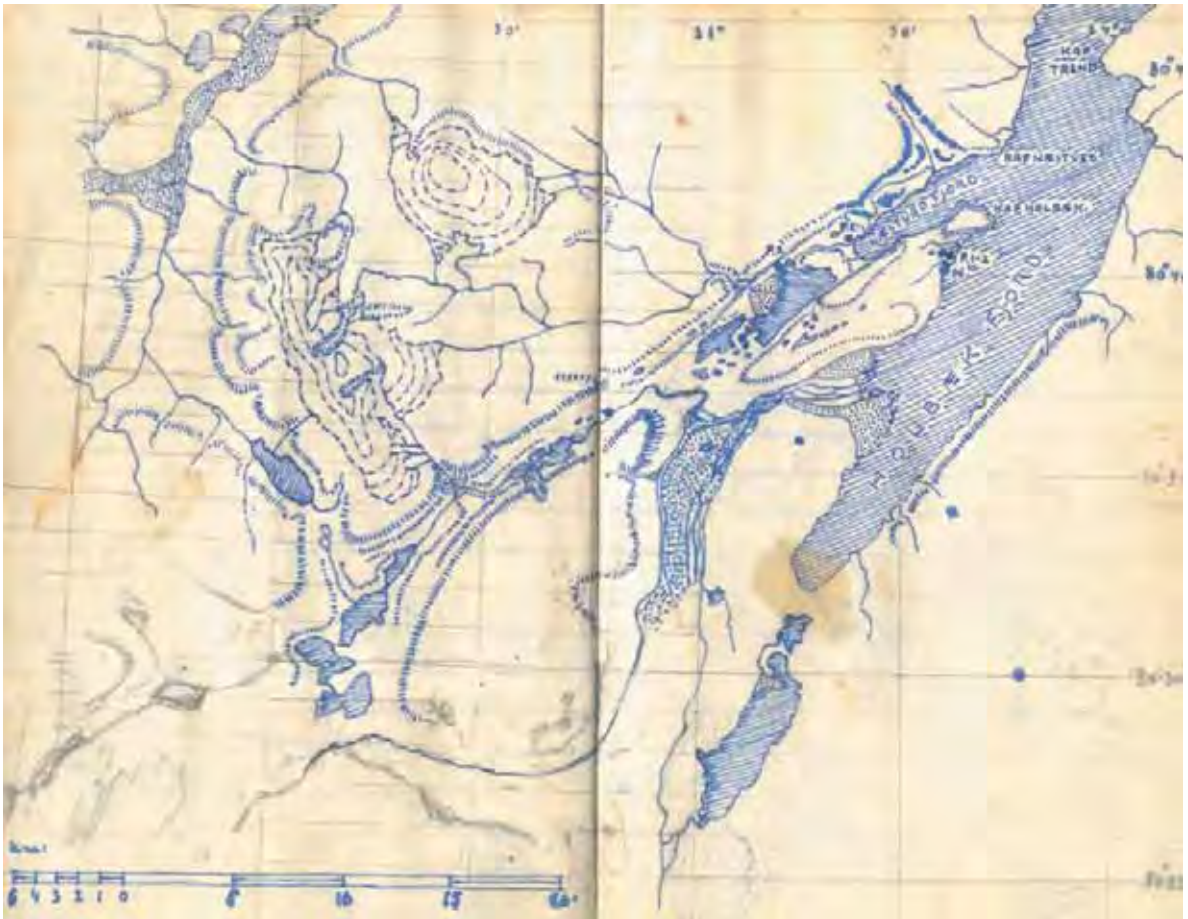


Fig. 1.14. Knuth's sketch of Holbæk and Næstved Fjords, showing the position of the Røde Næs site at Kap Holbæk. Knuth's division between Independence I and II was based on the distribution of structures on different beach ridges at this site. Diary, 1955.



Fig. 1.15. A Catalina took Knuth and Sørensen back from Kap Holbæk, August 1955. Knuth's photo album, 1955.

Næs), Den Blå Flints Boplads and Lolland Sø were found, mapped and excavated (figs. 1.16 and 1.17). Knuth's observations of ruin clusters on raised beach terraces at the complex Kap Holbæk site resulted in the division of the Independence culture into two chronological phases: the Independence I and II cultures. A few organic artefacts, including cloven-foot lances, and a couple of radiocarbon dates – some of the first performed by Henrik Tauber in the Copenhagen laboratory – supported this division of the archaeological evidence. The excavations were published in a paper in which Knuth reviewed the ongoing discussions of the finds and the history of the recognition of Palaeo-Eskimo cultures in Greenland (Knuth 1958).

In subsequent years Knuth took advantage of his personal contacts within the military, including the US forces. Helicopter and air lifts took him west in 1958 along the Musk-Ox Way to Hall Land (Maxwell 2002) including the Late Dorset site Kap Buddington and to the Thule area where Holtved's huge archaeological site Nuulliit was visited in 1958 and 1960. He was also given a lift to the northern coasts of Peary Land in 1960 and he made a short stop at the military 'outpost' at Centrum Sø in the inland of Kronprins Christian Land. These helicopter trips put him on the track of sites and areas which he returned to in subsequent decades.

During the winter and spring months of 1958 and

1959 Knuth went south. He travelled in the Middle East visiting 'the Cradle of Civilisation' in Iraq, Egypt, Israel, Lebanon, Syria and the countries of the Arabian Gulf where Denmark was engaged in a programme of archaeological research in Bahrain.

The 1960s: The Cultural History of Peary Land

Knuth spent the field seasons of 1961 and 1962 far away from the High Arctic. Encouraged by Ebbe Munck, who was appointed Danish ambassador in Bangkok (1959-67), Knuth went to Thailand in order to excavate Palaeolithic caves and rock shelters.

Following the Near and Far East intermezzo, the years from 1963-1971 saw a remarkable series of expeditions to Peary Land. A brief overview is presented in Knuth 1973:12-15. The goal of the 2nd to 8th Peary Land Expeditions was to strengthen the empirical data on the geology, botany, zoology, meteorology and archaeology of Peary Land. The interdisciplinary teams used Brønlundhus as their base, frequently staying in Peary Land for 3-4 months each year (fig. 1.18) (Knuth 1965a). As previously, the archaeological 'team' consisted of Knuth himself and a single field assistant – often a different one each year. The assistants were never professional archaeologists. Intensive surveys were carried out, in particular, in the Wandel Dal – Jørgen Brønlund Fjord area, and great efforts were invested in excavating dwelling structures. A large number of Independence sites were located or revisited.



Fig. 1.16. Sketch in Knuth's diary showing two Independence II end blades, Kap Holbæk. Diary, 1955.

ed, mapped and excavated by Knuth during this decade. Reliable radiocarbon dates confirmed the great age of the Palaeo-Eskimo sites and the division into the Independence I and II cultures. Observations were also made on the enigmatic shelter colonies.

The 2nd and 3rd Peary Land Expeditions (1963 and 1964) focused on Jørgen Brønlund Fjord and the



Fig. 1.18. In the 1960s Knuth extended his range from Brønlundhus by means of skidoos. Photo by E. Gade-Jørgensen, 1968.



Fig. 1.17. Knuth excavates a structure at Prinsesse Ingeborg Halvø or at Kap Holbæk, 1954. Knuth's photo album, 1955.



Fig. 1.19. Knuth made extensive surveys of Peary Land's inland areas. He returned on several occasions to the Wandel Dal west of Jørgen Brønlund Fjord. Photo by E.Gade-Jørgensen, 1968.

Midsommersø area. Knuth and his three companions began the expedition in 1964 with a 250 km survey from Station Nord to Brønlundhus by means of skis and pulkas (Knuth 1965a). Important sites like Vandfaldsnæs, Deltaterrasserne, Portfjeldet and Pearylandville were surveyed and investigated in detail.

The 4th Peary Land Expedition in 1965 was mainly an attempt to follow the Musk-Ox Way back west. Transported by planes from the Canadian and American airforces, Knuth and his young assistant Jeppe Møhl (son of the aforementioned zoologist Ulrik Møhl) managed to survey and partly excavate Palaeo-Eskimo sites on Hall Land (Solbakken) on the Greenland side of the Robeson Channel. Furthermore, Knuth surveyed selected areas on the Canadian side from Lady Franklin Bay to Tanquary Fjord on northern Ellesmere Island and excavated at several sites, including Lonesome Creek and Kettle Lake. He also visited sites in the vicinity of Resolute Bay on Cornwallis

Island. On Ellesmere Island Knuth met Geoffrey Hattersley-Smith, a British geologist, and Moreau Maxwell, an American archaeologist, hired by the Canadian government. An unpublished report on the 4th expedition is included in the Knuth Archive and is on file at the Canadian Museum of Civilization (Knuth 1965b).

The 5th to 8th Peary Land Expeditions were launched during the period 1966-1971. Assisted by among others Hans Berg, an artist, Eskimologist and experienced excavator from Jørgen Meldgaard's investigations in West Greenland, Knuth re-investigated large sites around Jørgen Brønlund Fjord and Wandel Dal (e.g. Gammel Strand, Pearylandville and Engnæs) and attempted to solve questions concerning the function and cultural affinity of the shelter ruins (fig. 1.19).

Through this persistent research effort Knuth was now able to present and analyse the Peary Land sites in papers which ranked among the most important scientific publications on Arctic Archaeology in the 1960s



Fig. 1.20. Knuth at the table in his beloved 'Brønlundhus', summer 1971. Knuth's slide collection.

(1967a, 1967b and 1968). The archaeological database had increased (1968:61) and Knuth dealt with advanced questions about Peary Land's prehistoric architecture, settlement patterns and demography as well as the cultural position of the Independence cultures in a circumpolar perspective. His cultural chronology was based on comparative artefact analyses, systematic surveys of ruins on different levels of beach ridges as well as on a large number of radiocarbon dates



Fig. 1.21. Built in 1972, the scientific station 'Molktehus' at the northern side of Jørgen Brønlund Fjord was the modern descendant of 'Brønlundhus'. Knuth's slide collection.

(1984:140-141). Knuth's personal picture of the world of the Independence people and their position as the 'original and unspoiled hunting societies' was completed during these years (fig. 1.20).

The 1970s: Palaeo-, Meso-, and Neo-Eskimos

In 1972 Knuth took the initiative to establish a new scientific base in Peary Land: Molktehus (The Kap Molkte Station), which was situated on the northern side of Jørgen Brønlund Fjord (fig. 1.21). A 1200 m long airstrip on the clay plain made it possible to supply the scientific station by means of transport aircraft. This project, which emerged in the wake of plans to close down Station Nord, was economically demanding and was supported by the Danish State (Ministry of Greenland) as well as private sponsors. At the demand of the Ministry a private foundation, The Danish Peary Land Foundation, was created. Headed by a board, it was responsible for this new scientific facility in the Far North. Consequently, much of Knuth's attention and time was from now on devoted to the running of Molktehus and the airstrip – a huge task which at times took the breath away even from this 'one man army' both in the field as well as at his desk in Copenhagen. There is a break in Knuth's scientific publications until 1978.

In spite of the work load concerning the logistics of the new base, Knuth managed to carry out archaeological field work in connection with the 9th-16th Peary Land Expeditions during the 1970s. In 1972 he investigated the shelter colonies Stjerneborg and Uranienborg at Aftenstjernesøen in the upper Wandel Dal and in 1975 he conducted excavations of dwellings at the Independence I sites at Kølterrasserne (Knuth 1981:94, 97ff).

The now ageing researcher returned in 1975 to the Thule area and embarked on excavations at the Old Nuulliit site. During his brief visits in 1958 and 1960 Palaeo-Eskimo finds were made on beach ridges high above Holtved's Thule Culture settlement (New Nuulliit). Knuth wished to examine what he interpreted as the southern gateway to Greenland, Steensby's Caribou Way. Old Nuulliit is a very large site. Knuth mapped seven different groups of ruins pre-dating the Neo-Eskimo 'village' on the peninsula. A number of quite diffuse dwelling structures were excavated on the highest beach ridges. This material gave Knuth the opportunity to introduce his Old Nuulliit Culture

(1978a:34). Based on typological comparisons with the inventory of the Denbigh Culture and on three radiocarbon dates for bones of marine mammals he introduced the Old Nuulliit Culture as representing the true Palaeo-Eskimo pioneers who migrated into Greenland about 3000 BC (discussed by Elling 1996).

Knuth also found dwellings on the lower beach ridges at Nuulliit. The character of their very sparse inventory and their topographical situation between the early Palaeo-Eskimo traces and the Neo-Eskimo 'village' on the present beach led him to define a Meso-Eskimo culture. This was obviously inspired by the division of the Stone Age in Europe. Accordingly, Knuth's 1978 publication expressed his firm opinion that the Inuit cultural history of the Eastern Arctic should be described as a trilogy consisting of Palaeo-, Meso- and Neo-Eskimo cultures.

This decade was rounded off with an important paper in which Knuth described and analysed the Neo-Eskimo shelters found particularly along the lakes and rivers of the Wandel Dal and at the head of Jørgen Brønlund Fjord (1981). The few finds in the shelters indicated a Thule culture affinity for the seven shelter colonies. Radiocarbon dates confirmed that the shelter colonies were contemporary with the umiaq at Kølneæs and limited to a brief period around 1400-1450 AD.

In 1979 Knuth was made 'Dr *honoris causa*' at the University of Copenhagen in recognition of his epoch-making archaeological research in High Arctic Greenland.

The 1980s and 1990s: Adam C. Knuth Site and Île de France

In the summer of 1980 Knuth had his 77th birthday. This fact did not, however, limit his archaeological activities in the Far North. That summer he went back to the northernmost site of them all, the Whale Terraces in Frigg Fjord, where he excavated a couple of Independence II ruins. This was an opportunity to elaborate on the interpretation of the architecture of the 'mid-passage dwellings' (1983:8-12). The highlight of the summer, however, was the finding of the rich Adam C. Knuth Site (named after Eigil's younger brother) which was situated on raised beaches to the north of the Whale Terraces: 'I stood spellbound on an Independence I ruin site – the missing link in the pre-history of northernmost Peary Land – where the grav-

el field was teeming with chert tools and refuse chips sparkling like diamonds in the sun' (1983:12-13). Knuth and his assistant could only stay a day at the site but they collected finds on the surface. 'The site tempts us with its great quantities of bones and chert on the surface', Knuth wrote in 1983. Consequently, he made two expeditions, in 1984 and 1985, to Adam C. Knuth Site. In 1985 he was assisted by Henrik Elling, then a student of Eskimology and archaeology at the University of Copenhagen. The small team continued surface collection and excavated a couple of Independence I ruins. Knuth was very enthusiastic about the site. The material was, however, never published.

At the age of 84 Knuth organised a three-year campaign, 1987-1989, at a site which had been on his list of wishes since his survey of North-east Greenland in 1939: the Kap Skt. Jacques Site at Île de France. Times had changed since Greenland took over the administration of its cultural heritage in 1982. Consequently, Knuth had to involve The Greenland National Museum in the planning. Together with the then head of the museum, Claus Andreasen, who was conducting investigations in the Dove Bugt area at the time, Knuth visited the site and was given permission to excavate a number of features. Assisted by a couple of students each year (Jens Fog Jensen, Thomas Berg, Johan Davidsen, Tim Grønnegaard), Knuth managed to survey the entire site which proved to be the largest Palaeo-Eskimo site in Greenland and probably in the entire Eastern Arctic (fig. 1.22). It comprises over 400 individual dwelling structures distributed over a complex series of beach ridges forming the southern tip of the island. Knuth proudly presented a map of the site to the Danish Queen Margrethe II on her 50th birthday in 1990 (Jensen 2000:202-203). The great majority of the structures at Kap Skt. Jacques belong to Knuth's Meso-Eskimo phase (Independence II or Dorset I in Greenland) but Early Thule culture features were also found. All structures were documented and several were excavated during the 1988 and 1989 field campaigns.

As a consequence of a discussion with the younger generation of Arctic archaeologists in Copenhagen (Elling 1996), Knuth returned to Old Nuulliit in 1990. He wanted to supplement the earlier finds and, hopefully, add new radiocarbon dates which could confirm the cultural position and extremely early date of his Old Nuulliit culture. Fighting rough weather condi-



Fig. 1.22. At the age of 84 Knuth embarked on a three year archaeological campaign at the Independence II site, Kap Skt. Jacques, North-eastern Greenland. Photo by Jens Fog Jensen, August 1988.

tions on the exposed promontory, the 87 year old Knuth and his two student assistants, Tim Grønnegaard and Claus Keld Hansen, managed to excavate a few features and photograph most of the structures. This was Knuth's last archaeological field season. His incredible mental and physical powers were eroded and repeated thoughts and worries about the future of his archaeological material and the scientific station Molktehus dominated the years to come. Even so, he returned to Peary Land each summer. He celebrated his 90th birthday on August 8th 1993 at Molktehus where several notable dignitaries paid him a visit.

Archaeology was on the Knuth agenda until his very last season in Peary Land. In North-east Greenland the present author, Bjarne Grønnow, carried out a brief survey in Dijnphna Sund in August 1995. Immediately after my return to the geologists' base camp at Centrum Sø, Knuth was on the radio

from Molktehus. In spite of poor radio reception and Knuth's hardness of hearing, we had a great chat. He, naturally, commented enthusiastically on a couple of Independence II sites which I had located on Lynn Ø in his High Arctic study area.

Eigil Knuth – a Monolith in Arctic Archaeology

Eigil Knuth's six decades of research stand out as a unique contribution to Arctic archaeology. His interpretations of the cultural history and prehistoric human life in the High Arctic are frequently referred to and discussed in international literature concerning the initial human colonisation of the Arctic.

There are, however, also obvious problems connected with Knuth's approach to archaeology. As can be seen from the overview of his career above, he 'monopolised' the archaeological exploration of Peary Land. He almost never collaborated with colleagues on surveys and excavations and he never published joint papers. Similarly, access to the Peary Land finds, records and archives was extremely limited – and to some extent it still is. Knuth kept the finds and data either at his 'private office' at the National Museum or in his studio apartment in Carl Johans Gade, Copenhagen.

A glance at his collection of letters and reprints shows Knuth's great national and international network. Many professional Arctic archaeologists have corresponded with him or visited him at his studio apartment. It was an extremely interesting and inspiring experience for a visiting student or colleague to meet Knuth. On the other hand, one sometimes had the feeling that the experience was not mutual. He was highly intelligent, had a strong personality and a firm grasp of almost every 'classical' discipline. Consequently, he could dominate conversations completely. At the same time he was vulnerable and he often abruptly stopped contacts with friends and colleagues either in the wake of a discussion or, in the case of his assistants, as a consequence of disagreements in the field. This resulted in his more or less voluntary position on the fringes of the relatively small archaeological environment in Denmark.

Knuth's isolation in Denmark is reflected in his methodology. For example, when surveying archaeological sites he never used a grid. His site maps and even plan drawings of the individual structures are based on triangulations. Consequently, flakes and

bones were collected within triangular areas of different size and shape. In some cases the positions of the finds within the structures were also recorded in this triangulation system but most often this information is lacking. Knuth never recognised the importance of plotting the positions of tools, bones and lithic debris on site surfaces or of sieving the spoil from his excavations, even when his assistants and colleagues from the younger generation often attempted to discuss such issues with him.

However, the most important problem concerning Knuth's archaeological research is that he carried out excavations and surface collections using the same methodology for 60 years. The quantity and quality of the new knowledge gained through his last two decades of activities does not compare favourably with the degree of destruction and disturbance which his investigations inflicted on the rare and 'vulnerable' sites of High Arctic Greenland.

In conclusion, Knuth's most important contributions to Arctic archaeology can be summarised thus:

- 1) He carried out comprehensive systematic surveys and excavations of archaeological sites covering the huge area of High Arctic Greenland from Hall Land in the West via Peary Land in the North to Dove Bugt in North-east Greenland.
- 2) He introduced definitions and descriptions of the Independence I and II cultures based on a solid and varied foundation of archaeological observations, materials and architectural data, topographical studies and series of radiocarbon dates.
- 3) He identified the initial Thule culture migration period in Peary Land and investigated important Thule finds and sites, including the 'shelter colonies' and the umiaq site at Kølneæs.
- 4) He wrote the most original scientific papers and books about human life and cultural history in the High Arctic.

Greenland and its people were always close to Knuth's heart. It was his wish that all archaeological finds from Peary Land and North-east Greenland be transferred to The National Museum of Greenland in Nuuk. This wish was fulfilled about six months after his death when the 'The Board for Collaboration between Danish and Greenlandic Museums' decided to return all Knuth's finds from the High Arctic to Greenland.

1.3 The Database – Knuthbasen

The major part of Knuth's archival material is kept in the Queen's Personal Library at the Royal Palace, Christian VIII's Palæ, Amalienborg, in Copenhagen (Haagen 1997a). A minor part, mainly duplicates of notes and maps, is kept at the Danish Polar Center by the Peary Land Foundation (Haagen 1997b).

In the Queen's Personal Library the archival material is stored on 25 metres of shelves in a compact storage system plus a section of large metal drawers. The material comprises Knuth's published books and articles, folders containing manuscripts, letters, administrative papers, photos (including all negatives and slides), plates, original survey drawings, working drawings, field notebooks and diaries from 1913 to 1995. Archival material concerning Knuth's archaeological research in High Arctic Greenland is contained in the electronic database, Knuthbasen.

Knuth planned to present the archaeological material site by site. Accordingly, he organised the material in paper covers, one for each site. He did not complete this systematic organisation of his notes, drawings and photos. Nevertheless, it constituted a marvellous guideline for our work in organising and entering the data into Knuthbasen.

In principle, all information from between these covers was entered into the database: photos, drawings, plates and text (in Danish). Every photo and drawing of archaeological importance is listed in the database. However, with regard to scanning, we had to limit redundant information and choose between a large number of versions of, for example, working drawings and sketches (maps, site surveys and drawings of features) which Knuth had stored in his covers. The following considerations determined which version(s) were entered into the database via scanning. Preference was given to:

- 1) Working drawings containing the most information, i.e. clear drawings showing most details and least traces of re-working.
- 2) Original drawings/field notes and drawings including information which is not shown on the working drawings (e.g. limit of excavation, artefact numbers and exact positions).

The typed pages were typically entered into the data-

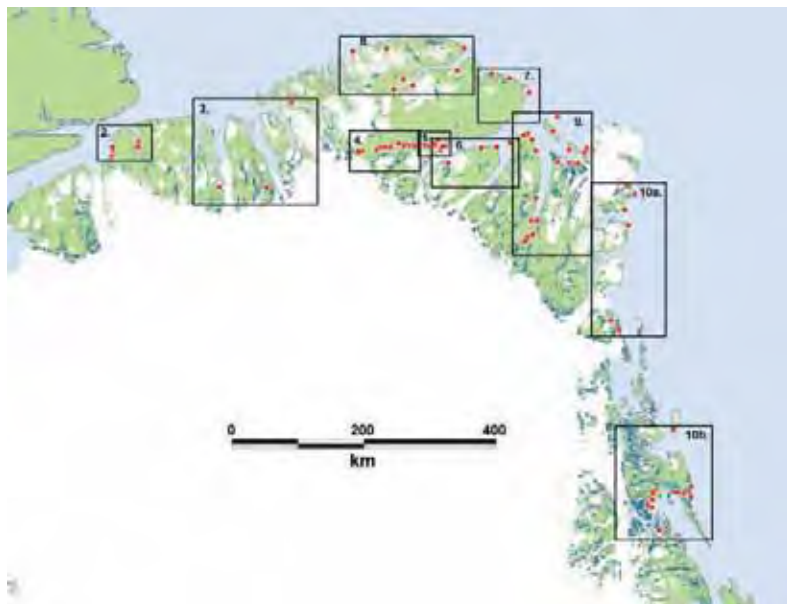


Fig. 1.23. Map of Northernmost Greenland showing the map sections used in the catalogue. Map section numbers refer to the chapters. Enlarged map sections introduce each of the chapters they refer to. Maps by Kristoffer Buck Pedersen.

base via an OCR-scanner, whereas Knuth's hand-written extracts from his diaries were typed into the electronic database.

Supplementary information or data which was lacking in the covers was sought elsewhere in the archival material, including in the comprehensive collection of black and white photos and colour slides. In some cases the original diaries were consulted.

Each site, photo, drawing, piece of text and plate is provided with a unique number and is structured as follows:

Knuth-site: a table containing identification information on every High Arctic site investigated by Knuth. Supplementary information from Knuth's unofficial list of place names, the Baedeker, and from the Sites and Monuments Register of the Greenland National Museum and Archives is included.

Photo: site and feature photos (b/w and colour slides), site by site, scanned into the database from the archive.

Drawing: drawings scanned into the database from the archive: working drawings, sketches and original field drawings belonging to each site.

Text: the complete textual material – extracts from field notes and diaries – belonging to each site.

Plate: drawings of artefact collections or photos of artefacts from specific sites.

In total, Knuthbasen contains information on approximately 150 sites. 1500 photos have been registered, including about 720 scans (500 b/w and 220 colour slides). Furthermore, approximately 870 extracts of text of various length, 270 original drawings and working drawings of sites and structures and 67 plates showing artefacts, have been entered into the database.

Extracts from Knuthbasen form the basis of the archaeological descriptions in this book. Copies of the Knuthbasen will be stored at the national museums in Denmark and Greenland.

In the following catalogue the archaeological sites and finds in Northernmost Greenland are listed regionally from west to east. Whenever Knuth presented his data, he favoured an organisation following the 'Musk-Ox Way' (Steensby 1916). Knuth's record of place names, the so-called Baedeker, and his site lists are organised in this manner and, accordingly, this book follows the same sequence. The first time a place name given by Knuth is mentioned in the text it is translated or explained in English.

The catalogue is divided into eight sections according to a geographical division of Northernmost Greenland as presented on the overview map (fig. 1.23) and on the detailed maps in the beginning of each of the chapters 2-10. A topographical overview of the geographical area introduces each chapter.

The archaeological sites are presented as follows in the catalogue:

10.4 Sophus Müllers Næs (*chapter number and site name*)

Thule (*cultural affiliation*)

80Ø1-000-007 (*official number in the archives of sites and monuments of the Greenland National Museum and Archive*)

Site 182; text 838; drawings 15, 61; photos 564-568, 1301-1303; plate 28 (*catalogue number, references to texts, drawings, photos and plates in the database*)

Following these headings the history of research of the site, the topography and the site layout are described. Next come systematic descriptions of each feature, finds and statistics concerning lithic artefacts. If faunal material has been found in the structure it is presented as identified by either Jeppe Møhl, Ulrik Møhl (Zoological Museum, University of Copenhagen) or Chistyann Darwent. Finally, there is a site summary and discussion.

The author of the catalogue (Jens Fog Jensen) has based the artefact descriptions and statistics on

Knuth's own records in the Knuth Archive and listings in the archives of the National Museum of Denmark. Throughout the book, reference to artefact numbers at the Ethnographical Collection, National Museum of Denmark, is given. These numbers start "L1" followed by four or five digits. With a few exceptions all these artefacts are now repatriated to the Greenland National Museum and Archives. Fauna material is stored at the Zoological Museum, University of Copenhagen.

In the selection of illustrations for this book, emphasis has been put on Knuth's drawings. Most of the drawings were ready for printing but in a few cases Knuth's pencil sketches have been redrawn by Jens Fog Jensen. Among the numerous drawings and photos examples were selected which present as much unpublished documentation as possible. This means that many drawings and photographs already published by Knuth have been omitted.

Where nothing else was mentioned in the archives, we have assumed that photos and drawings were by Knuth. If, however, another photographer should have been credited, we apologise.

Hall Land – The Doorstep to Greenland

2.1 Introduction

To the south, Hall Land is separated from Washington Land by the Petermann Glacier and to the east it is bounded by the Inland Ice (fig. 2.1). To the south-west and to the west the Hall Basin and the Robeson Channel separate Hall Land from Grant Land, the northernmost part of Ellesmere Island. To the north-east Hall Land is delineated by the 90 km long fjord named Newman Bugt. The southernmost part of Hall Land is a hilly area bordering the Inland Ice which feeds several rivers running from south to north. North of the mountains Hauge Bjerger, most water-

courses feed into the two large rivers Atka Elv and Gråsten Elv, as these two rivers wind their way through an extensive lowland of rolling hills gently rising from the shore. In this area there is relatively easy over-land access from Hall Basin to Newman Bay. The northernmost part of Hall Land named Polaris Promontory is more hilly with peaks reaching 800 m a.s.l. In this area there is only a little foreland in front of the often vertical sedimentary rocks rising just a few kilometres from the shore.

Inspired by Steensby (1916), Knuth (text 549) considered Hall Land to be the doorstep to Greenland, crossed for the first time by Independence I people following the 'Musk-Ox Way'. From Northern Ellesmere



Fig. 2.1. Archaeological sites in Hall Land investigated by Knuth.

Island, these people migrated through the mountain passes and valleys between Tanquary Fiord and Lady Franklin Bay, with its east-facing mouth pointing towards Hall Land on the Greenland side of the Robeson Channel just 20 kilometres away.

Only little systematic archaeology has been carried out in Hall Land. Prior to Knuth's work, several British and American expeditions frequented the Smith Sound area but most of these earlier teams were busy reaching the North Pole. Knud Rasmussen was therefore the first to search intensively for traces of human settlement along the shores of the Polar Sea (Rasmussen 1915). During the summer of 1958 Knuth had the opportunity to survey large coastal stretches of Hall Land and he succeeded in finding a number of archaeological sites of which several are early Palaeo-Eskimo. In 1965 he was provided with transport to northern Ellesmere Island by Operation Groundhog. This also gave him the opportunity to return to Hall Land where he conducted additional investigations on several of the ruins at Solbakken.

Rasmussen's work in Hall Land was conducted under harsh winter conditions and Knuth may not have been able to survey all the places he wanted to. Hall Land must thus still be considered relatively unknown. However, the coast often has steep cliffs or scree-cones falling directly into the sea and large segments of the interior landscape comprise monotonous barren ground. Knuth had a special ability to sense and select the right locations so he has most likely discovered the largest and most important Palaeo-Eskimo sites but important sites relative to the completion of the picture may still lie undetected.

2.2 Kap Buddington

Late Dorset

8rV2-000-002

Site no. 266; photos 1162-1265

During his 1958 survey Knuth revisited the Late Dorset ruin discovered by Lauge Koch and published by Mathiassen (1928) (figs. 2.2 and 2.3). During this visit Knuth collected an additional number of lithic as well as organic artefacts (LI.7331-7337). Among the organic artefacts there is a 73 cm long sledge shoe of whale bone (LI.7331) which was found 2-3 metres in front of the dwelling. Inside the dwelling structure Knuth



Fig. 2.2. (photo 1165) Mid-passage feature in Late Dorset dwelling at Kap Buddington. Initially discovered by Lauge Koch and re-excavated by Knuth in 1958.

found a cut walrus tusk (LI.7334), a pointed wooden peg and several pieces of disintegrated wood (LI.7335-7331). The site has been radiocarbon dated (K-4256) to 690 ± 65 radiocarbon years BP, giving a calibrated date with one standard deviation of between 1270 cal. AD and 1400 cal. AD.

Fauna: In all 51 faunal specimens were recovered by excavation of the house interior and a midden directly in front of the structure; these included 10



Fig. 2.3. (photo 1164) Overview of Late Dorset site at Kap Buddington. The Late Dorset mid-passage feature is in the foreground.



Fig. 2.4. (photo 1166) Atka Elv delta seen from the south. The Solbakken site is located on fossil delta terraces in the northern part of the delta.

unidentified fragments. All the terrestrial mammal bones (49 g) were sent by J. Møhl for radiocarbon dating in 1984. The assemblage comprises 9.8% juvenile bird, 9.8% hare, 4.8% fox, 68.3% seal and 7.3% musk ox or large terrestrial mammal. Each of these species, however, represents a minimum of only one individual; i.e. the relative frequency of bone may reflect density-mediated attrition as nearly all seal bones in this assemblage are dense skeletal elements. If these seal bones are from a single individual, it was an old adult of at least seven years of age when it died (Storå 2002a, b). The presence of juvenile bird bone suggests summer occupation.

Table 2.1. Lithic artefacts from Late Dorset ruin at Kap Buddington, Hall Land.

Artefact category	No.
Microblades	2
Other flint objects	1
Total	3

2.3 Solbakken

Independence I
81V2-000-004
Site no. 274; texts 594, 613-619, 773-780; drawings 18,

19, 20, 41, 45; photos 439-440, 613-622, 1167-1174; plates 13, 14, 15, 21.

The 13 features located at the Solbakken site (the Sunny Hill) lie scattered along a 20 m high and more than 200 m long ridge on a barren gravel hill just north of the large delta formed by the Atka Elv in the middle of the west coast of Hall Land (fig. 2.4). The hill is located about 1.5 km from the westernmost point of the active river delta, while the shortest distance to the ocean in the bay north of Atka Elv Delta is around a half kilometre. The hill is oriented NW-SE and most terraces lie parallel, shaped by former coastlines (fig. 2.5). To the north and south the hill is bounded by ravines which presumably are water-bearing during the spring. The northern ravine is steep and deep with boulders strewn on the riverbed at its base. The Independence I settlement is located rather illogically from a recent topographical point of view and Knuth believed the northern ravine to have been a major drainage channel for the Atka River during Independence I time when the site was occupied. When going down slope at the northern end of the hill one passes a protruding 10 m lower gravel terrace with fossil ridges at its tip, as if it had formed a headland. At the foot of the southern part of the hill, and at approximately 11 m a.s.l., there is a large plateau, measuring 100 x 100 m, with large boulders. This is a diluvial fan, the surface of a former river delta, which to the south, west and north falls towards a recent active alluvial fan in steep gravel cliffs.

Knuth discovered the site in 1958 during his survey of Hall Land and most of the promising features were excavated during the following days of fieldwork. In 1965 Knuth returned to carry out supplementary excavations and surface collection from several of the features to which he had not paid too much attention during the initial fieldwork. Solbakken has only little vegetation comprising willow, mountain avens and arctic poppy. Lithic artefacts were scattered all over the ridge around the ruins and 8-10 m down slope in front of the settlement. Everywhere there were enamel splinters from musk-ox teeth and, to a lesser degree, disintegrated bone splinters. Only those artefacts found during excavation can therefore be related with certainty to a specific ruin. The surface finds are related to the nearest ruin and in several cases such a designation seems appropriate since distinct artefact scatters were, in most cases, found near a ruin or

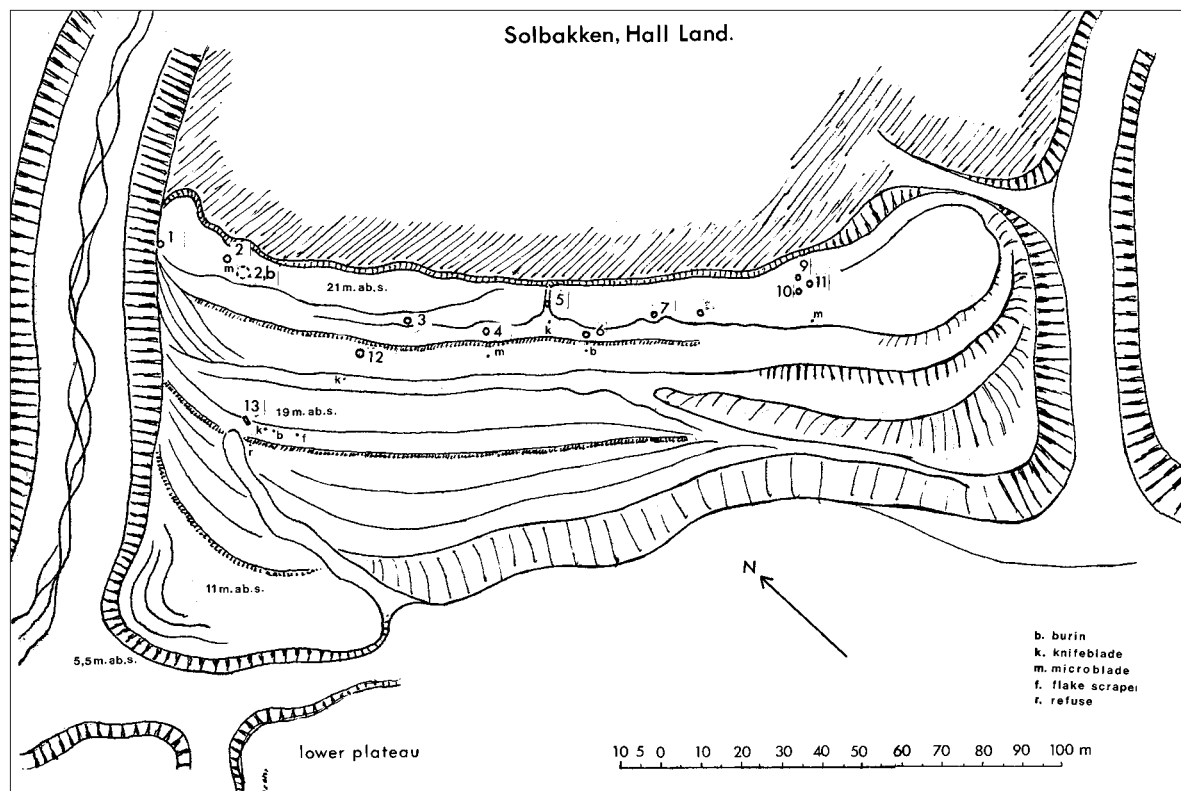


Fig. 2.5. (drawing 18) Site map of the Solbakken site.

down-slope in front of it. Artefacts collected in 1958 are numbered LI.7160-7329 whereas the collections from 1965 are numbered LI.8641-8711.

Features and Finds from Solbakken

Descriptions

Upon arrival, the features at Solbakken were only scarcely visible. From north to south, the features and their associated finds can be described as follows.

Feature 1

Isolated box hearth (text 614)

The hearth is located on the edge of the high steep cliff towards the northern ravine. The collapsed box hearth is square, built of thin vertically-set slabs, of which a few still had the buried part *in situ*. Digging within the feature showed that the soil in the box was darker than that outside. The finds comprised a middle fragment of a bone needle (LI.8641) and a few lithic artefacts (LI.7160-LI.7164 + 8642, plate 13 no. 15)

Table 2.2. Lithic artefacts Solbakken feature 1.

Artefact category	No.
Bifaces, all fragments included	2
End scrapers	1
Retouched flakes	1
All flakes	55
Total	59

Feature 2

Isolated box hearth (text 615)

Feature 2 is very similar to feature 1 and it measures 0.4 x 0.5 m. 6-10 large red or banded black and white round fire-cracked rocks of gneiss or granite fill the box. Both behind and 1 m in front of the fireplace flagstones had been placed on top of the gravel. During the investigation in 1958 Knuth found only lithics (LI.7165-7174) but when the feature was re-excavated in 1965 he found further lithic artefacts as well as the proximal end of a broken needle with an unfinished circular eye (LI.8643-8650).

Table 2.3. Lithic artefacts Solbakken feature 2.

Artefact category	No.
Bifaces, all fragments included	1
Microblades	8
Burin spalls	3
Retouched flakes	1
Large flake/rough-out	2
All flakes	22
Total	37

Feature 2b

Cache? (text 616)

Feature 2b is a 4 m circular pit in front of feature 2. The pit had been dug into a fossil beach ridge of fine gravel and it was surrounded by a low berm with a front identical to that of the beach ridge. No finds were made in the pit and no further investigations were carried out in this feature. A sample of musk-ox bone from Feature 2b has been radiocarbon dated to 3870 ± 85 BP, giving a calibrated date of 2470-2200 BC.

Fauna: No bone material was collected from feature 2. However, one musk-ox cranium fragment (frontal right occipital and right horn core) was collected in 1965 from Feature 2b. This specimen was sent for radiocarbon dating in January 1979 (J. Møhl).

Feature 3

Box hearth (text 617; photos 615, 1171)

Feature 3 is a box hearth very similar to features 1 and 2, located on top of the ridge 43.3 m south-east of feature 2. The hearth is built of four boulders slightly larger than the ones used in the construction of features 1 and 2. Fire-cracked rocks fill the box and it measures 34 x 34 cm. No finds are associated with feature 3.

Feature 4

Box hearth (text 618, plates 13 and 14)

Partly-collapsed box hearth of same type as features 1, 2 and 3. The stones on the south-eastern and south-western sides were still in position when Knuth investigated the feature in 1958. 7 m in front of the feature, and approximately 2 m lower, there were several flagstones surrounded by willow bushes. Around the flagstones, and on the slope above them, Knuth found several lithic artefacts and a fragment of a musk-ox limb bone (LI.7175-7188, LI.8650a and LI.8652-8657), see also plates 13,2-3 and 16 and plate 14,6.

Fauna: One musk-ox *tibia* fragment (right lateral mid-shaft) was recovered in 1958.

Table 2.4. Lithic artefacts Solbakken feature 4.

Artefact category	No.
Bifaces, all fragments included	2
Microblades	11
Burins	2
End scrapers	1
Large flake/rough-out	2
All flakes	78
Total	96

Feature 5

Flagstone scatter (text 619)

Feature 5 is an amorphous flagstone scatter located around a frost crack running perpendicular to the front of the highest fossil beach ridge. Cryoturbation has moved some of the flags into a vertical position. In a depression on the terrace below, in front of the beach ridge, Knuth found a large knife blade (LI.7189, Fig. 2.8, no. 5).

Table 2.5. Lithic artefacts Solbakken feature 5.

Artefact category	No.
Bifaces, all fragments included	1
Microblades	1
Total	2

Feature 6

Mid-passage dwelling (text 773, drawing 41)

The ruin is located 10.5 m south-east of ruin 5. Prior to excavation it consisted of a 3 x 2 m elliptical depression dug into one of the uppermost terraces. The gravel berm surrounding the horizontal floor area was higher towards the back than towards the front and the elliptical floor space was orientated parallel to the beach ridge. No stones were visible in the structure prior to excavation but both within and outside the depression there were more finds scattered on the surface than seen at any other features at Solbakken. During the initial excavation Knuth removed 20 cm of gravel. Under this layer there was gravel mixed with humic soil, worked bone and fragments of burnt bone. A collapsed mid-passage structure originally made of thin slabs appeared in the central part of the dwelling.

The 60 cm long and 25 cm high back-stone in the south-east side of the passage still stood vertically *in situ*. Knuth reconstructed the rest of the mid-passage from the many tilting flagstones, some of which still had one end buried near its original position. Stone no. 4 is believed to have stood vertically at the front of the south-west side of the mid-passage since part of the flagstone was red (hatched), whereas the remainder was yellowish-grey in colour as a consequence of it having been imbedded in the soil (text 773). The location of virtually every stone is meticulously discussed by Knuth but when looking at his drawing one has to be aware of the fact that it represents a composite picture. The large 10 cm thick flagstone K was, for example, found in the 15 cm thick sterile gravel layer covering the humus- and find-rich floor area, whereas vertical stones 15 and 18 were found beneath K. The appearance of feature 6, and the spatial distribution of the associated artefacts, is the result of both cultural and natural factors but the limited data on the stratigraphy and the lack of analysis of the inventory hamper more detailed conclusions on this matter. Knuth writes that the gravel layer covering the find-rich humic floor area was sterile, yet there were several surface finds, also from within the depression. This could mean that more than a single habitation phase is represented in feature 6 but it could also be the result of post-depositional forces acting on the surface gravel. However, the fact that Knuth characterised the covering gravel layer as sterile must mean that no artefacts were found buried in the gravel covering the interior of the dwelling. Unless Knuth is wrong in this observation it seems that the possibility that surface finds were lifted by cryoturbation from the floor layer beneath the sterile layer of gravel can be discounted. Otherwise one would expect some artefacts to have been found 'on their way to the surface' but still embedded in the gravel. Most likely the gravel layer covering the floor should be seen as being the result of the originally higher gravel walls filling in the interior of the slightly dug-out floor space. The gravel walls were built during the initial phase of habitation and were therefore built of sterile gravel. With this scenario, the surface finds would then have been left by people living on the site after the floor had been covered by the sunken inner wall. A third option is that the sterile gravel layer was added by humans prior to the second period of occupation. If this were the case, however, one would

also expect artefacts to be embedded in the gravel layer since the gravel would presumably have been collected from nearby surfaces strewn with artefacts from the first period of occupation. Whatever the explanation for the stratigraphy it will remain obscure until refitting analysis and /or other more detailed analyses are carried out on the surface finds and those from the floor layer. Fortunately, it is possible to conduct such analyses since Knuth kept the finds from the surface (LI.7190-7199, LI.7211-7212, LI.7201-7210) separate from the finds from the floor level (LI.7229-7273). During his visit in 1965 Knuth re-investigated ruin 6, supplementing both the lithic and the organic inventory lists (LI.8658-8666) with, among other things, a bone flint flaker. However, it is not quite clear from where the finds were recovered during this season.

Artefact distribution

Knuth did not plot the artefacts individually but during the 1958 excavation the approximate location of the artefacts in the floor layer was noted and he also registered a number of structural details concerning the dwelling. The floor plan was compared to the division of the floor space used by Saami people and in his original text Knuth use the Saami terms for the different compartments. In three corners marked B, C and D Knuth found small pits containing ashes and fire-cracked rocks. He believed these to be cooking places, whereas the constantly burning hearth would have been located in the centre of the dwelling (A). In terms of their spatial distribution, the lithic artefacts from the floor layer excavated in 1958 could be linked with points A-D. Around the hearth Knuth found two microblades, six flakes and four pieces of bone, two of which have been worked. Near B he found two microblades, two unidentified lithic objects and a stiletto of walrus tooth. North-west of B he found three microblades and eight bone fragments, three of which are burnt. Near C Knuth found seven microblades, one microblade core, two flakes, three needles, a point of walrus tusk and a few bone splinters. Near D there was a biface and a microblade. In front of the mid-passage there was a burin spall, a flake and a bone needle and behind the hearth (marked A), Knuth found a burin spall, two bone needles and a bone splinter.

Fauna: Knuth collected 54 bone specimens from this feature in 1958. A musk-ox *femur* mid-shaft fragment was sent for radiocarbon dating on 5th February

1995 (J. Møhl). Arctic hare comprises 3.7%, fox 7.4%, seal 3.7% and musk ox and artiodactyl together comprise 77.8% of the identified specimens from feature 6 at Solbakken. Since no bird remains were recovered this feature was probably occupied during the cold season. It is doubtful that the absence of bird bone is simply preservation or recovery bias, as very delicate hare and fox bones were recovered from this feature and bird bone was recovered from adjacent features at this site.

Table 2.6. Lithic artefacts from the surface of Solbakken feature 6, 1958.

Artefact category	No.
Bifaces, all fragments included	3
Microblades	13
Burins	6
Burin spalls	3
End scrapers	3
Retouched flakes	1
Microblade cores	2
Other artefacts	3
All flakes	41
Total	75

Table 2.7. Lithic artefacts from the floor layer of Solbakken feature 6, 1958.

Artefact category	No.
Bifaces, all fragments included	1
Microblades	14
Burin spalls	2
All flakes	9
Total	26

Table 2.8. Lithic artefacts from Solbakken feature 6, 1965.

Artefact category	No.
Bifaces, all fragments included	1
Burin spalls	1
All flakes	18
Total	20

Feature 7

Mid-passage dwelling (text 774; photos 616, 617, 618)
This feature is located 15.5 m south-east of feature 6 to which it has many similarities. In contrast to feature 6 Knuth noted the vertical stones already prior to excavation.

Some of the vertical flagstones had their upper edge 20-25 cm above the gravel surface. On excavation the feature proved to be so collapsed that the details could not be deciphered and Knuth made no finds, so feature 7 was left with no further registration. However, during the 1965 visit a fragment of microblade was recovered (LI.8667).

Fauna: Knuth collected only one bone specimen in 1965 from feature 7 – an adult musk-ox mandibular incisor showing moderate wear.

Feature 8

Dwelling (text 775; photos 619, 1172)

Feature 8 is located 11 m south-east of feature 7. It is a ca. 2 x 2 m well defined circular depression in the beach ridge, surrounded by a low but distinct gravel ridge (fig. 2.6). On the terrace in front of the feature there are many flagstones and near the rear section of the surrounding gravel berm there are a few vertical flagstones. This makes Knuth believe that a mid-passage feature may be hidden in the gravel as it was in feature 6. A few artefacts were collected from the surface (LI.7274-7276) but Knuth writes that time did not allow for feature 8 to be excavated. This statement applies only to the 1958 visit, as it can be seen on photos 619 and 1172 that feature 8 was excavated during his 1965 visit. Several needle fragments and 159 lithic artefacts were recovered during this excavation (LI.8668-8697). The ruin has a slightly lowered, dug-out floor area surrounded by a gravel tent ring with a central hearth and a flagstone platform in front. With its content of 17 lithic artefacts and 154 flakes, feature 8 compares favourably with features 2 and 4 in terms of artefact numbers, but in contrast to the isolated hearths 2 and 4 feature 8 has a well defined perimeter.

Fauna: Sixty bone specimens were collected from this feature. One musk ox proximal rib fragment recovered from this feature was three times the size of the largest male musk ox in the Zoological Museum's comparative collection. I concur with a note on the bone by Ulrik Møhl, "gammel tyr" or old bull, as this must have been a very large old male. Birds comprise 13.2%, hare is 39.5%, bear is 23.7%, seal is 2.6%, and musk ox and artiodactyls together represent 7.7% of the identified specimens. In this case NISP percentages are deceiving as there is a minimum of three birds, one hare, two bears (only indicated by teeth), one seal, and two musk oxen represented by this

assemblage. This feature was probably occupied during the warm season when migratory birds would have been available. The presence of six burned bone fragments suggests that bone might have been used as fuel at this locality. Two fragments of walrus-ivory debitage were also recovered from feature 8, which indicates production of ivory artifacts.

Table 2.9. Lithic artefacts from Solbakken feature 8, 1958.

Artefact category	No.
Microblades	1

Table 2.10. Lithic artefacts from Solbakken feature 8, 1965.

Artefact category	No.	%	All artefacts	%
Bifaces, all fragments included	1	5.9	17	9.9
Microblades	13	76.5		
End scrapers	1	5.9		
Side scrapers	1	5.9		
Retouched flakes	1	5.9		
All flakes			154	90.1
Total	17	100.1	171	100.0

Feature 9

Flagstone platform (text 776)

25 m south-east of feature 8 there is an irregular and somewhat scattered flagstone platform. Several artefacts were found in the vicinity of features 9, 10 and 11, but unfortunately only the approximate location has been noted for some of the artefacts collected. At least 12 lithic artefacts (LI.7278, 7279, 7290 and LI.8698-8700) and six needle fragments (LI.8702-8707) were found near feature 9.

Fauna: Very little bone was recovered from feature 9 in 1965. These six specimens comprise one small seal proximal rib fragment, three arctic hare rib-shaft fragments (two juvenile), one hare incisor and one unidentified bone fragment.

Table 2.11. Lithic artefacts from the surface of Solbakken near feature 9, 1958.

Artefact category	No.
Bifaces	1
Microblades	3
Burins	2
Flakes	9
Total	15



Fig. 2.6. (photo 1172) Jeppe Møhl excavating feature 8.

Feature 10

Flagstone platform (text 777)

Like feature 9, feature 10 is an irregular flagstone platform with no specific characteristics. Seven artefacts (LI.7282, 7285, 7286, 7288, 7291, 7298 and 7299) were found near feature 10.

Fauna: In 1965 one arctic hare and one musk-ox bone were collected from feature 10. These bones were noted as being missing on 7th January, 1969 (U. Møhl).

Table 2.12. Lithic artefacts from the surface of Solbakken near feature 10, 1958.

Artefact category	No.
Microblades	4
End scrapers	1
Other artefacts	2
Total	7

Feature 11

Pit (text 778)

Feature 11 is an ash-filled pit, approximately 50 cm in diameter, located halfway between feature 9 and 10 and a few metres further to the south-east. Knuth found fire-cracked rocks around the pit and he believed the feature to be a communal cooking place shared by the people living in features 9 and 10. Four artefacts (LI.7277, 7280, 7282 and 7296) were found near feature 11.

A total of 62 flakes, 11 tools and two bone objects were found on the surface near features 9, 10 and 11 but with no further record of their exact location (LI.7283, 7284, 7287, 7289, 7292-7295, 7297, LI.7300-7305 and LI.8708).

Table 2.13. Lithic artefacts from the surface of Solbakken near feature 11, 1958.

Artefact category	No.
Bifaces, all fragments included	1
Microblades	1
Burins	1
Other artefacts	1
Total	4

Table 2.14. Lithic artefacts from the surface of Solbakken near features 9, 10 and 11, 1958.

Artefact category	No.	%	All artefacts	%
Microblades	7	63.6	11	15.1
End scrapers	1	9.1		
Retouched flakes	1	9.1		
Other tools	2	18.2		
All flakes			62	84.9
Total	11	100.0	73	100.0

Feature 12

Flagstone platform (text779)

Feature 12 is an irregular collection of five flagstones located 14.5 m west of feature 3. Near the flagstones Knuth found bones and a few lithic artefacts. The platform is located approximately 20 m a.s.l on a terrace slightly lower than that on which features 1 to 11 were found. A total of 17 lithic artefacts (LI.7306-7313) were collected from the surface of feature 12. In addition to these Knuth collected a microblade and a fragmented needle (LI.8709-8710) from a location named 12b in 1965.

Fauna: In 1958 Knuth collected a right forelimb of a ringed seal from feature 12. A complete *humerus*, *radius* and *ulna* were recovered. The distal epiphyses of the *radius* and *ulna* are un-fused and the head of the *humerus* has a fusion line. Based on research by Storå (2002a, b) this seal was approximately 6-7 years of age, or a sexually mature adult, when it was killed, which suggests possible winter breathing-hole hunting.

Table 2.15. Lithic artefacts from the surface of Solbakken feature 12, 1958.

Artefact category	No.
Bifaces, all fragments included	1
Microblades	1
Burins	1
End scrapers	1
Retouched flakes	1
Large flake/rough-out	1
All flakes	11
Total	17

Table 2.16. Lithic artefacts from the surface of Solbakken feature 12b, 1965.

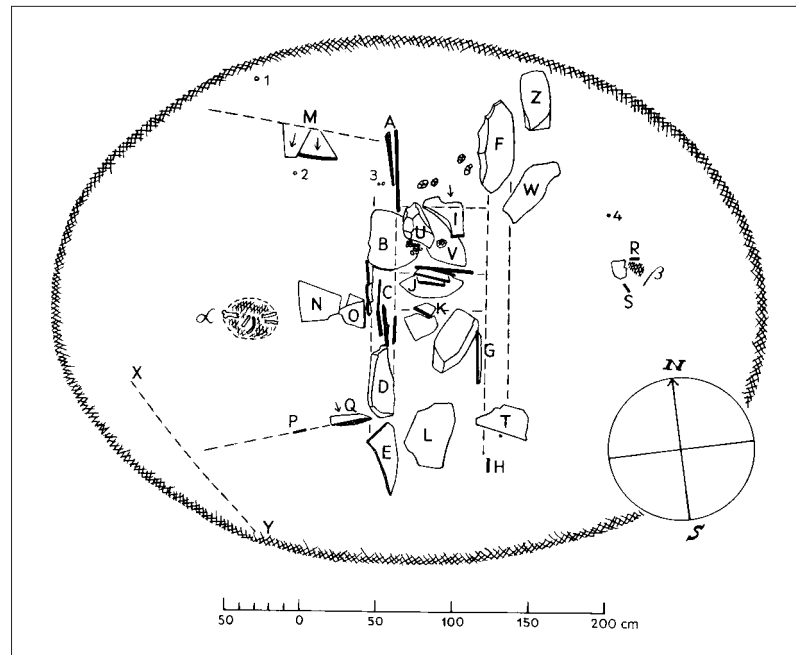
Artefact category	No.
Microblades	1

Feature 13

Mid-passage dwelling (text 780; drawing 45; photos 620, 621, 622, 1173, 1174)

Feature 13 stands alone (fig. 2.7) 50 m south of feature 1, at a height of 18 to 19 m a.s.l. and six terrace levels lower than feature 1. The dwelling is much like feature 7. A 3.5 x 4.5 m elliptic gravel berm surrounds a 2.5 x 0.75 m mid-passage structure built of flagstones. Several flagstones stood *in situ* when Knuth first encountered the site in 1958 and there were also surface finds. During excavation the feature proved to be more complicated than it had appeared on the surface. Several flagstones, which originally had been placed vertically as part of the mid-passage, were found inclined and Knuth also discovered a number of pits and structural details on the floor space to the west and east of the mid-passage. In the central part of the mid-passage vertical flagstones placed transversely sealed off the hearth which Knuth believed has been isolated by two rows of flagstones in the mid-passage walls. The hearth compartment is paved with a large charred flagstone V on top of which Knuth found sintered and charred blubber. On the western side of flagstone V there were fire-cracked stones and a little charcoal. Fire-cracked stones were also found in the compartment north of the hearth box at the rear of the mid-passage. In the compartment south of the hearth box in front of the mid-passage charred bone and bone splinters were found around and under flagstone L, which also covered a smaller flag with a roll of birch bark placed on

Fig. 2.7. (drawing 45) Plan drawing of feature 13. The letters are used in Knuth's description for identification of individual stones.



top of it. Knuth believed that the floor space on the western side of the mid-passage may have been divided into different sections by flagstones M, N, O, P and Q; these have been placed transversely relative to the western wall in the mid-passage. In the middle of the western floor area Knuth also discovered a sandy pit named α which contained bones. There are no clear signs of a division of the floor space east of the mid-passage but approximately one metre from the mid-passage feature α is marked by vertical stones R and S, between which there are charred bones and fire-cracked rocks. The finds from feature 13 are divided into surface finds and excavated finds. The surface finds comprise seven lithic artefacts and three splinters of musk-ox teeth (LI.7314-7321). The excavated finds comprise five lithic artefacts (LI.7322-7324) and three organic items – a needle, a cut piece of walrus tusk and the above-mentioned roll of birch bark (LI.7327-7329).

Table 2.17. Lithic artefacts from the surface of Solbakken feature 13, 1958.

Artefact category	No.
Burins	1
End scrapers	1
Retouched flakes	3
All flakes	2
Total	7

Table 2.18. Lithic artefacts excavated from Solbakken feature 13, 1958.

Artefact category	No.
Microblades	4
All flakes	1
Total	5

Summary of the Solbakken Site

Solbakken is the largest and most prominent of the known Palaeo-Eskimo sites in Hall Land. A radiocarbon analysis (K-3366) of musk-ox bone from feature 2b gave a date of 3870 ± 85 BP. When calibrated with one standard deviation this gives an absolute date of between 2200 and 2470 BC. Clearly some of the earliest inhabitants of Greenland were responsible for the Solbakken site. In terms of typology, the artefacts lie well within the range of typical Independence I artefacts with the unpolished burins being the most characteristic (figs. 2.8, 2.9, 2.10, 2.11). From the description it is clear that features 6, 7, 8 and 13 are dwellings and that the dwellings 6 and 13 must have been used for a considerable length of time in order for the registered amount of artefacts and eco-facts to have accumulated. The box hearths, features 1, 2, 3 and 4, are all associated with a relatively limited number of artefacts and no additional structures were seen around

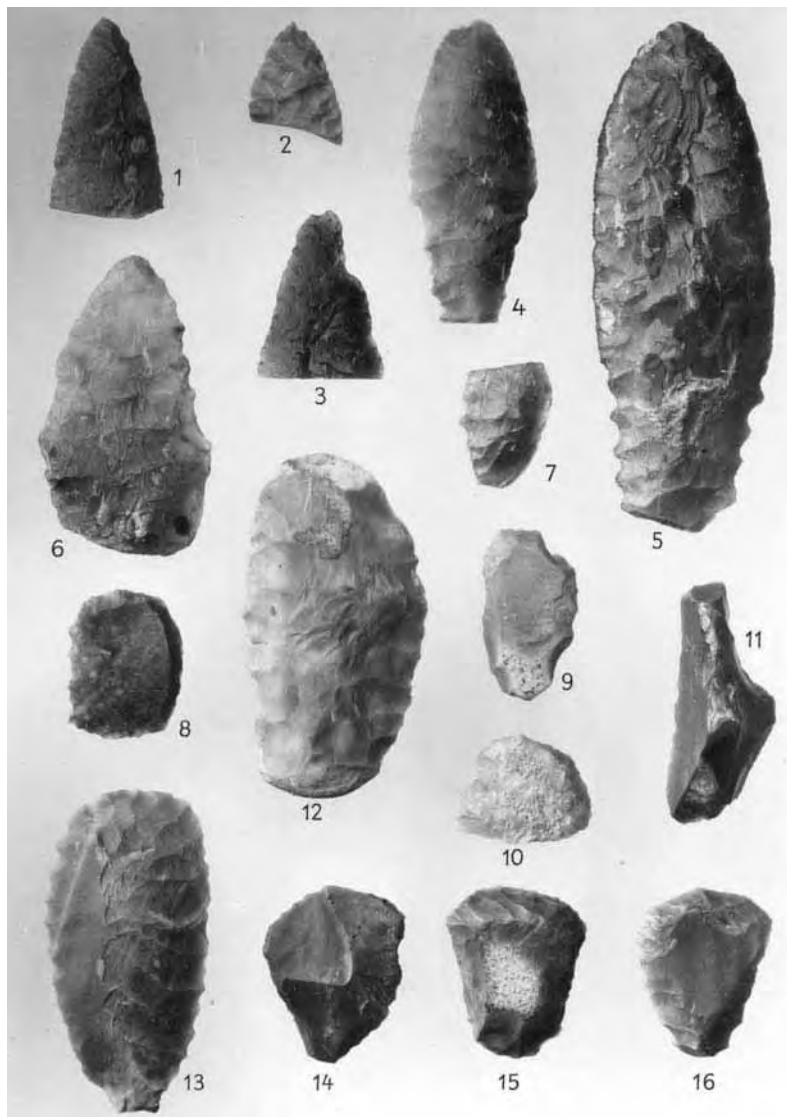


Fig. 2.8. (plate 13) Bifaces and scrapers from Solbakken. 1) L1.7279. Weapon point, fore end, clear grey brownish chert. 3.97 x 2.18 x 0.59 cm. Found behind feature 9. 2) L1.7176. Weapon point, lanceolate, fore end. Light grey chert. 2.53 x 1.73 cm. Slope 5 m in front of feature 4. 3) L1.7175. Weapon point, lanceolate, fore end, defective. Dark brown translucent chert. 3.22 x 2.40 cm. Slope 5 m in front of feature 4. 4) L1.7257. Weapon point with notched stem. Grey to violet chert. 5.81 x 2.48 x 0.82 cm. Feature 6, found deep in deposit near D. 5) L1.7189. Knife blade, symmetrical, with pointed fore end and notched rear end. Light grey chert. 9.70 x 3.50 x 0.72 cm. Below front of feature 5, NW of feature 6. 6) L1.7306. Knife blade, brown chert with light fore end. 5.66 x 3.28 x 0.69 cm. 7 m under feature 12, 25 m east of feature 13. 7) L1.7282. Scraper or burin rear end. Yellow brownish chert. 2.64 x 1.71 cm. At feature 10. 8) L1.7212. Scraper blade, brown chert. 2.86 x 2.20 cm. Feature 6, surface. 9) L1.7211. Scraper blade, lustreless, light grey chert. 3.27 x 1.83 cm. Feature 6. Surface. 10) L1.7213. Scraper blade, fragment. lustreless, grey chert. 2.57 x 2.07 x 0.56 cm. Feature 6 surface. 11) L1.7214. Concave side scraper, heavy. Dark brown chert. 4.66 x 1.93 x 1.55 cm. Feature 8. 12) L1.7190. Flake knife. Light grey chert. Re-assembled from several pieces. 5.24 x 3.51 x 1.02 cm. Feature 6, surface. 13) L1.7315. Flake

knife, broad, regular. Parallel trimming on the right part of upper face, notched rim. Grey chert. 6.14 x 3.19 x 0.66 cm. 12 m SE of feature 13. 14) L1.7287. Convex end scraper. Brown chert. 3.37 x 2.68 cm. Features 9-10-11, surface. 15) L1.7160. Convex end scraper with ventral retouch. Grey chert. 3.29 x 2.70 cm. Feature 1. 16) L1.7177. Convex end scraper, fore end (bulb) of ventral face retouched. 3.18 x 2.52 cm. Feature 4, or 5 m in front of the slope.

them. It therefore seems appropriate to regard these features as representing outdoor activity and scouting sites where people would sit and mend tools while the sea was scouted for game. The flagstone platforms (features 5, 9, 10 and 12) are more difficult to understand. Relatively few artefacts are associated with the platforms, yet if one envisages that the flagstones were pavements in short-term warm season dwellings it may be logical that most artefacts were left at a distance from the platforms because most time may have been spent outdoors and not in the dwelling during

the warm season. Similarly, the ash-filled pit, feature 11, appears to result from some kind of outdoor activity. In line with Knuth's suggestion, the location of feature 11 may suggest that it is related to both features 9 and 10. Indeed the shared use of such an outdoor cooking place would only make sense during the warm season. In this respect one can conclude that several lines of evidence suggest that features 9, 10 and 11 and their associated artefact scatters were created during warm season occupations when many activities, including food preparation, could be con-

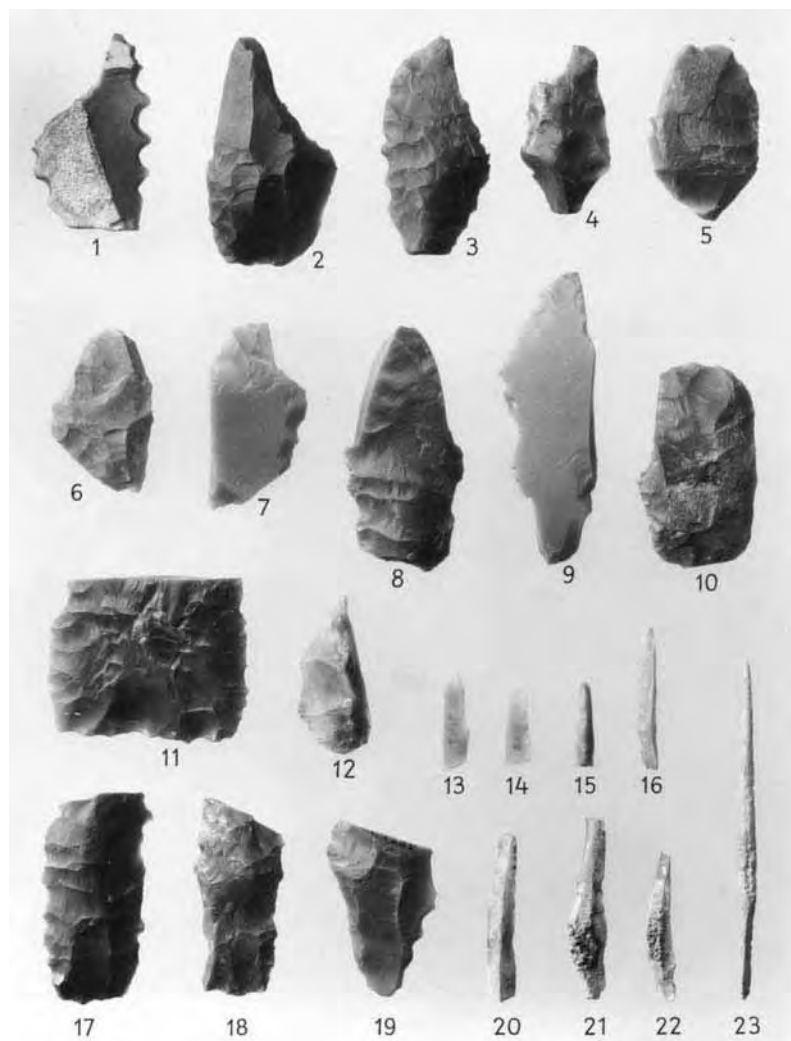


Fig. 2.9. (plate 14) Burins and burin spalls from Solbakken. 1) Burin, serrated, with 10 scars. 3,70 x 2,19. L1.7178. Ruin 4 surface. 2) Burin, double. Brown flint. 4.25 x 2.39 cm. L1.7191. Ruin 6, surface. 3) Burin, serrated. Brown flint. 4.03 x 2.00 cm. L1.7192. Ruin 6, surface. 4) Burin, grey flint. 3.14 x 1.66 cm. L1.7193. Ruin 6, surface. 5) Burin, scars at three places. Grey 3.24 x 2.05 L1.7194. Ruin 6 surface. 6) Burin, scars at two places. 3.07 x 2.00 L1.7196. Ruin 6, surface. 7) Burin, scars at three places 3.53 x 1.79 cm. L1.7195. Ruin 1 surface. 8) Burin, double, symmetrical 3.16 x 2.19 cm. L1.7277. Ruin 111, surface. 9) Multi-burin, slate-like rock 5.36 x 1.82 cm. L1.7278. Ruin 9-11 surface. 10) Burin, grey flint 3.70 x 2.22 cm. L1.7314. Ruin 13 surface. 11) Blade rear end fragm. With burin scars. 3.05 x 3.69 cm. L1.7280. Ruin 11 surface. 12) Drill, light grey flint 2.91 x 1,29 cm. L1.7285. Ruin 10 surface. 13) Burin spall, light grey flint 1.83 x 0.50 cm. L1.7197. Ruin 6, surface. 14) Burin spall, light grey flint 1.48 x 0.49 cm L1.7198. Ruin 6, surface. 15) Burin spall, primary. Grey flint 1.59 x 0.38 cm. L1.7199. Ruin 6, surface. 16) Burin spall, 2.62 x 0.35 cm. L1.7259. Ruin 6, deep. 17) Tool

rear end, fluted. Use unkn. 3.90 x 2.94 L1.7225. Ruin 6 surface. 18) Tool rear end, fluted. Use unkn. 3.62 x 1.66 L1.7226. Ruin 6, surface. 19) Rear end of burin or scraper 3.38 x 1.91 cm. L1.7281. Ruin 11, surface. 20) Microblade, curved 3.10 x 0.5 cm. L1.7251. Ruin 6 deep. 21) Microblade, curved, (edge spall) 3.36 x 0.73 cm. L1.7252. Ruin 6, deep. 22) Microblade, curved 2.70 x 0.56 cm. L1.7253. Ruin 6, deep. 23) Side prong, walrus tusk 6.25 x 0.36 cm. L1.7250. Ruin 6, deep.

ducted outdoors. Features 6, 7 and 13 are well defined dwellings but only 6 and 13 had a significant number of artefacts. The presence of the mid-passage structure does not, accordingly, give any indication of the length of stay. Judging from the inventory lists, strenuous efforts may have been invested in a dwelling that was only used for a short period of time. Similarly, as is apparent from feature 8 which is relatively rich in finds, people may also have stayed for quite some time in inconspicuous dwellings that left only few structural remains. No definite meat caches have been registered at Solbakken but the pit registered as feature 2b is a possibility in this respect. Knuth notes that no finds

were associated with this feature. Nevertheless, the dated musk-ox bone is from feature 2b – so at least one bone must have been associated with the pit.

2.4 Kystvolden 1

Late Dorset

92V2-000-009

Site no. 275; text 598; photo 441.

Going north from Solbakken along the west coast of Hall Land one travels along a series of fossil beach ridges Knuth named Kystvolden (Coastal Bank). Here

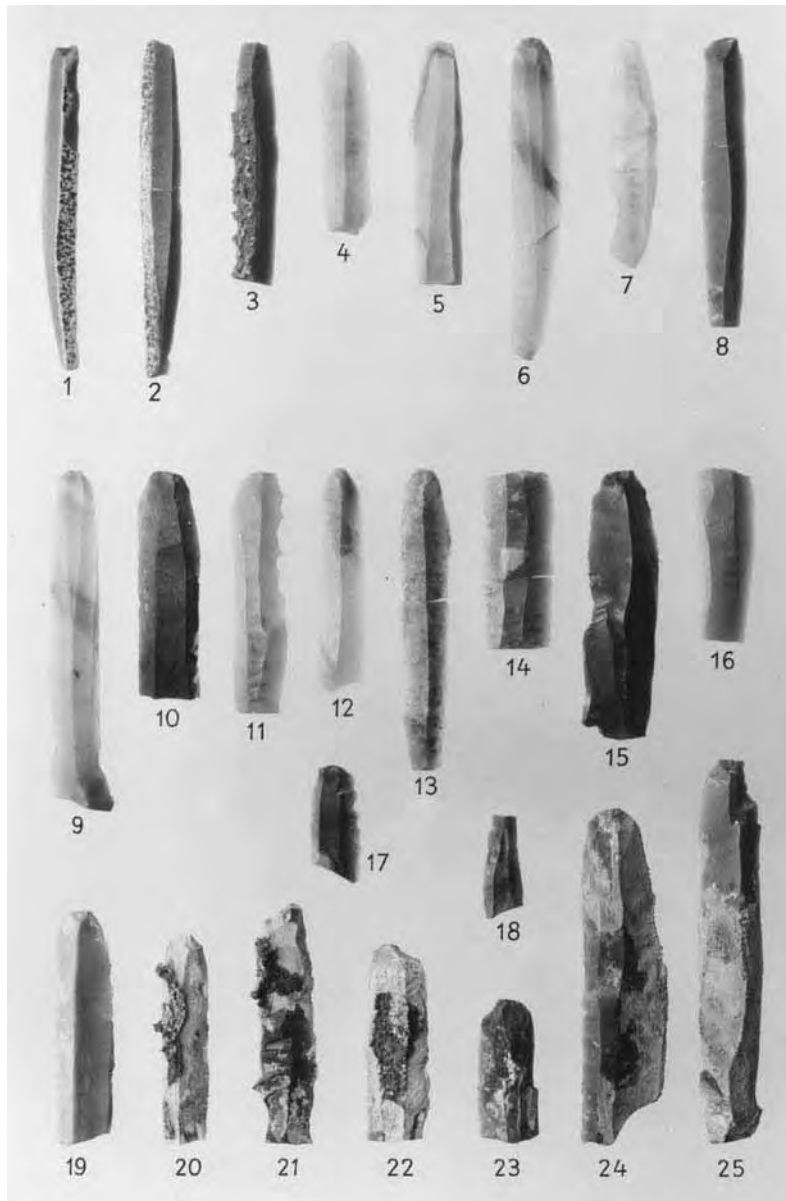


Fig. 2.10. (plate 15) Microblades from Solbakken. Microblades c. 1:1. 1) Microblade, primary w. cortex 5.74 x 0.66 cm. L.1. 7165. Ruin 2, surface. 2) Microblade, primary w. cortex 6.00 x 0.73 cm. L.1.7166. Ruin 2 surface. 3) Microblade, one side serrated 4.27 x 0.89 cm. L.1.7167. Ruin 2, surface. 4) Microblade, fore end, chalcedony 3.42 x 0.85 cm L.1.7668. Ruin 2, surface. 5) Microblade, grey flint 4.32 x 0.93 L.1.7179. Ruin 4, surface. 6) Microblade, straight, chalcedony, 5.68 x 0.89 L.1.7201. Ruin 6, surface. 7) Microblade, whitish, chalcedony, 4.14 x 0.88 cm. L.1.7202-3. Ruin 6, surface. 8) Microblade, brown flint. 5.18 x 0.81 cm. L.1.7206. Ruin 6, surface. 9) Microblade, brownish, clear 6.00 x 1.05 cm. L.1.72. Ruin 6, deep. 10) Microblade, fore end, brown 4.02 x 1.12 cm. L.1.7275. Ruin 8, surface. 11) Microblade, one side serrated 4.26 x 0.97 cm. L.1.7288. Ruin 10, surface. 12) Microblade, yellowish, clear 3.93 x 0.77 cm. L.1.7289. Ruin 10, surface. 13) Microblade, use-retouch left s. 5.33 x 0.91 cm. L.1.7291. Ruin 10, surface. 14) Microblade, mid fragment 3.20 x 1.24 cm. L.1.7293. Ruin 10, surface. 15) Microblade, defect 4.76 x 1.82 cm. L.1.7309. Ruin 12, surface. 16) Microblade, fragment 3.04 x 1.03 cm. L.1.7322. Ruin 13, deep. 17) Microblade, fore end, serrated 2.10 x 0.88 cm. L.1.7299. Ruin 10, surface. 18) Microblade, fragm., green jasp. 2.92 x 0.71 cm. L.1.7324. Ruin 13, deep. 19) Microblade, fore end, use ret. 4.13 x 1.03 cm. L.1.7237. Ruin 6, deep. 20) Microblade, fore end, whitish, 3.70 x 0.86 cm. L.1.7238. Ruin 6, deep. 21) Microblade, irregular 4.22 x 1.17 cm. L.1.7239. Ruin 6, deep. 22) Microblade, grey 3.45 x 1.12 cm. L.1.7240. Ruin 6, deep. 23) Microblade, fore end, grey 2.51 x 1.07 cm. L.1.7241. Ruin 6, deep. 24) Microblade, fragment, grey 5.95 x 1.57 cm. L.1.7305. Ruin 10B, deep. 25) Microblade, brownish grey 6.77 x 1.19 cm. L.1.7325. Ruin 13, deep.

Knuth discovered an isolated Dorset ruin approximately 4 km north of Solbakken. Knuth has no detailed description of the feature apart from the fact that near the edge of the beach ridge a collection of stones constituted a hearth or tent ring with musk-ox bones and at least one seal bone scattered around. A worked piece of bone proved to be a lance or harpoon foreshaft (photo 441) with a lateral rectangular carved line hole typical of Late Dorset foreshafts. With a hand

level Knuth measured the feature as being located 15 m above sea level.

2.5 Kystvolden 2

Unknown date

92V2-000-009

Site no. 275; text 598

Approximately 600 m further north Knuth discovered another ruin consisting of 8 to 10 flat stones forming a semi-circle on the edge of the terrace.

2.6 Kærnaes

Thule

92V2-000-009

Site no. 276; text 599

Approximately 100 m further north Knuth found a site with five tent rings located on a point formed by fossil terraces cut by a river ravine. Below the fossil beach ridge the coastline forms a little promontory with a small circular lake at the foot of the terraces. In a hollow on the terrace behind the settlement there is a larger rectangular lake. Four of the tent rings are set with stones lying on top of the gravel. The fifth ring is of more solid construction with a straight northern wall set with very large stones. In the description from Knuth's 1965 visit the northernmost tent ring is described as being double, comprising a pear-shaped ring with a smaller circular ring in front of it. Knuth believed the smaller stone ring to be a cache related to the pear-shaped dwelling feature. Despite a thorough search Knuth never found any artefacts around the dwellings, yet he still suggests the features to be Independence II or Dorset. Considering the presence of five tent rings and no lithic artefacts we find it difficult to believe that Kærnaes is a Palaeo-Eskimo site. Lithic artefacts are among the most prominent elements defining Palaeo-Eskimo sites. When there are no scientific dates or structural characteristics indicating a Palaeo-Eskimo origin, then it becomes very difficult to accept this dating for Kærnaes. On the contrary, Knuth's description of the tent rings actually suggests that these features may have structural similarities to the so-called shelter ruins which are often difficult to date but which all appear to be from the Thule culture.

2.7 Røde Enkesæde

Independence I

81V2-000-010

Site no. 331; photo 438

Røde Enkesæde (Red Dower House) is an isolated

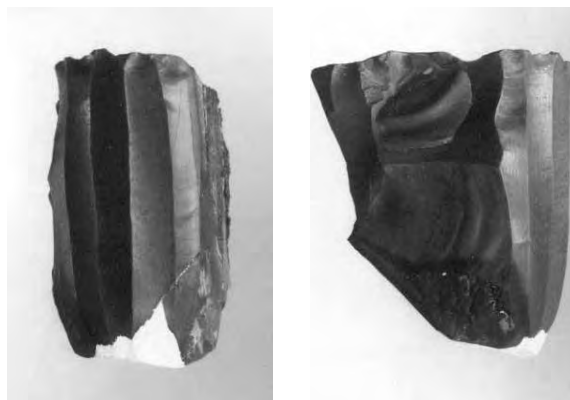


Fig. 2.11. (plate 21) Microblade core from Solbakken.

Independence I feature located on a high terrace near a river outlet in Newman Bugt on the eastern side of Hall Land. Apart from the brief note in Knuth's Baedeker the site is only documented by a photograph showing a flagstone platform. It is impossible to discern whether some of the flagstones may originally have been part of a mid-passage feature or whether this is a platform. Three needle fragments, combined with the red lichen that covers the flagstones, inspired Knuth to name the site Røde Enkesæde. Two of the three needle fragments found in the feature (LI.8712-8713) have parts of the circular eye preserved.

2.8 Gråsten Delta

Thule

81V2-000-011

Site no. 1066038920 (GD)

Gråsten Delta is formed where the Gråsten Elv has its outlet into Newman Bugt. Apart from a brief note in the Baedeker there is no documentation for the Gråsten Delta settlement. Knuth writes that two archaeological sites are located on the highest terraces at the rear of the delta. The northernmost one is a Thule site and a little further to the south there is a ruin of unknown origin named Saxifragatomten.

Finds: A knife handle of antler (LI.8715) with a deep groove in one edge and a semi-circular notch for lashing in the other. Two bone rivets (LI.8716-8717) with a rectangular cross-section and pointed ends have also been collected from the site.

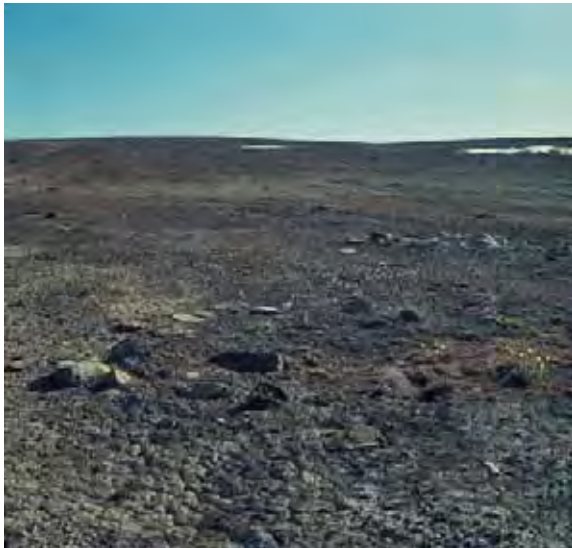


Fig. 2.12. (photo 1178) View over features 3 and 4 at Bellevue. 19/7-1965.

2.9 Bellevue

Thule

8IV2-000-012

Site no. 376; photos 1178, 1179

Like the site in Gråsten Delta, Bellevue is a poorly documented Thule site briefly mentioned in the Baedeker. Knuth noticed that a few kilometres south of Gråsten Delta there are some Thule tent rings oriented to the



Fig 2.13. (photo 1179) Combs *in situ* in feature 3 at the Bellevue site. 19/7-1965.

south (fig. 2.12). However, in the inventory list at the National Museum of Denmark several organic artefacts (LI.8718-8733) are recorded from two different features so Knuth must have spent some time at the site. The finds are: Feature 3: LI.8718 an anthropomorphic bone comb with ornaments, LI.8719 a bone comb with four holes in the handle (fig. 2.13), LI.8720 a wound plug of bone, LI.8721 a polar bear canine with a hole, LI.8722 and LI.8723 two walrus molars, LI.8724 a trace buckle of walrus tusk, LI.8725 a fragment of snow-knife, LI.8726 a mouthpiece for a bladder float, LI.8727 an axe head of whalebone with three sets of lashing holes going from one side to the other, LI.8728 a pointed stick which could be a whip handle, LI.8729 a tooth. Feature 4: LI.8730 a shaft of bone, walrus tusk or antler, LI.8731 a walrus tusk with a hole, LI.8733 bent tool of walrus tusk with lashing marks at the broader end, maybe a side-prong, LI.8732 a fragmented sledge shoe of whale bone.

An interesting feature of these artefacts is that they constitute a broad selection of Thule utensils, women's combs as well as a variety of hunting implements. Judging from the artefacts, Bellevue appears to have been inhabited by families and not, for example, by a selected male task group. The tools and hunting implements further display a mixture of objects belonging to 'ice technology' such as the snow-knife, trace buckle and sledge shoe, as well as objects such as the mouthpiece for a bladder float which are typically related to the kayak and techno-complex used in open-water hunting. The mixture of these tool categories and their retrieval from tent-ring dwellings clearly demonstrates that the clear-cut division in modes of transportation and hunting employed by Thule people during summer and winter in more southern areas cannot be transferred to the far northern regions. The people living at Bellevue lived in tent dwellings and the site may be a spring or summer camp, yet Newman Bugt was probably still covered by ice so the dog sledge could have been in use virtually throughout the year.

2.10 Summary and Discussion of Hall Land

As was stated in the Hall Land introduction, it is difficult to evaluate whether or not our knowledge of pre-

historic settlement in Hall Land is representative. However, we can say that Independence I is represented by two sites (Solbakken and Røde Enkesæde). Only Solbakken has more than one feature so if Hall Land was the doorstep to Greenland then the Independence I people certainly did not stay in the 'hall' for very long. Two Dorset sites are known from the west coast of Hall Land, Kap Buddington and Kystvolden 1. Kap Buddington is typologically and scientifically well dated to Late Dorset, whereas Kystvolden 1 is only dated on the typology of the foreshaft. Very few Dorset foreshafts are known from Greenland so it is difficult to say whether the site represents an Early or Late Dorset occupation. However, similar relatively broad foreshafts are known from Late Dorset but not from Early Dorset contexts. This may suggest that Kystvolden 1 is a Late Dorset settlement. This leaves us with two Late Dorset sites in Hall Land, both apparently of the sub-rectangular tent-ring type, often bisected by a large axial feature with several lamp stands (Schledermann 1990; Grønnow 1999). No so-called longhouse features or hearth rows are known from Hall Land. If the proposed dating of Kystvolden 1 is correct then no Early Dorset settlement is known from Hall Land. Obviously this *lacuna* may be a conse-

quence of the limited archaeology carried out in these far northern districts, but if it is real, and if we stick to Knuth's doorstep metaphor, then we have to conclude that Independence II or Early Dorset cultures did not enter Greenland via the Hall Land entrance. Thule settlements are fairly well represented with three sites (Kærnæs, Gråsten Delta and Bellevue) containing up to five tent rings. Bellevue is particularly interesting due to the many finds collected from the site. Unfortunately we lack more detailed descriptions of the Thule structures as well as typological analyses of artefacts. We also lack lists of the identified fauna in the osteological material and a more specific dating of the Thule presence would be of great value. The Thule settlement of Hall Land thus appears to be one of four to five families travelling together but never staying for so long in Hall Land that they felt inclined to build houses with cold-trap entrances. Conversely, they may have spent the winter in snow houses which are difficult to detect archaeologically. In terms of site size and settlement intensity the Thule presence in Hall Land thus appears to be similar to that of Independence I, whereas settlement between Independence I and Thule appears to have been very sporadic.

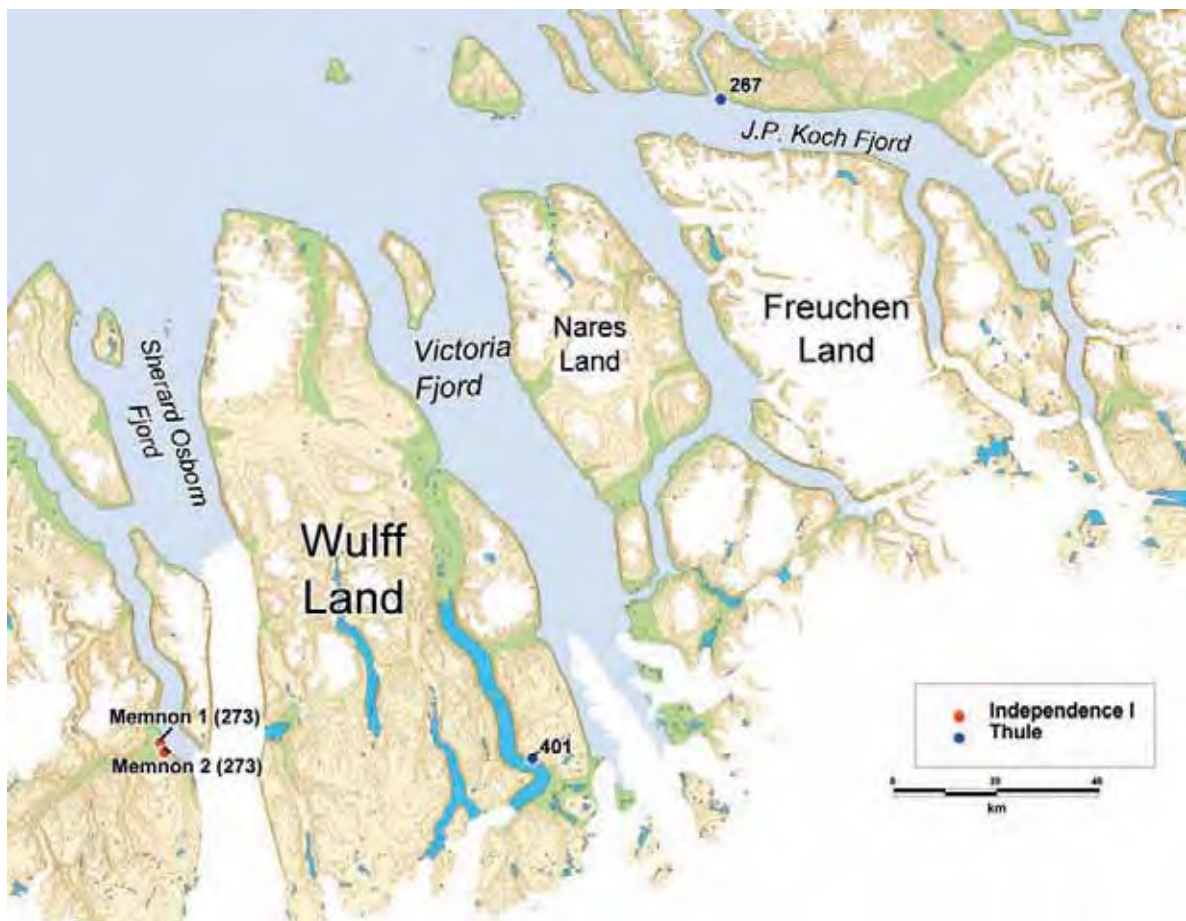
Barren Shores along the Polar Sea – from Nyboe Land to Peary Land

3.1 Introduction

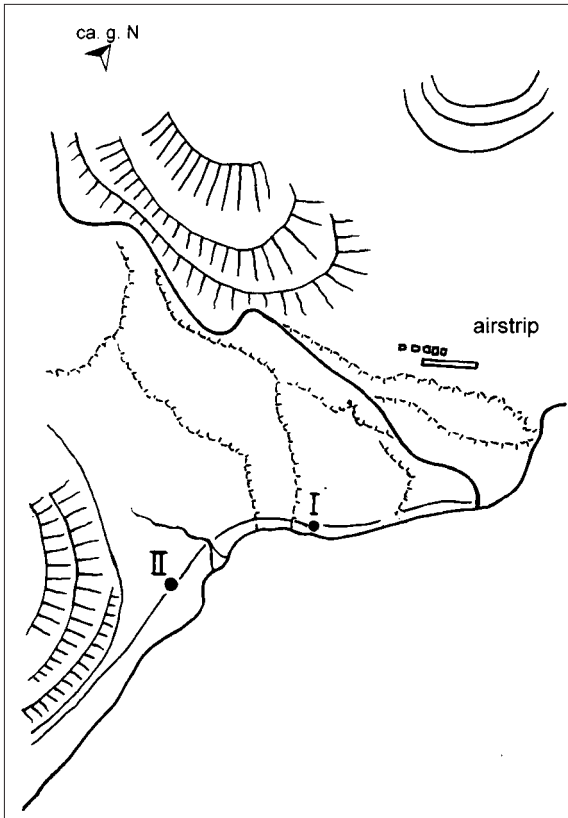
The North Greenland shores of the Polar Sea from Hall Land to Peary Land are among the archaeologically least-known regions of Greenland. Even today the harsh climatic conditions and a distance of several hundred kilometres to the nearest settled places makes fieldwork in this area difficult or at best very expensive. Therefore only few sites are known from this stretch of land. Knuth has documented a total of four sites: two Independence I sites (Memnon I and II) have been located in N.P. Johansen Land and two

Thule sites have been located in Wulff Land and at J.P. Koch Fjord (fig. 3.1).

All the NNW-facing fjords along Greenland's shore to the Polar Sea are covered by permanent sea ice, replaced at the head of many of the larger fjords by floating glaciers. Along the shores pack ice in the Polar Sea is often jammed into a labyrinthine hummocky ice-scape. The ice-free land consists of a series of Cambrian and Silurian plateaux bisected by south-north to south-east to north-west oriented troughs. However, in Johannes V. Jensen Land and in other landmasses bordering the Polar Sea these sedimenta-



3.1. Archaeological sites along the 'northern shores' towards the Polar Sea.



3.2. Sketch map of the location of the Memnon sites. After original sketch in Knuth's diary.

ry tablelands are overlain by folded Palaeozoic sediments giving the topography of northernmost Greenland a more alpine character than the tablelands dominating along the Inland Ice.

3.2 Memnon I Site

Independence I

81V3-000-001

Site no. 273; text 593; photos 429-436, 1316-1320

The Memnon sites were discovered during several days of hectic helicopter survey in 1979 (fig. 3.2). This was the year that the Geodetic Institute and the Geological Survey of Greenland carried out topographical and geological mapping of the northernmost land areas of Greenland. Knuth visited the camp from a base camp in Warming Land and as space was available he was transported to a number of destinations in southern Warming Land and N. P. Johansen Land.

The Memnon I site is located on raised delta terraces on the southern side of the river separating N.P. Johansen Land from Warming Land (fig. 3.2). Knuth registered four features on a gravel terrace located 14.75 m a.s.l. In his diary, Knuth spends several pages describing his work in the area but unfortunately most



3.3. (photo 1316) View from Memnon I towards the east. The eroded cliffs on the opposite side of the Fjord inspired Knuth when he named the site.



3.4. (photo 1318) Memnon I, feature B prior to excavation.

3.5. (photo 429) Memnon I, feature B after excavation.



of the space is devoted to stories about how his boot got stuck in the mud and the disappearance of his companion who vanished for four hours when he walked for water. We are also informed that it was during these days that Knuth made his air trips nos. 556 to 561. His 24 pages of diary text dealing with his work at Memnon site end as follows: ‘Went to bed at 22.00 and devoted myself to the diary. A description of the features must wait to later’. We have not been able to locate any such description in the Knuth Archive and the following description is therefore based on Knuth’s photographic record. Memnon site I is documented by eight black and white photographs and five 6 x 6 cm colour slides. However, five of the black and white photographs appear to be copies of the colour slides.

Feature A

Open air hearth (photos 432, 1317)

On a site map in his diary Knuth has noted ‘hearth with charcoal’. However, from the photographs it is impossible to tell whether the feature is a hearth, a cache or even whether it is a man-made structure at all.

Feature B

Dwelling with central hearth (photos 429, 430, 431, 433, 434, 1318)

Feature B is a well defined pentagonal boulder hearth with fire-cracked rocks. Along one side and partly encircling the hearth is a platform paved with flat stones. The structure does not appear to have any visible peri-

phery. Prior to excavation (photos 430, 431, 433, 434 and 1318) all the stones in the feature were deeply embedded in the gravel surface but after the excavation (photo 429, figs. 3.4, 3.5) the platform stands out clearly and the fire-cracked rocks in the hearth are clearly visible. The finds comprise two distal fragments of needles, one middle fragment with a rudiment of a circular eye, a biface or bifacial core and a piece of charcoal (LI.10116-10120). In addition to these finds many bones of goose, hare and char were also collected.



3.6. (photo 1321) Memnon II. Mid-passage feature of deeply embedded boulders at Memnon II.

Table 3.1. Lithic artefacts from Memnon I site feature B.

Artefact category	All artefacts
Bifaces, all fragments included	1

Feature C

Boulder ring (photos 435, 1319)

This feature consists of a minor ring of eight to ten stones deeply embedded in the gravel surface. The feature was excavated on July 7th revealing nine flakes.

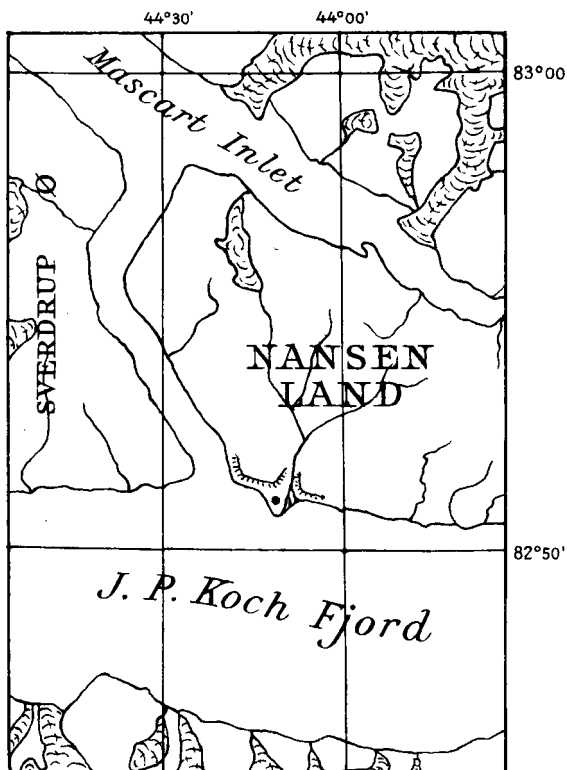
Table 3.2. Lithic artefacts from Memnon I site feature C.

Artefact category	All artefacts
Flakes	9

Feature D

Boulder ring (photos 436, 1329)

Feature D is a minor circular to oval ring comprised of about 19 boulders and a few flat stones.



3.7. (drawing 22) The location of the Strømstedet site at the junction of J.P. Koch Fjord and the narrow sound connecting J.P. Koch Fjord to Mascart Inlet. The site is marked with a black dot.

3.3 Memnon II Site

Independence I

81V3-000-001

Site no. 273; text 593; photos 437, 1321

The Memnon II site is a relatively well defined 2.58 m long and 0.92 m wide mid-passage feature constructed of boulders (fig. 3.6). The mid-passage is located in a depression 8-10 m from the edge of the terrace, and 2-3 m perpendicularly to each side of the mid-passage. There are a couple of stones which could be for guy ropes or which could be part of a tent ring. Knuth searched for artefacts but he found only a single end scraper (LI.10122). The site was levelled in relation to Memnon I, giving a height of 21 m a.s.l.

Table 3.3. Lithic artefacts from Memnon II site.

Artefact category	All artefacts
End scrapers	1

3.4 Summary of Memnon Sites

The importance of the Memnon sites to Eigil Knuth was mainly due to their location between Hall Land and Peary Land. Knuth welcomed the Memnon site as a new 'footprint' left by the Independence I people as they followed the 'Musk-Ox Way' from High Arctic Canada to Peary Land. Inspired by the resemblance of the vertical cliffs on the opposite side of the fjord to the eroded Memnon statues in Egypt (photo 1316) Knuth named the site Memnon site.

The two Memnon sites clearly represent two Independence I settlements. The limited lithic material suggests short occupations and even though it is difficult to interpret the function of features C and D at the Memon I site, both sites may represent single family units because they both have just one dwelling with a hearth. On Knuth's sketch drawing of the site features C and D are marked with a question mark, suggesting that he was in doubt about their origin and function. The diameter of the boulder rings C and D may suggest that they are caches or smaller rings for the suspension of skins. Certainly it is difficult to think of them as dwellings since there are no hearths and, judging from the photos, they appear to be only 1-2 m in diameter.

The Memnon I site thus appears to consist of a sin-

gle dwelling with a central stone-set hearth associated with a platform of flat stones and with an open-air hearth nearby on the north-eastern side of the dwelling. In addition to this 'classical set-up' there are two other features south-west of the dwelling, the function and origin of which remain unresolved. Similarly, the Memnon II site consists of a single dwelling but there are no outdoor features and, in contrast to the hearth at the Memnon I site, the Memnon II ruin has a well-defined mid-passage feature. Fire-cracked rocks are only present at the Memnon I site. Apart from this difference in activity there is no evidence from the topography or the limited finds to suggest why the mid-passage arrangement was only employed in the dwelling at the Memnon II site.

3.5 Eagle Site

Thule

82Ø3-000-004

A shelter ruin has been registered on the shore of the more than 40 km long Apollo 11 Lake in the interior of Wulff Land. The locality is only mentioned in the Knuth's Baedeker where he writes: 'Ruin ES apparently of Thule culture origin is located at the southern end of the Apollo 11 Lake and on its western shore. The site is named after the lunar vessel landing on the Moon in 1969'. Knuth also mentions that the site was reported by Canadians of the Polar Ponderay and that the ruin appears to be of the shelter type.

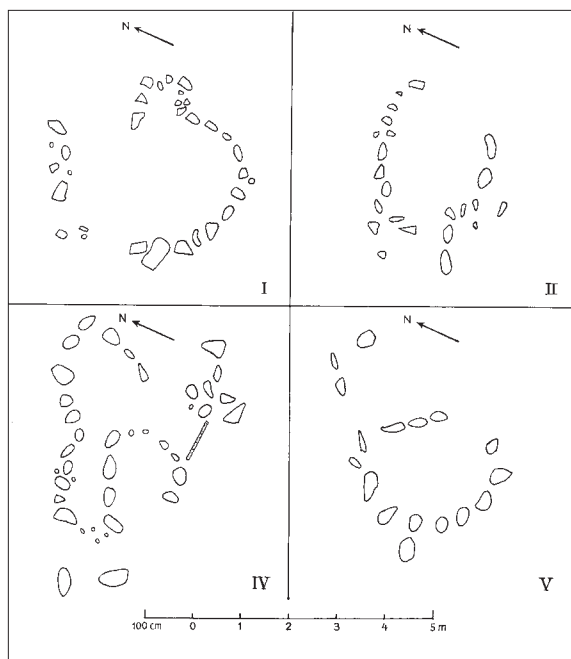
3.6 Strømstedet

Thule

82Ø3-000-003

Site no. 267; text 600; photo 442; drawings 22, 23

The Strømstedet site was found in 1950 by Danish Peary Land Expedition geologist Ellitsgaard Rasmussen who registered five features, four being well defined tent rings and the fifth a more amorphous boulder structure. The site is located on a little headland in J.P. Koch Fjord near its eastern end at the junction with Strømstedet (fig. 3.7). The ruins are located 11-13 m a.s.l. on gently sloping gravel terraces. Ellitsgaard believed that the terrace may have slipped causing some disturbance to the site preservation. In



3.8. (drawing 23) Sketch maps of features I, II, IV and V at Strømstedet. Drawn by geologist Ellitsgaard.

all the features the boulders lie on top of the gravel surface and flagstones have not been used in the constructions, neither could Ellitsgaard find hearths or signs of platform pavements. Ellitsgaard and his assistant Tobias Samuelsen searched the gravel surface and excavated several of the tent rings but only little organic material and no lithic artefacts were found, suggesting that all the features are of Thule origin. The following description is based entirely on Ellitsgaard's drawings of four of the five features (fig. 3.8). Strømstedet (the place with current = open water) is the name of a small sound connecting the mouth of J.P. Koch Fjord with Mascart Inlet to the east. To his surprise Rasmussen (1919:589) found open water in the Strømstedet sound and one of the members of the Second Thule Expedition saw seals on the ice; two were shot. However, Rasmussen did not find any features in the area.

Feature I

Tent ring

The periphery is best preserved in the south-eastern half. Ellitsgaard believed that a little extension in the eastern 'wall' could be a hearth, but he did not find ashes to support this view. There are openings to the north-east and west.

Feature II

Tent ring

Feature II is an oval 4 x 2.5 m tent ring. The periphery is broken towards the east and maybe also towards the west, possibly indicating an opening or openings. In feature II there is a flat stone surrounded by bones. This flat stone, which apparently had served as table, and the bones were recovered. Later, the 'eating stone' was left in Peary Land. Ulrik Møhl of the Zoological Museum in Copenhagen has described the bones as being heavily disintegrated specimens from *Ovibos moschatus* (musk ox).

Feature III

Amorphous structure which was not drawn.

Feature IV

Tent ring

Feature IV appears to be a somewhat disturbed tent ring with a diameter of about 3 m. The southern and eastern parts of the structure are disturbed. A 2-3 m long and c. 1 m wide passage comprising two parallel rows of stones extends to the south-west from the western side of the feature. A sledge shoe of whale-bone was found near feature IV (LI.63I6). The sledge shoe has 11 holes in a zigzag pattern. It is 5.5 cm broad and 91 cm long.

Feature V

Tent ring

Feature V is an oval boulder ring measuring c. 2.4 x 3 m. A few boulders are located nearby, north-east of the periphery, but it is difficult to judge whether they are part of the structure.

Summary and Discussion of the Strømstedet Site

The sledge shoe and the character of the features clearly suggest that Strømstedet is a Thule site with no Stone Age component. When discussing the Bellevue

site in Hall Land (page 48) it was noted that typical 'winter objects' often appear to be mixed with 'summer objects' in far northern Greenland. This is also the case at the Strømstedet site, where a sledge shoe has been found in association with typical summer dwellings in the form of tent rings. Again it is indicated that even during the summer months travelling by dog sledge was possible. Radiocarbon dates for some of the musk-ox bones could show whether Strømstedet was settled during the same short phase of Thule presence in the 1400s AD indicated by the suite of Thule dates from other sites in Peary Land (Knuth 1981).

3.7 Summary and Discussion of the Area from Hall Land to Peary Land

Only a few archaeological sites are known from along Greenland's northern shore to the Polar Sea. However the few sites presented in chapter 3 indicate that at least Independence I and Thule people passed through or maybe even lived in the area. On the other hand, the scanty evidence offers no clues to the population size, duration of the occupation, or aspects of the settlement pattern. The few settlements appear to be located in the outer fjord systems as well as in the interior, where the Eagle site indicates that the Thule people, at least, penetrated deep inland. All of the sites, both the Palaeo-Eskimo ones as well as those of the Thule culture, appear to be rather small, representing the remains left by isolated families or by a few families travelling together. None of the sites has indications of larger group size or re-occurring settlement.

Wandel Dal – a High Arctic Oasis

4.1 Introduction to the Interior of Peary Land

Wandel Dal and Jørgen Brønlund Fjord are to Peary Land what the Nile Valley and Delta are to Egypt (fig. 4.1). In the westernmost part of Wandel Dal lies the ice-dammed Aftenstjernesø (Evening Star Lake). From the eastern end of Aftenstjernesø the Sydpasselv (South Pass River) flows through the valley Sydpasset and into the westernmost part of Øvre Midsommersø (Upper Midsummer Lake), a small bay named Baggården (the Backyard). From Baggården, the next 40 km eastwards in the Wandel Dal is dominated by Øvre and Nedre Midsommersø (Upper and Lower Midsummer Lakes). The two lakes constitute a large freshwater system with numerous points and promontories

jutting out from both their northern and southern shores. Øvre Midsommersø and Nedre Midsommersø are separated by a short river named Slusen (the Lock). From the eastern end of Nedre Midsommersø, the Midsommerelv (Midsummer River) flows towards Jørgen Brønlund Fjord with clear water. However, in its lower 15 km this is mixed with the grey silty water from the Itukkussuk Elv carrying meltwater from Chr. Erichsen Iskappe. At the outlet into the western end of Jørgen Brønlund Fjord the Midsommerelv forms a large delta.

The mountains surrounding Wandel Dal and Jørgen Brønlund Fjord are horizontal sedimentary plateaus mainly of sandstone. Volcanic intrusions are seen as areas of black rock which are often harder than the sedimentary rocks. Accordingly, these harder intrusive rocks often form small points and islands, as

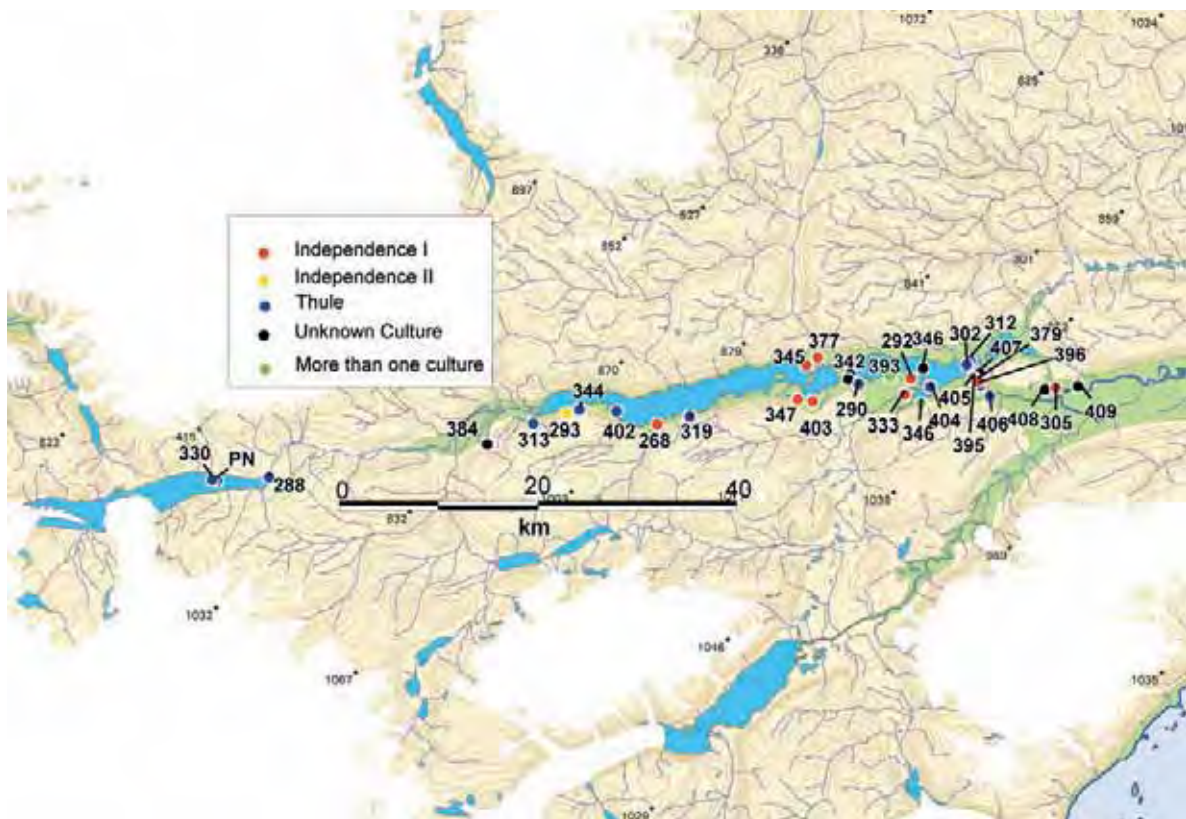


Fig. 4.1. Location of archaeological sites along Aftenstjernesø, Øvre and Nedre Midsommersø in Wandel Dal.

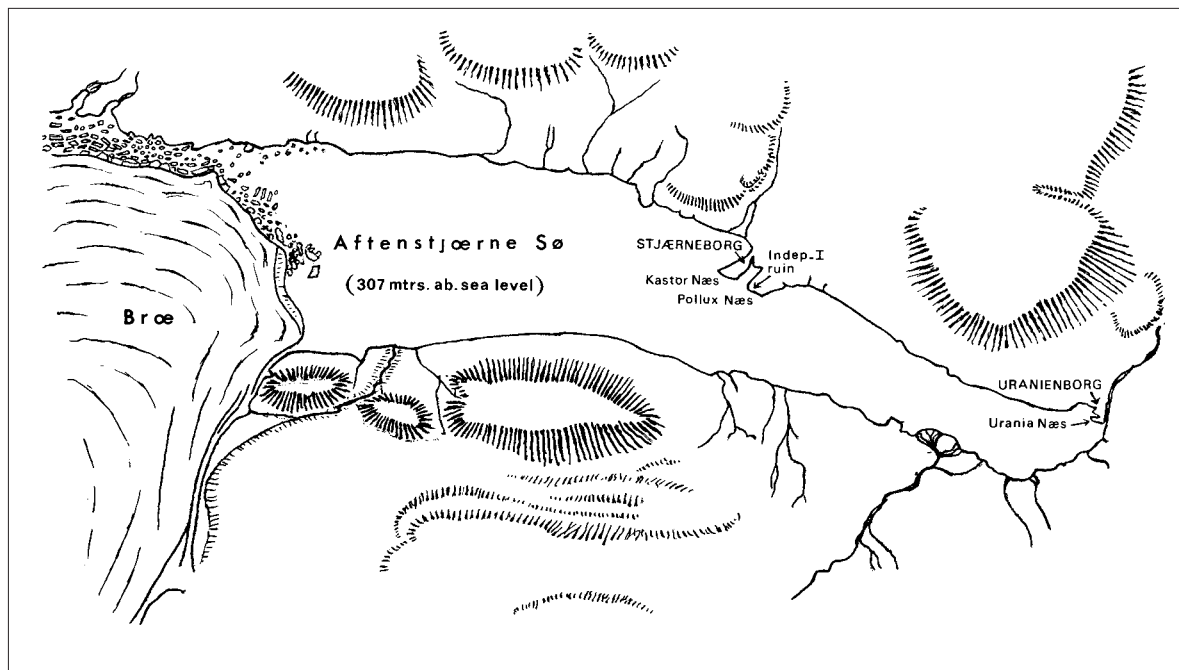


Fig. 4.2. (drawing 180) Sketch map of Aftenstjerne Sø with the large Thule sites Stjerneborg and Uranienborg and the little isolated feature known as the Pollux Næs site. Knuth believed the latter to be of Independence I origin, but there are neither finds nor circumstantial evidence to support such a dating. Therefore, it seems more reasonable to regard the isolated feature on Pollux Næs as being related to the Stjerneborg settlement and thus of Thule origin.

for example along the southern shore of Øvre Midsommersø and along the northern shore of the innermost part of Independence Fjord.

Knud Rasmussen carried out the first archaeological observations in Jørgen Brønlund Fjord during the 1st Thule Expedition (Rasmussen 1915). However, apart from Rasmussen's registration of tent rings in 1912 it was not until 1947 (Knuth 1948b, 1951a) that archaeological work was carried out in this region. During the airborne exploratory summer expedition to Jørgen Brønlund Fjord, Knuth found and excavated several tent rings with lithic artefacts on both the eastern and western sides of the fjord. During subsequent years, when the over-wintering Peary Land Expedition established the scientific station Brønlundhus, Knuth's archaeological activities were greatly expanded. They gradually encompassed the entire Jørgen Brønlund Fjord – Wandel Dal system, with survey work being carried out in all parts of Peary Land. During the first pioneering years Knuth travelled the Independence Fjord and landscapes around Brønlund Hus by means of boat, dog sledge and on foot. Later, air transport systems were improved and Knuth never failed to take up an opportunity to visit the most remote parts of

Peary Land when army personnel or geologists had work to do in inaccessible Far Northern Greenland.

4.2 Aftenstjerne Sø and Midsommersøerne

Moving to the head of J.P. Koch Fjord, one travels into the partly glaciated interior of Peary Land. Several glaciers flow into J.P. Koch Fjord from Freuchen Land, south and west of the fjord, as well as from Hans Tausen Iskappe (Hans Tausen's Ice Cap) east of J.P. Koch Fjord. From the Inland Ice, Adams Gletcher (Adam's Glacier) flows into the head of J.P. Koch Fjord and towards the east another glacier from the Inland Ice flow into Aftenstjernesø marking the beginning of Wandel Dal. Aftenstjernesø can be approached either by ascending the Adams Gletcher or by circumnavigating it through a partly ice-free valley that branches off to the east at the glacier front and from there turns south to where it connects with the northern shore of the Aftenstjernesø. This might have been the route followed by the Thule people since the first Thule settlement, Stjerneborg (fig. 4.2) lies only a few kilometres

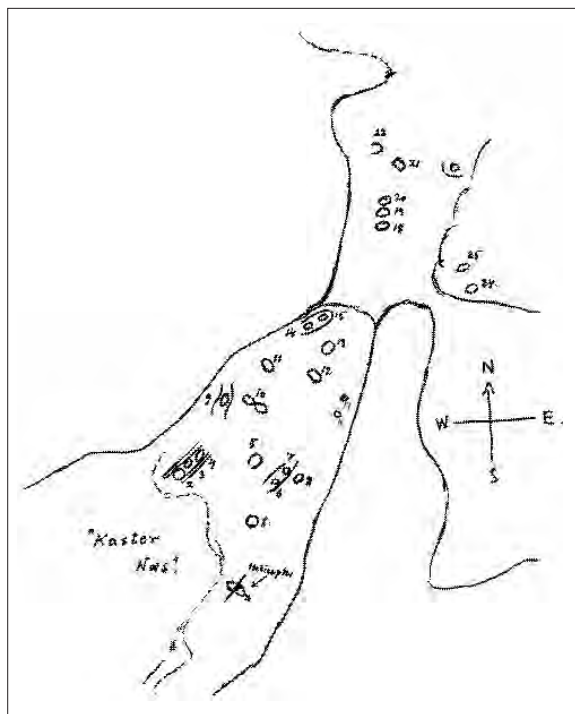


Fig. 4.3. (drawing 179) Sketch map of the location of individual features at Stjerneborg.

to the east on the northern shore of Aftenstjernesø. When discussing the migration routes of the much earlier Independence I people one must imagine different climatic conditions which, during the earliest years of human presence, probably created corridors



Fig. 4.4. (photo 779) Feature 1 at the Stjerneborg site, 8/4-1972.

for passage through many valleys which later became blocked by glaciers (Hammer 2001).

4.3 Stjerneborg

Thule

82Ø3-000-002

Site no. 330; drawings 179, 180; photos 777-786

Stjerneborg is the first known archaeological site to be encountered when travelling through Wandel Dal from west to east. 13 out of a total of 25 features are recorded as shelters. The site is located at the narrow base of the western point of a twin naze, jutting into Aftenstjernesø (fig. 4.2). No text has been entered into the database about this site but 11 features are illustrated with photographs. The only data available on the remaining 14 features is the information which can be retrieved from the site plan (drawing 179, fig. 4.3). Three features on the site plan in the Knuth Archive lack a number but the plan is redrawn in the Inventory List at the National Museum of Denmark where the missing numbers 16, 17 and 23 have been added. The following description is based on a combination of these two sources. A short description of the site has been published by Knuth (1981) but only little can be learned about the features from this. Knuth suggested the site name Stjerneborg (Star Castle) in reference to the Stjerneborg observatory built by the Danish Renaissance scientist and astronomer Tycho Brahe, and in line with the astronomical place name Aftenstjernesø.

Feature Descriptions of the Stjerneborg Site

Feature 1

Tent ring (photos 779, 778)

Circular ring of tightly packed boulders (fig. 4.4). Some pieces of wood were found in ruin 1 (LI.9850-9851).

Feature 2

Tent ring

Circular to oval ring of tightly packed boulders.

Feature 3

Meat cache

Circular boulder ring with a diameter of c. 1.5 m.

Feature 4

Tent ring

Circular to oval ring of tightly packed boulders

Features 2, 3 and 4 are located close together (fig. 4.5, photo 780) in an elongated depression. Features 2 and 4 are circular to oval tent rings of tightly packed boulders, whereas feature 3 is a much smaller ring of boulders with the size of a meat cache and located midway between 2 and 4. Their mutual location suggests that features 2, 3 and 4 are contemporaneous. Knuth mentions that in one place, two shelters can be seen in a narrow groove with a meat cache between them. This description appears only to fit features 2, 3 and 4.

Feature 5

Feature 5 is an oval to circular boulder structure with an opening facing south. A flattened piece of wood was found here (LI.9852).

Feature 6

Circular to oval boulder structure located close to feature 7 and in the same rectangular depression in the sub-soil.

Feature 7

Circular to oval boulder structure located close to feature 6 and in the same rectangular depression in the sub-soil.

Feature 8

Circular to oval boulder structure located close to features 6 and 7.

Feature 9

Circular to oval boulder structure (fig. 4.6, photo 781) located in a rectangular depression near the north-western shore of Kastor Næs. Within the periphery there are several stones, some of which are reminiscent of a platform edge. There may be a further opening in the periphery directly towards the photographer.

Feature 10

Double tent ring.

Feature 11

Circular to oval boulder structure. Two bone frag-



Fig. 4.5. (photo 780) Features 2, 3 and 4 at the Stjerneborg site 8/4-1972.

ments were collected from this dwelling (LI.9853, a and b)

Feature 12

Square or rectangular boulder structure.

Feature 13

Circular boulder ring.

Feature 14 (photos 782, 783)

Circular ring of tightly packed boulders with rudimen-



Fig. 4.6. (photo 781) Feature 9 at the Stjerneborg site 8/4-1972.



Fig. 4.7. (photo 783) Feature 14 at the Stjerneborg site 8/4-1972.

tary platform edge in the interior. Feature 14 and 15 are located close together in a rectangular depression (fig. 4.7).

Feature 15 (photos 782, 784)

Circular ring of tightly packed boulders. Feature 14 and 15 are located close together in a rectangular depression (fig. 4.8).



Fig. 4.8. (photo 784) Feature 15 at the Stjerneborg site 8/4-1972.

Feature 16

Circular boulder ring.

Feature 17

Circular boulder ring.

Feature 18 (photo 785)

Oval to circular tent ring. Knuth mentions that ruins 18 to 22 'lie side by side with their narrow ends facing the sea, like ruins of Eskimo winter dwellings at more southerly latitudes. Into the bay in front of them falls a large stream coming from the north. Presumably the place offered – and still offers – char fishing' (fig. 4.9) (Knuth 1981:103ff).

Feature 19 (photo 785)

Oval to circular tent ring.

Feature 20 (photo 785)

Oval to circular tent ring.

Feature 21 (photo 786)

Oval to rectangular boulder ring. On the site map this feature is drawn as a square or rectangle, but on the photo it appears to be an oval 2-3 m long and maybe 1.5 m wide ring of boulders which may have a stone-set platform edge in the interior (fig. 4.10).



Fig. 4.9. (photo 785) Features 18, 19 and 20 at the Stjerneborg site, seen from south 8/4-1972.

Feature 22

Oval boulder structure with opening towards the lake to the west of the structure. Knuth mentions that some pieces of driftwood were found in front of the ruin (LI.9854).

Feature 23

Oval boulder structure with opening towards the lake to the west.

Feature 24

Oval to circular tent ring.

Feature 25 (photo 785)

Oval to circular tent ring.

Summary and Discussion of the Stjerneborg Site

24 of the 25 features appear to be dwellings but we can only speculate as to the function of features like 6, 7, 16 and 17 which are depicted as rather small circles on the site map. This may indicate that these features actually are caches like feature 3. In Knuth's (1981) description he mentions 13 intact shelters (four completely closed and four with clearly visible front edges of sleeping platforms). He also mentions that four ruins have stone-set platform edges but on the photographs there are only three ruins (9, 14 and 21) with a well defined platform. However, accumulated drift sand may have obscured the interior of some features so that the platform edge seen by Knuth does not appear on the photographs. The 25 ruins are scattered over a large area and they could very well be the result of several episodes of habitation.

In several cases, such as features 2-4, 14 and 15 and 18-20, the ruins are located in clusters, indicating that they are contemporaneous. Depending on the number of 'single dwelling' episodes one counts among the scattered ruins we suggest that Stjerneborg is the result of four to eight episodes of habitation comprising a maximum of three to four family units, each having its own dwelling. All the ruins appear to be very similar in their architecture with walls meticulously built using tightly packed boulders. The virtual absence of finds from all the ruins is striking, leading perhaps to the conclusion, that all the episodes were of approximately the same (short) duration and that the



Fig. 4.10. (photo 786) Feature 21 at the Stjerneborg site 8/4-1972.

site may represent the remains from a single group of families who frequented it over a number of years.

This is of course guesswork and one might, with equal right, suggest that Stjerneborg represents a single episode of habitation by several umiaq crews and that they just stayed here for a break when heading through the corridor of the Wandel Dal and Jørgen Brønlund Fjord. However, the main point is that all the dwellings are similar with respect to their architecture as well as their lack of finds. It is thus not possible to argue that some of the features are long-term or winter habitations and others are short-term or summer habitations.

4.4 Pollux Næs

Thule

Photos 775, 776, 1180

Pollux Næs is the eastern point of the twin naze on which the Stjerneborg site is located. The only archival material regarding the Pollux Næs site comprises three photographs (photos 775, 776 and 1180) (fig. 4.11) and a short note in Knuth's Baedeker. Here the oval stone feature is described as an Independence I ruin located on the extremity of the point. Judging from these photographs, the feature is a c. 1 x 2.5 m oval boulder ring divided into two by a platform edge. No finds have been made relating to the feature and, apart from the fact that morphologically it may resemble a miniature



Fig 4.11. (photo 775) Isolated feature at Pollux Næs 5/8-1976.

mid-passage tent ring, there are no specific indicators of its age. Considering the size and location of the feature immediately adjacent to a large Thule site we find it more correct to think of the Pollux Næs Site as a cache or maybe a children's playhouse or playing umiaq related to the Thule settlement Stjerneborg lying a few hundred metres to the west.

4.5 Uranienborg

Thule

82Ø3-000-001

Site no. 288; texts 722-740; photos 787-804, 1181-1185; drawings 181, 182

The Uranienborg site is located at the eastern end of

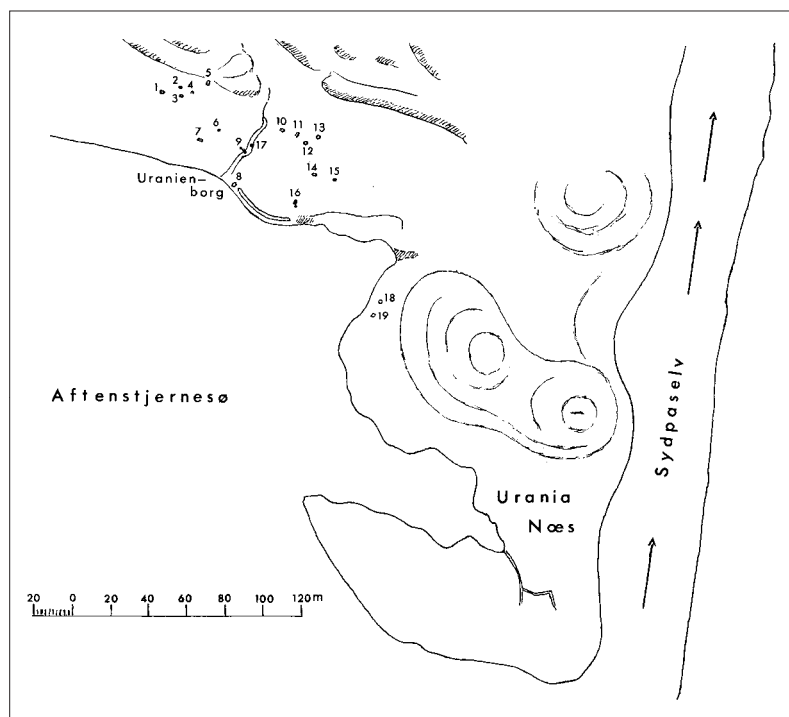


Fig. 4.12. (drawing 181) Site map of the Uranienborg site.

Aftenstjernesø on a hummocky or folded moraine slope, north-west of where the river leaves the lake. Knuth investigated the site between August 6th-8th 1977 (figs. 4.12, 4.13). According to the archives at the National Museum of Denmark, 36 features were recorded at the site, of which 13 are said to be dwellings. However, this figure cannot be confirmed by the documents in the Knuth Archive, where 21 features are described, neither does it correspond to the 21 features mentioned by Knuth (1981) in his preliminary account of the site. Knuth mentions that group I consists of two ruins (18 and 19) and that group II consists of 19 ruins, of which six are shelters, three are cache pits and ten are 'other stone arrangements'. However, regardless of whether there are 36 or 21 boulder features, Uranienborg remains one of the largest Thule sites known from Peary Land. Knuth named the site Uranienborg after the castle and residence built on the island of Hven by the Danish Renaissance scientist Tycho Brahe (Knuth 1981:101).

Feature Descriptions of the Uranienborg Site

Feature 1

Shelter ruin (text 722; photos 794, 787, 1182, 1183)

Feature 1 is an oval 1.5 x 2.38 m boulder structure with its periphery made up of tightly packed boulders, occasionally laid in several courses (fig. 4.14). At the eastern part of the dwelling there is a sleeping platform with its edge marked by seven flat stones. The distance from the west end of the dwelling to the platform edge is 1.1 m and in the centre of the east wall behind the platform there is a pillar comprised of three stones. The floor is covered by mountain avens (*Dryas octopetala*), mountain sorrel (*Oxyria digyna*), purple saxifrage (*Saxifraga oppositifolia*), moss campion (*Melandrium*), grasses and moss. One piece of marrow-fractured bone was found in the dwelling.

Feature 2

Shelter ruin (text 723; photos 795, 1184)

Feature 2 is located 8 m east of ruin 1 in a ditch growing mountain avens and at approximately the same height above the lake (fig. 4.15). There is an inconspicuous platform edge in the interior of the feature, where willow and purple saxifrage grow. Internally the feature measures 1.5 x 2 m.



Fig. 4.13. (photo 1181) Air photo of part of the undulating terrain where the Uranienborg site is located. Features 10, 11, 12 and 13 are seen in the centre-right part of the photo (Knuth 1981).

Feature 3

Shelter ruin (text 724)

Feature 3 consists of six large boulders placed to form a rectangular structure in front of the ditch with feature 2 and on the same level flat as feature 1, but 9 m away from it. Feature 3 measures 1.2 x 2 m internally.

Feature 4

Boulder structure (text 725)



Fig. 4.14. (photo 1183) Uranienborg, feature 1, 17/8-1976.



Fig. 4.15. (photo 1184) Uranienborg, feature 2, 6/8-1976.



Fig. 4.16. (photo 1185) Uranienborg, feature 7, 6/8-1976.

Feature 4 is a semi-circle of boulders with an opening towards the lake. It is located in the same rectangular depression as feature 2 but 5 m further to the east.

Feature 5

Boulder ring (text 726)

Feature 5 is an oval of boulders about 8 m north-east of feature 4 and about 1 m higher. The long axis lies perpendicular to the lake shore with the rear towards a gravel bank. The feature has possibly a cache in the north-eastern corner where Knuth found six bone splinters. The internal measurements are 2 x 2.72 m.

Feature 6

Boulder ring (text 727; photo 796)

Feature 6 is a 1.7 x 2 m oval of boulders lying on a flat surface 7 m in front of feature 5 and approximately 5 m above the lake.

Feature 7

Boulder ring (text 728; photos 793, 797, 798, 1185)

Feature 7 is a solid, almost circular 2.3 x 2 m east-facing boulder periphery with a sleeping platform in the western half (fig. 4.16). The feature is located approximately 5 m above the lake.

Feature 8

Boulder ring (text 729)

Feature 8 is located close to the lake near a steep slope down which half the ruin has slid.

Feature 9, a, b, c

Boulder rings (text 730; photo 799)

Features 9a, 9b and 9c are three boulder rings located on the western side of the small gully, Zig-Zag Kløften (Zig-Zag Gully). 9a is located just above the gully, 9b on the slope and 9c at the bottom of the gully.

Feature 10

Shelter ruin (text 731; photo 800)

Feature 10 is a 1.5 x 2.4 m pear-shaped shelter ruin built of tightly packed boulders. At the east end there is a platform with its edge marked by boulders. Finds: a 3-3.5 cm. long piece of bone with a circular cross-section (LI.10082).

Feature 11

Rudimentary dwelling (text 732; photo 801)

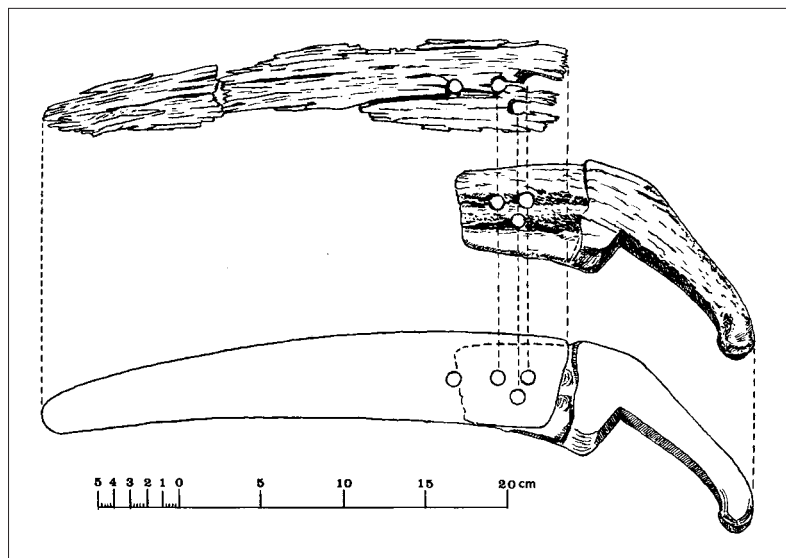
Feature 11 is a heavily disturbed dwelling structure located 6 m east of feature 10.

Feature 12

Meat cache (text 733; photo 802)

Bowl-shaped depression surrounded by a circular boulder periphery with internal measurements of 1.6 x 2.15 m and a flagstone pavement at the bottom. The floor is covered with grey lichen, mountain sorrel (*Oxyria digyna*) and purple saxifrage (*Saxifraga oppositifolia*).

Fig. 4.17. (drawing 182) Snow-knife from Uranienborg, feature 18 (Group I) (Knuth 1981).



Feature 13

Meat cache (text 734)

Feature 13 measures 2 x 2 m and it is largely similar to feature 12 but here there are multiple stone peripheries forming concentric circles. Saxifrage, willow and grey lichen grow in the central depression.

Feature 14

Dwelling (text 735; photo 803)

Feature 14 is a 1.9 x 2.2 m oval formed of very large stones and located on a ridge below feature 12. The periphery has its broad side facing towards the lake and in the interior there is a platform edge of thick flat stones. The north-eastern corner has slid down the slope.

Feature 15

Dwelling (text 736)

Feature 15 is a 1.5 x 1.7 m rectangular boulder feature without a sleeping platform, located on the ridge 10 m to the east of feature 14.

Feature 16

Boulder ring (text 737)

Feature 16 is an oval of boulders located 3 m above the beach in a depression lying south-west of the ridge where feature 14 lies. In the front of the periphery there is a cache and on the eastern side there is a little extension of originally vertical, but now tilted, flagstones.

Feature 17

Boulder ring (text 738)

Feature 17 is a small boulder periphery on a low shelf at the eastern side of Zig-Zag Kløften.

Feature 18

Rudimentary dwelling (text 739; drawing 182)

Feature 18 is an inconspicuous tent site on the flat west-facing beach of the Urania Næs, situated below the Uranienborg site. Knuth (1981) has named features 18 and 19 Uranienborg, Group I. Dwellings 18 and 19 have no clear periphery and they are very different from the shelter ruins at the Uranienborg site. Finds: in addition to 20 bone fragments, Knuth found a composite snow-knife (LI.10083) with a blade that had originally been attached to the handle by rivets through three holes. A drawing of the snow-knife has been published by Knuth (1981:104) (fig. 4.17).

Feature 19

Rudimentary dwelling (text 740)

Feature 19 is located a few metres south of feature 18 which it resembles. Inside it has a hearth comprising three stones. Two samples of musk-ox bone have been radiocarbon dated at the Copenhagen Radiocarbon Dating Laboratory (K-2834 and K-2835). The dates produced were 540 ± 70 BP and 1810 ± 75 BP respectively. When calibrated within one standard deviation these dates result in calendar dates of between 1300-1440 cal. AD and 90-330 cal. AD respectively. While the first

of the two dates is absolutely consistent with other reliable Thule dates from Peary Land, the second must be rejected as being highly problematical since no other Peary Land sites dating to the period around 90 to 330 AD are known. Presumably the dated bone is from a musk ox which died of natural causes and was collected by Thule people or it just happened to lie in a place which was later occupied by them. In any case the date underlines the possibility of very old material becoming mixed with much younger objects in a barren landscape such as that of Peary Land.

Summary of the Uranienborg Site

The many features at the Uranienborg site appear to indicate that considerable and quite differentiated settlement activities took place here. The caches show, furthermore, that resources, presumably musk ox, were harvested in quantities larger than those required for immediate consumption. However, the restricted number of discarded bones seems to indicate that the Uranienborg site was never occupied for any substantial period of time. In contrast to the organisation of the features at the Stjerneborg site, where several structures are clustered in groups of two or three, the Uranienborg site only has few features clustered in sub-groups. Ruins 18 and 19 thus appear to be the only good case for suggesting that certain features are related to each other. It is therefore difficult to discuss whether the Uranienborg site is the result of many or just a few occupations. The radiocarbon date (K-2834) does indicate though that the site came about during the short period of Thule presence in Peary Land.

4.6 Keele Site

Undated

82Ø3-000-005

Site no. 384; photo 774

Keele Site is a cache located on the southern side of the lower run of Sydpaselv, a few kilometres to the west of Terminalnæs (Terminal Point). The feature is an almost square cist of flagstones and it may originally have been covered by a lid. The cist is built against a rock ledge in a small gorge approximately 20 m above the level of the river delta. There are no associated finds to indicate the age of the cist, but due to the use

of vertical flagstones in the construction Knuth believed it to be an Independence I cache for char. British geologist John Collinson of Keele University found the feature in 1979.

4.7 Blanknæs

Thule

82Ø2-000-016

Site no. 313; texts 745-753; photos 151, 152, 825-833, 1088-1090, 1188-1193

Blanknæs (Shiny Headland) is a Thule site with ten features located on the western slope of a little promontory at the westernmost end of Øvre Midsommersø. The site overlooks the large delta formed by Sydpaselv and is heavily affected by sand drift. Wind polishing has given a shining surface to the outcropping black bedrock. There is no site map but the features are described in writing and many features have also been photographed. The feature numbers used by Knuth begin with the southernmost ruin as no. 1 and proceeding north from there the ruins are described in the sections below.

Feature Descriptions

Feature 1

Text 745; photo 825

Feature 1 is an almost rectangular 1.35 x 2.4 m wall frame built against the northern side of a large erratic. The central part of the feature has a flagstone pavement; there is no opening in the periphery. The feature is located 4.9 m above the lake. The photo was taken from the erratic against which the feature had been built.

Feature 2

Shelter? (text 746; photo 826)

Feature 2 is a horseshoe-shaped boulder structure located 10 m north of feature 1 at an elevation of c. 5.4 m above the lake (fig. 4.18). The opening faces east and the closed boulder arch is directed towards the lake in the west. A beautiful platform edge is raised 10 cm above the floor. Some bone fragments were found inside the periphery and Knuth also excavated the floor in front of the platform edge where he found the tooth of a musk ox.

Feature 3

Shelter? (text 747; photos 151, 152, 827, 828, 829, 830, 831, 1188, 1189, 1190, 1191)

Feature 3 is a circular stone wall on the southern side of a large erratic located approximately 5.8 m above the lake (fig. 4.19). On top of the erratic there is a cairn or inusuk comprised of four to five large boulders. These are held in place by smaller stones placed as wedges between the larger ones. The floor is paved within the periphery. The walls on the west and south sides are built with two courses giving them a height of 0.85 m. The eastern wall has, on the other hand, only one course, making this wall section, comprised of just three stones, a low one. Knuth notes that between number two and three he found a piece of driftwood but it is not clear whether it was between stones number two and three in the eastern wall of feature 3 or whether it was between features 2 and 3. The two cairns at Blanknæs are unique. When Knuth arrived at the site only one was still standing, the other had fallen. Knuth (1968, 1981) suggests that the stone pillars in feature 3 were used as tent poles that could have supported a crossbar. This interpretation seems reasonable since both pillars were erected as part of the wall construction. Had they been markers or kayak supports they could just as well have been located independently of any dwelling.



Fig. 4.18. (photo 826) Blanknæs, feature 2, 20/7-1966.

Feature 4

Shelter (text 748, photo 1192)

Feature 4 is a 1.35 x 2.6 m horseshoe-shaped boulder periphery with its long axis lying parallel to the lake. Aeolian sand has filled the interior but a platform edge can be discerned (fig. 4.20).

Feature 5

Text 749; photos 832, 1193

Feature 5 is a 1.60 x 2 m elliptical boulder periphery



Fig. 4.19. (photo 151) Blanknæs, feature 3 seen from the East, 20/7-1966.



Fig. 4.20. (photo 1192) Blanknæs, feature 4, 20/7-66.



Fig. 4.21. (photo 1193) Blanknæs, feature 5, 20/7-1966.

built against an erratic that is split in two by a broad crack (fig. 4.21). The wall is built of boulders up to 38 cm high with their flat surfaces turned in towards the centre. There is no opening in the periphery. Knuth mentions that broad-leaved willowherb (*Chamerion latifolium*), grass and dwarf fleabane (*Erigeron uniflorus*) grow in the feature, which could be an indication of the presence of enriched organic deposits, but the vegetation cannot be seen on the photograph.

Feature 6

Shelter (text 750)

Feature 6 is an irregular 1.4 x 2 m boulder periphery built of large boulders and open towards the south-west. The feature is located approximately 7.5 m above the lake and a little further to the north.

Feature 7

Text 751

A little further to the north and somewhat lower than feature 6 is a 1.3 x 2.2 m horse-shoe shaped boulder periphery. The wall facing the lake is more solidly built than the rest of the feature and there may be an entrance at the east end. A flagstone pavement can be discerned under the shifting sand.

Feature 8

Shelter (text 752; photo 833)

Feature 8 is a 1.5 x 2 m oval of boulders located just a few metres north of feature 7 and at a slightly lower

elevation. In the western wall facing the lake there is a characteristic blue stone and the eastern wall is either reinforced or caches have been built into it. Unfortunately it is impossible to decipher these details on the photo, but Knuth also notes that tightly packed boulders in the periphery have their flat sides turned facing towards the interior as was seen in feature 5. Aeolian sand has filled the feature, *Potentilla* and *Oxyria* grow in it, and Knuth found some bone splinters behind the possible meat cache.

Feature 9

Shelter (text 753)

Feature 9 is the northernmost dwelling and is located approximately 5 m above the lake in a sandy spot between the shiny rock outcrops. The dwelling is rectangular with a paved sleeping platform and a well preserved platform edge. In front of the platform Knuth excavated a flat stone on the east side of another oblong stone which could be a lamp stand. The sleeping platform is 1.6 x 1.6 m square but the total length of the feature was not noted.

Feature 10

Text 754

Feature 10 is a 4.7 m long slightly curved wall built partly on, and partly as 'arms' protruding from either side of, a large boulder located on the top of the western slope. In the terrain behind and above the feature there were musk-ox bones. The concave face of the

wall faces the lake to the west. Charcoal was not found.

Summary and Discussion

The features on Blanknæs are similar, in many respects, to the features registered at the sites of Uranienborg and Stjerneborg, but there are also differences. The circular tent rings of tightly packed boulders with a sleeping platform in the interior appear to be the common dwelling type at all of these sites. According to the site register at the National Museum of Denmark there are both Thule and Independence II settlements on Blanknæs. However, the presence of the latter must be an error arising from the fact that Knuth discussed several of the Thule sites in Peary Land, including the Blanknæs Site, in his 1968 article on Independence II bone artefacts. To the knowledge of the present author there are neither ruins nor finds from Blanknæs which could indicate the presence of a Palaeo-Eskimo sequence.

4.8 Engnæs

Independence II

82Ø2-000-012

Site no. 293; texts 691-698; drawings 71, 172, 173; photos 768, 1082-1087

When moving through the Wandel Dal from west to east, Engnæs is the first Palaeo-Eskimo site to be encountered. It is located on an east-facing gravel ridge at the bend of an alluvial fan c. 2.5 km from Blanknæs on the southern shore of Øvre Midsommersø. During fieldwork in 1968 Knuth registered nine dwellings and at least two exterior features at the site. Many features were described and photographed and two of the well preserved dwellings (1 and 4) were drawn. However, a site plan was never made. As was the case at the Blanknæs Site, we have only little information on the site layout but according to Knuth's feature descriptions some features lie several hundred metres apart suggesting that they probably are not contemporaneous. The site is named Engnæs (Meadow Headland) after the lush growth of cotton grass along the stream where it flows through the low-lying central slopes of the alluvial fan. Knuth visited the site in 1966 and 1968 and he notes that four of the nine ruins have been excavated (Knuth 1968:62). He col-

lected faunal material from three features at the Engnæs site: features 1, 3 and 5. Knuth also recorded some musk-ox teeth in feature 6. These are registered in the inventory of the National Museum of Denmark but were not moved to the Zoological Museum as is the usual practice for faunal material. Large segments of musk-ox *vertebrae* in anatomical order were noted in feature 4. There was musk-ox bone between and below the large hearth and cache stones of feature 7 and a musk-ox horn fragment in the flagstone pavement of feature 8. None of this material was collected.

Feature Descriptions

Feature 1

Mid-passage dwelling (text 691; drawing 172; photos 1194, 1195)

Feature 1 is the best preserved ruin. It is located in a depression and the mid-passage is aligned vertically relative to the lake terraces which it cuts through while sloping inwards towards the cotton grass meadow (fig. 4.22). The distance to the cliff is 6-8 m and the dwelling has an oval 3 x 4.5 m boulder periphery bisected by an east-west orientated mid-passage of flagstones. Occasionally the stones of the periphery lie in two courses along the northern wall section, whereas the southern periphery is open as if the entrance was located here. This would give the dwelling an entry perpendicular to the mid-passage, in contradiction of all Independence conventions. Knuth therefore discusses the feature in some detail. Excavation in front of the hearth box revealed that it originally was elevated 10-15 cm above the southern floor space such that there was a step down from the hearth box to the southern floor area. The mid-passage also lacked wall stones along the south side. The photographs (photos 1194 and 1195) and the drawing (fig. 4.22) of feature 1 depict the mid-passage with three vertical transverse flagstones dividing it into at least two compartments.

The two westernmost of these 'dividing stones' appear to have been placed by Knuth in the position in which they are depicted and it is impossible to establish their original position prior to excavation. Knuth mentions that it is hard to believe that the stones could have fallen towards the north (where presumably they were found), since in their present horizontal position they were supported by other flagstones which were set into the subsoil. In the reconstructed mid-passage there is a western and an eastern compartment. The

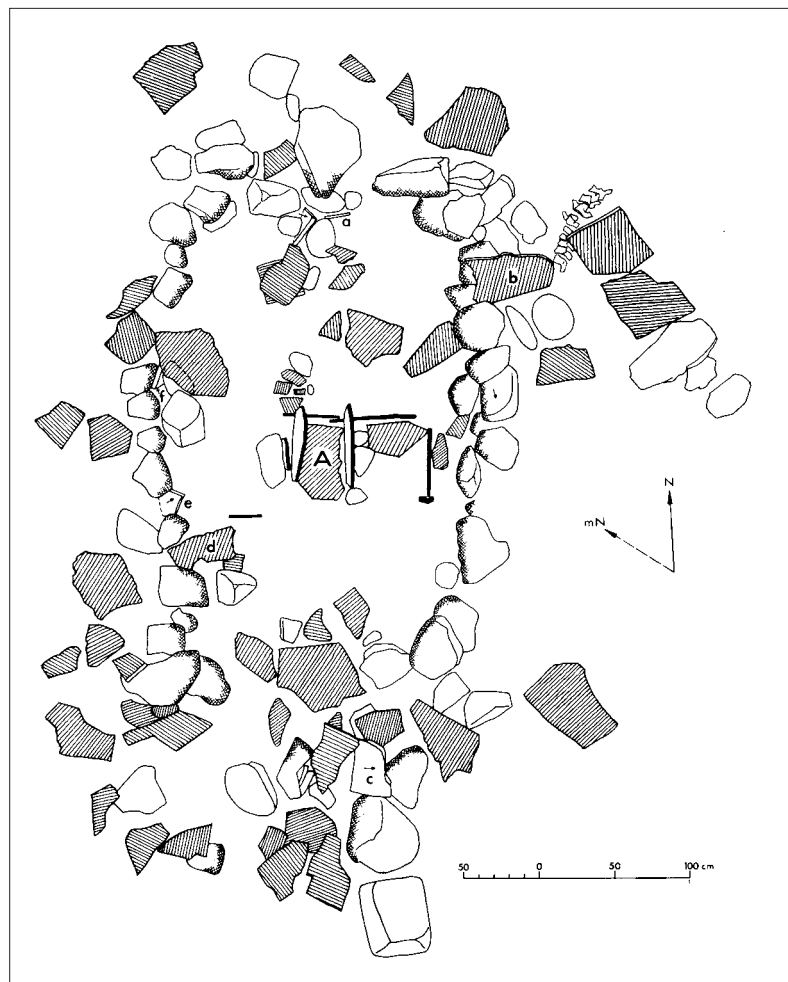


Fig. 4.22. (drawing 172) Engnæs, feature 1.

western box is paved with a single large flagstone covered with a few bone splinters and some charcoal. The eastern and larger box is paved with fragmented flagstones which could be fallen stones from the wall in the mid-passage. Between and beneath these flagstones there was a compact layer of burnt bone, including specimens from arctic char. A large needle fragment (LI.9400) was found on the surface just south of the hearth and another smaller needle fragment was found in a corner in the wall of the northern sector of the dwelling. In addition, some lithic artefacts were found close to the hearth on the southern side of the mid passage (LI.9397-9399 + LI.9404). Two samples of charcoal have been radiocarbon dated giving dates of 2610 ± 100 and 3080 ± 100 BP respectively. The date of 3080 BP is the mean value of two measurements carried out on the same sample. Whereas the date of 2610 BP (K-1522) lies within the common range for Independence II dates, the date of

3080 BP (K-1544) is older than most other Independence II dates. It seems likely that the material used to produce the latter date had been contaminated by older charcoal, since it takes two standard deviations to achieve a minimal probability of overlap between the two dates. Such contamination could result from the mixing of Pleistocene wood with the firewood burnt in the hearth. It is well known that large amounts of this very old wood appear to have been brought into Øvre Midsommersø by the Sydpaselv (Bennike 1987). Today, as probably also was the case in prehistoric times, this wood can be collected as local driftwood along the shores of Øvre Midsommersø. Here the Independence II people may have collected these ancient but very well preserved wooden branches for fuel. In summary, it must be concluded that feature 1 is a rather strange mid-passage, apparently in a somewhat disturbed state of preservation. There are also problems with one of the two

radiocarbon dates, suggesting either that older wood had been incorporated into the Independence II hearth or that feature 1 may, in reality, be an Independence I feature which experienced some disturbance or re-use during the Independence II phase at the site.

Fauna: Knuth recovered only 16 bones from this feature and given the location of the site it is not surprising that the most of these were of fish (81.3%). The assemblage is composed of one lemming mandible, four char bones (three caudal *vertebrae* and one *hyomandibular*), nine fish bones (six ribs, three unknown elements) and two unidentified fragments. This was probably a temporary summer fishing site similar to Walcott Delta.

Table 4.1. Lithic artefacts Engnæs feature 1.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	2
All flakes	6
Total	9

Feature 2

Isolated hearth (text 692)

Approximately 50 m south of feature 1 there is a 30-40 m wide depression in the gravel ridge. At the south-eastern end of this depression there is a little circle of round fist-sized stones set against a 30-40 cm boulder. Knuth and his companion 'Mute' collected a few lithic artefacts (LI.9405-9406) around this presumed hearth, see plate 59.

Table 4.2. Lithic artefacts Engnæs feature 2.

Artefact category	All artefacts
Bifaces, all fragments included	1
Large flake/rough-out	2
Total	3

Feature 3

Text 693

Feature 3 is a boulder structure of unknown origin located on the sandy slope below feature 2 and near a bank of stones running along the top of the cliff facing the lake.

A single find (LI.9407), the distal end of a needle, was associated with this feature. In addition to the



Fig. 4.23. (photo 768) Engnæs, feature 4. Photo by Einar Gade Jørgensen 5/7-1968. (See also Knuth 1968).

artefact description Knuth also notes that the needle was found at a depth of c. 20 cm and at a distance of c. 40 cm from a vertically-set stone in a proper floor layer with burnt bone splinters, charcoal and bones. Perhaps this feature is more substantial than was anticipated by Knuth during his first visit.

Feature 4

Text 693; drawing 173; photos 768, 1196, 1197

Feature 4 is a slightly disturbed Independence II ruin located south-east of feature 3. The dwelling has a box hearth of very thick flagstones imbedded in a mid-passage of flat stones (fig. 4.23). The periphery is heavily disturbed and the front, according to Knuth, has slid down the slope. It is difficult to follow Knuth's description of the mid-passage because there is no well-defined hearth box visible either on the photographs or the drawing. The mid-passage though is well defined, 3 m long, 0.6 m wide and built of flagstones. The rear and front sections are paved with large flagstones. On the western side of the mid-passage there is a large jumble of boulders and flat stones which is a secondary meat cache (Knuth 1968:71). In the mid-passage, and on its western side, Knuth found large segments of musk-oxen *vertebrae* in anatomical order but it is not quite clear whether these bones are related to the mid-passage dwelling or whether they belong to the cache. In addition to the lithic artefacts (LI.9408-

9422), there are several of organic material (LI.9423-9438). These include two harpoon heads (see plate 71), three needles and several pieces of worked bone. At least one of the needles has its oval eyehole preserved. A radiocarbon date has been obtained for musk-ox bone from feature 4. In the dating lists from the Copenhagen Radiocarbon Dating Laboratory the locality is referred to as Baggården, but Engnæs is the only Palaeo-Eskimo site at the western end of Øvre Midsommersø and its co-ordinates suggest that the dated material must have been retrieved from Engnæs feature 4. The date (K-3864) for the bone, and thus the feature, is 2350 ±70 BP. Within one standard deviation this calibrates to a calendar date of between 760-250 cal. BC.

Table 4.3. Lithic artefacts Engnæs feature 4.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	2	18.2	11	8.1
Microblades	4	36.4		
Burin-like tools	1	9.1		
End scrapers	1	9.1		
Retouched flakes	2	18.2		
Axes	1	9.1	125	91.9
All flakes				
Total	11	100.1	136	100.0

Feature 5

Flagstone scatter (text 694)

Feature 5 is located on a small gravel bank south of feature 2. It appears as a c. 2 x 2 m area, covered with fragmented flagstones. A few boulders are also seen at the periphery and in the middle there are a few flagstone fragments in a vertical position and placed at right angles to each another. Many bone splinters and a few pieces of charcoal were spread around the feature. The gravel sub-stratum is very porous with cavities into which the artefacts have slid down. Knuth had, accordingly, to excavate to a depth of 30-40 cm in order to recover finds. The feature is rich in artefacts of organic material with many needles and needle fragments; arctic char is represented among the bone material. Several lithic finds were also recovered (LI.9439-LI.9473); these are summarised in the table below.

Fauna: Knuth collected 23 bone fragments (two unidentified) from feature 5. Arctic char and fish

remains comprise 81% of this tiny assemblage. A musk-ox deciduous molar suggests the animal died during the summer as it was less than six months of age. Three collared lemming bones represent at least two individuals, although these could be intrusive.

Table 4.4. Lithic artefacts Engnæs feature 5.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	2	15.4	13	9.6
Microblades	9	69.2		
End scrapers	1	7.7		
Retouched flakes	1	7.7		
All flakes			122	90.4
Total	13	100.0	135	100.0

Feature 6

Tent ring with central hearth (text 695)

Feature 6 is located on a low sandy spot sloping towards the gravel bank at the terrace edge. The feature has a periphery of smaller boulders and flagstones and in the centre there is a hearth with fire-cracked rocks and fragmented flagstones. None of the flagstones stood vertically. Three lithic artefacts (LI.9474-9475), some musk-ox teeth (LI.9478-9479) and a few pieces of worked bone (LI.9477 + LI.9480 a-c) were found inside the feature.

Table 4.5. Lithic artefacts Engnæs feature 6.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	2
All flakes	1
Total	4

Feature 7

Cache and open-air hearths

60-70 m south-east of feature 6 the gravel bank stops, only to be replaced by a high moraine. In extension of the gravel bank there is an area with large erratics and boulders at the foot of a sandy slope running down from the moraine. In this area there are large and small flagstones, flat stones and manuport boulders piled on top of one another. Knuth suggests that feature 7 is a meat cache with associated outdoor cooking places. Many musk-ox bones were found between and below the large stones and the lithic artefacts include

Fig. 4.24. (drawing 173) Engnæs, feature 4.



a core or axe as well a couple of bifaces (LI.9482-LI.9485).

Table 4.6. Lithic artefacts Engnæs feature 7.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	1
Axes	1
Total	4

Feature 8

Flagstone pavement (text 697)

Feature 8 is located several hundred metres south-east of feature 7 where the moraine borders a green hollow with small streams. On the lowest moraine bank towards the lake shore there are flagstones, bone splinters and a black partly disintegrated horn of a musk ox.

Feature 9

Tent ring (text 698)

The highest part of the moraine is an isolated hill topped by a flat plateau. Here Knuth found a tent ring of large boulders laid out with some space between the

individual stones. He thought that the structure had a rather Neo-Eskimo appearance but in a depression to the west, as well as in the terrain north of the tent ring, there are stone boxes (features 9b and c) built of upright flat stones and boulders and very similar to fox traps. There were no fire-cracked stones and Knuth does not mention ashes in these boxes. Therefore one can suggest that these boxes are indeed not hearths but should be thought of as fox traps and/or caches.

Feature 10

Open-air box hearth

Feature 10 is only mentioned in the site list where Knuth has marked the feature as a box hearth. There is no detailed information on the structure.

Site Summary and Discussion

The long distance between several of the features suggests that they are not all contemporaneous; they may in fact belong to different periods. Accordingly, Knuth suggests that feature 9 is a Thule tent ring. In addition to this, there is the problem with the radiocarbon dates from feature 1. The possibility of Pleistocene contamination in the dated bulk sample has been mentioned already but the early date could also be the

result of the mixing of Independence I material with charcoal of Independence II age. However, Independence I artefacts have not been found at the site so this possibility is less likely than the already mentioned use of ancient wood originating from geological deposits. Similarly, feature 4 is mentioned by Knuth as an Independence I dwelling, without any further explanation. However, in the site lists (text 855) all the features at Engnæs are listed as Independence II features and there are no artefacts which typologically can be assigned to any cultural period other than Independence II. So, at present, the suggestion of any other date for some of the features relies solely on which data one chooses to give priority. However, the widely scattered features and the disturbed appearance of feature 4 leave little doubt that the site must result from multiple occupations.

4.9 Skeletnæs

Thule

82Ø2-000-033

Site no. 344

Skeletnæs (Skeleton Point) is a small site located 1.5 km from Engnæs on the southern shore of Baggården, the westernmost part of Øvre Midsommersø. The site is only mentioned in Knuth's Baedeker where he notes the presence of a tent ring and a musk-ox skeleton. Presumably he would have paid more attention to the site if he had found artefacts or if there were any typically Palaeo-Eskimo elements in the structure. Therefore it is a good guess (but nothing but a guess) that this is a Thule site.

4.10 Sortenæsbugten

Thule

82Ø2-000-034

Site no. 402

Sortenæsbugten is not a single site but the name of the bay east of Sortenæs (Black Headland). Knuth has recorded some tent rings with their fronts facing towards Øvre Midsommersø, but their cultural origin is unknown. The site is only known from the Baedeker and there are neither photographs nor drawings of the features.

4.11 Walcott Delta

Independence I

82Ø2-000-032

Site no. 268; text 744; drawing 188; photos 824, 1094, 1200
The Walcott Delta ruin is an isolated Independence I ruin located on the eastern slope of the alluvial fan deposited by the Walcott River on the southern shore of Øvre Midsommersø (Knuth 1967a, 1967b) (fig. 4.25). The ruin has a large circular boulder tent ring, 3.5 m in diameter, with a rudimentary mid-passage. A single flagstone still stands vertically, but several originally vertically-set flagstones appear to be tilted over. In the rear section the floor around the mid-passage is paved with several large thin slabs. The periphery stones are missing along a 1.5 m long section on the southern side of the tent ring. In his description (text 744), Knuth notes that the periphery stones are missing along a 1.5 m section on the north-eastern side of the dwelling but this is in direct contradiction of his drawing of the feature (drawing 288). So either the N arrow has been drawn in the wrong direction on the drawing or the direction stated in the text is erroneous. Only a single flake was found in association with the ruin during Knuth's first visit in 1966. In 1968 a more thorough excavation was conducted which added considerably to the inventory list.

Fauna: Knuth collected 75 bone specimens. This site's location is significant because over 80% (n = 43) of the identifiable specimens are of fish, and these represent at least two arctic char (*basipterygium*). This was probably a temporary summer occupation situated to take advantage of char moving through the delta. The presence of foetal arctic hare bones places the occupation in late June (Banfield 1974:86). It also appears that when the fish were processed the heads were discarded whole and the meaty body was then placed on the fire (using musk-ox bone as fuel) as only the fish ribs and spines are burnt.

Table 4.7. Lithic artefacts Walcot Delta ruin.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	4
Burin spalls	6
All flakes	65
Total	76

Fig. 4.25. (drawing 188) Walcott Delta ruin.



4.12 Kronjydenæs

Thule

82Ø2-000-22

Site no. 319, texts 713, 714, 715, 716, 717, photo 805, 806, 807, 808

Kronjydenæs is a promontory jutting c. 500 m into Øvre Midsommersø on the south side of the lake. Knuth (1981:99) mentions three meat caches at the extreme end of the point and five dwelling ruins located near the base of the peninsula. The surface is a stone and gravel plain where the innermost flat area is strewn with large sandstone boulders that have fallen from the cliffs behind. An intact lamp (LI.9396) carved of white limestone was found upside down on the flat top of a 2 m high boulder. The find spot, marked by a cairn, is located 75 m behind or to the south-west of feature 2 and 50 m from the eastern shore of the peninsula. The site is named after the Danish word 'kronjyde', denoting a person from the central part of Eastern Jutland named Kronjylland.

Feature Descriptions

Feature 1

Tent ring (text 713)

Feature 1 is an irregular pointed arch of boulders located between two frost cracks on the edge of a steep cliff facing towards the lake. The pointed rear section of

the arch is missing and large stones are heaped against the sides of the frost crack on the south side of the feature. Presumably this is a meat cache related to the dwelling. The front of the periphery appears to have slid down the eroding cliff towards the lake.

Feature 2

Tent ring (text 714; photo 805)

Feature 2 is located 5 m north of feature 1. This feature is composed of a circular northern and a rectangular southern part (fig. 4.26). The circular periphery is built of boulders up to 65 cm long and 82 cm high. The diameter in the circular room is 1.65 m measured parallel to the edge of the terrace, and the central section of the northern wall is marked by a double row of stones. The rectangular compartment is 1.35 m wide (parallel to the coast) and 2.8 m in length (internal measurements). In the centre of the short rear wall there are two large boulders standing upright and rising 40 and 43 cm above the ground surface respectively. Externally, the two compartments measure 4.2 m along the terrace edge and there is 3.6 m from the edge of the cliff to the rear of the feature.

Feature 3

Tent ring (text 715; photo 806)

This feature is situated 7 m north of feature 2. Originally this was a rectangular periphery but only



Fig. 4.26. (photo 805) Kronjydenæs, feature 2, 22/7-1966.

some of the boulders in the southern front wall remain *in situ* close together and with a flat side facing the interior (fig. 4.27). Knuth's companion Lars Motzfeldt found fragments of a broken lamp between the periphery stones in the north-eastern corner and other fragments were found in the southern part of the feature close to the eastern wall facing the lake. The fragments (LI.9392-9395) fit together to form a complete lamp of green sandstone with a perforated wick list very similar to that found on the large boulder south-west of feature 2.



Fig. 4.27. (photo 806) Kronjydenæs, feature 3, 22/7-1966.

Feature 4

Tent ring (text 716; photo 807)

Feature 4 is located 5 m north of feature 3 close to the edge of the cliff. It has an irregular periphery. Judging from the photograph, the structure appears, like feature 2, to have two compartments.

Feature 5

Tent ring (text 717; photo 808)

2.8 m north of feature 4 there is a larger stone heap presumed to be a meat cache. Behind the meat cache there is an oval periphery of closely placed boulders which all lie on top of the gravel rather than being set into the ground. The southern part of the periphery is best preserved. The feature is laid out perpendicular to the lake. Internally it measures 2.75 x 3.1 m. At the rear of the feature, near the end of the southern wall and 5.5 m from the terrace edge, there is a 47 cm high boulder set upright as a pillar. Some bone splinters were found in the north-eastern corner of the feature.

Site Summary and Discussion

The close proximity of the five features at Kronjydenæs suggests that they could be contemporaneous, representing just a single episode of habitation. They all appear to be relatively small shelters intended to protect just one or a few persons rather than a whole family. The caches on the point, and the possible caches associated with the dwellings, further indicate that some excess supplies were harvested in spite of the apparent short duration of the occupation. The stone lamps found at the site indicate that occupation occurred during the cold season. People would probably not bring lamps to a summer camp when the sun shines 24 hours a day. The complete lamp found upside down on the large boulder 75 m north-west of feature 2 is one of the spectacular single finds one can encounter in a desolated landscape like Peary Land. It must have been left with the intention of later retrieval.

4.13 Tokanten

Independence I

82Ø2-000-035

Site no. 347; texts 720, 721; photos 823, 1201, 1202, 1203

Tokanten is an Independence I site with two tent rings

located on a gravel terrace in a cove in the eastern part of Øvre Midsommersø. The two features are quite similar in appearance. They are located 5.3 m above the lake level, and judging from photo 1201 (fig. 4.28) they lie 10-20 m apart. Knuth has noted two further features at Tokanten. Presumably these features form an individual site located a little to the south-east (see fig. 4.32). The name 'Tokanten' is the Danish word for a lune or lunette – a geometric crescent. However, it is also the name of a building in Copenhagen which, during the 1940s and 1950s, housed a popular restaurant and gallery, which were a meeting place for many younger artists.

Feature Descriptions

Feature 1

Mid-passage tent ring (text 720; drawing 186; photos 1201, 1202)

Feature 1 is a 3.5 x c. 4.4 m boulder periphery bisected by a c. 2.6 m long mid-passage feature (fig. 4.29). In the rear of the mid-passage there is a box hearth with two flagstones standing vertically, although they were tilted when Knuth discovered the ruins in 1966 (fig. 4.30, photo 1202). The remainder of the mid-passage is disturbed showing no clear demarcation of the outline. There are several boulders in the area in front of the hearth.

Feature 2

Mid-passage tent ring (text 721; drawing 187; photo 1203)

Feature 2 is a less obvious tent ring of boulders and flat stones and with a mid-passage structure running along the central axis (fig. 4.31). There are hardly any



Fig. 4.28. (photo 1201) Tokanten, features 2 (in foreground) and 1, 23-7-1966.

stones in the northern wall section. The mid-passage is similar to that found in feature 1 with a partly flagstone-outlined box hearth towards the rear and a few boulders in the front section. A few small flakes were found in the northern floor space during Knuth's initial visit in 1966 (LI.9390). This collection was expanded when a more thorough examination was conducted in 1968 (LI.9504-9516).

Fauna: Bone was collected only from feature 2 ; 62 bone fragments were recovered, of which 38 could not be identified. This feature was probably only briefly occupied as a minimum of only one ptarmigan

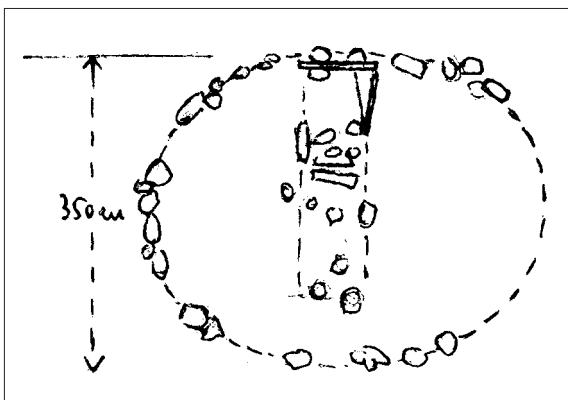


Fig.4.29. (drawing 186) Tokanten, feature 1, up is W-SW.



Fig. 4.30. (photo 1202) Tokanten, detail of rear part of mid-passage, 23-7-1966.

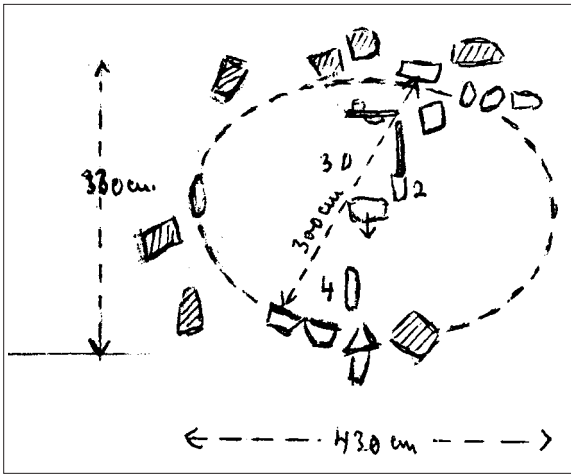


Fig. 4.31. (drawing 187) Tokanten, feature 2, up is W-SW.

and a hare was identified. Nearly all the bird bones are from juveniles which indicates that this feature was most probably used during the summer breeding season.

Table 4.8. Lithic artefacts Tokanten feature 2.

Artefact category	Tools	%	All artefacts	%
Microblades	3	27.3	11	5.5
Burins	1	9.1		
Burin spalls	7	63.6		
All flakes			188	94.5
Total	11	100.0	199	100.0

Features 3 and 4

In addition to the features described above, Knuth also mentions the presence of two more tent rings in his summarising site list. These features are, however, not described in any detail. Presumably these two additional features comprise the locality which Knuth marked as 3b on the site map, on the eastern part of Øvre Midsommersø (fig. 4.32).

Summary and Discussion

The proximity and structural similarity between features 1 and 2 suggest that these are archaeologically contemporaneous. Obviously, we cannot know whether they represent one family settling at the site on two occasions within a short period of time or, as we prefer to think, the remains left by two families travelling together. The structural similarity between the two features is remarkable, so if the two dwellings were occupied by two closely related social units then these two families may have practised similar spatial behaviour in their dwellings. Taking the close similarities in the construction of the hearths into consideration, it can also be suggested that the two families had a common perception of the construction of a hearth. The lithic inventory clearly demonstrates that some lithic reduction was carried out in feature 2, but the limited number of tools indicates that the occupation only lasted for a short period of time. The juvenile bird bones further indicate that occupation probably occurred during summer.

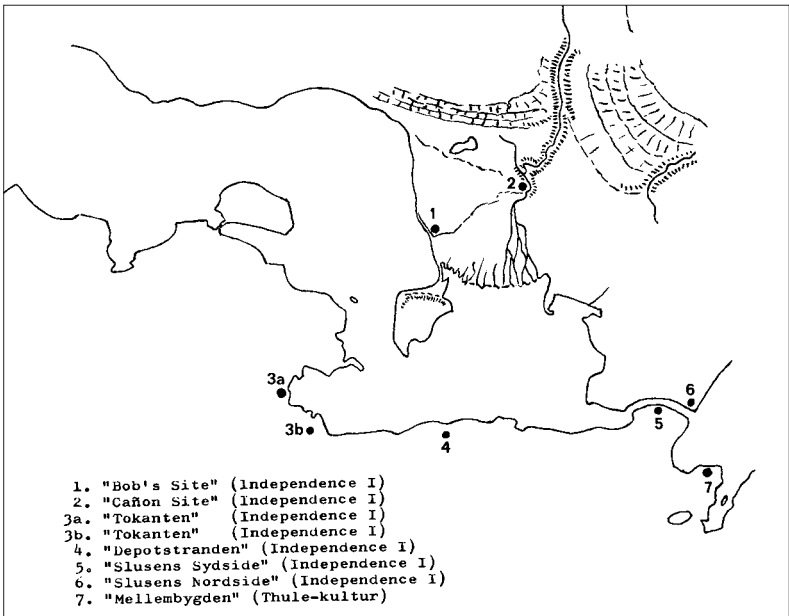


Fig. 4.32. (drawing 183) Map of the eastern part of Øvre Midsommersø with the locations of sites mentioned in the text.

4.14 Depotstranden

Undated cache

82Ø2-000-036

Site no. 403

Depotstranden (Cache Shore) is a site located a few kilometres east of the Tokanten site (see fig 4.32). The site is only registered in Knuth's Baedeker where he mentions a stone-set cache which he believed to be of Independence I origin.

4.15 Bob's Site

Independence I

82Ø2-000-037

Site no. 345; text 718; drawings 183-185; photos 1204-1207

Bob's Site is an Independence I site located on the northern shore at the eastern end of Øvre Mid-sommersø (fig. 4.33). Near the edge of a gravel terrace with a south-west-facing cliff there are four circular dwellings and five outdoors hearths. All the dwellings are similar in appearance, characterised by a periphery consisting of a circular gravel berm and sometimes with a hearth or a few flagstones in the centre. Knuth visited the site for the first time in 1969 and returned in 1972, 1976 and 1977 to carry out additional artefact collections. In addition to the lithic finds listed below a total of 188 specimens of fauna were collected from four ruin features. The relative frequencies of species are listed below but for more detailed information on the Palaeo-Eskimo fauna from the sites in Peary Land see Appendix 2.

Features and Finds at Bob's Site

Feature 1

Gravel tent ring (photos 810, 811, 1204)

Feature 1 is a low but evidently circular gravel berm with a few flagstones and boulders in the centre (fig.4.34). A number of lithic artefacts, some charcoal and a few bones have been collected from the feature (LI.9833-9838 and LI.10027-10032).

Fauna: Feature 1 yielded five specimens: two arctic char elements (left *exoccipital* and *mandible*), one fish rib, one bird rib and an unidentified fragment. Both the feature type and the faunal remains indicate a summer dwelling.

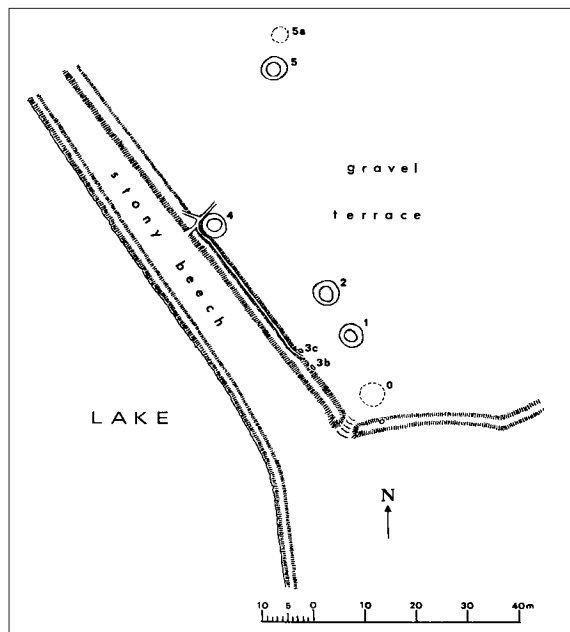


Fig. 4.33. (drawing 185) Site map of Bob's site. Note the feature numbered 0 is not described, presumably this feature is a ruin which Knuth only noticed from the helicopter during take-off in 1972.

Table 4.9. Lithic artefacts Bob's site feature 1.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	1
Burin spalls	3
All flakes	28
Total	33

Feature 2

Gravel tent ring (photo 815)

This tent ring appears similar to feature 1 but without any stones in the centre.

Feature 3a

Open-air hearth (photo 816)

This hearth is constructed of four tightly packed boulders. In and around the boulders Knuth found charcoal and bones of musk ox. No bones are registered at the Zoological Museum from feature 3a.

Feature 3b

Open-air hearth (photo 1205)

This open-air hearth is very similar to feature 3a. In and around the boulders Knuth found charcoal, bones



Fig 4.34. (photo 811) Bob's site, feature 1, 8/8-1972.

and a few lithics. Among the lithics Knuth mentions a microblade core and ten flakes. However, no lithics have been registered at the National Museum from this feature, but as can be seen below, several fragments of microblade cores are registered under the nearby feature 3c, so presumably the finds from feature 3b have been mixed with those from 3c.

Fauna: 27 specimens of faunal remains were recovered from 3b, ten of which were unidentifiable. Musk-ox bone dominates this assemblage (70.6%), although all the bone together represents a minimum of only one individual. The bones show traces of butchering: five specimens exhibit fresh fractures and two have fine cut marks. The cut marks suggest removal of the tongue and disarticulation of the hip joint. The juvenile musk-ox mandible is indicative of occupation in approximately September/October.

Feature 3c

Open-air Hearth (photo 817)

Feature 3c is a collection of boulders and a few flagstones located a few metres west of feature 3b. In and around the boulders Knuth found charcoal, bones and a few lithics (LI.9839-9847, LI.10033-10040 and LI.10088-10096). 3c has been radiocarbon dated (K-5739) to 3730 ±85 BP which within one standard deviation dates the feature to the period between 2290 and 1970 BC. It may also be worthy of note that Knuth, in one of his lists of dates, calls feature 3c 'Cache C3' and not 'open-air hearth 3c' as used both here and in Knuth's initial text.

Fauna: Knuth recovered 123 bone fragments, of which 56 could not be identified. Only mammal bones were identified from this assemblage (13.4% arctic hare and 86.6% musk ox or large terrestrial mammal). A minimum of two musk oxen (mandible, *humerus*) and two hares (*radius*) are represented by this assemblage. The distal portion of a musk-ox *humerus* was sent for radiocarbon dating on 17th December 1990 (J. Møhl).

It is possible that this is a cold season feature as no remains of migratory species were recovered. However, it is equally likely that this feature was used primarily for musk-ox butchering. The musk-ox bone is heavily fragmented and eleven specimens (29.7%) had impact scarring or fresh fractures. Cut marks on a *femur* shaft indicate that the element had been scraped for meat removal. Bone was used as fuel in this open-air hearth. One musk-ox *tibia* was partially burnt which suggests that some flesh remained on the bone before it was put on the fire. Five other small mammal fragments were burnt uniformly black. The colour of the burning indicates that the bone was heated to temperatures of between 400 and 600 degrees Celsius – typical for a camp fire (Lyman 1994a:386). One piece of walrus ivory debitage was also included in the faunal remains, indicating ivory artefact production at this locality.

Table 4.10. Lithic artefacts Bob's site feature 3c.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	3
Burins	1
Burin Spalls	1
Side scraper	1
Microblade cores	4
Retouched flakes	1
All flakes	38
Total	51

Feature 4

Gravel tent ring (photos 809, 813, 818, 1206)

Feature 4 is located in isolation close to the terrace edge. It has a few flagstones and boulders lying in no evident order in the centre. A few pieces of lithic debitage have been collected from the structure (LI.9848).

Table 4.11. Lithic artefacts Bob's site feature 4.

Artefact category	All artefacts
All flakes	6

Feature 5

Gravel tent ring (photos 814, 819, 820, 1207)

Feature 5 is a gravel tent ring lying approximately 30 m back from the terrace edge. In the centre of the gravel berm periphery there are several boulders and flagstones. These do not, however, form a structured hearth. Judging from the photograph a few boulders also appear to have been used in the periphery. Eleven tools and two flakes were collected from feature 5 (LI.10045-10062).

Fauna: 33 bone fragments were collected from feature 5. Of these, only ten specimens were identifiable. This feature was most probably occupied during the warm season as juvenile bird and arctic char bones were recovered.

Table 4.12. Lithic artefacts Bob's site feature 5.

Artefact category	All artefacts
Microblades	5
Burin spalls	4
Endscraper	1
Retouched flakes	1
All flakes	2
Total	13

Feature 5a

Open-air hearth

Feature 5a is located 4–5 m north of feature 5. Like the other hearths it appears as a collection of stones with no apparent structure. Knuth found the distal end of a bifacial blade (LI.9849) near the feature

Table 4.13. Lithic artefacts Bob's site feature 5a.

Artefact category	All artefacts
Bifaces, all fragments included	1

Site Summary and Discussion

All the tent rings at Bob's site are characterised by the lack of stones used in their construction. The terrace consists of small stones, sand and gravel apparently with only a few larger boulders mixed in the matrix.

This may explain the lack of boulders used in the features. However, there may also be functional and purely stylistic aspects involved in the appearance of the dwellings. If one compares the features with the two mid-passage features at the nearby Tokanten site it becomes clear that there are stylistic differences, not only in the tent rings but also in the hearths. At the Tokanten site these are placed at the rear of the mid-passage where they are outlined by vertically-set flagstones. The hearths on Bob's site are, on the other hand, all centrally located and they do not appear to have been particularly well built even though some of the flagstones and boulders in the centre of features 1, 4 and 5 may originally have formed more well structured hearths.

Functional differences between the two sites can be seen in the lithic distributions. On Bob's site these are virtually restricted to the outside areas around the open-air hearths, whereas considerable lithic and organic material was found inside the dwelling on feature 2 at the Tokanten site. This difference in the distribution of artefacts may be related to seasonal differences or just differences in the weather conditions during the period of habitation at the two sites. It is at least evident that Bob's site was occupied during a period when most activities could be performed outside whereas the flint knapping at the Tokanten site was practised inside the dwelling. A possible parallel indicator of air temperature (or wind conditions) during the period of habitation can be seen in that most fires on Bob's site appears to have been in the open-air hearths 3a, b, and c, whereas no such open-air hearths are known from Tokanten. In the light of the structural characteristics of the features, and their associated lithic and faunal materials, it seems probable that the lack of migratory species mentioned in description of the fauna from feature 3c should be seen as a consequence of behaviour, i.e. processing activities rather than of seasonal variation.

4.16 Cañon Site

Independence I

82Ø2-000-038

Site no. 377; photos 1208-1209

Cañon site comprises two tent rings located 1.5 km to the north-east of Bob's site. The tent rings, which have



Fig. 4.35. (photo 769) Isolated cache at ‘Slusens Nordside’, 10/7-1960.

no specific features, are located on the west bank of Inuk Elv just as it flows out of the canyon north of the site.

Two photographs and a short note in Knuth’s Baedeker describe the site which is characterised as an Independence I summer camp. Presumably Knuth visited the Cañon site on several occasions when he was working at Bob’s site, as there are artefacts collected in 1976 and 1977 listed in the archives at the National Museum of Denmark (LI.10063-10111). Among the artefacts is the distal end of a needle and some charcoal and enamel splinters of musk-ox teeth. Among the lithic artefacts, a fragmented biface is unique in that it is made of rock crystal (LI.10107).

Table 4.14. Lithic artefacts Cañon site.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	5	20.8	24	9.0
Microblades	11	45.8		
Burins	1	4.2		
Burin spalls	2	8.3		
Retouched flakes	5	20.8		
All flakes			242	91.0
Total	24	99.9	266	100.0

4.17 Slusen

Undated
82Ø2-000-039
Site no. 342; text 700; drawing 175; photos 769, 770, 1210
Slusen (The Lock) is the name of the c. 1 km long river flowing from Øvre Midsommersø to Nedre Midsommersø. Knuth has registered caches on respectively the northern (Slusens Nordside) and southern (Slusens Sydside) shore of this river.

Slusens Nordside

photo 769
Approximately 30 m from the river on the northern shore, and c. 100 m from the western shore of Nedre Midsommersø near Slusens outlet in the lake, Knuth registered a meticulously built cache with three flat stones standing vertically and supported by large boulders (fig. 4.35, photo 769). The eastern side of the stone-set box is open and the bottom of the chamber is paved with one large stone. Knuth was not fully convinced as to whether the feature was a cache or a hearth. He mentions that any remaining charcoal or burnt bone could have been blown out by the wind. However, the stone box is far too short to have been used as fox trap.

Slusens Sydside

photo 770, 1210
Slusens Sydside is one or maybe several stone chambers located on the southern shore of Slusen midway between Øvre and Nedre Midsommersø. In text 770 Knuth writes that he has never inspected Slusens Sydside himself since he only heard about the existence of the feature or features three and a half years after the over-wintering expedition in 1949. However, Knuth photographed the feature in 1963 (fig. 4.36, photos 770 and 1210) so the text must have been written prior to that. Apparently Knuth never added further documentation.

4.18 Mellembygden

Thule
82Ø2-000-003
Site no. 290; text 837; drawings 1, 13, 270; photos 1095-1098, 1211

Mellemygden is a Thule site belonging to the group of sites Knuth (1981) labelled 'shelter colonies'. In the site register at the National Museum of Denmark it has been assigned to both the Thule and the Independence II cultures. The latter must be an error due to the fact that Knuth discussed several of the Thule sites in Peary Land in his 1968 article on the Independence II bone artefacts. To our knowledge, there are neither ruins nor finds from Mellemygden which could indicate a Palaeo-Eskimo sequence at this site. The site is located on a boulder-strewn slope on the westernmost part of the southern shore of Nedre Midsommersø. The name Mellemygden (the Middle Settlement) refers to the site's location between the Øvre and Nedre Midsommersø. Eight shelter ruins are recorded from the site. In addition to these there are several tent rings as well as stone circles on scoured rocks which are presumed to be racks for hide processing. The features are concentrated in a western and an eastern cluster. The western concentration has seven registered features whereas the eastern group, Group I, comprises a single ruin.

Western Group (Group II)

Feature 1

Shelter (drawing 1)

This is a large oval shelter with a sleeping platform edge bisecting the interior. The platform appears to have been slightly elevated above the floor area. The feature is located 30 m from the lake in a depression with willow and mountain avens. A single radiocarbon date (K-2017) has been produced for musk-ox bone from feature 1 in Group II. The radiocarbon age of 1460 ± 100 AD is within the range for other known shelter settlements.

Feature 2

Shelter

Feature 2 is a shelter ruin located slightly higher than, and 10 m to the west of, feature 1, approximately 40 m from the lake. The oval boulder periphery measures 2 x 1 m and the sleeping platform appears slightly elevated above the floor. Finds: fragment of musk-ox rib.

Feature 3

Shelter

This shelter ruin is located even higher than feature 2. The periphery measures 2.15 x 1.25 m. 1.1 m from the rear wall there is a platform edge.



Fig 4.36. (photo 770) Isolated cache at 'Slusens Sydside', 21/5-1963.

Feature 4

Shelter (photo 1211)

The shelter ruins 4, 5 and 6 are located to the south of feature 3 and lie in a row on a ledge in the otherwise sloping terrain (fig. 4.38). Only feature 5, the most solid of the three, is described in detail.

Feature 5

Shelter (drawings 13, 270)

Feature 5 is a solidly built shelter with a periphery of tightly packed boulders most often set with an even side towards the interior. Often the gaps between the boulders in the periphery are filled with smaller stones (fig. 4.37). The feature was excavated and drawn by Hans Berg in 1966 but the only finds are a few pieces of musk-ox bone and tooth and a small piece of wood.

Feature 6

Shelter

Feature 6 is an oval boulder periphery similar to feature 4.

Feature 7

Shelter

Feature 7 is a shelter ruin located south of features 4, 5 and 6. There is no detailed description of this feature but Knuth notes that there are tent rings in the higher terrain south of feature 7.

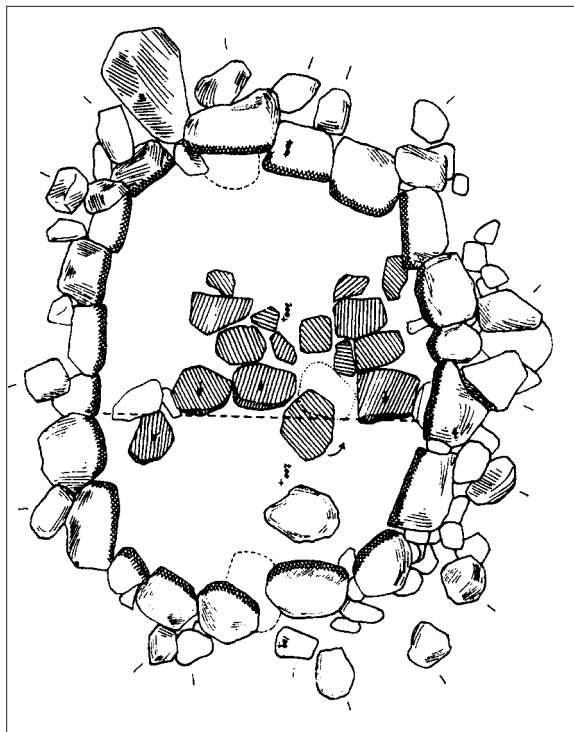


Fig. 4.37. (drawing 13) Mellemygden, feature 5, Knuth 1967a, Plate V, k.

Eastern Group (Group I)

Feature 8

Shelter

Feature 8 is an isolated shelter ruin located c. 20 m from the lake and 2.5 m above it. The shelter has a 'pear shaped' periphery built of 21 large stones. The



Fig. 4.38. (photo 1211) Mellemygden, features 4, 5 and 6. 18/7-1966.

interior is bisected by a platform edge of flat stones. In front of the shelter there are three tent rings. Knuth noted an area with concentrations of flagstones some distance to the east of the feature.

Site Summary and Discussion

The shelters in the eastern group at Mellemygden are located in hummocky terrain strewn with boulders which is typical of the shelter sites. The features tend to be located in vegetated depressions as seen at other sites with shelter ruins. Similarly, there are no bones or other finds in or around the features. The horizontal distribution of the features suggests that at least features 4, 5 and 6 are contemporaneous, whereas it is more difficult to suggest any order or succession among the remaining ruins. In one publication Knuth (1981) has described features 4, 5 and 6 as two shelters with a cache between them. This, however, is in direct contradiction to Hans Berg's description of the features (text 837). There is also disagreement between Knuth's 1981 reference and the 1967a publication of feature 4. In the latter paper, the relevant drawing is said to depict feature 5 and not feature 4. This original and presumably correct statement is also in agreement with the feature description and numbering in the archive. A piece of worked driftwood, which probably is part of a throwing board, was found on the lake shore to the east of Mellemygden (LI.9389). In addition, a musk-ox rib was found in Group II feature 2. The radiocarbon date for musk-ox bone from feature 1 in Group II suggests that the site is contemporaneous with other Thule settlements in Wandel Dal.

4.19 Skurenæs

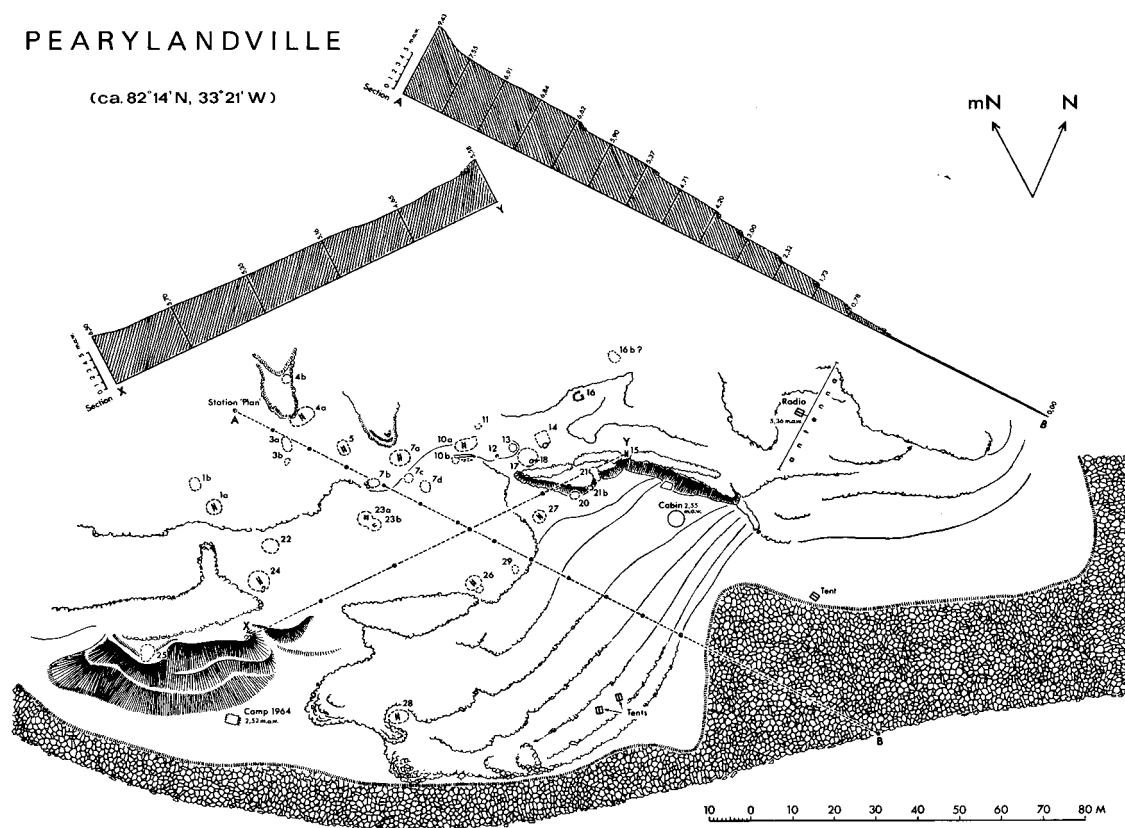
Independence I, Thule

82Ø2-000-040

Site no. 393; text 690; photo 767

Skurenæs (Scoured Point) is an ice-scoured dolerite point at the western end of the vertical cliff known as Mågeklippen (Gull Cliff) on the southern shore of Nedre Midsommersø.

Knuth visited the site on several occasions in 1963, 1964 and 1966. He mentions that a shelter ruin with a cache nearby is located 10-20 m above the lake on the promontory itself. In a little cove with terraces of fine-grained gravel on the southern side of the promontory



The mid-passage is located approximately 4 m above the lake and at a distance of 52 m from the shore. A low gravel berm periphery surrounds the hearth where two flagstones stood vertically when Knuth encountered the feature. 1.5 m in front of, and behind, the hearth Knuth found flagstones which could have marked the front and rear end of the mid-passage. The entire dwelling appeared to have been slightly dug down into the gravel terrace and flagstones lay scattered in front of the feature. In and around the hearth Knuth found many fire-cracked rocks and splinters of musk-ox enamel. Upon removal of the tilted flagstones, he found a thick layer of charcoal and burnt bone, including several bones of arctic char. The charcoal appeared to be dominated by local wood but the ruin has never been radiocarbon dated. On a lower gravel terrace approximately 2 m above the lake Knuth found a disintegrated musk-ox skull, but no

In terms of numbers of both features and finds Pearylandville is the largest Palaeo-Eskimo site in Peary Land and it plays a central role in Knuth's (1967a, 1967b) reconstruction of the settlement pattern in the area of Jørgen Brønlund Fjord – Midsommersøerne. The site is located on a promontory at the eastern end of Nedre Midsommersø (fig. 4.39). The substratum is sand and gravel partially mixed with

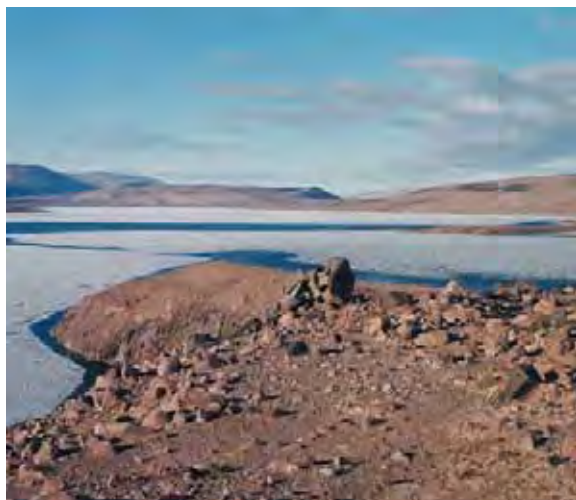


Fig. 4.40. (photo1223) Pearylandville, view from top of promontory towards the east, 12/7-1966. In the foreground a large natural boulder against which feature 34 is built.

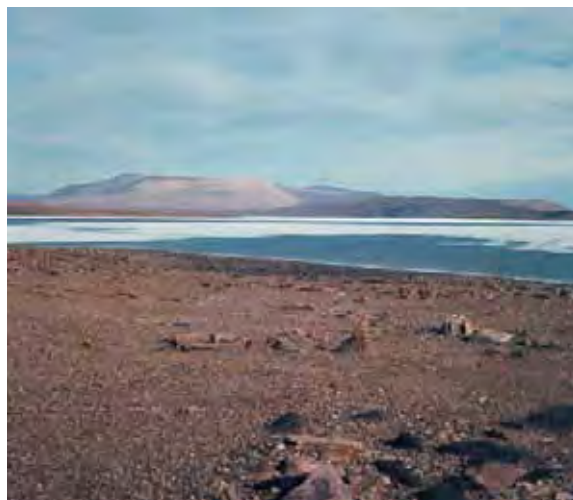


Fig. 4.41. (photo 1213) View over central plateau of Pearylandville. Features 23 and 23a are seen in foreground 20/7-1964.

boulders and the undulating surface changes between plane gravel terraces and boulder fields (figs. 4.40 and 4.41). Knuth worked at the site on several occasions and features were excavated in 1964, 1966, 1968 and 1969. The most extensive fieldwork was probably conducted in 1966 when Hans Berg and the photographer Ejnar Gade Jørgensen joined the team. During this field season many features were drawn, described, photo-documented and excavated. In order to obtain a cross-section of subsistence patterns at this site Christyann Darwent (2001) undertook a random sample (approximately 50%) of the features from which bone

was collected, and identified faunal remains from twelve of these features. The relative frequencies of species in features with analysed fauna material are described under the relevant features. Additional specified data on the fauna from Pearylandville can be found in the Appendix.

Features and Finds from Pearylandville

Feature 1

Mid-passage dwelling (drawing 132; photos 748, 749)
Feature 1 is a well preserved mid-passage dwelling (figs. 4.42 and 4.43). Prior to excavation the mid-passage was hidden in mountain avens, willow, grasses, cinquefoil (*Potentilla chamissonis*) and mosses, and the stones were covered by red lichen (*Alloplaga elegans*). In the mid-passage there is a hearth box set between the two parallel rows of vertically-standing flagstones which make up the walls in the mid-passage itself. Prior to excavation many of the originally vertical-set stones had tilted. The hearth box measures 50 x 60 cm, and the 5 cm thick flagstones are raised 5-12 cm above the surrounding gravel surface (see Fig. 4.42). Smaller fist-sized stones have been jammed on the outside of the parallel rows of vertically-placed flagstones and in the front part of the feature there is a large flagstone. Feature 1 was excavated in 1966, revealing a total of 120 artefacts (LI.8742-8788) including two bone needles and three pieces of worked bone. The remaining 115 artefacts are stone tools or debitage



Fig. 4.42. (photo 749) Pearylandville, feature 1 prior to excavation, 23/7-1964.

as summarised in the table below. In Knuth's publications feature 1 is often depicted as a typical mid-passage structure (Knuth 1967a). However, as can be seen in Reports from the Musk-Ox Way (Knuth 1984:60-61), the feature has been reconstructed with vertically-standing flagstones.

Table 4.15. Lithic artefacts Pearylandville feature 1.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	5	11.9	42	36.5
Microblades	26	61.9		
Burins	1	2.4		
Burin spalls	4	9.5		
End scrapers	4	9.5		
Side scrapers	2	4.8	73	63.5
All flakes				
Total	42	100.0	115	100.0

Feature 2

Isolated hearth

Feature 2 is an amorphous concentration of boulders and flat stones located in a boulder field. In the immediate vicinity of the feature, 767 flakes were collected on the surface and during excavation. Many of the flakes are very large suggesting that primary lithic reduction occurred at the locality. Due to the presence of tilted flat stones and charcoal, Knuth believed that the feature was a hearth which probably had been located in a dwelling. Feature 2 was excavated in 1964 and 1966 and a few objects were also collected in 1968 (LI.8338-8370, LI.8789-8813, LI.9517-9523).

Table 4.16. Lithic artefacts Pearylandville feature 2.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	15	27.3	55	2.9
Microblades	7	12.7		
Burins	7	12.7		
Burin spalls	5	9.1		
End scrapers	3	5.5		
Side scrapers	1	1.8		
Retouched flakes	13	23.6		
Axes	2	3.6		
Unspecified tool	1	1.8		
Large flake/rough-out	1	1.8		
All flakes			1851	97.1
Total	55	99.9	1906	100.0



Fig. 4.43. (drawing 135) Pearylandville, feature 1 prior to reconstruction. Upon excavation Knuth was able to put many of the flagstones back into their original vertical position. Based on these observations he thus produced a drawing of the feature as it could have appeared in its original state (Knuth 1967a plate 1,a; 1984, 60f).

Feature 3

Mid-passage dwelling (drawing 134; photo 1027)

Feature 3 is a disturbed dwelling structure of large boulders and thick tilted flagstones which Knuth believed originally formed the side walls in a 60 cm wide and 3 m long mid-passage (fig. 4.44). Even though the feature does not have a periphery it was estimated to be circular with a diameter of 3.5 m. Feature 3 is marked on the site map as 3a and 3b. In Knuth's site list feature 3a is marked as an isolated mid-passage. It has also the mid-passage signature on an unfinished sitemap (drawing 54), whereas on the finished site map (fig. 4.39, drawing 168) 3a is depicted as a more rudimentary structure. The drawing suggests that it might be regarded as a rudimentary box hearth surrounded by flagstones. In Knuth's site list (text 848) and in the inventory list at the National Museum of Denmark 3b is described as open-air hearths and as hearths in front of 3a respectively. However, neither photographs nor drawings of 3b exist so it is difficult to judge the exact character of the

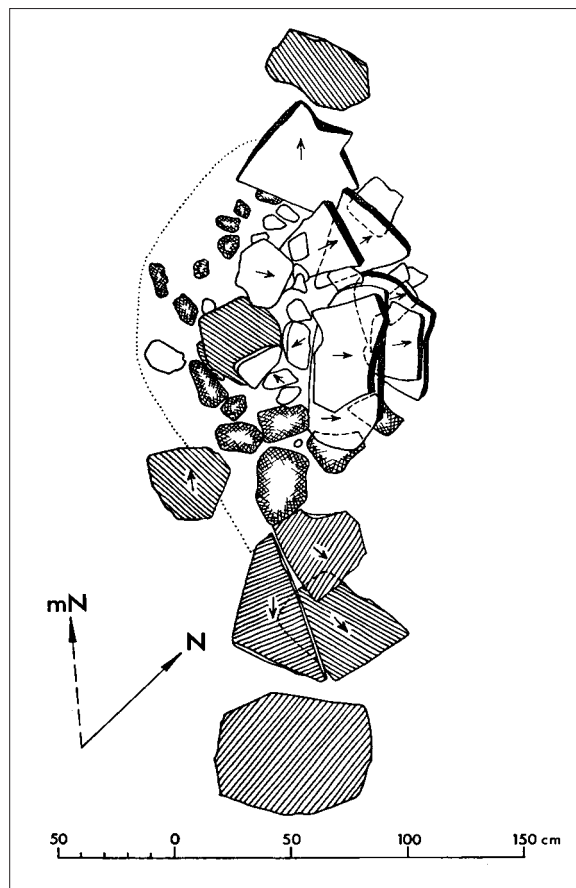


Fig. 4.44. (drawing 134) Pearylandville, feature 3.

feature. It remains unclear whether 3b is an open-air hearth with associated activity areas or a refuse area which accumulated in front of the doorway to feature 3a. One possibility may not exclude the other. Presumably 3b comprises a concentration of artefacts associated with patches of charcoal and ashes. If stones were present it is likely that Knuth would have mentioned them. The area described as feature 3b appears to be clearly associated with 3a. Artefacts were collected from feature 3 in 1964 and 1966 and two objects were also collected in 1968-1969. In the inventory list at the National Museum of Denmark the artefacts collected in 1964 are noted as being from feature 3, whereas the artefacts collected during the more detailed investigation in 1966 are noted as being from 3a or 3b. This leaves some uncertainty as to the origin of artefacts collected in 1964. The following tables are therefore split so that artefacts collected in 1964 are shown separately from those assigned to either feature 3a or 3b. Furthermore, a fourth table (table 4.20) gives

the total number of lithic artefacts from features 3a and 3b in order to facilitate inter-feature comparisons of the artefact inventories (LI.8371-8399, LI.8814-8972, LI.9524-9525).

Table 4.17. Lithic artefacts Pearylandville feature 3.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	2	7.4	27	96.4
Microblades	12	44.4		
Burins	1	3.7		
Burin spalls	4	14.8		
End scrapers	1	3.7		
Side scrapers	3	11.1		
Axes	2	7.4		
Unspecified tool	2	7.4		
All flakes			1	3.6
Total	27	99.9	28	100.0

Table 4.18. Lithic artefacts Pearylandville feature 3a.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	12	10.5	114	9.2
Microblades	33	28.9		
Burins	7	6.1		
Burin spalls	28	24.6		
End scrapers	13	11.4		
Side scrapers	3	2.6		
Retouched flakes	10	8.8		
Axes	2	1.8	1125	90.8
Microblade cores	3	2.6		
Large flake rough-out	3	2.6		
All flakes			1125	90.8
Total	114	99.9	1239	100.0

Table 4.19. Lithic artefacts Pearylandville feature 3b.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	1	4.2	24	3.6
Microblades	5	20.8		
Burins	3	12.5		
Burin spalls	6	25.0		
End scrapers	4	16.7		
Retouched flakes	4	16.7		
Unspecified tool	1	4.2		
All flakes			649	96.4
Total	24	100.1	673	100.0

Table 4.20. Lithic artefacts Pearylandville feature 3 total.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	15	9.4	159	8.2
Microblades	50	31.4		
Burins	11	6.9		
Burin spalls	38	23.9		
End scrapers	18	11.3		
Side scrapers	6	3.8		
Retouched flakes	14	8.8		
Axes	4	2.5		
Unspecified	3	1.9		
All flakes			1775	91.8
Total	159	99.9	1934	100.0

Feature 4a

Mid-passage dwelling (drawing 133, 166)

Feature 4 is a mid-passage located 10 m behind and slightly higher in the boulder field than feature 3. Initially it was recorded as a circular concentration of flagstones covered with grass, but after excavation it stood out as a 7 x 4.3 m – 8 x 4.7 m oval dwelling (figs. 4.45 and 4.46). In the northern part of the periphery there are rudimentary remains of another mid-passage (Fig. 4.45) which could belong to an older ruin. The presence of older features here makes it difficult to enter into a meaningful discussion of the distribution of artefacts within this particular feature, since it

is impossible to judge whether the artefacts belong to one or other of the two features. In addition to this ruined feature the site list has an area named 4b which is also marked on the site map (Fig. 4.39), where it is located c. 10 m behind or north of feature 4a. Apart from the fact that 29 flakes were collected from feature 4b, the characteristics of this site are unknown. Artefacts were collected in 1964 and 1966, as well as in 1968/1969. Among the finds are 1376 lithic artefacts as well as a few objects of bone such as a needle, a flint flaker, pieces of worked bone and a few awls. Most of the artefacts were collected during the excavation in 1966 (LI.8400, LI.8973-9059, LI.9526-9536).

Table 4.21. Lithic artefacts Pearylandville features 4a and b total.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	10	12.2	82	6.0
Microblades	16	19.5		
Burins	12	14.6		
Burin spalls	24	29.6		
End scrapers	7	8.5		
Side scrapers	3	3.7		
Retouched flakes	7	8.5		
Axes	1	1.2		
Unspecified tool	2	2.4		
All flakes			1294	94.0
Total	82	99.9	1376	100.0

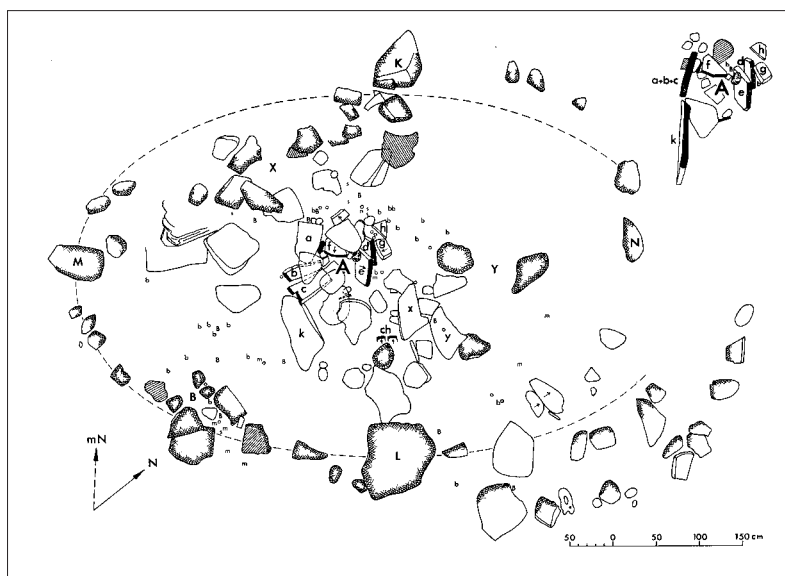


Fig. 4.45. (drawing 133) Pearylandville, feature 4a.



Fig. 4.46. (photo 753) Pearylandville, reconstructed hearth in feature 4, seen from south-east.

Feature 5

Flagstone pavement (drawings 137, 151)

In Knuth’s site list feature 5 is recorded as a possibly older mid-passage. On the drawings (137 and 151), however, it is difficult to identify a mid-passage. In the description feature 5 is designated as an aggregation of very large flagstones, covered with lichen (fig.

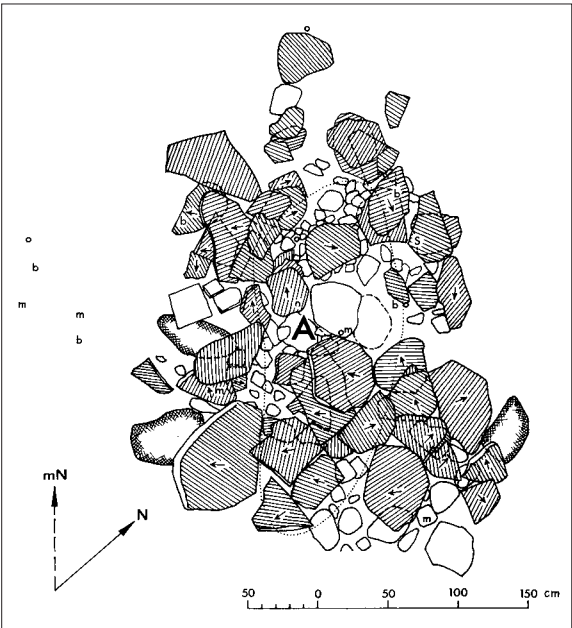


Fig. 4.47. (drawing 137) Pearylandville, feature 5.

4.47). The paved area measures 3.45 x 3.2 m. Knuth notes that a mid-passage can be discerned and, accordingly, it is marked as such on the site map. However, the present authors find it very difficult to recognise this structure among the many flagstones. Although, if one envisages that some of the now horizontally-placed flagstones originally were set vertically, then there are many opportunities for making a mid-passage out of them. Knuth might thus be correct in suggesting that feature 5 is an older mid-passage which has been spoiled by trampling during subsequent episodes of habitation. However, he offers little evidence in support of his suggestion. 31 lithic artefacts, a bone awl and a piece of worked caribou antler were collected from the pavement (LI.8401, LI.9060-9079).

Table 4.22. Lithic artefacts Pearylandville feature 5 total.

Artefact category	All artefacts
Bifaces, all fragments included	3
Microblades	5
Burin spalls	6
End scrapers	1
Retouched flakes	1
Unspecified tool	1
All flakes	14
Total	31

Feature 6

Hearth?

Feature 6 is a 1 x 0.8 m stone-set trapezoid hearth. The feature is located between features 5 and 8 on a gravel patch empty of boulders.

Feature 7

Mid-passage dwelling (drawings 138, 139, 140, 152; photo 1216)

The mid-passage measures 2.3 x 0.5 m and is built of 5-7 cm thick flagstones. The hearth is set as a stone box mounted between the two parallel walls in the mid-passage (figs. 4.48, 4.49 and 4.50). A flagstone pavement in front and slightly to the west of the mid-passage may mark the entrance and front of the dwelling. There is no clear periphery so the width of the dwelling is difficult to estimate. There is a distance of 3.6 m from the back to the pavement in front of the mid-passage. The western floor sector was filled with

Fig. 4.48. (drawing 139) Pearylandville, feature 7 prior to reconstruction.

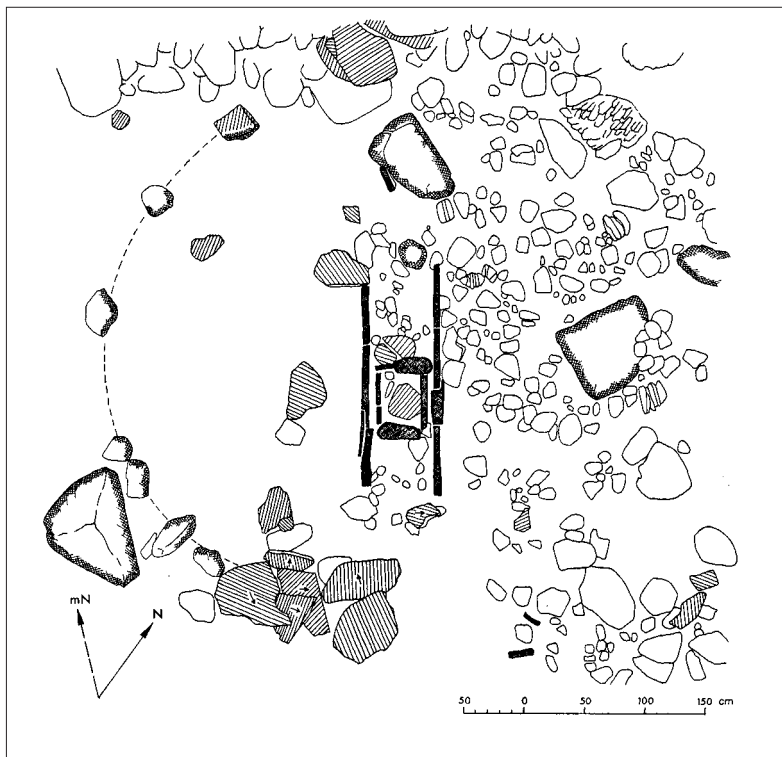
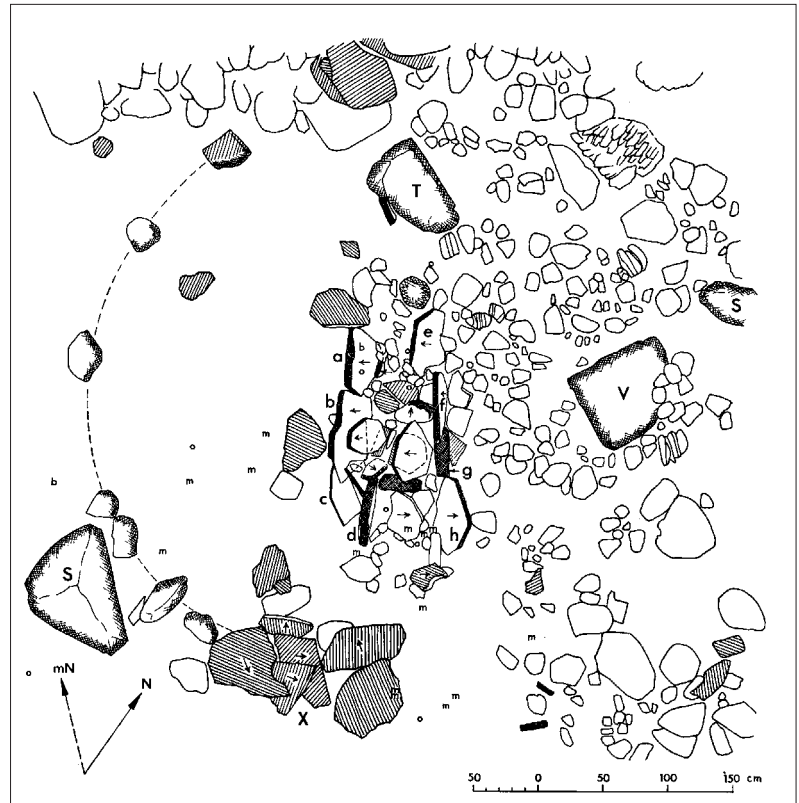


Fig. 4.49. (drawing 140) Pearylandville, feature 7 reconstructed.

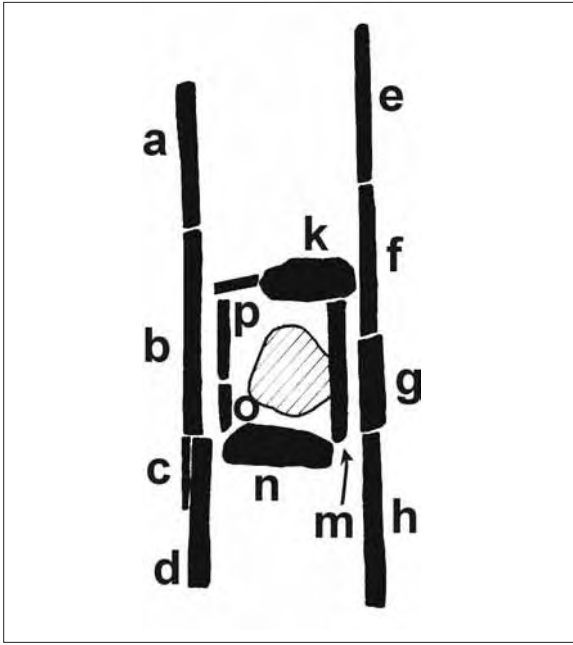


Fig. 4.50. (drawing 138) Pearylandville, detailed sketch of reconstructed mid-passage in feature 7. Redrawn after original by Knuth.

sterile sand whereas a thin culture layer was found in front of the mid-passage and along its eastern side. At the front of the western floor sector ashes marked the presence of a minor pit in the sand. In front of feature 7 there are two open-air activity areas. There is, however, no detailed description of these areas. A total of 107 lithic artefacts, two bone awls or pins and three other pieces of worked bone were found in the feature (LI.8402-8423. LI.9080-9111). A sample of musk-ox bone (K-4058) from feature 7 has been radiocarbon dated to 3620 ± 75 BP. Within one standard deviation this gives a calendar date of between 2130-1880 cal. BC, i.e. the later part of the Independence I spectrum.

Table 4.23. Lithic artefacts Pearylandville feature 7 total.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	13	27.1	48	44.9
Microblades	25	52.1		
Burins	1	2.1		
Burin spalls	4	8.3		
Retouched flakes	4	8.3		
Microblade cores	1	2.1	59	55.1
All flakes				
Total	48	100.0	107	100.0

Feature 8

Unspecified dwelling

Feature 8 is a 2.5 x 2.5 m aggregation of stones located on a gravel patch close to feature 7. Knuth considered the feature to be a disturbed mid-passage associated with a periphery of three large boulders which could be part of an elliptical tent ring with a maximum dimension of 4 m. A few lithic artefacts were collected from the feature (LI.8424, LI.9112-9116).

Table 4.24. Lithic artefacts Pearylandville feature 8 total.

Artefact category	All artefacts
Microblades	2
All flakes	4
Total	6

Feature 9 (7a)

Open-air hearth

Feature 9 is a flagstone scatter on the gravel slope in front of feature 7. Presumably it is an open-air hearth associated with Feature 7. Three lithic artefacts were collected from the feature (LI.9117-9119).

Table 4.25. Lithic artefacts Pearylandville feature 9 total.

Artefact category	All artefacts
Microblades	1
Burins	1
Burin spalls	1
Total	3

Feature 10

Mid-passage dwelling (drawings 141, 165; photos 757, 758)

The mid-passage is 1.8 m long and 56 cm wide and the oval periphery measures 2.8 x 4.5 m. The 25 x 30 cm box hearth is mounted between the two parallel walls in the mid-passage; these show a tendency to narrow towards the front (fig. 4.51). The mid-passage is asymmetrically located which makes the eastern floor sector much larger than the western. Several large stones were found in the eastern sector, as can also be seen in feature 7. In front of the dwelling there is a gravel ridge bisected by a frost crack and on the slope in front of the ridge there are outdoor hearths with fire-cracked rocks, charcoal and burnt bone. This area is named feature 10b. Feature 10 was excavated in 1964 and 1966 and a few artefacts

Fig. 4.51. (drawing 141) Pearylandville, features 10a and 10b.



were also collected in 1968. The finds comprise a total of 299 lithic artefacts and 27 objects of bone as well as a piece of worked musk-ox horn. Among the bone objects are nine needles and several flint flakers and bone pins (LI.8424-8570, LI.9120-LI.9139, LI.9537-9538). 21 of the organic artefacts were collected during the 1964 field-work when data on their exact location were not recorded. A radiocarbon date (K-939) has been produced for a sample of willow charcoal collected from feature 10a. The sample gave a date of 3840 ± 120 BP which within one standard deviation gives a calibrated calendar date of between 2470-2130 cal. BC.

Fauna: Feature 10a: 43 faunal specimens plus one small caribou antler fragment were collected. Four of these specimens were not identified. Bird remains comprise 10.3% of the identified specimens (MNI = 2), hare 41%, fox 38.5% and musk ox 10.3% – these latter three mammalian species each represent a minimum of only one individual. Slight to moderate burning was noted on six specimens (14%) and most of this was not uniform – particularly on the gull wings. This feature was probably occupied in summer.

Feature 10b: From the external hearth, numbered feature 10b, Knuth collected 135 bone specimens (20 unidentified). Unlike feature 10 this external hearth area contained numerous arctic char bones. Fish remains comprise 24% of the identified specimens, although all of these bones could derive from a single fish cooked in the hearth (57.6% of the fish bones are either completely or partially burnt). Arctic hare comprises 0.9%, fox 14.8%, bear 1.7% and musk ox and artiodactyl together 48.7% of the identified faunal assemblage. The mammal bone had also been exposed to fire as 27.2% of the mammal remains are burnt. Musk ox clearly dominates this assemblage, comprising more than 70% of the mammalian remains and represented by a minimum of three individuals (*radius*). The musk-ox bones are also heavily fractured – particularly the limb-bone shafts – most likely for marrow extraction. This feature probably was not used during the coldest part of the cold season, as char, bird and bear would not have been easily obtainable at that time of the year. This hearth was most likely used during the warm season.



Fig. 4.52. (photo 1217) Pearylandville, feature 12, 23/7-1964.

Table 4.26. Lithic artefacts Pearylandville feature 10 unspecified.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	12	9.8	122	99.8
Microblades	48	39.3		
Burins	12	9.8		
Burin spalls	32	26.2		
Side blades	1	0.8		
End scrapers	6	4.9		
Side scrapers	1	0.8		
Retouched flakes	6	4.9		
Axes	1	0.8		
Microblade cores	1	0.8		
Unspecified tool	2	1.6		
All flakes			4	3.2
Total	122	99.7	126	100.0

Table 4.27. Lithic artefacts Pearylandville feature 10 a.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	1	8.3	12	11.8
Microblades	3	25.0		
Burin spalls	3	25.0		
Retouched flakes	4	33.3		
Axes	1	8.3		
All flakes			90	88.2
Total	12	99.9	102	100.0

Table 4.28. Lithic artefacts Pearylandville feature 10 b.

Artefact category	All artefacts
Bifaces, all fragments included	4
Microblades	13
Burins	3
Burin spalls	11
End scrapers	2
Unspecified tool	1
All flakes	37
Total	71

Table 4.29. Lithic artefacts Pearylandville feature 10 total.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	17	10.1	168	56.2
Microblades	64	38.1		
Burins	15	8.9		
Burin spalls	46	27.4		
Side blades	1	0.6		
End scrapers	8	4.8		
Side scrapers	1	0.6		
Retouched flakes	10	6.0		
Axes	2	1.2		
Microblade cores	1	0.6		
Unspecified tool	3	1.8		
All flakes			131	43.8
Total	168	100.1	299	100.0

Feature 11

Flagstone platform

Feature 11 is a 2.5 x 2 m almost triangular flagstone platform.

Feature 12

Open-air box hearth (photos 759, 1217)

The 18 x 18 cm meticulously built box hearth is constructed of four flagstones set in an exact square (fig. 4.52). The flagstones are only 1.5 cm thick and 13 cm high. Seen from the front there is a supporting boulder on the right side and a flagstone on the left. 25 cm in front of the box hearth there are several boulders that Knuth believed could have formed part of a tent ring. On either side of the hearth box there were fragments of musk-ox bones and in front of the feature Knuth found a collection of *metatarsals* from a small land mammal. There was charcoal inside the box. Due to its diminutive size Knuth suggests that children might

have built the feature, or that its meaning could be symbolic or ceremonial. A biface fragment, two microblades and a flake were collected from the feature during the 1964 fieldwork (LI.8571-8574, LI.9540).

Fauna: two hare *metacarpals* were collected from feature 12.

Table 4.30. Lithic artefacts Pearylandville feature 12.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	3
All flakes	1
Total	5

Feature 13

Flagstone platform

Feature 13 is a flagstone platform located on a little gravel mound east of feature 12. Bone splinters were scattered around it. A beautiful bluish lance blade was found just behind the feature.

Feature 14

Flagstone platform

Flagstone platform with a single 50 cm high and 30 cm thick upright stone located 5.3 m north-east of feature 18, the 'altar'. During fieldwork in 1966 a biface fragment and a burin spall were collected from the feature (LI.9174-9175).

Table 4.31. Lithic artefacts Pearylandville feature 14.

Artefact category	All artefacts
Bifaces, all fragments included	1
Burin spalls	1
Axes	1
Total	3

Feature 15

Isolated mid-passage (drawings 142, 153; photos 756, 755)

Feature 15 is an approximately 1.5 m long mid-passage with a 37 x 40 cm and 20 cm high meticulously built box hearth constructed of 5-6 cm thick flagstones (figs. 4.53 and 4.54). A single flagstone has been placed in the bottom of the box. The feature is located in an area empty of boulders on the top of a moraine ridge. The feature was excavated in 1964 and 1966



Fig. 4.53. (drawing 142) Pearylandville, feature 15.

revealing a total of 83 lithic artefacts, a single needle and some char bones.

Linda Owen has refitted a microblade (LI.8578) of green chert from feature 15 with two microblade fragments (LI.6544a/b) from feature 10 at the site of



Fig. 4.54. (photo 756) Pearylandville, feature 15.



Fig. 4.55. (photo 761) Pearylandville, feature 18, 23/7-64.
Large boulder with possible man-made hollow.

Deltaterrasserne at the head of Jørgen Brønlund Fjord (see page 129). The latter fragments were fitted to the dorsal side of the former. This 34 km refit clearly illustrates that feature 15 on Pearylandville is contemporaneous with feature 10 on Deltaterrasserne. The microblade LI.8578 from Pearylandville shows no sign of wear, whereas the broken microblade (LI.6544a/b) from feature 10 on Deltaterrasserne has extensive use wear. Owen (1983) suggests accordingly that the microblades were produced on Pearylandville and that LI.6544 was later brought to Deltaterrasserne where it was discarded following its breakage during heavy use.

Fauna: Knuth collected 54 bone fragments from feature 15. The identified bone is composed of 4.8% ptarmigan, 28.6% hare and 38.1% musk-ox remains, although each species is represented by a minimum of only one individual. An additional 33 bones were unidentified, and five of these are burnt. The presence of calcined bone suggests a much hotter fire (more than 800 degrees Celsius) and/or considerably longer exposure to heat. A relatively young (c. 1-2 years) musk ox was consumed at this location.

Table 4.32. Lithic artefacts Pearylandville feature 15.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	16
Burins	3
Burin spalls	4
Retouched flakes	3
Unspecified tool	1
All flakes	54
Total	83

Feature 16

Stone ring

Feature 16 is a boulder periphery located in the boulder field NNE of feature 14. 19 flakes and one retouched flake were collected from the feature (LI.9197-9199). On the site map, as well as on Knuth's site list (text 848), there is a feature 16a as well as a feature 16b. However, there is no detailed information about feature 16b.

Table 4.33. Lithic artefacts Pearylandville feature 16.

Artefact category	All artefacts
Retouched flakes	1
All flakes	19
Total	20

Feature 17

Drum dance arena? (photo 17)

Feature 17 is a gravel plain which Knuth believed could have been cleared of boulders by the Independence I people in order to make space for a dancing arena. On the edge of the slope in front of the 'arena' lies feature 18, an altar-like boulder with a flat surface and a bowl-shaped depression which Knuth believed could be man-made.

Feature 18

'Altar stone' (photo 761)

Feature 18 is a large boulder with a bowl-shaped depression which Knuth thought had been carved out by humans due to the pecked surface in the groove (fig. 4.55).

Feature 19

Hearth

Feature 19 is a hearth comprised of two large and

one smaller tilted flagstones located on a gravel terrace.

Features 20 and 21

Outdoor activity areas

Features 20 and 21 are amorphous aggregations of flagstones and fire-cracked rocks on a gently sloping terrace. During the 1966 field season a total of five artefacts (LI.9200-9202, LI.9541-9542) was collected from the area. On the site map, feature 21 is marked as 21 and 21a. There is no specific description of feature 21a, so presumably it is similar to feature 21.

Fauna: Knuth separated the faunal material from features 19, 20 and 21 into two bags 19 – 20 (n = 40) and 20 – 21 (n = 274). Because these categories overlap they are not useful for analytical purposes and have thus been combined here. A total of 314 faunal specimens was collected from the three features; of these 51 specimens were not identified. This assemblage is almost entirely composed of arctic hare bones (95.8%), followed at a distance by musk-ox (large terrestrial mammal) cranial fragments (3.8%) and a single arctic fox *tibia* (0.4%). A *radius* from a small brent or barnacle goose (*Branta* sp.) was discarded in feature 20 or 21 as tool debitage. The ends had been removed and it was grooved and split along its longitudinal axis. It perhaps represents remains from production of a bone awl or needle.

Calculating on the basis of the *radius* and the *tibia*, a minimum of seven hares were consumed at this site. This is a considerable number compared to other Independence I sites in Peary Land. There appears to be some differential preservation of hare skeletal elements, as *vertebrae* are severely under-represented. Given a minimum of seven complete hares, axial elements range from 0 (*cervical/thoracic*) to 42% (*mandible/pelvis*), which is clearly due to a difference in bone density (Lyman 1994a). Appendicular elements range from 28% (*tarsals*) to 100% (*radius/tibia*); in this case the lack of *tarsals* points more to collection bias as they tend to be hidden in the gravel beach matrix. Front and hind *metapodials* were discarded whole – 97% of these bones were complete, whereas only 12.2% of the limb-bones were complete and were probably fractured at the time of consumption.

These features were obviously used for cooking

and/or heating as more than half of the identified bone is burnt (55%). Much of this burnt bone is scorched and mottled brown to black in colour. However, 17.4% of the bone is burnt uniformly black and was thus not only exposed to heat for a longer period of time, but all flesh would have been completely removed prior to it being burnt. The extent of burning suggests that the occupants of this site consumed the flesh and then proceeded to use the hare remains as fuel. As the only bird bone is osseous debitage, and is probably curated, these features could have been used at almost any time of year.

Table 4.34. Lithic artefacts Pearylandville feature 20.

Artefact category	All artefacts
Side scrapers	1

Table 4.35. Lithic artefacts Pearylandville feature 21.

Artefact category	All artefacts
Microblades	2
Burins	1
End scrapers	1
Total	4

Feature 22

Tent ring

Feature 22 is a periphery of large horizontally-placed flagstones located centrally on a gravel plain. The tent ring has been partly disturbed by a permafrost crack.

Feature 23

Feature 23 is a mid-passage dwelling with an associated open-air hearth (fig. 4.56). Feature 23 was excavated in 1964 (LI.8585-8592) as well as in 1966 (LI.9203-9272), but spatial information on the exact location of the artefacts was only recorded during the 1966 field-work when the collected artefacts were marked on the feature drawing.



Fig. 4.56. (drawing 143) Pearylandville, feature 23.

Table 4.36. Lithic artefacts Pearylandville feature 23.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	12	17.1	70	46.7
Microblades	40	57.1		
Burins	5	7.1		
Burin spalls	8	11.4		
End scrapers	2	2.9		
Retouched flakes	2	2.9		
Microblade cores	1	1.4	81	53.3
Flakes				
Total	70	99.9	151	100.0

Feature 23a

Mid-passage dwelling (drawings 143, 154; photos 750, 1218, 1219)

Feature 23 is a mid-passage dwelling with a 55 x 38 cm meticulously built box hearth constructed of flagstones, several of which still stood vertically when Knuth discovered the feature (fig. 4.57). The box is paved with flagstones and there are several fire-cracked rocks in and around the box.



Fig. 4.57. (photo 1218) Pearylandville, feature 23 seen from the west, 19/7-1964.

Feature 23b

Outdoor box hearth (drawing 143)

1.4 m in front of feature 23a there is another more rudimentary box hearth. In front of this hearth the terrain slopes gently towards a frost crack. Towards the front of the hearth there is an up to 30 cm deep layer of sand mixed with coal, ashes and large bones of musk ox.

Unfortunately, only some of the tools have been plotted in, whereas the debitage was collected without recording whether it was from feature 23a or feature 23b. On the feature map it can be seen that no more than 13 out of a total of 70 plotted artefacts are from feature 23b. The lithic artefacts from these features have, accordingly, been merged into one table. The objects plotted in the immediate vicinity of feature 23b or in the ‘open-air area’ are: seven microblades, three bifaces, one burin, one retouched flake and a birch bark roll. In addition to the lithics, Knuth also found a flint flaker, a bone needle and a piece of worked bone in feature 23 (LI.8585-8592, LI.9203-9272).

Fauna: Knuth recovered 676 bone fragments from features 23a and 23b. They include 424 unidentified specimens (62.7%). He does not indicate from which feature he collected the faunal remains, i.e. these two features are treated as one assemblage. Nearly half of the identified bones from this assemblage are arctic char or fish (46.8%). A minimum of three char were deposited at this location. Only 1.6% of the assem-

blage is composed of bird remains and these were skull/neck fragments. Small mammals comprise 9.9% and large mammals comprise 41.7% of the identified faunal assemblage. All the large mammal remains are probably from musk ox and represent at least two individuals (*scapula* and *tibia*).

The musk-ox and artiodactyl remains are heavily fragmented. Of the 31 limb-bone specimens nearly 50% have distinct spiral fractures. Partial or complete burning is evident on 22.2% of the specimens and 9.5% have cut marks. One *metatarsal* has more than 25 cut marks across the proximal shaft; these were probably produced when the musk ox was skinned (Lyman 1994a).

The large number of fish remains suggests summer occupation. Musk ox would also have been in their prime during the peak of the warm season. Hare and fox would have been less attractive for their fur during this time. This is supported by their low numbers (6% and 2.4% respectively) in this assemblage.

Feature 24

Mid-passage dwelling (drawings 145, 167; photo 762)
The mid-passage is 2.54 m long and 65 cm wide, but originally it must have been c. 3.3 m long (figs. 4.58 and 4.59). The eastern wall has five vertically-placed flagstones, whereas the western wall has only two flagstones standing with their lower part *in situ*. Both are tilted towards the west. The mid-passage is filled with gravel and it has a pavement along its entire length with fire-cracked rocks between the flagstones. According to the feature description, the box hearth has sunk in between the parallel walls in the mid-passage. There are 15 cm wide gaps between the box hearth and the walls in the mid-passage but it is difficult to discern any definite hearth box either on the photograph or on the drawings of the feature. The dwelling has no periphery but at either side of the mid-passage there are lowered floor areas of fine gravel cleared of larger stones. These floor areas indicate that the dwelling must have been c. 4 m wide, giving it an oval shape with a short axis of c. 3.3 m. In the front part of the western floor sector there is an aggregation of flagstones which could have formed a sort of 'wing' perpendicular to the mid-passage. Close to these flagstones there is an ash pit which is seen in the field as an area with a hard, light-grey stained fill. In the site list feature 24 is marked as 24a and 24b, whereas on



Fig. 4.58. (drawing 145) Pearylandville, feature 24.

the site map there is only a single signature named feature 24. No stone-built structures appear to be associated with 24b which can be regarded as the refuse dump located immediately in front of the entrance to feature 24a. Feature 24 was excavated in 1964, 1966 and 1968 but spatial information on the location of the



Fig. 4.59. (photo 762) Pearylandville, feature 24 seen from the north 19/7-1964.

artefacts is only available for those collected during the two latter years. Among the artefacts are 188 lithic objects and nine of organic material, mostly bone. There is a single needle among the organic artefacts, whereas the remainder are uncharacteristic pieces of worked bone and bone pins (LI.8593-863I, LI.9273-9329, LI.9543-LI.9544). Knuth (1967a:51) compared the occurrence of many char bones around feature 24 to the common occurrence of char bones in the flagstone pavements seen in front of many of the other ruins. He believed the mid-passage arrangement to be a kind of summer dwelling which ultimately had been rearranged in order to serve as a cache. A sample of willow charcoal has been radiocarbon dated (K-938) to 3950 ± 120 BP. Within one standard deviation this gives a calendar date of between 2620-2200 cal. BC, which lies in the earlier part of the Independence I continuum.

Fauna: Knuth collected 729 faunal specimens – 74 of these were not identified (eight were burnt). The overwhelming majority of bones collected from this feature are from arctic char or unidentified fish, representing 72.4% of the identified assemblage. Musk ox, artiodactyl and large terrestrial mammal bones comprise 16.8%, fox 6.3%, hare 4.4% and a single bird cranial fragment 0.2% of the assemblage. A minimum of nine arctic char (eight *cleithrum*, and one large *dentary*), three musk ox (*tibia*), two hare (*pelvis*) and a single fox and bird were deposited in this feature. The preponderance of arctic char is indicative of summer to possibly early autumn occupation of this dwelling.

The large mammal remains, which are most likely all musk ox, have been heavily butchered. Of the 32 limb-bones, 20 are spirally fractured (62.5%), five have impact scars (15.6%), one has been chopped (3.1%) and 13 have cut marks (40.6%). Four of the latter have more than five *striae* at a *locus*. Unlike feature 26, which represents a late winter occupation (see below), only 5.8% of the identified bones are burnt and none of them uniformly.

Meldgaard (1986:37) notes that Knuth recovered a caribou *metacarpal* proximal fragment which had been cracked for marrow from the Pearylandville site. The feature from which this comes is, however, not noted. A single caribou incisor was recovered from feature 24 which, in addition to an antler fragment from feature 10a, is the only caribou material encountered in the twelve Pearylandville features examined. As

also stated by Meldgaard (1986), such scant evidence allows no conclusions to be drawn about whether or not these few bones originated from a local population of caribou in the Midsommersø region.

Table 4.37. Lithic artefacts Pearylandville feature 24.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	1	2.9	34	37.4
Microblades	23	67.6		
Burins	4	11.8		
Burin spalls	6	17.6		
All flakes			57	62.6
Total	34	99.9	91	100.0

Table 4.38. Lithic artefacts Pearylandville feature 24a.

Artefact category	All artefacts
Microblades	1
Total	1

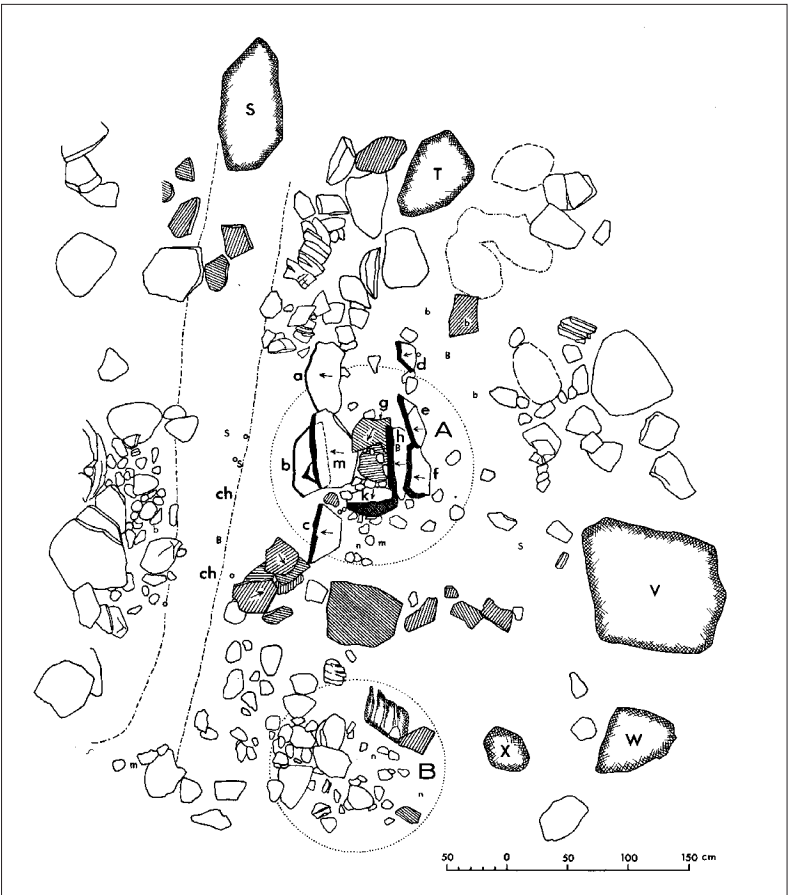
Table 4.39. Lithic artefacts Pearylandville feature 24b.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	3	6.3	48	49.5
Microblades	34	70.8		
Burins	1	2.1		
Burin spalls	7	14.6		
End scrapers	1	2.1		
Retouched flakes	1	2.1		
Unspecified tool	1	2.1		
All flakes			49	50.5
Total	48	100.1	97	100.0

Table 4.40. Lithic artefacts Pearylandville feature 24 total.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	4	4.8	83	43.9
Microblades	58	69.9		
Burins	5	6.9		
Burin spalls	13	15.7		
End scrapers	1	1.2		
Retouched flakes	1	1.2		
Unspecified tool	1	1.2		
All flakes			106	56.1
Total	83	100.0	189	100.0

Fig. 4.60. (drawing 146) Pearylandville, feature 26.



Feature 25

Open-air hearth

Feature 25 comprises a cluster of fire-cracked stones and flagstones on the edge of a prominent gravel ridge. In 1964 a biface was collected from feature 25 and in 1966 an additional 42 lithic specimens were collected from the area (LI.8632, LI.9330-9336).

Fauna: Knuth collected 80 faunal specimens, of which only 26 bones (32.5%) are identified. Arctic

hare comprises 11.5% of the assemblage and musk ox, artiodactyl and large terrestrial mammal bone comprise the remaining 88.5%. The scant number of bones suggests that this was a temporary camp but none of the remains indicates a particular season of occupation.

Feature 26

Mid-passage dwelling (drawings 146, 156; photos 763, 764, 1220, 1221)

The mid-passage has a preserved western wall with three originally vertically-placed flagstones standing with their lower part *in situ* but tilted outwards (figs. 4.60 and 4.61). The eastern mid-passage wall is much less well defined but the passage can be estimated to have been at least 1.9 m long and 65 cm wide. The box hearth appears to have been 50 cm wide and built of four vertical flagstones inserted as a separate unit between the parallel walls of the mid-passage. In front of the mid-passage there is a large flagstone forming a

Table 4.41. Lithic artefacts Pearylandville feature 25.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	2
Burin spalls	1
Retouched flakes	1
Unspecified tool	1
All flakes	36
Total	43



Fig. 4.61. (drawing 147) Pearylandville, feature 26, 19/7-1964.

sort of table. Knuth suggests that a vertically-placed flagstone aligned with the eastern wall, but located to the north of the mid-passage feature, makes it probable that the mid-passage originally was 2.5 m long. Similarly, a deeper-set rectangular stone lying even further to the north may indicate that the mid-passage was originally 4 m long. The dwelling has no definite periphery but on either side of the front of the mid-passage there are aggregations of fallen or horizontally-placed flags, which may be remains of 'wings' set perpendicular to the mid-passage. Bleached bones are scattered around the feature and on the slope of a frost crack in front of the feature there are stones and charcoal from outdoor hearths mixed with numerous bones, many of hare. The outdoor hearths and working area are named 26b, but only two distal ends of needles are plotted in this area (LI.9357 and 9358). So, like feature 3, it is difficult to assess whether the features in front of the dwelling are open-air activity areas or midden accumulations. The feature was excavated in 1964 and again in 1966, whereby three needles, two pieces of worked bone and a total of 85 lithic objects were recovered (LI.8633-8637, LI.9337-9361).

Fauna: Knuth collected a total of 419 faunal remains from feature 26. Of these, 174 specimens are identified (49 are burnt). The overwhelming majority of the bone material is arctic hare (77.5%), followed by musk ox, artiodactyl and large terrestrial mammal bone (21.6%) and then by arctic fox (1.2%). The minimum number of individual hares represented by this assemblage is eight (*mandible*) and the minimum

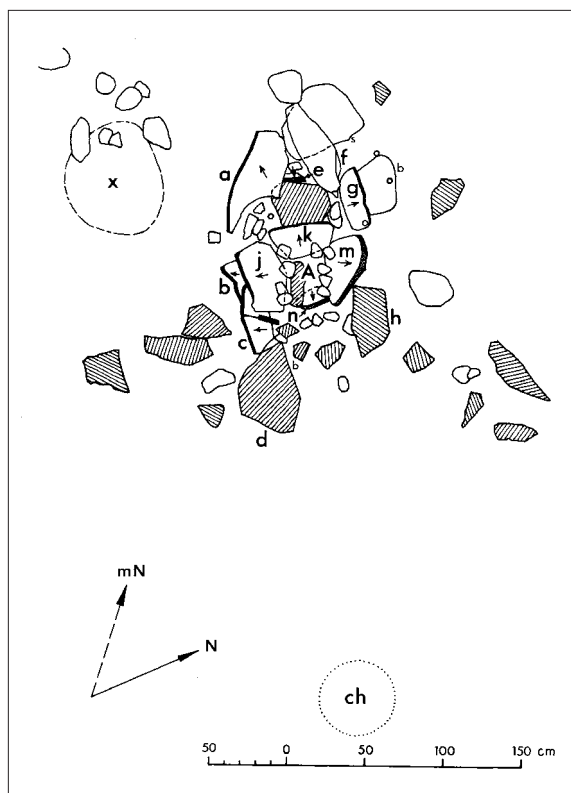


Fig. 4.62. (drawing 144) Pearylandville, feature 27.

number of musk ox is three, based on the presence of a large bull *atlas*, other medium-sized adult bone and foetal bone. If at least eight complete hares were deposited in this feature there must have been some differential preservation of hare elements. Axial elements, with the exception of the skull, are under-represented (ranging from 4% to 20% compared with the expected frequency if a complete carcass was deposited) whereas appendicular elements, excluding metacarpals, are more numerous (25% to 63%). A rather unusual feature of this assemblage is the lack of front foot bones. There are 33 hind-foot bones versus three front-foot bones (a ratio of 9:1). It is possible that the front feet remained with the skins during skinning of the hares and were removed from the site.

The foetal musk-ox bones were compared to examples from newly-born musk-ox at the Zoological Museum. Besides being considerably smaller in overall size, the medial and lateral halves of the *metacarpal* are un-fused. Fusion does not typically occur until after birth. Given this information, and a musk-ox calving period of late April to early May (Banfield 1974), feature 26 was likely occupied in late winter/

early spring, or roughly between February and April. A lack of bird and fish bone supports the suggestion that this was a cold season dwelling.

Well over fifty percent of the identified faunal assemblage is burnt (58.8%). This is the highest relative frequency of burnt bone of any of the Pearylandville features examined. Bones of arctic hare are the most extensively burnt, with 63% of the hare bones burnt brown or black. This includes 5.3% of the hare remains that are burnt uniformly black. The foetal musk-ox bones are also extensively burnt (54.2% of the foetal bone). The inhabitants of this dwelling were obviously using any combustible material, including bone, for heat and light, as it would have been both cold and dark at the time of occupation. Small animals with little marrow to extract appear to have been the primary choice for fuel.

Table 4.42. Lithic artefacts Pearylandville feature 26.

Artefact category	All artefacts
Bifaces, all fragments included	3
Microblades	3
Burins	4
Burin spalls	4
End scrapers	2
Side scrapers	1
Axes	4
All flakes	64
Total	85

Feature 27

Mid-passage dwelling (drawings 144, 155)

Feature 27 is a rudimentary mid-passage located in a depression. All the flagstones were found in a tilted position, but the western wall is around 2 m long and the box hearth appears to have been set down into the mid-passage (fig. 4.62). There is no definite periphery. In 1964 a single side scraper was collected and in 1966 an additional 34 lithic objects were recovered from the site. A hare rib with cut marks and a piece of worked bone were also found in the feature (Li.8638, Li.9362-9370).

Table 4.43. Lithic artefacts Pearylandville feature 27.

Artefact category	All artefacts
Bifaces, all fragments included	3
Burin spalls	2
End scrapers	1
Side scrapers	1
Retouched flakes	1
All Flakes	27
Total	35

Feature 28

Mid-passage dwelling (drawings 147, 157)

Feature 28 is a rudimentary dwelling feature with flagstones and fire-cracked rocks scattered in the centre of the dwelling (fig. 4.63). There is no periphery.

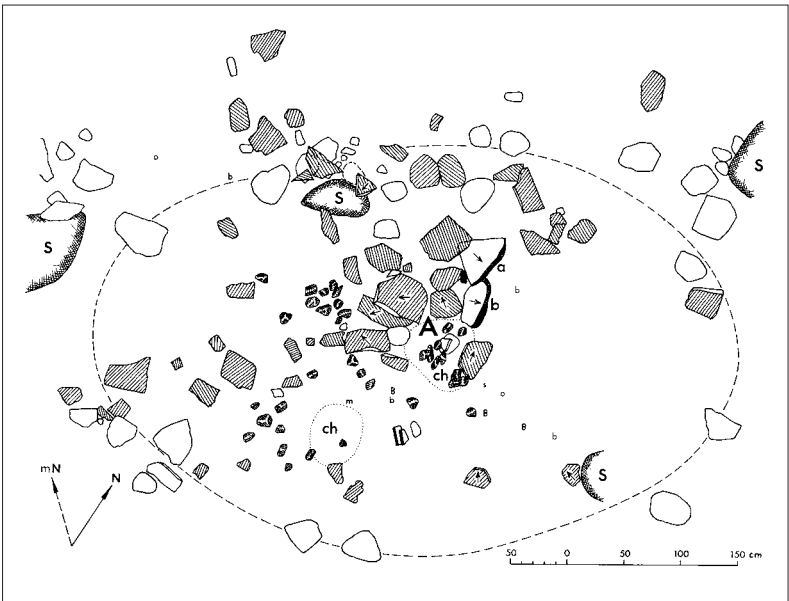


Fig. 4.63. (drawing 147) Pearylandville, feature 28.

Knuth believed the feature to be a disturbed mid-passage dwelling. The feature is located on a low terrace approximately 5 m above the lake. On the site list feature 28 is registered as 28a (the mid-passage) and 28b is marked as a cache which, according to a note on the drawing (no. 157), is located in boulder-filled terrain 6.4 m south of the feature.

Fauna: Knuth collected 158 bone fragments (108 unidentified) from feature 28. Arctic char comprise 2%, rock ptarmigan and arctic hare each comprise 6% and musk ox, artiodactyl and large terrestrial mammal fragments comprise 86% of the identified faunal assemblage from this feature. Large terrestrial mammal limb-bone shaft fragments are most probably from musk ox. The individual pieces are, however, all smaller than 10 cm and have been fractured and burnt black which makes species identification difficult. The musk-ox *tibia* fragments are also spirally fractured and the anterior shaft of one fragment has over 95 cut marks; sixty of these cuts are at the mid-shaft, the *locus* at which the bone is spirally fractured. The orientation and location of these types of cuts are indicative of meat removal. Once the meat had been removed from the limb-bones they were broken for marrow and then exposed to fire. The burn marks are mottled and uneven. Given the presence of remains of juvenile rock ptarmigan and char, this feature was occupied in summer.

Table 4.44. Lithic artefacts Pearylandville feature 28.

Artefact category	All artefacts
Bifaces, all fragments included	1
Burins	3
Burin spalls	4
End scrapers	2
Retouched flakes	2
Flakes	40
Total	52

Feature 29

There is no detailed description of feature 29 but on the site plan (fig. 4.39, drawing 55) it is marked as a stone periphery located a little to the north-east of feature 26.

Feature 30

Meat cache (photo 1222)

Feature 5 is a boulder circle constructed of up to more

than head-sized stones located in a boulder field in the centre of the site (drawing 54). A total of five caches has been documented at Pearylandville. Only feature 30 and the similar, but more solidly built, feature 34 have been documented on photos. Feature 34, which Knuth considered to be a possible grave but which the present author considers to be a cache, has also been drawn.

Feature 31

Cache

The exact location of feature 31 is not known. Presumably it is one of the caches located high above the dwellings on the ridge of the peninsula. The feature is only listed in Knuth's site list (text 848).

Feature 32

Cache

As was the case for feature 31, feature 32 is only known due to its appearance in Knuth's site list (text 848).

Feature 33

Cache

Feature 33 is only known due to its appearance in Knuth's site list (text 848).

Feature 34

Meat cache (drawing 149; photo 1225)

Feature 34 is a spectacular meat cache located adjacent to a large rock in boulder terrain high above Pearylandville. Knuth labelled the feature 'the grave'; this is written on the frame of slide photograph no. 1225 as well as in his site list. However, there are no finds to support this conclusion. Even though the feature appears very large and well constructed its location on an exposed ridge in boulder terrain suggests that it is indeed a meat cache.

Site Summary and Discussion

Pearylandville is not only the largest Independence I site in Peary Land in terms of numbers of features and number of finds (figs. 4.64, 4.65, 4.66, 4.67, 4.68 and 4.69), it is also one of the most extensively investigated. It holds a central position in Knuth's (1967a, 1967b) reconstruction of the annual rhythm of the Palaeo-Eskimos living in the Wandel Dal and Jørgen Brønlund Fjord area. Furthermore, there is a large amount bone material from the site which enables us to link dwelling structures with the recovered artefacts and ecofacts.

Fig. 4.64. (plate 5) Type plate of bifaces from Pearylandville. Photo by Ole Woldbye.



Knuth has listed a total of 44 features at Pearylandville but, as can be seen from the feature descriptions given above, many of these are more-or-less well defined open-air hearths, refuse dumps or outdoor activity areas. According to Knuth, the features of Pearylandville can thus be divided into the following categories: Mid-passage dwellings – nine; isolated mid-passages – three; tent rings – three; undefined dwellings – one; open-air hearths – six; meat caches – seven, plus seven undefined features. The latter category includes features such as the dance site and the ‘altar stone’ (features 17 and 18 respectively). Evidently most tools were found in the more elaborate dwelling features which are often also the features with the most bone material preserved. The intra-site distribu-

tion of debitage shows that the primary lithic industries were concentrated in features 2, 3 and 4. These features stand out as being exceptionally rich in debitage. The relative frequency of large flakes, rough-outs and axes is also high here. Similarly, it is apparent that seven out of 14 axes are from the three features producing more than 100 flakes. This may suggest that some of these axes actually were produced in the respective features (fig. 4.69).

The layout of features at Pearylandville is interesting since, as a large inland site, the dwellings are not so strongly orientated towards the shore, in this case the lake shore, as they are when located on marine terraces. Instead of the linear arrangement of dwellings so common on coastal Palaeo-Eskimo sites, the layout

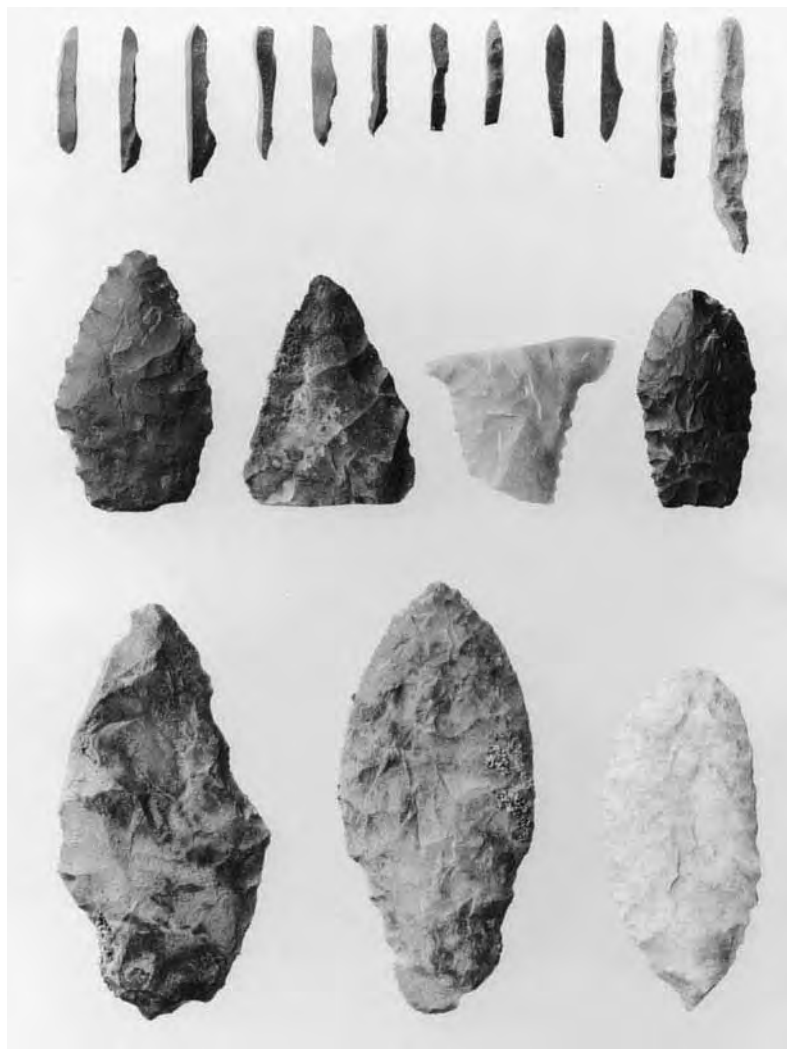


Fig. 4.65. (plate 7) Type plate of burin spalls and bifaces from Pearylandville. Photo by Ole Woldbye.

of Pearylandville has the character of being more clustered, though still with some linear arrangements aligned according to the contours of the topography.

While Linda Owen has been successful in refitting microblades from such distant sites as Deltaterrasserne and Pearylandville, as well as internally from within the features no. 10a, 10b and 23, there are no refits between the individual structures to suggest the contemporaneous use of the different dwellings.

Knuth (1967:60) envisioned that Pearylandville had been used both during the colder and the warmer seasons when he suggested that the Independence I people lived in an annual cycle with alternating periods of coastal settlement between March and July and inland settlement from July to March. The long period of inland settlement leaves plenty of time for late summer camps to be erected at Pearylandville,

with associated open-air hearths and outdoor activity areas. The three radiocarbon dates from Pearylandville do not *a priori* exclude the possibility that the dated features were used simultaneously, but the uncertainty associated with radiocarbon dating is too great to be of assistance with regard to the problem of resolving absolute contemporaneity. The dates from Pearylandville place the settlement period between 2620 and 1880 cal. BC when calibrated within one standard deviation. Many of the dwellings at Pearylandville could be contemporaneous structures inhabited by different family units who settled at the site for a gathering. In other cases there is clear evidence for older features being disturbed by the construction of younger ones. This is, for example, seen on the drawing of feature 4, where a mid-passage hearth is disturbed by the perimeter of feature 4.

Fig. 4.66. (plate 6) Type plate of burins from Pearylandville. Photo by Ole Woldbye.



On one hand Knuth imagined the many ruins resulted from a number of visits but, at the same time, he also believed that the majority of the features originated from one or a few large gatherings. This can be seen from photo 1214 where Knuth, in an artistic reconstruction, has drawn five dome-shaped tents and silhouettes of people on a slide picture taken overlooking the top plateau of Pearylandville. The concept of Pearylandville as a gathering site is also inherent in the naming of some of the features. Knuth suggested that the open area in the eastern part of the site was a drum dance arena and that the altar-like pecked stone sitting on the edge of that terrace be named the Angekog Stone (Shamans Boulder). Usually such celestial features would only be expected on larger sites where spiritual activities and feasting may be an integrated social activity of the gathering.

Table 4.45. Pearylandville all lithic artefacts.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	107	13.0	820	12.9
Microblades	320	39.0		
Burins	69	8.4		
Burin spalls	165	20.1		
Side blades	1	0.1		
End scrapers	50	6.1		
Side scrapers	16	2.0		
Retouched flakes	60	7.3		
Axes	14	1.7		
Microblade cores	3	0.4		
Unspecified tool	14	1.7		
Large flake/rough-out	1	0.1		
All flakes			5312	87.1
Total	820	99.9	6132	100.0

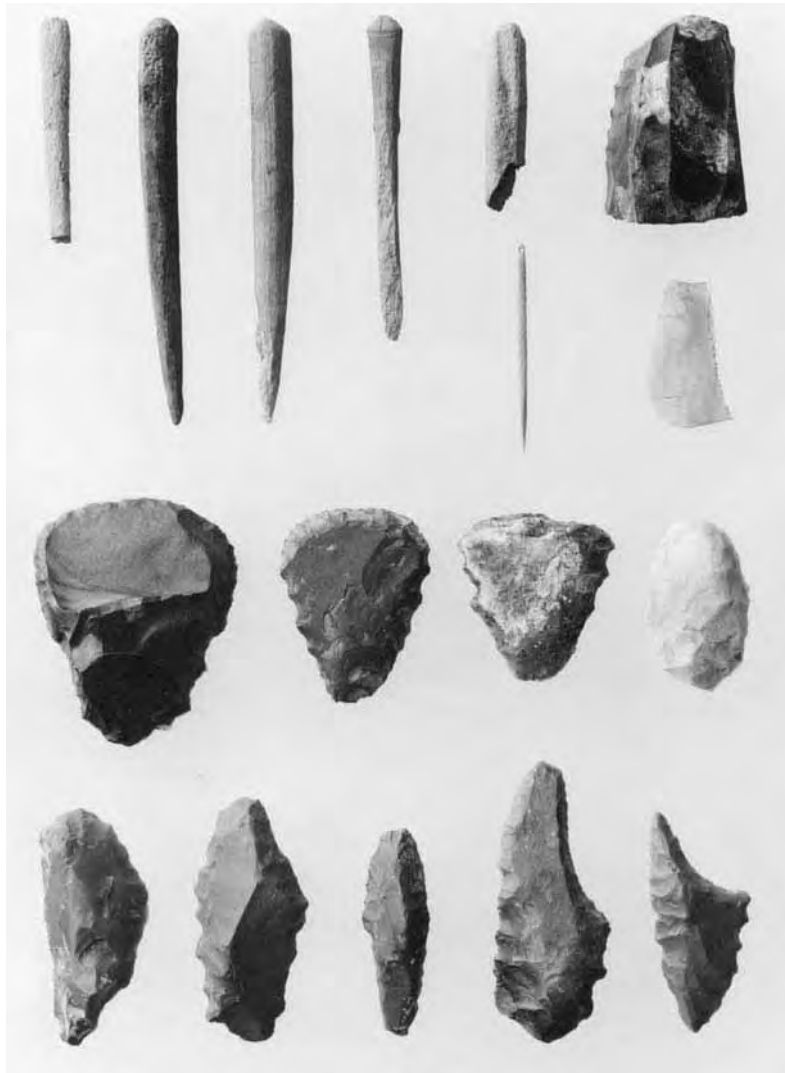


Fig. 4.67. (plate 8) Type plate of flint flakers, a microblade core, end scrapers and side scrapers from Pearylandville. Photo by Ole Woldbye.

4.21 Stoppenålen

Unknown culture

82Ø2-000-04I

Site no. 346; photo 822, 1032, 1212

Stoppenålen (The Darning Needle) is a narrow spit jutting into Nedre Midsommersø from its northern shore. Knuth registered a circular boulder structure at the tip of the spit and he thought it was a sort of shelter ruin (fig. 4.70). In our opinion, however, the character of the feature, and the fact that there are no other structures at the site, makes it more reasonable to interpret the feature as a cache.

4.22 Martin's Site

Independence I

82Ø2-000-01I

Site no. 346

John Martin discovered this site in 1966. It was visited and partially excavated by Knuth in 1968. Unfortunately there are neither drawings nor photographs of the features. At least one mid-passage (feature A) and two other constructions were found at the site. All the features were covered, or partially covered, in aeolian sand, with a few flagstones and bones jutting out. The site is located on the western point at Græselven's outlet into Jollebugt in Nedre Midsommersø.

Fig. 4.68. (plate 9) Type plate of microblades from Pearylandville. Photo by Ole Woldbye.



Features and Finds on Martin's Site

Feature A

Mid-passage

In feature A Knuth noted many flagstones under the sand. The flagstones are believed to be the remains of a mid-passage structure with a central hearth framed by four flagstones forming a square. Three of the flagstones were tilted outwards whereas the fourth still stood upright, supported on the outside by a boulder. The feature had been built into a gravel substratum so the artefacts were found in a 'culture layer' mixed with gravel. Along the mid-passage Knuth found many flakes and some artefacts (LI.9546-9550). A sample of musk-ox bone has been radiocarbon dated (K-3365) to 3590 ± 60 BP. Within one standard deviation this gives



Fig. 4.69. (plate 10) Broken axes and/or rough-outs from Pearylandville. Photo by Ole Woldbye.



Fig. 4.70. (photo 822) Circular cache on the tip of the promontory 'Stoppenålen', 29/6-1966.

a calibrated calendar date of between 2040 and 1780 cal. BC.

Table 4.46. Lithic artefacts Martin's site feature A.

Artefact category	All artefacts
Bifaces, all fragments included	2
End scrapers	1
Retouched flakes	1
All flakes	14
Total	18

Feature B

Meat cache

Feature B is a concentration of stones located 5 m from feature A. Knuth did some test pitting in the feature but apart from a single flake no artefacts showed up. He therefore interpreted feature B as a meat cache (LI.9551).

Table 4.47. Lithic artefacts Martin's site feature B.

Artefact category	All artefacts
All flakes	1

Feature C

Unspecified dwelling

Feature C is a flagstone feature located approximately

30 m west of feature A. In contrast to features A and B, many lithic objects were found around this feature (LI.9552-9562).

Table 4.48. Lithic artefacts Martin's site feature C.

Artefact category	No.	%	All artefacts	%
Bifaces, all fragments included	2	18.2	11	9.3
Microblades	8	72.7		
Drill	1	9.1		
All flakes			107	90.7
Total	11	100.0	118	100.0

4.23 Søndre Sandelvsterrasse

Independence I

82Ø2-000-042

Site no. 333; photos 1099, 1100, 1101

Søndre Sandelvsterrasse (Southern Sand-River Terrace) is located on the southern shore of Græselv, near its outlet into Jollebugt in the eastern part of Nedre Midsommersø. The site is only mentioned in the Knuth Baedeker and in Knuth's general site list where it is indicated that one mid-passage dwelling and two more rudimentary tent ring dwellings were found here. A single microblade fragment was collected from the area behind the hearth (LI.9545).

Table 4.49. Lithic artefacts Søndre Sandelvsterrasse.

Artefact category	All artefacts
All flakes	1

4.24 Plateau Ø

Thule

82Ø2-000-043

Site no. 404

Plateau Ø is a small but relatively high island on the eastern side of Sandnæs. The island is connected to the mainland when the water level is low in Nedre Midsommersø. There are tent rings, presumably from the Thule culture, at the northern corner of the island. The site is only mentioned in Knuth's Baedeker.

4.25 Teltnæs

Thule

82Ø2-000-015

Site no. 312; text 701; drawings 176, 177

Teltnæs (Tent Headland) is a Thule site located on a point on the northern shore of Nedre Midsommersø, opposite Søjren and approximately 4 km east of Stoppenålen. Four tent rings, an ellipsoid boulder feature (x on site map) and four open-air hearths have been registered at the site (fig. 4.71). Teltnæs is a curved point with a series of terraces arranged like an amphitheatre, orientated towards the east. The ruins are located on these terraces, with bone splinters scattered around. However, neither worked bone nor lithic artefacts were found here.

Feature Descriptions

Feature 1

Dwelling

This structure is located on the highest terrace 3 – 4 m above the lake and consists of scattered loose boulders. Sample no. 22, a piece of charred *Dryas interfolia*, was collected by Bent Fredskild on July 24th 1963 from an outdoor hearth related to feature 1. The height was measured by hand level to be 3.4 m above the lake.

Feature 2

Tent ring

Located a few steps to the east of feature 1, feature 2 is a more structured boulder ring with a diameter of 1.6 m. A radiocarbon date has been obtained for willow charcoal (K-1004) collected from feature 2. The material has been dated to 770 ± 100 BP. When calibrated within one standard deviation this gives a calendar date of between 1070 and 1390 cal. AD. The earlier portion of this time span seems to be too early when compared with other Thule dates from the area, whereas the younger part towards 1390 AD is more in tune with these. The relatively early date, combined with the unusual character of feature 4, made Knuth speculate whether Teltnæs represents a very early migration into Peary Land. However, one should again probably be careful not to build too far-reaching cultural historical conclusions on the basis of individual odd dates, since there are ample opportunities for older material to have become mixed into a younger context.

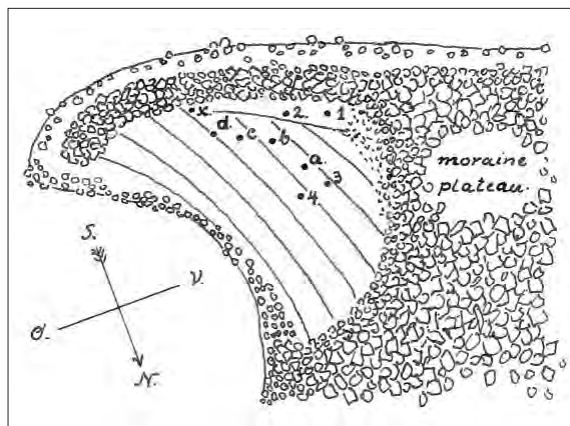


Fig. 4.71. (drawing 176) Sketch map of the Teltnæs site.

Feature 3

Unknown feature

Feature 3 is located north of features 1 and 2 on a lower terrace. Feature 3 is a very small and low circular gravel berm.

Feature 4

Gravel berm shelter (drawing 177)

The feature is located on the terrace below feature 3. It is a tent ring marked by the outline of a low gravel berm in addition to a meat cache just north of the feature. The interior of the dwelling was clearly divided into two sections: a slightly raised sleeping platform to the west and a slightly larger floor space to the east. Botanist Bent Fredskild also sampled some charred material from the open-air hearth associated with this ruin. The level was measured to 3 m above the lake. The feature has been labelled feature E. However, according to the feature descriptions in text 701, the drawing only fits the description of feature 4. Since there is no feature E marked on the site map it seems most likely that drawing 177 does indeed depict feature 4 (fig. 4.72).

Feature X

Unknown feature

The feature is an ellipsoid boulder feature which was both disturbed and almost covered in drift sand. The diminutive size of feature X reminded Knuth of similar structures at Kap Peter Hendrik at the junction between Independence and Hagen Fjord.

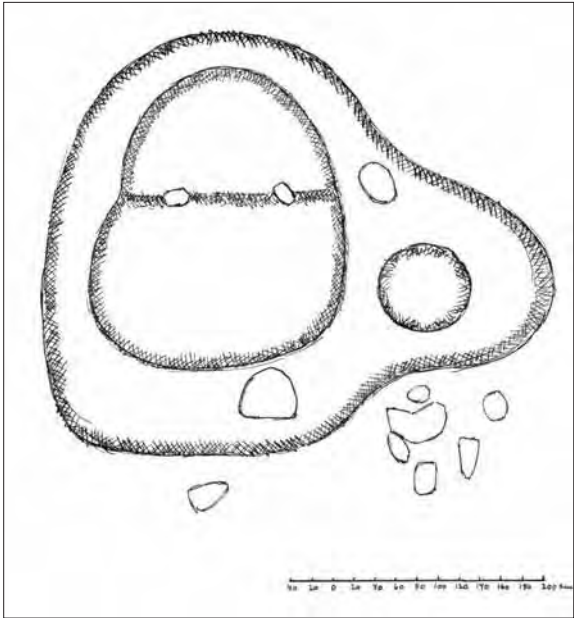


Fig. 4.72. (drawing 177) Teltnæs, feature E.

Features a to c

Open-air hearths

These four features are open-air hearths. One of them (feature a) has two chambers filled with a thick layer of charcoal, whereas the other three hearths, which are lined up east of feature 2, only have a single chamber.

Site Summary and Discussion

Teltnæs is a minor Thule site with four or maybe five dwellings and four open-air hearths which could be contemporaneous. The fact that there appear to be four open-air hearths and four dwellings may indicate that all the features are contemporaneous. The linear arrangement of the open-air hearths further supports this suggestion. The early radiocarbon date from feature 2 should probably be ignored and explained as resulting from the Thule people’s use of old wood from the surroundings.

4.26 Søjren

Thule

82Ø2-000-004

Site no. 302; texts 703-711; drawings 178, 253-252, photos 771-773, 979-981, 1073-1074, 1106, 1230-1231.

Søjren (Lake Camp) is located in a boulder field at the eastern end of Nedre Midsommersø on the western shore of Midsommerelv’s outlet from the lake. A total of ten features have been registered at the site.

Table 4.50. Lithic artefacts Søjren.

Artefact category	All artefacts
Retouched flakes	1
All flakes	42
Total	43

Feature Descriptions

Feature 1

Tent ring (photo 1230)

Feature 1 is an approximately 1 m semi-circle of boulders located on sloping uneven terrain in a boulder field.

Feature 2

Tent ring (text 703)

Rudimentary stone circle to the east of the lower part of feature 1.

Feature 3

Cache (text 704; photo 773)

Feature 3 is a rectangular structure of large stones, some of which are flat and still stand in an upright position. In a few places formerly piled-up flat stones were found fallen. Knuth believed the structure to be two or three linked meat caches.

Feature 4

Shelter (text 705, photo 980)

Feature 4 is a well built shelter framed by boulders set on edge and with a paved floor area. A few flagstones have been placed as ‘panels’ along the periphery and facing the interior. The perimeter encloses an area of 2.3 x 1.5 m, approximately the size of a musk-ox skin. The long axis lies parallel to the lake.

Feature 5

Shelter (text 706, drawings 17, 178, 252; photos 771, 772)

Feature 5 (figs. 4.73 and 4.74) is a shelter ruin very similar to feature 4. In Knuth’s initial registrations this fea-

ture was designated number 2. During a later change of feature numbers it was given no. 5 which was used in Knuth's publication (1967a) and which corresponds to the number used here.

Feature 6

Shelter (text 707)

Feature 6 is located in front of, but considerably lower than, feature 5. The periphery has the size of a musk-ox skin and the stones in the periphery are not as tightly packed as usual. Both the surface inside the feature and that of the surrounding terrain consists of gravel and stones, whereas features 1, 4 and 5 are filled with drifting sand. Knuth believed that this difference in the composition of the substratum might result from feature 6 being located so low that it is occasionally flooded by the lake. One short side of the oval structure faces the lake.

Feature 7

Meat cache (text 708)

Feature 7 is a circular meat cache located to the west of feature 6. The cache is built of large boulders and flat stones. The interior is filled with drifting sand, on which a few poppies (*Papaveraceae*) grow.

Feature 8

Meat cache (text 709)

Further to the west, but slightly lower than feature 7, is a similar structure named feature 8.

Feature 9

Shelter

Feature 9 is located midway between features 7 and 8 but at a higher elevation. The structure is built of very large boulders and flat stones. Due to the rudimentary state of preservation Knuth was not quite certain of its origin.

Feature 10

Shelter (text 711; photo 1231)

Feature 10 is a circular boulder periphery located on the south-western side of a stony hill. The floor within the periphery is paved.

Site Summary and Discussion

Sølejren is a typical Thule site in Peary Land. Most of the dwelling features are of the well built shelter type

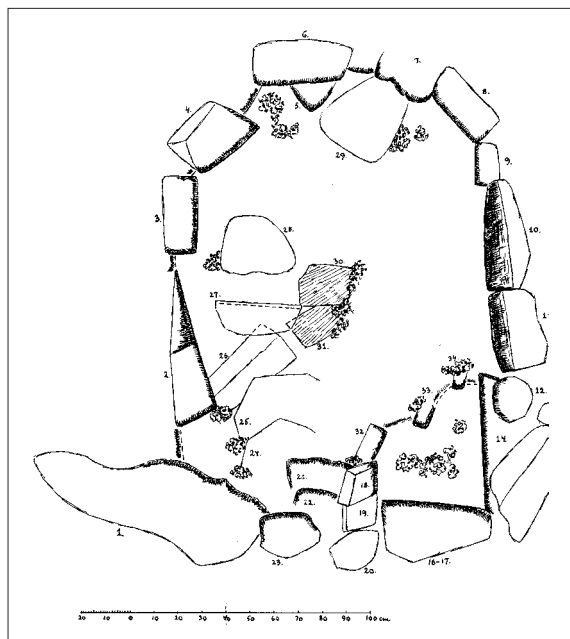


Fig. 4.73. (drawing 178) Sølejren, feature 5.

with an oval periphery of tightly packed boulders. This site location in boulder-strewn and uneven terrain is also known from other Thule sites, such as Uranienborg and Mellemygden. There is no site map of the Sølejren site but according to the feature descriptions some of the features, such as 6, 7 and 8, may form clusters suggesting that they are contemporaneous. The



Fig. 4.74. (photo 771) Sølejren, feature 5.

site as a whole appears, on the contrary, to be an amalgamation of features rather than a concentration of contemporaneous dwellings. There are only a few finds but no midden accumulations associated with the shelter ruins. However, a limited number of lithics has been collected from Søjren which may indicate that the site has also had a Palaeo-Eskimo habitation phase. Artefacts were collected in 1950, 1964 and 1968. In addition to nine flakes, two wooden pegs, some teeth and a pointed bone object were also found at the site (LI.6584-6594; LI.8639; LI.9563)

4.27 Høje Mole

Independence I

82Ø2-000-044

Site 405

Høje Mole is a terraced hill with the shape of a truncated cone. It lies on the southern shore of Midsommerelv's outlet from Nedre Midsommersø. The site is located just opposite Søjren. It is only mentioned in the Baedeker, where Knuth notes that there is an Independence I hearth on the top of the hill. The site name means 'High Pier' due to its topographical characteristics.

4.28 Bådhojen

Unknown culture

82Ø2-000-038

Site no. 395; text 741

Bådhojen (Boat Hill) is a point located just south of Høje Mole. The site was used as a slip-way for the dinghy brought in by the Danish Peary Land Expedition. A rudimentary circular cache and a tent ring were located at the site. In the Baedeker Knuth mentions that the cache is presumably of Independence I origin. However, there are neither arguments nor finds to support this suggestion. According to the methodology applied here we prefer not to assign any cultural designation to the features.

4.29 Trillingerne

Thule

82Ø2-000-046

Site no. 396, text 742

Trillingerne (The Triplets) are located on the northern shore of Midsommerelv approximately 1 km east of Høje Mole. Three tent rings have been located on a gravel terrace surrounded by boulder fields. In the Baedeker Knuth mentions that the features are presumably from the Independence I period. However, there are apparently no hearths associated with the features and no finds have been made at the site, so this suggestion is hardly supported by archaeological evidence. On the contrary, the loosely-placed stones, lack of a hearth and lack of finds rather indicate that the features are not of Palaeo-Eskimo but of Neo-Eskimo origin.

Feature 1

Tent Ring

The easternmost and largest of the 3 features is a 1.85 x 1.25 m oval built of 20 fist-sized stones loosely placed and with some space between the individual stones.

Feature 2

Tent Ring

Feature 2 is located close to the northern side of feature 1. Its front is straight whereas the remainder of the periphery forms an arch. The feature is 1.3 m long and 1 m wide.

Feature 3

Stone ring

Feature 3 is a circular stone ring with a diameter of approximately 1 m located a little apart from the other two features.

4.30 Midsommerelv's Sydside

Thule

82Ø2-000-047

Site no. 406

Midsommerelv's Sydside (Southern Shore of Midsommerelv) is the name of an isolated shelter ruin located 1-2 km south of the Trillingerne site. The feature is only mentioned in Knuth's Baedeker.

4.31 Mosebakken

Unknown culture

82Ø2-000-048

Site no. 407

Mosebakken (Bog Hill) is an isolated tent ring on the northern slope facing towards boggy terrain located approximately 1 km south-east of Søjren.

4.32 Moskusoksestien

Independence I

82Ø2-000-049

Site no. 379, photos 1232, 1333

Moskusoksestien (Musk-Ox Track) is a musk-ox track on the eastern side of the Midsommerelv leading from Nedre Midsommersø to Jørgen Brønlund Fjord. At the western end of the track there is an isolated mid-passage dwelling, presumably from the Independence I period, located at a point where the track ends in rocky terrain approximately 1.5 km south-east of Søjren (fig. 4.75). A small number of finds was collected from the ruin in 1963 and 1964. They comprised one bone splinter and 16 lithic artefacts.

Table 4.51. Lithic artefacts Moskusoksestien's west end.

Artefact category	All artefacts
Burins	1
All flakes	15
Total	16

4.33 Flodgården

Unknown culture

82Ø2-000-050

Site no. 408

Cache

Flodgården (Flood Yard) is the name of a large inland delta located at the confluence of the silty grey waters of the Itukussuk Elv and the crystal clear waters of the Midsummer Elv. In a bowl-shaped valley on the northern side of the confluence there is a cache of unknown culture. The site is only mentioned in Knuth's Baedeker.



Fig. 4.75. (photo 1233) Mid-passage at the locality of 'Moskusoksestien', in background is a cairn built by Knuth near Midsommerelv, 16/7-1964.

4.34 Portfjeldet

Independence I

82Ø2-000-007

Site 305; texts 687, 688, 689; drawings 169, 170, 171; photo s765, 766, 983, 1071, 1072, 1234, 1235; plate 58

The Portfjeldet site was discovered in 1949 and several of the features were excavated in 1963. It is not quite clear how many features there actually are at the site since in the general site list Knuth records four dwellings (one box hearth without any definite periphery, two mid-passage dwellings and a periphery with no internal architecture), whereas in his diary he mentions five dwellings and a cache. Few of these features are described in drawings and/or photos and text, so there is some doubt about their exact location and appearance. According to Knuth (text 688), the cache is located a few kilometres further to the west on the westernmost part of the Moskusoksestien, and the feature description that follows is so similar to the feature recorded as an isolated site named Moskusoksestien that the present authors prefer to think of it as such. The Portfjeldet site is thus reduced to a site with four or maybe five dwelling features. These are located on a gravel terrace north of the boulder fields extending along the river Kussuaq, which is the name of the combined streams of Midsommerelv and Itukussuk Elv. Ac-

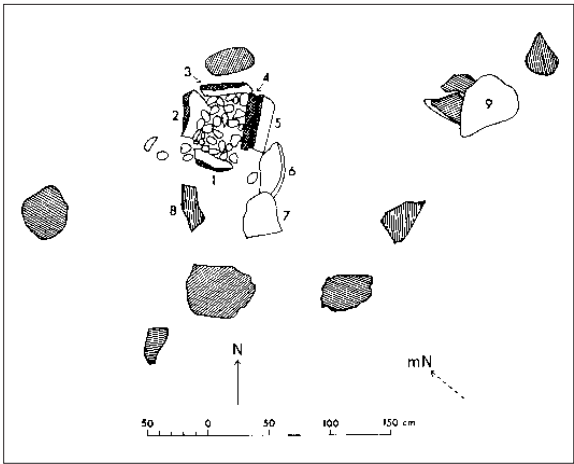


Fig. 4.76. (drawing 169) Portfjeldet, feature 1.

cording to the published sea-level curves (Bennike 1987) one must envisage that during Independence I the head of Jørgen Brønlund Fjord must have extended several kilometres inland, flooding portions of the present delta and clay plains extending from the head of the fjord towards Nedre Midsommersø. This would have brought the Portfjeldet site much closer to the head of Jørgen Brønlund Fjord than it is today. One box hearth, which Knuth believed to be the centre of a dwelling, two mid-passage dwellings and one tent ring are recorded from the site. Faunal remains were collected from two of the four features recorded. All musk-ox and large terrestrial mammal bone had been heavily processed; all fragments were less than 10 cm in size and one rib had been extensively scraped on the medial surface to remove meat from the bone.

Feature Descriptions

Feature 1

Tent ring with central hearth (text 687; drawing 169; photos 765, 1234)
Feature 1 is an only partially preserved tent ring with central box hearth. The hearth is built of flagstones forming a square and the interior space is filled up with fire-cracked rocks (fig. 4.76). In the southern part of the dwelling there are several large flagstones placed in a semi-circle around the hearth. If these stones originally formed part of a tent ring then this tent ring would have a diameter of c. 4 m. A sample of willow charcoal has been radiocarbon dated (K-928) giving a result of 3890 ±120 BP. Within one standard deviation this gives a calibrated date of between 2560 and 2140 cal. BC, placing

the Portfjeldet feature 1 in the earlier part of the period with Independence I settlement in Peary Land.

Feature 2

Mid-passage dwelling (text 689; drawing 171; photos 766, 983, 1235, 1236)
Feature 2 is a mid-passage dwelling with a tent ring of flat stones and boulders. The oval to circular tent ring has a diameter of c. 3 m. On the central axis of the dwelling there is a box hearth built of flat stones which were found tilted outwards (fig. 4.77, 4.78). At the rear of the dwelling, i.e. behind the box hearth, boulders and flagstones indicate a mid-passage but this feature does not extend all the way to the front of the dwelling. Feature 2 was excavated in 1963 and, in addition to two needles, two pointed bone pins and a piece of worked bone, a total of 38 lithic artefacts was retrieved from it (LI.8033-LI.853). A sample of willow charcoal has been radiocarbon dated (K-929) giving a result of 3860 ±120 BP. Within one standard deviation this gives a calibrated date of between 2480 and 2130 cal. BC which is largely contemporaneous with the date for feature 1.

Fauna: Knuth collected four specimens: three large terrestrial mammal limb-bone shaft fragments (all spirally-fractured) and one fox rib. The large mammal bone is most likely musk ox.

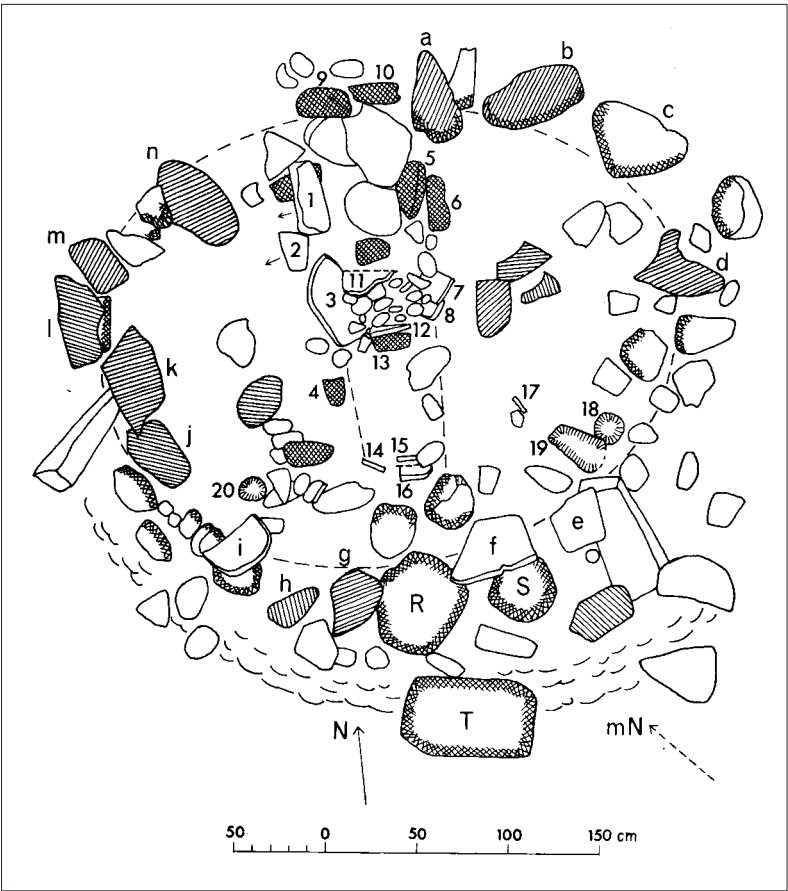
Table 4.52. Lithic artefacts Portfjeldet feature 2.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	3
Burins	2
Burin spalls	7
End scrapers	1
All flakes	24
Total	38

Feature 3

Mid-passage dwelling (text 689; drawing 170)
In Knuth's general site list feature 3 is recorded as a mid-passage dwelling (fig. 4.79). In the feature description, however, Knuth is not certain whether the flat stones found in the central part of the dwelling are the tilted remains of a mid-passage or whether they are flagstones used for a pavement. Feature 3 was excavated in 1963, and a collection of flakes was also

Fig. 4.77. (drawing 171) Portfjeldet, feature 2.



retrieved in 1968. The ruin is rich in finds and much of the debitage is of the same light blue chalcedony as that known from Den Blå Flints Boplads in Danmark Fjord. In addition to the 345 lithic artefacts, a single bone splinter was also retrieved from this ruin (Li.8054-8093, Li.9564). Feature 3 has been radiocarbon dated by two measurements (K-930 and K-5076) conducted on willow charcoal and musk-ox bone respectively. The two dates suggest a period of occupa-

Table 4.53. Lithic artefacts Portfjeldet feature 3.

Artefact category	Tools	%	All artefacts	%
Microblades	10	34.5	29	8.4
Burins	5	17.2		
Burin spalls	5	17.2		
Side scrapers	1	3.4		
Retouched flakes	8	27.6		
All flakes			316	91.6
Total	29	99.9	345	100.0



Fig. 4.78. (photo 1236) Portfjeldet, feature 2 reconstructed, note Knuth has not only put the flagstones defining the hearth box in a vertical position, but also the flat stones used in the tent ring, 23/7-1963.

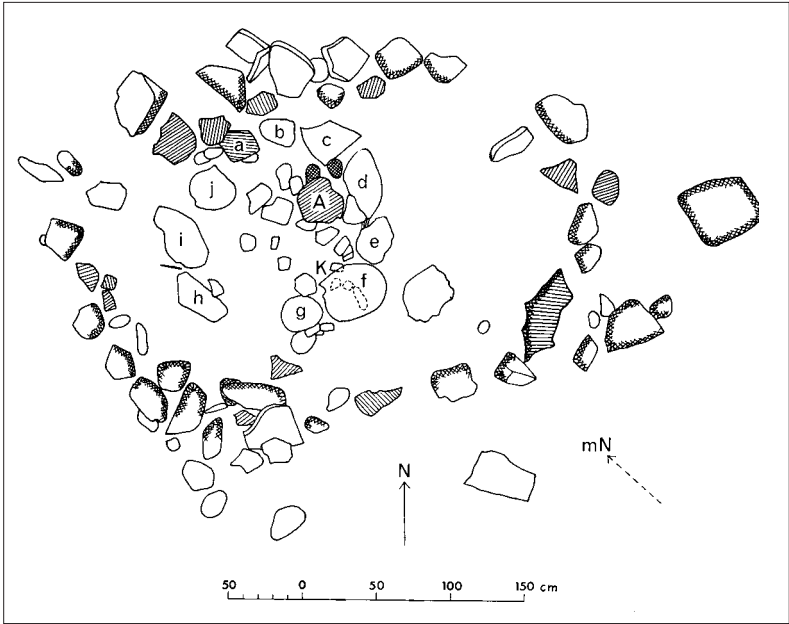


Fig. 4.79. (drawing 170) Portfjeldet, feature 3.

tion around 3790 ± 120 BP and 3790 ± 60 BP. Within one standard deviation these give calibrated dates suggesting periods of occupation between 2460-2030 and 2340-2060 cal. BC.

Fauna: Eight bones were collected from this feature. One brent or barnacle goose *humerus* shaft, one musk-ox rib mid-shaft (with more than 12 cut marks on the medial surface), and five large terrestrial mammal limb-bone shaft fragments (all spirally-fractured).

Feature 4

Tent ring

Feature 4 is a circular tent ring, but it is only mentioned in Knuth's general site list. A single microblade and a flake were collected from this ruin.

Table 4.54. Lithic artefacts Portfjeldet feature 4.

Artefact category	All artefacts
Microblades	1
All flakes	1
Total	2

Site Summary and Discussion

Portfjeldet is a minor Independence I site. Even though feature 3 is relatively rich in flakes it seems reasonable to conclude that all the dwellings are short-term occupations left by travelling parties mov-

ing between Jørgen Brønlund Fjord and Midsommer-sørne (fig. 4.80). Unfortunately there is no site map from Portfjeldet, so it is difficult to judge whether the dwellings form a pattern or whether they appear to be randomly spaced. Within one standard deviation the four radiocarbon dates overlap comfortably within the period between 2200 and 2300 cal. BC. However, when the dates are compared it is apparent that the two dates from features 1 and 2 (K-928 and K-929) are almost contemporaneous, as are the slightly younger dates from feature 3 (K-932 and K-5076). The two former dates correspond to settlement episodes between 2560-2140 cal. BC and 2480-2130 cal. BC, whereas the two latter are both dated to 3790 BP, the first with an uncertainty of 120 years and the second with an uncertainty of 60 years, which correspond to a settlement period between 2460-2030 cal. BC. The slightly later date from feature 3 may thus suggest that the site results from different episodes of occupation with just a single, or maybe two dwellings.

4.35 Hyldedepotet

82Ø2-000-051

Site no. 409

Hyldedepotet is a circular cache of boulders located 1 km east of the Portfjeldet site.

The site is only mentioned in Knuth's Baedeker.



Fig. 4.80. (plate 58) Artefacts from the Portfeldet site. Photo by Ole Woldbye.

4.36 Summary and Discussion of Wandel Dal

A total of 11 Independence I sites, one Independence II site, 14 Thule sites and nine localities with features of unknown origin demonstrates that Wandel Dal was of crucial importance to anyone settling in Peary Land. However, the distribution of Palaeo-Eskimo settlements shows a much greater concentration along Nedre Midsommersø and the western part of Øvre Midsommersø in the eastern part of the valley than is the case for the Thule settlements. With the two large settlements of Stjerneborg (site no. 330) and Uranienborg (site no. 288) located on Aftenstjernesø in the westernmost part of Wandel Dal, where hitherto no Palaeo-Es-

kimo settlements have been located, and the medium-sized locality of Blanknæs (site no. 313) in the westernmost part of Øvre Midsommersø, the Thule sites appear to be more evenly distributed throughout Wandel Dal. The situation of Pearylandville (site no. 292), the largest Palaeo-Eskimo site known from Peary Land on Nedre Midsommersø, underlines the importance of inland resources during Independence I. However, the refitting of a microblade from Pearylandville with another microblade found at the site of Deltaterrasserne (site no. 291), at the head of Jørgen Brønlund Fjord (see page 95), underlines that the settlements along Midsommersøerne should be analysed in relation to the many contemporaneous settlements along Jørgen Brønlund Fjord.

Jørgen Brønlund Fjord

5.1 Introduction

The 25 km long Jørgen Brønlund Fjord is a natural continuation of the trough that forms Wandel Dal (fig. 5.1). The westernmost 15 km of the fjord is 2-3 km wide and oriented east-west. It has parallel sides, and only a few minor promontories and river outlets break the two shorelines. In the easternmost 10 km, from the point where Børglum Elv drains into the fjord at the northern shore to the outlet in Independence Fjord, Jørgen Brønlund Fjord bends off towards the south. Along this stretch the shores are irregular with many peninsulas and bays and a few islands in the fjord. The inner part of the fjord is a 84 m deep, relatively uniform trough, whereas the outer part shallows with the deepest parts being 19 m in the main channel and with

a sill just 14 m deep. During the summer months Jørgen Brønlund Fjord becomes ice-free due to a massive influx of freshwater from the rivers. This may help to make it attractive to both seals and humans. Of additional importance is the fact that the marine resources are supplemented by what is probably the largest wealth of terrestrial resources anywhere in Peary Land. Midsommer Elv has a solid stock of arctic char and musk ox thrive in Wandel Dal. The relatively rich and varied resources make the Jørgen Brønlund Fjord – Wandel Dal system a unique ‘oasis’ which throughout history has been the focal point of human settlement in Peary Land. In modern times human presence has been concentrated around the mouth of Jørgen Brønlund Fjord. It was here, in 1948, that Eigil Knuth and Danish Peary Land Expedition built their

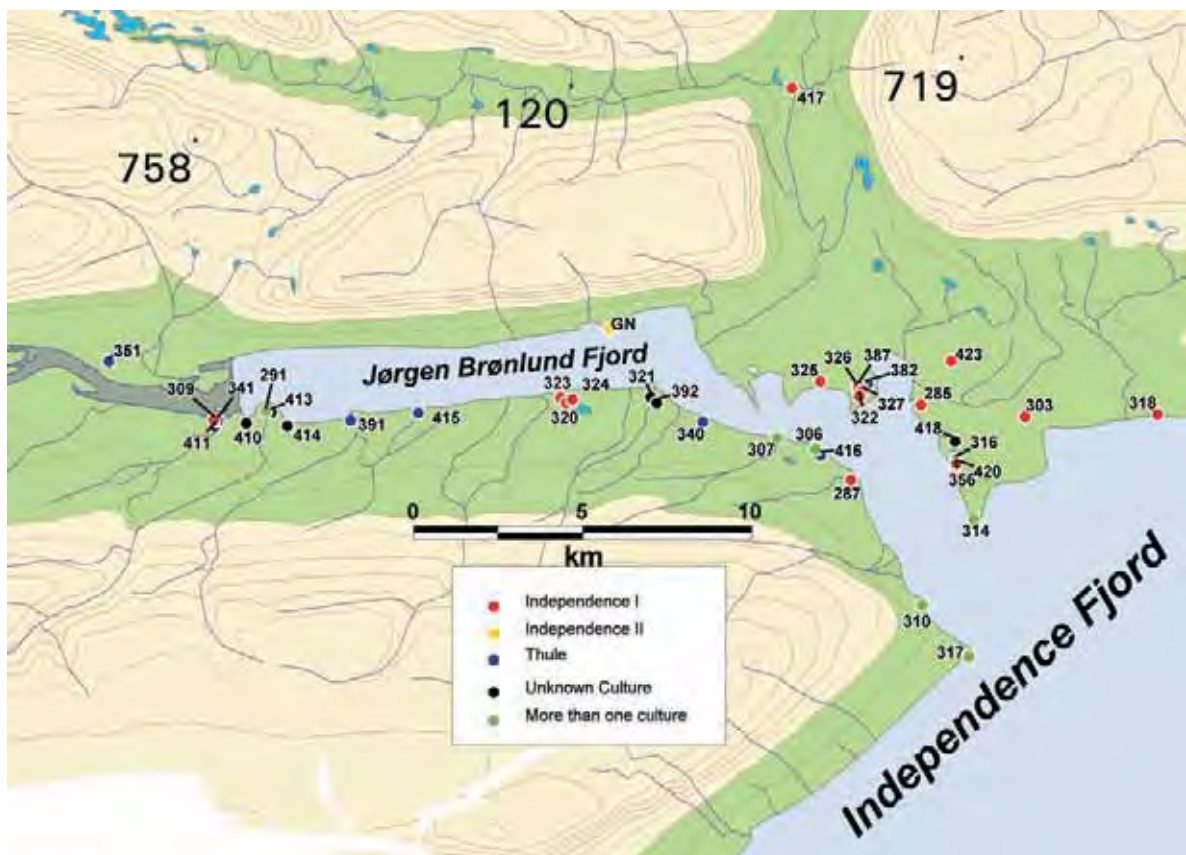


Fig. 5.1. Map of Jørgen Brønlund Fjord with archaeological localities marked.

first station Brønlundhus on the southern shore and where the Kap Moltke Station with its 1.2 km airstrip was built in 1973 on the northern shore. The Kap Moltke peninsula forms the eastern junction between Jørgen Brønlund Fjord and Independence Fjord. The station is situated on the clay plain formed by the raised sea floor which makes up the most of the Kap Moltke peninsula.

5.2 Mutip Ina

Unknown date

82Ø2-000-052

Site no. 410

Tent ring

Mutip Ina is an isolated tent ring located approximately 1 km west of Hellebæk on a slope near the beach on the southern shore of Jørgen Brønlund Fjord. Lars Motzfeldt, nicknamed 'Mute', found the site in 1966. The site is only known from Knuth's Baedeker.

5.3 Hellebæk

Independence I and II

82Ø2-000-013

Site no. 309; texts 677, 678, 836; drawing 131; photos 733, 734, 735

The Hellebæk site is located at the head of Jørgen Brønlund Fjord and was visited in 1950, 1960 and 1963. During these visits Knuth excavated Independence I as well as Independence II ruins. There is no site map and from Knuth's diary it is quite difficult to entangle the exact course of events at the site because a standardised system for numbering the ruins was never implemented. However, Knuth named the Independence I site Hellebæk group I, and the Independence II site was named Hellebæk group II.

Hellebæk Group I

Independence I

According to the site list, group I consists of an outdoor box hearth (feature I A) and an oval meat cache (feature I B). There are neither photographs, drawings nor text explicitly describing the group I features. Hellebæk group I was discovered and investigated in 1963 (text 678). The elevation of group I feature A was



Fig. 5.2. (photo 733) Hellebæk Gr. II as seen from North, 7/7-1963.

measured as being 12.74 m a.s.l. at low water on July 7th at 9.30 pm, and 12.44 m a.s.l. at high water on July 10th at 9.30 pm. The meat cache (group I feature B) was measured at 12.09 m a.s.l. at low water on July 7th 1963 at 9.30 pm and 11.77 m a.s.l. at high water on July 10th at 9.30 pm.

Hellebæk Group II

Independence II

Hellebæk group II consists of three features; a mid-passage dwelling, an isolated hearth and a circular meat cache (fig. 5.2).

Table 5.1. Lithic artefacts Hellebæk group II.

Artefact category	All artefacts
Burin spalls	1
All flakes	15
Total	16

Feature A (drawing 131; photos 733, 734, 735)

Feature A is a mid-passage ruin of vertically placed flags with a flagstone pavement in both the northern and southern compartments (Fig. 5.3). The feature appears to have been heavily altered during later reuse of some of the stones. The remaining portions of the mid-passage measure 2.5 m by 75 cm. To the north seven boulders form a semi-circle. This may be the remains of a tent ring with a diameter of approximately 4.5 m. A cache has been built on the western side of

the rear section of the mid-passage. One of the sides in the mid-passage thus forms the eastern wall in the cache. The cache was clearly built after the dwelling had been abandoned, but we do not know whether it was built by Independence II or by Thule people. Knuth (text 677) compares the cache to the presumed char caches found at the site Slusen between Øvre Midsommer SØ and Nedre Midsummer SØ. Several bones were found in the northern part of the mid-passage (photos 734 and 735). Ulrik Møhl has identified several of these as being from ringed seal. Several organic artefacts were collected during the excavation in 1963 (LI.7433-8031). Among the finds are two bone needles, at least five flint flakers, a miniature harpoon head, birch bark, wood pins and 15 flakes. Apart from the harpoon head all of these objects were found in the meat cache attached to the ruin. This circumstance, combined with the odd composition of the artefacts, could suggest that the people who built the cache may actually have collected the many organic objects from a long abandoned ruin. Compared to other inventory lists from the area, the number of organic finds, as well as the occurrence of a burin spall in a ruin which otherwise appears to be dated to Independence II, is strange. If this suggestion is correct then the Hellebæk group II feature A is a good example of post-depositional disturbance as may be expected on sites with several episodes of occupation. A radiocarbon date has been obtained for charcoal from local wood (K-1059) collected from features A and B (see feature B below).

Feature A was measured to be 7.5 m a.s.l. on July 7th 1963 at 9.30 pm and 7.17 m a.s.l at high water on July 10th at 9.30 pm (text 678).

Fauna: Knuth recovered 73 bone fragments (20 unidentified) from feature A. No bone was collected from the other two Independence II features at this site. Fish and bird each comprise 7.5%, lemming 1.9%, hare 3.8%, seal 71.7% and artiodactyl 5.7% of the identified assemblage. The goose *humerus* is actually tool debitage as it was grooved and snapped mid-shaft. The faunal material is extensively burnt (24.7% of assemblage). The seal bone in particular is uniformly burnt black (39.4%) and fragmented. In addition, 63.2% of the seal skeletal elements are from the flipper region which may explain their use as fuel (little meat but combustible fat). Based on epiphyseal data for ringed seals (Storå 2002a, b) at least two different seals contributed to this assemblage; one is an old

adult more than 7-8 years of age, and the other is a yearling less than 1-3 years of age. Since yearlings have a minimal ability to maintain a breathing hole, this seal was probably caught at a shore rookery or in the open water of the fjord. This is most likely a summer site given open-water sealing and the presence of both fish and bird.

Feature B

Box hearth

There are neither drawings, photographs nor text dealing specifically with this feature but in Knuth's site list it is marked with the signature for a box hearth. A radiocarbon date has been obtained for charcoal from local wood (K-1059) collected from features A and B. The date of 2510 \pm 110 BP gives a calibrated calendar date of between 800 and 510 cal. BC.

Feature C

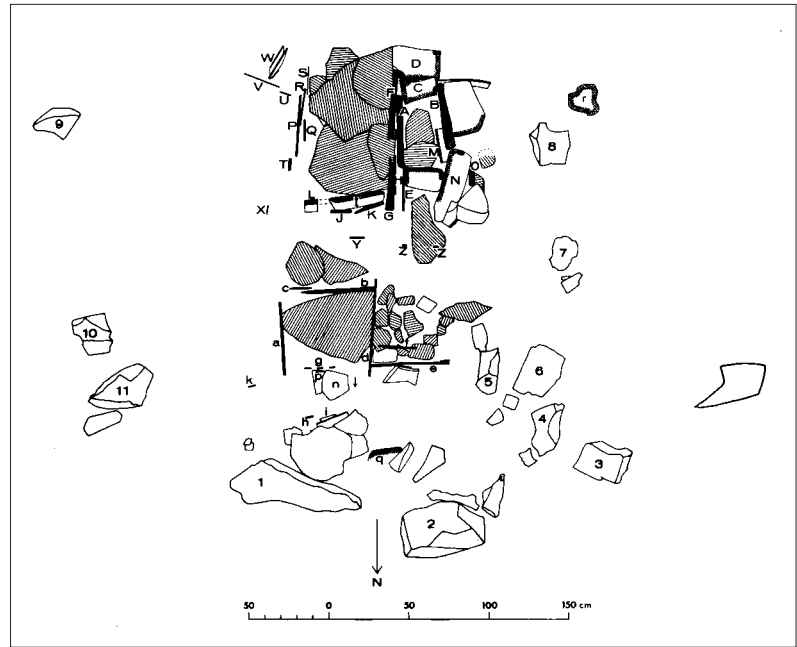
Meat cache

Feature C is a circular structure of large and often flat boulders in an upright position, located on a prominent point in front of feature B. In front of the cache and at a lower elevation, Knuth noted a semi-circle of large boulders which he believed to mark the prehistoric shoreline. The fossil shoreline was measured at 3.32 m a.s.l. whereas the meat cache (feature C) was measured to be at 6.03 m a.s.l. at low water on July 7th 1963 at 9.30 pm and at 5.80 m a.s.l. at high water on July 10th at 9.30 pm.

Site Summary and Discussion

With the occurrence of Independence I features at higher elevations than Independence II features, Hellebæk fits very well into the pattern noticed at Vandfaldsnæs and Deltaterrasserne (see below). In contrary to Deltaterrasserne, however, Hellebæk must be considered a minor settlement because both the Independence I and II evidence is limited to a few features. The odd structure of group II feature A and the similarly unusual and mixed composition of the artefact inventory prompts the question: 'Who could have collected and cached these artefacts?' We will probably never know the answer, but an intriguing suggestion is that, apart from Independence II or Thule people, the artefacts could also have been collected by Ludwig Mylius-Erichsen, Høeg Hagen and Jørgen Brønlund, the three members of the Denmark

Fig. 5.3. (drawing 131) Hellebæk
Gr. II a.



Expedition who, in the summer of 1907, were the first Europeans to reach Jørgen Brønlund Fjord. If this speculative suggestion is correct then they could have been the first to acknowledge a Stone Age presence in Peary Land.

5.4 Sorte Telte

Thule?

82Ø2-000-066

Site no. 34I; text 676; drawing 130; photos 732, 1414
Sorte Telte (Black Tents) is presumably a Thule locality since no finds, apart from tent rings and a few other boulder structures, have been made. Knuth has registered two tent rings, one meat cache, a fox trap and a number of outdoor hearths at the site. The site is located on a black dolerite point on the southern shore at the very head of Jørgen Brønlund Fjord, approximately 100 m to the east of Hellebæk.

Feature A

Tent ring

Feature A is the easternmost of the two tent rings. It is located 2-3 m from the high water mark. The periphery is rather small, built of boulders and probably deformed by cryoturbation at the rear and by high water and pack ice at the front.

Feature B

Tent ring

Feature B is a ring of widely spaced boulders located approximately 20 m to the west of feature A and slightly further away from the beach. The diameter of the periphery is c. 3 m. All the stones are placed on top of the gravel sub-stratum.

5.5 Kuppelhøj

Unknown culture

82Ø2-000-053

Site no. 41I

Cache

Kuppelhøj (Dome Hill) is a dome-shaped hill south of Hellebæk and Sorte Telte. The hill consists of concentric raised beach lines which can be followed all the way to the highest point. Knuth thus concluded that the hill once was an island. A circular meat cache of boulders is located near the top of the hill. Knuth has included the feature in his Independence I site list but apart from the fact that an Independence I date is a qualified guess there is no evidence in support of this suggestion.

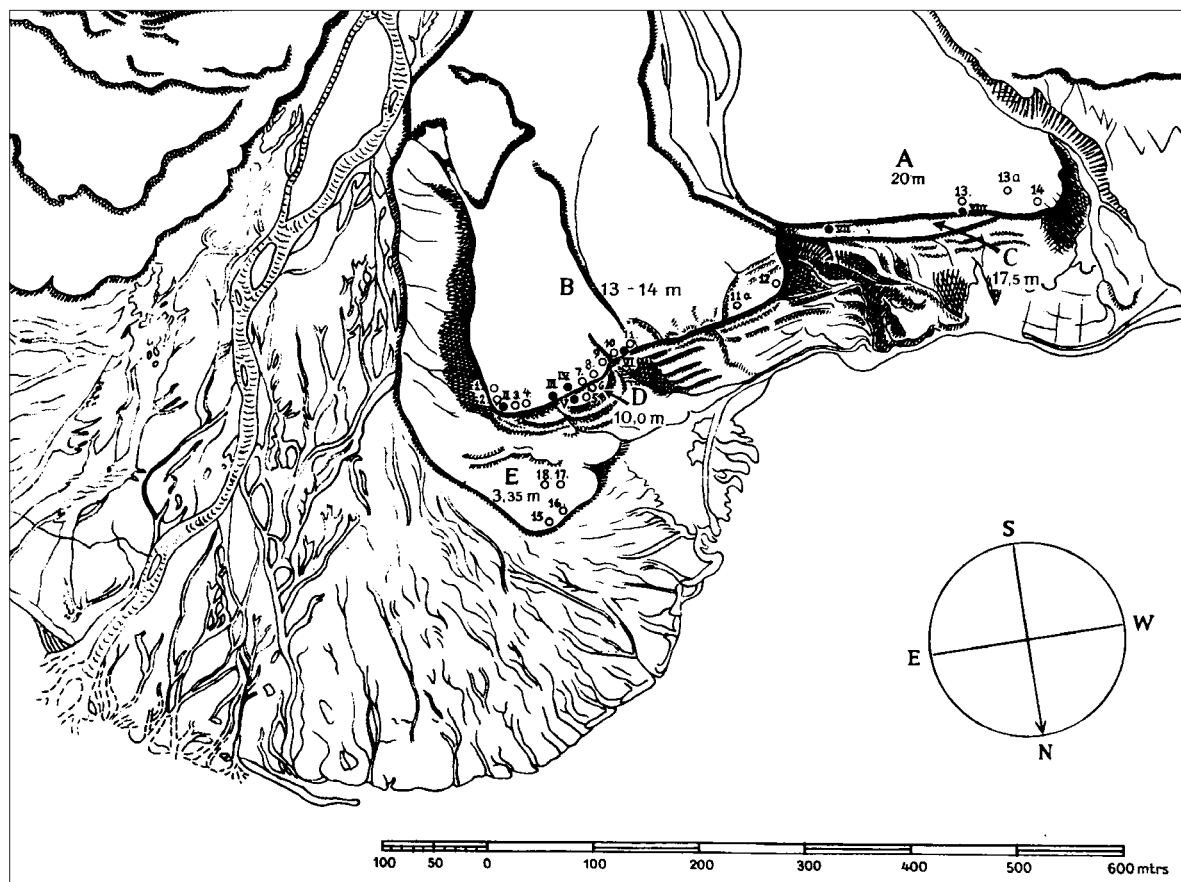


Fig. 5.4. (drawing 55) Site map of Deltaterrasserne, published in Knuth 1984.

5.6 Deltaterrasserne

Independence I, II

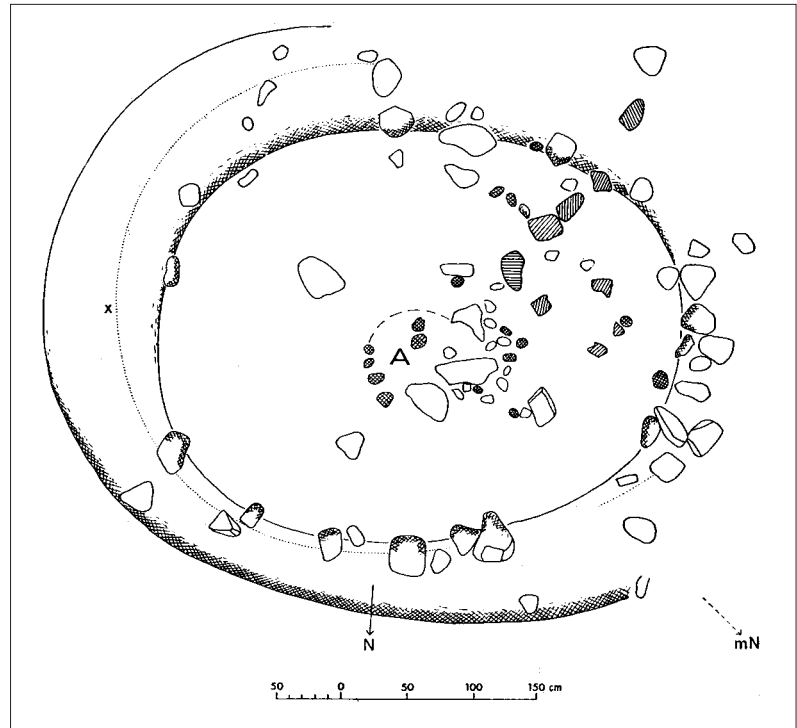
82Ø2-000-002

Site no. 291; texts 596, 626; drawings 4-10, 55, 69; photos 656-658, 660-667, 1240-1243, 1278-1282; plates 30-36.

Deltaterrasserne (Delta Terraces) are among the largest archaeological sites in Peary Land. Independence I and II boulder features are dispersed along the c. 600 m long edge of a dilluvial fan, and on the terraces below (fig. 5.4, drawing 55). Knuth named the terraces in order of their descending elevation. The clustered features on the different terraces can accordingly be assigned to groups A: 20 m a.s.l., B: 13-14 m a.s.l., C: 17.5 m a.s.l., D: 10 m a.s.l. and E: 3.35 m a.s.l. The feature numbers are consecutive with a distinction between 'dwellings' with Arabic numbers and caches with Roman numbers. So ruins I, 2, 3, 4, 7, 8, 9, 10, 11, 11a and 12 and the caches II, III, IV and VI are all

located at approximately the same level on terrace B. Ruins 13, 13a and 14 and cache VIII are located on terrace A to the west of terrace B. Cache VII is an isolated cache located on terrace C below the ruins on terrace A. Ruins 5 and 6 and cache V are located on terrace D below terrace B, and ruins 15, 16, 17 and 18 are located at terrace E just around 3.35 m a.s.l. The numbering system is used in the text (text 596) as well as on the site map. However, in the site list Knuth use Arabic numbers but with the separate numbering of ruins and caches maintained. Considerably more caches are registered in the site list than on the site map or in the text and photos. Accordingly, it is difficult to describe all the features with certainty. As on the large Pearylandville site an approximately 50% random sample of the features excavated (Independence I and II) was selected for faunal analysis. Bone material was identified from six Independence I features (I, 2, 4, 12, 13, 14) and from only two of the Independence II ruins (features 5 and 18).

Fig. 5.5. (drawing 6) Deltaterrasserne, feature 13.



Terrace A

Three ruins and a meat cache constitute the westernmost and highest part of the site. The three ruins have structural similarities in the sense that they are all tent rings with a gravel berm periphery and a central hearth. The cultural deposits, often characterised by a high content of charcoal, are frequently around 20-30 cm deep.

Feature 13

Tent ring with central hearth (text 596; drawing 6)

Ruin 13 is located approximately 100 m from the western corner of the terrace A and set back c. 20 m from the edge of the plateau. The dwelling is marked by a circular periphery of boulders dispersed along the inside of a gravel berm (fig. 5.5). The hearth is located in the middle of the periphery and it is outlined by a ring of smaller stones within which there is a thick layer of ashes. The ruin was excavated in 1950 and 1960 but only charcoal and a few artefacts of bone were found in the feature (LI.6549-6550, LI.6458, LI.7429-7430). A single needle with the eyehole preserved is among the organic artefacts. A radiocarbon date of 4540 ± 120 BP (K-754) for charred driftwood (*Picea*) from ruin 13 gives a calibrated calendar date of between 3500 and 3030 cal. BC.

Feature 13a

Tent ring

13a is a rudimentary stone ring located in a stone-filled gravel field approximately 40 paces to the west of feature 13.

Knuth collected 67 faunal remains from feature 13a. Of these over half could not be identified ($n = 39$). Bird bones comprise 32.1% of the identified bone assemblage. This and the lack of burnt bone support the notion that this tent ring was probably a brief summer occupation. At least one long-tailed duck, one brent or barnacle goose and one ivory gull contributed to the bird remains. The remaining mammalian remains are composed of 10.7% hare, 28.6% fox and 28.6% musk-ox or artiodactyl bone. The only human modification to the bone is a small cut mark on the musk-ox hyoid fragment which was probably made when removing the tongue.

Feature 14

Tent ring

Ruin 14 is located 70 m west of ruin 13 near the western corner of the plateau which is delineated by a gorge leading to a minor grass-covered delta fan. Like ruin 13, ruin 14 is set back from the edge of the terrace. Dispersed boulders and a gravel berm define the

perimeter of the dwelling. In the centre of the periphery several smaller stones mark the hearth. Several organic and lithic artefacts were collected from ruin 14 in 1950, 1960 and 1964 (LI.6553-6554, LI.7431-7432, LI.7953-7966). Among the organic artefacts are at least 30 wood splinters and three pieces of birch bark. A sample of musk-ox bone (K-4497) has been radiocarbon dated to 3850 ± 90 BP which within one standard deviation gives a calibrated calendar date of between 2460-2200 cal. BC.

Knuth collected 60 bone specimens from feature 14, of which only 26 could be identified. A single juvenile brent/barnacle goose bone (3.8%) comprises the bird remains from this feature. Hare comprises 19.2%, fox 34.6% and musk-ox and artiodactyl bone 42.3% of the identified remains. Lack of burnt bone, the presence of juvenile bird bone as well as minimal bone deposition, suggest this was a short duration summer feature.

Table 5.2. Lithic artefacts Deltaterrasserne ruin 14.

Artefact category	All artefacts
Microblades	5
Retouched flakes	2
Large flake/rough-out	2
All flakes	10
Total	19

Feature VIII

Cache

This meat cache is built of large stones near the edge of the plateau in front of feature 13.

Terrace B

Terrace B is what may be designated the core of Deltaterrasserne since this terrace is not only located centrally in relation to the clustered features on other terraces, it is also here most features are found.

Features 1 and 2

Open-air box hearths (text 596)

There are no detailed descriptions of ruins 1 and 2 but in the site list both ruins are marked with the box hearth signature. They are located on the easternmost part of terrace B, just above a large dune stretching towards the present delta. Ruin 1 is located on an even surface above ruin 2 which is found on terrain that is

sloping due to the eroding terrace edge. It is partly covered by drifting sand. No peripheries are associated with the ruins but Knuth describes the area surrounding ruins 1 and 2 as a common 30-40 cm thick midden-like layer dispersed over a 4 x 5 m area. The possibility cannot be excluded that the features are central hearths in tent structures with a long-gone gravel berm periphery, but here they have been registered as open-air hearths according to the signature Knuth used on his site list. Knuth collected and excavated lithics as well as several organic artefacts from the features in 1950, 1960 and 1963 (LI.6511-6535, LI.7412-7413, LI.7857-7891). Among the organic artefacts are pins and birch bark rolls as well as flint flakers and needles. Several of the lithics and the organic artefacts are depicted on plate 31. Among the lithic artefacts the presence of burin spalls as well as a tanged point (no. 2 on plate 31) indicate that the ruins are of Independence I origin. However, the needles include one (no. 5 on plate 31) with a rectangular eye-hole typical of Independence II, whereas another (no. 7 on plate 31) has a round eyehole which is typical of Independence I. This mixing of traits may indicate that the artefact scatters around ruins 1 and 2 are mixed deposits containing both Independence I and Independence II elements.

Fauna: Knuth collected 405 well preserved faunal specimens (34 unidentified) from features 1 and 2. Faunal remains were not separated by feature and thus no comments can be made on bone spatial distribution. The identified remains from this site comprise 36.9% unidentified fish or arctic char, a single goose *radius*, 19.4% arctic hare, 29.4% arctic fox and only 14% musk-ox, artiodactyl or large terrestrial mammal bone. The relative number of identified specimens is mirrored by the minimum number of individuals; at least five char (*maxilla*), two hare (*humerus*), three fox (*metatarsals*), and two musk ox – one juvenile and one adult – are represented by this assemblage. The entire fish skeleton was apparently deposited here since nearly as many vertebral and tail elements were recovered as cranial bones.

Although these are hearth features only two bone fragments (0.5%) show slight burning. A juvenile musk-ox mandible is estimated to be approximately six months old (based on comparative musk-ox and caribou specimens at the Zoological Museum), which sug-

gests a September or October occupation of the features. The virtual absence of bird, but numerous fox and hare bones, support the notion that this feature was used during the colder season. There is a predominance of fore- and hind-foot elements among the fox remains. This situation tends to be associated with skinning or fur removal. The presence of such a large number of fish bones, along with the above indicators, points to a late autumn/early winter fish harvest before the waters were too heavily frozen.

Table 5.3. Lithic artefacts Deltaterrasserne terrace B ruins 1 and 2.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	4	11.8	34	15.7
Microblades	12	35.3		
Burin spalls	3	8.8		
End scrapers	2	5.9		
Retouched flakes	8	23.5		
Axes	1	2.9		
Unspecified tool	4	11.8	182	84.3
All flakes				
Total	34	100.0	216	100.0

Feature II

Cache (text 596)

Feature II is a meat cache consisting of a minor ring of boulders located 16 paces to the west of features 1 and 2.

Features 3 and 4

Gravel berm tent rings (text 596)

Ruins 3 and 4 are gravel berm tent rings located c. 25 m to the west of ruins 1 and 2. Both ruins have circular peripheries of gravel. On the site list the periphery of ruin 4 is marked by two concentric circles, whereby Knuth presumably wished to indicate that this is the larger and more easily recognisable of the two. A bone needle (LI.7892) with a rudimentary round eyehole was registered from feature 3.

Fauna: 22 bone fragments were collected from feature 4. Over half of the bones are unidentified (15 specimens). The identified remains consist of three arctic fox bones (*humerus*, *tibia*, *fibula*), and four musk-ox bones (three rib and one *tibia* shaft fragment). None of the bones is burnt.

Feature III

Cache (text 596)

Feature III is a minor circular cache located at the terrace edge, 86 paces to the west of features 1 and 2.

Feature IV

Cache (photo 656)

Feature IV is a large meat cache with a c. 1 m thick periphery of boulders in many courses. The external diameter is 3.5 m. During his first visit in 1948 Knuth found a thick, approximately 1 m long piece of driftwood sitting partly imbedded in the southern part of the cache. In a split in the end of the log there were two pointed wind-polished stones, which presumably has been used as wedges to split the log into smaller pieces of firewood. The log was collected in 1949 but unfortunately it was later lost during the evacuation of the expedition from the southern base at Zachenberg.

Feature 7

Gravel berm tent ring (text 596)

Ruin 7 is an oval gravel berm located near the edge of terrace B.

In 1963 three end scrapers were collected from the feature (LI.7901-7903).

Table 5.4. Lithic artefacts Deltaterrasserne ruin 7.

Artefact category	All artefacts
End scrapers	3

Feature 8

Gravel berm tent ring (text 596)

Ruin 8 is an oval gravel berm 9 paces west of feature 7.

Feature 9

Mid-passage dwelling (text 596; drawing 8; photo 658)

Feature 9 is a mid-passage dwelling partially disturbed by cryoturbation (figs. 5.6 and 5.7). There are only a few boulders that could be part of a tent ring, but on the western side of the mid-passage there is a low gravel berm delineating the level floor space from the uneven terrain surrounding the structure. The 4.5 m long and 50 cm wide mid-passage is built of irregular boulders. It is oriented perpendicular to the terrace edge. Centrally in the mid-passage, transversely placed boulders and a few vertically placed flagstones

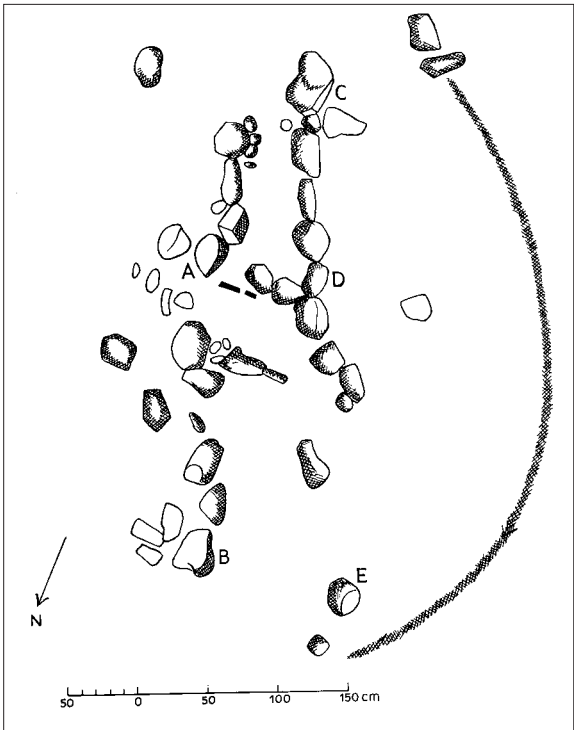


Fig. 5.6. (drawing 8) Deltaterrasserne, feature 9.

separate a hearth box containing charcoal and ashes. Artefacts were collected and excavated from the feature in 1950 and again in 1963 (LI.6539, LI.7904-7905). A sample of drift wood (*Larix* sp.) charcoal (K-933) gave a radiocarbon dated of 3180 ± 110 BP, which cor-

responds to a calibrated calendar date of between 1610 and 1310 cal. BC.

Table 5.5. Lithic artefacts Deltaterrasserne ruin 9.

Artefact category	All artefacts
Retouched flakes	1
All flakes	6
Total	7

Feature 10

Mid-passage dwelling (text 596; drawing 10; photo 660)

Ruin 10 is located near the edge of terrace B, approximately 17 paces west of ruin 9, on a terrace that is 50 to 80 cm higher than the one on which feature 9 is located. The ellipsoid dwelling is built of irregular boulders which often form a periphery with more than one row of stones (figs. 5.8 and 5.9). Internally the dwelling measures 3.5 x 2.5 m. The circumscribed floor is clearly levelled. Parallel to the short axis are the remains of a c. 50 cm wide mid-passage made with boulders. Knuth suggests that the narrow flat stones 12 and 13 are remnants of vertically placed stones used to separate off the hearth. Between stones 12 and 13 he found ashes under a flagstone pavement (text 596), even though the flagstones in the central part of the mid-



Fig. 5.7. (photo 658) Deltaterrasserne, feature 9, 22/6-1950.

passage have not been drawn onto the feature drawing (fig. 5.8). The mid-passage also has a pavement in the northern compartment near the doorway. The ruin was excavated in 1950 and again in 1963. In addition to one needle with a rudimentary eyehole and a flint flaker, Knuth collected ten lithic artefacts (LI.6540-6545, LI.7910-7913). Refitting conducted by Linda Owen (1983) has shown that the microblade LI.6544 fits with the microblade LI.8578 from Pearylandville feature 15. Deltaterrasserne feature 10 and Pearylandville feature 15 could thus be contemporaneous dwellings used by the same people.

Table 5.6. Lithic artefacts Deltaterrasserne ruin 10.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	3
Burins	1
End scrapers	1
Retouched flakes	1
All flakes	3
Total	10

Feature VI (text 596)

Cache

Feature VI is a meat cache located 14 paces west of ruin 10 and just 4 paces east of ruin 11 to which it seems to belong.

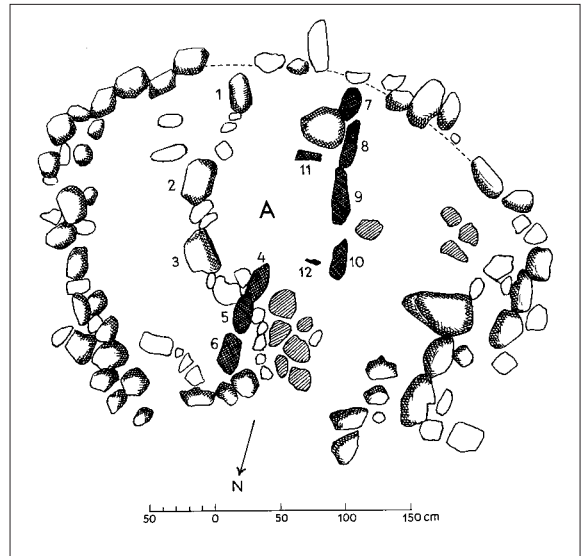


Fig. 5.8. (drawing 10) Deltaterrasserne, feature 10.

Feature 11 (text 596; drawing 9)

Mid-passage dwelling

Ruin 11 is located 18 paces west of ruin 10 and four to the west of cache VI, which seems to be closely related to this dwelling (fig. 5.10). Stones at the rear and on the western side mark the elliptical periphery here, whereas a low gravel berm makes up the eastern and south-facing portions. Internally the even floor space measures 3 x 4 m. The 50 cm wide mid-passage is built of flat stones set on edge. The passage only extends



Fig. 5.9. (photo 660) Deltaterrasserne, feature 10 seen from south, 22/6-1950.

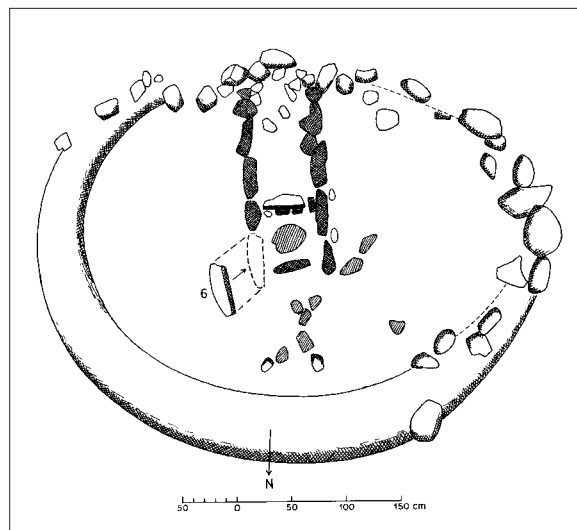


Fig. 5.10. (drawing 9) Deltaterrasserne, feature 11.

halfway through the interior, from the rear wall to the hearth, which is separated by vertically standing stones placed transversely between the two walls in the mid-passage. The southern of these transversely placed stones is supported by smaller stones. The

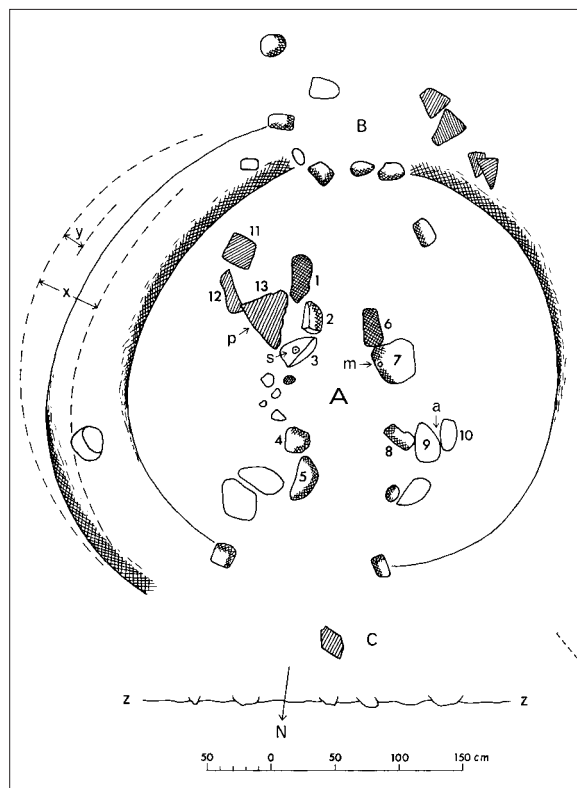


Fig. 5.11. (drawing 7) Deltaterrasserne, feature 12.

hearth box is paved with an oval flagstone which covers a thick layer of ashes and charcoal. A rudimentary flagstone pavement is seen in the floor area facing the door to the north of the hearth. Due to the artificial levelling, the floor is 20-30 cm lower than the surrounding terrain at the rear of the dwelling. The boulder periphery at the rear of the dwelling has, accordingly, also the character of being a supporting wall preventing the gravel from slipping into the interior. To the west of ruin II, terrace B is full of boulders and the terrain is hummocky over a distance of approximately 60 m before a new even area opens up in the westernmost part of the plateau. Ruin II was excavated in 1950, whereby Knuth revealed a few lithic artefacts (LI.6546-6548).

Table 5.7. Lithic artefacts Deltaterrasserne ruin 11.

Artefact category	Tools
Bifaces, all fragments included	1
Microblades	1
End scrapers	1
Total	3

Feature 11a

Dwelling (text 596)

Feature II is a inconspicuous dwelling located in the level area in the westernmost part of terrace B and approximately 240 m from features I and 2. Knuth only noted the faint periphery of this dwelling.

Feature 12

Mid-passage dwelling (text 596; drawing 7)

Ruin 12 is the westernmost and final dwelling on terrace B. The circular periphery is made up of a low and barely visible gravel berm, but the two parallel rows of boulders stand out clearly (fig. 5.11). The excavation of the mid-passage revealed a 30 cm thick layer rich in charcoal, pieces of wood, bone splinters and birch bark rolls. The find-rich layer was also found outside the mid-passage, where the charcoal fraction was, however, absent. The culture layer was thickest in the western part of the dwelling. In the eastern floor area a flagstone pavement was deeply embedded in the gravel. Ruin 12 was excavated in 1960 and 1963, whereby Knuth retrieved a large number of modified bone implements as well as several lithic artefacts (LI.7418-7428, LI.7457, LI.7914-7952). Among the organic implements are the proximal frag-

ment of a side prong for a leister or bird dart, two needles, ten rolls of birch bark and several pieces of worked bone. A radiocarbon date of 4140 ± 120 BP (K-755) has been obtained for charred driftwood (*Picea*). Within one standard deviation this gives a calibrated date of between 2880 and 2570 cal. BC.

Fauna: Knuth recovered 210 faunal specimens from feature 12, including 15 unidentified pieces. This is an unusual assemblage in that it is composed only of bird (78.5%) and musk-ox or large terrestrial mammal remains (21.5%). None of these bones had apparently been used for fuel or cooked as no burnt bones were noted. The majority of the bird remains that could be identified to genus or species are of goose (95.6%), most likely brent goose, which indicates a focus on waterfowl by the prehistoric occupants. At least five juvenile (*tibiotarsus*) and three adult geese were deposited in this dwelling, whereas only one adult and one juvenile musk ox were represented. The overwhelming number of bird bones, coupled with juvenile bone – 32.7% of bird remains, indicates a summer occupation of this feature.

Table 5.8. Lithic artefacts Deltaterrasserne ruin 12.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	3	11.5	26	9.7
Microblades	6	23.1		
Burins	1	3.8		
Burin spalls	3	11.5		
End scrapers	1	3.8		
Retouched flakes	7	26.9		
Axes	4	15.4		
Unknown tool	1	3.8	243	90.3
All flakes				
Total	26	99.8	269	100.0

Terrace C (c. 18 m a.s.l.)

Feature VII

Terrace C is a narrow elongated surface located 2.5 m lower than the front edge of Plateau A. Only a single feature has been located on terrace C – the well-built cache VII. This feature is located at the foot of the slope towards terrace A, approximately 50 m to the west of terrace B. Feature VII is an approximately 1 x 2 m boulder ellipse with the longer axis facing the fjord. The periphery is a compact frame of large tightly fitted boulders. The slightly lowered floor is meticulously

paved. In 1950 Knuth emptied the interior of drifting sand but he found nothing. Adjacent to the feature, Knuth found several large boulders deeply imbedded in the sub-stratum. They could have been used to cover cached objects. He also speculates, however, that feature VII and similar features at Vandfaldsnæs, Oksejægerpynten, Kap Peter Henrik and Centrum SØ could be graves due to their isolated locations. In any case, Knuth believed that the feature should be related to the dwellings on terrace B and not to those on terrace A, since he did not believe that terrace C existed when features 13 and 14 on terrace A were inhabited.

Terrace D

Feature I

Cache

Feature I on terrace D is a cache with no detailed description.

Feature V

Cache (text 596; drawing 69; photos 662, 664, 1242)

Feature V is located just below cache IV. The 1.25 x 1.85 m oval stone ring is built of tightly packed boulders placed on edge with their flat surface facing the interior. The long axis of the oval faces the sea. Several stones from the southern wall section have fallen into the chamber. Boulders are piled up along the exterior side of the periphery, either for reinforcement of the wall or they may have been used to cover the cached meat. In the interior, Knuth uncovered a rudimentary flagstone pavement hidden by drifting sand, but there were no finds. However, during his visit in 1960 he found several lithic artefacts behind the cache (LI.7414-7417). On a detailed site map (figs. 5.12, 5.13 and 5.16), Knuth has named feature V cache I, but in the text and on several photographs it is called cache V. In order to eliminate confusion between text and illustrations we have chosen to change the number I used by Knuth on the detailed map of terrace D so that all the feature numbers in this text refer directly to the numbers occurring on the printed maps.

Table 5.9. Lithic artefacts Deltaterrasserne cache V.

Artefact category	All artefacts
Bifaces, all fragments included	2
All flakes	2
Total	4

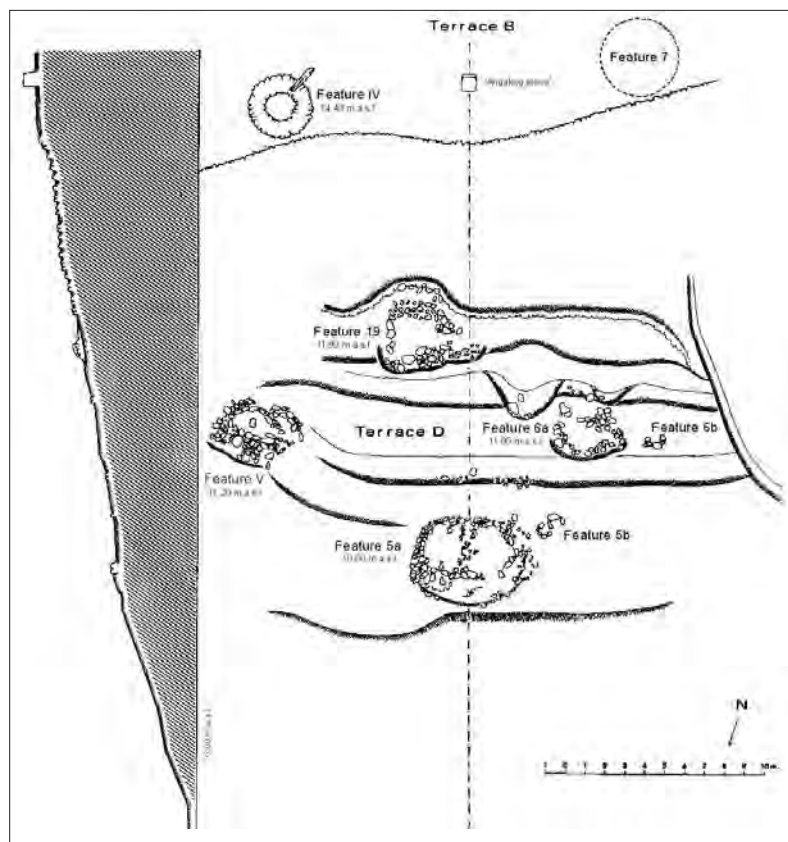


Fig. 5.12. (drawing 69)

Deltaterrasserne, detailed map of terrace D.

Feature 5a

Mid-passage dwelling (text 596; drawings 5, 69; photos 665, 666, 1243)

Feature 5a is located near the front edge of terrace D,



Fig. 5.13. (photo 1281) Deltaterrasserne, view over terrace D, feature 6 in foreground, feature 5 slightly lower, and in the background Knuth's tent, 22/7-1984.

c. ten paces to the west of feature V. Already during his initial visit in 1948 Knuth acknowledged 5a as one of the most spectacular ruins in Jørgen Brønlund Fjord (figs. 5.14 and 5.15). A 2.5 x 4 m ellipsoid periphery faces the sea with its long axis. The periphery is formed of tightly packed boulders which are often solidly embedded in the sub-stratum. The circumscribed floor has been made level so that the stones in the rear wall are deeply imbedded in the gravel. The vertically placed stones F and G support the soil in the rear wall. Knuth notes that tilted flagstones 15, 17, 18 and 19 (fig. 5.14) had originally also been placed vertically in order to retain the soil. In the front of the dwelling the reinforced tent ring takes on the character of a supporting foundation which, in this area, has prevented the front of the dwelling from sliding down the hill. There may have been openings both to the east and west of the mid-passage. In the western part of the front wall there is a 1 m wide opening in the boulder periphery, whereas there is no evident opening in the eastern part. Knuth believed that an opening in the eastern side was indicated by the presence of a midden rich in bones and wood splinters just outside

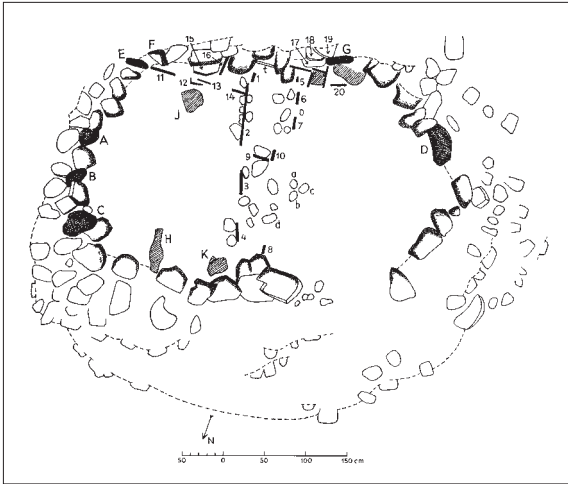


Fig. 5.14. (drawing 5) Deltaterrasserne, feature 5.

the north-eastern corner of the dwelling. Apart from a few bones and some of the vertically standing flagstones at the rear of the dwelling, neither finds nor internal architecture were visible on the gravel surface covering the floor space. It was only after the removal of gravel that the deeply imbedded flagstones in the mid-passage became visible. The mid-passage is made of vertically placed flagstones that are often supported by minor flags or stones. It was constructed in a ditch with the bottom excavated approximately 10–12 cm deeper than the level of the floor outside the mid-passage. The walls in the mid-passage come together towards the front of the dwelling so that the passage is c. 30 cm wide at its northernmost part towards the doorway, whereas towards the back wall it is 55–60 cm wide. Perpendicular to the southernmost or rear section of the mid-passage, Knuth found vertically placed flagstones forming so-called ‘wings’. The eastern wing, formed by flagstones 11, 12 and 13, is the best preserved, whereas the western wing is only marked by the vertical stone 20. Knuth documented similar wings at the Solbakken site (feature 13) in Hall Land, and in ruins II A and B, as well as in ruin 18 on Deltaterrasserne. However, it was only in Deltaterrasserne ruin 5a that he found evidence for the suggestion that the wings had originally functioned as panels in front of a number of small boxes built of vertically standing flagstones placed against the rear wall. Such cupboards could have been used for safe storage of small objects or food such as dried fish. Artefacts were collected or excavated from ruin 5a in 1950 and in 1963 (LI.6536–6538, LI.7893–7899). During



Fig. 5.15. (photo 1243) Deltaterrasserne, feature 5 seen from the east towards the head of Jørgen Brønlund Fjord, 7/7–1960.

excavation, bone and wood splinters were found evenly distributed on both the eastern and the western floors, but greater concentrations were seen against the walls. Knuth found virtually no artefacts on the floor. He believed this to be the result of the use of hides as carpeting. In the mid-passage, Knuth found charcoal in addition to the bone and wood splinters also noted in rest of the dwelling. The ashes and charcoal were concentrated in the middle and front sections of the passage.



Fig. 5.16. (photo 664) Deltaterrasserne, feature V (cache), 1963.

The feature has been dated by two radiocarbon dates for charred driftwood (K-150) and musk-ox bone (K-4499) respectively. The former is dated to 3290 \pm 130 BP, giving a calibrated date within one standard deviation of between 1740 and 1420 cal. BC. The latter has been dated to 2390 \pm 70 BP, which gives a calibrated date of between 760 and 390 cal. BC.

Fauna: Knuth collected 39 bone fragments from feature 5a. Some bones were missing from the collection and others were sent for radiocarbon dating. This description relies on notes made by Ulrik Møhl. Just over 50% of the bone comprises musk ox. The remaining fragments are hare (28.2%) and fox (20.5%). Bone from this feature is divided into three sections: dwelling interior, in front of dwelling and east of dwelling. Nearly all the musk-ox fragments were recovered from inside or in front of the structure, whereas all hare and fox bones were recovered from a midden area to the east of the dwelling. In the absence of bird or fish it is possible that this was a cold season structure. However, one musk-ox deciduous *molar* appears to be from an individual less than six months of age which suggests that this dwelling was occupied for at least part of the summer season.

Table 5.10. Lithic Artefacts Deltaterrasserne terrace D ruin 5a.

Artefact category	All artefacts
End scrapers	1
Side scrapers	1
Retouched flakes	1
Microblade cores	1
All flakes	1
Total	5

Feature 5b

Open-air hearth (photo 663)

Feature 5b is an open-air hearth located four paces to the west of ruin 5. The feature is built of three boulders which form a minor hearth box open at one side. Flagstones cover both the ground inside and in front of the hearth. On the eastern side there is a semi-circle of stones c. 50 cm in diameter (estimated from photo). In Knuth's text this feature is called 5a but here we have employed number 5b as used by Knuth in the site list as well as on the detailed site map (Fig. 5.12) depicting the features on terrace D in relation to the Angakoq Stone and nearby ruins on terrace B.

Table 5.11. Lithic artefacts Deltaterrasserne ruin 5b.

Artefact category	Tools
Bifaces, all fragments included	1

Feature 6a

Cache?

Ruin 6a is a semi-circular shelter-like feature. Knuth considered the stone ring to be too small to be a dwelling. In the text he named it ruin 6, but here we have employed number 6a as also used by Knuth on the detailed site map depicting the features on terrace D in relation to the Angakoq Stone and nearby ruins on terrace B. A single biface, presumably a lance blade, was found on the slope to the west of ruin 6a (LI.7900).

Feature 6b

Open-air hearth

Ruin 6b is an open-air hearth located to the west of 6a. Like the other features on terrace D, there is also inconsistency between the number used by Knuth in text 596 and that on the detailed site map. The feature number from the site map is used here.

Feature 19 (formerly 7)

Cache?

Feature 19 is a rectangular boulder periphery located approximately 7 m behind, or south of, ruin 5a. In text 596 this feature is numbered 5b, but on the detailed site map (fig. 5.12, drawing 69) Knuth named it ruin 7. This conflicts with feature 7 on terrace B which was omitted from the detailed site map. To eliminate confusion we have re-numbered this feature, calling it ruin 19. As an exception it has been added onto Knuth's detailed site map.

Terrace E

Terrace E forms the eastern corner of the Deltaterrasserne and it is also the lowest of the terraces with ruins from the Stone Age. Four ruins have been recorded in this part of the site.

Feature 15

Tent ring

Ruin 15 is a circular tent ring of scattered stones located on fine gravel. A few flagstones are scattered in the interior. There is charcoal under and around the flag-

stones. The tent ring is located on the very edge of the terrace and part of the periphery has slid down the cliff.

Feature 16

Tent ring

Ruin 16 is located a few metres to the west of ruin 15, to which it is similar in appearance. The ruin was excavated in 1950 and 1963, but apart from a flint flaker just a few lithic artefacts were found (LI.6553-6554, LI.7967-7970).

Table 5.12. Lithic Artefacts Deltaterrasserne terrace E ruin 16.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblade cores	1
All flakes	1
Total	3

Feature 17

Flagstone platform

Feature 17 is a flagstone platform which contrary to all the ruins described above is located in an uneven boulder field similar to the surface of the active delta fan. A few pieces of charcoal were located under the flagstones.

Feature 18

Mid-passage dwelling (drawing 4; photo 667)

Ruin 18 is located in the uneven terrain behind or to the south of ruin 16. Prior to excavation the feature was only visible due to the presence of flagstones. However, during excavation a series of thin, vertically standing flagstones was unearthed. The flagstones form a 3 m long and c. 50 cm wide mid-passage with a central hearth marked by flagstones placed transversely between the two walls in the passage. The hearth box is paved with one large flagstone. There was plenty of charcoal in that part of the feature. The vertically standing flagstones are deeply imbedded in the soil, and they have been kept in place by stones placed along the inside as well as outside. Only two flagstones are preserved in the eastern wall of the mid-passage, whereas four flagstones are preserved in the western wall. The 90 cm long flagstone 3 defines the rear of the mid-passage. From its southern end a vertically standing flag extends towards the west giving the mid-passage a wing to the rear. West of the northern end of the mid-passage, vertically standing flagstone 12 is a rudiment of a similar wing in this part of the dwelling. Behind the wing in the southern end of the mid-passage there are boxes paved with flagstones similar to those Knuth documented in ruin 5 on terrace D. The many stones and boulders scattered

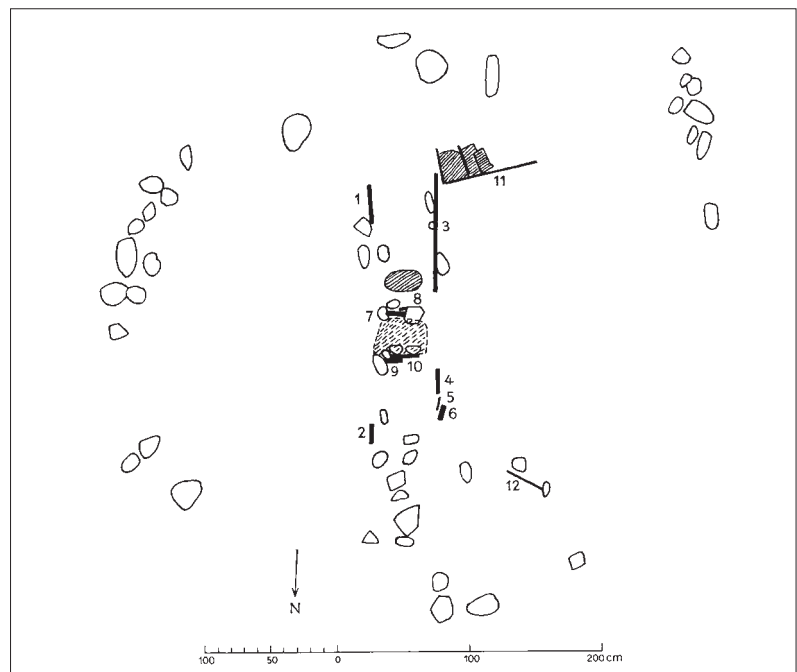


Fig. 5.17. (drawing 4) Deltaterrasserne feature 18.

both inside and outside the dwelling rendered the separation of manuports from natural stones difficult. However, part of a periphery was uncovered when Knuth removed 10 cm of gravel from the interior. Against the central portion of the eastern and western perimeter Knuth found pits with charcoal. Ruin 18 was excavated in 1950 and 1963 and apart from a few lithic artefacts Knuth also found two needles, two harpoon heads, worked bone and wood splinters (LI.5555-6560, LI.7971-7975). A radiocarbon date (K-5007) has been obtained for musk-ox bone of 2550 ± 70 BP which within one standard deviation gives a calibrated calendar date of between 810 and 520 cal. BC.

Fauna: Knuth collected 12 bone fragments – one caribou, five musk ox and six large terrestrial mammal. All but the caribou antler (125 g) were sent by J. Møhl for radiocarbon dating on 30th September 1987. The caribou antler is anomalous and could represent a local shed antler or a curated artefact. There are no indicators for the season of dwelling occupation.

Table 5.13. Lithic Artefacts Deltaterrasserne terrace E ruin 18.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	1
Microblade cores	1
All flakes	1
Total	5

Site Summary and Discussion

The artefacts, the radiocarbon dates and the layout of the Deltaterrasserne site demonstrate the composite nature of the occupations. As at the Hellebæk site to the west and Vandfaldsnæs further to the east there is evidence of both Independence I and II occupations. On Deltaterrasserne both periods are represented by several features suggesting that the site was used relatively intensely during both periods. When comparing the total number of lithic artefacts from the Independence I episode of occupation with that from Independence II, it becomes clear that the former settlement episode probably was much more intense and of greater duration than the latter. Deltaterrasserne is actually a good case for illustrating that this procedure should be used with caution. The solid structure of ter-

race D feature 5 suggests accordingly that very solidly built dwellings may occasionally have a very restricted lithic inventory. Details of the construction of feature 5 on terrace D show it to be a dwelling built for a long period of use, probably during the cold season. However, the lithic inventory (table 5.10) comprises only very few artefacts suggesting that the feature was only used for a short period of time. This contradictory evidence may support Knuth's (1967a) suggestion that the Palaeo-Eskimos of Peary Land lived during winter in a state of lethargic low activity. The problem with this interpretation is that humans cannot actively lower their metabolism. Even the lowest levels of activity require that food is prepared and water melted on a daily basis. Over time, even the maintenance of such basic needs would undoubtedly have created considerable amounts of bone refuse, as well as greater quantities of lithic debitage than that found by Knuth.

Table 5.14. Lithic Artefacts from all Independence I ruins at Deltaterrasserne.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	9	10.8	83	15.7
Microblades	27	32.5		
Burins	2	2.4		
Burin spalls	6	7.2		
End scrapers	8	9.6		
Retouched flakes	19	22.9		
Axes	5	6.0		
Microblade cores	2	2.4		
Unspecified tool	5	6.0	444	84.3
All flakes				
Total	83		527	100.0

Table 5.15. Lithic Artefacts from all Independence II ruins at Deltaterrasserne.

Artefact category	All artefacts
Bifaces, all fragments included	6
Microblades	1
End scrapers	1
Side scrapers	1
Retouched flakes	1
Microblade cores	3
All flakes	5
Total	18

5.7 Glaciolog Elv

Undated

82Ø2-000-054

Cache (site no. 413; photo 1109)

The Glaciolog Elv site (Glaciologist River) is an isolated cache located at the eastern side of the delta fan. Knuth believed the cache to be of Thule origin. Apart from two photographs in the Knuth Archive the site is only mentioned in Knuth's Baedeker.

5.8 Fladenæs

Undated

82Ø2-000-055

Cache (site no. 414)

Fladenæs (Flat Point) is a small point with a couple of undated caches located on the southern shore of Jørgen Brønlund Fjord, 900 m east of the Deltaterrasserne site. The site is only mentioned in Knuth's Baedeker.

5.9 Zoolog Elv

Thule

82Ø2-000-056

Tent rings (site no. 391, texts 681, 683, 684; photo 1111) Two kilometres east of Deltaterrasserne, a fan-shaped delta has been deposited at the outlet of Zoolog Elv (Zoologist River). At the back of the alluvial fan there is a waterfall, and on a sloping terrace just west of the delta there are a few tent rings of unknown age. In 1963 Knuth excavated parts of the feature but he did not find any artefacts. He describes the ruin as follows: 'On the slope of a lower terrace below the cache there are several boulders and large flagstones that may be a tent ring which has slid down. Meticulously, we search the terrace and dig a little in the gravel, but we find nothing'.

5.10 Kajak Elv

Thule

Find spot (site no. 415, photo 1110)

Kajak Elv (Kayak River) is the name of a river on the

southern shore of Jørgen Brønlund Fjord. A minor alluvial fan has been deposited at its outlet into the fjord. In the innermost part of the delta fan there is a waterfall with a pool where arctic char can be seen in the summer months. Below the cliffs to the west of this pool, wood fragments of an Inuit kayak were found.

5.11 Brinken

Independence I

82Ø2-000-027

Site no. 323

Brinken (the Brink) is an Independence I hearth located 21.5 m a.s.l. on the edge of a steep cliff facing towards the fjord, 2 km to the east of Kajak Elv. No finds.

5.12 Flaghøj

Independence I

82Ø2-000-024

Site no. 320; drawing 129; photos 731, 1244

Flaghøj (Flag Hill) is a protruding 64 m high peak located 2.3 km to the east of Kajak Elv. A mid-passage ruin is located approximately 13 m a.s.l. below the north-west corner of the hill and close to the river Lersø Elv (Claylake River) (figs. 5.18 and 5.19). The ruin has a 3 x 4 m oval or sub-rectangular tent ring of black boulders. The rudimentary mid-passage has a flagstone pavement but only a few vertically standing flagstones. The ruin was excavated in 1963, but only a single flake was found (LI.7856).

Table 5.16. Lithic artefacts Flaghøj.

Artefact category	All artefacts
All flakes	1

5.13 Vesterbro

Independence I

82Ø2-000-028

Site no. 324

Open-air hearth

Vesterbro (Vesterbro is a district – like the West End in

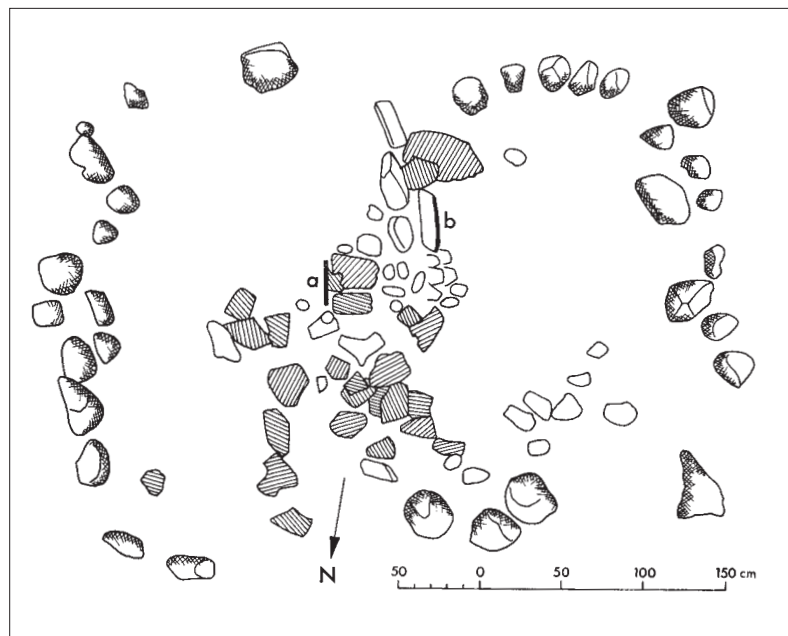


Fig. 5.18. (drawing 129) Flaghøj.

London – in the western part of Copenhagen). Vesterbro is an isolated Independence I hearth. The site is mentioned by Knuth in his 1967b monograph, but there are no photographs or other documentation from the site. In the site list Vesterbro is marked with the signature for an isolated box hearth.



Fig. 5.19. (photo 1244) Tent ring with mid-passage at Flaghøj seen from the east, 31/5-1968. Predominantly black boulders appear to have been selected for the tent ring.

5.14 Harehøj

Unknown date

82Ø2-000-025

Site no. 321

Caches

Harehøj (Hare Hill) is the name of a hill located approximately 500 m west of Brønlundhus. Two circular caches are located on a clay ridge near the beginning of an area of gravel surface that covers the top of the hill. Knuth believed the caches to be of Independence I origin, but as usual, with dates for isolated caches, it is more a matter of opinion than fact.

5.15 Vardehøj

Unknown date

82Ø2-000-057

Site no. 392; text 685

Cache

Vardehøj (Cairn Hill) is a minor cairn located beside a rectangular boulder periphery with an opening towards the fjord. The feature contained several pieces of driftwood and a small piece of skin, but there was neither charcoal nor other signs of fire. As a consequence, Knuth speculated whether the periphery was

Fig. 5.20. (photo 729) Pyritnæs, feature 1, boulder feature on shore below steep cliffs, 23/7-1969.



a cache for driftwood or whether it may be a sort of grave. In support of the latter, he mentioned that the dimensions of the periphery are such that a corpse would just fit into it. The feature is located 8.58 m a.s.l., which made it difficult for Knuth to believe that the ruin is of Independence I origin (text 685). In spite of this, he included the Vardehøj feature in his Independence I site list where it is marked with the signature for an isolated box hearth. In the Baedeker the site is described as a hearth with some wood scattered around. Apart from these sources there is no other archival information on the site. Vardehøj is located approximately 1 km south-east of Brønlundhus. The ruin was excavated in 1969 whereby Knuth recovered 36 pieces of driftwood (LI.9621).

5.16 Pyritnæs

Thule

82Ø2-000-058

Site no. 340; text 673; photos 727-730, 1245-1246

Pyritnæs (Pyrite Point) is a low point below clay cliffs on the central southern shore of Jørgen Brønlund Fjord. Knuth registered two ruins and one open-air hearth.

Feature Descriptions

Feature 1

Tent ring

Approximately 4 m from the beach Knuth found an oval boulder periphery, 4.8 m long with its long axis towards the fjord (figs. 5.20 and 5.21). Drifting sand



Fig. 5.21. (photo 1246) Pyritnæs, view over the boulder features at Pyritnæs, 23/7-1969.

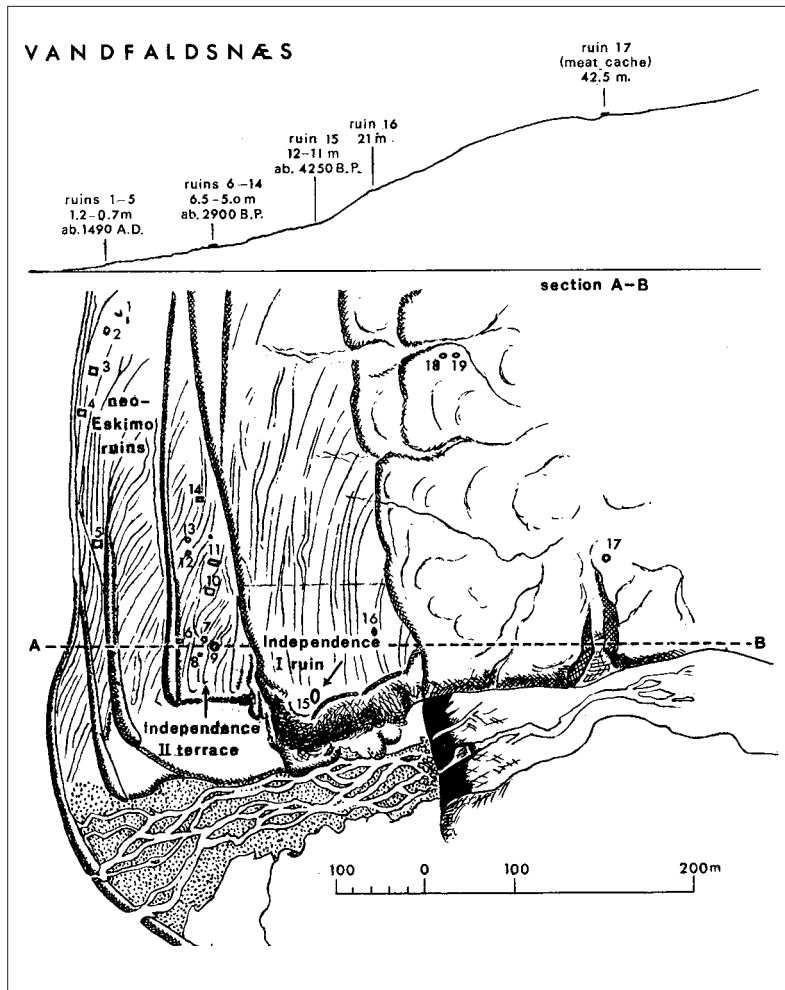


Fig. 5.22. (drawing 128) Site map of Vandfaldsnæs.

disturbed the feature, but Knuth found that it was comprised of three minor stone rings in succession. The sand and clay matrix within these stone rows was filled with wood shavings.

Feature 2

Cache or tent ring (photos 725, 1245)

On a higher part of the point, approximately 10 m west of feature 1, there is a periphery of large stones standing on edge and deeply embedded in the sub-stratum. Facing the fjord is a 1.9 m long straight front wall, whereas the narrower back of the feature is rounded giving it a depth of 2.18 m. The dry clay and drifting sand prevented Knuth from conducting a proper excavation, but no finds were made in the excavated areas. Knuth thus found it difficult to decide whether the feature is a cache or a dwelling.

Feature 3

Open-air hearth

A few metres in front of feature 1 there is an E-shaped double chambered hearth, 1.2 m long and 50 cm wide. The chambers are open towards the west. The inside of the hearth was filled with charcoal and wood shavings prepared for the fire.

Site Summary and Discussion

Photos 727, 730 and 1246 are overviews of the site, photos 728, 729 and 1245 are details of feature 2. Knuth's feature numbers are inconsistent since feature 2 on the latter photos is named 'anlæg 1' (on photo 728), 'tomt A' (on photo 1245) and 'teltplads E' (on photo 729). Disentangling the different numbers is not made any easier by the fact that in the text (text 673) this feature is apparently named 'tomt 2'. However, the limited number of features makes the recognition of feature 2

relatively easy, being the same as the boulder feature on photos 728, 729 and 1245. Judging from these photographs, feature 2 looks more like a cache than a dwelling, but it could just as well be a ruin of the shelter type. In the Baedeker Knuth considered the site to be of Thule origin. To sum up: Pyritnæs can be described as a minor Thule site with one or two dwelling structures and an open-air hearth.

5.17 Vandfaldsnæs

Independence I, II and Thule

82Ø2-000-010

Site no. 307; texts 670, 671, 672; drawings 128, 161, 162; photos 736-745, 1247-1251, 1419

Vandfaldsnæs (Waterfall Point) is a large and complicated site with Independence I, Independence II and Thule ruins scattered over a distance of several hundred metres on different terraces (fig. 5.22). The following feature description is based on Knuth's site description, in which the features are numbered and described systematically, going from the lowest and most recent ones towards the highest and most ancient ruins. The Vandfaldsnæs is a rounded point with ancient gravel terraces forming a stairway to the hinterland. Towards the west the point is delimited by Arkæolog Elv (Archaeologist River) and in a narrow gorge at the base of the point the river falls over a cliff.

Features and Finds from the Beach Terrace, (1.66 m a.s.l.), Thule

Feature 1

Tent ring (photo 1251)

Feature 1 is a 2 x 3.7 m oval of ten stones. Within the periphery there are a few large flagstones. The front of the feature has slid down. In the vicinity of the feature Knuth found a blade of walrus tusk with three drilled holes and lashing marks at the proximal end (Lr.6506).

Feature 2

Flagstone periphery

Feature 2 is a periphery of up to 1 m long flagstones located 5 m from the shore and approximately 87 paces east of feature 1. All the flagstones are laid on top of

the gravel and the feature appears to have been disturbed by cryoturbation and pack ice.

Feature 3

Flagstone pavement

Feature 3 is a flagstone cluster located on the slope of a beach terrace 8 m from the shore and approximately 22 paces east of feature 2. The flagstones did not appear to have been placed in any specific order and several flags were partially sunken into the clay substratum.

Feature 4

Flagstone pavement

Feature 4 is a flagstone pavement located approximately 20 m from the shore and 21 paces east of feature 3. The flags are partially sunken into the clay substratum.

Feature 5

Hearth and flagstone pavement

Feature 5 is a rudimentary flagstone pavement and a hearth with a few boulders located ten paces east of feature 4. Knuth found two pieces of caribou antler (Lr.6507-6508) and a disintegrated piece of narwhal tooth with a drilled perforation (Lr.6509) presumed to be a sledge shoe.

Fauna: A number of bones collected around features 1 to 5 have been analysed by Ulrik Møhl from the Zoological Museum in Copenhagen: Musk ox (*Ovibos moschatus*): fragment of right mandible with milk teeth; fragment of mandible with m3; lower part of distal end of right and left mandible with symphysis (fitting together); proximal end of left mandible; fragments of left *scapula*; distal fragment of *tibia*; three fragments of ribs and ten fragments of limb-bones. Ringed seal (*Phoca hispida*): fragment of *ulna* and *radius*, and caribou (*Rangifer tarandus*): two pieces of antler, as already mentioned.

Features and Finds from Terrace 3 (5 m a.s.l.), Independence II

In Knuth's site list four dwellings and eight other features are listed on terrace 3. Not all of these features are described in detail, however, so it is difficult to be certain about the exact character and location of all of them. Faunal collections from all Independence II

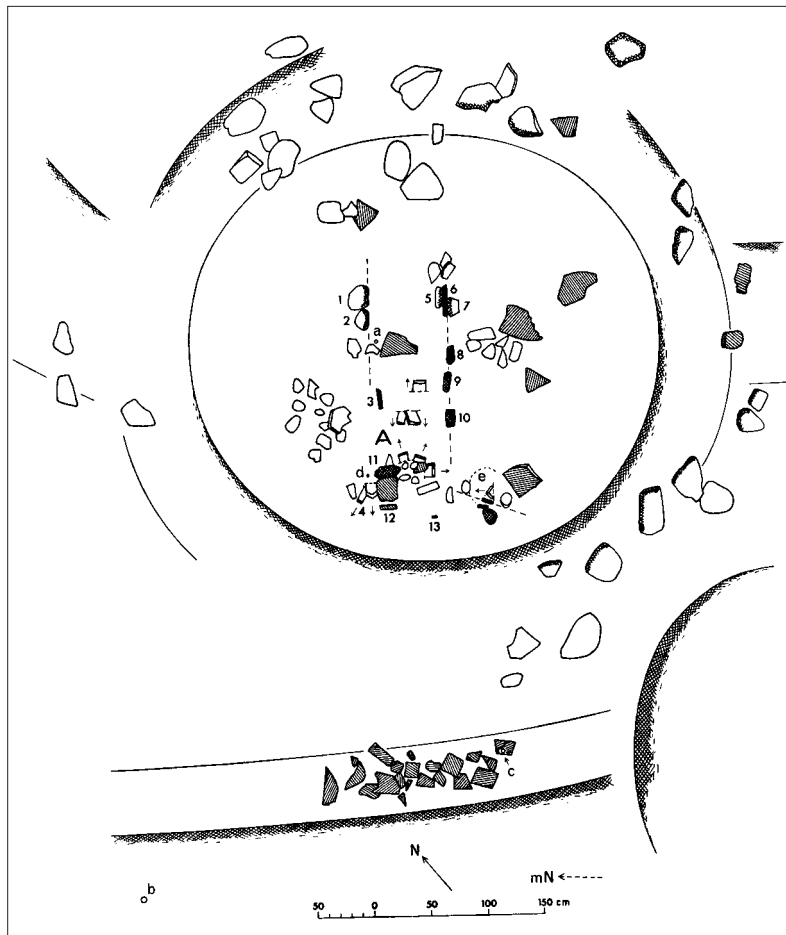


Fig. 5.23. (drawing 161) Vandfaldsnæs, feature 9.

features from which bone was collected were examined.

Feature 6 (photos 741, 1247)

Feature 6 is the westernmost feature on terrace 3, located 70 paces from the shore on the front slope of the terrace. The feature is a 1.3 x 1.72 m rectangular ring of tightly packed boulders and flagstones lying 'on top' of the gravel surface.

Feature 7

Irregular boulder structure

Feature 7 is an aggregation of boulders located ten paces behind feature 6.

Feature 8

Open-air hearth

Feature 8 is a hearth with vertically standing flagstones located nine paces west of feature 7.

Feature 9

Tent ring (drawing 161; photos 737, 1248)

Feature 9 is a rudimentary rectangular boulder periphery in which three of the cornerstones appear to be solidly embedded in the sub-stratum (fig. 5.23). There are several flagstones and cobbles within the periphery. Feature 9 was excavated in 1950, 1963 and again in 1970-1971, whereby Knuth recovered a wealth of organic items as well as a minor collection of lithic artefacts (LI.6504-6505, LI.7563-7614, LI.9767-9768). Among the many organic artefacts are 17 needles, several with an oval eyehole preserved, four harpoon heads, a fragmented cloven-hooved lance, musk-ox teeth pendants (plate 54), a birch bark roll and several wood pins (Knuth 1968). Three radiocarbon dates (K-933, K-934 and K-5008) have been obtained for driftwood (*Larix* sp. and *Picea* sp.) and musk-ox bone. The dates are, respectively, 3180 ± 110 BP, 2740 ± 100 BP and 2430 ± 70 BP which, within one standard deviation give calibrated dates of between 1610-1310 cal. BC,

1000-800 cal. BC and 760-380 cal. BC. Only the latter date should be used in cultural-historical reconstruction due to the problems related with the use of driftwood for dating.

Fauna: In the faunal collections at the Zoological Museum the material excavated in 1950 is labelled as Dorset Slottet. The feature was given a number on subsequent excavations. A total of 250 faunal specimens were recovered from this feature (90 unidentified). The identified portion of this assemblage is composed of 5.6% fish, 14% bird, 2% hare, 5.2% fox, 25% seal and 12% musk ox. At least one char, one cod, four geese (two juvenile and two adult), one duck, two ptarmigan and one each of hare, fox and musk ox, as well as two seals are represented by this assemblage. Taking into account the MNI counts, bird appear to be under-represented by the use of NISP alone as a quantitative method as there are seven birds compared with one musk ox. Little of the bone at this site has been burnt, cut or cracked for marrow (3%). Since seals are fatty animals that do not have a marrow cavity it is not surprising that so few bones have been fractured. In September 1987 T. Berg sent seven musk-ox and large terrestrial mammal bone fragments (62g) for radio-carbon dating.

The high relative frequency of bird and fish remains is suggestive of summer occupation of this boulder-surrounded tent ring. A minimum of two seals (*fibula*) were deposited at this locality; one of these is a male yearling between one and three years of age and the other is at least four to five years of age (Storå 2002a, b). The yearling seal was likely taken from a rookery or from open water at the lead edge of the ice, as juvenile ringed seals cannot sustain breathing holes.

Table 5.17. Lithic artefacts Vandfaldsnæs ruin 9.

Artefact category	All artefacts
Microblades	2
Burin spalls	1
All flakes	4
Total	7

Table 5.18. Lithic artefacts Vandfaldsnæs ruin 9a.

Artefact category	All artefacts
Bifaces, all fragments included	3
Microblades	4
End scrapers	2
Retouched flakes	1
Total	10

Feature 10

Tent ring (photo 740)

Feature 10 is an 1.5 x 2.7 m oval flagstone periphery located 30 paces east of feature 9 and 14 paces from the edge of the terrace. All the flagstones are placed loosely on top of the gravel and the short axis faces the sea. The feature was excavated in 1963 and 1964 whereby Knuth recovered lithic as well as organic artefacts (LI.7618-7630, LI.8210). Among the organic artefacts are a needle, two flint flakers and a bone pin with an oval hole in the middle. Knuth suggested that the latter was a gull or wolf hook (see plate 54) or a rough-out for a needle.

Fauna: Knuth collected ten bone fragments (two unidentified). This assemblage consists of 37.5% char and unidentified fish, 50% seal and 12.5% musk ox. The seal remains are probably those of a single ringed seal that died at between four and eight years of age – a mature adult. The limited faunal material and the presence of seal and char may be indicative of warm season occupation.

Table 5.19. Lithic artefacts Vandfaldsnæs ruin 10.

Artefact category	All artefacts
Bifaces, all fragments included	3
Microblades	3
Microblade cores	1
All flakes	6
Total	13

Feature 10b

Three scrapers (LI.7615-7617) are registered as surface finds collected from feature 10b in 1963. However, feature 10b is not mentioned in the Knuth Archive. Presumably they were collected in the immediate vicinity of feature 10a.

Table 5.20. Lithic artefacts Vandfaldsnæs ruin 10b.

Artefact category	Tools
End scrapers	3

Feature 11

Tent ring (photo 1249)

Feature 11 is a rudimentary periphery of smaller stones and flags located 18 paces east of feature ten and 18 paces from the terrace edge. The feature was excavated in 1963 and 1964, whereby Knuth recovered a rich lithic inventory as well as numerous organic artefacts (LI.763I-7694, LI.821I-8219). The latter category comprises 19 needles, several of which have the oval eyehole preserved, a wood peg, a flint flaker as well as pieces of worked bone. In the inventory list at the National Museum of Denmark the finds from feature 11 are listed as being from 'tomt 11', 'tomt 11a' and 'tomt 11b'. In Knuth's site list only ruins 11a and 11b are mentioned.

When reading the description in the inventory list it becomes clear that the finds listed as being found in ruin 11a (LI.9567-9570) (apart from a single piece of worked walrus tusk (LI.9567) found in the spoil from earlier excavations) actually were found 3-4 m east of feature 11 in an area with many bone splinters which Knuth named 11b. Conversely, they were found in front of or behind feature 11, corresponding to north-east or south of the boulder structure. From this we learn that the finds from feature 11 are either from within feature 11 proper (11a) or they are from an area outside of feature 11, which Knuth named ruin 11b, or they are from other areas in the near vicinity of feature 11. In Knuth's site list it appears that the finds from 11b and other finds outside feature 11 are lumped together as coming from 11b. This principle has been applied here, even though this listing results in minor discrepancies when compared to the inventory list at the National Museum of Denmark. The finds from the outdoor areas (LI.9568-9570, LI.978I-9784) were recovered during excavations in 1968, 1969, 1970 and 1971.

A radiocarbon date (K-5009) has been obtained for musk-ox bone of 2570 ±70 BP. Within one standard deviation this gives a calibrated date of between 820 and 540 cal. BC.

Fauna: 61 bone fragments (20 unidentified) were collected. On 30th September 1987 T. Berg sent seven musk-ox and large terrestrial mammal bone specimens

for radiocarbon dating. Seal comprises 41.5% of the identified assemblage followed by fish (31.7%), musk ox and large terrestrial mammal (19.5%), bird (4.9%) and hare (2.4%). A minimum of a single individual of each species is represented at this location. The seal that was procured at this site was an older adult between seven and eight years of age. The predominance of seal and fish suggests warm season occupation.

Table 5.21. Lithic artefacts ruin 11a.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	7	21.2	33	11.1
Microblades	16	48.5		
Burin like tools	1	3.0		
End scrapers	3	9.1		
Axes	3	9.1		
Microblade cores	2	6.1		
Large flake/rough-out	1	3.0	265	88.9
All flakes				
Total	33	100.0	298	100.0

Table 5.22. Lithic artefacts ruin 11b.

Artefact category	All artefacts
End scrapers	1
All flakes	95
Total	96

Feature 12

Flagstone pavement

Feature 12 is an irregular aggregation of flagstones located diagonally in front of feature 11 and approximately 6 m from the terrace edge.

Feature 13

Boulder periphery (photo 745)

Feature 13 is a small irregular boulder periphery located east of feature 12.

Feature 14

Boulder periphery

Feature 14 is semi-circle of eight tightly packed boulders deeply imbedded in the sub-stratum. The boulders outline the rear wall, whereas the side walls and front of the periphery are missing. In front of the semi-

circle there are some flagstones. This rudimentary dwelling is located 38 paces east of feature 11 and 15 paces from the edge of the terrace. Knuth excavated the feature or parts of it in 1964, whereby he recovered a biface and a flake (LI.8240-8241).

Table 5.23. Lithic artefacts Vandfaldsnæs ruin 14.

Artefact category	All artefacts
Bifaces, all fragments included	1
Other tool	1
Total	2

Features and Finds from the 10 m Terrace, Independence I

Feature 15

Tent ring (photos 736, 739, 1250)

Feature 15 is a rudimentary dwelling structure disturbed by solifluction in the sloping terrain both behind and in front of the feature. This makes it appear as an amorphous aggregation of boulders located on the edge of the cliff facing towards the river that bounds the narrow terrace to the west (fig. 5.24). In the gravel between the boulders Knuth found artefacts down to a depth of more than 50 cm. Excavations were carried out in 1947, several times during the overwintering expedition from 1948 to 1950, during a single night in 1960 and again in 1964, 1968-1969, 1970 and in 1973 when spoil from earlier excavations was examined. During these excavations Knuth recovered a rich inventory of lithic as well as organic artefacts in a gravel matrix also rich in charcoal and charred bone (LI.6473-6503, LI.7391-7411, LI.7695-7855, LI.8220-8239, LI.9571-9581, LI.9769-9770, LI.9785-9786). Among the organic artefacts are six pieces of worked bone and six needles, two of which have the round eyehole preserved. Refitting conducted by Linda Owen (1983) has shown that microblade LI.6491 can be refitted with LI.7757, and that another microblade, LI.7754, can be refitted with LI.6479. Two radiocarbon dates have been obtained for material from feature 15 on the 10 m terrace. A sample of driftwood charcoal (*Salix* sp.) (K-932) was dated to 3780 ± 120 BP. Within one standard deviation this gives a calibrated date of between 2410-2030 cal. BC. A sample of musk-ox bone (K-5740) was dated to 3570 ± 80 BP which within one

standard deviation gives a calibrated calendar date of between 2030-1770 cal. BC.

Fauna: Knuth recovered a total of 308 bones from feature 15, including 107 unidentified fragments. Fish remains comprise 2.1%, bird 58.3%, hare 8%, fox 15.5% and artiodactyl, musk ox and large terrestrial mammal 16% of the identified assemblage. This assemblage is clearly dominated by bird remains. Nearly half (49.5%) of these are from juvenile birds which suggests this dwelling was occupied during the summer breeding season of migratory species. The bird remains are composed of 25.7% goose (cf. brent goose), 3.7% eider, 21.1% ptarmigan, 4.6% gull and 45% unidentified. A minimum of three geese (two juvenile, one adult), two eider (one juvenile, one adult), three ptarmigan (two juvenile, one adult), and two gulls (one juvenile, one adult) are represented by the bird assemblage. The mammal assemblage is represented by a minimum of one hare, two foxes, and two musk oxen (one adult, one juvenile). Few bones from this feature are culturally modified (one burnt, four spirally fractured).

Table 5.24. Lithic artefacts Vandfaldsnæs feature 15.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	20	10.8	185	11.3
Microblades	82	44.3		
Burins	5	2.7		
Burin spalls	40	21.6		
Side blades	10	5.4		
End scrapers	4	2.2		
Side scrapers	4	2.2		
Retouched flakes	11	5.9		
Axes	2	2.2		
Microblade cores	1	0.5		
Unspecified tool	6	3.2		
All flakes			1472	88.7
Total	185	101.0	1657	100.0

Features and Finds from the 19 m Terrace

Feature 16

Cache (photos 738, 1251)

Feature 16 is a 200 x 80 cm boulder oval of minor but solidly imbedded boulders. The periphery sits on a narrow ledge facing the fjord with its long axis. Knuth compares the feature to similar structures at the site of



Fig. 5.24. (photo 1250) Vandfaldsnæs, feature 15. As seen on the Flaghøj site (no. 320), black stones appear to have been chosen deliberately for the tent ring. Feature 15 is the Independence I feature with most finds known from Jørgen Brønlund Fjord yet, as can be seen on the photo, the tent ring is poorly defined, and there is no well defined hearth.

Oksejægerpynten and Kap Peter Hendrik. A test excavation at the eastern end of the structure revealed that, at a depth of 10-15 cm below the hardened clay surface, there were large rounded boulders, then a sandy layer and below this a gravel sub-stratum.

Features and Finds from the 42 m Terrace

Feature 17

Cache

Feature 17 is a monumental boulder heap on top of the hill behind the Vandfaldsnæs. At the centre there is a boulder circle with a diameter of 2.2 m. The smaller stones surrounding the circle could have served to cover and protect the contents of the cache. In the cache Knuth found a fragment of a biface (LI.8242) suggesting that it is of Palaeo-Eskimo origin.

Table 5.25. Lithic artefacts Vandfaldsnæs feature 17.

Artefact category	Tools
Bifaces, all fragments included	1

Feature 18 and 19

Stone rings

Features 18 and 19 are not described individually. On the site list (text 850) and on a list with levels (text

672) they are, however, described as stone ovals. Both are located high in the terrain behind the point at levels of 28 and 29 m a.s.l respectively.

Table 5.26. Lithic artefacts collected as single finds on Vandfaldsnæs.

Artefact category	Tools
Bifaces, all fragments included	1
Unspecified tool	1
Total	2

Site Summary and Discussion

Vandfaldsnæs provides a classic example of the effects of post-glacial emergence elucidated by the location of prehistoric coastal settlements. The descending terraces in the diluvial fan deposited by Arkæolog Elv form a stairway to the hinterland as well as to the pre-history of Peary Land. On the lowest terraces ruins were left by the most recent settlers, the Thule people. At other localities in Peary Land these have been dated to the 15th century AD. In the vicinity of the Thule structures there are no lithic artefacts but discarded bones and worked bone objects have been found. Among the modified bone objects there is a fragment of narwhal tooth with a drilled hole, presumably a fragment of a sledge shoe. Ascending to the higher terraces located 5-6.5 m a.s.l. one steps into the centuries between 800-400 cal. BC. In and around the boulder tent rings left by the Independence II people one finds lithic artefacts and self-bladed harpoon heads with bilateral basal spurs, open sockets and a line hole going through from the dorsal to the ventral side (fig. 5.25, plate 54). Comparable harpoon heads are known from the Early Dorset culture in West Greenland and from prehistoric settlements on the 20-23 m levels in the region around Igloolik in Arctic Canada. Like the lower lying Thule features, the Independence II ruins are scattered along an almost 200 m long terrace with no obvious relationships between the individual features. However, features 6, 7, 8 and 9 do cluster at the western end of the terrace. It is thus reasonable to suggest a relationship between the open-air hearth, feature 8, and the mid-passage dwelling, feature 9, whereas the boulder structures, features 6 and 7, are more difficult to deal with. No finds were made in these features, and one may thus ask whether they

Fig. 5.25. (plate 54) Independence II bone artefacts from Vandfaldsnæs feature 9. The three perforated tooth pendants seen in the centre-right part of the plate are the only Palaeo-Eskimo examples known from Greenland.



really are Independence II structures or whether they are of Thule origin?

The situation with an open-air hearth located some metres in front of a dwelling relatively rich in finds is repeated at dwellings 10 and 11 which can be paired with open-air hearths 12 and 13. Features 10 and 12 and features 11 and 13 are mutually related in the sense that they constitute functional units in the form of dwellings with related outdoor activity areas. There is no evidence to suggest whether features 9, 10 and 11 and outdoor hearths 8, 12 and 13 are contemporaneous or whether they represent three consecutive episodes of habitation. The implementation of systematic refitting analysis could be a method by which to investigate the relationship between the individual features.

Continuing the walk from the shore towards the hilly hinterland, from the present towards the remote

past, one ascends the 11-12 m terrace where the Independence I people lived around 4200 years ago. At this early stage the lower delta terraces were probably not yet developed, or they were still under deposition and thus unattractive as a location for settlement. Features 15 and 16 are the only features on the 11-12 m terrace, and since no finds were made in feature 16, which also shows structural similarities to Thule features on other sites, it seems reasonable to regard feature 15 as an isolated Independence I dwelling. Feature 17 is one of the few caches where artefacts have been found, and the presence of a biface fragment indicates that the cache should be related to the Independence I or II settlement at the site. The general impression of the settlement at this particular site is one of an initial Independence I occupation consisting of just one social unit living in a tent dwelling with no evident internal division of the living space, as known from



Fig. 5.26. (photo 1253) Midternæs, feature 1. 29/7-1969.

numerous other Independence I dwellings. The fact that artefacts were found down to a depth of 60 cm below the surface may be a result of the floor originally having been dug into the ground and the many finds from within the dwelling can be seen as resulting from most activities having been carried out indoors. Feature 15 could be a cold season dwelling. The Independence II dwellings also have many finds from their interiors but these features also appear to have related outdoor hearths with associated activity areas. This may suggest that these dwellings were not used during the depth of winter but in seasons when light and temperature permitted outdoor activities. There is little evidence to suggest the seasonality of the Thule ruins on the lowest terraces but the flimsy appearance of most of these structures can be seen as an indication of warm season habitation since more solid structures would be expected during colder seasons.

5.18 Midternæs

Independence I, Thule

82Ø2-000-008

Site no. 306; texts 668, 669; drawings 126, 127, 251; photos 723, 724, 725, 726, 1252, 1253; plates 53, 73.

Midternæs is located approximately 400 m to the east of Vandfaldsnæs. Midternæs (Middle Point) is the middle point of three marking the transition from the N-S oriented outer part of Jørgen Brønlund Fjord to the NW-SE oriented middle run of the fjord (see fig. 5.1).

The point comprises a system of gently rising gravel terraces deposited in front of a boulder-strewn hill. To the west of Midternæs there is a minor river with an active stone filled delta fan. Knuth describes six ruins at the Midternæs site but unfortunately only four ruins are marked on the site map. It is therefore rather difficult to give a thorough description of the location of the ruins. There is also disagreement between Knuth's description of the location of the features (text 669) and the feature numbers marked on a transparency (drawing 251) fitting over an aerial photo (photo 726). These discrepancies make it difficult to relate the feature numbers from the feature description (text 669), photographs and drawings to the numbered marks on the site map with any certainty. We have therefore chosen to use the feature numbers used by Knuth in text 669. The site list (text 850) also suffers from incompleteness since ruins 2, 3a, 3b, 4, 4a, 5 and 6 are listed on the site list with Independence I ruins, whereas ruin 1 is not mentioned on any of the lists. Knuth collected faunal remains from three features at the Midternæs site: features 3, 5, and 6.

Features and Finds from Midternæs

Feature 1

Tent ring (text 669; photo 1253)

Feature 1 is an approximately circular tent ring located on a gravel terrace a few metres above sea level and approximately 100 paces from the shore. 30-40 cm boulders mark the periphery and in the central part of the western and eastern wall section 30 cm high boulders have been placed in an upright position (fig. 5.26). The diameter between the two upright stones is 3.8 m. Within the periphery there are fragmented flagstones. The elevation of feature 1 and the fact that no lithic objects have been found here suggests that it is of Thule origin.

Feature 2

Tent ring (text 669)

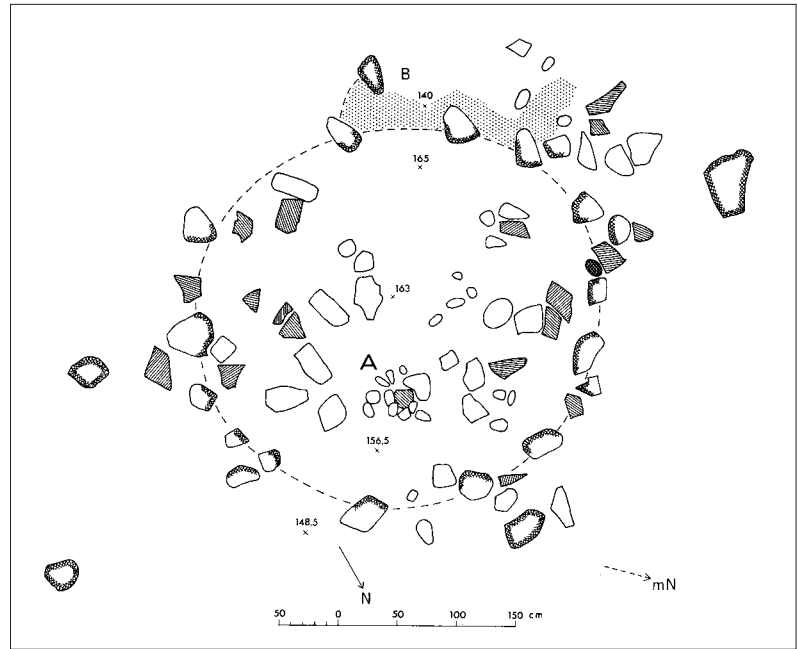
According to text 669 feature 2 is located further to the west and is marked by an aggregation of boulders and flagstones which have partly slipped down the cliff towards the river.

Feature 3

Tent ring (text 669; drawing 126; photo 1252)

Feature 3 (fig. 5.28) is the best preserved of the ruins

Fig. 5.27. (drawing 126) Midternæs, feature 3.



at Midternæs. It is located 15 paces west of feature 2. Larger and smaller boulders mark the periphery of feature 3. Knuth suggests that the front section of the interior has been paved with flagstones even though there are no evident signs of such a pavement on the drawing (Fig. 5.27). Knuth found charcoal in the interior and he measured the feature to be 3.2 m wide and 2.95 m from front to back. These measurements fit well with those for the periphery on drawing 126. The feature number on drawing 126 seems, accordingly, to be correct in relation to feature number 3 in text 669. A relatively large inventory of lithic as well as organic artefacts has been excavated from feature 3. Some of these objects are noted as having been deeply embedded in the sub-stratum (LI.7529-7561), whereas others are registered as deriving from feature 3 with no further specification (LI.7525-7528 and LI.8200-8203). Other findings are noted as coming from feature 3b (LI.9582-9585). Among the organic artefacts, at least seven needles were found in feature 3.

Fauna: Sixty-five bone specimens were recovered – this includes 24 unidentified pieces. Eider, goose, ptarmigan and unknown bird comprise 36.6%; hare is 22%, fox is 7.3%, seal is 19.5%, and musk ox and large terrestrial mammal are 12.2% of the identified assemblage. A single collared lemming bone is probably intrusive. This is a summer, or warm season, locality, where the occupants took advantage of seasonal and

breeding waterfowl along with seals moving into Jørgen Brønlund Fjord after ice break-up. Each genus or species of animal represent a minimum of only a single individual. If all seal bone is from one animal it was probably no older than about five years (Storå 2002a, b) at the time of capture.

There is minimal cultural modification of this material (e.g., none of the bone is burnt).



Fig. 5.28. (photo 1252) View over Midternæs with feature 3 in the front right. Photo by Hans Berg, 20/5-1966.

Table 5.27. Lithic artefacts Midternæs feature 3.

Artefact category	All artefacts
Microblades	2
End scrapers	1
All flakes	10
Total	13

Table 5.28. Deeply embedded Lithic artefacts Midternæs feature 3.

Artefact category	Tools	%	All artefacts	%
Microblades	11	78.6	14	9.7
Burins	1	7.1		
Side scrapers	1	7.1		
Unspecified tool	1	7.1		
All flakes			131	90.3
Total	14	99.9	145	100.0

Table 5.29. Lithic artefacts Midternæs feature 3b.

Artefact category	All artefacts
Microblades	1
Burin spall	1
All flakes	4
Total	6

Feature 4

Tent ring

Feature 4 is a 2 x 2 m periphery of boulders located 200 paces from the shore and approximately 6 m a.s.l. on a terrace two steps higher than the terrace on which feature 1 is located. Large portions of the feature have slid down the slope.

Features 5

Tent ring (texts 668, 669; drawing 127)

Features 5 and 6 are gravel berm tent rings located 20 paces apart behind features 2 and 3 but on the same terrace as these. The features appear as inconspicuous aggregations of cobbles and flagstones difficult to distinguish from similar natural phenomena caused by solifluction. However, in both features 5 and 6 Knuth discovered thick layers of charcoal, pieces of wood, fire-cracked rocks, burnt bones and bone splinters. Feature 5 is located 13.33 m a.s.l. A limited inventory of lithic and organic artefacts was found here. Among the organic artefacts are a polar bear tooth and three needles (LI.8204-8208, LI.9586-9590).

Fauna: Knuth collected 71 bone fragments from

feature 5 including 37 unidentified pieces. Char or unidentified fish comprise 26.5%, bird 29.4%, hare 2.9%, fox 11.8% and musk-ox, artiodactyl and large terrestrial mammal bone 29.4% of the identified assemblage. It seems that this site, like feature 3, was occupied for a short duration during the summer months, although the latter did not have any fish remains.

Table 5.30. Lithic artefacts Midternæs feature 5.

Artefact category	All artefacts
Microblades	1
Burins	1
Side scrapers	1
All flakes	3
Total	6

Features 6

Tent ring (texts 668, 669)

Feature 6 is a gravel berm tent ring similar to feature 5 and is located 12.79 m a.s.l. A limited inventory of lithic and organic artefacts has been found here. Among the organic artefacts are a flint flaker and a needle case (LI.7562, LI.8209, LI.9591-LI.9605). Musk-ox bone from feature 6 has been radiocarbon dated (K-3364) to 3830 ± 85 BP, which within one standard deviation gives a calibrated date of between 2460-2140 cal. BC.

Fauna: Knuth recovered a total of 106 bone fragments from this feature; 46 were unidentified pieces. In January 1979 15 musk-ox bone fragments (96g) were sent for radiocarbon dating by J. Møhl. Arctic char and fish remains comprise 26.7%, bird 3.3%, hare 1.7%, fox 1.7%, seal 1.7%, and musk-ox, artiodactyl and large-terrestrial mammal bone 61.7% of the identified assemblage. Given the presence of numerous fish bones (minimum of two fish), along with bird and seal, this feature must be a short-term summer occupation. Apparently a greater number of musk oxen were butchered or consumed at this location. Not much can, however, be said about butchering practices as nearly all the fragments were used for dating.

Table 5.31. Lithic artefacts Midternæs feature 6.

Artefact category	All artefacts
Bifaces	1
Microblades	5
All flakes	4
Total	10

Fig. 5.29. (photo 721) Boulder features on partly eroded gravel terrace at the locality Springforbi, 13/6-1950.



5.19 Springforbi

Thule

82Ø2-000-059

Site no. 416; text 667; drawings 48, 250; photos 721, 722

Springforbi (Bypass) is the name of a minor Thule locality located on the shore a few hundred metres to the south-east of Midternæs (fig. 5.29). One boulder ring (photo 721) was found approximately 30 cm above the high water mark. In the rear section of the structure the boulders are set in clay, whereas the front has slid down due to the sea washing away the clay bank. Accordingly, the front stones in the periphery sit in the beach gravel. They are submerged at high tide. Several aggregations of boulders on the beach nearby may be remains of totally disrupted tent rings. In the Baedeker Knuth mentions this to be the only site where he has found evidence for submergence since the 15th century AD when the Thule people roamed these tracts. Behind the structure on the shore there is a small meltwater channel where Knuth found three interlocking boulder peripheries (drawings 48, 250). The meltwater has washed away any refuse in the structure but several bones, including musk ox, were found in the surrounding terrain.

5.20 Vendenæs

Independence I

82Ø2-000-009

Site no. 287; drawings 159, 160; plates 11, 39, 53

Vendenæs (Turn-around Headland) is a point located where the narrow NW-SE oriented central part of Jørgen Brønlund Fjord turns into the wide almost N-S oriented outer run. On a hilltop near the northern side of a river delta Knuth found five boulder peripheries from the Independence I period. Apart from drawings 159 and 160, however, there is no detailed description of the individual features. On the site list features 1 to 4 are marked as dwellings of undefined structure. Feature 5 is marked with a signature indicating a rudimentary tent ring with a central hearth. All the features are marked as having been excavated during visits in 1963-1964. During these excavations Knuth recovered several organic and lithic artefacts (see below). Faunal remains were collected from four dwelling features (2, 3, 4 and 5) at the Vendenæs site.

Features and Finds from Vendenæs

Feature 1

Dwelling

Feature 1 was excavated in 1964, whereby Knuth recovered three lithic artefacts and a birch bark roll (LI.8107-8110).

Table 5.32. Lithic artefacts Vendenæs feature 1.

Artefact category	Tools
Microblades	1
Burin spalls	2
Total	3

*Feature 2**Dwelling*

Feature 2 was excavated in 1963 and 1964, whereby Knuth recovered a limited lithic inventory (LI.7499-7507, LI.8III-8II4).

Fauna: seven bone fragments were recovered including three unidentified. The identified bones comprise a char caudal *vertebra*, a hare rib shaft fragment, a musk-ox rib shaft fragment and a limb-bone shaft fragment of a large terrestrial mammal. This latter bone has a long spiral fracture and is probably a marrow-cracked musk-ox limb-bone.

Table 5.33. Lithic artefacts Vendenæs feature 2.

Artefact category	All artefacts
Microblades	4
Burins	1
Burin spalls	5
All flakes	23
Total	33

*Feature 3**Dwelling*

Feature 3 was excavated in 1963 and 1964, whereby Knuth recovered 13 needles, three flint flakers and a relatively large lithic inventory, considering the flimsy character of the feature (LI.7508-7522, 8II5-8I63). A sample of willow charcoal (K-1061) has been radiocarbon dated to 3760 ± 120 BP, which within one standard deviation gives a calibrated date of between 2400-1970 cal. BC.

Fauna: Knuth collected 29 faunal specimens, five of which are unidentified. This small assemblage is composed of 54.2% bird (goose and ptarmigan), 29.2% hare and 12.5% musk ox and large terrestrial mammal. A single tip of a caribou antler tine could indicate a local caribou population in Jørgen Brønlund Fjord, even though they do not have a modern distribution in this area (Meldgaard 1986). However, this is more likely a curated artefact probably used for tool manufacture.

The presence of juvenile, migratory waterfowl is indicative of a summer dwelling.

Table 5.34. Lithic artefacts Vendenæs feature 3.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	11
Burins	2
Burin spalls	22
End scrapers	1
All flakes	20
Total	57

*Feature 4**Dwelling*

Feature 4 was excavated in 1963 and 1964. In addition to the 69 lithic artefacts Knuth also found two needles and a few pieces of worked bone in this ruin (LI.7523-7524, LI.8I64-8I82). A radiocarbon date (K-1062) has been obtained for charred willow of 3800 ± 120 BC, which within one standard deviation gives a calibrated date of between 2460-2040 cal. BC. The date has a relatively large stated error margin, but is roughly contemporaneous with that suggested for feature 3.

Fauna: Knuth collected four bone specimens – a *furculum*, *sternum* and *humerus* of ptarmigan as well as an unidentified fragment.

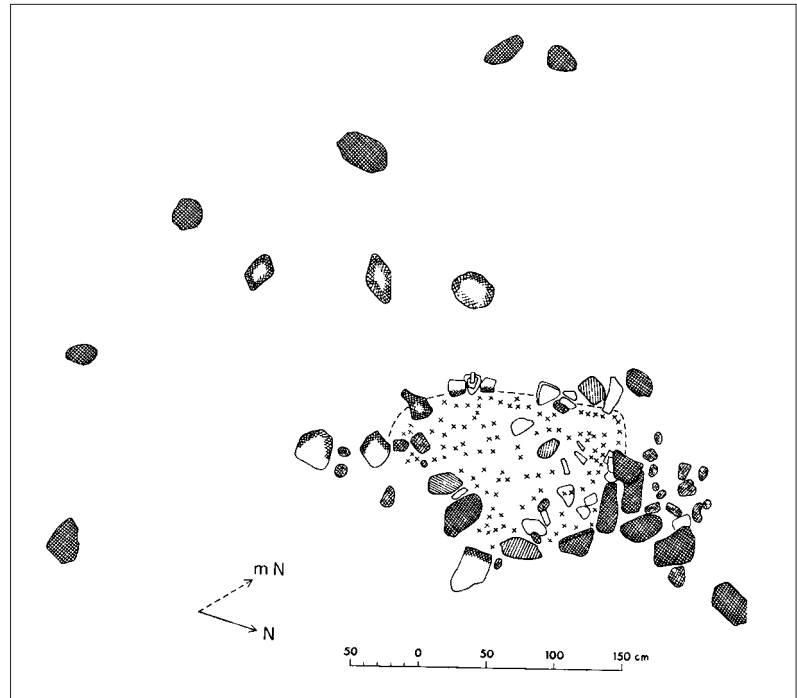
Table 5.35. Lithic artefacts Vendenæs feature 4.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	1
Burins	1
Burin spalls	6
Large flake/rough-out	1
All flakes	58
Total	69

Table 5.36. Lithic artefacts Vendenæs feature 5.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	1
Burin spalls	4
Side scrapers	2
Retouched flakes	3
All flakes	68
Total	80

Fig. 5.30. (drawing 159) Vendenæs, feature 5. The plan drawing was published with a suggestion for reconstruction in Knuth 1967a.



Feature 5

Tent ring (drawings 159, 160)

Feature 5, the richest of the Vendenæs features, is a semi-circular tent ring partially circumscribing a hearth with fire-cracked rocks but without a boulder frame (fig. 5.30). Knuth reconstructed the feature (1967a: Plate VI) as a lee tent open to one side. The feature was excavated in 1964, whereby Knuth recovered a total of 80 lithic artefacts (LI.8183-8199)

Fauna: Knuth collected 21 faunal specimens from feature 5, including five unidentified fragments. Unidentified bird comprised 37.5%, hare 12.5% and musk-ox and large terrestrial mammal bone 50% of the identified assemblage. The scant faunal remains suggest this dwelling was occupied only for a short duration, and probably in summer. Although it is possible to acquire ptarmigan and char during part of the cold season these species would not be as easily available as during the summer months.

Site Summary and Discussion

All of the features at Vendenæs appear to be relatively lightly built structures. They were presumably constructed with the intention of being used only for a short period of time. This suggestion is in accordance with the faunal evidence where the presence of migra-

tory species and juvenile waterfowl indicate that the features were used during summer.

5.21 Kap Mylius-Erichsen

Independence II, Thule

82Ø2-000-014

Site no. 310; texts 665, 666; drawings 125, 249; photos 707-720, 977

Kap Mylius-Erichsen is a low headland a few kilometres north of Kap Knud Rasmussen, the south-western junction between Jørgen Brønlund Fjord and Independence Fjord. The headland is named after Ludwig Mylius-Erichsen, one of the three men who lost their lives during the Denmark Expedition of 1906-1908.

The innermost part of the cape is a gravel plateau approximately 5 m a.s.l. Towards the fjord there is a stone filled point reaching a height of approximately 7 m a.s.l. from where the terrain drops towards the fjord in a series of narrow terraces strewn with boulders. 30-40 m high icebergs often strand near the shore, and during summer the fjord ice cracks from the tip of Kap Mylius-Erichsen to the two small islands just south of Kap Harald Moltke. The surface is heavily affected by

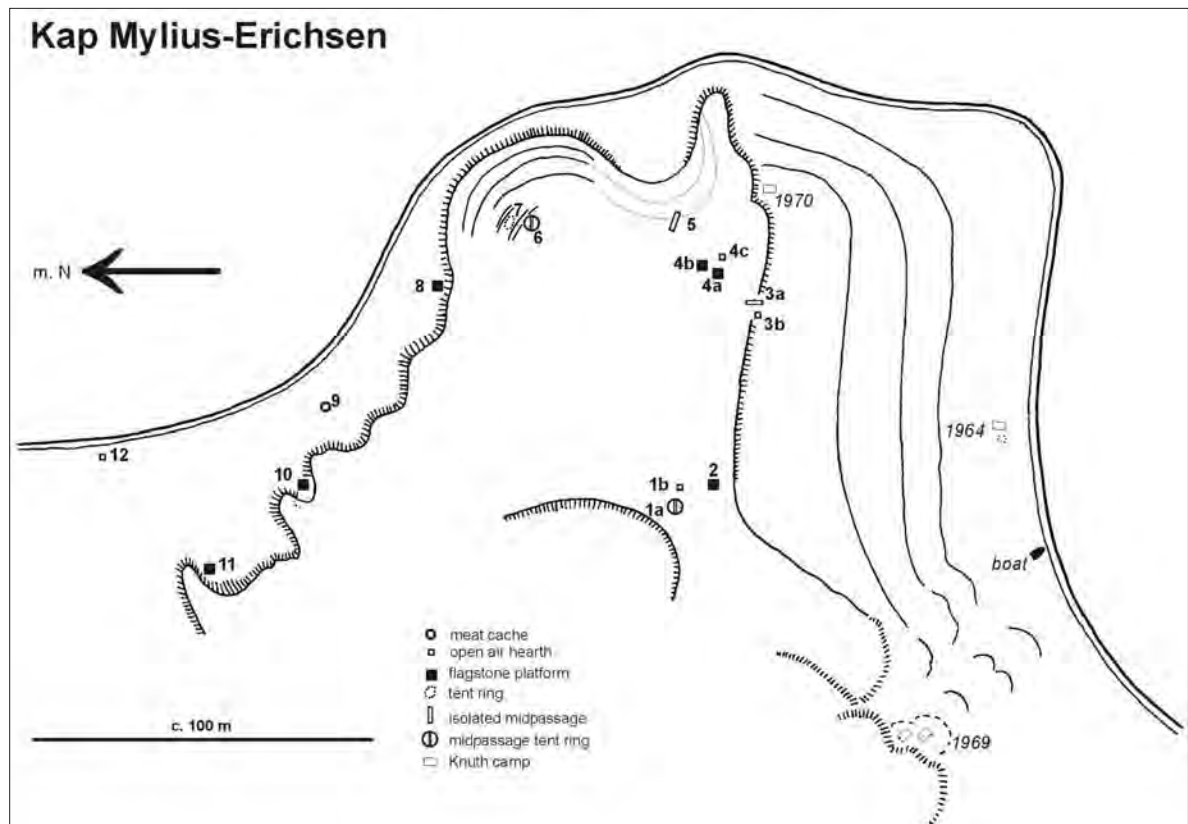


Fig. 5.31. (drawing 125) Map of Kap Mylius-Erichsen with the location of features 1 to 12. Knuth's camps and slipway are marked in italics. Re-drawn from Knuth's sketch.

pack ice and solifluction. The cryoturbation appears thus to have disturbed all the Independence II ruins as well as the lower lying ruins north of the 5 m plateau. Knuth visited the site on several occasions (1950, 1963, 1964, 1969 and 1970) (fig. 5.31). On each visit he managed to discover new features which he had not registered during earlier visits. A few tilted or vertically standing flagstones, first believed to have been brought to an upright position by natural agents, often proved to be the rudimentary remains of Palaeo-Eskimo ruins.

Independence II Ruins

Feature 1a

Mid-passage dwelling (photos 714, 718, 720)

Feature 1a is set back on the innermost part of the point, 5.5 m from a beach ridge and 5.9 m a.s.l. During excavation Knuth uncovered two parallel rows of vertically standing flagstones. The 2.36 m long mid-passage is heavily disturbed by cryoturbation. Permafrost has brought sterile clay to the surface and many of the originally vertically placed flagstones have been pushed out of position. The northern wall with the

vertically standing flags 8-23 is the better preserved part of the mid-passage. Knuth found indications of the presence of a double row of flagstones in parts of the mid-passage. Two transversely placed flags are remains of walls separating the hearth. Many fire-cracked rocks were found in the feature. During excavation Knuth found worked bone, a birch bark roll and a few lithic artefacts (LI.9606-9610, LI.9728).

Fauna: Knuth collected 88 bone fragments (49 unidentified) from feature 1a. This assemblage is composed of 5.1% unidentified fish, 2.6% hare, 20.5% seal and 71.8% musk-ox, artiodactyl or large terrestrial mammal bone. These remains represent a minimum of one individual from each species. If all the seal remains are from a single carcass, this was a young seal of between one and three years of age (Storå 2002a, b). Such a young animal was probably caught in summer from the shore or at the ice edge or lead. The fish would also most likely have been caught during the warm season. On 9th January 1979 J. Møhl sent 17 artiodactyl and musk-ox bone fragments (61 g) for radiocarbon dating.

Table 5.37. Kap Mylius-Erichsen feature 1a.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	1
All flakes	2
Total	4

Feature 1b

Mid-passage dwelling

4 m N-NE of ruin 1a Knuth registered a flagstone pavement lying flat on the surface. During excavation in 1969 and 1970, however, a series of vertically standing flagstones and boulders appeared in a system indicating that there may have been a mid-passage placed in elongation of feature 1a. Cryoturbation has brought sterile clay to the surface in the western end of the feature but a microblade was found at a distance of 2.7 m from the rear of feature 1a (LI.96II).

Fauna: Knuth recovered 54 bone fragments (38 unidentified). Fish comprise the majority of the identified bone from this small assemblage (75%). A single ptarmigan tracheal ring, two seal and one large terrestrial mammal bone fragments comprise the remainder of the collection. Like feature 1a this was most likely is a short-term summer encampment situated to take advantage of marine resources.

Table 5.38. Kap Mylius-Erichsen feature 1b.

Artefact category	Tools
Microblades	1

Feature 2

Flagstone pavement (photo 715)

Feature 2 is a flagstone pavement 12 m E-NE of feature 1a at a height of 5.92 m a.s.l. The feature was excavated in 1969 but a few bone splinters were the only objects recovered.

Fauna: Knuth collected a lemming pelvis and four burnt mammal bone fragments from feature 2.

Feature 3a

Hearth with boulder structure (photos 710, 716)

Feature 3a is a several metre long row of boulders with a box hearth in the centre (fig. 5.32). The feature is located 5.33 m a.s.l., 69 m north-east of feature 1a. The hearth is marked by four flagstones which are tilted

**Fig. 5.32.** (photo 716) Kap Mylius-Erichsen, feature 3, 7/8-1969.

outwards so that the boulders support the upper edges. Neither charcoal nor artefacts were found in or around the feature.

Feature 3b

Open-air hearth (photos 710, 709, 712)

3 m to the south, or in front of feature 3a, the sloping terrain is broken by a frost crack. On the edge of the crack Knuth found flagstones. Upon removal of the gravel around the flags he discovered a hearth with charcoal, bone splinters and fragmented fire-cracked rocks. The feature was excavated in 1970 when a single needle was recovered (LI.9729). Knuth estimated the feature to be located 4.5 m a.s.l.

Fauna: feature 3b yielded a total of 38 bones (23 unidentified). This feature differs from features 1a and 1b as no bird or fish remains were recovered. Arctic fox comprises 13.3%, seal 20% and musk-ox and large terrestrial mammal bones 66.7% of this small identified bone assemblage. Much of the musk-ox bones have been culturally modified: 40% are spirally fractured and 10% are burnt. This feature could have been occupied at nearly any time of the year. The size of the assemblage, the feature type and seal bone suggest, however, that the hearth probably is the remains of a temporary summer encampment.

Feature 4a

Flagstone pavement (photo 711)

Feature 4a is a 4-5 m long and 1.5 m wide flagstone



Fig. 5.33. (drawing 249) Kap Mylius-Erichsen, feature 5.

pavement oriented perpendicular to the coast and with a hearth at the front. The feature is located 4.97 m a.s.l. Knuth thought that the structure could be a demolished mid-passage. In 1950 he found a needle

fragment and during excavation in 1964 and 1970 an additional four needle fragments and a single flake were recovered (LI.8243-8246, LI.9611 and LI.9730). In the inventory list at the National Museum of Denmark artefacts LI.8243-8246 are attributed to feature 4 with no specification.

Table 5.39. Kap Mylius-Erichsen ruin 4a.

Artefact category	All artefacts
All flakes	1

Feature 4b

Flagstone pavement

Feature 4b is a scattered aggregation of flagstones located a few paces to the north of or beside feature 4a at a height of 4.99 m a.s.l. A pointed musk-ox bone with marks for lashing and at least 64 musk-ox teeth were found in the feature (LI.9611b, LI.9731a-h).

Feature 4c

Open-air hearth (photo 713)

Feature 4c is a boulder hearth located 4 m in front of feature 4a. The hearth contained a few bone splinters and a large amount of driftwood charcoal.

Fauna: Knuth inconsistently separated the bone material he collected from features 4a, b and c, and as such they have been treated as a single analytical unit comprising a total of 143 bone fragments. The majority (82.5%) of the bones from this feature are unidentified ($n = 118$). 28% of these unidentified fragments are burnt black to grey/white. The burnt bones were probably recovered from the open-air hearth and are the remnants of their use as fuel. This feature is unusual in that all the bones could be from musk ox and no other species is represented. Based on evidence from differential wear on adult mandibular incisors, at least two musk oxen were deposited here. As musk ox could be hunted all year round, the season of occupation for these features is difficult to determine.

Feature 5

Mid-passage (drawing 249, photos 707, 708)

Feature 5 is an isolated mid-passage structure located 18.5 m north of feature 4a in an area where the gravel plateau has a gently sloping front towards the fjord and where the solifluction has created a bowl-shaped vale (figs. 5.33 and 5.34). Prior to excavation the fea-

ture had the appearance of randomly oriented flagstones dispersed along a meltwater ditch where some flagstones had been pushed into a vertical position by cryoturbation. However, in 1970 a test pit was excavated along the northern side of the feature and Knuth discovered bone splinters as well as organic artefacts such as a needle and a harpoon head. As the feature was excavated it proved to be a c. 5 m long mid-passage which upon Knuth's reconstruction appeared to be 62 cm wide at the front and slightly wider than this at the back. The excavation revealed numerous organic and lithic artefacts. Among the organic artefacts there is the harpoon head already mentioned, birch bark rolls, bone pins, bone splinters, musk-ox teeth and 17 needles and needle fragments. Nine of the needles have their rectangular eyehole preserved (LI.9732-9761). A microblade (LI.9738) has been refitted with a microblade from Kap Mylius-Erichsen feature 6 (LI.9613), thus documenting that at least these two features are contemporaneous (Owen 1983).

Fauna: Knuth collected 132 faunal specimens from feature 5. Like those from feature 4 the majority of the bones comprise unidentified fragments ($n = 98$ or 74.2%). The identified faunal remains consist of 14.7% hare, 2.9% seal and 82.4% artiodactyl, musk-ox and large terrestrial mammal bone. Each species is, however, represented by a minimum of only one individual. The seal bone is from an adult of at least six years of age. All of these species could potentially be caught all year round although seal would be more easily obtainable during summer ice break-up.

Table 5.40. Kap Mylius-Erichsen feature 5.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	3
Side blades	1
End scrapers	2
Total	7

Feature 6

Depression/mid-passage dwelling (photo 717)

Feature 6 is an oval depression behind a fossil beach ridge that also marks the front of the plateau. The depression lies 6.07 m a.s.l. on the highest front of the point close to the north of the 7 m high hilltop where all the stones are covered by the beautiful red lichen



Fig. 5.34. (photo 708) Kap Mylius-Erichsen, feature 5, 30/6-1970.

Caloplaca elegans. A few stones are irregularly dispersed along the periphery of the feature. During excavations in 1963, 1964, 1969 and 1970 Knuth uncovered a series of flagstones and cobbles which, according to their arrangement, could be interpreted as a 2.3 m long rudimentary mid-passage structure. As Knuth removed the 15-20 cm deep layer of gravel covering the feature he found some vertically standing fragmented flagstones supported by rectangular cobbles. In the north-eastern end, where such vertically standing flagstones were absent, he found their original location indicated by spaces between the supporting stones still *in situ*. In this way Knuth managed to register the original location of one of the side walls as well as of a transversely placed flag in the front section of the mid-passage. The hearth was indicated by the presence of 5-6 pieces of charcoal and bone splinters from musk ox and hare. All finds from feature 6 were recovered from a depth of c. 15-20 cm close to the row of stones. This convinced Knuth that he was right in interpreting the arrangement as a rudimentary mid-passage. A bone point, two wood pegs and a few lithic objects were recovered during excavation (LI.10054, LI.9612-9618). A microblade (LI.9613) has been refitted with a microblade from Kap Mylius-Erichsen feature 5 (LI.9738) thus documenting that at least these two features are contemporaneous (Owen 1983).

Fauna: Knuth collected 106 bone fragments, of



Fig. 5.35. (photo 719) Kap Mylius-Erichsen, feature 7, as also was noted on the sites of Flaghøj and Vandfaldsnæs (feature 15), black boulders appear to have been deliberately chosen for the tent ring.

which 97 are unidentified (91.5%). Unidentified bird comprises 11.1%, seal 22.2% and musk ox or artiodactyl 66.7% of the scant identified assemblage. These remains are highly fragmented into small slivers. Only two of these bone fragments are burnt. This mid-passage structure represents the remains of a short-term warm season occupation.

Table 5.41. Kap Mylius-Erichsen feature 6.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	5
Total	6

Feature 7

Tent ring (photo 719)

Feature 7 is a 2.8 x 2.5 m tent ring of 22 rather closely spaced boulders which face the shore with their long axes (fig. 5.35). The feature is located 5.97 m a.s.l. just 3 m to the north of feature 6, from which it is separated by the beach ridge marking the front of the plateau. By crossing the beach ridge one reaches the uppermost part in a series of narrow stone-filled terraces that form a rather steep slope towards the fjord. Like the front of the feature 6 terrace, the front of the feature 7 terrace is a beach ridge. The oval dwelling thus sits in a

natural depression between two beach ridges. In the north-western end of the feature is a rectangular pavement of tightly packed flagstones on the outside of the periphery. Knuth believed this to be an entrance pavement. During excavation in 1964 and 1970 he found microblades, eight needles, wood splinters and a few pieces of bone (LI.8247-8255, LI.9762-9764). Some of the bones and pieces of disintegrated wood were found between the boulders in the wall section facing the fjord, but generally the soil in feature 7 appeared to be sterile. Both the bones and wood objects are heavily disintegrated. Knuth found a stone approximately at the centre of the ruin but apart from this the feature appeared to be without internal architecture.

Fauna: Feature 7 yielded 32 bone fragments (14 unidentified). Based on tooth remains at least one juvenile and one adult musk ox were deposited in or near this feature. Juvenile bird bones indicate that this feature was occupied during the late spring/early summer breeding season.

Table 5.42. Kap Mylius-Erichsen feature 7.

Artefact category	Tools
Microblades	4

Neo-Eskimo Ruins and Possible Independence II Ruins

Feature 8

Flagstone pavement

Feature 8 is a minor pavement of just three flagstones. It is located approximately 30 m north-west of features 6 and 7, on the slope of the plateau towards the low lying terrain facing the bay north of the point. The flagstones lie approximately 1 m apart on top of the gravel surface.

Feature 9

Cache ?

Feature 9 is an aggregation of four large dolerite boulders located on the plain towards the bay approximately 45 m west of feature 8. Four boulders form a semi-circle in front of a dark grey dolerite boulder deeply imbedded in the terrain. The boulders thus encircle a 1.9 x 1.5 m space with the long axis perpendicular to the shore. Between the boulders there is a musk-ox skull from which a loose horn was recovered for dating. The feature has not been excavated.

Fig. 5.36. (photo 705) Kap Knud Rasmussen, view over the point of Kap Knud Rasmussen across Independence Fjord, 31/7-47.



Feature 10

Flagstone pavement

Feature 10 is a flagstone pavement associated with three large boulders uncovered at the top of the eroding profile facing the plain along the beach. Around the feature the clay soil has been carved into blocks by rain and meltwater. In 1970 Knuth wrote: 'Some day such blocks will slide down from behind and bring with them the feature'. Neither bones nor artefacts have been uncovered by the erosion.

Feature 11

Flagstone pavement

Feature 11 comprises six boulders and four large flagstones located on sloping terrain heavily affected by frost action approximately 35 m west of feature 10 and 50 m from the beach. Knuth notes that the feature is likely to slide down due to frost action.

Feature 12

Boulder structure

Feature 12 is a flagstone and boulder structure located on the flat foreshore approximately 43 m in front of feature 11. One flagstone is located just 4 m from the shore whereas the other lie approximately 8 m from the shore. Three flagstones stand vertically; two of them form a hearth. Nearby there is a musk-ox skull without horns and four *vertebrae*. No tools were found. The feature clearly appeared to have been disturbed by cryoturbation, but the location as such had not been altered to any significant degree.

Site Summary and Discussion

The widely dispersed features on Kap Mylius-Erichsen clearly result from several episodes of occupation. Features 1 and 2, 3-5 and features 6 and 7 appear to be well defined groups of dwellings with associated out-

door hearths and working areas. The features in each cluster could very well be contemporaneous. At least it seems reasonable to regard the groups of features as resulting from three episodes of habitation by two families travelling together. Features 8-12 are more difficult to deal with in terms of their location, preservation and date. However, the fact that they are scattered with no apparent spatial relationship to each other indicates that they were left by small groups of people, probably no more than one family, during four episodes of settlement. Since no datable artefacts were found in these ruins they can only be given a *post quem* date based on their height above sea level. Features 9 and 11 appear thus to be located *in situ* on the foreshore which would have been below sea level during the Independence II period. Features 8, 10 and 11, on the other hand, have slid down from higher elevations. They could well be Independence II dwellings, at least according to their original elevation. However, the character of the features 8, 10 and 11, and not least the lack of artefacts in their association, makes it more reasonable to regard them as temporary Thule sites.

5.22 Kap Knud Rasmussen

Independence I, Thule

82Ø2-000-020

Site no. 317; text 664, drawing 124; photos 704, 705

Kap Knud Rasmussen is a low point at the south-western junction between Jørgen Brønlund Fjord and Independence Fjord (fig. 5.36). Mylius-Erichsen, who visited the point during the Denmark Expedition in 1907 prior to the fatal return journey, suggested the place name. In 1912 Knud Rasmussen registered five Thule tent rings near the beach on the slope facing towards Independence Fjord. Knuth discovered an

additional dwelling from the Independence I culture facing Jørgen Brønlund Fjord in the north and located approximately 12 m. a.s.l. (feature 6).

The point is covered with gravel. Numerous large icebergs strand offshore in the fjord. During spring these icebergs create cracks in the ice and the place is good for 'uuttoq' hunt. As the ice breaks up in Jørgen Brønlund Fjord, a large area of open water is also created in Independence Fjord. During summertime Kap Knud Rasmussen is thus surrounded by open water which extends towards south-west as a broad crack along the coast of Heilprinn Land. Settlements have not, however, been located along this stretch of shore.

Feature Descriptions

Feature 1

Tent ring

Feature 1 is an irregular periphery of stones and minor flags located near the tip of the point. The feature is disturbed by solifluction.

Feature 2

Tent ring

Feature 2 is a boulder periphery near, but to the west of, feature 1. It has a much more insignificant appearance and is more difficult to detect than feature 1.

Feature 3a

Tent ring

Feature 3a is a flagstone platform and rudimentary tent ring located a few paces to west of feature 2. The feature is oriented towards the west and solifluction has made the westward slope of the structure quite pronounced. The uppermost eastern part of the structure is a 3 m wide and 2 m deep flagstone platform. On the southern side of the platform there is a hearth containing a thick layer of willow charcoal and bone. A row of 5-6 stones marks the lower front facing west. The structure measures 4 m from the front edge to the back.

Feature 3b

Open-air hearth

On the slope below, or to the south of, feature 3a there is an open-air hearth with two chambers built against a large boulder.

Feature 4

Tent ring

Feature 4 is a 2.7 x 4 irregular boulder periphery of

large flat stones placed on top of the gravel. Across the interior there is a platform edge of 30-40 cm wide and 60-65 cm long flagstones. Feature 4 is located a few paces west of feature 3.

Feature 5

Tent ring

Feature 5 is a periphery heavily disturbed by cryoturbation ten paces west of feature 3. Large flagstones have been placed in the centre of the periphery. Immediately north of these there is a hearth. In places there are boulders placed in isolation or forming small rows.

Feature 6

Tent ring (drawing 124, photos 704, 706)

Feature 6 is located 100 m from the coastal cliff facing Independence Fjord on the broad basal part of the point, but it is oriented towards the east and Jørgen Brønlund Fjord. In contrast to the Thule features described above, feature 6 appears to be more solidly built with the boulder periphery deeply imbedded in the sub-stratum (figs. 5.37 and 5.38). At the rear of the dwelling there is a partly flagstone-paved sleeping platform. In front of this is a rudimentary mid-passage structure with the hearth extending towards the entrance. Artefacts were collected from the feature in 1950 and 1963 (LI.647I, LI.7497-7498). Among the collected objects are two pieces of worked bone, one of which is whalebone, the other a bone splinter with a groove in the side. A single flake of limestone was the only lithic artefact. Knuth's Independence I date for the feature thus appears only to be based on the elevation.

Table 5.43. Lithic artefacts Kap Knud Rasmussen feature 6.

Artefact category	All artefacts
All flakes	1

5.23 Sandskrænten

Thule

82Ø2-000-060

Site no. 351; photos 899, 1237

Sandskrænten (Gravel Cliff) is a site with three boulder tent rings located at the head of Jørgen Brønlund

Fig. 5.37. (drawing 124) Kap Knud Rasmussen, feature 6.

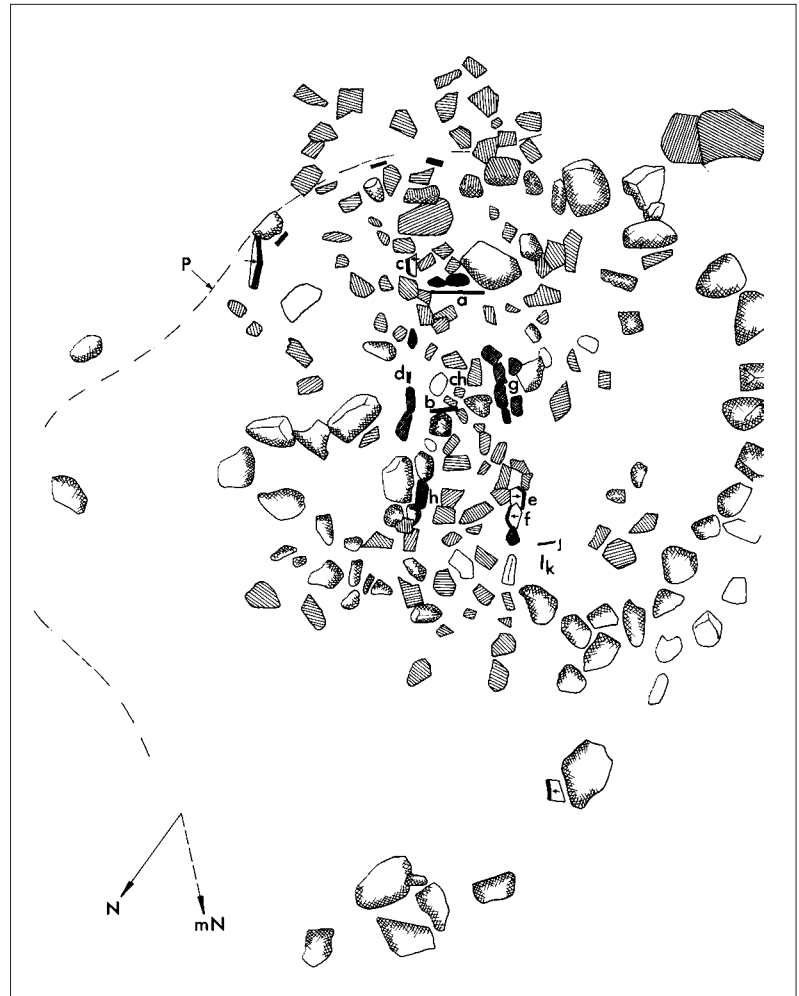


Fig. 5.38. (photo 706) Kap Knud Rasmussen, feature 6 seen from south-east, 31/7 1947.



Fig. 5.39. (photo 1237) Sandskrænten. Boulder features on the Thule locality Sandskrænten, 12/7-1963.

Fjord on its northern shore, where the broad Kussuaq River flows along the northern side of Qingoa Plain. Two tent rings can be seen on photo 1237 (fig. 5.39) and they appear to be circular to oval, built of tightly packed boulders. The character of the third ring is unknown. Apart from the photo (photo 1237), the site is only mentioned in Knuth's Baedeker. Photo 899 is a black and white copy of photo 1237.

5.24 Genbonæs

Independence II

82Ø2-000-061

Site no. 1015409358 (GB on map)

Genbonæs (Neighbour Point) is a point on the northern shore of Jørgen Brønlund Fjord. An isolated Independence II ruin with a hearth is located on the point but apart from a mention in Knuth's Baedeker there is no archival material. Two finds from the site have been recorded at the National Museum of Denmark (LI.9619-9620). LI.9619 is a bone object with a pointed end and LI.9620 is a handful of wood splinters.

Fauna: The faunal material from this site is badly preserved compared with nearly all other sites from Peary Land. 204 bone fragments were recovered by Knuth. Of these, 181 were unidentified. 48 (26.5%) of

the small unidentified fragments were burnt uniformly black and were probably recovered from the hearth area where they had been used as a source of fuel. Fish comprise 4.3%, bird 8.7%, hare 4.3% and artiodactyls, musk ox and large terrestrial mammal 82.6% of the identified assemblage. This feature could have been occupied at any time during the year. Even though a few fish and bird bones were recovered, a considerable amount of bone was used as fuel. This may mean use during the cold season. However, the scant amount of bone suggests short-term summer use.

5.25 Ørredsø

Independence I

82Ø2-000-062

Hearth or cache

Site no. 417

Ørredsø (Trout Lake) is the name of a lake located at the confluence of the rivers Krenkerup Elv and Børglum Elv (Krenkerup and Børglum are the names, respectively, of a renowned manor house and monastery in Denmark). The site is only mentioned in Knuth's Baedeker, where he states that a boulder feature, presumably a hearth or a cache from Independence I, is located on a gravel terrace approximately 100 m south of the place where Krenkerup Elv flows into Ørredsø. The feature is covered by red lichen.

5.26 Oksejægerpynten

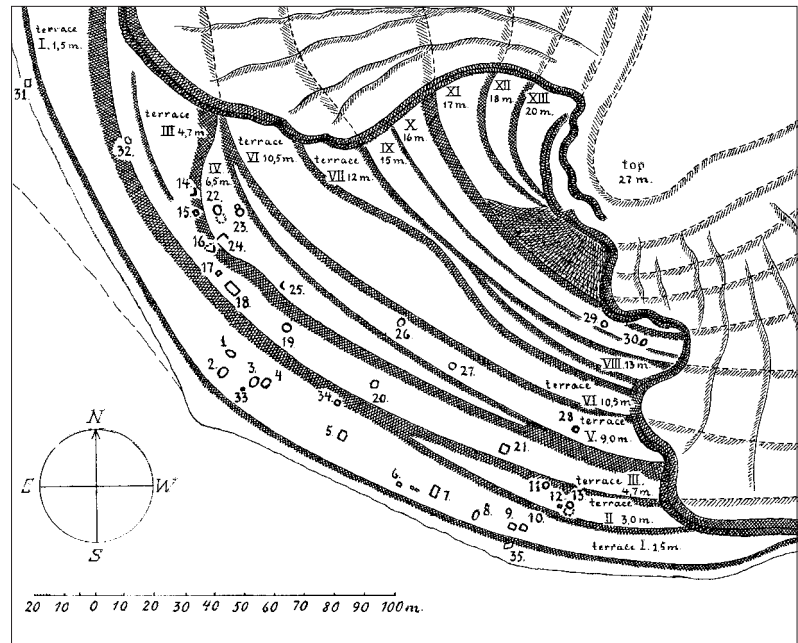
Thule

82Ø2-000-019

Site no. 316; texts 5, 786-814; drawings 14, 209-214; photos 153-154, 885-897, 961, 972, 1113, 1255-1256, 1258, 1364.

In terms of number of features, Oksejægerpynten (Ox Hunter Point) is the largest Thule locality in Peary Land. Knuth has registered 35 features at the site (figs. 5.40 and 5.41). 16 are dwellings, six open-air hearths, six meat caches and two features are characterised as stone circles (text 786). Five features are not described. Oksejægerpynten is located between Børglum Elv and Slikbugt (Silty Bay) on the northern shore of Jørgen Brønlund Fjord. The topography is characterised by at least 13 terraces rising like a staircase

Fig. 5.40. (drawing 209)
Oksejægerynten, site map.



towards a 27 m high flat top located approximately 125 m from the shore. All the terraces have an even gravel surface, whereas the front slopes are more uneven with boulders and stones of all sizes. On either side the terrace system is delineated by mud flows from the hilltop to the present shore so the preserved terrace system is a large triangle with its 300 m long base defined by the shore. The site was discovered in 1947 when Knuth, assisted by Ulrik Møhl, carried out the first mapping between August 4th and 7th. Later Knuth returned to continue his work at the site from July 1st-14th and July 18th-21st 1950 when Kristen Sørensen assisted him. Oksejægerynten is among the best-documented Thule localities in Peary Land since there is an accurate site map as well as fine written descriptions of most features. Furthermore there are drawings and photos of many of the features.

Feature Descriptions

Feature 1

Cache (text 786; photo 888; drawing 210)

Feature 1 is a 1.1 x 1.9 m elliptical periphery of tightly packed boulders with extra stones on the outside (figs. 5.42 and 5.43). The long axis faces the fjord and the floor area is neatly covered with flagstones. Ulrik Møhl found rib fragments of musk ox during the excavation of the feature.

Feature 2

Tent ring (text 787; photo 890)

Feature 2 is a 2.5 x 3.25 m tent ring of scattered stones. The short axis faces the shore (fig. 5.44).

Feature 3 (text 788)

Feature 3 is a 3.2 x 4.3 m oval tent ring with the short



Fig. 5.41. (photo 886) Oksejægerynten, view over raised shorelines on the central part of the site. A few boulder features (features 1-5) are seen on the lowest terrace.

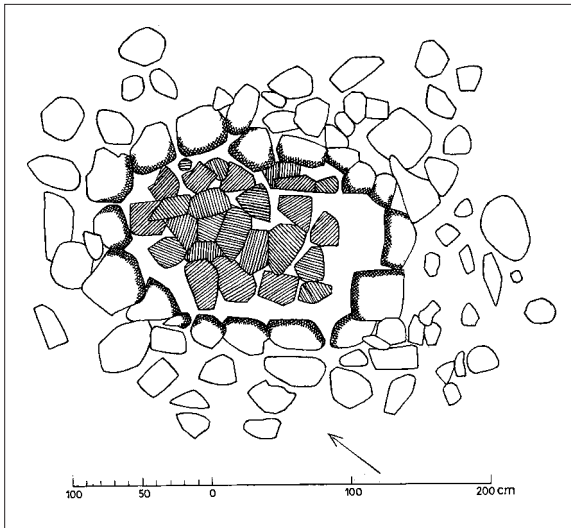


Fig. 5.42. (drawing 210) Oksejægerpynten, feature 1 solidly-built meat cache with pavement.



Fig. 5.43. (photo 888) Oksejægerpynten, feature 1 prior to excavation, in the background to the right is feature 2 and to the left features 3 and 4 situated closer to the shore, 12/6-1963.

axis facing the fjord. Internally the tent ring is 2.8 m wide. A musk-ox horn was found in the feature. Knuth notes that K. Rodahl photographed the structure in 1947. This photo has not been located in the Knuth Archive.

Feature 4

Tent ring (text 789)

Feature 4 is a 2.1 x 3.2 m (internal measurements) rectangular tent ring with its narrow side facing the fjord. Some bones from this feature have been analysed by

Ulrik Møhl: Ringed seal (*Phoca hispida*): fragment of cheek bone and ear bone and part of mandible. Knuth notes that K. Rodahl photographed the feature in 1947 but this photo has not been located in the Knuth Archive.

Feature 5

Tent ring (text 790; drawing; 212; photo 886)

Feature 5 is a boulder periphery with associated meat cache and hearth in the wall section facing the sea towards the south (fig. 5.45). On the outer side of the



Fig. 5.44. (photo 890) Oksejægerpynten, feature 2, 2/8-1947. Photo by Kåre Rodahl.

periphery there are other large stones, mostly along the southern and northern walls. Internally the feature measures 2.2 x 2.5 m and externally 3.2 x 4 m. Knuth suggests that the entrance is located in the western wall section.

Feature 6

Open-air hearth (text 793)

Feature 6 is an open air hearth, but apart from its location on the lowest beach ridge, which can be deduced from the site map, there is no information on this feature.

Feature 7

Tent ring (texts 5, 792, drawing 213; photo 885)

Feature 7 is a periphery of tightly packed boulders with the narrow side facing the shore (fig. 5.46). Internally it measures 2 x 2.5 m, externally 2.8 x 3.9 m. All the boulders are half buried in the sub-stratum. The eastern cornerstone in the rear wall rises 30 cm above the surrounding terrain. The front edge of a sleeping platform is marked by a slight change in the floor level and a few stones placed across the interior at a distance of 2 m from the rear wall. In the north-western corner of the feature there is a square stone-set hearth. It is not clear, however, whether it is an indoor or outdoor hearth since the location of the wall is unclear in this part of the dwelling. The hearth was full of charcoal. In its vicinity Knuth found musk-ox hair and skin (L1.6563). Upon excavation in 1947 Ulrik Møhl discovered three pieces of wood packed against the rear wall. Two of the pieces are modified, the first being an atlatl (L1.6562) and the other, presumably a spear or harpoon shaft, is a slender round stick with a tenon at the end.

Feature 8

Tent ring (text 793)

Feature 8 is an ellipsoid tent ring with its short axis facing the fjord. Its external measurements are 2.9 x 3.8 m. Outside the periphery, to the rear, there is a layer of wood splinters which could be the disintegrated remains of tent poles. Inside, only a few wood pieces were found. Bone fragments from the feature have been analysed by Ulrik Møhl who identified them as follows: Musk ox (*Ovibos moschatus*): a few fragments of cranial and limb bones; Arctic hare (*Lepus arcticus groenlandicus*): fragment of a femur.



Fig. 5.45. (photo 887) Oksejægerpynten, feature 5, 12/6-1963. The front of the feature measures 2.2 m internally.

Features 9 and 10

Boulder rings (text 794)

Rudimentary boulder rings with the long axis facing the fjord.

Feature 11

Stone periphery (text 795)

Feature 11 is a minor stone periphery located on terrace II approximately 3 m a.s.l.



Fig. 5.46. (photo 885) Oksejægerpynten, feature 7 seen from the front, 12/6-1963.



Fig. 5.47. (photo 895) Oksejægerpynten, feature 16, 6/8-1947.

Feature 12

Open-air hearth (text 796; photo 896)

The hearth is built of three boulders protecting a little niche. Inside the hearth there is a thick layer of charcoal, outside there are several bone splinters.

Feature 13

Meat cache (text 797)

Feature 13 is a hexagonal boulder structure. The stones in the periphery face the interior with their flat sides. The floor is neatly paved with flagstones. On top of the pavement Knuth found broad pieces of wood and outside the enclosed chamber, against its western wall, a number of wood sticks were excavated. Three of these have been refitted to form one 45 cm long stick (LI.6565-6568). Among the wood sticks is one end of a bow with a knob (LI.6922). Bones from the structure were analysed by Ulrik Møhl: Musk ox (*Ovibos moschatus*): parts of ribs and *scapula*; Arctic hare (*Lepus arcticus groenlandica*): left mandible.

Feature 14

Open-air hearth (text 798)

Feature 14 is an open-air hearth sheltered on the eastern side by a wall comprising several courses of boulders. The hearth is located approximately 4.7 m a.s.l. at the western end of terrace III just by the foot of terrace IV.

Feature 15

Open-air hearth (text 799)

Feature 15 is a square chamber covered by a large flat stone.

Feature 16

Open-air hearth (text 800; photo 895)

Feature 16 is an open-air hearth with a high lee wall facing east at an angle (fig. 5.47).

Feature 17

Open-air hearth (text 801)

Feature 17 is an open-air hearth set of three stones.

Feature 18

Tent ring (text 802)

Feature 18 is a 4.6 x 3.5 m rectangular boulder periphery of tightly packed stones. The long axis faces the fjord.

Feature 19

Meat cache (text 803)

Feature 19 is a 3.4 x 4 m boulder periphery with its short axis facing the fjord.

Feature 20

Tent ring (text 804)

Feature 20 is a tent ring with its short axis facing the fjord. At the front there is an entrance with two large stones placed as doorsteps.

Feature 21

Shelter ruin (text 805; drawings 14, 21I; photos 153, 154, 891, 892, 893, 894, 1256, 1258)

Feature 21 is the best preserved of the many dwellings at Oksejægerpynten (figs. 5.48 and 5.49). Internally the rectangular boulder periphery measures 2.23 x 3.22 m. The boulders have been dug down into the terrain. They are so closely spaced that they often touch each other. They are placed with their flat sides towards the interior and they rise to between 18 to 34 cm above ground. The highest are two boulders in the rear wall and the central boulders in the side walls, which also mark the front corners of the sleeping platform (see fig. 5.48: a = 23 cm, b = 28 cm, c = 25 cm, d = 29 cm, e = 30 cm, f = 34 cm, g = 18 cm). Against the outer side of the periphery there are heaps of smaller stones. The entire rear part of the dwelling is a sleep-

ing platform which has the front edge marked by flagstones rising 8-10 cm above the floor in front of it. The boulder periphery surrounding the floor area is more irregular and possibly disturbed. The entrance is located in the middle of the wall facing the fjord. In the wall section immediately to the left of the entrance (looking into the dwelling from the outside) there is a niche with a hearth. In the hearth Knuth found a thick layer of charcoal, but apart from this neither artefacts nor ecofacts were found in the dwelling. The feature was excavated and drawn in 1947.

Feature 22

Shelter ruin (text 806)

Feature 22 is a partly destroyed 2.6 x 3.2 m (external measurements) shelter-like double boulder periphery with a flagstone pavement. The feature is located approximately 6.5 m a.s.l. on terrace IV.

Feature 23

Shelter ruin (text 807; photos 889, 897)

Feature 23 is a rudimentary boulder structure somewhat similar to feature 22. Apparently there are two semi-circular peripheries but the outline has been altered by solifluction (fig. 5.50).

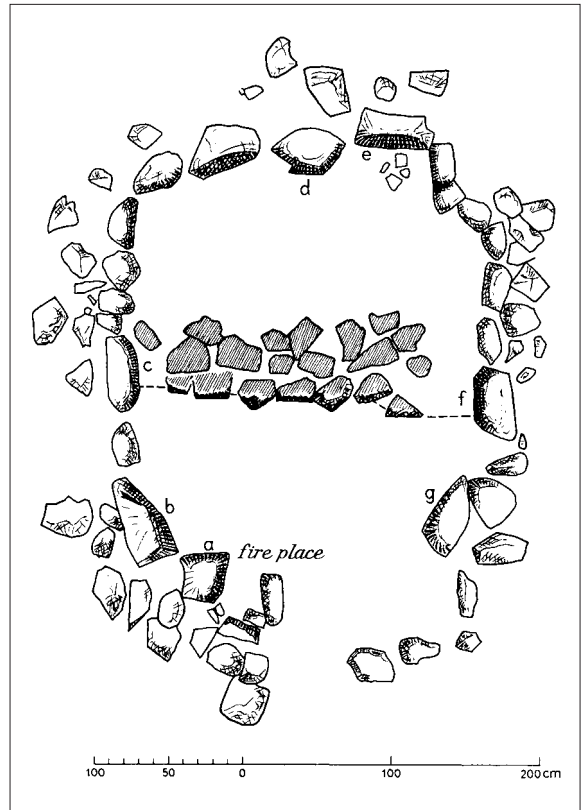


Fig. 5.48. (drawing 211) Oksejægerpynten, feature 21.



Fig. 5.49. (photo 1256)

Oksejægerpynten, feature 21 seen from the back, 12/6-63.



Fig. 5.50. (photo 889) Oksejægerpynten, feature 23, 2/8-1947. Photo by Kåre Rodahl.

The feature measures 1.7 x 3.5 m internally and the paved edge of a platform marks the boundary between the two semi-circles. Between these flagstones Knuth found an arrowhead of musk-ox bone (LI.6569) (fig. 5.51). The ruin has similarities with structures at the Vædderen site in Dove Bugt.

Feature 24

Tent ring (text 808)

Feature 24 is a 2.6 x 2.8 m row of boulders located on the edge of the terrace. The structure has an angled shape and resembles a fragmented tent ring that has slid down. Three wood pieces were collected from the feature (LI.6570a-c); one of these fragments has a transversely cut end.

Feature 25

Tent ring (text 809)

Feature 25 is a rudimentary tent ring consisting of a series of stones forming an angle.

Feature 26

Tent ring (text 810)

Feature 26 is a rudimentary tent ring marked by scat-

tered boulders and flagstones measuring 2 x 2.8 m externally.

Feature 27

Irregular boulder structure (text 811)

Feature 27 is an aggregation of stones located immediately behind another structure which Knuth believed to be a tent ring that has slid down. Externally it measures 2 x 3.4 m. Behind a large boulder in the front wall there is a square chamber, presumably a hearth, containing wood splinters, charcoal and a few bones. In front of the boulder there is a rudimentary flagstone platform covering wood splinters and pieces of musk-ox skin. The bones have been analysed by Ulrik Møhl: Musk ox (*Ovibos moschatus*): two rib fragments and one limb-bone.

Feature 28

Meat cache (text 812)

Feature 28 is a boulder heap, presumably a meat cache.

Feature 29

Meat cache (text 813)

Feature 29 is a boulder heap located approximately 16 m a.s.l. on terrace X. In the middle of the structure there is a vacant space. In the site list (text 850), feature 29 is marked as an Independence I ruin. Presumably the reason for this is the finding of a single piece of worked black chert (LI.7496). However, as it is often the case with the caches as well as other features without typologically distinct finds, Knuth's date seems a bit hasty. For the moment it seems more appropriate to regard feature 29 as an integrated element in the extensive Thule activities represented at the site.

Feature 30

Boulder periphery (text 814)

Feature 30 is a minor oval boulder periphery.



Fig. 5.51. (photo 897) Arrowhead of musk-ox bone (LI.6569) (Knuth 1948, 1984).

Site Summary and Discussion

Knuth regarded most features on Oksejægerpynten to be of Thule origin. Feature 29, however, he believed to be an Independence I structure. This date is, however, only supported by the finding of a single uncharacteristic flake. Therefore the present authors suggest that all the features on Oksejægerpynten should be dated to the Thule culture.

In Knuth's 1984 description of Oksejægerpynten he mentions a total of 36 features from the site but only 35 features are marked on the published site map and, as can be seen above, only 30 have been described.

Oksejægerpynten remains the largest Thule settlement in Jørgen Brønlund Fjord. The feature types and general characteristics of the site define Oksejægerpynten as a prominent Thule site among the 'shelter colonies' as Knuth called the Peary Land Thule localities in his 1981 publication. Similar to the large Thule sites of Stjerneborg, Uranienborg, Blanknæs, Kronjydenæs, Mellemygden and Søjren, the features on Oksejægerpynten are enigmatically lacking in finds. Only features 21, 22 and 23 have been characterised as shelter ruins whereas the remainder are tent rings, open-air hearths or caches. In theory, all of the features on Oksejægerpynten could be contemporaneous. If this is the case then the distribution of the features could indicate the social relationships between the different social units. However, the widely scattered features suggest that they were deposited during consecutive episodes of habitation. Many features are located with no evident relationship to other features, whereas others form clusters which could be contemporaneous units. Ruins 22, 23 and 24 are thus located close to one another with the open-air hearths 14, 15 and 16 located on the stone-filled slope just in front of them. Similarly, tent rings features 3 and 4, and 9 and 10, are located so close to one another that they probably are contemporaneous. If this impression is correct then Oksejægerpynten results from several episodes of habitation typically involving three social units living in their own dwelling.

The problem of chronology is virtually impossible to solve at a site like Oksejægerpynten. If we consider the state of preservation of the individual features we may obtain an idea of which structures were built first since boulders in older structures are likely to have been re-used in the most recent dwellings. Con-

sidering these aspects, one can conclude that Oksejægerpynten is likely to have been occupied during at least two, and probably three to four, episodes of habitation. This argument is based on the fact that features 24, 25, 26 and 27 are rudimentary. Apart from the already mentioned possibility of disturbance by geological processes this could also result from boulders being scavenged. If one assumes, furthermore, that the most solidly built shelter ruins were used during other seasons than the tent ring dwellings, then one ends up with initial occupation(s) represented by rudimentary features 24, 25, 26 and 27, and secondary occupations represented by the well preserved tent rings 2, 3, 4, 5, 7, 8, 18 and 20, as well as the three shelter ruins 21, 22 and 23. Knuth (1981) compared feature 21 to similar dwellings on one of the large Thule localities at Lake Hazen, Ellesmere Island which he characterised as a summer site for caribou and musk-ox hunters.

5.27 Grydetærsklen

Unknown culture

82Ø2-000-063

Meat cache

Site 418

Grydetærsklen (Pot Threshold) is a threshold approximately 50 m a.s.l. located around 700 m north of Oksejægerpynten. In prehistoric times, when the relative sea level was much higher than today, driftwood was flushed over the threshold and into a depression to the west. On the inner side of the threshold, 52 m a.s.l., there is a circular meat cache which Knuth believed to be of Independence I origin. In the vicinity he found two boulder structures which look like fox traps. Knuth notes that these features are the only examples of Independence I fox traps, if indeed they are related to the caches. In this respect it must be remembered that neither the cache nor the traps have been dated. Therefore Knuth's suggested date must be regarded with some caution. As in several other cases with isolated features Knuth's 'Independence I suggestion' is very plausible but a Thule date should also be taken into consideration due to the proximity of Oksejægerpynten. Apart from the site being mentioned in the Baedeker there are neither drawings nor photographs from Grydetærsklen.



Fig. 5.52. (photo 884) Kullen, feature 3, 15/8-64.

5.28 Kullen

Independence I

82Ø2-000-029

Site no. 325; photos 882, 883, 884

Kullen is a long, gently sloping ridge covered by wide marine gravel terraces extending in an E-SE direction from the 30-40 m high clay plateau between Oksejægerpynten and Uglegylphøj (Owl Pellet Hill). The ridge thus runs parallel to the southern side of Slikbugt. Dispersed on terraces 15.3-12 m a.s.l. Knuth registered five hearths which all were believed to be of Independence I origin.



Fig. 5.53. (photo 1293) Rottbøll Sund site, 11/6-1981.

The site is registered in the archive at the National Museum of Denmark and it appears on a site list with elevations in Archaeology of the Musk-Ox Way (Knuth 1967b:18). Apart from this it is only documented by three photographs and a description in the Baedeker and the site list. In the site list (text 850) signatures indicate the presence of five open-air hearths and a dwelling periphery, whereas the Baedeker only mentions five hearths. However, from the three photographs it is possible to give a slightly more detailed description of the features 3, 4 and 5.

Feature 3

Open-air hearth (photo 884)

Feature 3 is an isolated pentagonal hearth set with five boulders deeply imbedded in the gravel (fig. 5.52).

Feature 4

Flagstone aggregation (photo 882)

Feature 4 is a flagstone concentration which may be the remains of a flagstone box hearth that has fallen down.

Feature 5

Flagstone aggregation

Feature 5 is an amorphous flagstone aggregation with flagstones laying in no evident order.

5.29 Rottbøll Sund Site

Thule

82Ø2-000-064

Site no. 382; photos 898, 1493

Fox trap

The Rottbøll Sund site is a fox trap located 4 m a.s.l. (fig. 5.53). The low elevation suggests that the feature is of Thule origin. Rottbøll Sund is the name of a raised sea floor which today is a clay plain forming the body of the Kap Michael Rottbøll peninsula.

5.30 Søtangen

Independence I

82Ø2-000-030

Site 326; photo 881

Open-air hearth

The Søtangen site is an isolated Independence I hearth of four boulders forming a box. The boulders are deeply imbedded in the sub-stratum of gravel mixed with cobblestones. Søtangen means the ‘Sea-Isthmus’ and the name describes the local geomorphology consisting of an approximately east-west oriented beach terrace extending from the Kullen terraces across the northern part of the Kap Rotbøll Halvø. The hearth is located 11.60 m. a.s.l., approximately 900 m east of Oksejægerpynten (fig. 5.54). A single flake (LI.7493) was collected from the site.

Table 5.44. Lithic artefacts Søtangen.

Artefact category	All artefacts
All flakes	1

5.31 Killebukhus

Independence I

82Ø2-000-030

Site no. 387; drawing 208

Gravel tent ring

Approximately 50 m east of the Søtangen site, on the same sub-fossil gravel terrace, there is a hearth surrounded by a low elliptical gravel berm. Artefacts were collected from the feature in 1966 and in 1968-1969 (LI.8738-8741, LI.9624-9625). The few artefacts include a needle fragment, two bone pins and a fore shaft. The name Killebukhus is a combination of ‘killebuk’ (the finder’s nick-name during his youth) and ‘hus’ meaning house.

Fauna: Knuth collected a total of 92 bone fragments from this feature. Of these, five are artiodactyl (likely musk-ox) tooth fragments, one bone is hare, one is gull, and two are indeterminate birds. The remaining specimens are 83 unidentified fragments, 75 of which are burnt brown to black. This site was probably a single, short warm-season occupation.

Table 5.45. Lithic artefacts Killebukhus.

Artefact category	All artefacts
Burin spalls	1
All flakes	4
Total	5



Fig. 5.54. (photo 881) Isolated box hearth on the site of Søtangen, 6/6-1963.

5.32 Lagunehøjen

Independence I

82Ø2-000-31

Site no. 327; text 783; drawings 206, 207; photos 877, 878, 1292

Mid-passage dwelling and caches

Lagunehøjen (Lagoon Hill) is an Independence I dwelling with several associated meat caches (figs. 5.55 and 5.56). The site is located 11.7 m a.s.l. on a protruding terrace south-east of the Killebukhus site. The dwelling structure is a 3.8 x 3.3 m tent ring with a rudimentary mid-passage structure. Charcoal in the centre of the periphery marks the hearth. Nearby, to the south-east of the hearth, there is a concentration of fire-cracked stones. 1 m to the east of the tent ring there is a meat cache, approximately 2.7 m in diameter. On a higher terrace to the north of the dwelling there is a smaller meat cache (photo 1292). In addition to these features two more circular caches are marked in the site list. The first find was collected from the ruin in 1950 and later, in 1963, the feature was excavated. The finds comprised organic as well as lithic objects (LI.6571, LI.7472-7492, LI.8032). Among the organic objects are two flint flakers, four needles and a bone point with grooves for lashing.

Fauna: Little bone was recovered (n = 21) from the Lagunehøjen site. Of the 16 identified specimens

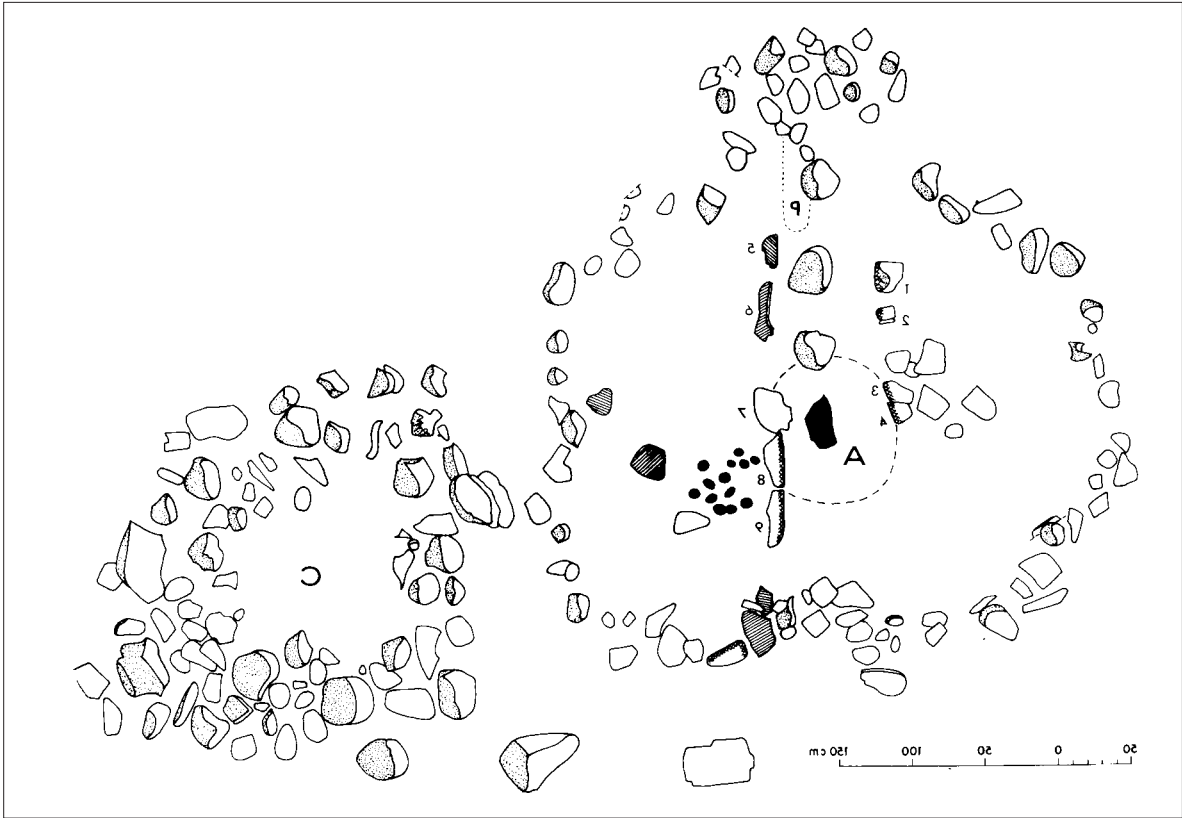


Fig. 5.55. (drawing 206) Lagunehøjen, mid-passage tent ring with associated cache.



Fig. 5.56. (photo 1292) Lagunehøjen, meat cache in the vicinity of the dwelling, 12/8-1980.

12.5% are hare and 87.5% musk ox or large terrestrial mammal. The musk-ox and mammal limb-bones are heavily fractured; two specimens have cut marks and one has an impact scar.

Table 5.46. Lithic artefacts Lagunehøjen.

Artefact category	All artefacts
Microblades	2
End scrapers	1
Axes	2
All flakes	5
Total	10

5.33 Blæshøj

Independence I

82Ø2-000-026

Site no. 322; text 784; photos 879, 880, 1257

Tent ring

Blæshøj (Windy Hill) is an approximately 45 m high

boulder- and stone-filled hill circumscribed by marine terraces from the base to the top. On the southern side of the hill and 14.5 m a.s.l. there is a circular tent ring of large boulders. Like many of the natural boulders on the hill the stones in the tent ring are heavily eroded by the wind. Many of the stones in the periphery appear to be worn down to half their original size (photo 879). They are all abraded on the western face which indicates that the erosion occurred after they had been moved from their natural position to the tent ring. It also indicates that today's western winds appear also to have been predominant throughout history.

A biface was found under a stone in the northern side of the periphery and a few pieces of skin have been excavated from the western floor sector (LI.7494-8332). In addition to the tent ring, Knuth also noted the presence of two caches in the site list.

5.34 Kap Harald Moltke

Independence I and II

82Ø2-000-017

Site no. 314; text 755; photos 834-835, 987, 1069, 1299

Tent rings

Kap Harald Moltke is the southern point on the Kap Moltke Peninsula (see fig. 5.58), directly opposite the islet Dråbeholmen (Drop Islet). On the tip of Kap Harald Moltke Knuth found artefact scatters and rudimentary structures which were difficult to interpret at first. The remains are present on different levels and Knuth divided the site into the sub-categories of Kap Harald Moltke group I, which encompasses the Independence I remains at the site, and the Kap Harald Moltke group II, which encompasses the Independence II remains. There is no site map illustrating the location of the individual features, so it is difficult to gain an overview of the registered phenomena. In the site list Knuth has registered group I as a site with two structures (group Ia and group Ib) and a lithic scatter. Group II is marked with the signature for a single tent ring. However, in addition to these features Knuth also mentions meat caches (text 755). In order to complete the confusion it should also be mentioned that, while the group Ia feature is marked with a tent ring in the site list, and the group Ib with the signature for an isolated hearth, the description of these two fea-



Fig. 5.57. (drawing 191) Galleriet, feature 1.

tures in text 755 appears to have been reversed – the group Ia feature being described as ‘hearth structure to the south’ and the group Ib as a ‘tent parabola’. The bones collected from these features were not consistently separated and have thus been treated as a single unit for analytical purposes. From Knuth's description the following tentative description can be summarised:

Group I

Independence I

Group Ia is a rudimentary tent ring or boulder parabola-



Fig. 5.58. (photo 1294) Kap Harald Moltke, view from the Independence I site towards the islet Dråbeholmen. In the foreground unidentified boulder structure.

la located on a broad terrace approximately 13 m a.s.l. South of the feature is a meat cache where Knuth later found large quantities of charcoal. Knuth notes that during excavation of a badly defined feature on the 13-14 m level (presumably the tent parabola) large stones had to be moved from the centre of the feature in order to gain access to the culture layer which was buried 10-12 cm below the stones. The charcoal layer was concentrated in a band across the central part of the feature as if there had once been a mid-passage here. In addition to this rudimentary dwelling structure there is an open-air hearth located to the south of the dwelling structure. To summarise the Independence I evidence from Kap Harald Moltke: Geological processes and/or later occupations have disturbed the boulder structures. The exact character of the features is difficult to reconstruct. However, the artefact distributions and recorded remains suggest that the site has been the *locus* of an isolated Independence I dwelling. The outdoor hearth may suggest that the site was a spring or warm season habitation. The features were excavated in 1964 and 1973 whereby a collection of lithic artefacts, charcoal and some bones was recovered (LI.8556-8264, LI.9825-9830).

Table 5.47. Lithic artefacts Kap Harald Moltke group Ia.

Artefact category	All artefacts
Microblades	3
Burin spalls	4
Undefined tool	1
All flakes	22
Total	30

Table 5.48. Lithic artefacts Kap Harald Moltke group Ib.

Artefact category	All artefacts
Microblades	2
Burin spalls	1
All flakes	18
Total	21

Group II

Independence II

Group IIa is a boulder ellipse located against a larger erratic 9.5 m a.s.l. Knuth mentions that it may be a cache, but on the site list the single feature on this site is marked with the signature for a tent ring. The site

was excavated in 1963 and 1973. In the inventory list at the National Museum of Denmark the recovered artefacts are listed as originating from group IIb and, in the case of an end scraper and a microblade core collected in 1973, with no specification of the exact feature. The artefact table below lists all the lithic artefacts from group II (LI.7461-7470, LI.9831-9832).

Fauna: As was mentioned in the introduction to the Kap Harald Moltke sites, the faunal material from groups I and II was not consistently kept separate. Therefore, the following description deals with all the collected fauna material from Kap Harald Moltke. A total of 46 faunal specimens were recovered by Knuth from these features (13 unidentified). Of the identified specimens, 54.5% are bird (rock ptarmigan is the only species identified), 39.4% seal and 6% artiodactyl (most likely musk ox). The originally deposited remains were probably a single ptarmigan that was cooked or used for fuel, one juvenile or young adult seal (1-5 years of age) and probably a musk ox. With only tooth fragments present the musk ox was, however, almost certainly not complete when deposited. The dominance of these features by ptarmigan and adult seal indicates a spring or summer occupation.

Table 5.49. Lithic artefacts Kap Harald Moltke group II.

Artefact category	All artefacts
Side blades	1
End scrapers	2
Retouched flakes	1
Axes	1
Microblade cores	3
Large flake/rough-out	2
All flakes	6
Total	16

Site Summary and Discussion

Presumably Kap Harald Moltke is a minor Independence I and II site. It is difficult to draw definite conclusions about the nature of the settlement since the features appear to be flimsy in their original structure or have been disturbed. The lithic inventory on the other hand is more substantial than it is on many of the other Independence sites with just a few features. The presence of microblade cores and large flakes or rough-outs in the inventory from group II indicates that some primary lithic reduction was con-

ducted during Independence II. It is not known whether the raw material was brought to the site from other areas or whether it was gathered locally.

5.35 Galleriet

Independence I

82Ø2-000-018

Site no. 356; drawings 191–192; photos 836–838, 973–976

Galleriet is an Independence I site located on gravel terraces 13–14 m a.s.l. on the northernmost point of a fossil island which today forms the more elevated areas of the Kap Harald Moltke Peninsula. In the Baedeker Knuth mentions four hearths from Independence I summer camps but in the site list (text 850) feature 1, or ‘ruin 1’ as it is called, is marked with the signature for an isolated mid-passage, feature 2 is marked as a stone periphery, open on one side, and features 3 and 4 are marked as isolated box hearths. The site name means ‘the Gallery’ with reference to the many wind-abraded stones that are seen everywhere. In the register at the National Museum of Denmark the Galleriet site is registered under the name Sundkrogen, which is a collective name that Knuth used for the Galleriet and Søhuset sites. Directly translated Sundkrogen means ‘Nook of the Strait’ but in Denmark it is a commonly used place name, designating among other places a portion of the harbour in Copenhagen.

Features and Finds from Galleriet

Feature 1

Isolated mid-passage (drawing 191, photo 836)

In the site list feature 1 is marked as an isolated mid-passage (fig. 5.59). The feature was excavated in 1972–1973 but apart from charcoal, wood splinters and bone fragments only two flakes were found (LI.9812–9818).

Fauna: Knuth collected 23 bone specimens (15 unidentified) from feature 1. The identified remains are exclusively of small seal. All the bone probably derives from a single ringed seal.

Table 5.50. Lithic artefacts Galleriet feature 1.

Artefact category	All artefacts
All flakes	2



Fig. 5.59. (photo 836) Galleriet, feature 1, 19/7-1973.

Feature 2

Stone periphery (photo 837)

On the site list (text 850) feature 2 is marked as a stone periphery open on one side. Some charcoal was collected from a hearth to the left of the entrance (LI.9819).

Feature 3

Open-air hearth (photo 838)

In the site list (text 850) feature 3 is marked with the



Fig. 5.60. (photo 838) Galleriet, open-air hearth feature 3, 19/7-1973.

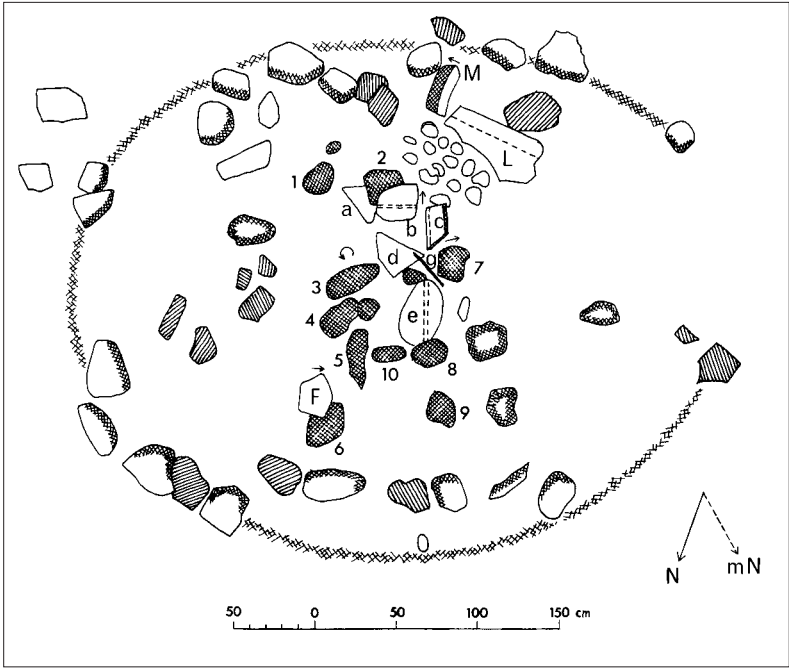


Fig. 5.61. (drawing 190) Søhuset.

signature for an isolated box hearth (fig. 5.60). Knuth has collected charcoal, wood splinters, bone splinters, a microblade and a single flake from the feature.

Fauna: Knuth collected two bones from this feature: an arctic hare *humerus* (shaft fragment) and an arctic hare *radius* (proximal end). The *humerus* has been gnawed by a small carnivore which indicates the presence of arctic fox.

Table 5.51. Lithic artefacts Galleriet feature 3.

Artefact category	All artefacts
Microblades	1
All flakes	1
Total	2

Feature 4

Open-air hearth

In the site list (text 850) feature 4 is marked with the same signature for an isolated box hearth as feature 3. Apart from this note there is no detailed description of the feature.

Feature 5

Feature 5 is unknown but a few bones at the Zoological Museum are noted as deriving from it. Actually these faunal remains could be mis-labelled material from

feature 4 or maybe they were collected separately from a location not recorded by Knuth in his field notes. This feature yielded two ringed seal cranial fragments (frontal and nasal portions) and four unidentified pieces.

Site Summary and Discussion

Galleriet is a short-term Independence I site. There are few finds, several of which are associated with the open-air hearths. The presence of the mid-passage illustrates that this feature type is not restricted to the find-rich localities where people settled for a longer period of time. The combination of two habitations with two open-air hearths could indicate that all features are contemporaneous remains of two families or social units settling at the site for a brief period during the warm season when most activities could be conducted outside.

5.36 Søhuset

Independence I

82Ø2-000-018

Site no. 420, drawing 190, photo 1259

The Søhuset site (Lake House) is an Independence I mid-passage ruin located c. 100 m to the north of the

Galleriet site, on the same point and approximately at the same elevation. However, the Søhuset feature is oriented towards the north where today there is a brackish lake, but where during Independence I time there was a sound.

The dwelling is marked by a 4 x 3.5 m disturbed tent ring (figs. 5.61 and 5.62) with boulders and some flat stones scattered at the centre of the interior where Knuth believed they had been part of a mid-passage. He considers stones 1-10 to have delineated the mid-passage and flagstones a-d the hearth. Flags b and c were partly dug down into the sub-stratum. The stippled double lines mark their position when raised into a vertical position. Stone e has exactly the same thickness as stone c. It was found in a vertical position but fits perfectly into the western wall in the mid-passage. The vertically standing stone g is broken off from e. It has been pushed out of its original alignment by the tilting of e. Knuth believed the hearth to have been placed between boulder 2 and the transversely placed boulder 10. The horizontally placed L has the same thickness as the vertically standing stone M, and set on edge it could have concealed a minor box at the rear of the dwelling. Flagstone b has been split into four flakes which were all tilted towards 2. Flagstone F was tilted towards the west against stone 6, where it may have been placed in a vertical position in order to cover another cache. The south-eastern floor section is paved with flagstones in places. Artefacts were excavated from the feature in 1972, 1973 and again in 1985. Apart from two bone needles the finds comprised 79 flakes (LI.9808-9811, LI.10453). Knuth has, however, recorded a total of ten burin spalls, one burin, four microblades, five needles and 298 chips in his list. In addition to these finds a minor collection of bones was also recovered, including some of arctic char.

Fauna: Knuth collected 32 bone fragments (seven unidentified) from the Søhuset site. An arctic char bone was recorded in the archive listing for this site and in the record of the bone material but is now missing. More than half of the identified assemblage comprises ringed or small seal (56%), followed by musk ox (8%) and arctic fox (4%). Based on the presence of unidentified bird (24%) and char (4%), this feature was probably occupied during the summer. The brent/barnacle goose identification (two *humerus* fragments) is a cautious assessment. Comparison with both species suggests, however, that these are most



Fig. 5.62. (photo 1259) Søhuset, tent ring with mid-passage. Seen from south looking north, where a brackish lake fills the lowest depression on the clay plain. During the habitation of the feature the lake and the surrounding clay plain were all covered by the higher sea level, 26/6-1964.

likely from a barnacle goose. There is only one record of this species in North Greenland although it is a regular breeder in North-east Greenland (Boertmann 1994). This may indicate that the population extended further north 4000 years ago.

Table 5.52. Lithic artefacts Søhuset.

Artefact category	All artefacts
All flakes	79

5.37 Gammel Strand Vest

Independence I

82Ø2-000-006

Site no. 285

The site name Gammel Strand (Old Beach) was originally given to the archaeological locality Gammel Strand Nord. Later Knuth found more archaeological localities around the Kap Moltke Airstrip and the sites were then renamed Gammel Strand Nord, Gammel Strand Syd, Gammel Strand Øst and Gammel Strand Vest. This process of renaming stretched, however, over several years, creating major confusion in the

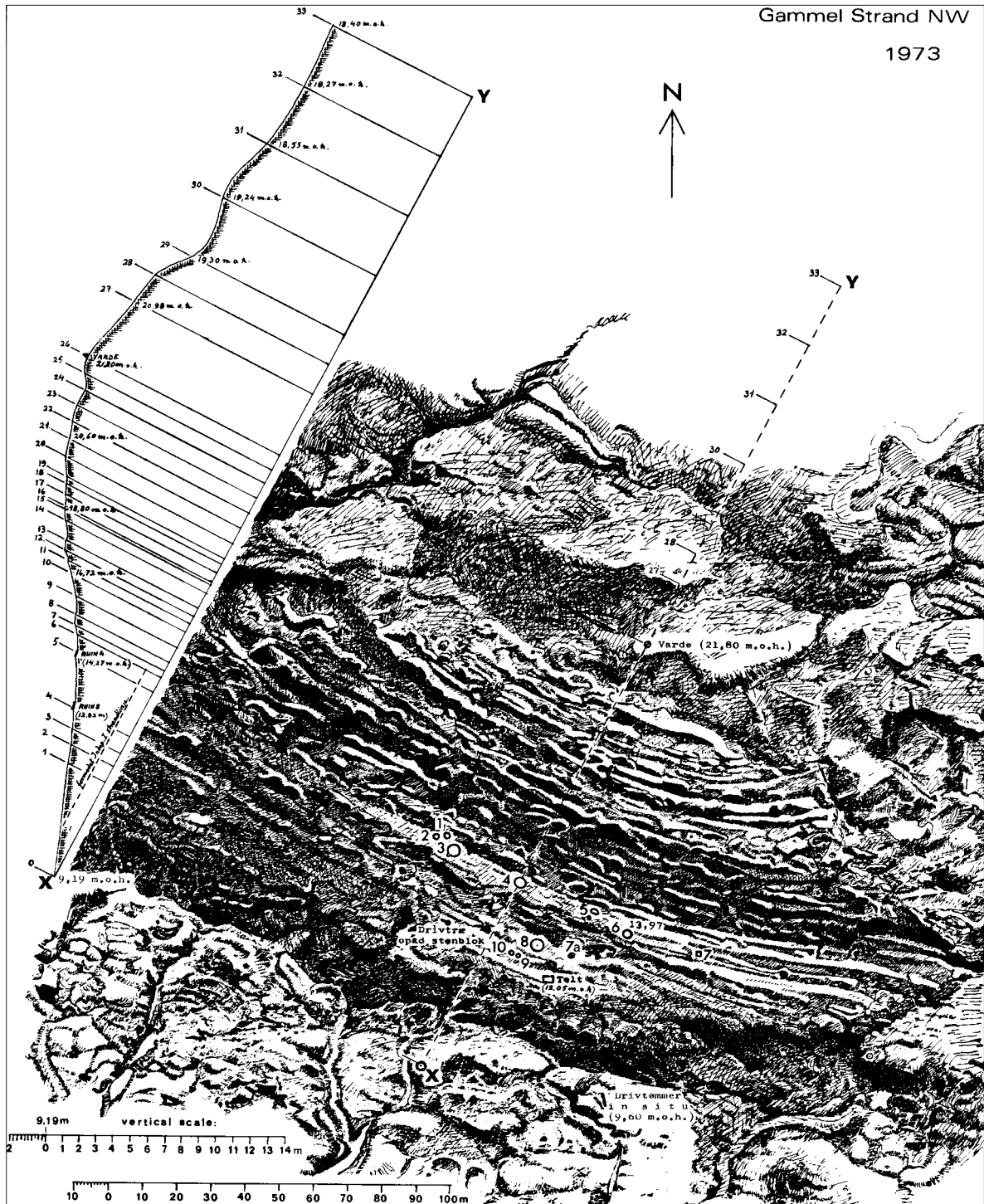


Fig. 5.63. (drawing 202) Gammel Strand Nord site map with the location of features 1 to 10.

archival material and with regard to the origin of the artefacts.

Gammel Strand Vest is an Independence I site located a few metres in front of the entrance to the Kap

Moltke station. In the Baedeker Knuth mentions two ruins but in the site list (text 851) features 1, 2 and 3 are marked with signatures for a dwelling of uncharacteristic type (ruin 1), a mid-passage dwelling (ruin 2) and

a tent ring (ruin 3) respectively. On the map of the Kap Moltke station (Knuth 1973:87) there are three features even though only two have the appearance of a dwelling.

5.38 Gammel Strand Nord

Independence I

82Ø2-000-005

Site no. 423, texts 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 781, 782, 817, drawings 201, 202, 203, 204, photos 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 1260, 1261, 1262, 1263, 1264, 1296, 1297.

Gammel Strand Nord is the largest of the four Gammel Strand sites. At least eleven features are located on an extensive series of fossil beach ridges (fig. 5.63). The beach ridge terrain has an oval outline with a 100-200 m long axis oriented parallel to the SE-NW oriented beach ridges. All the dwelling features are located on the lower terraces facing south-west. In the westernmost part of the beach ridge terrain Knuth recorded a few concentrations of stones which he considered to be of minor interest. In addition to these he recorded a total of 11 features. In the site list these are marked with signatures indicating that two are mid-passage dwellings, two are tent rings with a central hearth, three are peripheries with no internal features, three are open-air hearths of which one has an associated cache, and two are circular meat caches. These statistics are inconsistent with Knuth's own summary in text 763 where the features are summarised as four mid-passage dwellings, four dwellings with hearth, five boulder peripheries and one cache. The renaming of the Gammel Strand sites, as mentioned under the previously described Gammel Strand Vest, has resulted in the Gammel Strand Nord site being published as Gammel Strand North-west or NV in Knuth's 1964 report on the archaeology of Jørgen Brønlund Fjord.

This renaming has also confused the faunal analysis since Knuth labelled the faunal bags as 'vest', 'nord-vest' and 'sydvest', and combined the remains from features 3 and 4. Bone was collected from features 3, 4, and 8 at Gammel Strand Nord and from Gammel Strand Syd. Apparently no bones were collected from feature 6 at Gammel Strand Nord or from any Gammel Strand Øst features.

Features and Finds on Gammel Strand Nord

Feature 1

Stone ring (text 763)

Feature 1 is a circular ring of stones with a diameter of 1.5 m. The feature is located 14.23 m a.s.l. in the north-western part of the site (see fig. 5.63). In 1985 three flakes were recovered from the south-eastern part of the dwelling whereas musk-ox hair and wood splinters were found scattered throughout the floor area (LI.10439-10440).

Table 5.53. Lithic artefacts Gammel Strand Nord feature 1.

Artefact category	All artefacts
All flakes	3

Feature 2

Stone ring (text 763, photo 869)

Feature 2 is located 14.74 m a.s.l., just beside the largely similar feature 1. 4 m to the south-east lies feature 3. In 1985 flakes were recovered from the south-western corner of the dwelling and from the eastern part of the feature Knuth collected wood pieces and fragments of bone (LI.10441-10442).

Table 5.54. Lithic artefacts Gammel Strand Nord feature 2.

Artefact category	All artefacts
All flakes	13

Feature 3

Mid-passage dwelling (text 764; drawing 203; photos 869, 873, 874)

Feature 3 is an elliptical tent ring with mid-passage hearth (figs. 5.64 and 5.65). The tent ring is marked by several rows of boulders. Internally it measures 3.6 x 2.8 m, and it is located 14.32 m a.s.l. The square box hearth is framed by four flagstones set on edge. It is embedded in a c. 2.2 m long SW-NE oriented mid-passage structure of flat stones filled with fire-cracked rocks. In the front part of the mid-passage, or just beside the entrance but on the outer side of the tent ring, there is a collapsed cache similar to caches in the front wall at dwelling structures at the sites Søhuset, Pearylandville and Kettle Lake in Tanquary Fjord on Ellesmere Island. Knuth noted a few musk-ox bones and a piece of wood but no lithics on the gravel floor. However, during excavation several lith-

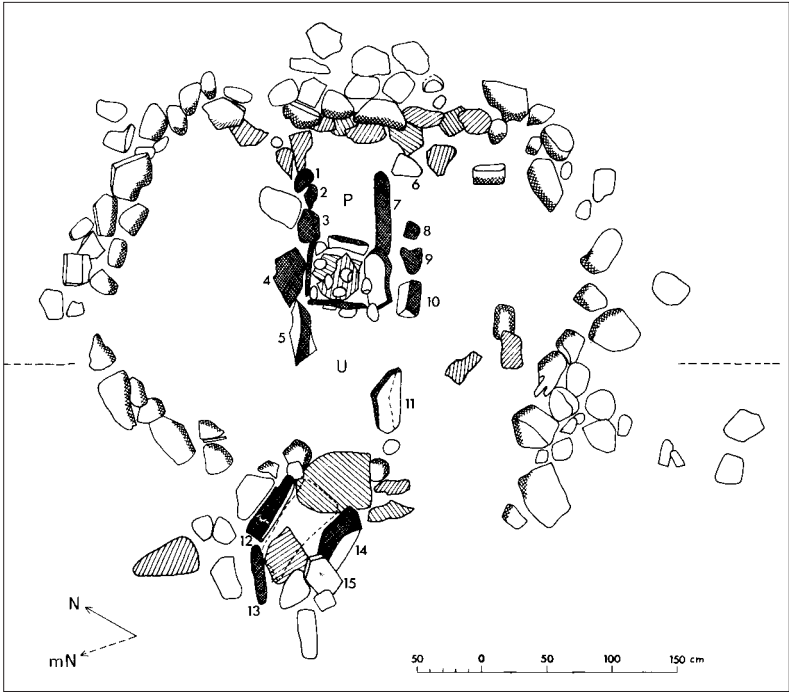


Fig. 5.64. (drawing 203) Gammel Strand Nord, feature 3 (Knuth 1965, 1967).

ic as well as a few organic artefacts were recovered from the feature (Li.8304-8327). Among the organic artefacts are a flint flaker and three needles, none of which is mentioned in Knuth’s lists but they are recorded in the inventory list at the National Museum. Willow charcoal from feature 3 has been dated (K-II96) to 3620 ± 110 BP, which within one standard



Fig. 5.65. (photo 869) Gammel Strand Nord, feature 3, detail of mid-passage with box hearth, 4/8-1970.

deviation results in a calibrated date of between 2140-1770 cal. BC.

Table 5.55. Lithic artefacts Gammel Strand Nord feature 3.

Artefact category	All artefacts
Bifaces, all fragments included	6
Microblades	2
Burins	1
Burin spalls	8
All flakes	29
Total	46

Feature 4

Mid-passage dwelling (text 765, photo 1296)

Feature 4 is an elliptical tent ring of tightly packed boulders. The hearth is disturbed. A heap of large boulders was found near the wall in the western floor sector. In the centre of the boulder concentration there was a square box and in front of the feature there was some charcoal. The dwelling is oriented towards south-west. Knuth wonders whether it may be larger than it appears at first glance, such that the above mentioned heap of boulders originally was a cache built against the mid-passage or may be the hearth. A few bone splinters were found outside the eastern part of the tent ring and during excavation in 1964 some

lithic artefacts were also collected. Lithic and organic items were collected in 1964 and in 1985 (LI.8328-8331, LI.10443-10444). Three flakes collected in 1964 were found beside the north-western side of the hearth, whereas a birch bark roll and all but a single bone fragment were found in the presumed cache located in the western floor section.

Fauna: Knuth collected 47 bone fragments from features 3 and 4 (including two unidentified fragments). Of these 48.9% are of bird, 13.3% of hare and 37.8% of musk ox or large terrestrial mammal. None of these remains is burnt but more than 50% of the musk-ox bone has been modified by human hand (cut marks, impact marks and fresh fractures). The preponderance of bird bone from at least three different species, and particularly of juvenile bird bone, is indicative of a summer occupation of these dwellings.

Table 5.56. Lithic artefacts Gammel Strand Nord feature 4.

Artefact category	AI artefacts
Microblades	3
End scrapers	1
All flakes	51
Total	55

Feature 5

Open-air hearth (text 766, photo 870, 1260)

Feature 5 is a square or, according to photo 870, a pentagonal boulder-framed hearth with a meat cache on its north-western side (fig. 5.66). The feature is located 14.07 m a.s.l. In 1966 a single fragment of musk-ox bone was recovered from the feature (LI.8737).

Feature 6

Tent ring with central hearth (texts 781, 782, drawing 201, photos 871, 875, 1261, 1262, 1297)

Feature 6 is an elliptical tent ring with a box hearth and several fire-cracked rocks at the centre (fig. 5.67). Only the northern and southern side of the box hearth has the framing stones standing vertically. The sandstone slabs on the eastern and western sides of the box are tilted out so that the fire-cracked rocks have been scattered around. Inside the box is paved with a single slab. Two large flat stones have been placed outside the front part of the dwelling in order to support the front wall and even floor plane. Similar foundations



Fig 5.66. (photo 1260) Gammel Strand Nord, feature 5, 4/8-1970.

were found in feature 3 at Portfjeldet and Deltaterrasserne feature 5. Feature 6 is located 13.74 m a.s.l. and was excavated by Knuth during several visits. Among the organic artefacts are six needles and several wood splinters. The lithic material is listed below (LI.9626-9632, LI.9771-9775, LI.10445). From the excavation in 1970 there is a description of the excavation: ‘... I asked Thorvald to dig in feature 6 where Norden Andersen had stopped his excavation [in 1968] ...he started in the front section where apparently there is an extra hearth marked by a ring of stones on the floor



Fig. 5.67. (photo 875) Gammel Strand Nord, feature 6, 10/8-1964.



Fig. 5.68. (photo 1263) Gammel Strand Nord, feature 7, 15/7-76.

just inside the dwelling. Here Norden Andersen found many wood pieces in all sizes, and now they proved to show up in an even larger area where they are mixed in a matrix also containing charcoal and bone splinters. Thorvald found two microblades which he immediately put in his mouth in order not to loose them. We then cleaned up under the two flagstones, I under the eastern and Thorvald under the western. I only discovered a needle whereas Thorvald collected the smallest flakes I have ever seen. Many were only 1 x 1 one mm and they showed up in large numbers until he had 91.’ (Translated from text 782). Knuth then concluded that the opposing situation of the needle found on the eastern side and the retouch flakes on the western side of the hearth probably indicated the positions of the female and male seats at the hearth.

Table 5.57. Lithic artefacts Gammel Strand Nord feature 6.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	4
All flakes	200
Total	205

Feature 7

Open-air hearth (text 768, photo 1263)

Feature 7 is a square box hearth built against a more

than one metre long erratic such that one of the sides in the box is formed by the natural boulder (fig. 5.68). The feature is located 13.28 m a.s.l. Another outdoor hearth (feature 7b) is noted in the site list (text 851) but there is no further information on this feature. Presumably feature 7a in the site list corresponds to feature 7 on the site map (fig. 6.63), and feature 7b on the site list is the feature named 7a on the map. Knuth notes, however, that feature 7 is located north-west of feature 6. This does not correspond with the site map so maybe ruins 5, 7 and 7a have been confused with each other.

Feature 8

Tent ring with central hearth (text 769, drawing 204, photos 872, 876,1264)

Feature 8 is an oval tent ring with a central box hearth of vertically placed flat stones. The square hearth is filled with fire-cracked rocks (figs. 5.69 and 5.70). Wood splinters were imbedded in a sand heap deposited on the eastern lee side of the hearth. Feature 8 is located 12.78 m a.s.l. 30-40 m in front of feature 5 on a lower terrace than all the other features. The feature was excavated in 1968 and 1985. A total of 52 lithic artefacts, two needles, five birch bark rolls and 70 wood splinters have been recovered from the feature (LI.9633-9637, LI.10446-10450).

Fauna: Only 19 faunal remains were recovered from this feature, and of these only eight were identified. Seven of these bones are small fragments of fractured musk-ox bone and one is a fish bone. This was probably a warm season occupation given the size of the feature and the fish bone.

Table 5.58. Lithic artefacts Gammel Strand Nord feature 8.

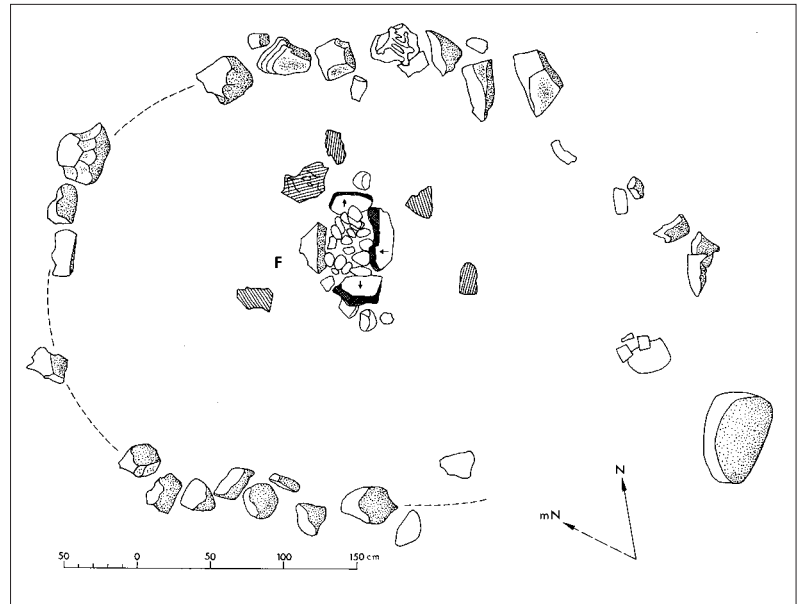
Artefact category	All artefacts
Microblades	2
Burin spalls	1
All flakes	49
Total	52

Features 9 and 10

Caches (text 770)

Features 9 and 10 are two minor rings of stones believed to be caches. Both are located 12.37 m a.s.l. in front, and a little to the west, of feature 7.

Fig. 5.69. (drawing 204) Gammel Strand Nord, feature 8.



Feature 11

Tent ring (text 771)

Feature 11 is not marked on the site map (fig. 5.63). It is, however, mentioned in text 771 and on the site list (text 851). The periphery is located 12.61 m a.s.l., a little to the east of feature 7.

Site Summary and Discussion

Gammel Strand Nord is in many ways a classical Independence I site with the majority of the 11 features lined up on the very same terrace approximately 14 m a.s.l. Only features 8, 10 and 11 break this pattern with their location on the lower terrace in front of the other ruins. While the location of the individual features

may have been chosen mainly in order to combine a good view of the prehistoric fjord with well drained ground, the linear arrangement of features 1 to 7 could also represent a conscious layout. The latter suggests that features 1 to 7 are contemporaneous, whereas features 8 to 11 may represent a separate episode of settlement. Gammel Strand Nord may be the result of just two episodes of occupation in which five dwellings and three outdoor hearths were used during one episode and just two dwellings were present during the other. However, the more flimsy character of features 1, 2 and 11 may also result from these being older structures which were partly dismantled during later occupations. In any case, the group size ranged



Fig. 5.70. (photo 876) Gammel Strand Nord, feature 8, 10/8-1964.



Fig. 5.71. (photo 1298) Gammel Strand Øst, feature 1 seen from the east, 25/7-1983.

between one and five social units. If features 1 to 7 are contemporaneous we may further suggest that this occupation effectively only comprised three social units since there are no hearths in features 1 and 2.

In spite of the fact that features 1 and 2 are dwellings, they may not represent genuine tents inhabited by families but rather smaller structures giving protection to a single individual. The minute size of features 1 and 2 could support this suggestion.

In addition to the description of the artefact distribution, Knuth's analysis of feature 6 also includes a discussion of the function and role of the mid-passage phenomena in a wider perspective. Based on the juxtaposition of debitage on the western side and a needle on the eastern side of the hearth in feature 6, Knuth wondered whether the tent rings with central hearth, such as features 6 and 8 on Gammel Strand Nord, were spring or summer dwellings inhabited by a single couple, whereas mid-passage dwellings were inhabited by several persons with tradition-bound seats as have been documented ethnographically among the Saami (text 782).

5.39 Gammel Strand Øst

Independence I
82Ø2-000-065
Site no. 303, texts 818, 819, 820, 821, 822, drawings

198, 199, 216, photos 862-865, 904-911, 1266-1269, 1298 Gammel Strand Øst is a site with five features located on fossil beach terraces approximately 800 m from the present shore in the terrain east of the Kap Moltke Airstrip. The gravel terraces have developed below a boulder strewn hilltop. The longest of the terraces measures 56 m. On Knuth's sketch of the site (drawing 199) the features are numbered A-E, which has been changed to 1-5 in order to match the numbers Knuth used on the photographs as well as in his feature descriptions. There is some disagreement between Knuth's feature descriptions and the symbols used on the site list. The hearth seen on photo 1268 supposedly depicting feature 5 is the same hearth as the one portrayed on photo 911 which supposedly should be feature 4. While these inconsistencies increase the risk of misplaced photos and errors in the description of the individual features, they do not affect the overall impression of the site in any significant way. The following feature description is based on a combination of Knuth's feature descriptions and the available drawings and photographs.

Features and Finds from Gammel Strand Øst

Feature 1

Tent ring with hearth (text 818; drawing 198; photos 862, 865, 905, 906, 1298)

Feature 1 is a circular tent periphery of approximately 30 boulders (fig. 5.71), measuring 2.3 m in internal diameter. It is located on sloping ground 13.23 m a.s.l. The western face of many of the stones is heavily abraded by the wind. In the south-western corner there is a concentration of approximately 20 fist-sized fire-cracked rocks. Numerous wood pieces and sticks were recovered during excavation, and several of the sticks were found between the stones in the periphery. Charcoal, a biface and a flake were also found (LI.9780, 9790-9792).

Table 5.59. Lithic artefacts Gammel Strand Øst feature 1.

Artefact category	All artefacts
Bifaces, all fragments included	1
All flakes	1
Total	2

Feature 2

Tent ring (text 819)

Feature 2 is an irregular rectangular tent ring located on sloping terrain approximately 12.69 m a.s.l. Internally it measures 3.4 m SE-NW and 2.1 m NE-SW. The feature is located 2.1 m from feature A. It has not been excavated.

Feature 3

Tent ring with mid-passage (text 820; drawing 216; photos 907, 908, 909, 910, 1266)

Feature 3 is a circular boulder and gravel berm tent ring (fig. 5.72) set in a clay-filled depression between two beach ridges, 7.7 m to the east of feature 1. The feature was excavated on August 11th 1963. Some charcoal was recovered from the hearth.

Feature 4

Tent ring with central hearth (text 821; photos 865, 1267, 1268)

Feature 4 is a rudimentary tent ring located 12.97 m a.s.l., 9.3 m east of feature 3 and on the terrace just below it. It is similarly located in a depression. At the centre there is a hearth defined by four stones. 1.65 m to the west of the periphery there are three small stones. The feature was excavated as far as the hardened clay allowed. Close to the north-western corner of the hearth Knuth found a microblade, 1.2 cm wide and 4 cm long (L1.7471). South-east of the hearth there was some wood with a reddish surface colour. In the site list (text 851) feature 4 is marked with the signature for an outdoor hearth. The present description is, however, based on Knuth's description and on the photographs.

Feature 5

Uncertain feature (text 822; photos 1267, 1269)

Feature 5 is an aggregation of boulders sitting 13.46 m a.s.l. in hard clay, 9.2 m from feature 4 on the terrace just above feature 3. No excavation has been carried out here. In Knuth's site list (text 851) feature 5 is marked with the signature for an open-air hearth.

Site Summary and Discussion

Gammel Strand Øst is in many ways a typical small Independence I site with just a few features of which only one or two are mid-passage dwellings. It is difficult to decide whether all the features are contempora-



Fig. 5.72. (photo 907) Gammel Strand Øst, feature 3 seen from the rear, 9/7-1960.

neous, but clearly the layout suggests that they may be so. The different state of preservation on the other hand suggests that they could also represent a few occupational episodes, where features 1 and 3, or maybe 1, 2 and 3, represent the last occupation. During this episode of habitation stones were re-used from the older dwelling structures 4 and 5. We may never know the exact story and there is not much lithic material to shed light on the relationship between the individual structures.

5.40 Gammel Strand Syd

Unknown culture

Text 817

Gammel Strand Syd is an aggregation of driftwood and bones located in front of, and partly covered by, a linear arrangement of boulders. Four of the bones have been modified by humans. Knuth estimated the site to be located at approximately the same level as the lowest terraces on Gammel Strand Øst. He wondered whether it could be a cache of driftwood left by the people from the nearby site of Søhuset. For this reason a sample of bones was retained with the intention of later dating. The site is situated just below a locality called Benzintromlehøj (Gasoline Drum Hill) but Knuth was unable to relocate the site after its initial discovery in 1964.

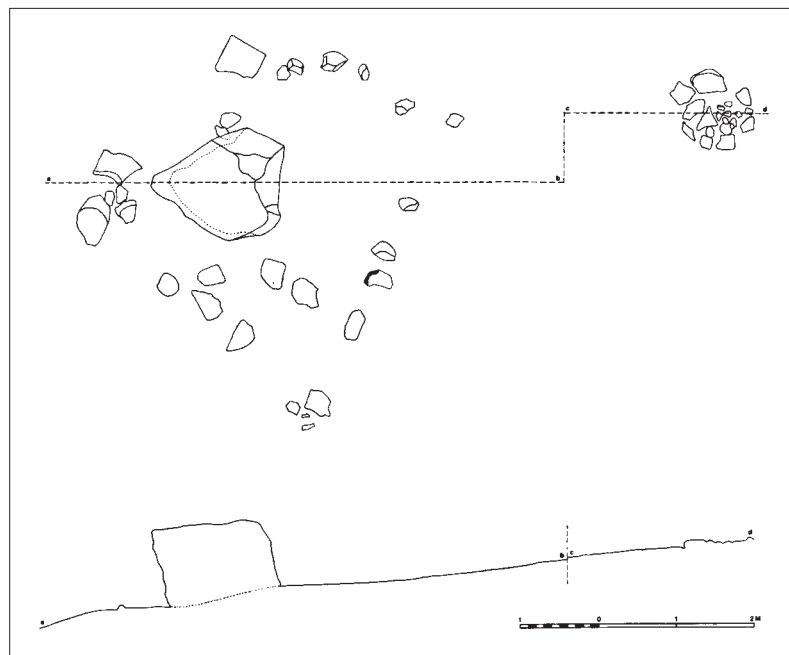


Fig. 5.73. (drawing 221) Kølterrasserne, features 1 a and b.

Fauna: Knuth collected four bones, one of which was sent for radiocarbon dating. The dating appears, however, never to have been conducted. The remaining three bones are a musk-ox *humerus* proximal shaft (left), a musk-ox rib mid-shaft and an artiodactyl limb-bone shaft fragment. All of these bones are modified, as both limb-bones are spirally fractured and the rib has four cut marks on its lateral surface.

5.41 Kølterrasserne

Independence I

82Ø2-000-021

Texts 103, 756, 757; drawings 217, 218, 219, 220, 221; photos 839, 840, 841, 842, 843, 844, 845, 1270.

Kølterrasserne (Keel Terraces) is a site with no less than 16 features distributed along several kilometres of fossil beach ridges, just east of the mouth of Jørgen Brønlund Fjord. Two features are mid-passage tent rings, three are tent rings built against a large erratic and the remainder are isolated hearths. All the features face Independence Fjord, but in accordance with Knuth they have been listed here as part of the Jørgen Brønlund Fjord settlement system. Knuth considered all the ruins to be of Independence I origin due to the character of the features and their location 12-13 m a.s.l. He believed the features to be summer settle-

ments that may have been used by people pausing when travelling between Jørgen Brønlund Fjord and Kap Peter Henrik on the southern shore of Independence Fjord. Knuth (1981) considered the three tent rings built against erratic boulders to be a specific dwelling type which he termed 'block shelters'. He thought the site as a whole had been used by hunters operating largely on their own while their families stayed at Gammel Strand Nord. Knuth recovered faunal remains from six features at the Kølterrasserne site: features 2, 4, 8, 9, 10 and 12a.

Feature Descriptions

Feature 1

Block shelter (text 756; drawings 220, 221)

Feature 1 is a tent ring built against an approximately 1 m high erratic boulder located 12.7 m a.s.l. Behind the tent ring there is an open-air hearth (feature 1b) from where charcoal was recovered (LI.9793) (fig. 5.73).

Feature 2

Mid-passage tent ring (text 756)

Feature 2 is a mid-passage dwelling but with no detailed information on its structure. The feature is located 12.6 m a.s.l. It was excavated in 1973 whereby Knuth recovered a biface and a burin spall as well as bones and charcoal (LI.9794-9795).

Fauna: 19 faunal specimens were recovered (nine

unidentified) from feature 2. Arctic hare comprised 20% and artiodactyl and musk ox 80% of this small assemblage.

Feature 3

Open-air hearth (text 756)

Feature 3 is a hexagonal stone-set hearth located 13.91 m a.s.l.

Feature 4

Block shelter (texts 756, 757; drawing 218; Knuth 1981)

Feature 4 is a block shelter with a central hearth. The periphery is built against a low dolomite block. Knuth believed that the block had supported the tent cover to the rear where the tent skin could have been kept in place by anchor stones now found behind the dolomite boulder. The plane front of the boulder could then have functioned as back-rest inside the dwelling. Knuth excavated the central portion of the feature in and around the hearth, where the blubber-saturated and charcoal-filled culture layer was 10–15 cm thick (LI.9796). The feature is located 13.95 m a.s.l.

Fauna: Just three bones were collected: a glaucous gull *radius*, bird *humerus* and an unidentified fragment.

Feature 5

Mid-passageway tent ring (text 756)

Feature 5 is a disturbed mid-passageway dwelling located 14.3 m a.s.l.

Feature 6 (or feature 7)

Open-air hearth (text 756)

Feature 6 is an open-air hearth which Knuth described as insignificant. He mentions that the feature was discovered and photographed in 1973. It is also marked as being photographed on the site list. However, this photograph has not been registered in the database. Presumably it is among the many unlabelled negatives in the negative binders registered under 6.6 in the Knuth Archive (Haagen 1997a).

Feature 8

Open-air hearth (text 756)

Feature 6 is an open-air hearth which Knuth described as an irregular concentration of stones around a microblade. The feature is located 12.16 m a.s.l. The

hearth was excavated and photographed but the photography has not been registered in the database. Among the finds are two lithic objects, bones and charcoal (LI.9797 a and b).

Fauna: A single musk-ox *radius* distal shaft fragment (spirally fractured) was collected.

Table 5.60. Lithic objects from Kølterrasserne feature 8.

Artefact category	All artefacts
Microblades	1
All flakes	1
Total	2

Feature 9

Open-air box hearth (text 756, photos 838, 1270)

Feature 9 is a square box hearth with fire-cracked rocks located 13.68 m a.s.l. The feature was excavated whereby Knuth recovered a few bones (LI.9798) (fig. 5.74).

Fauna: Knuth collected two bird bones – a *humerus* and a *radius* shaft fragment.

Feature 10

Isolated mid-passageway (text 756)

Feature 10 is an isolated hearth with two vertically standing flagstones set approximately 1 m apart and 13.68 m a.s.l. The feature was excavated in 1973, when Knuth found charcoal, bones and wood splinters (LI.9799–9800). Arctic char is among the species identified in the bone material.



Fig. 5.74. (photo 1270) Kølterrasserne, feature 9, 21/6-1973.

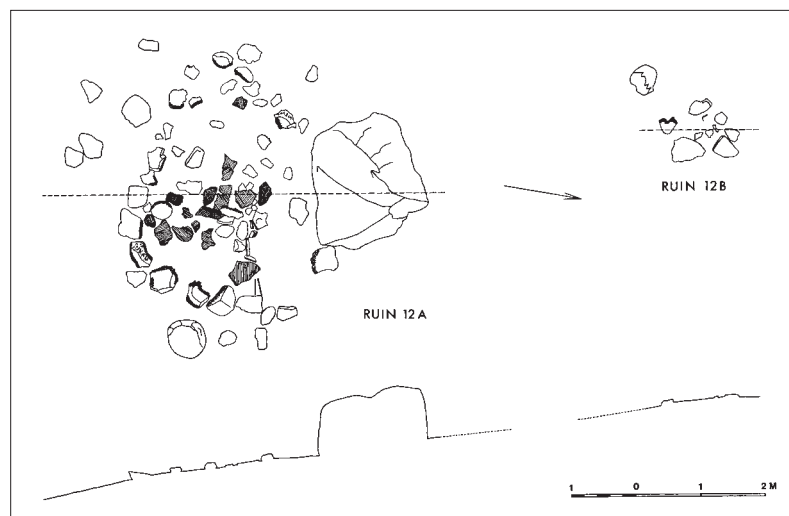


Fig. 5.75. (drawing 219) Kølterrasserne, features 12 a and b. Mid-passage tent ring built against erratic boulder.

Fauna: Knuth collected 116 bone fragments from this feature, including 75 unidentified pieces. The identified portion of the assemblage comprises 19.5% char and unidentified fish, 78% bird (eider, gull and kittiwake) and 2.4% large terrestrial mammal. The predominance of fish and bird suggests that this site was occupied in the summer.

Feature 11

Open-air box hearth (text 756)

Feature 11 is a hexagonal hearth located 15.56 m a.s.l. The area around the hearth was cleared and here Knuth found a piece of driftwood (LI.9800). As with several of the other open-air features on Kølterrasserne, feature 11 is marked as being photographed but the photograph has not been registered in the database. Presumably it is among the many unlabelled negatives in the negative binders registered under 6.6 in the register of the Knuth Archive (Haagen 1997a).

Feature 12

Block shelter (text 756, drawings 217, 219)

Feature 12 is a block shelter largely similar to features 1 and 4. The dwelling consists of a well defined oval tent ring with the back placed against a large boulder and bisected by a mid-passage (fig. 5.75). The feature is located 15.94 m a.s.l. Some metres behind, or to the north of the boulder, there is an open-air hearth (Knuth 1981:93). During the excavation in 1973 Knuth found an arrowhead, charcoal, bones and a wooden pin modified by human hands (LI.9801-9804).

Fauna: Knuth collected 38 bone fragments from this feature, eight of which were unidentified. This assemblage comprises 63.3% unidentified bird, 3.3% lemming, 26.7% ringed and small seal as well as 6.7% musk-ox remains. This high relative frequency of bird remains suggests a summer occupation which would also have been optimal for taking advantage of ringed seals moving into the mouth of Independence Fjord.

Table 5.61. Lithic artefacts Kølterrasserne feature 12.

Artefact category	No.
Bifaces, all fragments included	1

Feature 13

Undefined feature (text 756)

Feature 13 is an rectangular boulder pavement located 13.84 m a.s.l.

Feature 14

Open-air hearth (text 756, photos 841, 842, 843, 844)

Feature 14 is a hexagonal or pentagonal stone-set hearth with a boulder concentration of unknown function on its western side. The feature is located 13.03 m a.s.l.

Feature 15

Open-air box hearth (text 756)

Feature 15 is a box hearth filled with fire-cracked rocks. The feature is located 12.57 m a.s.l.

Feature 16

Open-air hearth (text 756)

Feature 16 is a polygonal stone-set hearth with a single vertically placed flag stone on the eastern side.

Site Summary and Discussion

In addition to the above mentioned features and finds Knuth also registered several dubious features which he did not record in any systematic way. In the area between features 11 and 12, 300-400 m to the west of feature 12, he collected a piece of driftwood lying *in situ* 19.17 m a.s.l. In front of feature 12 he collected another piece of driftwood from its *in situ* location 2.55 m a.s.l.. Approximately 1 km east of feature 16 he collected a piece of whalebone believed to be of Neo-Eskimo origin (Li.9805-9807). Knuth (1981) regarded the features on the Kølterrasserne site as contemporaneous. He argued that their widely spaced location resulted from a hunting practice, in which the hunters camped far from their neighbours in order not to disturb one another while catching fowl, fish or seal on the fjord. However, Knuth's suggestion of contemporaneous units may be questioned. The different locations of the features could also result from differences in the extent of the open water area created every summer at the mouth of Jørgen Brønlund Fjord. If people settled as close to the ice edge as possible, then annual differences in the extent of the open water area would result in different locations for the settlements along the shoreline. The features could represent multiple occupations by a single social unit.

Kølterrasserne is a showroom of early Palaeo-Eskimo open-air hearths. In this respect they clearly fall typologically into box hearths and polygonal hearths. The functional differences between these two hearth types are unknown, but it is characteristic that both hearth types are also found inside the dwellings. The lack of artefacts underlines the temporary character of all the features. The block shelters (features 1, 4 and 12), along with the mid-passage tent rings (features 2 and 5), represent the more solid and well defined dwellings among the Kølterrassen features. But even these structures appear to be of a rather improvised and short-term nature as noted by Knuth (1981).

5.42 Summary and Discussion of Jørgen Brønlund Fjord

With a total of 22 Independence I, six Independence II, 12 Thule sites and eight undated localities, Jørgen Brønlund Fjord holds the largest concentration of pre-historic settlements known in Peary Land. Evidently, the sites in Jørgen Brønlund Fjord are closely related to the sites along Midsommersøerne. This is most strongly documented for the Independence I settlements of Pearylandville and Deltaterrasserne, where refits in a direct manner have shown the movement of people between Deltaterrasserne at the head of Jørgen Brønlund Fjord to Pearylandville in the interior. Similar patterns of movement must have existed during the Independence II and Thule periods even though the annual schedule may have changed from one period to another. The largest Independence I settlement, Deltaterrasserne, is located at the head of Jørgen Brønlund Fjord, whereas Oksejægerpynten, the largest Thule settlement, is located in the central part of the fjord. The different focus of the larger aggregation sites may indicate differences in seasonality but may also be a consequence of the differing mobility of the two populations.

Knuth (1967a, 1967b) suggested an annual cycle oscillating between the outer part of Jørgen Brønlund Fjord, where people lived scattered in small units often comprising just a single family and hunted water fowl and seal, and the inland settlements along Midsommersøerne, where people aggregated into larger communities while hunting musk ox. Whereas this suggestion seems to fit very well with the evidence from the Independence I period, it does not seem to be supported by the settlement evidence left by Independence II and Thule peoples. It is evident that considerable demographic and, probably also, technological differences influenced the settlement pattern. Thus the Independence II settlement is characterised by just six sites with a total of 35 features in Jørgen Brønlund Fjord. These figures are in sharp contrast to the 22 Independence I sites which have a total of 100 registered features.

The Frozen Fjord – Independence Fjord

6.1 Introduction

With a length of almost 200 km and a width of nearly 30 km, Independence Fjord is the largest of the fjords in North-east Greenland (fig. 6.1). The fjord is covered by semi-permanent sea-ice which only melts on rare occasions with intervals of more than 30 years (Landvik *et al.* 2001). Knuth travelled through Independence Fjord on several expeditions, by means of dog sledge, by skidoo or on foot. So even though Independence Fjord is less well surveyed than Jørgen Brønlund Fjord, with its scientific stations, it must be considered reasonably well known. During his sledge journeys Knuth often camped on the fjord ice far from the shores. Much of the travelling may have been conducted in

seasons when large tracts were still covered by snow. Sites may thus easily have been overlooked during Knuth's extensive survey work but it is unlikely that major concentrations of prehistoric settlement would have been missed. Not only did Knuth have a keen interest in elucidating the prehistoric settlement of the area, he also had a very well developed sense for locating ancient settlements. Furthermore, one can argue that since dog sledge and hiking were the main means of transportation during most of Knuth's surveys, it is likely that the topography and local geography lead him to many of the same places that would have been used as camping grounds by ancient hunters.

In the Baedeker (p. 38) Knuth has a note on the absence of prehistoric settlement on the northern shore of Independence Fjord, from Jørgen Brønlund

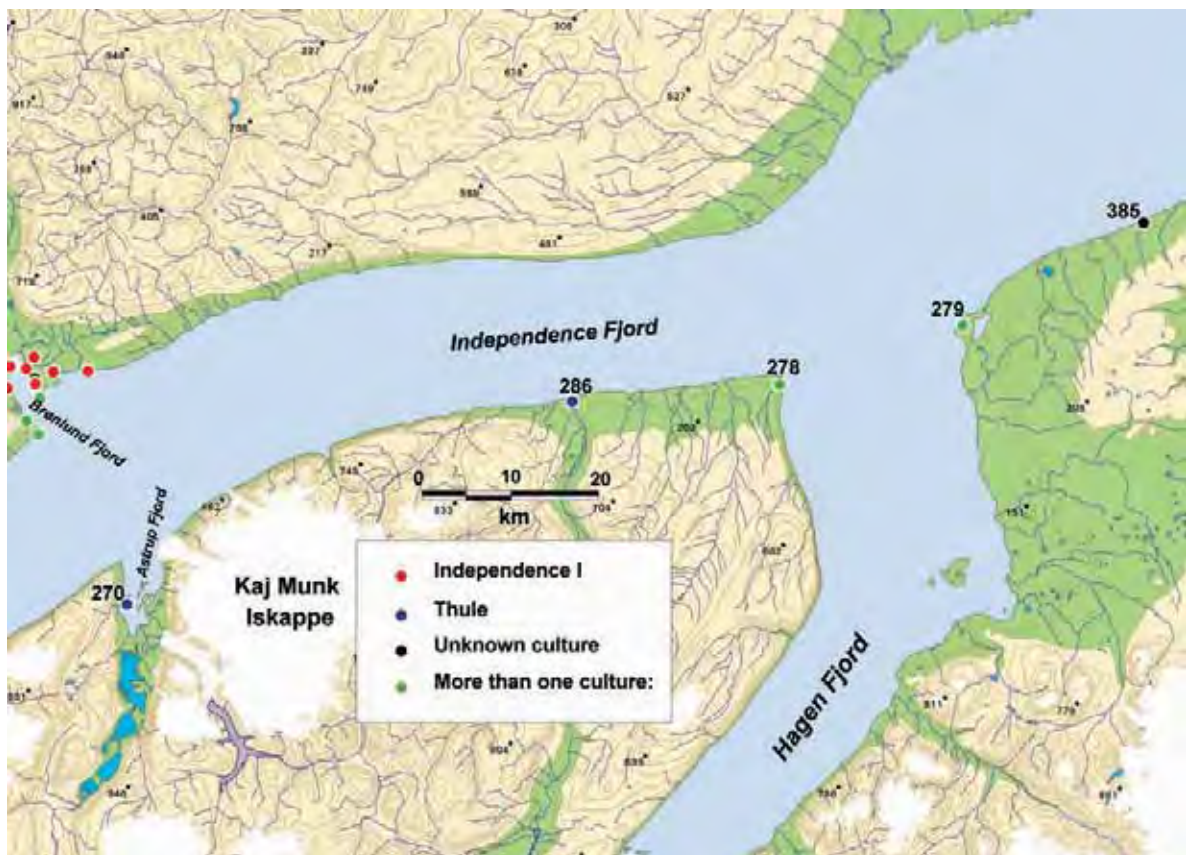
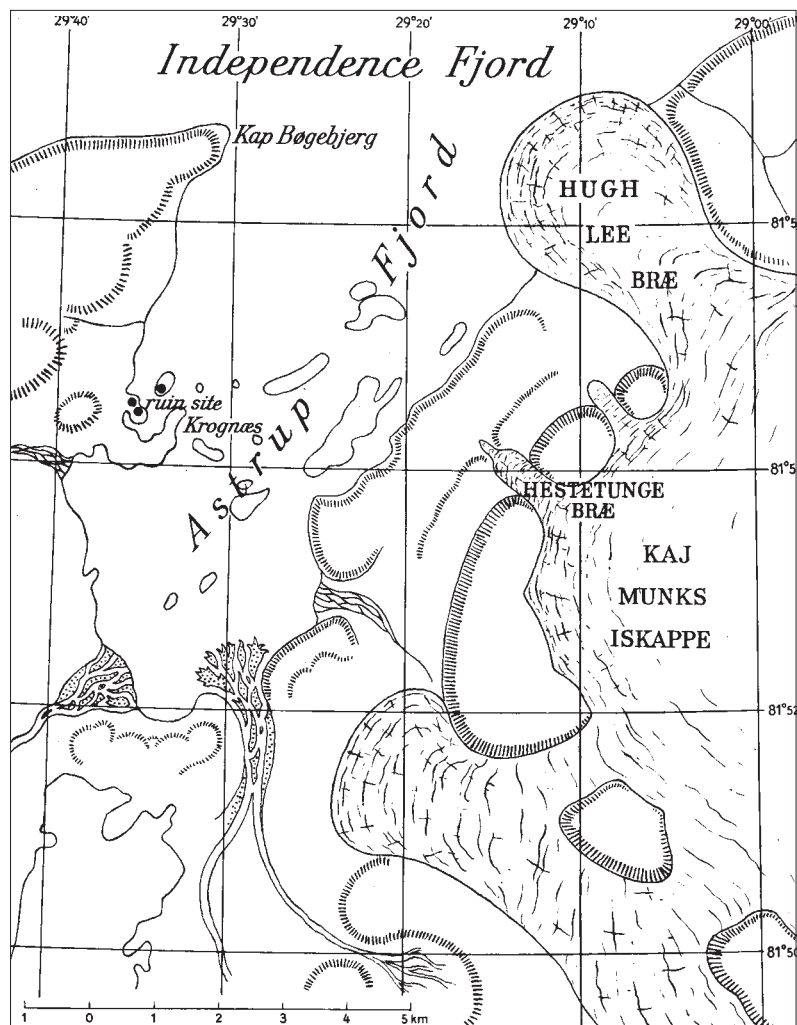


Fig. 6.1. Map of central part of Independence Fjord with the location of archaeological sites.

Fig. 6.2. (drawing 25) Map of Astrup Fjord with the ruin sites at Krognæs.



Fjord and to the west. This coastline was surveyed in 1970 when Knuth and his companion hiked along the shore, dragging their equipment on sledges. There are several points and islets of volcanic bedrock along this particular part of the northern shore of Independence Fjord and many places have beach ridges with fine gravel. However, Knuth did not find a single locality with prehistoric settlement to the east of Jørgen Brøn-lund Fjord. He also noted that driftwood was virtually absent on the ancient shorelines in the inner part of Independence Fjord, defined by a line from Kap Knud Rasmussen to Astrup Fjord. He believed that there may be a relationship between the absence of driftwood and of prehistoric settlements. Knuth thus suggests that the inner part of Independence Fjord could have been filled up with a glacier tongue protruding from Academy Glacier or it could have been so filled

with calf ice that neither driftwood nor humans could enter the area.

Knuth's observations and interpretation may be correct. Studies of the mass balance and physiognomy of North Greenlandic glacier outlets have shown that open water conditions severely increase the calf ice production of floating glaciers (Weidick 2001).

6.2 Krognæs

Thule

81Ø3-000-001

Site no. 270; text 601; drawings 11, 25, 26, 27; photos 43, 443, 444, 445

Krognæs (Hooked Point) is located in the middle of the western shore of Astrup Fjord (fig. 6.2) which branches

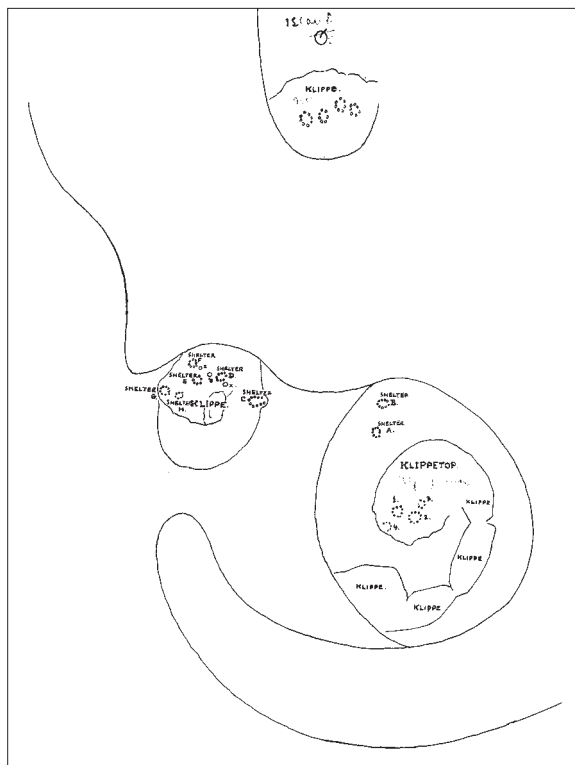


Fig. 6.3. (drawing 26) Detailed site map of the Krognæs site.

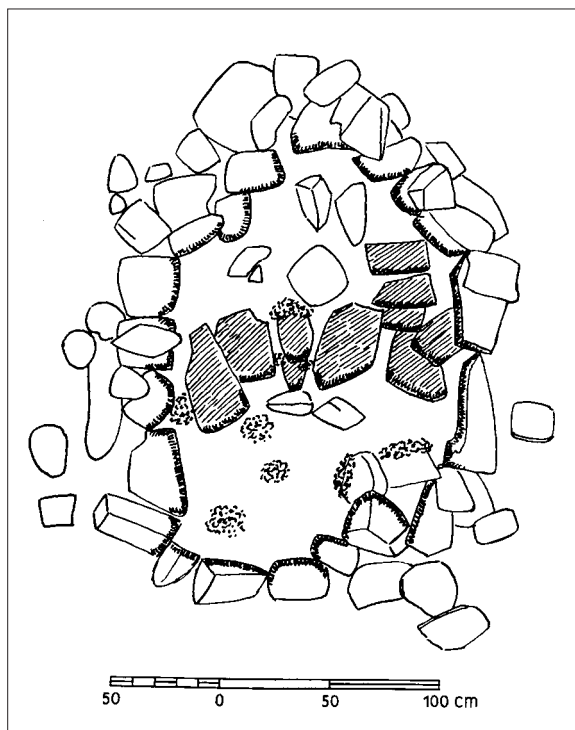


Fig. 6.4. (drawing 27) Krognæs, ruin A.

off the southern shore of Independence Fjord, opposite the mouth of Jørgen Brønlund Fjord. Astrup Fjord is an approximately 10 km long fjord branching into I. C. Christensen Land in a south-westerly direction. The broad tongue-shaped Hugh Lee glacier forms the north-eastern junction between Astrup Fjord and Independence Fjord. Several glaciers protrude from the same local ice cap towards the eastern shore of Astrup Fjord as well as into the valley which continues from the head of Astrup Fjord and into I. C. Christensen Land. Several islets are located at the head of Astrup Fjord where two larger rivers have their outlets. The rivers flow from several lakes extending deep into the valley all the way to the inland ice. During summer, the ice melts in Astrup Fjord and a large ice-free area is created in Independence Fjord, also in front of Astrup Fjord. The tent rings on Krognæs form two clusters located below ice-scoured rock knolls and separated by a low-lying area which is almost on level with the ocean (fig. 6.3). The top of the southernmost and largest rock outcrop is located 12–15 m. a.s.l. and on the ice-scoured dolerite top there are four circular boulder rings, presumably skin-drying racks, numbered 1 to 4. Below the rock outcrop are two tent rings, A and B. The smaller rock outcrop to the north of the low area is only around 3 m high. Here Knuth found tent rings C, D, E, F, G and H and three meat caches x, y and z. On the southern point of a little island to the north-east of the point there are four boulder rings located on the sloping and south-facing ice-scoured bedrock. During examination of the site Knuth found only a few bone fragments collected from the terrain. Knuth notes that the conditions for the detection of Palaeo-Eskimo artefacts were bad during his visit between 14th and 16th September 1949 since there was newly-fallen snow. Accordingly, no lithic artefacts were found.

Feature Descriptions

Ruin A

Tent ring (drawings II, 27)

Ruin A is a shelter-type ruin which Knuth compared to the tent rings on Depotnæsset at Midsommørsørne (fig. 6.4). The feature is located on the flat terrain below the large rocky knoll. The narrow front wall is oriented towards the east. The feature is 1.3 m wide, measured along the flagstone-paved edge of the sleeping platform. Its length is 1.86 m. Both measurements are internal.

Ruin B

Tent ring

Ruin B is located below ruin A, approximately 10 m from the beach. It is partially disturbed by solifluction but a platform edge stands out clearly. The feature faces the fjord with its long axis.

Boulder peripheries 1-4

Skin-drying racks (photo 445)

Boulder peripheries 1-4 lie loosely on the ice-scoured surface of the rock outcrop. They all slope towards the south. 1 and 2 are the best preserved whereas several boulders in 3 and 4 have slid down from the rock surface.

Ruin C

Ruin C is a periphery of dolerite boulders laid widely-spaced on a horizontal ice-scoured rock outcrop. In front of the east-facing periphery the bedrock forms a flat 2 x 2 m projecting platform. The ruin measures 2.7 x 1.9 m.

Ruin D

Shelter (photos 443, 444)

Ruin D is an almost circular shelter built of tightly packed boulders which are half buried in the soil, as are the boulders in ruin A (fig. 6.5). Its diameter is 2.2 – 2.4 m. The floor in the north-eastern part of the ruin is paved with flagstones.

Ruin E

Ruin E is a dubious feature.

Ruin F

Tent ring

Ruin F is a 2.35 x 2.55 m elliptical periphery with its long axis and front facing east. A flagstone pavement covers the front floor facing the fjord.

Ruin G

Tent ring (photo 43)

Ruin G is a 2.44 x 2.55 m periphery of widely spaced boulders laid out on a smooth rock surface (fig. 6.6). The edge of a sleeping platform consists of seven stones placed across the interior. The long axis and the front face the little cove to the north of the point.

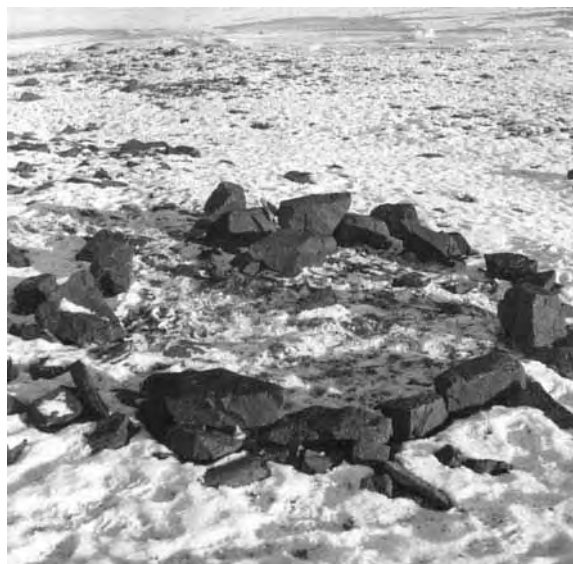


Fig. 6.5. (photo 443) Krognæs, ruin D seen from the rear (south-west), 16/9-1950.

Ruin H

Ruin H is located close by G. It is built of loosely placed boulders. The ruin was partly hidden under snow.

Caches x and y

Meat caches x and y are approximately 60 cm high boulder constructions with thick moss cover in the interior. Cache x measures 67 cm in diameter and y 62 cm.



Fig. 6.6. (photo 43) Krognæs, ruin G, 8/5-1968.



Fig. 6.7. (photo 445) Krognæs, boulder ring on top of rock near ruin A, 16/9-1950.

Cache z

Cache z is an irregular heap of boulders.

Boulder rings a, b, c and d

The four boulder rings are located on the southern slope of the ice-scoured dolerite rock on the southern end of the islet north-east of Krognæs (fig. 6.7). The stone rings measure 1-1.5 m by 1.2-2 m.

Site Summary and Discussion

Krognæs is a Thule site with all of the characteristics of most other Thule sites in northernmost Greenland. There are several well built dwellings as well as other features, but hardly any finds. Apart from the fact that eight families may have settled at the site there is little evidence to reveal the season or nature of activities carried out. The dwelling features appear to be similar in size and construction to many other high northern Thule localities. The fact that most are well preserved may indicate that they are contemporaneous and not accumulated during successive episodes of habitation.

6.3 Neergaard Elv

Thule

82ØI-000-004

Text 620; drawings 46, 47, 243; photo 623

To the east of Astrup Fjord the south shore of

Independence Fjord rises in steep or vertical cliffs. Above the cliffs is Kaj Munks Ice Cap, but east of Kap Grundloven (Constitution Cape), approximately 45 km to the east of Astrup Fjord, the high mountains recede to the south leaving a hilly landscape cut by numerous rivers flowing from the south through gorges into Independence Fjord.

Neergaard Elv (Neergaard River) is one of the largest of these rivers. In the hinterland it marks the border between the high ice-covered plateau of Kaj Munks Ice Cap towards the west and a lower hilly landscape to the east of the river. Neergaard Elv flows into Independence Fjord in a wide alluvial fan flanked by more than 100 m high gravel tablelands which, in the outer part, stand as truncated cones. In the middle of the wide delta there is a 20-30 m high rock pillow which Knuth named Kernén (the Core). In the eastern part of the delta in front of Kernén towards Independence Fjord is another, lower, rock outcrop named Bastionen (the Stronghold), which is isolated from the eastern shore of the river by a gorge in which a branch of Neergaard Elv flows. However, Knuth notes that the distribution of boulder islets and river runs in the delta in front of Kernén is unknown since the landscape was covered by snow and ice during the five visits he paid to this locality. Summer time observations from the air have shown that a large open water area occurs in front of the river outlet and that cracks are formed in the fjord ice, sometimes extending all the way from the southern to the northern shore of Independence Fjord. Knuth's detailed description of the river outlet is strongly inspired by the romantic beauty of the rock formations. His search for ruins was initially stimulated by the location of a large square limestone block with a cairn on top of it. Knuth only mentions this cairn in the Baedeker and in the text on the site map (fig. 6.8). In his text (text 620) Knuth recounts that the horizontal top of the cubic boulder 'is covered with smaller rounded boulders', as if they were natural boulders and not manuports. Knuth registered two tent rings, nine meat caches and five fox traps at the site.

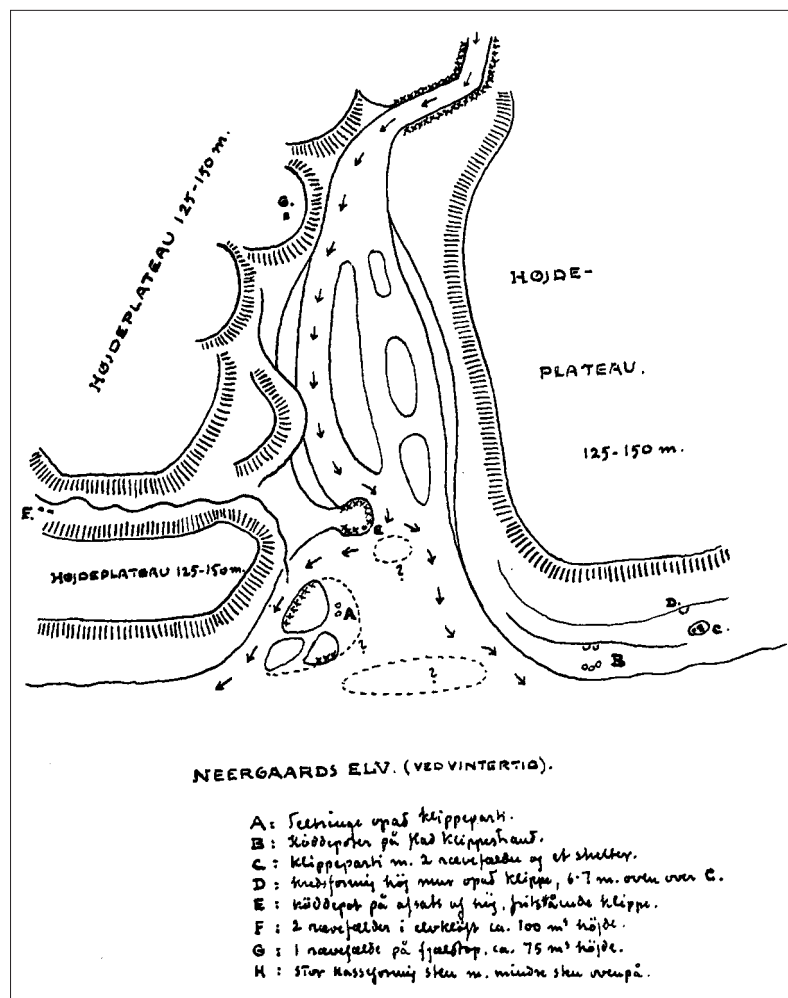
Feature Descriptions

Ruin 1

Shelter (drawing 47)

Ruin 1 is a tent ring of the shelter type. In the immedi-

Fig. 6.8. (drawing 46) Neergaard Elv, sketch map of river outlet with the location of different features.



ate vicinity behind the ruin there is a meat cache in the form of a minor heap of boulders. The dwelling slopes gently towards the north-west-facing front, giving a good view of Independence Fjord. A line of boulders form a 15 cm high step between the sleeping platform at the rear and the larger sunken floor in the front part of the structure.

Ruin 2

Tent ring

Ruin 2 is located in front of ruin 1 but the snow cover prevented Knuth from documenting this feature in any detail.

In front of ruins 1 and 2 Knuth excavated several bones, wooden pins and pieces of modified whalebone (LI.6461-6470). The whalebone includes a thin sledge shoe with eight drilled holes (LI.6461) and a blade from a snow-knife (LI.6462). He also recovered five

fragments of a sandstone lamp with a perforated wick list (LI.6467). When assembled, the fragments proved to form an almost complete lamp (fig. 6.9). Among the bones that also lay scattered on the plateau above the ruins were a few pieces of caribou antler. Furthermore, Ulrik Møhl has identified musk ox (*Ovibos moschatus*): two fragments of limb-bones and eight fragments of ribs and ringed seal (*Phoca hispida*): a humerus.

Meat caches

As already mentioned, one cache was in direct association with ruin 1. Another meat cache, a ring of boulders, was located a few metres above the river on a ledge on the northern side of the rock pillar Kernén (E on the site map fig. 6.8). Meat caches 3, 4, 5, 6 and 7 are five irregular boulder concentrations on a low rocky point to the west of the river marked with a C on the site map. Cache 8 is a boulder periphery located 100 m fur-



Fig. 6.9. (plate 22) Neergaard Elv, sandstone lamp (LI.6467)
length along front c. 30 cm.

ther to the west on the same point but on a little rocky knoll and a few metres higher than C. Nearby there are two fox traps. Meat cache 9 is a high wall of boulders built as a half cylinder against the cliff.

Fox traps

Knuth has located five fox traps at the site. 1 and 2 are those already mentioned in the vicinity of cache 8. Both are well preserved with their trapdoors in place. Fox traps 3 and 4 are located in a valley on the eastern side of the river near a little creek approximately 50 m a.s.l. and around 1 km from the tent rings on Bastionen. Fox trap 5 is located in the river valley around 2 km from the tent rings on the top of a rocky outcrop (G on the site map).

Site Summary and Discussion

The many caches and fox traps on the Neergaard Elv site indicate that the locality may have been favoured during several episodes of habitation. However, the limited number of dwellings does not support this. Although it must be taken into consideration that several dwelling features could easily have been hidden under the snow during Knuth's visits. Finally, the Thule people could have lived on the sea ice in snow houses. Knuth wondered whether the many fox traps could indicate that Neergaard Elv was settled during wintertime, but he could not find evidence in support of this suggestion due to the lack of winter houses in the area. However, the sledge shoe and the snow-knife indicate winter activities. The many caches and traps

in contrast to the limited number of dwelling remains may also result from the Neergaard Elv site being a specialised hunting locality rather than a settlement site.

6.4 Kap Peter Henrik

Independence I, Thule?

81Ø2-000-002

Site no. 278; texts 603, 604, 605; drawings 33, 34, 35; photos 453, 454, 455, 456, 1059, 1060, 161, 1062, 1063, 1064

Kap Peter Henrik is the western junction between Independence Fjord and Hagen Fjord. The cape was named by the Denmark Expedition in memory of the father of Ludwig Mylius-Erichsen. The point of the cape is an alluvial fan deposited by a river which has carved a gorge into the older sediments. Gravel terraces with ruins are dispersed on either side of the river. This inspired Knuth to divide the settlement into a northern and a southern group. The features south of the river are thus numbered S-1 to S-3 and the features north of the river N-1 to N-4. In addition to the latter group, Knuth also located seven smaller features characterised as stone ovals on the higher terraces north of the river. Knuth visited the site at least four times – in 1950, 1960, 1964 and 1968 – but he never conducted any large-scale systematic excavation of the features. Knuth's many visits to the site have confused his labelling of the faunal material. On his first visit in 1950 he excavated and collected bone material from two features labelled 'teltring' (tent rings) A and B. When he returned in 1960 he recovered bones from 'tomt' (feature) 3 and from 'stenoval' (stone ovals) 1 and 2. In 1964 he undertook only minimal collection from feature N-3. In 1968 he recovered his most extensive collection of bone material from features N-2, N-3 and N-4. Tent ring A and feature N-2 are apparently the same feature; tent ring B, feature 3 and feature N-3 are also the same feature. Unfortunately, Knuth inconsistently separated and grouped tent rings A and B and features N-2 and N-3. Features N-2 and N-3 will, accordingly, be discussed as one faunal assemblage.

Kap Peter Henrik South

(texts 604, 605)

Knuth registered three features on the southern side of

the river but only feature S-3 (in text 604 named ‘tomt’ 1) is described in detail. Presumably the remainder were rudimentary dwellings, possibly destroyed by cryoturbation or by more recent episodes of settlement. Knuth measured the features as being located at the following levels: S-1: 20.1 m. a.s.l.; S-2: 18.56 m. a.s.l.; S-3: 8.23 m. a.s.l. In text 605 Knuth further mentions the presence of two other features which he named S-4 and S-5 but these are not included in the site list (text 852). They are only mentioned once with no further description of their location or character. It is therefore difficult to judge whether they are open-air features associated with features S-1, 2 or 3, or whether they are genuine dwellings, caches or scatters of debitage. On the site list feature S-3 is marked with a symbol indicating a mid-passage dwelling. It has an oval periphery marked by a few widely spaced boulders with its long axis facing the fjord. In the interior there are a few flagstones; one is placed vertically parallel to the front of the periphery. Feature S-3 is located on a terrace behind and above the broad point. Knuth thought the feature had been disturbed by solifluction. He found charcoal in front of the vertically standing flagstone but no artefacts.

Kap Peter Henrik North

(text 604)

On the northern side of the river Knuth registered four ruins and seven stone ovals. The four dwellings consist of boulder peripheries of widely spaced stones. Three of them have hearths marked by massive accumulations of stones near the centre. The culture layers are relatively deep with an abundance of bones. All the features are located on the same broad terrace. Features N-2 and N-3 are set back towards the rear of the terrace and feature N-4 is near the front. Knuth has compared the features to the ruins 13 and 14 on Deltaterrasserne.

Feature N-1

Tent ring

Feature N-1 is only mentioned in the site list where it is marked with the signature for a boulder periphery apparently without a hearth.

Feature N-2

Tent ring with central hearth (drawing 33, photos 455, 456)



Fig. 6.10. (photo 455) Kap Peter Henrik, feature N2, detail of hearth, 5/5-1968.

Feature N-2 is a tent ring set with several rows of stones of different sizes at the front, whereas the rear of the periphery is less solidly built (fig. 6.10). The almost circular feature has a diameter of approximately 4 m. Within the periphery, a boulder hearth is set back towards the rear. The even, horizontal floor has been dug into the natural sloping terrace surface. Knuth believed that part of the solid periphery not only served to anchor the skin cover but had also served to support the artificially levelled floor. Like feature N-3, N-2 faces the fjord and is located around 19 m. a.s.l. at the back of the terrace, below the slope leading up to the larger terrace where the seven stone ovals are located. In and around the hearth Knuth found a thick layer of charcoal and bone splinters. Two flint flakers and a single microblade were, however, the only artefacts recovered (L1.6455-6457).

Table 6.1. Lithic artefacts Kap Peter Henrik feature N-2.

Artefact category	No.
Microblades	1

Feature N-3

Tent ring with central hearth (drawing 35)

N-3 is located close to the north-east of N-2, to which it is almost identical. The hearth, however, is larger and has more fire-cracked stones than the N-2 hearth (fig.

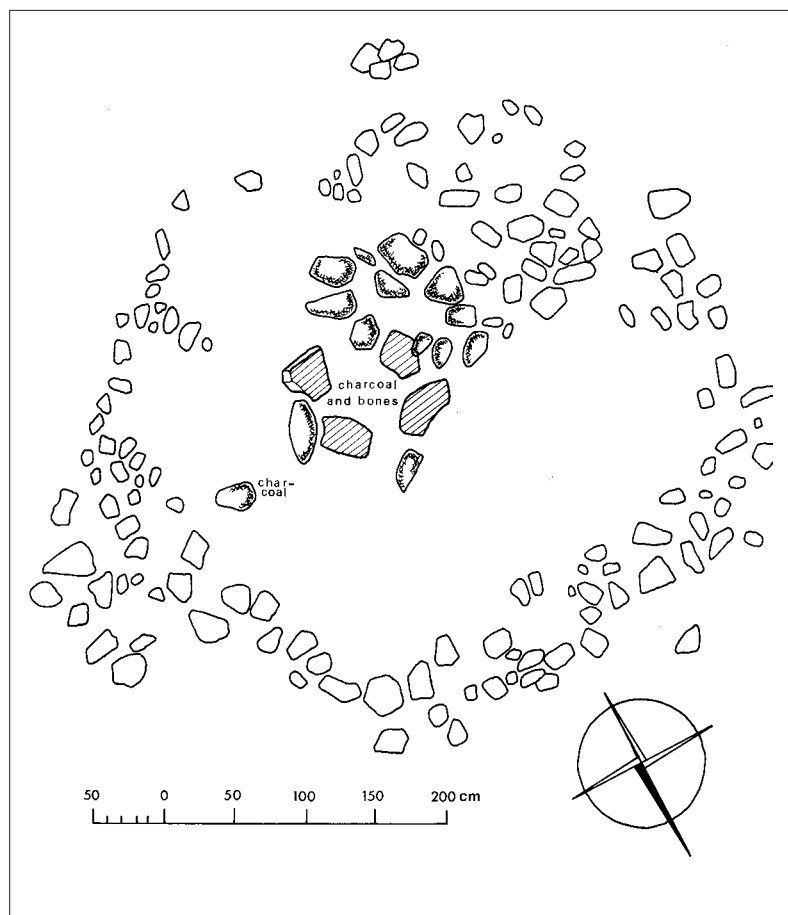


Fig. 6.11. (drawing 35) Kap Peter Henrik, feature N-3.

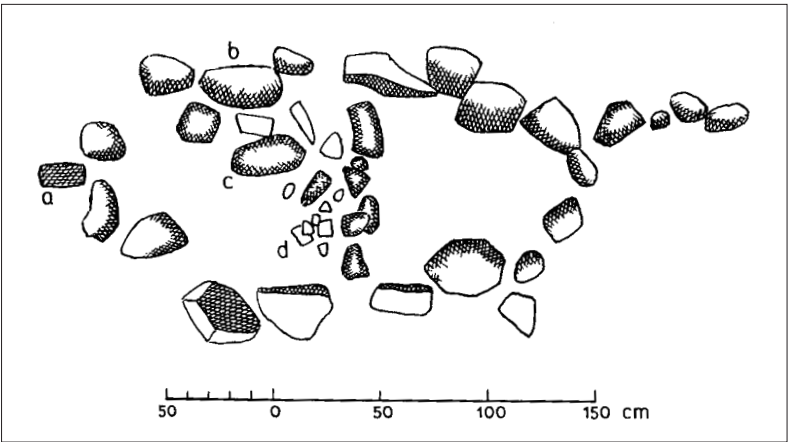
6.11). Knuth found a thick layer of charcoal and bone splinters but artefacts were not recovered from this feature. On the slope in front of and between features N-2 and N-3 there is a thick refuse layer with bones and some wood. Knuth collected bones from this communal refuse area in 1950 and 1960. Knuth collected or excavated artefacts from feature N-3 on all of his four visits to the site. The recovered material is, however, relatively limited amounting to a few pieces of bone, a polar bear tooth, a charcoal sample and the lithics listed below (LI.6458-6460; LI.7434-7436; LI.745; LI.8334-8337; LI.9638-9639). A musk-ox bone has been radiocarbon dated (K-3362) to 3800 ± 85 BP. Within one standard deviation this gives a calibrated date of between 2410 and 2050 cal. BC.

Fauna: Knuth recovered 427 faunal remains, including 166 unidentified fragments (4 burned). In January 1979, J. Møhl sent the following musk ox specimens (107g) for radiocarbon dating: *mandible* fragment; *hyoid*; two rib shafts; *cuneiform*, *lunate*, and

trapezoid-magnum; *femur*, *tibia* and non-specific long-bone shaft fragment. This assemblage is dominated by musk ox, artiodactyl and large terrestrial mammal bone (88.9% of identified bone). Second in relative frequency is hare (7.7%), followed by goose (1.5%), fox (0.8%), bear (0.8%) and ruddy turnstone (0.4%) remains. A minimum of four newborn musk oxen (pelvis), two adult musk oxen, two adult hare, and one foetal hare contributed to this assemblage. With so much newborn musk-ox bone associated with these features, occupation most likely took place in late April or May (Banfield 1976). This period of occupation is supported by the foetal hare bone.

This assemblage has been heavily modified by human activity. Twenty-six of the 232 artiodactyl, musk ox, or large terrestrial mammal fragments are burned brown to black (11.2%), which indicates that they were exposed to camp-fire temperatures between 400 and 600 degrees Celcius. Much of this burned bone is newborn musk ox; nine of 46 newborn speci-

Fig. 6.12. (drawing 34) Kap Peter Henrik, stone oval no. 1.



mens are burned (19.6%). These animals were both partially (mottled burning) and completely (uniform burning) defleshed before their use as a source of fuel in an environment limited by combustible organic material. By contrast, all spirally fractured bone (n=22) is adult musk ox, or large mammal, long-bone elements that were cracked for fat, and thus rendered less suitable as a source of fuel.

Because of the extensive and intensive use of musk ox at this locality, systematic excavation of the site in the future may prove fruitful.

Table 6.2. Lithic artefacts Kap Peter Henrik feature N-3.

Artefact category	No.	All artefacts
Burins	1	
Burin spalls	2	4
Axes	1	
All flakes		6
Total	4	10

Feature N-4

Tent ring with central hearth

N-4 is located in isolation on a fossil beach ridge; there are poppies (*Papaveraceae*) at the front edge of the terrace. The periphery is diffuse but the hearth well preserved. Large portions of the periphery have slid down the slope in front of the feature. Knuth found a thick layer of charcoal with several fragmented bones in the hearth. Only two lithic artefacts were, however, found in the feature (LI.6459-6460).

Fauna: Knuth recovered only 26 bone fragments (six unidentified). These scant identified remains include a bird *radius*, two rib, and a polar bear *phalanx*,

which suggests possible warm season occupation. The other bone fragments are likely the remains of musk ox and/or possibly polar bear.

Table 6.3. Lithic artefacts Kap Peter Henrik feature N-4.

Artefact category	No.	All artefacts
Microblades	1	1
All flakes		1
Total	1	2

Stone ovals

On the terrace above features N-2 and N-3 Knuth discovered seven stone ovals. These are a few metres long and about 1 m wide. Six of the stone ovals are located at approximately the same level, about 23 m a.s.l., whereas the seventh is located alone at approximately 25 m a.s.l. Only one of the stone ovals has been drawn and photographed.

Stone oval 1 (drawing 34; photos 453, 454)

Stone oval 1 is located 23.24 m a.s.l. near the river gorge. The periphery is marked by a single row of stones. The floor within the periphery has been artificially levelled (figs. 6.12 and 6.13). The long axis measures 2 m, the short axis 1 m. A row of boulders along the short axis divides the interior into two sections. The floor in one of the two compartments is paved with small flags and a few larger stones. Knuth noted that several of the stones in the periphery had probably been selected due to their colour; stone b is black and c is red. During excavation Knuth recovered six bone fragments near this feature: a musk ox *radius* (right distal quarter), a spirally fractured limb-bone



Fig. 6.13. (photo 454) Kap Peter Henrik, stone oval no. 1, easternmost, closest to river ravine, 3/6-1950.

shaft fragment and four unidentified fragments. The later five bones are probably of musk ox.

Stone oval 2

Stone oval 2 is almost circular. In the mountain avens growing nearby Knuth found a musk-ox *radius* and other bone fragments.

Stone oval 3

Stone oval 3 is a rudimentary and doubtful feature located to the north-west of stone oval 2.

Stone ovals 4, 5, 6 are located close together on fossil beach ridges.

Stone oval 7 is located by itself 27 m west of stone oval 6 in the centre of a broad gravel terrace, approximately 25 m a.s.l..

Knuth (text 604) found the stone ovals to have many similarities with feature 16 at Vandfaldsnæs, located at approximately 19 m a.s.l., and feature 30 at Oksejægerpynten, located at 16 m a.s.l.. We can add a further parallel – a similar feature at Pollux Næs on Aftenstjernesø (see page 61). Due to their location, Knuth wondered whether the stone ovals were Palaeo-Eskimo graves with the bodies placed inside the features which symbolised dwellings. However, he also

mentioned that the lack of finds makes it difficult to reach any conclusions regarding the origin and use of the stone ovals. Accordingly the interpretation of these structures as Palaeo-Eskimo is open to question. The absence of lithic finds in the stone ovals makes it difficult to accept an Independence I date and the character of the stone settings could indicate that they are of Thule rather than of Palaeo-Eskimo origin.

Site Summary and Discussion

Kap Peter Henrik is obviously a site with several episodes of settlement. Only features N-1-N-4 are reasonably well dated on typological criteria as well as by means of radiocarbon analysis. The tentative date for features S-1-S-3, and Knuth's proposed date for the stone ovals are based solely on the elevation. While there is no reason to be sceptical of Knuth's date for the features on the southern side of the river, his suggestion of an Independence I date for the seven stone ovals is more problematic because these features really have more in common with Thule structures in Peary Land or, for example, hunters' beds in other parts of Greenland. If this suggestion is correct, Kap Peter Henrik has evidence of both Independence I and Thule occupation.

The appearance of features S-2, N-3 and N-4 is interesting because the large diameter of the periphery, the structure and location of the hearth and the amount of fire-cracked rocks is similar to proposed winter dwellings at the Adam C. Knuth site in northern Peary Land. There may also be similarities to the rich Independence I dwellings at the sites of Deltaterrasserne and Vandfaldsnæs. In spite of the relatively limited inventory, features N-1-N-4 could, accordingly, be Independence I cold season dwellings as has been suggested for similar dwelling features at other sites (Jensen 2000). This suggestion is not in conflict with the strong indications of settlement in April to May, provided by the faunal analysis, because cold season habitations could well have been used into the spring and early summer.

6.5 Kap Ludovika

Independence II, Thule

81Ø2-000-001

Site no. 279; text 602; drawings 28, 29, 30, 31, 32, 245; photos 446-452, 1051-1052, 1054-1056, 1274.

Kap Ludovika is the point at the eastern corner of Hagen Fjord's outlet into Independence Fjord. Towards Hagen Fjord, it stands as a 50 m hill of loose limestone boulders. Towards Hagen Fjord to the west, the hill falls in terraces and to the south-east it slopes down towards a 3 km long and 1.5 km wide inlet named Bjørnsholm Fjord (fig. 6.1). Knuth visited the site on several occasions – in 1949, 1950, 1964 and 1968 – but all the visits occurred in the spring when the landscape is covered by snow and the temperature is below zero. Knuth only discovered the existence of Bjørnsholm Fjord upon his later study of air photos. Due to the snow cover, Bjørnsholm Fjord had the appearance of being a valley. Knuth focused on the outer coast towards Independence and Hagen Fjords, whereas the major part of the landscape around Bjørnsholm Fjord has not been surveyed. When evaluating the evidence from Kap Ludovika it should, therefore, be kept in mind that Knuth worked under extremely harsh conditions. He had to start any excavation by clearing the ruins of snow cover and many features could easily have been covered by snow.

Based on the local topography, Knuth separated the site into Ydernæsset (the Outer Point) and Indernæsset (the Inner Point). From east towards west Kap Ludovika has two sharp corners, the eastern one facing Independence Fjord is Ydernæsset and the western one facing Hagen Fjord is the one Knuth named Indernæsset. Numerous large icebergs from the highly productive glacier at the head of Hagen Fjord strand around Kap Ludovika where they form part of a continuous line of icebergs stretching from the glacier front, throughout Hagen Fjord, and across Independence Fjord towards Kap København in Peary Land. The site was named by the Denmark Expedition with reference to the mother of Høeg Hagen.

Ydernæsset

Nine Thule ruins are located near the edge of a low north-west-facing terrace in a cove to the west of Ydernæsset. A tenth is located in the higher terrain beyond. The features are very different from each other. Often Knuth could not discern whether the individual features were meat caches, tent rings or shelter ruins. In all the features Knuth found the walls to be resting loosely on top of the surface which is comprised of angular stones. Knuth thought that many finds could be hidden in the labyrinth of gaps between

the stones in the sub-stratum. Inside the features he only found sporadic evidence for attempts to even the surface using flagstones or by filling the gaps between the stones in the sub-stratum.

Ruin no. 1

Shelter

Furthest to the north-east Knuth found a pear-shaped shelter or tent house with the broad end of the structure facing the beach. The platform edge is marked by a row of stones located 2 m in front of the curved rear wall. The interior is approximately 2 m wide in front of the platform. Knuth found a few fragments of bone and wood in the interior.

Ruin 2

Shelter (drawing 28; photo 446)

Ruin 2 is similar to ruin 1 but much more solidly built and better preserved (figs. 6.14 and 6.15). The low wall has only a few places with vertically standing stones or with several courses. The wall is 0.5-1 m wide. The platform rises 25 cm above the floor; the front edge is marked by boulders, some placed on edge, and along the edge there are remains of a flagstone pavement. On the narrow floor there are several stone-set features. At the right side a lamp stand is apparent as a place where stones are placed on edge around a blubber saturated deposit. There is no well defined entrance but Knuth suggested it had been located in the mid section of the front wall which falls off more gently towards the surrounding terrain and which is built of smaller flat stones than the remainder of the walls. Ruin 2 is located nine paces south-west of ruin 1.

Ruin 3

Unknown structure

Rudimentary or doubtful boulder structure located six paces south-west of ruin 2. The feature faces the water's edge with its long axis.

Ruin 4

Tent ring (photo 447)

Ruin 4 is an oval boulder structure facing the water's edge with its 2.65 m long axis; the short axis measures 2 m (fig. 6.16). Ruin 4 is located 15 paces south-west of ruin 3. Inside the feature Knuth found wood fragments and a few bone splinters.



Fig. 6.14. (drawing 28) Kap Ludovika, ruin 2.

Ruin 5

Tent ring

Ruin 5 is an irregular boulder structure of widely spaced stones. The feature has a 4 m wide 'backroom' which only extends towards the front at the south-

western side. The extension measures 2 x 2 m. Wood fragments and bone splinters were found in the feature. Ruin 5 is located nine paces south-west of ruin 4.



Fig. 6.15. (photo 446) Kap Ludovika, ruin 2 during excavation, seen from the sea ice (west), 22/4-1949.



Fig. 6.16. (photo 447) Kap Ludovika, ruin 4 seen from the rear (east), 3/6-1950.

Fig. 6.17. (photo 449) Kap Ludovika, ruin 8 seen from south-east, 20/4-1949.



Ruin 6

Tent ring (photo 448)

Ruin 6 is a rudimentary feature in which only the back wall and part of the south-western side wall are preserved. The remaining wall segments indicate that the feature has been circular with a diameter of 2.5 m. Wooden pins and musk-ox bone splinters were recovered from the feature. It is located nine paces south-west of feature 5.

Ruin 7

Tent ring

Ruin 7 is a 2 x 2.5 m rectangular boulder structure partly attached to the rear of ruin 6. Wooden pins and musk-ox bone were found in the feature.

Ruin 8

Shelter (drawing 30; photo 449)

Ruin 8 is a shelter ruin with walls of several courses standing 1.25 m high. The pear-shaped ground plan is similar to that of ruin 2. Ruin 8, however, has its long



Fig. 6.18. (drawing 30) Kap Ludovika, ruin 8.

axis facing the fjord (fig. 6.18). The platform in the south-western end covers an area of no more than 1.5 x 1.5 m. The floor space, however, is larger than the floor in ruin 2, covering an area of approximately 2 x 2 m. Prior to excavation the interior was filled by boulders that had fallen in. The pavement on the platform only became visible upon clearing of the interior. There is no well defined entrance but a lowering in the wall facing the sea could indicate the location of a door from the floor through the northern wall. In the corner, just within the proposed entrance, Knuth found a bone point with four barbs and a conical base with two holes, three trace buckles and a spoon of baleen. On the platform he found numerous strings of baleen. The shelter, or tent house, is built on sloping ground rising from the front towards the rear. The narrow rear wall is badly preserved and rises to no more than one or two courses, whereas the front wall has as many as 12-14 courses with the highest parts preserved in the 1-1.25 m high north-eastern wall section. The wall is built of irregular limestone boulders of all shapes and sizes. Only a few stones are flat and square in spite of easy access to such better suited building material. Knuth thus had the impression that the dwelling had been built in haste or was intended for just a short period of occupation.

Ruin 9

Tent ring

Ruin 9 is a circular boulder structure located on sloping ground to the south-west of feature 8. The collapsed walls are constructed of smaller stones. Knuth made no finds in the feature.

Ruin 10

Cache

Ruin 10 is a large rectangular structure built in a natural aggregation of boulders approximately 20 m south-east of ruin 9. No finds were collected from the feature.

Along the 3 km stretch from Ydernæsset to Indernæsset Knuth discovered seven well preserved fox traps and the Palaeo-Eskimo tent ring described below. The fox traps are located between 10-20 m. a.s.l. – two of them on a little hill near Indernæsset.

Independence II

(drawings 31, 32; photos 450, 1274)

The Independence II site on Kap Ludovika consists of a tent ring with mid-passage structure (fig. 6.19), an open-air hearth and two meat caches.

The site is located approximately 1 km south-west of the Thule site on a gravel terrace 14.2 m. a.s.l. and 200 m from the shore. The elliptical boulder periphery measures 5.5 x 3.5 m, facing a large boulder with its long axis and with its narrow side towards the edge of the terrace. In the south-western part of the feature the floor is on level with the surrounding terrain. In this part of the feature there are no stones in the periphery. If this was the entrance it faced south. A 1.5-2 m long and 1 m wide flag stone pavement divides the interior into two compartments. The hearth is located at the rear of the pavement where a transversely placed vertically standing flat stone (b) separates the hearth chamber from the pavement. The opposite side of the box hearth is formed by another vertically standing stone. There was charcoal between the boulders placed in an upright position. Another hearth is located in the central part of the mid-passage, where a 50 cm long vertically standing flagstone (a) delimits the pavement towards the east. Charcoal between the flagstones in front of the vertically standing flag indicates that it probably was part of a hearth. Between the flagstones in front of flagstone a Knuth also found a biface (LI.6450) and three needles (LI.6452). The concentration of charcoal in two places in the axial feature is unusual, indicating the presence of two hearths. The structure of the mid-passage, however, is also somewhat unusual. Knuth mentions that the flagstones are of red sandstone whereas the common rocks in the area are a grey limestone. The axial feature may be seen as a box hearth behind a flagstone pavement in the central axis of the dwelling. On the other hand, one may choose, as Knuth did, to see the flagstone pavement as a rudimentary mid-passage where the vertically standing flags have tilted. Knuth discusses the structure of the mid-passage in some detail. The vertically standing flagstone a and flagstone d are considered to be the remains of the north-eastern wall in the mid-passage. Knuth suggests that flagstone d had been placed in an upright position in extension of flagstone a. Remains of the south-western wall in the mid-passage are, on the other hand, difficult to identify but Knuth suggests that this may be

Fig. 6.19. (drawing 32) Kap Ludovika, Independence II dwelling.



due to lack of attention during excavation – or the feature may be a later or locally adapted variant of the mid-passage phenomenon. The interior of the dwelling is artificially flattened and the periphery stones in the south-eastern wall segment partly prevent the rising gravel slope from slipping into the floor area. The periphery stones in the north-western wall segment, on the other hand, prevent the flattened gravel floor from slipping down slope.

Fauna: In 1950 and 1968 Knuth collected a total of 33 bones (ten unidentified) from the tent ring and meat cache. Included in this count of Independence II fauna is a whale (*Balaena* sp.) vertebral centrum (the main body of a vertebra). It is, however, most likely associated with the Thule period features at this site or is perhaps a palaeo-biological find. The assemblage is composed of 4.5% goose, 18.2% seal and 77.3% musk-ox, artiodactyl or large terrestrial-mammal bone fragments. A minimum of a single individual of each species is represented by the assemblage. If all the seal

bones are from a single ringed seal this particular animal was at least six years old at the time of death (i.e. a medium-old adult). Given the presence of bird and seal, hunting apparently took place during the warm season when these species, particularly migratory waterfowl, would have been readily available. In January 1979 J. Møhl sent nine artiodactyl and musk-ox bone fragments (87g) for radiocarbon dating.

Meat caches (drawing 31)

On the south-eastern side of a large boulder SE of the dwelling there is a cache built as a semi-circle of stones. Prior to excavation the floor was covered by moss but upon excavation a flagstone floor was uncovered. In the cache Knuth found several bones as well as a walrus tooth fragment with a gouged hole (LI.6454). Another meat cache is located on the terrace edge 4 m south-east of the tent ring where boulders form a circular frame. Like the cache built against the boulder, the interior was covered by moss. A musk-

ox bone has been radiocarbon dated (K-3361) to 2730 ± 75 BP. Within one standard deviation this gives a calibrated calendar date of between 760 and 380 cal. BC.

Open-air hearth

10 m north-west of the tent ring near the front edge of the terrace is an open-air hearth.

Indernæsset

Indernæsset is the westernmost corner of Kap Ludovika. At the flat point of Indernæsset Knuth found three boulder structures believed to be meat caches and a rudimentary fox trap. There are no finds from this locality.

Site Summary and Discussion

Kap Ludovika is one of the rare Palaeo-Eskimo sites in Independence Fjord. As such it is unique in its own right but it is also the only Independence II site linking the Independence II sites of Jørgen Brønlund Fjord to the Independence II settlement in Danmark Fjord or further down the coast of North-east Greenland for that matter. However, the single dwelling habitation represented by the Independence II settlement is overshadowed by the more solidly built and more numerous Thule habitations located to the north-east of the Independence II site. The fox traps are virtually impossible to date but it is a characteristic of the few archaeological sites in Independence Fjord that the fox traps appear to be associated with the Thule occupations, at least at Neergaard Elv and Kap Ludovika. There are no examples of fox traps in the vicinity of Palaeo-Eskimo sites without a Thule settlement nearby. Neergaard Elv is an example of the opposite: foxtraps in the vicinity of a Thule settlement but with no Palaeo-Eskimo settlements around. However, Knuth only visited the site during the spring months when large portions of the landscape are covered by snow. So any conclusions regarding the archaeological evidence from Kap Ludovika should be taken with great caution. The few artefacts from the Thule houses are consistent with the lack of finds from the Thule settlements in Peary Land. Considering the general poverty of finds from the Thule settlements in this area, it is reassuring that the few finds which do appear from time to time have all the Thule characteristics such as lamps, sledge shoes, snow-knives and trace buckles for dog sledges. These finds emphasise the technological differences

between the Palaeo-Eskimo and Neo-Eskimo modes of life. The many finds of, for example, needles at the Palaeo-Eskimo sites clearly indicate that the lack of objects of the former category in the Palaeo-Eskimo inventories is not a matter of preservation but represents a genuine difference in technological organisation. The total lack of needles in the Thule inventories may, on the other hand, inspire us to venture the question as to whether for some reason needles were never brought along when Thule people ventured into Peary Land? Even though there are only few finds from the shelter ruins (ruins 1, 2 and 8) their character has a solidity which indicates that these features are different from tent dwellings. This difference could very well result from a difference in season, indicating that the shelter ruins at Kap Ludovika are the northernmost Thule winter dwellings in Greenland.

6.6 Gaffelelv

Unknown date

82Ø1-000-005

Site no. 385; text 621; drawing 49

The Gaffel Elv site (Fork River) is located on the terraces formed at the outlet of a river which Knuth named Gaffel Elv. Knuth located possible tent rings and box hearths believed to be of Palaeo-Eskimo origin on the gravel terraces between the two outlet channels of the river.

6.7 Kap Rigsdagen

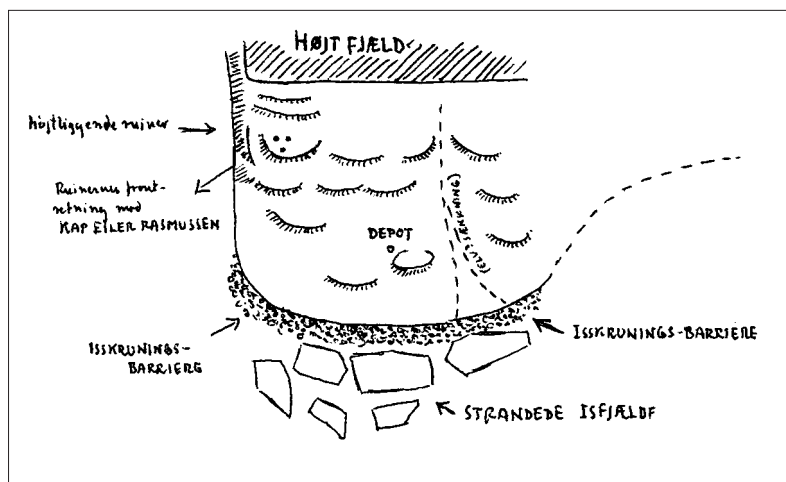
Unknown date

82Ø1-000-003

Site no. 388; text 622; drawing 244

Kap Rigsdagen (Cape Parliament) is the name of the point on the western corner at the confluence between Danmark Fjord and Independence Fjord. Knuth visited the site on at least three occasions – in 1949, in 1964 and again in 1968 – but only during his last visit in 1968 did he succeed in finding man-made features (fig. 6.20). However, artefacts were not recovered and the chronological affinity of the observed phenomena remains obscure. On a site list (text 852) the site is given as being of Independence I origin, presumably due to the elevation of the registered features. On a

Fig. 6.20. (drawing 244) Sketch map of Kap Rigsdagen with the location of features marked.



wide gravel terrace approximately 20 m a.s.l. Knuth spotted two or three features. The largest has a rectangular flagstone pavement approximately 2.5 x 0.9 m. The location of the three features, and of a cache, is indicated on the site map. Apart from this description there is no other information on the prehistoric settlement of Kap Rigsdagen.

6.8 Summary and Discussion of Independence Fjord

There is a tremendous difference in scale between the two 'fjordscapes' of Jørgen Brønlund Fjord and Independence Fjord. Independence Fjord is one of the largest fjords in the northern hemisphere. With a width of 20-30 km, the enclosed body of water has the topographic characteristics of an ocean. However, once it is covered with ice, which is the case under climatic conditions such as those of today, it is a broad highway for those who wish to travel into or out of Peary Land. Settlements are rarely located along the endless stretches of highly exposed shoreline. They are found on large alluvial fans deposited by major rivers or more typically on the prominent terraced gravel points located at the corners between Independence Fjord and its side fjords. This pattern of settlement has similarities with the location of settlements along the topographically similar shores of for example Vaigat north of Disko Bugt in Western Greenland.

The lack of dwelling sites in the innermost part of Independence Fjord mentioned in the introduction

remains odd because it is precisely this part of Independence Fjord which has numerous smaller points and islets along its northern shore. Another characteristic of the prehistoric settlement in Independence Fjord is the heavy over-representation of Thule features. In Jørgen Brønlund Fjord there are approximately twice as many Independence I sites as there are Thule sites, and the number of Palaeo-Eskimo dwellings is approximately the same as the number of Neo-Eskimo dwellings. Independence Fjord, on the other hand, has four times as many Thule features as there are Palaeo-Eskimo. This could indicate that different technological capabilities of the Palaeo-Eskimo and Thule peoples resulted in different settlement patterns or differences in the seasonal mapping onto the landscape.

However, one must bear in mind the frequently mentioned problems of heavy snow cover which Knuth faced while surveying the shores of Independence Fjord to the east of Jørgen Brønlund Fjord. The relative under-representation of Palaeo-Eskimo structures in relation to Thule features could, therefore, also result from the Thule structures having a more pronounced tendency to rise above the covering snow. In any case, there were, both in Thule and Palaeo-Eskimo times, pronounced regional differences between the sites in Independence Fjord and those in Wandel Dal and Jørgen Brønlund Fjord. For the Thule sites this difference is seen in the presence of several fox traps at the Neergaard Elv site whereas only a very few fox traps are known from Wandel Dal and Jørgen Brønlund Fjord. A regional difference in

seasonality of the Palaeo-Eskimo settlements may be indicated by the large Independence I features at Kap Peter Henrik which are filled with fire-cracked rocks. In spite of the numerous Independence I ruins in Wandel Dal and Jørgen Brønlund Fjord, this area has only a few dwellings with the characteristics of the features on Kap Peter Henrik. Unfortunately, the li-

imited investigation of the sites in Independence Fjord renders difficult any conclusive evaluation but the evidence provides a hint for future research. This research should be directed towards a more thorough investigation of the localities in Independence Fjord in order to enable regional comparison with the material from Jørgen Brønlund Fjord and Wandel Dal.

Coastal Plains Towards the Polar Sea – the Eastern Shore of Peary Land

7.1 Introduction

In the interior of the easternmost part of Peary Land, named Herluf Trolle Land, there are 500-800 m hills with no local ice cover. Along the shores of Independence Fjord and towards the Polar Sea there is a 10-20 km wide coastal foreland. The NE-facing shores between Kap Eiler Rasmussen and Kap Erik Bunch have been named Herlufsholm Strand. Along this part of the shores towards the Polar Sea the land drops so gently into the ocean that one cannot separate the polar pack ice from land when covered by snow. The shore along Herlufsholm Strand has numerous lagoons and beach ridges parallel to the shore, but the shore is almost per-

manently bound in land ice, so only rarely today will one experience the waves washing the shores in this part of Greenland. Knuth initially surveyed the area during his sledge journey in 1949 when the umiaq was found at the point subsequently named Køl næs (Keel Point). The spectacular find made him return on several occasions in order to excavate and recover the entire umiaq. As can be seen from the description of the Køl næs site, many of Knuth's visits to this area were conducted under extremely harsh weather. So even though both Palaeo-Eskimo and Thule settlements are known from the area, one cannot consider it to have been thoroughly surveyed (fig. 7.1).



Fig. 7.1. Map of easternmost Peary Land with archaeological localities marked.

7.2 Pearys Vardenæs

Independence I

82ØI-000-001

Site no. 425

Pearys Vardenæs (Peary's Cairn Point) is the outermost part of Wyckoff Land between Skærbugt and Hellefiske Fjord. In 1900 Peary built a cairn on the northern tip of the point before he returned towards the west. Two Independence I ruins have been located on the point.

Ruin A is located at 13-15 m a.s.l., 1-1.5 km south of Peary's cairn with its front facing towards Hellefiskefjord. A sample of driftwood charcoal (K-756) has been radiocarbon dated to 3850 ± 120 BP, which within one standard deviation gives a calendar date of between 2470 and 2130 cal. BC. The feature is mentioned in the Baedeker and in a few publications (Knuth 1967a and 1981), but apart from these short notes there is no further information on the site. Ruin B is located on the southern side of a lake near a cabin which has been erected by the Sirius Patrol.

7.3 Kap Erik Bunch

Thule

Site no. 349; text 760; drawings 196, 197

Kap Erik Bunch is a point on the flat Herlufsholm Strand foreland located where the shore veers off towards west into the bay below Mount Clarence Wyckoff. In the bay, as well as to the south of it, the pack ice does not get close to the shore. However, at the point it does extend close to the shore. On the northern side of the point there is a low gravel terrace with two tent rings and a boulder feature facing north-east. The place has been named by Knuth in memory of Erik Strange Bunch, a member of the Resistance who was killed by German occupation forces during the Second World War.

Feature A

Tent ring

Feature A is a 3.74 x 2.5 m tent ring. At the rear there is a large flat stone set on edge and deeply embedded in the gravel. The tent ring is best preserved in the south-eastern corner where three large boulders form a short

wall section. In the front of the periphery several stones are of a red sandstone.

Feature B

Tent ring

Feature B is a 4.3 x 3.5 m periphery of boulders larger than 40 x 40 cm. It is more regular than that in feature A. In the centre of the floor there are a few flagstones. The feature was excavated but Knuth made no finds.

Feature C

Feature C is a rectangular stone setting marked with stones at the corners. The rectangle is 1.5 m long, 62 cm wide at the front and 82 cm wide at the rear. The corners at the back are marked by several courses of stones, two in the south-eastern corner and three in the south-western corner. Knuth excavated the feature but he found no charcoal. In the terrain behind the structure he found some narrow wooden pegs and he wondered whether the feature may be the support for a kayak or umiaq.

7.4 Køl næs

Thule

82ØI-000-002

Site no. 269; text 758; drawings 193, 194, 256, 257; photos 845-849, 851-856, 1360-1363, 1408-1410; plates 62-66.

Knuth's finding of an almost complete umiaq at Køl næs, the easternmost point of Peary Land, is among the most spectacular archaeological discoveries in Greenland. The find was published in Nationalmuseets Arbejdsmark (Knuth 1951c) and in Arctic (Knuth 1952). In 1980 a replica of the Køl næs umiaq was built at the Viking Ship Museum in Roskilde. The entire reconstruction process was documented on video. In the catalogue, Knuth (1980a) described the discovery. Naturally, Knuth focused on the umiaq in his publications, whereas the nearby camp sites are only briefly mentioned. In this publication we reverse the picture by describing the largely unpublished camp sites in as much detail as possible whereas the already published umiaq will be dealt with less intensively. Knuth visited the site in 1949, 1950, 1952 and 1960, but during most visits the weather conditions

Fig. 7.2. (photo 852) Kølneæs Beach Terrace group 3c, 24/5-1950. Note the thick snow cover which had to be removed to uncover the archaeological features.



were extremely difficult with snowstorms and gales and temperatures far below zero. Knuth had to cut up the umiaq in order to sledge it back to the station in Jørgen Brønlund Fjord. However, the keel plank was too big to carry, so for many years it was left on the find spot until finally, in 1960, this too was brought to Copenhagen. Today the umiaq and the other finds from the Kølneæs site have been repatriated to the Greenland National Museum and Archives, where the umiaq is on display.

Topography

Kølneæs is located 7 km north of Kap Eiler Rasmussen which is the north-eastern corner of the mouth of Independence Fjord. Due to the snow cover Knuth had difficulties separating land from lagoons. Therefore our knowledge of the local topography is limited.

Kølneæs is a low foreland with lagoons along the shore. Approximately 300 m inland from the beach ridges separating a lagoon from the ocean there is a cliff parallel to the coast. Along the edge of the cliff Knuth discovered several Neo-Eskimo camp sites with artefacts scattered around. These camps he named collectively Strandterrassen (the Beach Terrace) in contrast to the camps found adjacent to the umiaq which was named Umiaqterrassen (the Umiaq Terrace). Behind the Strandterrassen settlements the land rises gently in terraces towards the hinterland. During Knuth's visits

the snow sometimes had been blown off the terraces so that the gravel ridges stood out as dark islands in the snow-scape. The Umiaq Terrace is just such an 'island' located approximately 120 m further inland from the Beach Terrace, and just a few metres higher. The umiaq was located near the front edge of the terrace. A few metres behind it were remains of dwellings.

Three radiocarbon dates have been produced for material from the umiaq, even though the exact relationship between the musk-ox dating (K-357) and the umiaq is unknown. The dated musk-ox bone may have been collected from the camp at the Umiaq Terrace and not from the umiaq itself.

The radiocarbon assays (K357 (musk ox), K-566 (baleen/whale) and K-1449 (oak wood)) have dated the occupation to 450 ± 45 BP, 460 ± 100 BP and 730 ± 100 BP respectively. Apart from the oak wood date which, as expected, is older than the other dates, the radiocarbon analyses seem to confirm that the Thule presence in Peary Land is restricted to a short period in the 15th century AD. Only the musk-ox dating is reliable for calibration. With one standard deviation it results in a calendar date of between 1420 and 1480 cal. AD, which is in line with other Thule dates from the area. This also gives time for the oak wood and iron nails found in the umiaq to have been obtained by Thule people in North-west Greenland and transported north.

The Umiaq Terrace

Feature A

Flagstone pavement

Feature A was located a few metres behind the northern end of the umiaq. It consists of a pavement of neatly packed flagstones with no visible periphery. In addition to wooden pegs and bones, Knuth found a fragmented sledge shoe of whale bone, a fragmented trace buckle also of whale bone, a slate blade for an ulo (LI.6338, plate 62, see fig. 7.6 no. 7), a fragmented harpoon head of Thule type (LI.6339) with rust marks and a groove for a blade at the point and the handle of a snow-knife (LI.6335).

Feature B

Flagstone pavement

Feature B is a flagstone pavement less densely packed than the flagstones in feature A. The presumed dwelling is located 20 paces to the south of the southern end of the umiaq. Adjacent to the feature Knuth found a whale rib, pieces of baleen, a piece of wood with a hole from an iron rivet believed to be a joint for lashing belonging to the umiaq (LI.6343). In addition to bones and wooden pegs Knuth also found a long piece of wood with a transverse plane for lashing believed to be the upper fragment of the front of a sledge runner (LI.6349), a large ulo blade of slate (LI.6340), a harpoon fore shaft of whalebone with a hole in the conical proximal end (LI.6346) and the point of a blade from a snow-knife.

Feature C

Boulder periphery

Feature C is a boulder periphery located in the sand in front of the umiaq. No artefacts were associated with the feature.

The bone material from features A to C has been analysed by Ulrik Møhl: Musk ox (*Ovibos moschatus*): fragment of *scapula* and fragment of *vertebra*; Ringed seal (*Phoca hispida*): right and left mandible, a half pelvis, a *femur*, *tibia* and *fibula*; Bearded seal (*Erignathus barbatus*): fragment of right mandible.

The Beach Terrace

The settlements on the Beach Terrace are scattered along a stretch of coast of at least 500 m but the features form several clusters. Knuth was not sure whether the features were dwellings or whether they

could represent open-air hearths. All the features were observed briefly during a snowstorm in 1949. In haste Knuth collected as many artefacts as possible before the area was covered by snow. From south to north the sites are described as follows:

Group 1

Flagstone pavements and open-air hearths. The site has two structures, each with a hearth. A flagstone pavement is built against the hearth nearest the shore. On one of the flagstones Knuth found remains of meat and musk-ox hair. Another stone (LI.6357) has a hollow surface and soot on the bottom indicating that it was used as a frying pan or as a lamp. In the vicinity of the hearth Knuth also collected a modified piece of musk-ox horn, a pointed tool of narwhal tooth and a variety of modified wooden fragments.

Group 2

Group 2 is located approximately 40 paces to the north of group 1. Knuth noted a musk-ox skin buried in the sand and nearby he found a whetstone of grey slate and a fragment of a sledge shoe of whalebone.

Group 3

In the autumn of 1949 Knuth collected a number of artefacts scattered at the locality he named group 3. The artefacts were collected in great haste before a blizzard prevented any further investigation of the site. The exact origin of the collected items was therefore not registered. The objects are as follows: An oar which in the upper part of the shaft has a groove where a rough-out for a heavy whaling harpoon was secured with baleen line, the rough-out measures 23 cm in length and is 5.5 cm wide; an asymmetrical arrowhead of bone; two trace buckles of whale bone; a snow-probe; a bowl of wood (may be a scraper?); a toy sledge; a couple of pointed pegs of caribou antler; several wooden pegs; a large piece of wood with numerous holes. Knuth thought the latter object could be part of a boat or sledge. In 1950 Knuth managed to relocate and uncover group 3 under thick snow cover. Three features were registered:

Feature A

Tent ring

Feature A is located furthest to the west in the rear part of the terrace. It is marked by an aggregation of

Fig 7.3. (photo 854) Kølneæs Beach Terrace group 3c, large whale bone, 24/5-1950. Note the thick snow cover which had to be removed to uncover the archaeological features.



square boulders and a large piece of charred driftwood. Knuth found a trace buckle, the handle of an axe and a piece of hide.

Feature B

Tent ring (photo 855)

Feature B is located approximately 4 m in front of A. It consists of a flagstone pavement with a whale rib placed nearby. 5 m to the south of the feature Knuth found a long piece of baleen.

Feature C

Tent ring (photos 852, 854)

Feature C is located transversely in front of feature B near the edge of the terrace (figs. 7.3). The feature consists of an aggregation of boulders some of which form a curved line – maybe part of a tent ring.

Group 4

Tent rings and open-air hearth (drawing 194).

This locality is the site which Knuth (1951) has also named Kranistedet (the Place of the Skull) due to the fact that Knuth was initially attracted to the spot by the horn of a musk-ox skull protruding from the snow cover (fig. 7.4). Group 4 is the only one of the Kølneæs camp sites which is documented by a site map.

Feature A

Flagstone pavement

Feature A is a cluster of boulders and flagstones located in the southern part of the site (fig. 7.5). Behind the feature there is a depression partly filled by drifting sand where Knuth discovered a kayak ring.

Feature B

Hearth

Feature B is a hearth located 10 m north of feature A. The hearth is made of three stones and in the vicinity Knuth found a foreshaft with a conical base and a single hole, a snow-probe of whalebone and similar one of wood, a side prong for a bird dart, the rear of an arrow shaft, a sledge shoe of whale bone with seven holes and a toy bow of wood with a knob at one end.

Site Summary and Discussion

The features and finds from Kølneæs are remarkable seen in the light of the Thule sites in Jørgen Brønlund Fjord in the central part of Peary Land. The number of finds on Kølneæs appears to be inversely proportional to the diminutive character of the features (figs. 7.6, 7.7, 7.8, 7.9 and 7.10). The inevitable questions to be asked are: What happened to the crew? Why were so

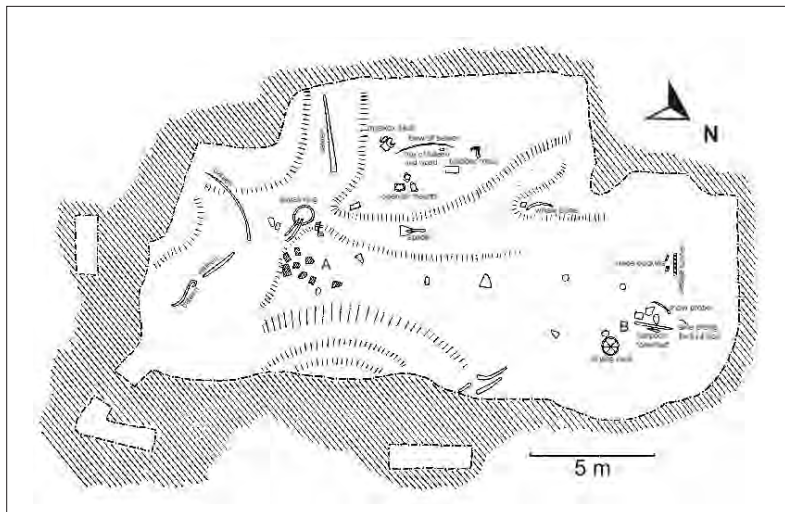


Fig. 7.4. (drawing 194) Kølneæs Beach terrace group 4, settlement area approximately 150 m north-east of the umiaq, with the location of features and prominent objects in the terrain uncovered from the snow. Redrawn after sketch by Knuth.

many perfect, undamaged objects left on the Beach Terrace sites? Did everyone succumb to famine or disease? If so, where are their bodies? We will never know but it seems that dramatic events occurred here. The large quantities of wood stored in the umiaq as well as many of the other perfect utensils left at the site are unlikely to have been left behind unless there was an urgent need to do so. However, we do not have any clues regarding the number of camp sites that are contemporaneous. The fact that the camp sites are scattered along several hundred metres of the shore makes it seem probable, that the Kølneæs site is the result of more than a single event. In his meticulous description of the umiaq, Knuth mentions that near the rear end of the starboard gunwale there are marks

from four iron nails. The nails had been removed by cutting a deep notch in the pole. This example of raw material scavenging from the umiaq clearly indicates that there were people at the site after it had become clear that the umiaq would never sail again. Only the iron was precious (and portable?) enough to be taken. Knuth (1952) pointed out that several construction details of the umiaq show similarities to traditional whaling boats from Alaska. This, as well as the radio-carbon dates obtained for the umiaq and bone left at the site, indicate that the umiaq and the associated camp sites are closely related to the Ruin Island settlements (McCullough 1989) in the Nares Strait region. The warm medieval period may thus have created open water conditions in North Greenland of an extent



Fig. 7.5. (photo 853) Kølneæs Beach Terrace group 4a, with large piece of baleen and kayak ring uncovered from the snow.

Fig. 7.6. (plate 62) Kølneæs artefacts collected from campsites. 1) Harpoon head, whalebone, cut. 0.072 m. L1.6339. Umiaq Terrace, feature A. 2) Harpoon blade, slate 0.067 m. L1.6380. Beach Terrace group 3. 3) Whaling harpoon blade, slate 0.149 m. L1.6381. Beach Terrace, group 3. 4) Foreshaft, whalebone. 0.152 m. L1.6346. Umiaq Terrace, feature B. 5) Trace buckle, fragm. whalebone. 0.079 m. L1.6337. Umiaq Terrace, feature A. 6) Knife handle, whalebone, cut 0.138 m. L1.6732. Umiaq Terrace. 7) Ulo blade, slate 0.106 m. L1.6338. Umiaq Terrace, feature A. 8). Snow-knife handle, composite 0.124 m. L1.6335. Umiaq Terrace.



which has never since occurred (Bennike 1987). Some of the occupants of Ruin Island may have taken advantage of these conditions by voyaging north around Greenland. However, when they reached Herlufsholm Strand in eastern Peary Land the open water conditions must have come to an end and the voyaging party got stuck in the ice. As the polar pack ice again jammed around Peary Land, whaling and walrus hunting must have been hampered. For a while musk-ox hunting may have compensated, but ultimately the people on Kølneæs would have faced a situation where they could not maintain their former lifestyle sus-

tained by the massive surplus gained from whale hunting. In this situation, the Thule people on Kølneæs would have had to downscale their material culture, at first by leaving behind the umiaq, which could not sail any further, but soon probably also by minimising the size of their dog teams. They would almost have to become Palaeo-Eskimo in their lifestyle. If this is what happened 500 years ago at Kølneæs then many of the well preserved objects found on the Beach Terrace camp sites may simply be all the bulky objects which could not be carried along when a large umiaq crew suddenly had to leave their largest means of trans-



Fig. 7.7. (plate 63) Kølneæs artefacts collected from campsites. 1) Whaling harpoon head, unfin. 0.233 m. L1.6363. Beach Terrace, group 3. 2) Foreshaft, kayak harp. narwhal 0.196 m. L1.638. Beach Terrace, group 3. 3) Arrowhead, walrus tusk 0.095 m. L1.6364. Beach Terrace, group 3. 4) Snow-probe, walrus tusk 0.083 m. L1.6704. Beach Terrace, group 3. 5) Side prong for bird dart 0.149 m. L1.6415. Beach Terrace, group 4. 6) End of wooden bow 0.085 m. L1.6739. Beach Terrace, group 3. 7) Wound plug, whalebone 0.080 m. L1.6389. Beach Terrace, group 3. 8) Wound plug, whalebone 0.101 m. L1.6390. Beach Terrace, group 3. 9) Wooden arrow w. ivory head 0.315 m. L1.6432. Beach Terrace group 4. 10) Snow-probe, whalebone 0.350 m. L1.6413. Beach Terrace, group 4.

portation in order to continue on foot, by sledge and probably by kayak with much lighter equipment.

7.5 Donnerprop

Thule

Fox trap (site no. 399; text 762; photos 861, 1362)

Donnerprop is an approximately 130 m isolated hill located inland between Kølneæs and Kap Eiler Rasmussen to the south of Kølneæs. On the top of the hill there are a couple of fox traps. The site was named by the Danish Peary Land Expedition after Captain Thomas Marius Jørgensen of the ship *Godthaab*. His nickname was 'Donnerprop'.

7.6 Kap Eiler Rasmussen

Independence I, Thule

82ØI-019-002

Site no. 398; text 761

Kap Eiler Rasmussen is the south-eastern point of Peary Land, and also marks the north-eastern corner of Independence Fjord. The cape is an even gravel plateau at approximately 13-15 m a.s.l. Knuth located at least three fox traps on the cape. On the slope down towards the shore he found one or two abandoned sledges and a sandstone vessel. Near the edge of the plateau Knuth also found a 1.25 x 1 m tent ring, presumably of Palaeo-Eskimo origin. The long axis lies parallel to the shore and within the periphery there



Fig. 7.8. (plate 64) Kølneæs artefacts collected from campsites. 1) Blubber pounder, whale bone 0.155 m. L1.6405. Beach Terrace, group 4. 2) Adze handle, wood 0.295 m. L1.6374. Beach Terrace, group 3) Baleen box, wooden bottom 0.155 m. L1.6404. Beach Terrace, group 4. 4) Spade, whale bone 0.690 m. L1.6406. Beach Terrace, group 4. 5) Meat tray, wood 0.146 m. L1.6367. Beach Terrace, group 3. 6) Snow-probe w. p. of shaft 0.725 m. L1.6414,a-b. Beach Terrace, group 4. 7) Trace buckle, whale bone 0.095 m. L1.6393. Beach Terrace, group 3. 8) Trace buckle, whale bone 0.092 m. L1.6392. Beach Terrace, group 3. 9) Trace buckle, whale bone 0.070 m. L1.6422. Beach Terrace, group 3. 10) Trace buckle, whale bone 0.076 m. L1.6423. Beach Terrace, group 3. 11) Trace buckle, whale bone 0.115 m. L1.6365. Beach Terrace, group 3. 12) Snow-probe, whale bone 0.804 m. L1.6402. Beach Terrace, group 3.

are two stones standing on edge. The entire feature is covered by lichen which gives the structure a Palaeo-Eskimo appearance. Knuth did not, however, find artefacts to support the suggested date. The fragmented sledge and the sandstone vessel are numbered LI.9706-9727.

7.7 Sommernæs

Thule

82ØI-000-006

(site no. 386; text 759; drawing 195)

Sommernæs (Summer Point) is a point to the south of

Krogerup Bugt and south of Kap Eiler Rasmussen. Neo-Eskimo camp sites and open-air hearths were found on the point.

Feature A

Tent ring

Feature A is a rudimentary tent ring located on a low gravel hill approximately 100 m from the shore. The 3 x 1.5 m elliptical ruin faces the shore with its long axis. The periphery has been disturbed by solifluction. Within the periphery there is a pavement, often comprising flagstones in several layers. Parallel to the rear wall there are three flagstones placed in a vertical position. Knuth collected several bone fragments from



Fig. 7.9. (plate 65) Kølneæs artefacts collected from campsites. 1) Toy bow, baleen 0.143 m. L1.6420. Beach Terrace, group 4. 2) Plait of baleen, 4 strings 0.111 m. L1.6428. Beach Terrace, group 4. 3) Plait of baleen, four strings 0.026 m. L.1.6738. Beach Terrace, group 3. 4) Plait of baleen, four strings 0.180 m. L1.6385. Beach Terrace, group 3. 5) Bow back-cord, baleen 0.075 m. L1.6403a. Beach Terrace, group 4. 6) Bow back-cord, baleen 0.035 m. L.1.6403b. Beach Terrace, group 4.

the interior of the feature. Among these Ulrik Møhl has identified musk ox, ringed seal and bearded seal.

Open-air hearth

To the north of feature A Knuth recorded a square open-air hearth built of four vertically standing flat stones embedded in the sub-soil. A fifth flagstone has been placed in the bottom of the box which was filled with a thick layer of charcoal and burnt bone.

Features B and C

Tent rings

15-20 m east of feature A Knuth found a couple of boul-



Fig. 7.10. (Plate 66) Kølneæs artefacts collected from campsites. Drying rack, baleen 0.500 m. L1.6417. Beach Terrace, group 4.

der structures of indefinable form. At one place there are flagstones and at another there are several vertically standing flat stones. Knuth also found bones around these features but no artefacts were located.

7.8 Summary and Discussion of the Eastern Shore of Peary Land

The archaeological finds on the eastern shore of Peary Land are spectacular not only as a consequence of Knuth's finding of the umiaq. The marine orientation in itself makes the sites interesting. In this respect the presence of a possible Palaeo-Eskimo structure on Kap Eiler Rasmussen is a promising indication of Palaeo-Eskimo sites with a marine economy in Peary Land. Such sites are remarkably rare, but again one must remember the difficult circumstances under which Knuth conducted his investigations. Furthermore, the wide expanse of the foreland makes it seem probable that Palaeo-Eskimo sites could be scattered along pre-historic beach ridges far from the present shore.

The Northernmost Ruins of the Globe – Johannes V. Jensen Land

8.1 Introduction

The northernmost part of Peary Land is named Johannes V. Jensen Land in honour of the Danish winner of the Nobel Prize for literature Johannes V. Jensen. To the south Johannes V. Jensen Land is separated from the rest of Peary Land by the 175 km long Frederick E. Hyde Fjord and Nordpasset, and to the west by O. B. Bøggild Fjord and Weyprecht Sund. To the north and east lies the Polar Sea (fig. 8.1).

Northern Peary Land is mountainous with peaks reaching 1900 m a.s.l. Glaciers begin around 500-600 m a.s.l. along the northern shore around Kap Morris Jessup but rise to around 1000 m a.s.l. on the south-

facing and more arid shores towards Frederick E. Hyde Fjord, and to around 1200 m a.s.l. south of Frederick E. Hyde Fjord. The rising limit of the glaciated areas reflects the greater aridity of the interior regions. Frederick E. Hyde Fjord only has few side fjords. Of these, the NW-SE oriented Frigg Fjord is the archaeologically most important because it was here that Knuth managed to locate some of the northernmost ruins in the world. The largest of these sites is the Independence I site named Adam C. Knuth site after his younger brother. A little to the south of Adam C. Knuth site there is evidence of more sporadic Independence II and Thule settlements at the sites known as Hvalterrasserne and Qissivik. The latter site was the

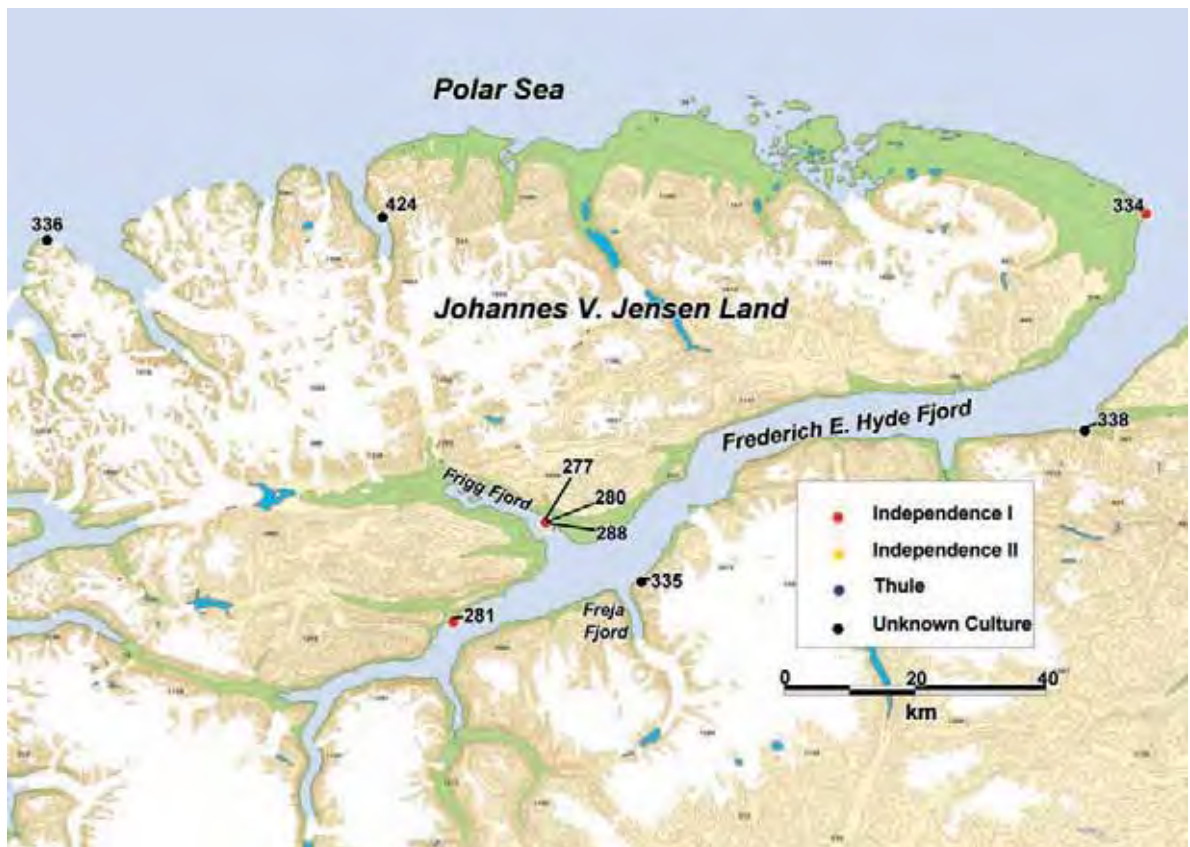


Fig. 8.1. Map of Frederick E. Hyde Fjord and Johannes V. Jensen Land with the location of archaeological sites.



Fig. 8.2. (photo 483) Kap Washington boulder feature to the west of R. Peary's cairn and at same level, 15/5 1969. Photo by P. Dawes.

first to be found during Knuth's initial visit in 1950, whereas the Stone Age settlements at Hvalterrasserne and Adam C. Knuth site were located and investigated during Knuth's renewed fieldwork in 1980, 1984 and 1985.

Other parts of Johannes V. Jensen Land have, however, only attracted scant attention. Even though many shores are marked as having been visited by Knuth (Knuth 1984), it should be remembered that the most peripheral places were only visited once – and this may have been during the spring when large areas were still covered with snow.

History of Research in Johannes V. Jensen Land

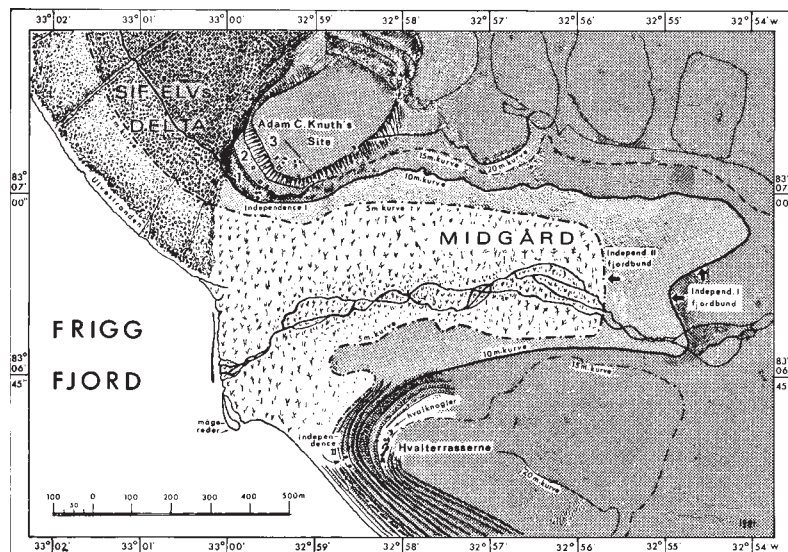
In 1950 Knuth and his Greenlandic companion Jens Geisler were the first humans in modern times to penetrate the interior of Johannes V. Jensen Land. From the newly established station Brønlundhus in Jørgen Brønlund Fjord they travelled by dog sledge through Independence Fjord, north along Herlufsholm Strand and then west into the Frederick E. Hyde Fjord. The journey was made in March and June 1950 when the ice cover on the large fjords was still solid. Large parts of the coast were snow covered and it was difficult for Knuth to locate archaeological sites. However, in Frigg they noticed a large log of driftwood and nearby they found wooden pegs driven into the ground and flagstones lying scattered around. They also found a 62 cm long stick with drilled holes believed to be part of a kayak frame (Knuth 1983). This site was named Qissivik after the Greenlandic word for wood: 'qissuk'.

In 1980, 1984 and 1985 Knuth returned to Frigg

Fjord and another three Neo-Eskimo ruins were discovered, in addition to the Independence II site Hvalterrasserne (the Whale Terraces) and the Independence I site Adam C. Knuth site (fig. 8.3). This site, with more than 25 stone-built features, is by far the largest of the three. This indicates that human presence in the northernmost parts of the world has never reached a level comparable to that seen during Independence I.

Knuth's vivid description of the landscape around the Qissivik site can also apply to Hvalterrasserne and Adam C. Knuth site, even though the view to the south is not as spectacular from the latter two as it is from the Qissivik site: 'Qissivik, meaning the place where one finds wood has such an exceptionally beautiful location that it has to be described. Turning south, one looks out through the wide mouth of Frigg Fjord, towards the south coast of Frederick E. Hyde Fjord. Behind the distant coast, Nordkronen (the Northern Crown), the highest peak in Peary Land, rises in the middle of the picture. The peak stands on the plateau as a dominant isolated rock formation with glacier lobes below. Numerous towers, pillars and spikes characterise the ridge as if a medieval town or castle were placed on the top. This impression, combined with the overall shape of the slopes, gives the mountain a striking similarity to the Acropolis in Athens. But the view is not only magnificent to the south. At a distance, the horizon from east over north to north-west is marked by the jagged snow-covered peaks of the Roosevelt Mountains, and turning in that direction the eye is met by a refined contrast in deep red, purple or burgundy wine coloured slate mountains close to the northern

Fig 8.3. (drawing 40) Map of the fossil fjord 'Midgård' on the northern shore of Frigg Fjord, with the location of the Independence II site Hvalterrasserne on the southern corner between Frigg Fjord and Midgård, and the large Independence I site Adam C. Knuth site on the gravel terraces of the northern corner between Frigg Fjord and Midgård.



shore of Frigg Fjord. In all directions the space is tremendous. In the clear air the sunshine throws a wonderful golden glow to the snow.' (Translated from Knuth, text 625)

Midgård 2001

In 2001 the Royal Danish Geographical Society and the Greenland National Museum and Archives initiated a new research programme focussing on the relationship between humans and environmental change in the High Arctic. During the initial field season Frigg Fjord was surveyed. An additional feature was excavated at Adam C. Knuth site in order to produce new data at an *intra* site level to be compared with the data retrieved by Knuth in 1985 (Jensen and Pedersen 2002).

During ten days of fieldwork the team excavated ruin III,I and re-excavated some of the spoil from Knuth's 1985 excavation of ruin II,I. During this process the soil was sieved through a 1 and 2 mm mesh in order to estimate the loss of minor vertebrate bones during Knuth's excavation. During the investigation it was discovered that Knuth had left segments of the midden and culture layer around the mid-passage unexcavated. Accordingly, these sections were also excavated. Geomorphological descriptions and mapping were carried out at Adam C. Knuth site, as well as on nearby Hvalterrasserne. The entire Frigg Fjord was surveyed by means of an outboard powered dinghy. During the survey, one new Independence I site was located approximately 10 km north-west of Adam C.

Knuth site. Near Columbus Sø (Columbus Lake) at the head of Frigg Fjord the northernmost prehistoric feature in the world was located in the form of a hearth believed to be of Thule origin with musk-ox bones and some branches of local wood lying around.

8.2 Kap Washington

Unknown date

83Ø3-000-001

Site no.336; text 840; photo 483

Kap Washington is mentioned only in a letter from geologist Peter Dawes to Eigil Knuth. Dawes mentions that to the west of a cairn built by Robert Peary there is a boulder structure of unknown origin. Photo 483 (fig. 8.2) depicts an oval aggregation of boulders approximately 1 m in diameter and located on gravel. The structure could be a cache.

8.3 Sands Fjord

Unknown date

83Ø3-000-008

Site no. 424

The Sands Fjord site is only mentioned in the Baedeker where Knuth notes that a meat cache or fox trap has been observed by Swiss geologists Fritz Müller and E. J. Fränkl. In 1981 Knuth flew over the locality without



Fig. 8.4. (photo 630) Qissivik, view over the Qissivik site with 'Mount Hlidskjálv' in the background.

detecting the feature. Apart from the feature being marked with the signature 'SAF' on a published map (Knuth 1983) there is no documentation from the site other than that already mentioned. The fjord and the locality are named by Robert E. Peary in honour of his sponsor H. Hayden Sands. A similar problematic recording has been noted on the point Kassuup Nuua at the north-western corner of the mouth of Henson Bugt, approximately 20 km to the east of Sands Fjord.

8.4 Qissivik

Thule

83Ø1-000-003

Site no. 288; text 625; photos 629, 630, 632, 1324, 1325, 1412; drawings 51, 5

Qissivik was the first archaeological site to be discovered in northern Peary Land (Knuth 1950, 1982, 1983). Prior to the investigation Knuth had to remove the snow cover (fig. 8.4).

Feature A

The terrain was covered by snow but on barren horizontal areas Knuth found around twenty wooden pegs driven into the clay. The pegs proved to be pointed but due to solifluction they stood tilted in all directions. Occasionally the pegs formed rows 1-2 m apart. Other

pegs appeared to be placed in circles, of which one had a diameter of 4-5 m, whereas the others were smaller. Knuth considered the larger ring to be a tent ring whereas the smaller ones may be for the suspension of skin and hide. During excavation Knuth found wood shavings and bone splinters which were collected.

Feature B

On another snow-free terrace closer to the beach and approximately 50 metres south of feature A, Knuth found a stone arrangement which had formed a tent ring prior to cryoturbation. When the snow had been removed Knuth excavated the dry sandy spots or chopped up the frozen soil in larger chunks in order to extract wood shavings, charcoal and a few modified objects consisting of a piece of whalebone with cut marks (LI.6318) and a flat piece of wood, 62 cm long, 4 cm wide and with five holes and a groove, believed to be a piece of a kayak frame (LI.6317).

Feature C

During his visit to Frigg Fjord in 1980 Knuth found an additional feature C, a flagstone pavement located near the shore (fig. 8.5).

According to U. Møhl, 24 of the collected bones are from musk ox, and seven are from wolf.

8.5 Hvalterrasserne

Independence II

83ØI-000-002

Site no.280; texts 606, 607; drawings 38-40; photos 474-482, 491-499, I326-I327

In 1980 Eigil Knuth and Asger Lakmann Nielsen were airlifted to Frigg Fjord by a helicopter serving the Geological Survey of Greenland. During a week long stay, from 13th to 19th July, they managed to excavate two of the three Independence II ruins at Hvalterrasserne (Knuth 1982, 1983). The two excavated ruins are well preserved mid-passage dwellings whereas the third is a flagstone pavement at the foot of a large boulder.

The three ruins are located by the south-eastern slope of a east-west oriented valley of low relief branching off the northern shore of Frigg Fjord (figs. 8.3 and 8.6). With reference to Nordic mythology Knuth named the valley Midgård, which is 'the land of the humans' located midway between Udgård and Asgård, the lands of the gods. In prehistoric time Midgård was a shallow side fjord to Frigg Fjord. The former fjord bottom is a clay plain with only scant vegetation. Midgård is drained by a minor stream running into Frigg Fjord. The stream is only fed by melting permafrost and snowdrifts. On several occasions, scientists, military personnel or tourists have used an airstrip suitable for STOL aircraft like the Twin Otter on the flat valley floor of Midgård. Hvalterrasserne (Whale Terraces) is a hill of disintegrating mudstone with an extensive series of shallow marine terraces stretching from the present sea level up to more than 20 m a.s.l. Around 15 m a.s.l. Knuth found the remains of a beached whale. During the Midgård Project in 2001 another whale was found buried in the beach terraces around 5.5 m a.s.l., just below the Independence II dwellings located on a broad terrace 7 m a.s.l. Analysis of an ear bone from the 15 m whale located by Knuth has verified this specimen to be a Greenland whale (*Balaena mysticetus*), whereas the whale skull at the 5 m terrace is identified as either Greenland whale or Northcaper (*Balaena biscayensis*).

Features and Finds from Hvalterrasserne

Feature A

Mid-passage tent ring (drawing 38; photos 477, 478, 491, 494, I327)



Fig. 8.5. (photo 1325) Qissivik, feature C, 13/7-1980.

A: Mid-passage dwelling with boulder tent ring and a mid-passage of thin shale slabs. Transverse slabs bisect the c. 2 m long mid-passage into five compartments. At the rear there is a flagstone pavement inside the mid-passage as well as on its south-eastern side (fig. 8.7). During the excavation Knuth focused on the dwelling's interior and the mid-passage was excavated with great care. Bone and wood fragments were found in the



Fig. 8.6. (photo 479) Hvalterrasserne, view from Hvalterrasserne towards north-west and the head of Frigg Fjord. Knuth is taking notes on the large erratic against which the flagstone feature B is built.



Fig. 8.7. (photo 477) Hvalterrasserne, feature A seen from the rear after excavation, the mid-passage is approximately 2.5 m long and 75 cm wide. Photo 1980.

mid-passage but there were only few artefacts. A microblade of brown chalcedony (marked with an M) and two bone needles (N) are plotted on Knuth's drawing of the ruin. One needle was found in the rear of the mid-passage and another was found on top of a flagstone on the western side of the front of the mid-passage. The microblade was found in a 60 x 100 cm flagstone-paved compartment in the rear section of



Fig. 8.8. (photo 474) Hvalterrasserne, feature C seen from the front, the mid-passage is approximately, 3.0 m long and 60 cm wide. Photo 1980.

the feature. In addition to these artefacts three further microblades, two further needle fragments and two pieces of hide are registered in the inventory list at the National Museum of Denmark (LI.10124-10133).

Table 8.1. Lithic artefacts Hvalterrasserne A.

Artefact category	All artefacts
Microblades	4

Feature B

Flagstone pavement

Feature B is a flagstone pavement at the foot of a 1 m high boulder (fig. 8.6). The function of this pavement cannot be determined. It may be an outdoors working area or some kind of collapsed cache.

Feature C

Mid-passage tent ring (drawing 39; photos 474, 475, 476, 492, 497, 498)

Feature C is a mid-passage dwelling similar to feature A. A boulder tent ring is divided by a meticulously built mid-passage of thin vertically placed flagstones (fig. 8.8). The mid-passage is 2.25 m long and 60 cm wide, narrowing at the middle to a width of 50 cm at the front. The mid-passage is bisected into several compartments by transversely placed slabs. Charcoal was found in a narrow compartment in the middle of the mid-passage but apart from this it was virtually barren of finds. At a distance of 4-5 m down the slope from the dwelling Knuth discovered a lithic workshop, and an outdoor hearth was recorded 10-15 m away. From the outdoor activity areas Knuth collected some tools, cores and several hundred flakes but inside the dwelling there appear to have been even fewer artefacts than found in feature A. A convex end scraper, a flake and a broken needle are the only finds from feature C (LI.10134-10136). The scraper was found in front of the dwelling (text 606). Artefacts collected from outdoor activity areas are registered under LI.10137-10155 at the National Museum of Denmark.

Table 8.2. Lithic artefacts Hvalterrasserne C.

Artefact category	All artefacts
End scrapers	1
All flakes	1
Total	2

Table 8.3. Lithic artefacts from open-air workshop Hvalterraserne.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	1	7.7	13	5.7
Microblades	1	7.7		
End scrapers	1	7.7		
Large flake/rough-out	10	76.9		
All flakes			215	94.3
Total	13	100.0	228	100.0

Table 8.4. All Artefacts Hvalterraserne.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	1	5.6	18	7.7
Microblades	5	27.8		
End scrapers	2	11.1		
Large flake/rough-out	10	55.6		
All flakes			216	92.3
Total	18	100.1	234	100.0

Site Summary and Discussion

Most of the finds from Hvalterraserne were collected from the terrace slopes in front of the two dwellings where lithic workshops had left debitage as well as several fragmented tools. However, during excavation Knuth focused on the mid-passage structures where only few finds were recovered. Due to the limited number of artefacts in the dwellings Knuth (1983) believed the settlement to be short-term. Knowing that most tool manufacture and handicraft activities appear to have been outdoor, we may add that the site was probably a short-term occupation used by two families travelling together during the warm season. Knuth (1983) noticed that the rear compartments in both mid-passages had large boulders lying on top of broken flagstones. It was as if the rear parts of the mid-passages had been covered by flagstone lids, kept in place by the larger stones in order to protect cached objects. Among the activities carried out by the people living on the site we can specify raw material acquisition as documented by the primary lithic reduction in the outdoor workshop found in front of feature C and collection of whalebones from the beached whale at the 15 m terrace above the site. Knuth (text 606) mentions that the sheer size of the flakes and the raw

material collected down the slope from feature C reminds him of Independence I, where for example Den Blå Flints Boplads (site no. 296) at the head of Danmark Fjord was named after the raw material. This statement may be able to teach us something about the differences in raw material acquisition and lithic tool manufacture during Independence I and II. Lithic debitage left by Independence II people involved in primary lithic reduction looks very like debitage left by Independence I people.

In Knuth's view, the relatively common occurrence of primary lithic reduction at Independence I sites is understood as a cultural trait and not as a material consequence of raw material acquisition and supply systems. Likewise, the apparent lack of primary lithic reduction at most Independence II sites in the more southerly regions of North-east Greenland is not interpreted in terms of raw material supply systems different from those present in Independence I. Instead it is seen as a cultural trait specific to Independence II, in the same way that specific tool categories were more often seen as type fossils than they were seen as lithic objects which, for one reason or another, had been discarded at a certain state in production.

In the Midgård area the grey to blue or black flint can be collected as presumably ice transported boulders on the surface. So easy and virtually unlimited access to suitable raw materials was utilised by some of the dwellers at Hvalterraserne, as it had been hundreds of years before by the Independence I people living at Adam C. Knuth site 1 km north of Hvalterraserne.

Judging from the limited material from Hvalterraserne we may propose the following scenario: Two families arrived at the site with a limited lithic inventory of exotic raw materials represented by the microblades found inside the dwellings. During their brief stay raw materials were collected in the vicinity of the site. In front of feature C the nodules were reduced to rough-outs or cores and to some extent to finished tools which were taken away when the two families left the area. In addition to these quarrying activities the people may also have been gathering whalebone from the beached whale above the settlement. At least some of the bones scattered on the 15 m terrace have cut or chop-marks. On his first arrival Knuth noticed that the whalebones seemed to be clustered within

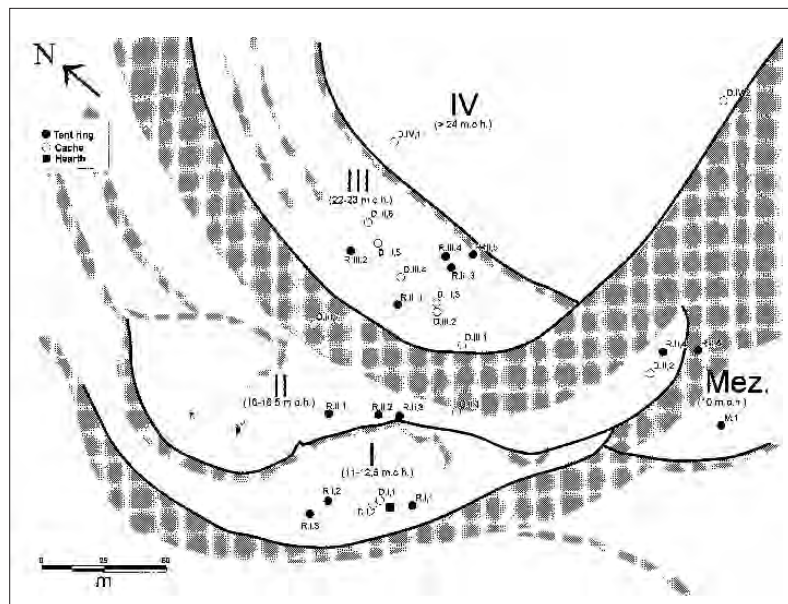


Fig. 8.9. Adam C. Knuth site, site map with the location of features on different terraces. After original by Knuth.

semi-circles of stone. In Knuth's opinion, however, these appeared to be too randomly arranged to have been placed by humans.

8.6 Adam C. Knuth Site

Independence I

83ØI-000-00I

Site no. 277; photos 457-47I, 500-509, 5I8-527, 543-563, 592-602, 642-648, I328-I336, I424-I425; plates I6, I7

The Adam C. Knuth site was discovered on the last day

of Knuth's fieldwork at Hvalterrasserne in 1980 when, on a sudden impulse, he decided to walk to the gravel terraces on the opposite site of the fossil fjord which he named Midgård. As Knuth ascended the terraces he was astonished to find them littered with debitage and artefacts distributed between numerous solidly built tent rings and mid-passages (figs. 8.9 and 8.10). Knuth immediately recognised the importance of his discovery. He therefore returned in 1984 and 1985 in order to map the site more thoroughly and to excavate some of the features. During his mapping Knuth divided the features into ruins marked with R and caches



Fig. 8.10. Adam C. Knuth site, view from terrace III towards west. On the lower terrace, terrace II, the feature ruin II,1 excavated by Knuth and H. Elling in 1985, can be seen. (Photo Jens Fog Jensen 2001).

marked with D on his site map. The use of a 'D' comes from the Danish word 'depot' meaning cache. These capitals are followed by a Roman numeral and an Arabic numeral, where the Roman numeral indicates the terrace level and the Arabic numeral designates the ruin or cache number on the specific terrace. Knuth numbered the terrace levels with inspiration from a town house, beginning with the mezzanine and then ascending to first (I), second (II) and third (III) floors. Knuth's numbers have been used throughout the following presentation in order to minimise any confusion. In 1985 Knuth conducted a thorough excavation of feature RII, 1 which is a mid-passageway ruin on terrace II that proved to be exceptionally rich both in lithics and faunal material. During the excavation tools were plotted in, whereas debitage was collected from different sectors of the feature. In addition to the excavated artefacts Knuth also collected artefacts and faunal material from the other ruins at the site. All lithic artefacts registered at the National Museum have been listed along with the feature descriptions. The faunal material collected from the surface has not yet been analysed. The Zoological Museum has faunal material in its stores from ruin II, 4, ruin II, 5, ruin III, 2, ruin III, 3, Ruin III, 4, ruin III, 5 as well as from an unidentified feature called D, 3. According to the numbering system implemented by Knuth, the latter must be from a cache, presumably from cache III D, 3.

In 2001 Adam C. Knuth site was revisited by an interdisciplinary team of geographers and archaeologists (Jensen & Pedersen 2002) who excavated ruin III, 1 in order to retrieve detailed spatial information on one of the find-rich dwellings. In addition to these excavations, un-excavated portions of the culture layer in ruin II, 1 were excavated. Segments of Knuth's spoil from ruin II, 1 were sieved through a 1 mm and 4 mm mesh in order to evaluate the loss of faunal material during the earlier field work at the site. The results from these excavations have not yet been fully processed, and neither the lithics nor the faunal material collected in 2001 are listed in the summary tables presented here. In order to evaluate ruin II, 1 excavated by Knuth, lithic distributions from both this feature and from ruin III, 1 will be presented.

Mezzanine

Rudimentary dwelling

The lowest of the terraces with ruins is the mezzanine

located at approximately 10 m a.s.l. Along a 7 m long and 4 m wide section of the level terrace. Boulders, flagstones, debitage and bones are scattered in no apparent order apart from the fact that they evidently form a man-made cluster. The structure is partly covered by aeolian sand and clay. Flagstones and boulders are concentrated in the western part of the feature, where some of them appear to form a hearth located in the centre of a tent ring. Among the bones in the area are musk ox and whale. A single side scraper (LI.10309) was collected from the feature.

Table 8.5. Lithic artefacts Adam C. Knuth site Mezzaninen.

Artefact category	All artefacts
Side scrapers	1

Ruin I, 1

Tent ring

Ruin I, 1 is a badly preserved tent ring located 11 m a.s.l. Only a 1.5 m long section of the western wall is preserved. The tent ring is built of up to head-sized boulders. To the east of the well preserved wall segment there are five head-sized boulders which either were part of the eastern wall in a very small structure similar to a hunter's bed or – more probably – were part of a fireplace. In and around the feature there is debitage of grey and black chert. 4.5 m east of the well defined western wall there is an outdoor box-hearth built of flat stones and boulders. The box is filled with fire-cracked rocks. Near the north-eastern corner of the hearth there is a flint-knapping spot with debitage of black chert in a well defined cluster. Three lithic objects were collected from the feature (LI.10293-10295).

Table 8.6. Lithic artefacts Adam C. Knuth site ruin I, 1.

Artefact category	All artefacts
Microblades	2
Endscrapers	1
Total	3

Ruin I, 2

Tent ring

Ruin I, 2 is a rudimentary tent ring located 12.5 m a.s.l. The feature is built of up to head-sized stones of which five form an irregular periphery around a 30-40 x 30-



Fig. 8.11. (photo 1333) R II,1 mid-passage with vertically standing stones *in situ*, prior to excavation, 20/7-1980.

40 cm box hearth built of flat stones and boulders. The diameter of the periphery is around 2.5 m but the stones do not appear to be located in their original positions. There is debitage around the hearth.

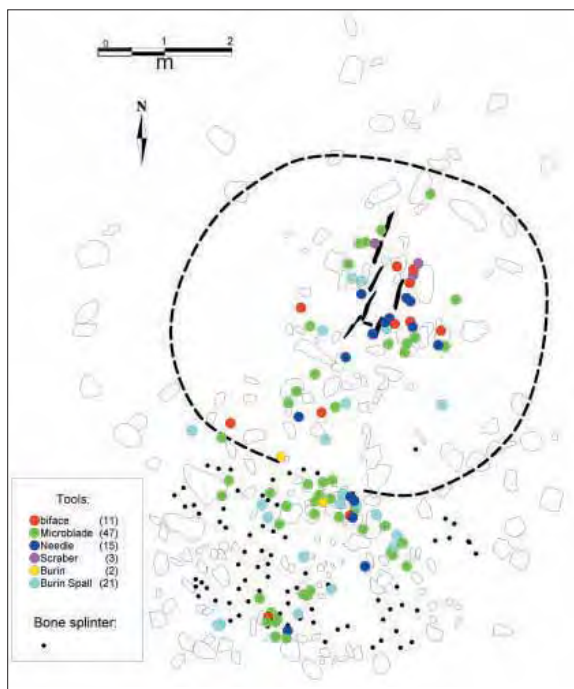


Fig. 8.12. Adam C. Knuth site. Ruin II,1 with the distribution of finds. After sketches by Knuth. Graphics by Kristoffer Buck Pedersen.

Ruin I, 3

Tent ring

Rudimentary tent ring of 12-50 cm boulders forming an irregular periphery with a diameter around 3.5 m. There is no well defined hearth but inside the structure there are some flakes. About 1 m from the western part of the feature there is a larger core of black chert.

Ruin I, 4

Box-hearth

A 50 x 40 cm box of head-sized boulders. In the box there are fire-cracked rocks and charcoal.

Second Floor

Ruin II, 1

Mid-passage dwelling (photos 460, 462, 463, 464, 466, 467, 1331, 1333)

Ruin II, 1 is a mid-passage of vertically placed flagstones surrounded by numerous boulders which did not form any discernible tent ring (figs. 8.11 and 8.12). Around the mid-passage, and in particular in front of it, Knuth found a culture layer reaching a thickness of almost 50 cm and exceptionally rich in artefacts and bones. He therefore decided to excavate the feature. In addition to the many bones, numerous exquisitely manufactured artefacts were also recovered from the midden deposits in front of the mid-passage. These indicate that the dwelling was used for a considerable period of time and that extensive tool manufacture must have taken place in addition to everyday activities. In Knuth's (1983) presentation of the material from the site he did not separate the midden deposits from the deposits inside the main ruins, i.e. ruin II, 1 and ruin III, 1. Instead, he thought of the artefact scatters as being deposited inside a dwelling as a whole. He therefore suggested that the dwellings were very large, covering an area of approximately 12 x 12 m. The 2001 fieldwork at ruin III, 1, and renewed analysis of Knuth's data from ruin II, 1 suggests, however, that the spatial morphology of both deposits is comparable to similar deposits in tent-ring dwellings known from other localities in Greenland. In both dwellings there is an abundance of lithics concentrated around the hearth and dense scatters of debitage and discarded tools, bones and fire-cracked rocks fanning out from the entrance facing the fjord. However, as will be touched upon in the discussion of ruin III, 1 (below),

with reference to the many large boulders located in front of ruin III, 1, it can be argued that there was some sort of bell end attached to the entrance. Although the well preserved tent ring on this feature indicates that the dwelling itself was a circular structure approximately 5.5 m in diameter. Even though the periphery was not preserved at ruin II, 1 the artefact distribution indicates that this feature may have had been of similar size. More than 700 lithics and a limited number of organic artefacts have been collected and excavated from ruin II, 1 (LI.10214-10267, LI.10290-10292, LI.10310-10438). Among the organic artefacts are several needles and a few pieces of bone with a sharp point. Two radiocarbon dates have been obtained for, respectively, caribou antler (K-4676) and musk-ox bone (K-3532) from ruin II, 1. The specimens gave dates of 3780 ± 80 BP and 3630 ± 80 BP. Within one standard deviation these calibrate to calendar dates in the ranges 2340-2030 and 2140-1880. The slightly earlier date for the caribou antler suggests that this is a natural specimen collected by the Independence I people. Caribou remains, apart from antler, are unknown from Independence I sites in Peary Land. This suggests that the caribou had vanished from the area during the period of Independence I occupation.

Fauna: 13 specimens from this feature were identified by U. Møhl (ZMK52/1980). At that time, all musk-ox bone was combined (153 g) and sent for radiocarbon dating. Møhl comments in his correspondence to Knuth that there is 'one fragment of an ear bone, I believe harp seal (*Phoca groenlandica*)'. As seal auditory *bullae* can be identified to species level, the identification must be correct and it is understandable that he was concerned since the modern distribution of harp seals does not extend to Northern Greenland (Banfield 1974; Muus *et al.* 1981). If this identification is correct it is the furthest northern locality for harp seal in Greenland and corroborates other evidence that it was warmer in the Arctic at the time of Independence I occupation. Møhl also comments that the musk-ox proximal *femur* and *humerus* fragments he identified are from a juvenile individual of approximately six months of age. This suggests that the feature may have been occupied in September/October.

In 1984 a total of 1263 faunal specimens were collected during excavation of ruin II, 1; these were identified in 1986 by J. Møhl (ZMK43/1986). Since bone material was identified from only this feature it repre-

sents just a sample of the features where faunal material was collected at Adam C. Knuth site in 1984 and 1985.

A total of 34 specimens of arctic char from ruin II, 1 (1984) were identified to species but the particular elements represented are not indicated. Bird and mammal remains were identified to element but specific portions are not indicated. The following two tables of bird and mammal remains do not include 20 specimens of large terrestrial mammal and an additional 439 unidentified fragments. Fish comprise 4.1%, bird 15.7%, marine mammal 3.9% and terrestrial mammal 76.3% of the identified faunal assemblage from the 1984 excavation of this feature. Bird remains are dominated by rock ptarmigan (72.8% of identified bird specimens). The majority of the mammal assemblage is composed of arctic fox (52%), followed by musk ox (34.9%), with marine mammals and arctic hare comprising only 4.2% and 4.4% respectively. Without information on element portions it is not possible to estimate the minimum number of individuals.

The ruin II, 1 (1984) assemblage at Adam C. Knuth site is one of the largest and most recently excavated of Knuth's zoo-archaeological assemblages with more attention apparently paid to collection of a large assemblage of bone material (J. Møhl 1999, personal communication). As such it probably reflects more accurately the contribution of musk ox to Northern Greenland Independence I assemblages – at least at this locality. Although musk ox was an important facet of the diet these hunters had a diffuse subsistence economy, albeit constrained by available resources. This is particularly obvious when Northern Greenland Independence faunal assemblages are compared to Independence I and assemblages of similar age from the Canadian High Arctic (Darwent 2001a, 2001b). These latter assemblages are heavily dominated by a single species: ringed seal. Apparently Northern Greenland provided a greater diversity of animal resources than other parts of the High Arctic.

The numerous bird skeletal elements, which include two *radii*, from newly-hatched individuals, suggest that this particular feature was occupied during the summer breeding season. However, the predominance of arctic fox – particularly fox skulls and mandibles – may indicate that it was also occupied during the cold season and that the foxes were being exploited as a fur source.



Fig. 8.13. Adam C. Knuth site. Ruin II,3 tent ring with central hearth. Partly disturbed by frost crack. Photo by Jens Fog Jensen.

Table 8.7. Lithic artefacts collected and excavated from Adam C. Knuth site ruin II, 1.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	18	12.3	146	18.3
Microblades	91	62.3		
Burins	4	2.7		
Burin spalls	25	17.1		
End scrapers	5	3.4		
Side scrapers	1	0.7		
Microblade cores	2	1.4	653	81.7
All flakes				
Total	146	99.9	799	100.0

Ruin II, 2

Tent ring

Circular tent ring of up to head-sized boulders. The periphery is 3 m in diameter and at the centre there is a hearth built of flat stones. Debitage and tool fragments of grey chert are scattered within the tent ring where many small retouch flakes can be seen in the area west of the hearth. The front of the tent ring has slid down the slope due to heavy frost action in the sub-soil.

Ruin II, 3

Tent ring

Ruin II, 3 is a tent ring dwelling completely destroyed by frost cracks and cryoturbation (fig. 8.13). The ruin measures 7 m from the rear to front but this size is presumed to result from the heavy movement in the sub-

soil. In the interior there are many boulders and flat stones placed in no evident order. A little debitage is scattered in the interior and a few bone splinters can be seen in front of the ruin. Along the rear wall there are several small wooden pegs jutting out of the edge along one of the frost cracks which has disturbed the structure.

Ruin II, 4

Tent ring

Ruin II, 4 is a 3.6 x 2.5 m concentration of flat stones and boulders between which there are bones and debitage. 5-6 m to the south of the ruin there are one or two flint-knapping sites with debitage of, respectively, grey and black chert. 8 m to the west there is a circular cluster of boulders believed to be a cache (D II, 2). The proximity of the two features suggests that they are closely related to each other. In 1985 two bifaces and a microblade were collected from the ruin (LI.10305-10307).

Table 8.8. Lithic artefacts from Adam C. Knuth site ruin II, 4 1985.

Artefact category	All artefacts
Bifaces	2
Microblades	1
Total	3

Ruin II, 5

Tent ring

Ruin II, 5 is a rudimentary tent ring located approxi-

mately 12 m a.s.l. to the south-east of ruin II, 4. The feature comprises a circular flagstone and boulder concentration with debitage and bones lying around and a general appearance similar to ruin II, 4 and the 'Mezzanine'. The feature is located about 50 cm higher up the gently sloping terrace than the Mezzanine and around 50 cm below ruin II, 4. Originally, ruin II, 5 was not marked on Knuth's site map but in the inventory list at the National Museum a single biface (LI.10308) is noted as having been collected from 'ruin II, 5, the southernmost and lowest ruin at level II'. This description only fits the above-mentioned feature which accordingly is named ruin II, 5.

Knuth has not described this feature.

Table 8.9. Lithic artefacts from Adam C. Knuth site ruin II, 5 1985.

Artefact category	All artefacts
Bifaces	1

Cache D II, 2

Comprises a 2.5 m circular heap of head-sized stones. There is no evident hollow in the central part of the cache as is usual in meat caches but the feature is located on a gravel terrace which is otherwise empty of larger stones. Evidently the feature appears to be manmade, but it can not be ascertained whether it is a cache.

Third Floor

Ruin III, 1

Tent ring (photos 458, 468)

Ruin III, 1, called by Knuth the main ruin on the 'third floor', is a 5.5 m boulder tent ring with numerous artefacts scattered in the interior as well as in front of the feature, where the culture layer also contained charcoal and disintegrated fire-cracked rocks (figs. 8.14 and 8.15). While terrace III as a whole is a boulder field, the immediate surroundings of ruin III, 1 comprise a gravel surface free of larger boulders. Presumably the stones used for the dwelling were collected from the spot, thereby creating an open space with the dwelling at the centre.

Knuth collected extensively from ruin III, 1 during his visits to the site. During fieldwork in 2001 it was excavated and all finds were plotted with reference to quarter square metre fields. However, in the present

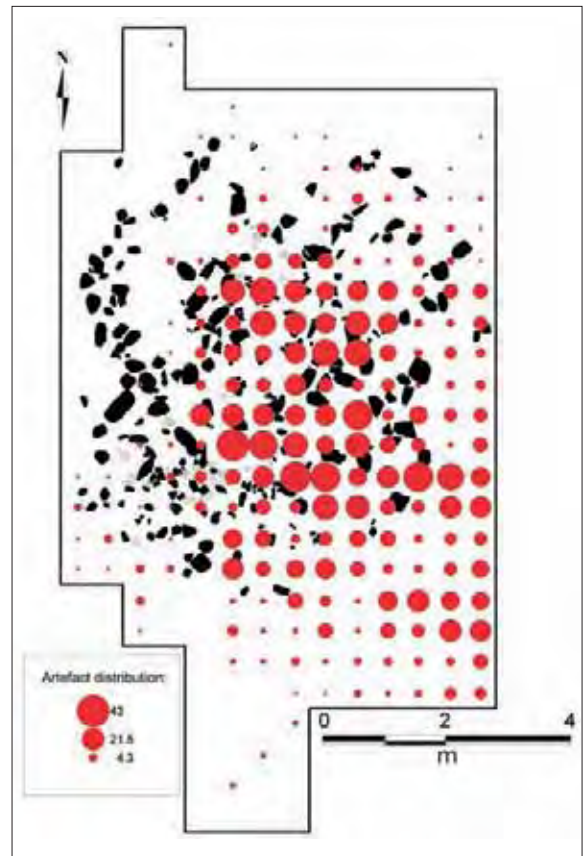


Fig. 8.14. Adam C. Knuth site, ruin III, 1 with the total lithic distribution in relation to the boulder tent ring. Tent ring stones marked with black, fire-cracked rocks grey, the size of the red circles indicates the number of artefacts from each quarter square metre. Graphics by Kristoffer Buck Pedersen.

description we will only include the artefacts collected by Knuth in the artefact table (LI.10160-10213, Table 8.10). The exact location of objects collected by Knuth is not known. Accordingly, the distribution plan, which is shown on fig. 8.14, is based on the artefacts and mainly on the debitage excavated in 2001. The feature consists of a solid c. 5.5 m large circular tent ring of boulders with a disturbed hearth at the centre. The western part of the periphery is particularly well preserved with two rows of stones along the southern part.

As was mentioned in the description of ruin II, 1, the abundance of associated finds made Knuth believe that ruin III, 1 and the mid-passage ruin II, 1 were similar and somewhat special dwellings covering an area up to approximately 12 x 12 m. However, the new investigations in 2001 indicate that the general lithic distributions in these two features are similar to quite

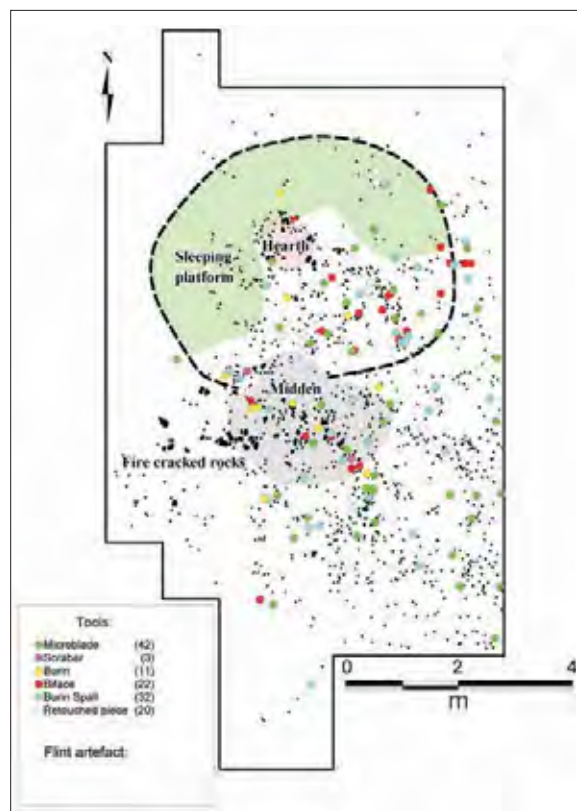


Fig. 8.15. Adam C. Knuth site, interpretation of ruin III, 1 excavated in 2001. The distribution of plotted artefacts is indicated with symbols, and the approximate internal wall line is marked with a dotted line which has been placed according to the tent ring stones. Graphics by Kristoffer Buck Pedersen.

normal tent ring distributions, with indoors deposits and refuse deposits fanning out from the entrance. When comparing the distributions inside the dwellings in ruins II, 1 and III, 1, it can also be seen that there are considerable differences between the two features. The artefacts plotted by Knuth on the site map are aligned along the mid-passage on the central axis of the feature. In contrast, the indoor deposits in ruin III, 1 are concentrated in the south-eastern quadrant towards the entrance. Ruin III, 1 does not, therefore, seem to have had a mid-passage because one would then expect the lithics to be aligned along the central axis. On the contrary, the empty floor area in the western, northern and north-eastern segments of the interior, combined with a little cluster of fire-cracked rocks at the centre of the interior, seem to indicate that ruin III, 1 had a sleeping platform along the well preserved western part of the tent ring as well as in the northern and north-eastern parts of the inte-

rior. These differences in internal architecture, and in artefact distributions, may indicate that ruins II, 1 and III, 1 were quite different from one another internally. The floor area in the former appears to have been divided into two halves in which certain individuals may have had their specific seats on skin-covered platforms at either side. Ruin III, 1, on the other hand, appears to have a large platform at the rear of the interior and an open floor space in the front quadrant. Such a difference in the organisation of space may be related to the social structure of the inhabitants. The mid-passage dwelling may thus have been inhabited by a single family with the mid-passage separating male and female segments of the floor, whereas ruin III, 1 could have been inhabited by several families resulting in a less marked division of the space into gender specific zones. A sample of musk-ox bone (K-3531) has been radiocarbon dated to 3670 ± 80 BP which, within one standard deviation, yields a calibrated calendar date of between 2200 and 1930. This date overlaps considerably with the musk-ox date from ruin II, 1, suggesting that the two features are contemporaneous or at least belong to the same period of settlement in Frigg Fjord.

Fauna: Ten bone fragments recovered from this feature were analysed by U. Møhl. All six musk-ox specimens (one cranial fragment, one mandible fragment, two *tibia* fragments, one pelvis fragment, and one rib mid-shaft fragment) were sent for radiocarbon dating (163 g). Three arctic hare specimens are represented by one proximal end of a *tibia*, mid-shaft fragments of an *ulna* and a *radius*. A caribou antler fragment was also collected near this feature, but may not be directly associated. The fauna materials excavated in 2001 have not yet been analysed.

Table 8.10. Lithic artefacts from Adam C. Knuth site ruin III, 1 1980.

Artefact category	Tools	%	All artefacts	%
Bifaces	8	19.5	41	39.4
Microblades	14	34.1		
Burins	6	14.6		
Burin spalls	9	22.0		
End scrapers	3	7.3		
Side blades	1	2.4		
Flakes			63	60.6
Total	41	99.9	104	100.0

Ruin III, 2

Mid-passage dwelling

The mid-passage is a 2.2 m long north-south alignment of boulders and flat stones which appear to be tilted. At the rear of the mid-passage there is a 60 x 60 cm box hearth with wind-eroded fire-cracked rocks. Debitage and bone splinters are scattered in and around the mid-passage. In front of it there is an approximately 4 x 4 m refuse area with fire-cracked rocks, many bones and some lithics. Both Musk ox and seal are represented among the bone splinters. The ruin is located in a fossil drainage channel forming an elongated north-south oriented depression on the terrace. There is no evident periphery but at a distance of c. 2 m from the mid-passage there are several up to 50 cm boulders located on top of the sub-soil. The dwelling thus appears to have a diameter of c. 4.5 m. A few lithic objects were collected from the feature (LI.10283-10286).

Table 8.11. Adam C. Knuth site ruin III, 2 1984.

Artefact category	All artefacts
Bifaces	1
End scrapers	1
Flakes	2
Total	4

Ruin III, 3

Mid-passage dwelling

Ruin III, 3 is a sub-rectangular tent ring of gravel and stones bisected by a mid-passage. The gravel tent ring measures approximately 4.3 x 3 m internally, but the boulders which, in particular, are preserved in the front part of the periphery, form a tent ring more than 5 m in diameter. The mid-passage is built of boulders and flat stones. Two vertically standing stones stand *in situ* at the western side of the front of the mid-passage. Originally the mid-passage appears thus to have been 40-50 cm wide. Behind the two vertically standing flagstones there is an approximately 1 m² section with fire-cracked rocks, bone splinters anddebitage of black and grey chert, which is also scattered around the front of the mid-passage. In front or south of the dwelling there is a midden area with many fire-cracked rocks, bone splinters and lithics. The midden fans out several metres to the east but only extends a little in the western side of the entrance area. Thedebitage in the refuse

**Fig. 8.16.** (photo 1336) Adam C. Knuth site, mid-passage of boulders in ruin III,5.

area is of the same black and grey chert as represented by the artefacts from within the dwelling. Knuth collected a biface (LI.10288), an end scraper (LI.10287) and a microblade (LI.10287) from ruin III, 3.

Table 8.12. Adam C. Knuth site ruin III, 3 1984 and 1985.

Artefact category	All artefacts
Bifaces	1
End scrapers	1
Microblade cores	1
Total	3

Ruin III, 4

Mid-passage dwelling

Ruin III, 4 is a boulder tent ring bisected by a mid-passage. The western side of the mid-passage is particularly well preserved whereas the eastern side has fallen over. At the rear of the mid-passage there is a hearth with charcoal and tooth enamel. The periphery is most clearly seen to the west where it is constructed of up to just larger than head-sized boulders placed in a curve approximately 1.5 m from the mid-passage. The eastern side of the periphery is not as clearly discernible but the area cleared of natural boulders suggests that the diameter of the dwelling must have been at least 4 m. In front of the ruin there are minor clusters of fire-cracked rocks and a few pieces ofdebitage but a regular midden has not developed.

Ruin III, 5

Mid-passage dwelling (photo 1336)

Well preserved mid-passage with rudimentary periphery. The 60-80 cm wide north-south oriented mid-passage is built of flat, but now tilted, boulders (fig. 8.16). Within the mid-passage there are numerous markedly flat stones. At the rear there is a separate section with fire-cracked rocks. Debitage and bone splinters are seen around the mid-passage. The flakes seen along the western side of the mid-passage are of a very coarse-grained black chert. In the same area there was a burin of the usual grey chert. At a distance of 2.4 m from the mid-passage some boulders are seen on top of the gravel sub-soil. On the western side of the dwelling a similar rudimentary wall can be followed for a distance of approximately 1.6 m from the mid-passage. On the eastern side the wall line appears, furthermore, to be outlined by a low gravel berm, as also seen on ruin III, 3. The total diameter of the dwelling is, accordingly, about 5 m. In front of the dwelling a fan-shaped midden extends over an area of at least 16 m² to the south. In the midden there are large quantities ofdebitage, bone splinters and fire-cracked rocks. In 1980 and 1985 Knuth collected lithic artefacts and a single piece of caribou antler (LI.10156-10159, LI.10296-10302).

Table 8.13. Adam C. Knuth site ruin III, 5 1980 and 1985.

Artefact category	All artefacts
Bifaces	3
Microblades	5
Burins	1
Side scrapers	2
Total	11

Cache D III, 1

(photos 461, 465)

Cache D III, 1 is located close to the front edge of terrace III. It is built of up to 50 cm boulders placed in a circle with an exterior diameter of c. 2.8 m and an interior diameter of 1 m.

Cache D III, 2

(photo 459)

Cache D III, 2 is located in close proximity to D III, 3. It is built of large boulders which form a circle with an outer diameter of 2.5 m and an inner diameter of 1.3 m.

Cache D III, 3

(photo 459)

Cache D III, 3 is located a few metres to the north-east of D III, 2. Built of up to greater than head-sized boulders it forms a circular structure with an outer diameter of c. 2 m and an 80 cm open space at the centre.

Cache D III, 4

Cache D III, 4 is a heap of boulders more than 2 m in diameter, with an approximately 1 m open space at the centre. The cache is located in close proximity to ruin III, 1 to which it may be related.

Caches D III, 5-6

The caches D III, 5-6 are smaller aggregations of boulders. Both are located in a boulder field where they are very difficult to distinguish from the natural boulders. They may be a natural phenomenon.

Cache D III, 7

Cache D III, 7 is a large heap of boulders with a central hollow similar to D III, 4, but located on the boulder-covered front slope of terrace III.

Cache D IV, 1-2

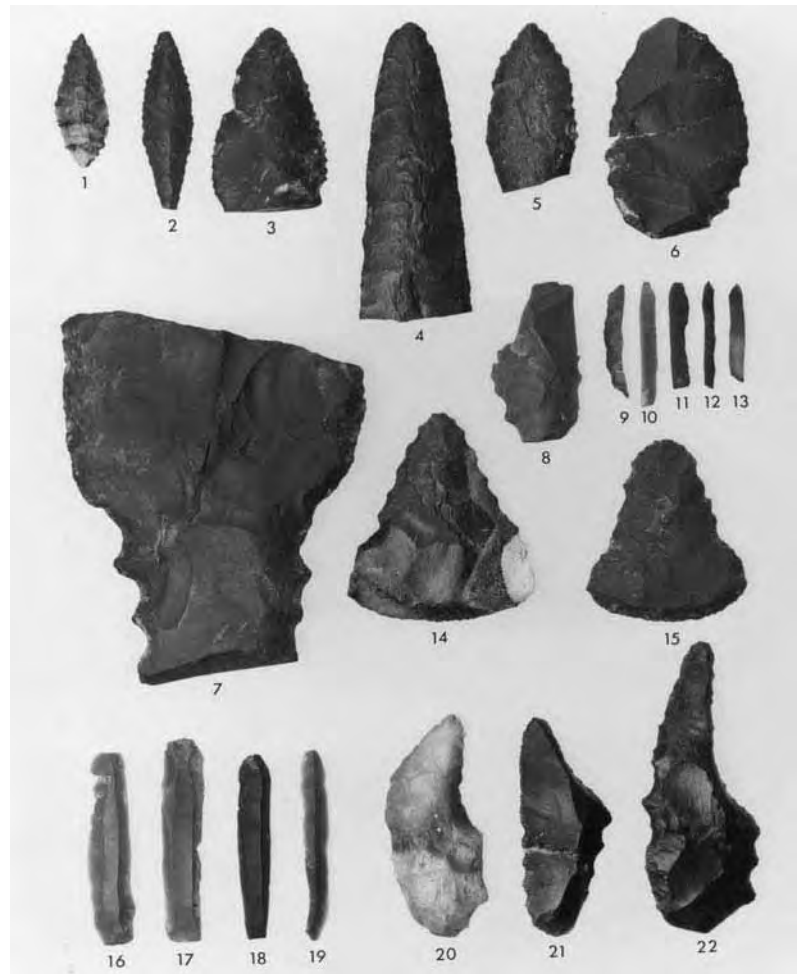
The caches D IV, 1 and 2 are located on the highest terrace far from the remaining features. Both are large and solidly built boulder heaps with a central hollow.

Site Summary and Discussion

Adam C. Knuth site is, both in terms of numbers of features and finds (fig. 8.17, Table 8.14), among the largest Independence I sites in Peary Land. With at least 28 features it is only surpassed by Pearylandville in Wandel Dal in the number of dwellings and associated boulder constructions. Knuth noticed that ruin II, 1, which he excavated, and ruin III, 1, were special features, whereas the remainder of the dwellings he thought were more common mid-passage dwellings. However, a systematic description of the features carried out in 2001 showed that all of the dwellings on terrace III are actually exceptionally large and, in several instances, exceptionally find-rich with midden accumulations containing large quantities of waste bone, fire-cracked rocks and lithicdebitage in front of the entrance.

In contrary to these find-rich dwellings, ruin II, 2, ruin II, 3, all the ruins on terrace I and maybe also

Fig. 8.17. (plate 16) Adam C. Knuth site artefacts, 1) L1.10296. (Ruin III,5). 2) L1.10435 (Ruin II,1 section p) 3) L1.10401. (Ruin II,1 section M). 4) L1.10305. (Ruin II,4). 5) L1.10297. (Ruin III,5). 6) L1.10403. (Ruin II,1 section M). + L1.10258. (Ruin II,1.). 7) L1.10400. (Ruin II,1 section M). 8) L1.10370. (Ruin II,1 section H). 9) L1.10316. (Ruin II,1 section B.). 10) L1.10318. (Ruin II,1, section B.). 11) L1.10408. (Ruin II,1 section M). 12) L1.10356. (Ruin II,1 section G). 13) L1.10319. (Ruin II,1 section B.). 14) L1.10305. (Ruin III,3). 15) L1.10426. (Ruin II,1 section N.). 16) L1.10394. (Ruin II,1 section L). 17) L1.10388. (Ruin II,1 section I). 18) L1.10346. (Ruin II,1, section C). 19) L1.10359. (Ruin II,1 section G.). 20) L1.10298. (Ruin III,5.). 21) L1.10299. (Ruin III,5.). 22) L1.10309. (Mezz).



ruins II, 4 and II, 5, as well as the Mezzanine, are smaller tent-ring dwellings with only a limited number of finds associated. Ruin II, 4, ruin II, 5 and the Mezzanine however, are wild cards since drift sand has accumulated in this area obliterating the surface. The clear distinction between large solidly built find-rich dwellings and smaller tent rings with few finds led the 2001 field team to believe that the solid find-rich structures are cold season habitations whereas the tent rings with few finds are probably warm season habitations. One must, however, point out that considerable numbers of bones of arctic char and bird remains, including juvenile bird bones, have been recovered from ruin II, 1. The large dwellings rich in finds may more correctly be termed year round dwellings rather than winter dwellings. With at least six of these large dwellings, Adam C. Knuth site appears to be a large communal camp which, however, also was occupied during the warmer months. The occupation at Adam

C. Knuth site during the summer months may have comprised a camp with just one or a few families living together. Only a single minor camp called the Gravel Terraces has been located, lying approximately 10 km

Table 8.14. Lithic artefacts collected and excavated from Adam C. Knuth site.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	34	16.0	212	22.8
Microblades	111	52.4		
Burins	11	5.2		
Burin spalls	39	18.4		
End scrapers	10	4.7		
Side scrapers	3	1.4		
Side blades	1	0.5		
Microblade cores	3	1.4		
All flakes			718	77.2
Total	212	100.0	930	100.0

north-west of Adam C. Knuth site. Several more small sites may be present in the area since the 2001 field work only included a few days of survey. All parts of Frigg Fjord were, however, visited making it unlikely that any major settlement would have been missed.

The wealth of lithics at Adam C. Knuth site clearly shows that the settlement must have lasted for quite a while. The presence of several cores, lightly reduced nodules and lithic workshops with primary reduction also indicate that raw material acquisition was an important activity at the site, as was also the case at the site of Hvalterrasserne.

8.7 Rypely

Independence I

83Ø2-000-009

Site no.281; photos 472, 473

On the northern shore of Frederick E. Hyde Fjord, approximately 15 km to the west of Frigg Fjord, there is a cabin built by the Sirius Patrol in 1975. The hut is located on the innermost part of older river terraces on the eastern side of the Vølvedal River. The name Rypely means 'Ptarmigan Shelter'.

Two prehistoric features have been located on the top of a little hill behind the cabin.

Feature 1

Mid-passage?

Photos 472, 473

Feature 1 is located on sloping terrain near the western corner of the hill. It looks like an isolated mid-passage. Its heavily sloping location and its elevation at approximately 45 m a.s.l. are more typical of a Neo-Eskimo fox trap, but due to the stones being densely covered by lichen Knuth believed the feature to be of Palaeo-Eskimo origin.

Feature 2

Meat cache

Feature 2 is a presumed cache located in a depression approximately 25 m from feature 1.

8.8 Freja Fjord

Unknown date

83Ø2-000-010.

Site no.335; text 841; photo 481

Freja Fjord is mentioned only in a letter from geologist Peter Dawes to Eigil Knuth. On the south side of Frederick E. Hyde Fjord, approximately 15 m a.s.l. at the first main delta to the west of Freja Fjord, Dawes registered a boulder feature believed to be a hearth. No artefacts were found in relation to this possible feature.

8.9 Kap Ole Chiewitz

Independence I

83Ø2-000-011

Site no. 334; texts 842, 843, 844; photos 485, 486, 487

Kap Ole Chiewitz is mentioned only in a letter from geologist Peter Dawes to Eigil Knuth. Dawes registered three possible Palaeo-Eskimo sites along the north-western side of the outlet of Frihedsrådets Elv (Danish Liberation Council River) named in honour of the Danish Liberation Council. The sites comprise rudimentary tent rings and at least one is a flagstone feature, maybe a mid-passage. The localities are three out of five sites mentioned in a letter from Peter Dawes to Eigil Knuth, the two other sites being Kap Washington and Freja Fjord. In the letter from Dawes to Knuth, the features are numbered 3, 4 and 5. In the description given here these numbers have been changed to Kap Ole Chiewitz features 1, 2 and 3.

Feature 1

Mid-passage (text 842; photo 845)

Feature 1 is located to the north-west of Frihedsrådets Elv, along the coast and approximately 16 m a.s.l. The feature is documented by photo 485 showing a row of tilted but vertically standing flagstones which could be the side of a mid-passage structure. Around 50 cm or so from the vertically standing flags there are a few other flagstones standing upright. These could be the remains of a parallel wall in the mid-passage. There are also a few horizontally placed flagstones lying around.

Feature 2

Hearth (text 843; photo 846)

Kap Ole Chiewitz 2 is located approximately 19 m a.s.l. Dawes reports that four flagstones seen on the photo may be a hearth.

Feature 3

Tent ring (text 844; photo 847)

Kap Ole Chiewitz 3 is a series of boulders which may be a rudimentary tent ring located about 500 m from the shore at approximately 25 m a.s.l.

8.10 Depotbugt

Unknown date

83Ø2-000-012

Mid-passage (site no. 338; photos 627, 628)

In 1979 the Canadian geologist Robert Christie discovered a mid-passage ruin with lithic artefacts scattered around on the eastern shore of Depotbugt (Cache Bay). Knuth had already visited the place in 1960 but strong current in a river prevented him from inspecting the site where Christie later discovered the Palaeo-Eskimo settlement. A worked piece of chert (Li.10268) was collected from the site. In the artefact database at the National Museum of Denmark it is, however, erroneously registered under site number 77Ø1-001-004.

8.11 Summary and Discussion of Johannes V. Jensen Land

Johannes V. Jensen Land is the northernmost land on Earth which has been settled by hunter-gatherers. As such the archaeological remains in this part of Greenland are unique.

As has been demonstrated for Hall Land, Wandel Dal and Jørgen Brønlund Fjord, the Palaeo-Eskimo period is most strongly represented by Independence I settlement, mainly due to the massive settlement at

Adam C. Knuth site. Unfortunately the sites located by geologists remain undated but the height above sea level suggests that the Freja Fjord settlement (site 335) and the Kap Ole Chiewitz localities (site 334) are Independence I. Frigg Fjord is the only area which can be considered reasonably well surveyed, whereas many undiscovered settlements may be present on the remaining shorelines of Johannes V. Jensen Land. However, if the pattern seen in Frigg Fjord holds true for the remainder of Johannes V. Jensen Land, then we can anticipate that both the Thule and Independence II sites north of 83° N are short-term exploratory camps with no signs of more stable settlement. The remaining questions are: How do we envisage the settlement on Adam C. Knuth site? How do we understand a large semi-permanently settled site located several hundred kilometres north of the nearest contemporaneous occupied areas in Wandel Dal and Jørgen Brønlund Fjord? Considering the character of the prehistoric settlement of Peary Land as a whole, where the Independence II, Thule and, to a lesser degree, Independence I settlement comprise relatively short periods separated by long time spans when Peary Land was desolate, one may envisage that the situation in Johannes V. Jensen Land is an even more condensed version of this demographic history. Adam C. Knuth site may thus be the first and only attempt by humans to establish a population in Johannes V. Jensen Land. The large find-rich dwellings on Adam C. Knuth site may be contemporaneous dwellings used by a minor band moving north from the settlements in Wandel Dal and Jørgen Brønlund Fjord. When a group of pioneers enter such a new area they may initially establish a single collective camp in or near the most obvious stable resources. Adam C. Knuth site was occupied for some decades but apparently alternative 'central places' were never established. Maybe the musk-ox stocks in this area proved early on to be too small to sustain a permanent subsistence base for humans.

Danmark Fjord and Prinsesse Ingeborg Halvø – a Large Fjord and its Archipelago

9.1 Introduction

The c. 150 km long SSW-NNE oriented Danmark Fjord joins the wide mouth of Independence Fjord (fig. 9.1). At the eastern shore of the 30 km wide mouth lie the Prins Frederik Øer archipelago. Like a funnel, Danmark Fjord narrows towards its head so that in the southernmost 30 km section, named Holbæk Fjord, it rarely is more than 5 km wide. Apart from the 7 km long and 1.5 km wide Næstved Fjord, branching off the western shore near the head of Danmark Fjord, the small Sjælland Fjord also branching off from the western shore, is the only side arm to Danmark Fjord.

The most thorough account of the 1955 fieldwork

is given in *Det Mystiske X i Danmark Fjord* (The Strange X in Danmark Fjord) (Knuth 1958b). Knuth recounts a fascinating tale of two men and their discoveries in the Arctic, mingled with the mystery of the fate of Mylius-Erichsen, Høeg Hagen and Brønlund who perished after exploring the same area in 1907. Knuth and his companion, radio-telegrapher Kristen Sørensen, walked the 180 km from Station Nord to Kap Holbæk dragging most of their gear on pulkas. Air-dropped supplies were collected at three localities along the east coast of Danmark Fjord. In early June Knuth and Sørensen traversed the ice-covered Danmark Fjord in order to inspect the area around Sjælland Fjord where remnants of the Denmark Expedition could be ex-



Fig. 9.1. Map of Danmark Fjord with the location of archaeological sites.

pected. Knuth did not find Mylius-Erichsen's camp but on Pinseskæret (Whitsun Skerry), which later was renamed as Juniskæret (June Skerry), he found an isolated Independence II dwelling (site no. 299). From Sjælland Fjord, Knuth and Sørensen returned to the eastern shore of Danmark Fjord. During the subsequent days they trekked further south to Kap Holbæk which they reached on June 21st after 21 days of trekking. Due to the quantity of gear and supplies, several reaches of the march had to be done twice and Knuth estimates they trekked a total of 330 km. On their way from Station Nord to Kap Holbæk they had encountered a total of 40 musk oxen (Knuth 1958b:16). In 1960, 1964, 1969 and 1971 Knuth returned to carry out fieldwork in Danmark Fjord. On these occasions, however, he only stayed for a short time in the area. In 1964 Knuth was airlifted for short visits to a number of locations; in 1969 he finished excavations on Den Blå Flints boplads at the head of Næstved Fjord and in 1971 he visited a number of sites in the outer part of Danmark Fjord while travelling by snowmobile from Station Nord to Kap Moltke in Jørgen Brønlund Fjord.

9.2 Brønlunds Vardehøj (Mylius-Erichsens Sommerlejr)

Independence I?

81Ø2-000-005

Site no. 400; text 829; drawing 49

Knuth registered three features believed to be char caches from Independence I at the locality where Mylius-Erichsen, Høeg Hagen and Brønlund erected a cairn during the Denmark Expedition. The site is located 12 km south of Kap Rigsdagen which forms the junction between Danmark Fjord and Independence Fjord. In 1964 Knuth further notes the presence of several tent rings, believed to be Palaeo-Eskimo, protruding through the snow.

9.3 Zophonias Delta

Independence I

81Ø2-000-006

Site no. 352; text 827; photos 941, 942, 943

17 km south of Brønlunds Vardehøj (29 km south of



Fig. 9.2. (photo 941) Zophonias Delta, isolated hearth (feature A) prior to excavation, 25/5-1971.

Kap Rigsdagen) Knuth registered two stone-built Independence I hearths (figs. 9.2 and 9.3). Feature A is a classical box hearth set with boulders and filled with rocks which showed no signs of being fire-cracked (photos 941 and 942). B is a small circle of smaller boulders enclosing an area with ashes in the gravel (photo 943). 1 m north and north-west of this hearth Knuth found a semi-circle of large boulders forming a



Fig. 9.3. (photo 942) Zophonias Delta, isolated hearth (feature A) after excavation, 25/5-1971.



Fig. 9.4. (photo 946) Juniskæret, mid-passage feature with vertically placed flagstones *in situ*, 2/7-1960.

rudimentary tent ring. Measured with hand level the ruins are located at 15.30 m a.s.l. Both features were excavated revealing no finds apart from some charcoal from feature A (LI.9785).

9.4 Juniskæret

Independence II

81Ø2-000-004

Site no. 299; text 830; drawing 231; photos 945, 946

On a little island named Juniskæret (June Skerry), 9 km south of Pinseskæret (Whitsun Skerry) Knuth found an isolated Independence II mid-passage with a hearth in front of it (fig. 9.4). The ruin is located at the western end of the island, 50 m from the beach and at 4-5 m a.s.l., just below a large stony hill which forms the highest point on the island. The mid-passage is 2.07 m long and 66 cm wide. Parts of the side in the mid-passage have a double row of vertically standing flagstones. In the archive at the National Museum of Denmark the site is registered twice under the name of Pinseskæret (81Ø2-000-003) as well as Juniskæret (81Ø2-000-004). This is due to the fact that Knuth (1968) first published the presence of an isolated Independence II feature at Pinseskæret. Later, when he had become aware of the erroneous naming of the site, he used the name Juniskæret for the hitherto

unknown islet where the Independence II site is located. This happened when he published a radiocarbon date from the site (Knuth 1981:107 (K 3360)). The dating was conducted on musk-ox bone giving an age in radiocarbon years of 2370 ± 75 BP. Within a single standard deviation this calibrates to give a calendar date of between 760 cal. BC and 380 cal. BC.

The feature was crudely excavated in 1955 and again in 1960 revealing a microblade, biface fragments, 44 flakes, a large rough-out, three pieces of bone, of which one is worked, and five pieces of musk-ox teeth (LI.6837-6842, LI.7437-7443).

Table 9.1. Lithic artefacts Juniskæret.

Artefact category	All artefacts
Bifaces, all fragments included	3
Microblades	1
Large flake/rough-out	1
All flakes	39
Total	44

9.5 Christian Hjort Site

Independence I

81Ø2-000-007

Site no. 369; text 828; photo 944

Swedish geologist Christian Hjort discovered this site in 1979. The isolated mid-passage ruin is located approximately 10.5 m a.s.l. on a gravel terrace in Skånebakkerne (Scania Hills) on the mainland to the west of Juniskæret. Due to the elevation the feature is believed to be from Independence I.

9.6 Arnakke

Independence II

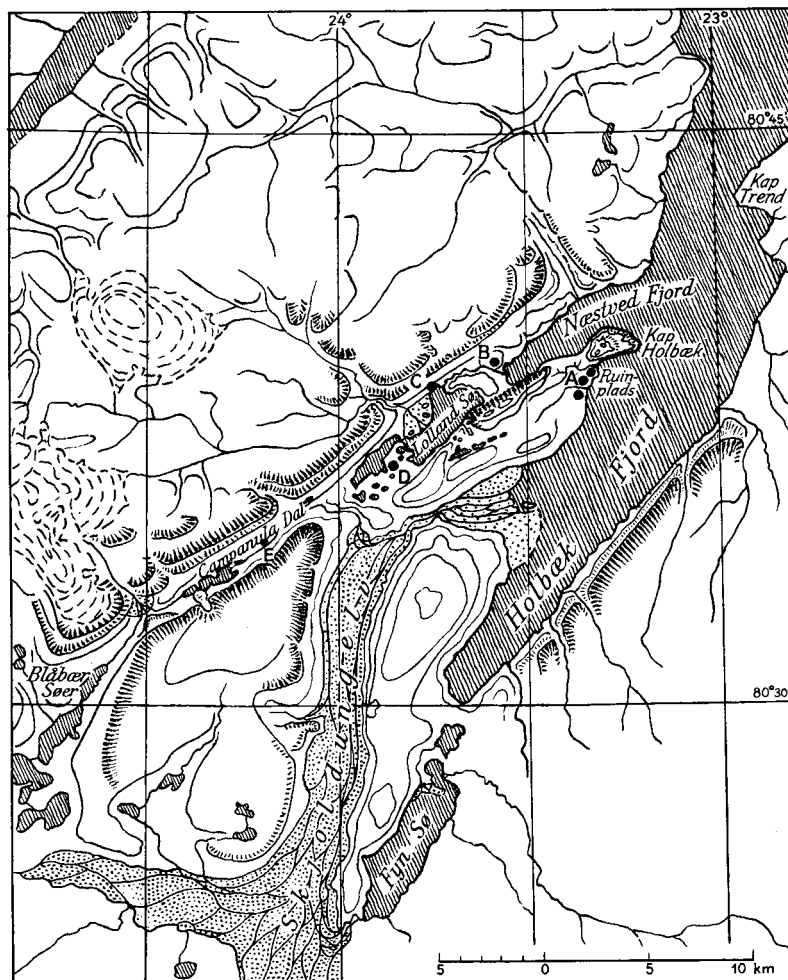
80Ø2-000-008

Site no. 353; photos 947, 948

In 1969 Knuth registered two flagstone pavements and a possible mid-passage feature at this locality.

Finds: A knife blade of light grey flint with two wide side notches and a fragment of a re-worked cloven foot lance with preserved groove for a side blade were collected from the surface on the terrace between ruins 1 and 3 (LI.9641-9642).

Fig. 9.5. (drawing 229) Kap Holbæk defined by Næstved Fjord and Holbæk Fjord at the head of Danmark Fjord. Archaeological localities are marked with A) Kap Holbæk I-IV, B) Den Blå Flints Boplads, C) Lolland Sø, D) Islandssletten, and E) Campanuadalen. The locality of Campanuadalen is only mentioned on the present map in Knuth (1958), where the text mentions a 'presumed site in Campanuadalen'. More detailed information on the locality has not been found.



Fauna: Knuth collected faunal remains in 1969. A total of 41 heavily fragmented and poorly preserved specimens were recovered. These specimens included 35 unidentified mammal bone fragments, seven of which are burnt suggesting their use as fuel. One musk-ox right *femur* proximal-anterior shaft fragment has a scar of impact and a spiral fracture, indicating that it was cracked open when fresh, probably for extraction of the marrow. Three *premolar/molar* tooth fragments, possibly of musk ox, and two indeterminate bird fragments comprise the remainder of the assemblage.

Table 9.2. Lithic artefacts Arnakke.

Artefact category	No.
Bifaces, all fragments included	1

9.7 Kap Holbæk

Independence I and II

80Ø2-000-001

Site no. 272; texts 823-826; photos 912-940, 1275; drawings 70, 222-230, 242; plates 67-70

The 17 km long Kap Holbæk Peninsula separates the head of Danmark Fjord, named Holbæk Fjord, from the smaller side fjord Næstved Fjord (fig. 9.6). The point of Kap Holbæk is a more than 100 m high plateau whereas the remainder of the peninsula is a lower hilly landscape. On the raised gravel terraces to the south of the point Knuth located both Palaeo-Eskimo and Thule settlements (figs. 9.5, 9.6 and 9.8).

Knuth spent four hours on the site in 1954, returning in 1955 for a more thorough examination of the ruins. The 1955 excavation was conducted from 19th June to 19th August when Kristen Sørensen, temporary



Fig. 9.6. (photo 1275) Kap Holbæk seen from north-east. To the left the head of Danmark fjord named Holbæk Fjord, to the right Næstved Fjord and in between the 220 m high Kap Holbæk.

ily released from duty at Station Nord, assisted Knuth. Preliminary accounts of the site are given in Knuth 1955, 1956, 1958a and 1958b.

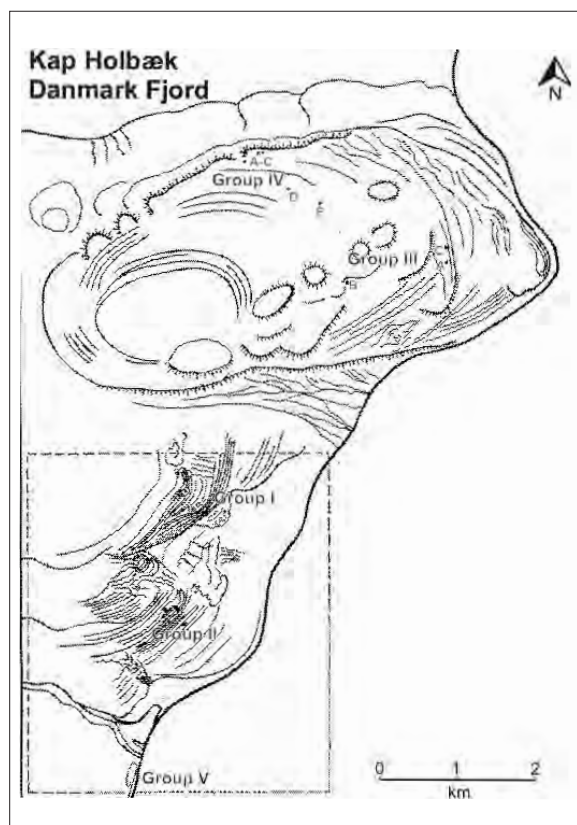


Fig. 9.7. (drawing 230, re-drawn) Kap Holbæk with the location of the ruin clusters groups I–V. The stippled line marks the section of the map shown on fig. 9.8 which Knuth published in 1958.

Five or six ruin complexes are located on the cape (figs. 9.7 and 9.8). However, only ruin groups I–V are marked on the sketch map. The exact location of group VI is uncertain. Knuth labelled the ruin concentrations with Roman numerals from I to VI. Features are named with Arabic letters within each concentration. Systematic feature descriptions only exist for group IV, some features in group II and a few features in group III. The remaining features have been described by the present author from photographs or drawings where available. Ruins in groups V and VI are vaguely described because there are neither photographs, drawings nor descriptions relating to these ruins. Group V is, however, described as ‘Neo-Eskimo dwellings on the beach near our tents approximately 1 m a.s.l.’ and group VI as ‘possible Neo-Eskimo dwellings at Røde Næs (the point of Kap Holbæk)’. (Translated from Knuth 1955 (text 832))

Group I

Group I is an Independence I site located on raised beach terraces 10–12 m a.s.l. (fig. 9.8). Systematic descriptions of group I ruins are lacking but drawings do exist of ruins I A and I B (fig. 9.9). Photographs document the remaining features. The following description is therefore based on the available photographs and drawings. Selected finds from group I can be seen on plates 68 and 70.

Feature I A

Tent ring with central hearth (drawing 227, photos 934, 935)

Group I feature A is an amorphous dwelling with a central hearth. The ruin was excavated whereby a number of lithic and organic artefacts (LI.6843-6875), such as worked bone and pieces of birch bark, were recovered.

Table 9.3. Lithic artefacts Kap Holbæk group I A.

Artefact category	All artefacts
Bifaces, all fragments included	3
Microblades	9
Burins	3
Burin spalls	6
Axes	1
All flakes	20
Total	42

Feature I B

Gravel berm tent ring with central hearth (photos 926, 930)

Feature I B is a box hearth built of flagstones and boulders (fig. 9.10). Vertical flagstones still stand along two sides. A low gravel berm surrounds the hearth which is presumed to be the central hearth in a tent dwelling. The ruin was excavated and among the finds were lithic artefacts as well as worked and un-worked fragments of bone. Two radiocarbon dates have been obtained for musk-ox bone (K-4258) and driftwood charcoal (K-563) from features A and B. The musk-ox

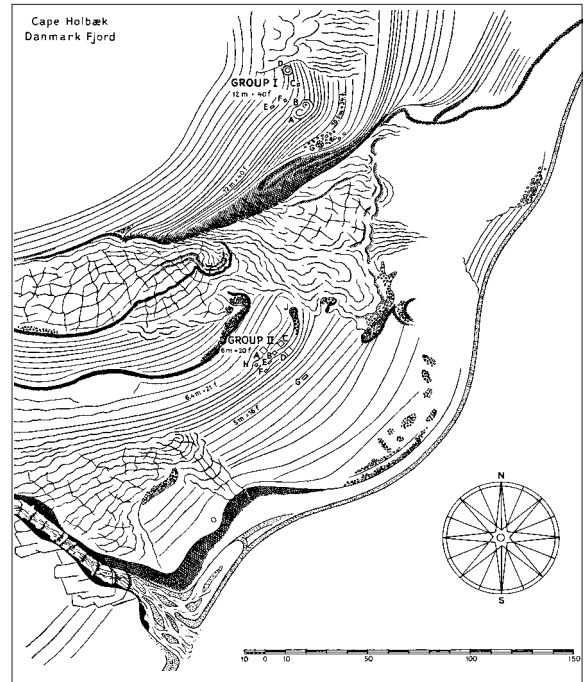


Fig. 9.8. (drawing 228) Kap Holbæk, detail of fig. 9.7 showing the location of the Independence I locality group I and Independence II locality group II on raised shorelines (Knuth 1958).

bone gave a radiocarbon date of 3760 ± 70 BP whereas that for the charcoal was slightly younger at 3610 ± 120 BP. Within one standard deviation these dates give calibrated calendar dates of between 2290 and 2030 cal. BC and 2140 and 1770 cal. BC respectively. The slightly

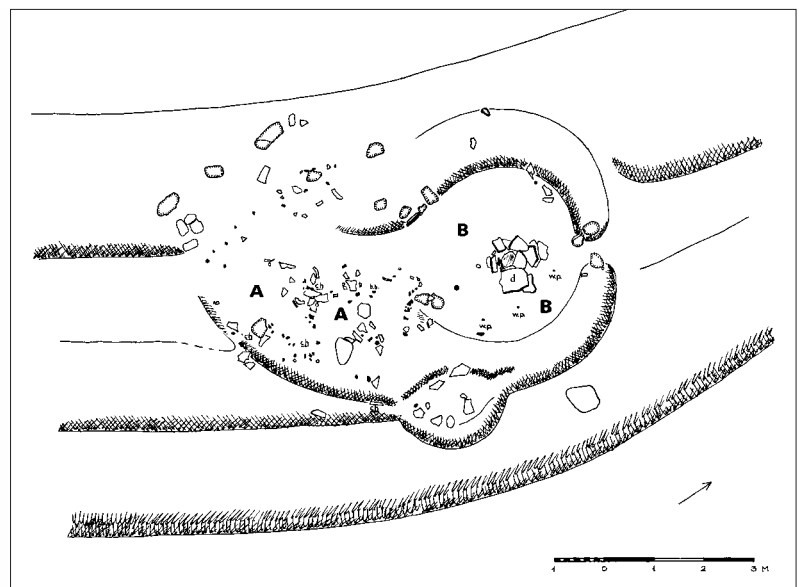


Fig. 9.9. (drawing 227) Kap Holbæk, features I A and B.



Fig. 9.10. (photo 930) Kap Holbæk, feature I B, 26/6-1955.

younger date for the driftwood sample may suggest that features A and B are not contemporaneous. Normally one would expect the driftwood date to be somewhat earlier than that for bone.

Table 9.4. Lithic artefacts Kap Holbæk group I B.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	4	8.7	46	49.5
Microblades	30	65.2		
Burins	1	2.2		
Burin spalls	8	17.4		
Retouched flakes	2	4.4		
Microblade cores	1	2.2	47	50.5
All flakes				
Total	46		93	100.0

Feature 1 C

Open-air hearth (photo 929)

Feature I C is a square box hearth built of two flag-



Fig. 9.11. (photo 929) Kap Holbæk, feature I C.



Fig. 9.12. (photo 936) Kap Holbæk, feature I D. Feature I D is a low gravel berm with a few flagstones in the interior.

stones and three boulders (fig. 9.11). The flagstones located on two opposing sides have tilted outwards but seem to be in their original position. The box is filled with fire-cracked rocks. The hearth was excavated but there were no finds.

Feature I D

Rudimentary tent ring (photos 936, 937)

Feature I D is an amorphous stone scatter with just a few flagstones on a gravel terrace (fig. 9.12). The ruin was excavated whereby a limited lithic inventory was recovered (LI.6936-6940).

Table 9.5. Lithic artefacts Kap Holbæk group I D.

Artefact category	All artefacts
Microblades	2
Burins	1
Side scrapers	1
All flakes	4
Total	8

Feature I E

Open-air hearth (photo 938)

Feature I E is an amorphous scatter of boulders and a few flagstones on a gravel terrace. Knuth suggested that the structure was a disturbed hearth. The excavation revealed no finds.

Feature I F

Open-air hearth (photo 939)

Feature I F is an isolated hearth – a small box formed of four boulders (fig. 9.13). It was excavated revealing a biface (LI.6941).

Table 9.6. Lithic artefacts Kap Holbæk group I F.

Artefact category	All artefacts
Bifaces, all fragments included	1

Feature I G

Cache (photo 940)

Feature I G is a cache consisting of head-sized boulders on a beach terrace overlooking the lower lying terraces (fig. 9.14). It has not been excavated.

Group II

Group II is an Independence II site approximately 100 m south of group I. The ruins in group II are located on beach terraces ranging from 4.5 to 6.5 m a.s.l. Finds from group II are shown on plates 68 and 69 (fig. 9.20). In addition to the finds associated with the ruins, six rough-outs or axes were found in a lithic workshop 10 m north-east of feature II C (text 826).

Feature II A

Mid-passage dwelling (text 826; drawing 224; photo 919)
Feature II A is a mid-passage dwelling without any well defined periphery (figs. 9.15 and 9.16). The mid-passage is built of vertically standing flagstones and there are 'wings' in the rear section. During the excavation Knuth noticed that the mid-passage must originally have had two rows of vertically placed flagstones along the sides. The 10–11 cm wide spaces between the parallel rows of flagstones were filled with small cobblestones to support the flags on either side. Knuth believed that vertical tent poles could have been



Fig. 9.13. (photo 939) Kap Holbæk, feature I F. Isolated box hearth of boulders.

seated in the space between the two rows of flagstones. The function of the flagstones on the inside of the mid-passage would then have been to protect the tent poles from the hearth fire. A total of ten tools and nine flakes were registered from feature II A (LI.6942–6952). Microblades LI.6957 from feature II A and LI.6945 from II C have been refitted (Owen 1983), suggesting that these two features are contemporaneous. Three radiocarbon dates for driftwood charcoal (K-142, K-565) and musk-ox bone (K-4259) yielded dates of 3030 ± 130 BP, 3000 ± 120 BP and 2450 ± 70 BP respectively. Within one standard deviation these give calibrated calendar dates of between 1430–1050 cal. BC, 1400–1050 cal. BC and 760–400 cal. BC, respectively. The first two dates for driftwood are probably several hundred years older than the settlement because not a single of the more reliable datings of musk-ox from Independence II sites in Peary Land is known to be that old.



Fig. 9.14. (photo 940) Kap Holbæk, feature I G. Cache of boulders on one of the lower terraces in group I.

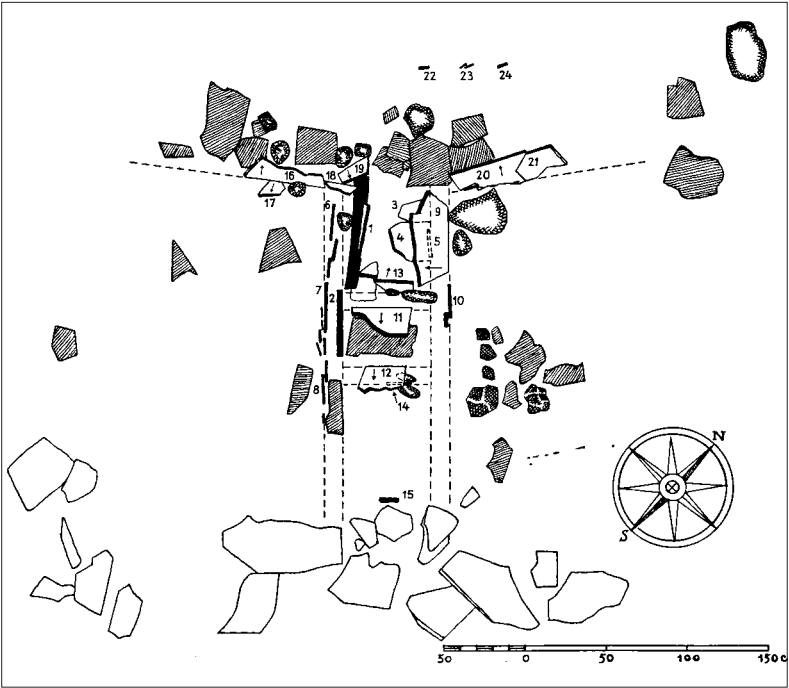


Fig. 9.15. (drawing 224) Kap Holbæk, feature II A (Knuth 1958).

Table 9.7. Lithic artefacts Kap Holbæk group II A.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	8
Axes	1
All flakes	9
Total	19



Fig. 9.16. (photo 919) Kap Holbæk, feature II A seen from the south, 11/7-55.

Feature II B

Open-air hearth (photo 920)

Feature II B is a flagstone pavement located on a gravel terrace. The feature was excavated, revealing one biface and 23 flakes (LI.6953-6955).

Table 9.8. Lithic artefacts Kap Holbæk group II B.

Artefact category	All artefacts
Bifaces, all fragments included	1
All flakes	23
Total	24

Feature II C

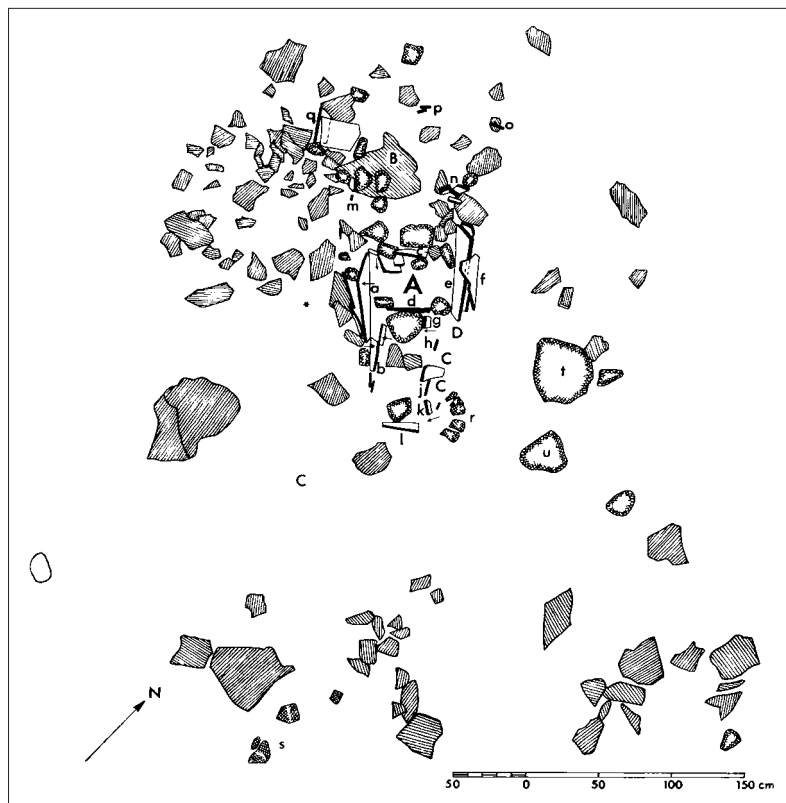
Mid-passage dwelling (drawings 225, 226; photo 921)

Feature II C is a box hearth of flagstones surrounded

Table 9.9. Lithic artefacts Kap Holbæk group II C.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	1	12.5	8	7
Microblades	2	25.0		
Burin-like tools	1	12.5		
Retouched flakes	4	50.0		
All flakes			107	93
Total	8	100.0	115	100

Fig. 9.17. (drawing 225) Kap Holbæk, features II C and D.



by a flagstone pavement (fig. 9.17). The feature was excavated. Apart from lithics the excavation revealed two needles, one bone fragment and 21 fragments of wood and bark (LI.6956-6965). The microblades LI.6957 from feature II A and LI.6945 from II C have been refitted (Owen 1983).

Feature II D

Open-air hearth (photo 922)

Feature II D is a flagstone pavement on a gravel terrace (fig. 9.18). The feature was excavated. Apart from the lithic material, the excavation also revealed birch bark and pieces of wood (LI.6966-6999).

Table 9.10. Lithic artefacts Kap Holbæk group II D.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	5	20	25	5.1
Microblades	18	72		
End scrapers	1	4		
Retouched flakes	1	4		
All flakes			467	94.9
Total	25	100	492	100.0

Feature II E

Unknown feature (photo 923)

Feature II E comprises 5-7 boulders on a gravel terrace (fig. 9.19). The ruin was excavated whereby three flakes were recovered (LI.7000-7002). In Knuth's site list the feature is registered with the signature for a tent ring.



Fig. 9.18. (photo 922) Kap Holbæk, feature II D, flagstone pavement on gravel terrace in front of the mid-passage feature II C, seen in lower part of drawing 225 shown as fig. 9.16.



Fig. 9.19. (photo 923) Kap Holbæk, feature II E.

Table 9.11. Lithic artefacts Kap Holbæk group II E.

Artefact category	All artefacts
All flakes	3

Feature II F

Cache (photo 924)

Feature II F comprises three flagstones on a gravel terrace. The feature was excavated but no finds were registered.

Feature II G

Mid-passage (photo 925)

Feature II G is an amorphous scatter of flagstones on a gravel terrace. In his site list Knuth has registered the II G as a mid-passage with no periphery. The feature was excavated but no finds were registered.

Selected finds from Group II: see fig. 9.20.

Group III

Group III is an Independence II site with three dwellings located on the south-eastern slope of a hill to the north of groups I and II. The features are located 5.5-6.5 m a.s.l.

Feature III A

Mid-passage (drawing 222; photo 917)

Feature III A is a mid-passage of vertically standing flagstones, with a flagstone pavement at the rear (fig. 9.21). The mid-passage is 2.6 m long, 35 cm wide at the front and approximately 60 cm wide at the back (Knuth 1966/67, plate III g). The mid-passage was



Fig. 9.20. (plate 69) Kap Holbæk 1) Adze head, black chert 12.02 cm. L1.6814. C. Holbæk, gr. II (1954), Danmark Fj. 2) Adze head, black chert, 12.68 cm. L1.6816. C. Holbæk, gr. II (1954), Danmark Fj. 3) Adze head, black chert, 15.80 cm. L1.6815 C. Holbæk, gr. II (1954), Danmark Fj. 4) Adze head, black chert, 13.31 cm. L1.7003. C. Holbæk, gr. II east of C, Danmark Fj. 5) Adze head, black chert, 14.78 cm. C. Holbæk, gr. II A, Danmark Fj. 6) Adze head, black chert, 10.51 cm. L1.7004. C. Holbæk, gr. II, to the east of C. Danmark Fj.

excavated revealing lithic artefacts as well as hair and pieces of wood (shavings) (LI.7005-7008). The wood shavings occurred mostly at the rear of the mid-passage.

Table 9.12. Lithic artefacts Kap Holbæk group III A.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	1
All flakes	2
Total	4

Feature III B

Box hearth

Feature III B is an amorphous structure destroyed by cryoturbation. Knuth registered the feature as a hearth. The feature was excavated and 25 flakes were registered (LI.7010).

Table 9.13. Lithic artefacts Kap Holbæk group III B.

Artefact category	All artefacts
All flakes	25

Feature III C

Flagstone pavement (text 824; drawing 223; photo 918)

Feature III C is a flagstone pavement on a gravel terrace adjacent to c. 50 cm high ledge in the sandstone bedrock (fig. 9.22). Knuth found a few flagstones still standing vertically and, accordingly, he described the feature as a collapsed mid-passage parallel to the cliff ledge. The feature was excavated but only pieces of wood and a feather were found (LI.7011).

Group IV

Independence II

The ruins in group IV are located 17 – 20 m a.s.l., near the northern slope of a hill to the north of groups I and II.

Feature IV A1

Tent ring (photo 912)

Feature IV A1 is an almost rectangular arrangement of head-sized boulders with meat caches at each rear cor-

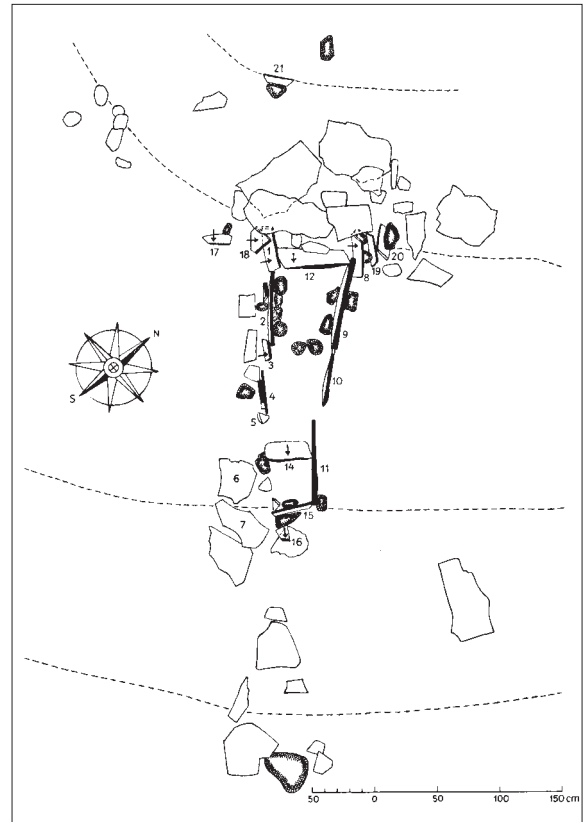


Fig. 9.21. (drawing 222) Kap Holbæk, feature III A.

ner (fig. 9.23). The ruin was excavated. In the caches there were bones of musk ox (*Ovibos moschatus*) which were analysed by U. Møhl: five fragments of left scapula, two left humeri, astragalus, a radius, a middle section of a metacarpal, four femur fragments and 15 fragments of pelvis.



Fig. 9.22. (photo 918) Kap Holbæk, feature III C.



Fig. 9.23. (photo 912) Kap Holbæk, feature IV A1, 5/8-1955.

Feature IV A2

Open-air box hearth (photo 914)

Feature IV A2 is a stone-built hearth of three flat, but 15-20 cm thick, stones which form a little box (fig. 9.24). During excavation Knuth found burnt bone splinters and fragmented cloven foot lances in a flagstone-paved depression in front of the hearth. In his tent Knuth was able to refit several of the worked bone splinters into one almost complete and four fragment-

ed cloven foot lances which, with the finding of a side blade c. 7 m from A2, constitute the typologically datable finds from group IV (L1.7012-7022).

Table 9.14. Lithic artefacts Kap Holbæk group IV A2.

Artefact category	All artefacts
Bifaces, all fragments included	1
Side blades	1
Total	2



Fig. 9.24. (photo 914) Kap Holbæk, feature IV A2, 5/8-1955.

Feature IV B

Tent ring (photo 913)

Feature IV B is a circular stone ring with a diameter of 1.5 m (fig. 9.25). The periphery consists of 15 small boulders located 14.5 m west of ruin IV A on the edge of a cliff. No internal flagstone pavement is seen in the feature.

Feature IV C

Tent ring

Feature IV C is an irregular stone ring of very large stones, probably with a cache in the left rear corner. Internally, the feature is 2 m wide and 1.4 m from front to back. Feature IV C is located 30 m south-west of feature IV B on a slightly higher terrace 19.5 m a.s.l.

Feature IV D

Cache (photo 916)

Circular meat cache of large boulders with internal flagstone pavement (fig. 9.26). The internal diameter is 1.5 m. A 19 cm long wooden peg was found underneath one of the flagstones in the interior. Located c. 50 m above ruin IV A1.

Feature IV E

Cache (photo 915).

Feature IV E is a meat cache built of flagstones forming a 70 x 37 x 16 cm trapezoid chamber (fig. 9.27). Boulders support the flagstones externally. The interior is paved. Near the cache Knuth found three large flagstones which he believes are the capstones. The cache is located about 20 m a.s.l. on the middle of the plateau approximately 100 m from ruin IV A1. Knuth believes this cache could be the fox trap mentioned in Jørgen Brønlund's diary.

Feature IV F

Meat cache consisting of two linked stone heaps.

Group V

The features in group V are, as already mentioned, only sporadically described in the Knuth Archive.



Fig. 9.25. (photo 913) Kap Holbæk, feature IV B, 5/8-1955.

However, in his general site and place-name catalogue, the Baedeker, group V is registered as number 168 a: 'Neo-Eskimo tent rings 1-1.5 m a.s.l., south of the river by our camp'. In the inventory of the National Museum of Denmark the following items are recorded: A blubber hammer of whalebone found in tent ring



Fig. 9.26. (photo 916) Kap Holbæk, feature IV D, 5/8-1955.



Fig. 9.27. (photo 915) Kap Holbæk, feature IV E from south-west, 7/8-1955. This cache was probably that which Mylius-Erichsen marked as a fox trap on his map of Danmark Fjord and Independence Fjord.

A – the most southerly in the group – a bone artefact with a point also found in tent ring A, the basis of a fragmented arrowhead, two buttons of whalebone found in tent ring D and a 1.1 m long piece of wood with 12 pairs of drilled holes – presumably a fragmented sledge runner. Another similar piece was found approximately 1 km south of group V (LI.7024-7027).

Site Summary and Discussion

Group I is an Independence I site located on a fossil terrace system 11-13 m a.s.l. Knuth suggested that features A, B and D in group I were dwellings. A and B are tent rings with a central hearth whereas feature D appears to be a more disturbed structure. Features C, E and F are isolated hearths and G is a meat cache. The limited number of finds and the morphology of the features suggests that only a few of the dwellings were used for any substantial length of time. It is difficult to accept feature D as a dwelling since no indisputable dwelling remains are present here. D could just as well be an open-air hearth with associated tool repair activities. The existence of isolated hearths indicates that the site was in use during the warmer period of the year because outdoor hearths seem pointless during the colder season.

Group II is an Independence II site situated on the same fossil terrace system as Group I but at slightly lower elevations between 4 and 7 m a.s.l. Knuth considered ruins A, C and G to be mid-passage ruins, whereas B and D are isolated box hearths. During a

close examination of the features Knuth reached the conclusion that Ruins A and B, as well as C and D, originally were integrated structures constituting just two dwellings. The more rudimentary features B and D then formed a sort of entrance area to structures A and C. Knuth believed that each 'house' would then be three metres long and that they were close parallels to Ipiutak dwellings (text 826).

It is difficult to evaluate Knuth's registration. The more rudimentary features B and D could be older features destroyed during a second episode of habitation when features A and C were created. However, features A and C are the only 'dwelling candidates' and both appear to be mid-passage dwellings. The few tools found on the site were clearly concentrated around features A and C, but a substantial quantity of debitage and microblades is also associated with feature D. Knuth may be correct in relating feature B to A and D to C, but features B and D need not be integrated parts of a dwelling. They could just as well be outdoor scouting and working places where the artefact deposits may have been mixed with refuse from the dwelling. Knuth's interpretation of the dwellings and the open-air deposits in front of them as representing the interior of a single dwelling unit is similar to his interpretation of the features at Adam C. Knuth site, where he regarded the midden deposits as being parts of the dwellings. However, if one perceives the stone constructions and artefact scatters in terms of drop and toss zones and door dumps, it may then be possible to evaluate the finds in more detail.

To summarise group II: This site seems to represent two probably contemporaneous mid-passage dwellings with at least two associated open-air hearths and a number of minor flagstone pavements and working areas in front of the dwellings. It is difficult to accept Knuth's interpretation of feature G as a mid-passage, not only because of the character of the feature but also because of the lack of associated finds. It would be better to regard Feature G as another open-air arrangement. The three radiocarbon dates from group II cover a substantial period of time with calibrated dates ranging from 1430 to 400 cal. BC. However, the two driftwood dates (KI42 and K 565) should probably be rejected due to the problems related to the use of driftwood as dating material. This leaves us with only one reliable date from Kap Holbæk group II: the K-4259 date for a musk-ox bone. The bone gave a

radiocarbon date of 2450 ± 70 BP, yielding a calibrated calendar date of between 760 and 400 cal. BC.

The ruins in groups III and IV are located on a hill to the north of groups I and II. They are not shown on the site map in Knuth's preliminary account of Kap Holbæk. Group III consists of three ruins, of which A is a mid-passage, B – which is located more than 100 m west of A – is an amorphous structure believed to be a hearth and feature III c. 15 m north of A – is a flagstone pavement surrounding a hearth. The great distance between A, C and B raises the question whether the three structures can be regarded as one site or rather should be seen as three or two episodes within the same topographic setting. If they are contemporaneous it then seems odd that they were placed so far apart. The same questions can be asked with regard to the location of the ruins in group IV. Features IV A and B are located 20 m apart and 50–100 m from the related meat caches on the central part of the plateau. Palaeo-Eskimo artefacts were only found in the flagstone pavement adjacent to the stone-built hearth A2, whereas no artefacts were found in stone rings Ar, B and C. The structural similarities between feature IV A2 and hearths at other Palaeo-Eskimo sites, as well as the similarities between presumed Thule tent rings on, for example, Prinsesse Dagmar Ø and Prinsesse Thyra Ø and features Ar, B and C in group IV, further accentuate the question of contemporaneity between the features in group IV. Knuth mentions the presence of two or three larger but rudimentary stone rings on the beach terraces below group IV. He also mentions that many caches are scattered on the Kap Holbæk plateau (text 823), i.e. on the central part of the Kap Holbæk peninsula. It therefore seems possible that some of the group IV features could be of Thule rather than Palaeo-Eskimo origin. The Independence II settlement on Kap Holbæk group II thus seems to differ from the more sporadic Independence II presence represented by the features in groups III and IV. The isolated features in groups III and IV A2 could, therefore, represent small parties arriving at Kap Holbæk prior to the arrival of the group responsible for the group II ruins. Conversely, there could have been the reverse situation of a small group returning to Kap Holbæk, after the group II settlement had been abandoned, in order to retrieve stored provisions. In such a scenario, the differences in site location, site size, layout and arte-

fact inventory may be understood as a consequence of differences in season, snow and ice cover.

The artefact inventories may substantiate this argument. Many more artefacts are found in group II than in any of the other Independence II settlements. In relative terms there are also considerably more artefacts per ruin in group II than there are in groups III and IV. If these findings are representative, and if we accept that the total amount of lithics reflects a combination of activity intensity and length of site use, it then becomes clear that group II, with 93 lithic artefacts per feature, was subject to longer and/or more intensive site use than that reflected by the ten lithic artefacts per feature in group III, or less than one artefact per feature which was registered in group IV.

Not much can be said about group V, other than that this site, contrary to many other Thule sites in Peary Land and Northernmost Greenland, is well dated due to its height above sea level of just 5 m and its finds which are all typical Thule objects. The site underlines the peculiar combination of typical winter artefacts such as sledge shoes and a blubber hammer with tent ring dwellings which in more southerly regions would be perceived as summer dwellings. Clearly the dog sledge was used in High Arctic Greenland throughout the warm season since many areas are locked in land ice for most of the year.

Table 9.15. Lithic artefacts Kap Holbæk group I.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments			73	50.7
included	8	11.0		
Microblades	41	56.2		
Burins	5	6.8		
Burin spalls	14	19.2		
End scrapers	1	1.4		
Side scrapers	2	2.7		
Retouched flakes	1	1.4		
Axes	1	1.4	71	49.3
All flakes				
Total	73	100.1	144	100.0

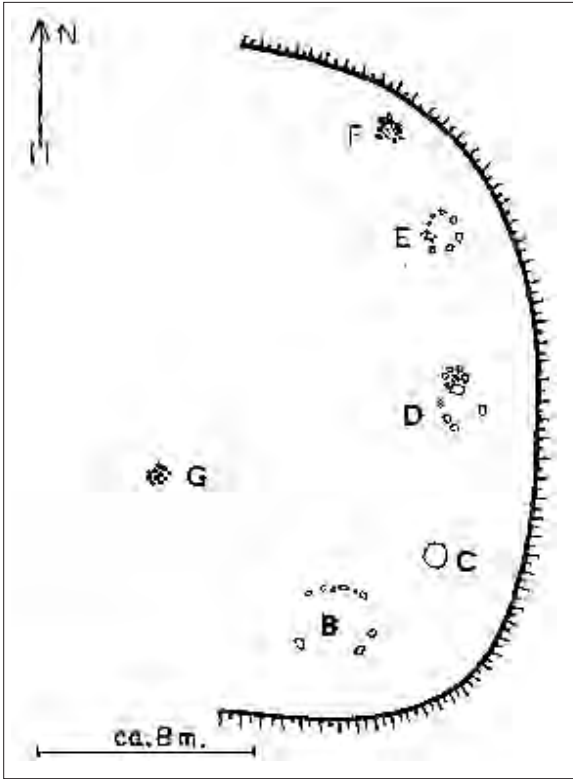


Fig. 9.28. (drawing 237, re-drawn) Den Blå Flints boplads. Site map with the location of features B, C, D, E, F and G. Feature A is located on a slightly lower gravel terrace to the southeast of feature B and D.

Table 9.16. Lithic artefacts Kap Holbæk group II.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	8	18.2	44	6.7
Microblades	28	63.6		
Burin like tools	1	2.3		
End scrapers	1	2.3		
Retouched flakes	5	11.4		
Axes	1	2.3	609	93.3
All flakes				
Total	44	100.1	653	100.0

Table 9.17. Lithic artefacts Kap Holbæk group III.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	1
All flakes	27
Total	29

Table 9.18. Lithic artefacts Kap Holbæk group IV.

Artefact category	All artefacts
Bifaces, all fragments included	1
Side blades	1
Total	2

9.8 Den Blå Flints Boplads

Independence I

80Ø2-000-003

Site no. 296; texts 831, 832; photos 950-956; drawings 232-237, 259; plate 72

Den Blå Flints Boplads (The Blue Flint Settlement) is an Independence I site located on raised beach terraces 200 m from the coastline at the head of Næstved Fjord (fig. 9.28). The site was first located during Knuth's and Kristen Sørensen's work at Kap Holbæk in 1955. During the 1955 fieldwork the site was visited several times and from the 26th to the 31st July they moved their camp from Kap Holbæk in order to concentrate their efforts on the Den Blå Flints Boplads. In 1969 Knuth was airlifted for a seven day visit to the site, assisted by Ole Madsen. During these days several ruins were re-excavated and several spoil heaps from the 1955 excavation were also examined more closely for artefacts.

Knuthbasen has two texts (831 and 832), seven photographs, seven drawings and one plate registered from Den Blå Flints Boplads. All the drawings are sketch maps of which one has been re-drawn for the present publication. There is considerable confusion in the feature numbers because Knuth uses both numbers and letters. Knuth has thus questioned several feature numbers on the back of the photographs entered into the database. However, by careful comparison of the photos, drawings and text descriptions it is possible to reconstruct the feature description as follows. The site map has been re-drawn after Knuth's original sketch map (fig. 9.28).

Feature Descriptions

Feature A

Tent ring (drawing 232; photo 953)

Feature A is a tent ring with a diameter of approximately 2.2 m. It is located with a south-facing sloping front on a separate section of the gravel terrace, separated from the main terrace by a frost crack with

mountain avens. Only the northernmost (rear) section of the feature is preserved. The feature was excavated but the only find was a flake mentioned in text 832, found on the slope adjacent to the ruin but not included in Knuth's general list (LI.7033).

Table 9.19. Den Blå Flints Boplads feature A.

Artefact category	All artefacts
All flakes	1

Feature B

Tent ring (drawings 233, 259; photo 951)

Feature B is a rudimentary tent ring with a central hearth lined by flagstones. It is not clear whether the flagstones originally were part of a stone-built hearth or whether they are the remnants of a flagstone pavement adjacent to the hearth. The first option is probably the most likely since ashes and burnt bone were found under the flags. The terrace had been levelled prior to the construction of the tent ring. Within its periphery fire-cracked rocks and ashes were found buried in the gravel along with bone fragments. Near the south-eastern side of the periphery there was another area with fire-cracked rocks and ashes under the gravel. A musk-ox mandible was found in the southern corner. The terrace slope south-east of the ruin showed traces of several hearths. The feature was excavated and the finds comprise the largest portion of all finds from Den Blå Flints Boplads (table 9.20). Artefacts were scattered both within and in front of the dwelling and, in addition to the lithics, there were organic artefacts such as two flint flakers of bone, a fragmented needle and pieces of birch bark (LI.7034-7119, LI.9643-9652).

Table 9.20. Den Blå Flints Boplads feature B.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	10	11.8	85	37.4
Microblades	30	35.3		
Burins	3	3.5		
Burin spalls	35	41.2		
End scrapers	5	5.9		
Retouched flakes	1	1.2		
Large flake/rough-out	1	1.2	142	62.6
All flakes				
Total	85	100.1	227	100.0



Fig. 9.29. (photo 954) Den Blå Flints Boplads, feature D, hearth with pot-boilers after excavation, 17/7-1969.

Feature C

Open-air hearth

Feature C is a circular aggregation of stones and a few flagstones located 4 m north of B. The hearth was excavated but only very little charcoal was found between the stones.

Feature D

Tent ring (drawing 235; photos 950, 954)

Feature D is a rudimentary tent ring with a stone-built central hearth (fig. 9.29). The stone-set pentagonal hearth is lined with six boulders and two flags. The inside is paved with flagstones and filled with fire-cracked rocks and charcoal. The southern part of the tent ring is best preserved with ten stones forming part of the periphery. The feature was excavated. The finds comprised a burin and a flake (LI.7120-7121). A sample of driftwood charcoal (K-564) has been radiocarbon dated to 3700 ± 120 BP, giving a calibrated calendar date of between 2290 and 1910 cal. BC.

Table 9.21. Den Blå Flints Boplads feature D.

Artefact category	All artefacts
Burins	1
All flakes	1
Total	2



Fig. 9.30. (photo 952) Den Blå Flints Boplads, feature F. Rectangular meat cache, 29/7-1955.

Feature E

Tent ring (drawing 234; photo 956)

Feature E is a rudimentary tent ring with a heap of fire-cracked rocks on the western side. The feature was excavated but no finds were made.

Feature F

Cache

Feature F is a well built meat cache of large boulders and thick slabs (fig. 9.30). During excavation there



Fig. 9.31. (photo 955) Den Blå Flints Boplads, feature G. Isolated hearth of fist-sized stones, 17/7-1969.

were several finds from around the feature. Judging from Knuth's description, the cache is associated with a rudimentary dwelling and hearth indicated by the presence of fire-cracked rocks buried in the gravel. In addition to 245 lithic artefacts, Knuth found bone of arctic char, a tooth from a dog or musk ox and a flint flaker which unfortunately disintegrated as it was recovered (LI.7122-7143, LI.9653-9656).

Table 9.22. Den Blå Flints Boplads feature F.

Artefact category	No.	%	All artefacts	%
Bifaces, all fragments				
included	3	13.0	23	9.4
Microblades	5	21.7		
Burins	1	4.3		
Burin spalls	11	47.8		
End scrapers	2	8.7		
Large flake/rough-out	1	4.3		
All flakes			222	90.6
Total	23	100.0	245	100.0

Feature G

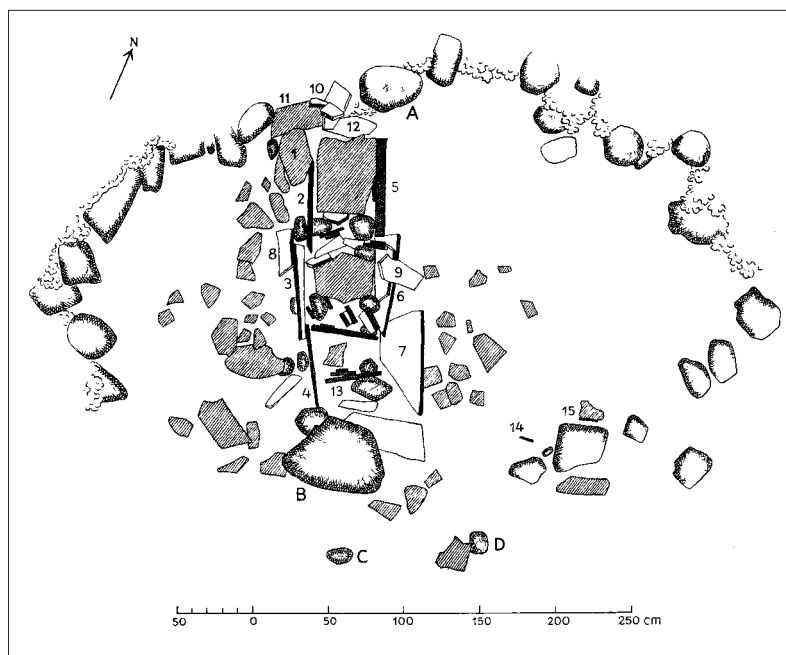
Open-air hearth (photo 955).

Feature G is a rectangular collection of rather larger than fist-sized stones and a single flagstone associated with some ashes (fig. 9.31). The feature was excavated but there were no finds.

Site Summary and Discussion

In many ways Den Blå Flints Boplads resembles the Independence I settlement on Kap Holbæk group I. Four of the seven features are dwellings. Together with the open-air hearths, features B, C, D, E, F and G appear to make up an entity. At least three household units therefore seem to have camped at the site. The open-air hearths may indicate that the site was used during the summer months. None of the dwellings has a mid-passage feature. Instead the associated hearths are of the stone-set circular or box-shaped type as seen in features D and B respectively, or the hearth is marked solely by a heap of fire-cracked rocks. The cache named feature F is atypical since there were many finds scattered in and around it. Knuth also mentions the presence of fire-cracked rocks buried in the gravel. This may indicate that the stones used for the construction of the cache were originally part of a tent ring dwelling later 're-cycled' as a cache. If this is the case then the

Fig. 9.32. (drawing 238) Lolland Sø. Well preserved tent ring with asymmetrical mid-passage (Knuth 1967a plate II,h).



artefacts from feature F represent a phase of habitation distinct from that represented by the artefacts from the other ruins. Two or maybe three phases of site use (considering the slightly isolated location of feature A) makes sense, since the construction of a solid stone cache like feature F indicates the presence of excess food left behind with the intention of later retrieval. It cannot be determined whether feature F was built during a minor habitation phase prior to the main phase of settlement when features B, C, D, E and G were created, or whether it was built during the main phase of site use. However, the likely demolition of an older tent ring indicates that initially just a small group of people, constituting a single household, settled at the site. This settlement was then followed by an episode with three or four households which may have occurred the same year or season as the initial occupation and which may have included some of the same individuals as during the initial settlement period. Depending on whether one chooses to see feature A as contemporaneous with features B, C, D, E and G or not, this dwelling may further indicate the presence of another settlement phase with just a single household.

Chronology

Den Blå Flints Boplads is an Independence I site with no traces of younger elements. A single radiocarbon date (K 564) has been obtained for driftwood from fea-

ture D. Within one standard deviation this gives a calibrated calendar date of between 2290 and 1910 cal. BC. This is well within the range of Independence I and also overlaps the period when group I at the Kap Holbæk site was occupied. Obviously, radiocarbon dates for driftwood should not be given too much credence, but at least the date does not contradict the suggestion that the Independence I settlement on Kap Holbæk and Den Blå Flints Boplads could have been inhabited during the same period of human presence in the area, and that the two sites even may have been inhabited by the same individuals.

9.9 Lolland Sø

Independence II

80Ø2-000-002

Site no. 295; text 833; photos 957, 959, 960; drawing 238

At the northern end of Lolland Sø (Lolland Lake, Lolland is the name of a Danish Island) Knuth discovered a well preserved tent ring with a mid-passage (A) and another more rudimentary ruin (B) which has not been documented in any detail (figs. 9.32 and 9.33). In his diary Knuth writes: 'When the drawing was completed we removed the flagstones and looked underneath them. Only 12 -15 bones appeared in and around



Fig. 9.33. (photo 957) Lolland Sø. Tent ring with mid-passage seen from Southwest, 19/7-1955.

the mid-passage which also had some charcoal and burnt bone in the hearth box. Søren [Kristen Sørensen] patiently cleaned up the floor area to the left of the entrance. Finally, around 6.30 pm, i.e. after more than 24 hours work (and no sleep) in this soil-filled and well preserved ruin, two small pieces of flint saw the light of the day. One was a fragmented microblade, the other a small flake'. Later, Knuth also found a 4.6 cm long harpoon head with a blade groove in the point and a worked piece of bone in ruin A (LI.7028-LI.7032).

Fauna: Only 16 faunal specimens were recovered (one unidentified) from feature A. Of the identified fragments fox comprises 13.3%; musk ox and large terrestrial mammal comprise the remaining 86.7%. There are no summer season indicators. It is possible that this is a cold season dwelling given that 40% of the bone is burnt. A musk-ox *tibia* was sent by Jeppe Møhl for radiocarbon dating on 29th October 1989 but in 1998 it was returned by M. Meldgaard unprocessed.

Table 9.23. Lithic artefacts Lolland Sø ruin A.

Artefact category	All artefacts
Microblades	1
All flakes	1
Total	2

Table 9.24. Lithic artefacts Lolland Sø ruin B.

Artefact category	All artefacts
All flakes	1

9.10 Islandssletten

80Ø2-000-004

Eight Caches (site no. 426)

Islandssletten (Iceland Plain) is a large plain south of Falster Sø. In the north-western corner there is a stony hill with meat caches in the depressions between the stones. The cultural affinity of the caches is unknown.

9.11 Ranum Elv

Independence I

(80Ø2-000-005)

Hearth (site no. 297; photo 949)

Ranum Elv is a small river close to Kap Viborg. Near the river and at a height of 11.5 m a.s.l., Knuth found an isolated hearth which has been dated on the basis of driftwood (K-753). Finds: two bifaces, two microblades, a marrow-fractured piece of bone and three pieces of driftwood. The driftwood was found 1.8 m below the ruin (LI.7444-7449). It gave a radiocarbon date of 3680 ±120 BP, which corresponds to a calibrated calendar date of between 2280 and 1880 BC, suggesting that the hearth is of Independence origin.

Table 9.25. Lithic artefacts Ranum Elv.

Artefact category	All artefacts
Bifaces, all fragments included	2
Microblades	2
Total	4

9.12 Vimmelskaftet

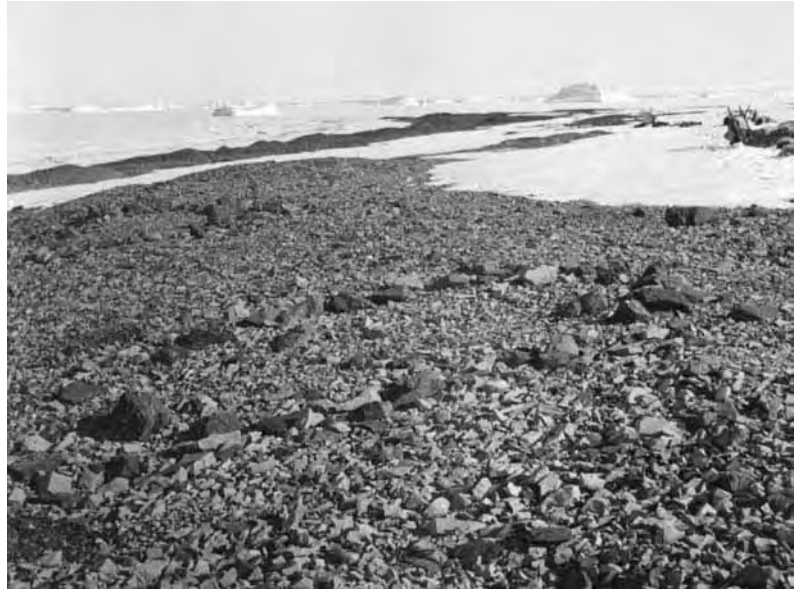
Thule

81Ø2-000-008

Tent rings (site no. 298)

Vimmelskaftet is a narrow winding sound between Prins Frederik Øer and the north-eastern corner of

Fig. 9.34. (photo 967) Kap Ringkøbing, tent rings, 31/7-1954.



Danmark Fjord's eastern coast. Two Neo-Eskimo ruins, Vimmelskaftet sites A and B, are situated within a short distance of each other on the mainland of the strait. The site is sparsely documented with respect to both feature descriptions and exact locations.

9.13 Kap Ringkøbing

Thule

81Ø2-000-009

Site no. 355; photos 966, 967

Kap Ringkøbing is a high promontory. On gravel ter-

aces by its foot there are Neo-Eskimo tent rings (fig. 9.34). The locality is only mentioned in Knuth's Baedeker (P.56).

9.14 Hvalnæs

Thule

81Ø2-000-010

Site no. 429; photos 966, 967

Hvalnæs is a 7 km long narrow peninsula E-SE of Kap Ringkøbing. A Thule site is located on the northern shore of the cape (fig. 9.35). Near the site, a more than



Fig. 9.35. (photo 966) Hvalnæs, tent ring, 7/8-1954.

9 m long whale mandible is buried in the beach terrace. The site is only mentioned in Knuth's Baedeker.

9.15 Prinsesse Ingeborg Halvø A

Independence I

8IØI-000-002

Site no. 203

Introduction to Prinsesse Ingeborg Halvø

Text 610; photos 488, 489; drawing 43; plates 18, 19, 20.

Prinsesse Ingeborg Halvø (Princess Ingeborg Peninsula) is the lowland surrounding the permanently manned Station Nord. The peninsula is part of the largely glaciated Kronprins Christian Land. To the north and east the large glaciers forming the Flade Isblink (The Flat Glacier) on Nordostrundingen delineate Prinsesse Ingeborg Halvø. Marine sediments dominate the entire lowland. The topography is formed by series of gently rising fossil beach terraces reaching a maximum height of c. 40 m a.s.l. in the interior.

The climate on Prinsesse Ingeborg Halvø is governed by the often ice-free North-east Water. Compared with the interior regions of Peary Land, Prinsesse Ingeborg Halvø has a more humid climate with lower summer temperatures than, for example, in Jørgen Brønlund Fjord and a more massive snow cover lasting until the beginning of July.

Knuth visited the area on numerous occasions on his journeys to and from Kap Harald Moltke. Artefacts were excavated and collected from the surface during at least three visits. The 1952 fieldwork was the most intensive. Discoveries made during this season enabled Knuth (1954a) to define the Independence culture and to establish the relationship between site location and sea-level changes. Later finds from 1954, 1968 and 1977 were made during short visits to the three Palaeo-Eskimo localities A, B and C already found in 1952.

Prinsesse Ingeborg Halvø A

Approximately 12 m a.s.l. and 400 m from the recent coastline there is a gravel and stone terrace. The c. 30

m long and 10 m wide terrace rises like a small hilly island above the surrounding plain of creeping soil. On three sides the 'island' is surrounded by fossil beach ridges. In front of the north-east-facing beach ridge the transition from beach ridge to creeping soil plain is formed by a gently sloping stone-covered zone reminiscent of a fossil foreshore. A couple of driftwood pieces were found here.

A rudimentary tent ring may be located on the gently sloping north-western point of the terrace island where Knuth's attention was attracted by several oddly-placed boulders.

Some stones are placed on edge forming a rectangular periphery and in between them are large flagstones on the surface. However, the only find was a seal bone lying close to the front of the structure which constitutes the only possible dwelling remains at the site. A small stony hill 15 m behind the possible dwelling structure constitutes the highest point here. Lithic artefacts were found on the surface of the slope between the hill and the fossil foreshore. Knuth's excavation of a 5 m² area produced a handful of artefacts all of which were found within a restricted area of just 10 cm² (LI.6745-6756). In 1977 several fragments of narwhal tooth (LI.10112-10113) were added to the original list of lithics. Knuth believes the site to be an outdoor workshop since the craftsman would have had a splendid view of the sea as well as inland from the hill-top. The find spot was measured at 12.56 m a.s.l.

Table 9.26. Lithic artefacts Prinsesse Ingeborg Halvø A.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	1
Burins	1
Side scrapers	1
Microblade cores	1
All flakes	7
Total	12

9.16 Prinsesse Ingeborg Halvø B

Independence I

8IØI-000-003

Site no. 204

Site B, or 'terrace B' as Knuth calls it, is located approx-

imately 1 km north-east of A, and closer to the present shore than A. Terrace B is a dominating hill which can be spotted from distant points such as the northernmost point of Prinsesse Ingeborg Halvø 8-9 km away.

Feature B

The ruin is located 333 m from the present shore on a flat spot 15.50 m a.s.l., near the highest point on the terrace. The ruin was indicated by a few boulders rising above the even gravel surface. There was no clear periphery but smaller stones and a few flagstones marked the site of the hearth in the centre of the feature. Under and between the flagstones there were ashes and small spots of charcoal, and flakes were strewn around. The flakes inspired Knuth to excavate the otherwise inconspicuous feature. After excavation he concluded that it must be an oval tent ring constructed with a single row of periphery stones forming a 2.5 x 3.5 m ellipse.

A total of 20 lithic tools and 300 flakes were recorded from site B (LI.6757-6786, LI.6791 and LI.10114). No organic artefacts were found. Many of the artefacts were found on the gravel terrace outside the feature. Lithic workshops were located 6-7 m north and south of the feature – two concentrations stand out as being particular rich in finds. One debitage concentration with small flakes was found between the highest point on the terrace and the dwelling. Another, with large flakes, was found on the front side of the highest point of the terrace named Fuglehøjen (Bird Hill). Many flakes in the latter concentration are 6-10 cm long.

Table 9.27. Lithic artefacts Prinsesse Ingeborg Halvø B.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments				
included	3	15	20	6.3
Microblades	9	45		
Burins	3	15		
Burin spalls	1	5		
Side blades	3	15		
Microblade cores	1	5		
All flakes			300	93.8
Total	20	100	320	100.1

9.17 Prinsesse Ingeborg Halvø C

Independence I

81Ø1-000-001

Site no. 202; photos 488, 489

Site C is located on the east side of Prinsesse Ingeborg Halvø 9 km north-east of sites A and B. Like B, site C is located on a hilly 'island' of large stones visible from a distance. In contrast to A and B, site C is located beside a river; the only one of the many watercourses on Prinsesse Ingeborg Halvø that does not dry up during the summer. Site C is located at 12.23 m a.s.l. The fossil beach terrace on the front of the stone and gravel 'island' is located 570 m from the recent beach. On the front slope of the terrace Knuth found a rudimentary structure of stones raised slightly above the level gravel surface. Lithic artefacts were found on the slope in front of the feature which, in spite of its irregular appearance, is believed to be a dwelling. Knuth excavated a 10 cm thick layer of gravel in the feature, but he did not uncover any conclusive evidence for the original shape of the feature. Knuth believed it to have been elliptical with the broadest side towards the terrace. In the narrow north-western end (to the right of the entrance) Knuth found two minor circles of stones located at the front and rear wall respectively.

Finds: Only four finds were revealed during excavation: two biface fragments, a burin and a flake (LI.6787-6788, LI.9640, LI.10115). A radiocarbon analysis (K-138) of a sample of driftwood gave a date of 4040 ± 170 BP. Within one standard deviation this calibrates to a calendar date of between 2900 and 2350 cal. BC. This date clearly lies in the earliest part of the Independence I spectrum, but the driftwood origin of the dated material makes the date unreliable and not suitable for a more detailed cultural-historical discussion.

Table 9.28. Lithic artefacts Prinsesse Ingeborg Halvø C.

Artefact category	All artefacts
Bifaces, all fragments included	2
Burins	1
All flakes	1
Total	4



Fig. 9.36. (photo 490) Prinsesse Dagmar Ø, 1952.

9.18 Prinsesse Dagmar Ø

Thule

81Ø2-000-011

Text 609; photo 490

The 23 km long and 8-9 km wide SE-NW oriented Prinsesse Dagmar Ø is located to the west of Prinsesse Ingeborg Halvø, with its south-eastern corner just 4.5 km offshore from the tip of Prinsesse Ingeborg Halvø. A Thule site is located 7 km south of the large river delta forming the north-eastern corner of the island (fig. 9.36). Irregularly placed flagstones with no visible periphery form features A, B and C. The features are located near the edge on the lower part of an E-NE-facing gravel slope. The lowest lying feature A is just a few metres a.s.l., feature B is located a few metres behind A, and C a few metres behind B. All the features are situated at a distance of approximately 50 m from the gravel mounds formed by pack ice at the shore. No hearths could be seen. Finds: Disintegrated musk-ox bones were strewn on the flagstone pavements. Some baleen was found on the sandy slope in front of feature B. Inside feature B Knuth found a 6.6 cm long fragment of whalebone sledge shoe (LI.6743) and a 3.8 cm long point carved from walrus tusk (LI.6744).

9.19 Prinsesse Thyra Ø

Thule

82Ø1-000-007

Site no.389; text 608

Prinsesse Thyra Ø is a 36 km long and 9 km wide SE-NW oriented island located 12.5 km north-west of Prinsesse Dagmar Ø. There is a presumed Neo-Eskimo ruin on a somewhat uneven gravel site with signs of cryoturbation and located near the mounds of ice and clay pushed up by the pack ice along the shore. The exact location of the feature is unclear. In the Baedeker Knuth states that the ruin is located near the centre on the eastern shore of the island, whereas the site in text number 608 is said to be located on the eastern shore but just 7 km south of the northernmost point of the island. The feature consists of a square formation of boulders with a row of stones forming the edge of a sleeping platform running through the centre of the structure. While investigating the tent ring Knuth found a single bone splinter.

9.20 Prinsesse Margrethe Ø

Thule

82Ø1-000-008

Site no.390; text 611

Prinsesse Margrethe Ø is an approximately 30 km long and about 5 km wide SE-NW oriented island largely covered by a local icecap. Knuth visited the island in 1964 and again in 1971 during his skidoo trip from Station Nord to Jørgen Brønlund Fjord. During the latter trip he recorded a presumed Neo-Eskimo tent ring. The feature is located on the western shore on a point protruding to the west just south of the northernmost tip of the island. Approximately 100 m from the coast

Knuth registered a few boulders protruding through the snow cover. On removing the snow Knuth discovered eight boulders on top of the gravel surface forming an ellipse with the north-eastern corner missing. No artefacts were found in the feature but the placing of the boulders on top of the gravel surface left no doubt about the anthropogenous origin of the feature. Furthermore, the site location makes good sense since open water conditions are common from the northern end of Prinsesse Margrethe Ø to Kølneæs at the opposite northern side of Independence Fjord, where Knuth found the complete framework of an umiaq with several campsites nearby (p. 210).

9.21 Summary of Danmark Fjord and Prinsesse Ingeborg Halvø

The Palaeo-Eskimo settlement in Danmark Fjord is clearly concentrated at the head of the fjord where the valley and plains offer the best grazing for the musk oxen, and where hunting may have been combined with fishing. The settlement pattern is remarkably simple with the largest sites located on Kap Holbæk and at the head of the fjord, where several families appear to have lived together for some time, and a few much smaller camps, which probably were only inhabited by single families, scattered along the more monotonous coast of Danmark Fjord. It is most remarkable that the pattern is repeated by all three cultural sequences from the area, even though the Thule evidence is somewhat vague. The prehistoric settlement in Danmark Fjord seems thus to consist of small single-family groups living scattered along the coast. However, at Kap Holbæk and at the head of Danmark Fjord three to four household units came together and camped at the same spot for a while. None of the sites is of a magnitude that allows them to be considered large sites inhabited for any substantial period of time.

The overall impression of the prehistoric settlement in Danmark Fjord is one of just three episodes of settlement. The Independence I sequence may have been the one which involved the largest number of individuals, or which lasted the longest, since it was during Independence I that both Kap Holbæk and Den Blå Flints Boplads were settled. Among the seven isolated dwellings registered in Danmark Fjord (Brønlands Vardehøj, Zophonias Delta, Juniskæret, Chri-

stian Hjort site, Arnakke, Lolland Sø and Islandsletten) three are Independence I or presumed Independence I sites, three Independence II sites and one of unknown origin. The presence of an equally low number of sites with isolated dwellings in Independence I and II may indicate that it was not the number of individuals but the length of stay that created the image of a more substantial Independence I presence. The presence of a greater number of household units would presumably have left a larger number of isolated Independence I dwellings than Independence II dwellings along the coast of Danmark Fjord.

The Thule presence in Danmark Fjord is difficult to evaluate because these sites are generally badly documented. However, it is clear that the Thule people exploited the same resources as the Palaeo-Eskimo people. However, the magnitude and duration of the Thule occupation cannot be judged since we do not know the exact number of features in Thule settlement group V on Kap Holbæk, which appears to be the only Thule locality with more than just one or two dwelling units. The site on Islandsletten may represent a slightly larger Thule settlement considering the possibility that some of the recorded caches could be shelter ruins, but this is pure speculation.

The Independence I sites on Prinsesse Ingeborg Halvø have a prominent place in Knuth's (1954a) definition of the Independence culture. Knuth used the artefacts from sites A, B and C to define the typological characteristic of the Independence culture opposed to the Saqqaq of West Greenland and Dorset culture known from other parts of the Eastern Arctic. Furthermore, the location of the sites in relation to fossil beach lines littered with driftwood brought Knuth to the conclusion that the Independence settlements originate from a time with more frequent open water conditions than today.

Sites A, B and C on Prinsesse Ingeborg Halvø are all located far from the present coast and 10-15 m a.s.l. Knuth believed terraces A, B and C to be a special kind of raised delta terrace rather than raised beach terraces as known from other localities in Peary Land. Typological evidence, and the fact that all three sites are associated with fossil beaches with driftwood elevated 10 to 12 m a.s.l., indicates that the sites are of broadly similar age. The large amounts of driftwood on the fossil beach terraces immediately below the

dwelling remains further indicate that the sites were probably in use during a period with more open water conditions than is the case in the area today.

It is difficult to judge whether the rudimentary state of the features is a result of cryoturbation or whether they originally were less well built than other ruins in the area.

Knuth's observations suggest that features A and B were originally more well built dwellings than C.

This may be supported by the fact that more artefacts were associated with A and B than were found near C. All the sites do, however, seem to represent single dwelling episodes comparable to sites such as Ranum Elv (site 297). Furthermore, the fact that there are several open-air workshops may indicate that all of the sites on Prinsesse Ingeborg Halvø were warm season habitations.

Settlements by the North-East Water – the East Coast from Nordostrundingen to Dove Bugt

10.1 Introduction

In all of the geographic regions dealt with in the previous descriptive chapters Knuth was the only archaeologist operating there after World War II. This means that Knuth's registrations are more-or-less the only documentation available for monuments and finds. As a consequence, all the previous chapters can be reliably presumed to include all the hitherto known archaeological sites in each region. This is very different from the area south of Nordostrundingen where archaeological work has been conducted by several other researchers. North-east Greenland is the area where Knuth began and ended his High Arctic archaeological career. Continuing the work of the Denmark Expedition (Thostrup 1911) it was in Dove Bugt that Knuth, Ebbe Munch and Alf Trolle established their base at Mørkefjord in 1938. During the 1980s Knuth engaged in his last major field campaigns, and when revisiting Île de France in 1987 he discovered the huge site on Kap Skt. Jacques, the south-western point of Île de France.

Knuth (1940) has published accounts on 'Dansk Nordøstgrønlands Ekspedition 1938-39, udsendt af Alf Trolle, Ebbe Munch og Eigil Knuth til Minde om Danmark Ekspeditionen' (Danish Northeast Greenland Expedition 1938-39, sendt ud af Alf Trolle, Ebbe Munch og Eigil Knuth in memory of the Denmark Expedition) or 'Mørkefjord-ekspeditionen' (Dark Fjord Expedition, named after the over-wintering base in Mørkefjord), but the archaeology was never published even though Knuth almost completed a manuscript for the series *Meddelelser om Grønland* (1942). Dansk Nordøstgrønlands Ekspedition 1938-39 was a long-term project supported by a huge logistical apparatus involving ships, aeroplanes and a manned office in Copenhagen. It was during these years that Knuth proved his talent for planning and managing logistical operations in the High Arctic.

The existence of the Palaeo-Eskimo cultures was not yet realised during the Dansk Nordøstgrønlands Ekspedition 1938-39. Thus Knuth's experience with Eskimo archaeology was restricted to the excavation of Thule settlements. Consequently, Knuth had no preference for any particular chronological period or feature category. As he moved through the archaeologically often virgin land, he excavated all sorts of features and sites. In contrast to the districts investigated by Knuth after 1948, his early registrations and excavations in North-east Greenland therefore contain abundant data on Thule settlements and little on the Palaeo-Eskimo periods. When Knuth resumed his Arctic explorations after World War II he discovered Palaeo-Eskimo presence in Peary Land. From that point in time his research was focused on problems related to the Stone Age settlements.

When Knuth, in the spring of 1939, surveyed the area from Dove Bugt and further north, he had Bendix Thostrup's comprehensive publication to rely on, and he visited and excavated Thule dwellings on many of the sites published by Thostrup (figs. 10.1 and 10.2). In the present publication we will only include the sites where Knuth, by excavation or more accurate mapping, has contributed new evidence. All the sites discovered and published by the Denmark Expedition will be omitted. Similarly, the Greenland National Museum and Archives surveyed large tracts of land in the 1980s and 1990s. The results of this work are preliminarily published by Andreasen (1996, 1997a, 1997b, 1998, 2000), but again we are dealing with data beyond the scope of the present publication. So when evaluating the data presented here, the reader should be aware that both the Thule and the Palaeo-Eskimo sites in this chapter represent only a part of what is known. If he or she wishes to conduct a more detailed analysis of the complete cultural history of North-east Greenland the cited literature must be consulted.



Fig.10.1. North-east Greenland from southern Kronprins Christian Land to Lambert Land with archaeological localities investigated by Knuth indicated.

Topography

Just as the history of research here is very different from that for Peary Land, the topography is also very different from the ice-free lands further to the north. The huge area covered in this chapter has many different landforms ranging from small 'islands' of high relief, mountains separated from each other by glacier-filled fjords and large areas with shelf ice, to low forelands with sedimentary soils (fig 10.1, 10.2). The proximity to the large polynya known as the North-east Water results in an oceanic climate with relatively heavy precipitation and summers that are cold and moist.

10.2 Arfangniat Sigssat/Hvalrosbugten

Thule

8IØI-000-006

Site no. 289; photos 583-589, 591, 1426-586

Arfangniat Sigssat is only mentioned in Knuth's diary and in his Baedeker (p. 64). According to the description of the site location, Arfangniat Sigssat appears to be the same site as Hvalrosbugten (Walrus Bay) registered in the National Museum's archive. Knuth made two brief visits to the site on 19th August 1984 and 30th July 1985, when he was airlifted in by helicopter.

Knuth mentions six dwellings of which four have cold-trap entrances and two meat caches. Five to six winter dwellings, 14 meat caches, two graves? and three tent rings are registered at the National Museum of Denmark. All the features are concentrated at the south-eastern end of the beach. Whalebone and walrus skulls lay scattered around. The site was originally spotted by a kayak sporting expedition in 1984 (Andersen 1984). Members of the kayak expedition collected finds but left them on the site. Knuth brought home some of these items: four snow-knives, five axes, six pieces of sledge shoes, one harpoon fore-shaft and the blade of a snow-shovel.

10.3 Kødgravene

Thule

80Ø1-000-008

Site no. 183

The site Kødgravene (Meat Caches) is located on the north-eastern corner of Amdrup Land just north-west of Sophus Müllers Næs. Knuth visited the site during his 1939 sledge journey when he registered meat caches and a tower trap. J. Skaftø visited the site in 1985 and he registered at least 13 tent rings, several caches or traps and two tower traps.

10.4 Sophus Müllers Næs

Thule

80Ø1-000-007

Site 182; text 838; drawing 15, 61; photos 564-568, 1301-1303; plate 28

Ruins at Sophus Müllers Næs were already registered during the Denmark Expedition (Thostrup 1911; Glob 1946) (Sophus Müllers Næs means Sophus Müller's Promontory, in honour of the late Keeper of National Antiquities at the National Museum in Copenhagen). During the 1939 sledge journey Knuth excavated a winter house (fig. 10.3). In 1985 Knuth visited the site again and this time he registered two more winter dwellings as well as at least two tent rings. A ground plan of the house excavated in 1939 is published in *'Under det Nordligste Dannebrog'* (Under the northernmost Danish Flag, Dannebrog is the common name for the Danish flag similar to 'Union Jack' and 'Stars

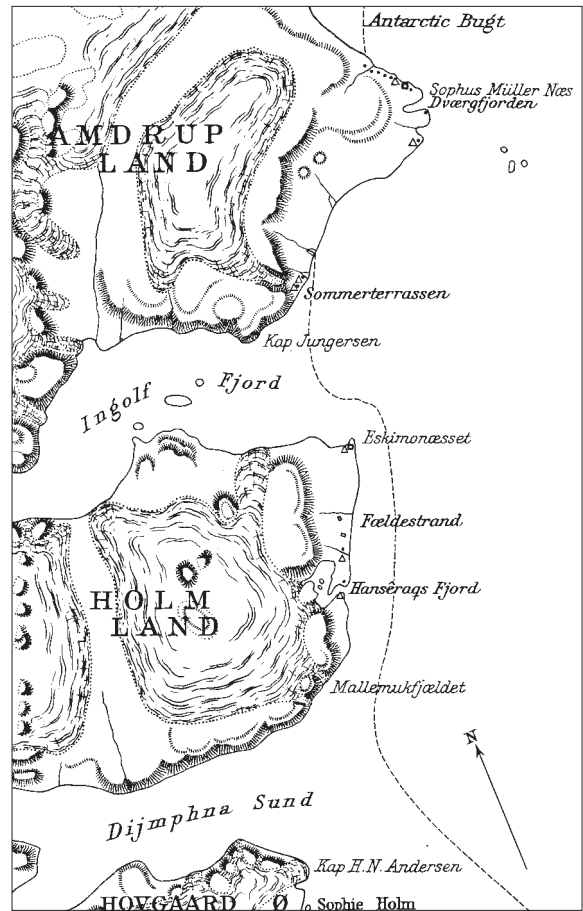


Fig 10.2. (drawing 61) Amdrup Land and Holm Land with sites investigated by Knuth during the 1938-1939 fieldwork.

and Stripes') (Knuth 1940:131ff). However, a far more comprehensive description of the excavation, the house and findings is given in the unpublished manuscript *Contribution to the Archaeology of the Northernmost East Greenland* p. 25 ff. The following description is an extract from Knuth's 1940 publication, as well as of his unpublished manuscript, which was produced in both a Danish and an English version. Only the Danish version has been entered into the database (text 832).

The Excavation

The excavation was conducted from 18th to 22nd May 1939. On its discovery the house was covered by snow and temperatures around minus two degrees Celsius, combined with additional snowfall, did not make the excavation any easier. However, Knuth managed to excavate the entire interior and he also produced a good drawing of the ruin.

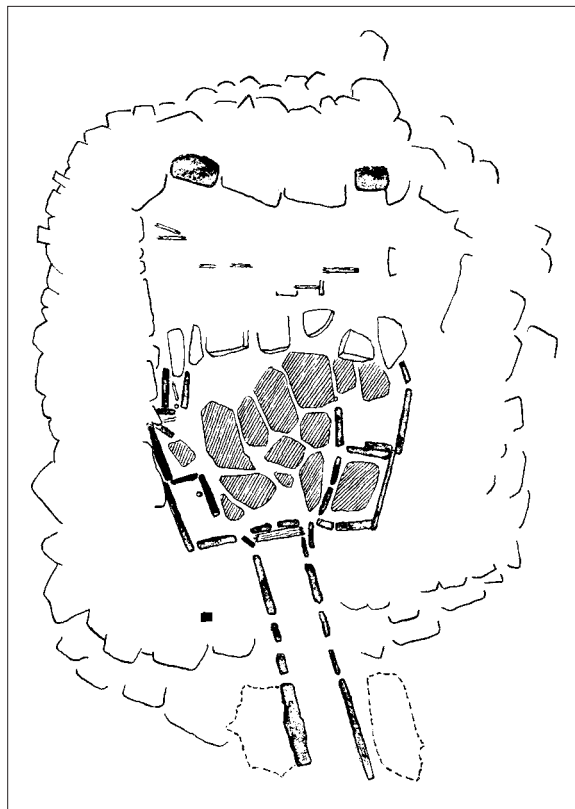


Fig 10.3. (drawing 15) Sophus Müllers Næs Thule winter house excavated by Knuth in 1939.

Feature Description

The house was built of the locally available limestone with the entrance passage facing the sea to the east. The sunken walls were rarely elevated more than 30 cm above the surrounding terrain. In a single place the south wall had three courses of stones, otherwise the walls had only one course.

The platform in the rear part of the dwelling was marked by a gravel surface slightly elevated above the paved flagstone floor in the front half of the dwelling. A single row of flat and relatively small platform stones stretching from the north to the south wall shows that the platform was about 1.42 m deep from the front edge to the rear wall. The front half of the house and the passage were built mainly of vertically placed flagstones. The rear part of the north wall was poorly defined but the gravel and stone layer of the platform extended into the wall mound, where a firmly-set curved line of stones marked the previous wall. This suggests that the wall originally had a recess.

Lamp stands were found near the southern and northern front corners of the sleeping platform. The

lamp stand in the corner, between the platform edge and the southern wall, was built of two vertically standing flagstones with their upper edges on level with the floor. A vertical pointed peg stood in the depression between the two upright stones. Below the moss cover Knuth found ashes, bits of wood and a fragmented snow-knife. At the other front corner of the platform there were no vertically standing stones, but here Knuth registered a 10-20 cm thick layer of grease (at the point marked with C). A 7 x 12 x 60 cm timber threshold was placed where the passage joins the interior of the house. A 23 cm high step separated the passage from the house. Knuth estimated the lowest outer section of the entrance passage to be approximately 1 m below the level of the sleeping platform where it joins the rear wall.

Inside the dwelling Knuth found meticulously built rectangular chambers of flagstones set on edge on either side of the entrance. Presumably the boxes were the supporting structure for two side benches. The upper edges of the stone-set chambers were considerably above the level of the floor in the house. The southern chamber was covered by a stone, which lay in association with rows of vertically standing flags in the northern and southern walls, continuing from the stone chambers to the main platform at the rear of the interior. This indicates a function as supports for benches. Houses of similar dimensions and structure have been excavated on Clavering Ø (Larsen 1934).

Finds

In the house Knuth found the following: At the front edge of the platform behind lamp stand C: harpoon head, Thule type 2 (LI.5705, plate 28,10); harpoon head of bone, Cape Dorset type (LI.5706, plate 28,1). By lamp stand (c): front section of knife handle of bone (LI.5702); trace buckle of bone (LI.5703, plate 28,12); female figurine of walrus tusk (LI.5704, plate 28,6); two whetstones (LI.5707 and LI.5708, plate 28,16); knife blade of slate with two drilled holes (LI.5709, plate 28,8); fragmented knife blade of slate with two drilled holes (LI.5710, plate 28,9); fragmented woman's knife of green slate (LI.5711, plate 28,11); small needle, which unfortunately disappeared during the return journey; roughly worked piece of bone (LI.5712); fragment of a cut-off piece of walrus tusk with a rounded end (LI.5701); splinters of bone and ivory (LI.5700); convex edged scraper of 'flint'

Fig. 10.4. (plate 28) Sophus Müllers Næs Dorset-Thule culture. 1) Dorset harpoon head. 6.00 cm. L1.5706. House ruin, platform behind C. 2) Burin, flint. 2.65 cm. L1.5686. House ruin, floor in front of platform. 3) Convex end scraper, flint 3.15 cm. L1.5687. House ruin, around C. 4) Lance head, grey angmaq 4.55 cm. L1.5713. House ruin, front wall, n. of door. 5) Bird figurine, ivory 3.30 cm. L1.5694. House ruin, depression A. 6) Female figurine, ivory 6.30 cm. L1.5704. House ruin, around C. 7) Pendant of coal 3.60 cm. L1.5696. House ruin, depression A. 8) Knife blade, slate. 5.30 cm. L1.5709. House ruin, around C. 9) Knife blade, slate. 4.55 cm. L1.5710. House ruin, around C. 10) Thule harpoon head. 13.20 cm. L1.5705. House ruin, platform behind C. 11) Ulo-blade, slate 6.95 cm. L1.5711. House ruin, around C. 12) Trace buckle, bone defective 5.85 cm. L1.5703. House ruin, around C. 13) Adze head, bone 12.62 cm. L1.5677. House ruin, floor in front of platform. 14) Knife handle, fore end 9.40 cm L1.5702. House ruin, around C. 15) Bear tooth pendant 8.17 cm. L1.5682. House ruin, floor above threshold. 16) Whetstone, slate 8.47 L1.5707. House ruin, around C.



(L1.5687, plate 28,3); triangular scraper of 'flint' (L1.5688); 42 flakes of 'flint' (L1.5689-5698). Lamp stand at south wall: fragment of knife blade of slate (L1.5697); snow-knife with two shoulders (L1.5695); drop pendant of coal (L1.5696, plate 28,7); bird figurine of ivory (L1.5694, plate 28,5); wooden peg (L1.5683). The floor in front of the platform: burin (L1.5686, plate 28,2); fragment of sledge shoe of narwhal tusk (L1.5684); re-worked fragment of sledge shoe of narwhal tusk; pointed end may be a wedge (L1.5685). On the flagstones in front of the door: adze head of bone (L1.5676); adze head of bone (L1.5677); fragment of

sledge shoe of whale bone (L1.5678); drill mouth piece of bone (L1.5681); pierced bear tooth (L1.5682, plate 28,15). On the front wall north of the passage: lance blade of 'flint' (L1.5713, plate 28,4). Without specified find site: bear forearm bone with gnawing marks (L1.5693); two wooden pins (L1.5679-80) (Fig. 10.4).

Animal Bones

The thin culture layer gave poor conditions for the preservation of bone. The osteological material is therefore relatively limited; everything found was collected: walrus (*Odobenus rosmarus*): parts of two

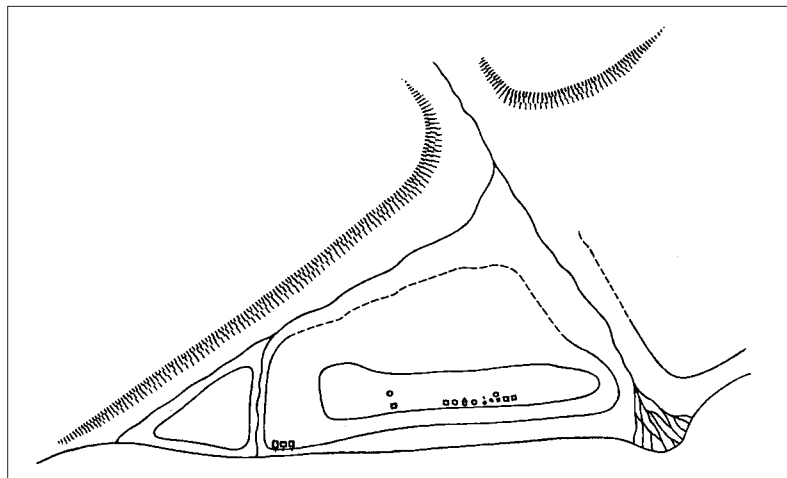


Fig. 10.5. (drawing 57)

Sommerterrassen with features marked along the gravel terraces towards the shore. The winter house excavated by Knuth is marked as one of three features in the western (left) part of the sketch.

costae, four *ossa digitorum pedis* (young animals); ringed seal (*Phoca hispida*): three halves of *mandible*, *scapula*, *humerus*, *mandible branch*, parts of *tibia* and *fibula*, some *costae*, *vertebrae* and *ossa digitorum pedis*.

Site Summary and Discussion

Sophus Müllers Næs is the northernmost locality with winter dwellings known from East Greenland. Due to the early discovery and excavation of the site it has become a classic locality for the definition of the Thule culture in North-east Greenland.

10.5 Sommerterrassen, Amdrup Land

Thule

80Ø1-000-005

Site no. 180; drawings 57, 58, 60; photos 651, 652, 653

Sommerterrassen (the Summer Terrace) is located at

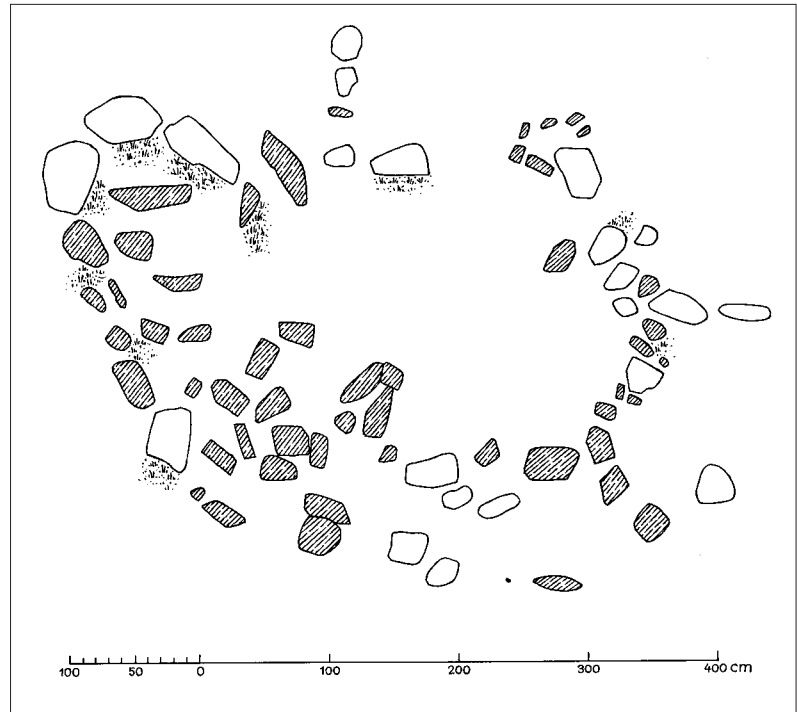


Fig. 10.6. (photo 652) Sommerterrassen, tent ring with associated cache in part of the feature to the left, 16/5-1939.

the southern end of the outer coast of Amdrup Land. The site is located on a 3-4 m high beach terrace between two rivers, the southern one is small and the northern one large (fig. 10.5). The site was visited during Knuth's northward sledge journey on 15th May 1939. Half the terrace was snow covered but that same evening heavy snowfall covered everything. However, he managed to shovel free some of the features and make some photographs and sketch maps (figs. 10.6, 10.7 and 10.8). Knuth registered at least five tent rings, twelve meat caches and three fox traps. Two tent rings are built of smaller stones placed in large circles which appeared to have built-in meat caches. The other three tent rings comprise square foundations of large stones with an elevated platform at the rear. In two of the tent rings a flagstone pavement covered the sunken floor in front of the platform. Knuth found no artefacts or bone in or around the tent rings.

In addition, three more rudimentary ruins were found on the slope below the terrace where a small river cut its way through. The southernmost of these ruins was excavated and drawn. The thick walls consisted of highly irregular semi-circles of stones. At several places the front walls have stones in two courses. The house is located on a low bank with a 75 cm, luxuriantly overgrown slope forming the front. On the slope in front of the house, Knuth excavated a series of vertically standing stones which appear to have formed the sides in an entrance passage. The lower end of the passage has a flagstone pavement. The passage was overgrown by moss along its entire length. Where the passage joins the house there is a threshold with two courses of flat stones. Prior to excavation the

Fig. 10.7. (drawing 58)
Sommerterrassen, same tent ring as
depicted on fig. 10.6.



walls stood out clearly defining the sunken interior. Behind the threshold Knuth found two layers of flagstones on the floor and a thick layer of grease with bones and bits of wood, but no tools.

Knuth expresses some doubt about the interpretation of this and two similar but more rudimentary fea-

tures nearby. He felt that the location was somewhat odd. He was not sure whether the structures are Thule winter houses or Palaeo-Eskimo mid-passage dwellings. Knuth suggests that if the latter is the case the house room would have been a silted-up cache behind the dwelling space.



Fig. 10.8. (drawing 60)
Sommerterrassen, winter house.

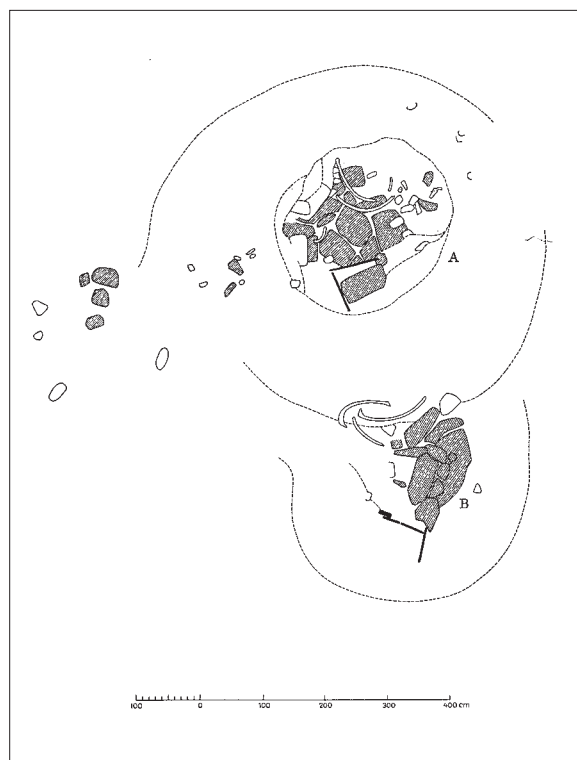


Fig. 10.9. (drawing 56) Eskimonæsset, features A and B.

It is difficult to accept a Palaeo-Eskimo date for a feature like this since there are no apparent Palaeo-Eskimo structural characteristics, such as fire-cracked rocks, and no Palaeo-Eskimo artefacts were found in the feature. A comparison with the ruin of the better preserved winter house at Sophus Müllers Næs further indicates that this structure could be a dwelling of similar size and character to that excavated there (see p. 267).

In spite of its name, Sommerterrassen appears to be a minor Thule winter settlement.

10.6 Eskimonæsset, Holm Land

Thule

80Ø1-000-003

Site no. 178; text 627; drawing 56; photos 650, 1365; plates 24, 25, 26, 27

Eskimonæsset is the easternmost point of the low headland on Holm Land. Ruins were already detected on Eskimonæsset during the Denmark Expedition in 1907 (Glob 1940; Thostrup 1911) when several bone

artefacts were collected on the site. Later the site was visited by E. Mikkelsen and I. Iversen who also collected artefacts from the ruins. Unfortunately, Mikkelsen and Iversen had severe difficulties on their return journey. They had to leave the collected objects before reaching Danmarkshavn (Mikkelsen 1913). Knuth found the site completely snow covered on 13th May 1939, but he managed to locate and excavate two dwelling structures, A and B (fig. 10.9). The ruins are located on a small hill slightly elevated above the otherwise flat point. Both structures have the appearance of circular gravel mounds surrounding a depression with a flagstone pavement. The diameter of A is 2.4-2.7 m, B is somewhat smaller and with a less conspicuous depression at the centre. The entrance to the interior encircled by the gravel berms is at the western side. Knuth found no signs of an entrance passage. In the southern part of both feature A and feature B two upright flagstones were set at an angle forming a side chamber towards the gravel berm. In A the vertically standing stones rise 34 cm and 39 cm above the floor. The bottom of the chamber is paved with a flagstone on top of which Knuth found grease and charcoal indicating that the chamber had been used as fireplace or lamp stand. The vertically standing stones in B rose only 17 cm above the floor, but here there was no flagstone pavement inside the chamber and Knuth found no charcoal or grease to show whether this had been used as fireplace as indicated in A. The floor in the ruins appeared covered with a relatively luxuriant vegetation of moss, grass and poppies between the flagstones. In the moss there were some seal bones and several whalebones, of which the latter may have been part of the superstructure. The culture layer below the flagstones was a few centimetres deep. Several artefacts were found on top of or just below the flagstones.

Finds and Feature Descriptions

The finds are shown in figs. 10.10, 10.11 and 10.12 (LI.5714-33, feature A) (LI.5734-37, feature B) (LI.5738-42 open-air activity area) (LI.5743-50 single finds)

Feature A

Harpoon heads

Found in the dwelling: A Thule 2 harpoon head (plate 26,1, LI.5714) with a copper blade; a flat piece of worked whalebone; a trace buckle of whale bone (plate 26,7, LI.5716); a seal drag handle of bone (plate

26,6, LI.5717); broken-off rear end of an ice-chisel; three specimens of snow-knives of bone (plate 27, LI.5719-5721), one with two shoulders of almost equal width, one with one shoulder and a slight curve between the handle and blade on the convex upper edge, and the third one with one shoulder and a sharp bend between the handle and the blade; knife handle of bone with oval cross-section and a hole for a string at the proximal end (plate 26,8, LI.5722); 'floating bird' pendant of walrus tusk with string hole on the back (plate 26,3, LI.5723); a splinter of walrus tusk; a fragment of a pointed peg of walrus tusk; an adze head of whalebone for the mounting of an adze blade on a handle; a fragmented wooden peg; a rear fragment of wooden sling handle (plate 27,5, LI.5728); a wooden peg; slate ulu or blade with square projection on the upper part; a large slate knife or lance blade with marked shoulders (plate 26,4, LI.5738); a flattened piece of wood; a rear fragment of a flat pin of caribou antler shaped for lashing.

Feature B

Drill mouthpiece of caribou *astragalus* (plate 26,10, LI.5734); cut-off piece of bone; wooden peg, and a cut-off piece of whalebone.

Open-air workshop: In addition to features A and B Knuth registered an aggregation of flat stones in front of feature A. Knuth characterised this area as a 'camping place' on the slope. The location of these stones, and the associated finds in the area immediately in front of the doorway of both A and B, suggests that it is an open-air activity area, probably mixed with refuse deposits. The finds from this area are: A fragment of sledge shoe of bone; a pointed wooden peg; a cut-off piece of whale bone and a piece of wood and a large lance blade of slate (plate 26,4, LI.5738).

Single finds: In front of feature A there were pieces of a sandstone vessel with a suspension hole near the rim, and nearby there lay a complete blubber pounder (fig. 10.10) and the head of another. From the same area Knuth recovered a flattened piece of bone, two pieces of worked whalebone, a fragmented pin of walrus tusk with a hole through and two pieces of whale rib.

In addition to these finds one should note that some objects were collected by the Denmark Expedition.



Fig. 10.10. (plate 25) Eskimonæsset (ca. 3:4) blubber pounder, whale bone 0.169 m., LI.5744, terrain find.

Site Summary and Discussion

The lack of entrance passages at feature A and B suggest that the dwellings were tent or warm season habitations, whereas there were among the finds many implements more commonly associated with the cold season. Obviously this applies in particular to the snow-knives, the fragmented ice-chisel and the trace buckle and sledge shoe, but also the lamp and the blubber pounders are objects that more naturally belong in a winter than a summer dwelling.

The original context of the artefacts may be questioned since everything left on the surface at these high northern latitudes remains for many years after its primary deposition. Scavenging from older caches and dwellings could thus very well have occurred on a site like Eskimonæsset, where summertime dwellers could easily have collected artefacts from old abandoned winter dwellings.

Interpreting the excavated dwellings A and B, and their associated finds, in this light brings to mind the character of the finds from Kølneæs and other Thule sites in Peary Land. Here several implements typical of winter activities were found on campsites which otherwise have the appearance of being summer camps. The prolonged period with sea ice may thus have conditioned a virtual year round use of several tool categories which, in other parts of Greenland, were only

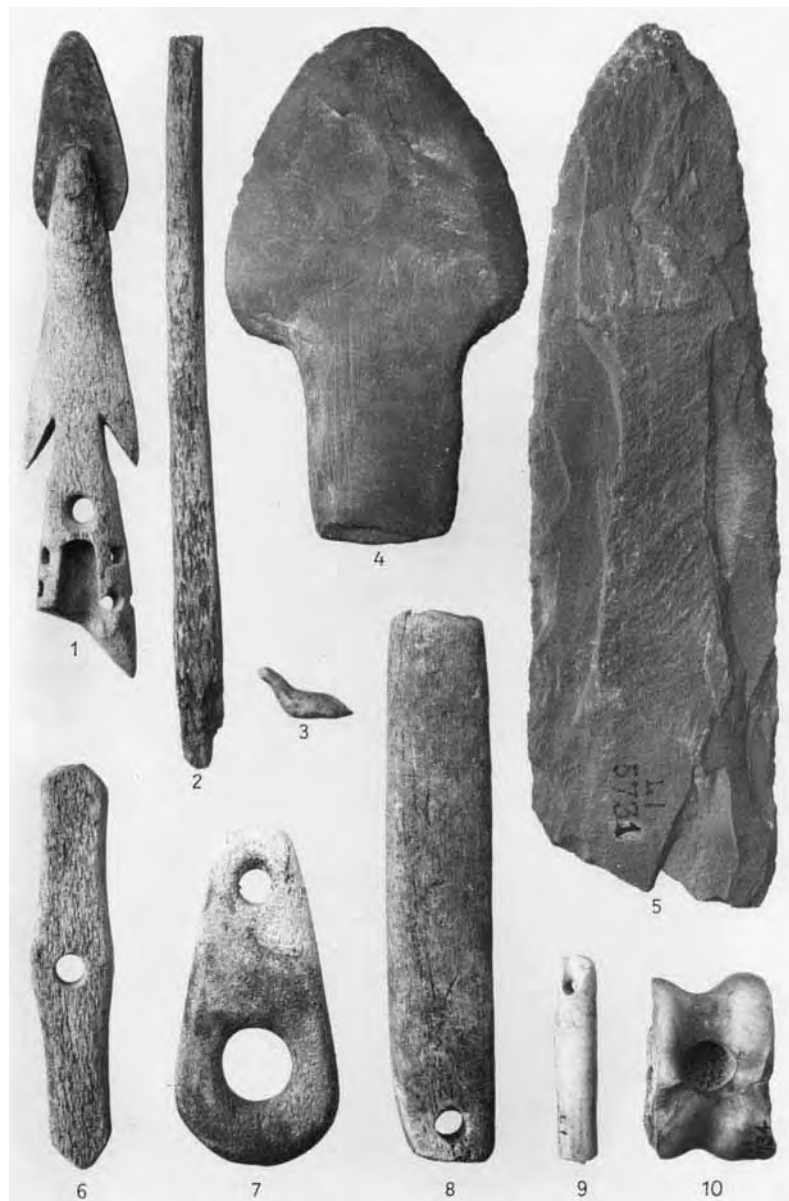


Fig. 10.11. (plate 26) Eskimonæsset. 1) Harpoon head, copper blade 16,88 cm. L1.5714. House A. 2) Shaft, whalebone 19.20 cm. L1.5727. House A. 3) Swimming bird, walrus tusk 2.20 cm. L1.5723. House A. 4) Whaling harpoon blade, slate 13.35 cm. L1.5738. Tent ring. 5) Knife blade, slate (weathered) 23.00 cm. L1.5731. House A. 6) Drag handle, whale bone 10.60 cm. Eskimonæsset. House A. 7) Trace buckle, whale bone 8.90 cm. L1.5716. House A. 8) Knife handle, 14.35 cm. L1.5722. House A. 9) Pin of ivory, fragment, fragment 5.35 cm. L1.5749. Surface find. 10) Drill mouth-piece, caribou 4.75 cm. L1.5734. House B.

used during a shorter season. The soapstone lamp and winter tools such as snow-knives may have been taken along on dog sledge journeys throughout the months of June, July and into August.

Another peculiar fact is the presence of so many implements in relatively inconspicuous dwelling structures such as A and B. The situation may be a parallel to the Kølneæs and Île de France situations where people who never managed to collect their belongings left behind large numbers of hunting implements and household utensils.

10.7 Site A, Kap Sælskulderen

Unknown date

79ØI-000-001

Site no. 7; photos 578, 579, 580, 581, 582

Several archaeological sites are known in Lambert Land. Some of these were visited by Knuth who also took several photographs.

To the north and south, Lambert Land is bordered by large glaciers flowing from the Inland Ice to the North Atlantic. The glacier in Nioghalvfjersfjorden lies

Fig 10.12. (plate 27) Eskimonæssæt (c. 3:5). 1) Snow-knife, whalebone, 2 should. 28 cm. L1.5719. House A. 2) Snow-knife, fragment, whalebone 19 cm. L1.5721. House A. 3) Snow-knife, curved long, whalebone 34 cm. L1.5720. House A. 4) Socket piece, rear end cut off 7.7 cm. L1.5735. House B. 4) Sling handle fragment, wood 15.5 cm. L1.5728. House A.



to the north, to the south is the glacier Zachariaes Isstrøm.

Three oval rings of flagstones with a maximum diameter of 2 m and a minimum diameter of 1 m were registered at site A, Kap Sælskulderen. Two pieces of bone and a microblade were seen under a flagstone in one of the features, which accordingly is presumed to be of Palaeo-Eskimo origin. It is not certain whether the structures are tent rings or caches but the descriptions indicate they are the former. They are estimated to be located at 10-11 m a.s.l.

10.8 Site B, Kap Borgen

Unknown date

79ØI-000-002

Like the site at Kap Sælskulderen, the Kap Borgen site is located on a promontory from where tidal cracks are formed in the sea ice. Two rectangular stone enclosures located 10 m apart and 11 m a.s.l. were registered on this site. Bird bones were seen in the southernmost ruin measuring 1.7 m x 3.4 m, whereas the northernmost ruin only measures 1.4 x 2.2 m.



Fig. 10.13. (photo 1314) Qitleq site, view over the southern part of gravel terraces where the ruins are situated along the shoreline, 24/8-1986.

10.9 Site C, Qitleq Site

Independence II
79ØI-000-003
Site no. 8; photos 529-542, 570-577, 590, 633-641, 1304-1312.
The Qitleq site is located on gravel terraces by a river outlet approximately 11 km south of site D at the mouth of Jomfru Tidsfordrivs Fjord (Miss Pastime Fjord – one of the sledge dogs in the Danmark Expedition was named Jomfru Tidsfordriv after a character in Copenhagen in the late 19th/early 20th century)

(fig. 10.13, 10.14). The site was visited by Danske Peary Land Expeditioner (Danish Peary Land Expeditions) from 22nd to 29th July 1985. Knuth has registered 23 ruins, 12 of which are scattered on terrace A 6-8 m a.s.l., and the remainder on the lower terrace B between 4.4 and 5.3 m a.s.l. (fig. 10.14). Most of the features are, however, only documented by photos with no descriptions or other recorded observations. Knuth registered the artefacts with inventory numbers at the National Museum in Copenhagen, in spite of the fact that the administration of historical resources was formally taken over by Greenlandic authorities, i.e. the Greenland National Museum and Archive, in 1982.

Terrace A

Feature 1
(photos 529, 530, 570, 1304)
Circular tent ring of up to head-sized boulders. In the centre of the periphery there is a stone-built hearth (fig. 10.15). A few artefacts and several flakes were collected from the feature (LI.10455-10462).

Table 10.1. Lithic artefacts Qitleq site feature 1.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	2
Retouched flakes	2
All flakes	85
Total	90

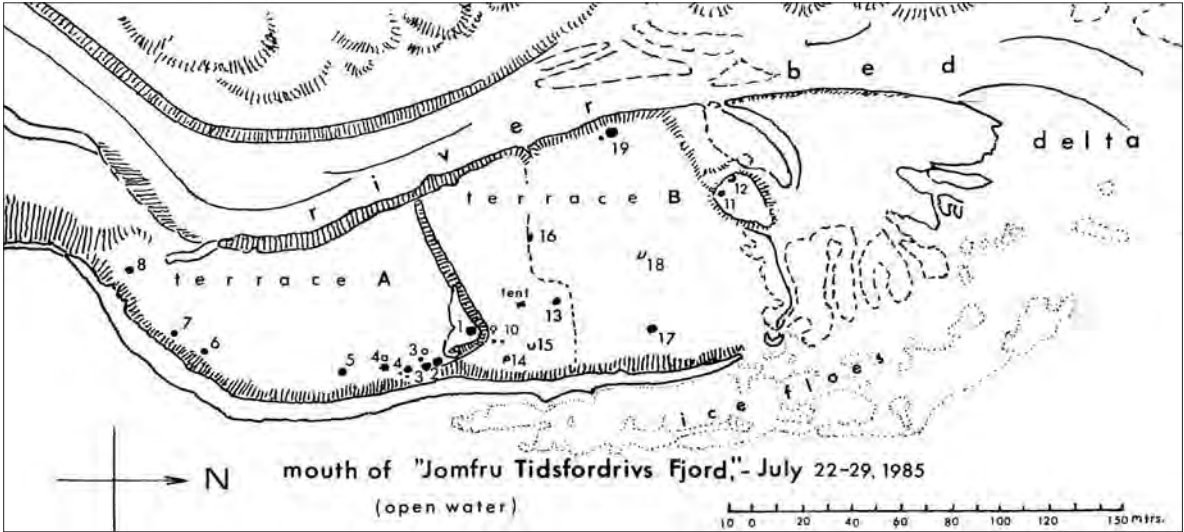


Fig. 10.14. Qitleq site, site map produced by Knuth.

Feature 2 (photos 531, 633). Feature 3 (photos 634, 635) is a mid-passage dwelling where a single bifacial end blade with side notches was found (LI.10463). Feature 3a (photo 636). Feature 4 (fig. 10.16, photos 532, 533, 590, 641, 1305, 1306) is a rudimentary tent ring with a mid-passage feature of vertically standing slabs. Some fire-cracked rocks appear to be scattered adjacent to the hearth. This may be due to recent disturbance. Feature 5 (photos 535, 536, 638, 1309, 1310) is a rudimentary tent ring with a mid-passage feature of vertically standing slabs. Feature 6 (photo 537). There is no information on features 7 and 8.

Table 10.2. Lithic artefacts Qitleq site feature 3.

Artefact category	No.
Bifaces, all fragments included	1

Lithic artefacts Qitleq site feature 16

Artefact category	No.
All flakes	12

Terrace B

There is no documentation for features 9 and 10. Feature 11 resembles a Neo-Eskimo fox trap but Knuth thinks that the feature could also be a cache for arctic char. Like ruins 4 and 17, feature 11 has been disturbed during recent times. There is no information on features 12 and 13. Feature 14 (photo 1312) is a meat cache of large boulders. Feature 15 (photo 1313) is a circular or sub-rectangular tent ring with no internal architecture. Feature 16 (photos 542, 636, 640, 1311) is a rudimentary mid-passage feature. A few lithic artefacts (LI.10464 and 10465) were collected from this dwelling. Feature 17 (photo 538) is a tent ring with a central hearth of thin vertically standing flagstones. Feature 17 has been subject to recent looting as Knuth registered for features 4 and 11. Feature 18 (photo 539). Feature 19 (fig. 10.17; photos 540, 541, 576, 577, 1307, 1308) is a solid tent ring with mid-passage of boulders. A 'wing' is *in situ* at one end of the feature. The doorway appears to have been oriented towards the river which could have been a little fjord during the time of occupation. There is no specific information on features 20 to 23.

Site Summary and Discussion

The specific character and interpretation of the settle-



Fig.10.15. (photo 1304) Qitleq site, feature 1 from southwest, 23/7-1985.

ment on the Qitleq site remains unknown since no systematic excavation has been conducted. It is apparent that considerable Independence II/Early Dorset settlement has occurred on the gravel terraces. Several of the dwellings appear similar to short-term tent ring dwellings known from other sites and the concentration of ruins on the slope towards the mouth of the



Fig.10.16. (photo 1396) Qitleq site, feature 4, detail of mid-passage hearth with vertically standing flags. Note willow growing in the hearth, 23/7-1985.

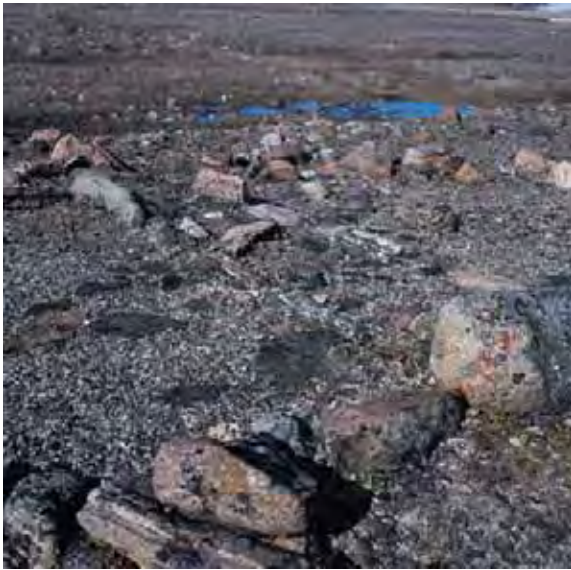


Fig. 10.17. (photo 1307) Qitleq site, feature 19. Tent ring with mid-passage of boulders and flat stones, 23/7-1985.



Fig. 10.18. Map of Dove Bugt and Germania Land with archaeological sites. Note Kap Skt. Jacques on Île de France is located north of Germania Land.

fjord may indicate that most settlements were oriented towards the exploitation of marine resources in a recurring open-water area at the mouth of Jomfru Tidsfordriv Fjord. The isolated feature 19 may, on the other hand, represent an episode where focus was on water fowl, arctic char or other resources in the river delta.

A total of 103 lithic objects were collected from the site, but the numerous features indicate that Qitleq site may have been an important locality during Independence II.

10.10 Kap Skt. Jacques

Independence II/Early Dorset, Thule

77ØI-00I-005

Site no. 2; texts 6-102, 104-490, 492-592, 643, 645-663; drawings 101-105, 110-118; photos 11, 13-39, 41-42, 44-150, 156-428, 696-703, plates 46-52

Kap Skt. Jacques on the south-western tip of Île de France hosts one of the largest ruin sites in the Eastern Arctic. Most of Île de France is covered by a local icecap with only a narrow strip of land along the shore (fig. 10.18). To the north a slightly larger ice-free land strip is found around Kap Montpellier. To the south Kap Skt. Jacques juts into the ice-covered ocean separating Île de France from Greenland. Kap Skt. Jacques is covered by a complicated system of beach ridges of gravel and up to more than head-sized boulders. The area was initially first visited and mapped in 1905 by the Belgica Expedition headed by Duc d'Orleans. Later it was visited by members of the Denmark Expedition (Thostrup 1911). In 1938 Knuth and Eli Kristiansen passed Kap Skt. Jacques on the northbound part of their sledge voyage lasting from 9th April to 29th June. On 14th-15th June 1939 Knuth returned to draw sketches of six ruins of which five appear to be mid-passage structures (drawings 101-104). However, at this early stage of his archaeological career Knuth had not yet discovered the presence of Palaeo-Eskimo cultures in North-east Greenland so the potential of the features was not acknowledged. In 1987 Knuth returned to discover that the ruins registered in 1939 were just a few among hundreds. Therefore he returned in 1988 and 1989 in order to conduct a more thorough investigation of this spectacular site.

During the field seasons of 1988 and 1989 most energy was put into surveying the huge site (fig. 10.19) but several features were also excavated.



Fig. 10.19. Site map of Kap Skt. Jacques, features are marked with numbers.

The site was mapped by a combination of plotting individual ruins onto aerial photographs as well as by combining sketches of site segments and surface measurements onto a single site map. During the survey Knuth also kept a log book with basic information on the individual features. Hundreds of the ruins were also documented photographically. All feature descriptions from Knuth's log book, as well as the photographs, have been recorded as individual text and photo registrations in the database, making these observations available for future research. Accordingly, Kap Skt. Jacques occupies several hundred text and photo registrations in the database. Knuth never collated his Île de France data, and he also found it dif-

ficult to decide whether the Palaeo-Eskimo remains should be designated Independence II or Dorset.

The following description is a condensed extract based on Knuth's data. The entries in the log book appear to have been made by Knuth himself or by team member Tim Grønnegaard (then a student of prehistoric archaeology at the University of Copenhagen) during the 1989 field season. The features are described by using a combination of fixed taxonomy as well as more normative descriptions such as 'mid-passage of flat stones', 'mid-passage of round stones', 'badly preserved mid-passage with one flag standing vertically'. Numerous features have no further description apart from an elevation, and usually these fea-



Fig. 10.20. (photo 697) Feature 160 Thule tent ring on Kap Skt. Jacques. As typical for Thule tent rings there is a sleeping platform in the rear part of the interior. Immediately behind the tent ring parts of a large cache can be seen.



Fig 10.21. (plate 46) Kap Skt. Jacques, Thule objects. The three wooden figurines were found among the many objects left by the 'sledge'. The slate ulu with a wooden handle is a single find collected between the many tent rings at the tip of the point.

tures are only documented in the log book. These features cannot be described in any detail. A total of 584 feature numbers are registered in the log book. 13 (17, 85, 108, 130, 350, 378, 510, 557, 562, 563, 564, 565 and 576) have been omitted because closer inspection revealed that there were no features, as originally believed. 467 of the remaining 571 features are located on the site map produced by Knuth (fig. 10.19). The location of the 107 features or find spots not marked on the map is unknown. They may be located outside the mapped area (as is the case of the grave, no. 330, marked at the top of Knuth's map) or they may be located between the ruins marked on the map.

A tentative typological description of the features can be extracted from information in the log book. 274 features have a mid-passage arrangement and of these, 47 are tent rings with a mid-passage, two features are double tent rings with a mid-passage and 225 are mid-passages with no visible periphery. Most mid-passages are described in general terms only, but some attention has been given to the stones used in their construction. 101 mid-passages are, accordingly, built of flagstones, 54 mid-passages are set with boulders and 15 mid-passages are built of a combination of flat stones and more rounded boulders. 33 features are caches, 16 are open-air hearths, five are pavements, three are tent rings with a central hearth, 26 are tent rings with no internal structures, 33 are amorphous structures difficult to identify and 181 features have no description at all, or the only information given in the log book is their elevation.

One should keep in mind the subjective nature of the descriptions when evaluating the information. Many mid-passages are described as badly preserved with only one or two flat stones *in situ*. Others, such as for example features 180 and 536, are described as 'mid-passage of fire-cracked rocks with no construction stones'. This means that the presence of any kind of linear arrangement of fire-cracked rocks, boulders or flagstones has often been interpreted as a mid-passage.

Artefacts were collected from 25 Palaeo-Eskimo features (numbers 6, 32, 41, 79, 90, 96, 100, 101, 120, 226, 235, 239, 243, 283, 288, 289, 291, 305, 346, 363, 382, 292, 426, 428, 448) of which 11 were excavated. During the 1988 field trip an irregular area of approximately 15 m² with Thule artefacts strewn across a boulder field in the easternmost part of the peninsula was also excavated. The finds from the excavated area

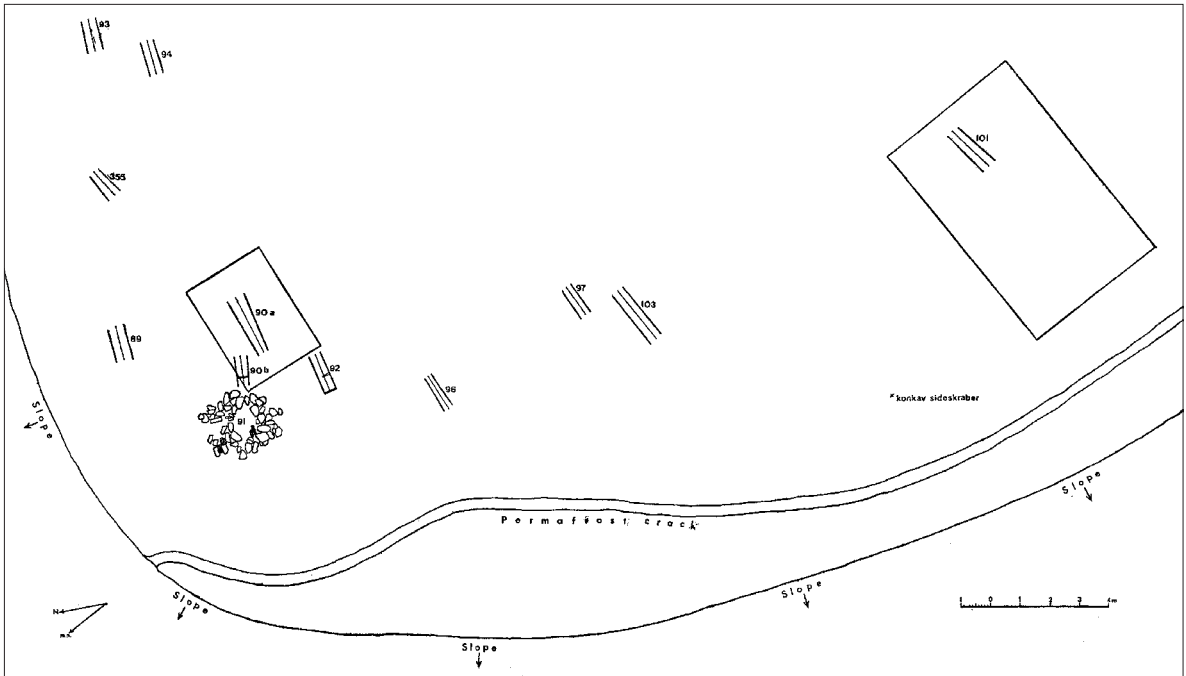


Fig 10.22. Kap Skt. Jacques, detailed map of ruin cluster at the tip of the point. The excavated areas around features 90 and 101 are marked.

proved to be the remains of an apparently fully-equipped dog sledge which enigmatically must have been left in the field (see fig. 10.21 and the find list below).

Palaeo-Eskimo Features

Feature 90

(texts 94, 646; photos 89, 90, 92 and 69)

Feature 90 is an approximately 2 x 5 m isolated mid-

passage located 4 m from the edge of a prominent terrace slope near the tip of Kap Skt. Jacques (figs. 10.22 and 10.23). The feature was excavated in 1988. At the front, feature 90 overlaps and partly disturbs an older mid-passage structure originally named 90b, later re-named feature 359. The overlap renders difficult any clear distinction between the finds associated with the two features. Most of the originally vertically placed flat stones were found in a tilted position but still in



Fig. 10.23. (photo 696) Kap Skt. Jacques, feature 90 seen from north-east during excavation. Note large meat cache in front of the excavated area.

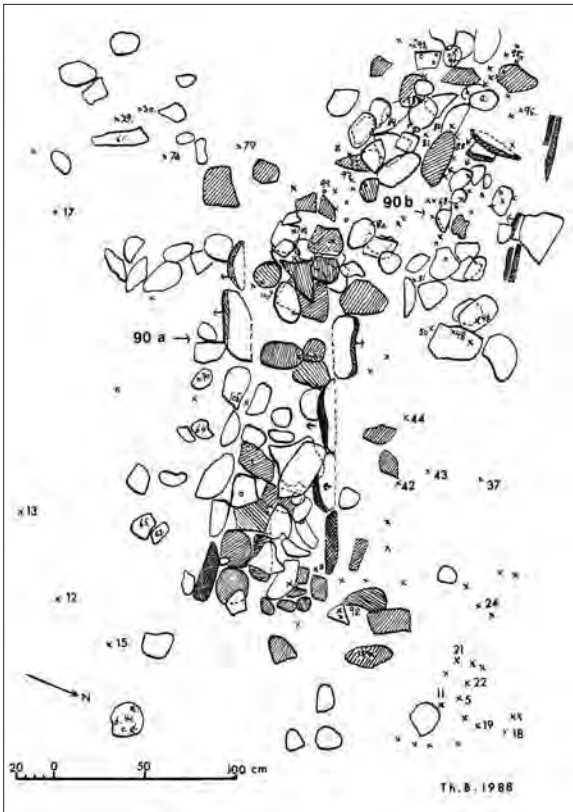


Fig. 10.24. Kap Skt. Jacques, feature 90 after excavation.

their original locations. Between the two rows of vertically placed flagstones the mid-passage was paved with flagstones. A few larger flagstones in the central part of the feature may be partitioning stones that have fallen over.

Finds: A total of 98 lithic artefacts and a single needle fragment were found in the excavated area. 85 of the lithic artefacts are of quartz crystal with just one flake and two microblades of chert and two flakes of quartz. In addition to the lithic artefacts, 18 seal bones and a single bird bone were recovered (see table 10.4).

Table 10.3. Lithic artefacts Kap Skt. Jacques feature 90.

Artefact category	All artefacts
Microblades	7
End scrapers	1
Microblade cores	1
All flakes	89
Total	98

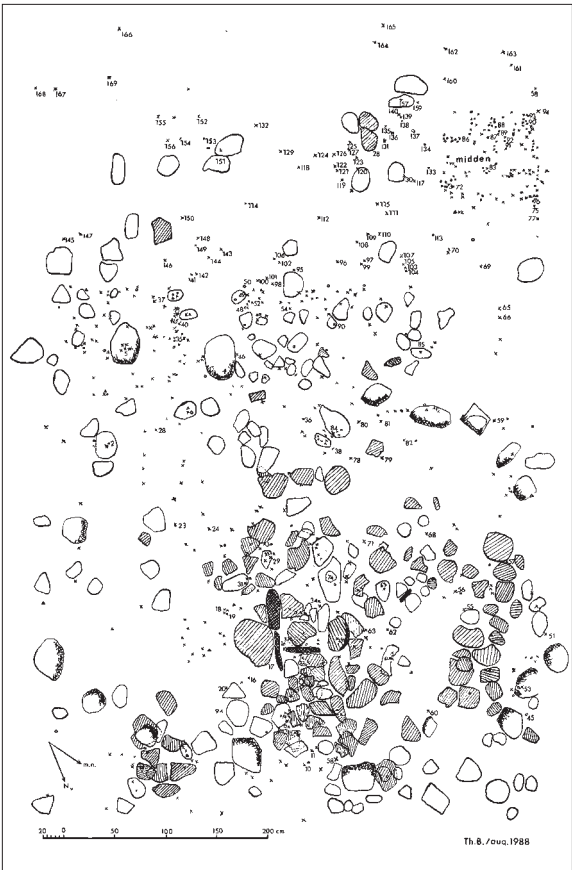


Fig. 10.25. Kap Skt. Jacques, feature 101 after excavation. Note the large accumulation of refuse in front of the dwelling.

Table 10.4. Faunal remains, feature 90.

Species	All artefacts
<i>Phoca</i> sp.	18
<i>Aves</i> sp.	1
Total	19

Table 10.5. Faunal remains, feature 359.

Species	All artefacts
<i>Phoca</i> sp.	4

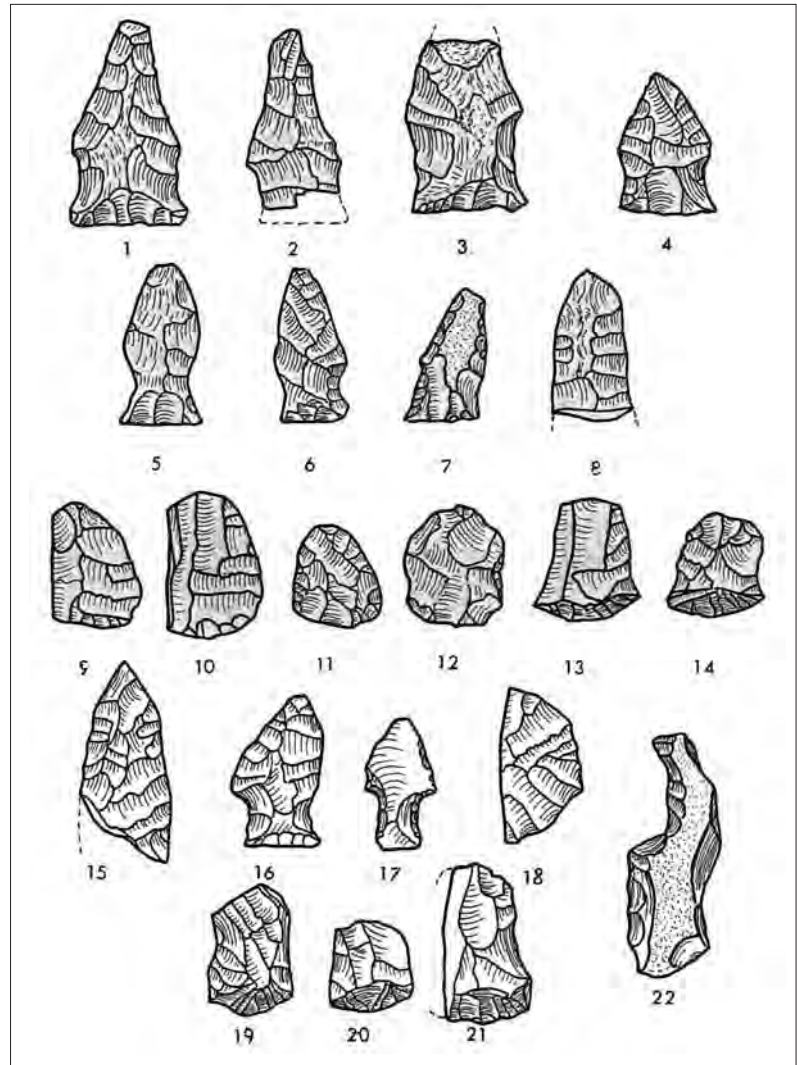
Feature 101

Mid-passage tent ring (texts 106, 647, 650; photos 105, 111; plates 47, 48, 52)

Feature 101 is a mid-passage tent ring located approximately 20 m to the south of feature 90 near the very tip of Kap Skt. Jacques (figs. 10.25 and 10.26).

The ruin was excavated and drawn during the 1988 field season. The boulder periphery measures 3.6

Fig. 10.26. (plate 47) Kap Skt. Jacques, artefacts from feature 101. Drawing Tim Grønnegaard.



x 4.5-4.8 m, with a disturbed mid-passage bisecting the interior along the short axis and with an entrance facing south-west. A flagstone pavement covers large portions of the rear part of the north-western floor area (the right floor area when seen from inside the dwelling looking towards the door), whereas only a few stones are scattered over the south-eastern (left) floor area. In front of the entrance numerous artefacts are scattered in a fan-shaped distribution with a distinct cluster of debitage towards the western limit of the excavation.

Finds: Fig. 10.27. There are some discrepancies between the summarised find lists from 1988 and 1989 (texts 647 and 650), Knuth's tabulated summary of the investigated features and the artefact numbers which can be tallied from the specified find list. The find list

has a total of 1022 flakes. Knuth mentions 1020 chips (or flakes) in his summary, whereas only 841 flakes are listed in texts 647 and 650. Similarly, Knuth mentions eight cores and 260 microblades in the tabulated summary whereas the present author has counted 14 microblade cores and 251 microblades. Some of these differences may be a result of variation in artefact classification. The present author has thus listed several quartz crystal cores as microblade cores whereas Knuth listed them as irregular cores. In general, the specified find list appears to be the most complete since this is where the largest number of artefacts is listed. However, within specific artefact categories more objects may be listed in some of Knuth's lists. 13 end scrapers are mentioned in Knuth's summary whereas only 12 are mentioned in the specified find

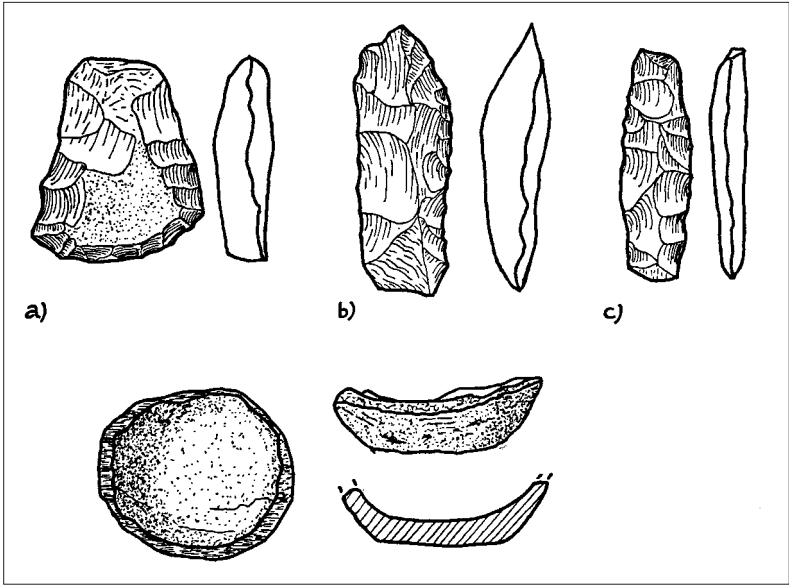


Fig. 10.27. (plate 48) Kap Skt. Jacques, artefacts from ruin 226 (top) and 101 (bottom). The finding of the bottom of a circular sandstone vessel in feature 101 indicates that Independence II people occasionally used vessels similar to the soapstone vessels known from Saqqaq sites in West Greenland. Drawing Tim Grønnegaard.

list. In terms of the general statistical trends displayed in the table below, it is unlikely that the unidentified artefacts will alter the typological composition in any significant way.

Table 10.6. Lithic artefacts Kap Skt. Jacques feature 101.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	17	5.7	300	26.3
Microblades	244	81.3		
Side blades	7	2.3		
End scrapers	13	4.3		
Side scrapers	2	0.6		
Microblade cores	6	2.0		
Other	11	3.7		
All flakes			841	73.7
Total	300	99.9	1141	100.0

Table 10.7. Faunal remains Kap. Skt. Jacques feature 101.

Species	No.
<i>Phoca</i> sp.	133
<i>Phoca hispida</i>	18
<i>Alopex lagopus</i>	1
<i>Artiodactyl</i>	1
<i>Fulmarus glacialis</i>	1
<i>Aves</i> sp.	2
<i>Gadus ogac</i>	1
Total	157

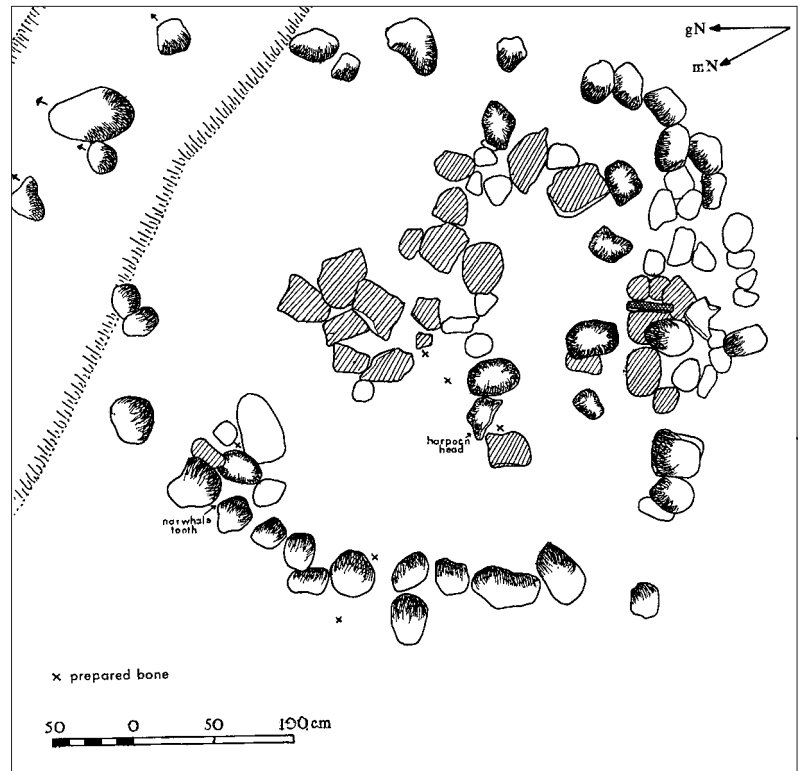
Feature 120

Tent ring (texts 125, 651; photo 124)

Feature 120 is a well preserved circular boulder tent ring with a diameter of 3.3 m (fig. 10.28). The feature is located 4.72 m. a.s.l. on a narrow flat area near the edge of a prominent beach ridge on the very tip of Kap Skt. Jacques. The feature has not been excavated but a few bones and artefacts have been collected and the dwelling remains have been drawn (fig. 10.28). There is no entrance apparent in the periphery, but the interior is characterised by a NW-SE oriented 0.8 x 2 m flagstone pavement. The function of the pavement is obscure but it is not believed to be the remains of any kind of hearth or mid-passage, neither does it appear to be a sleeping platform. Near the southern part of the periphery there is an upright flagstone of unknown function. The north-eastern part of the periphery has slid down into a permafrost crack of later origin. Feature 120 is characterised by the finding of several pieces of bone, among these three pieces of worked narwhal tooth and a fragmented harpoon head. A few lithic artefacts were also collected: a bifacial blade and a microblade core, both of quartz crystal and a large flake of green quartz.

The list of identified bones only mentions a single piece of narwhal tooth, whereas three pieces are mentioned in the feature description. This discrepancy may result from some of the pieces of worked narwhal tooth being archived as tools, which are not stored at the Zoological Museum. The fragmented har-

Fig. 10.28. Kap. Skt. Jacques, feature 120. Drawing Tim Grønnegaard.



poon head is the base of a Thule 2 type harpoon (Gul-løv 1997:447). This may indicate that feature 120 is of Thule rather than Palaeo-Eskimo origin. This interpretation would fit very well with the character of the dwelling which has no hearth or mid-passage. It would also be in accordance with the presence of narwhal teeth which are otherwise absent from the investigated Palaeo-Eskimo features on Kap Skt. Jacques. If the above is correct then the lithic objects listed below must have been collected by Thule people or, indeed, the Thule people may have reoccupied an abandoned Independence II dwelling. Whichever is the case, the composition of types in feature 120 clearly illustrates how cautious one must be when evaluating the evidence from an open-air site such as Kap Skt. Jacques.

Table 10.8. Lithic artefacts Kap Skt. Jacques feature 120.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblade core	1
Flake	1
Total	3

Table 10.9. Faunal remains Kap Skt. Jacques feature 120.

Species	All artefacts
<i>Phoca groenlandica</i>	1
Artiodactyl	1
<i>Monodon monocerus</i>	1
Total	3

Feature 222

Mid-passage dwelling (texts 228, 652)

Feature 222 is a circular cleared area located 11.65 m a.s.l. on a gently sloping terrace with frost cracks towards the north and east (fig. 10.29). The cleared area is 3 m in diameter and is partitioned by a row of eight boulders, believed to be the remnants of a mid-passage. A relative rich flora grows on the feature and along the boulders in the central axis there is a brown organic fill. Towards the area where the doorway is presumed to have been there is a flagstone pavement. The suggested entrance is flanked by three boulders. There is no well defined periphery apart from five to six boulders which could be part of a tent ring. Near the periphery in the north-eastern part of the ruin

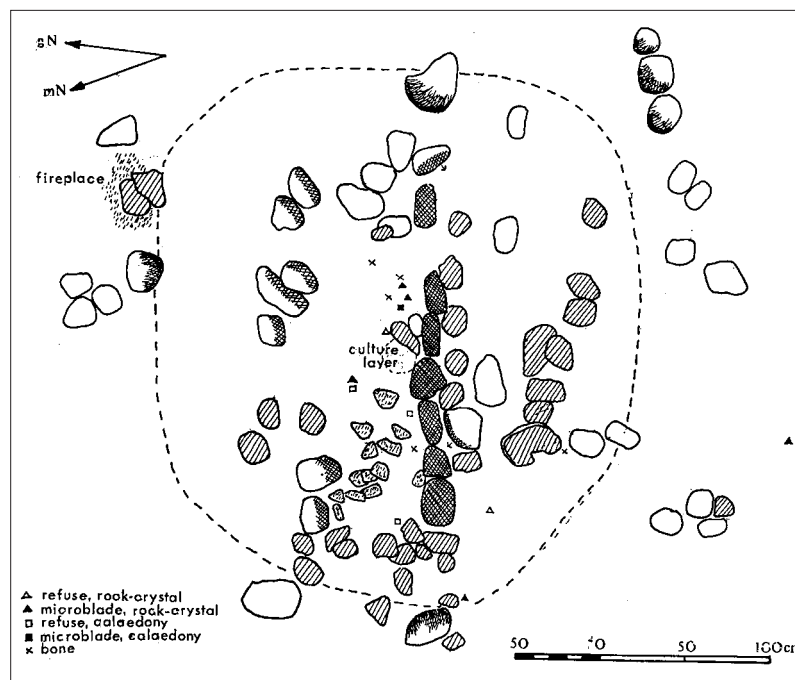


Fig. 10.29. Kap. Skt. Jacques, feature 222. Drawing Tim Grønnegaard.

there is a little hearth of two flagstones surrounded by turf-filled sand. 6 m to the north-west of the feature there is a horseshoe-shaped hearth. Several other open-air hearths were also registered to the north of the dwelling. Feature 120 was excavated within a 4 x 5 m area by Tim Grønnegaard during the 1989 field campaign.

Finds: A total of 14 lithic artefacts were found concentrated in the culture layer in the central axis. Five of the microblades are of quartz crystal, one is of chert, four flakes are of quartz crystal, and three are of chert. A few seal bones were also found, but identification to species was not possible.

Table 10.10. Lithic artefacts Kap. Skt. Jacques feature 222.

Artefact category	All artefacts
Microblades	6
Retouched flakes	1
All flakes	7
Total	14

Table 10.11. Faunal remains Kap. Skt. Jacques feature 222.

Species	No.
<i>Phoca</i> sp.	9

Feature 226

Cache (texts 232, 653; photo 224; plate 48)

Feature 226 is located on a raised area 11.99 m a.s.l. Larger boulders appear to have been cleared from the area but no evident structures were seen. A 2 x 3 m flattened surface with finds was excavated in 1989. Within this area artefacts were found concentrated around and below a red boulder adjacent to an area of dark-stained sand approximately 20 cm in diameter. The dark sand is thought to represent a decomposed bag which originally may have contained raw materials and tools cached for later retrieval. In any case, the complete lack of flakes and the unusual composition of artefact types, including six cores and nodules, clearly indicates that the artefacts are not a random sample of objects from a camp site or lithic workshop.

Finds: 15 lithic artefacts and six fragments of bone were found during excavation. The four remains of arctic fox (see table 10.13) are all teeth. Of the lithic artefacts eight are of quartz crystal, three are of chert, two are of silicified slate and two are of quartzite.

Fig. 10.30. Kap. Skt. Jacques, feature 243. Drawing Tim Grønnegaard.

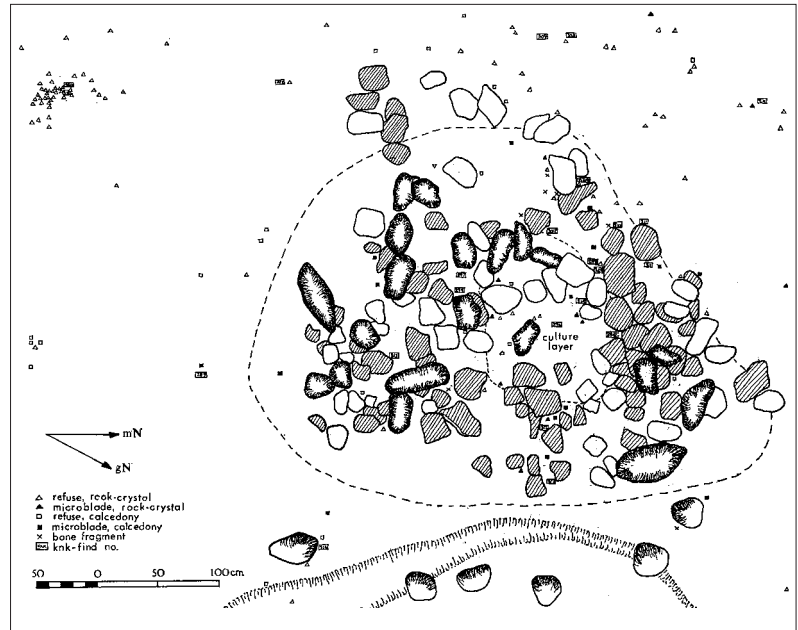


Table 10.12. Lithic artefacts Kap Skt. Jacques feature 226.

Artefact category	No.
Bifaces, all fragments included	2
End scrapers	2
Side scrapers	2
Axes	1
Microblade cores	3
Large flake/rough-out	3
Retouched flakes	1
Flakes	1
Total	15

Table 10.13. Faunal remains Kap Skt. Jacques feature 226.

Species	No.
<i>Phoca</i> sp.	2
<i>Alopex lagopus</i>	4
Total	6

Feature 243

Mid-passage tent ring (texts 249, 654; photo 233, 234, 235; plate 49)

Feature 243 is a 3 x 2.9 m tent ring located 11.21 m a.s.l. close to a prominent terrace edge on the northern side of the point (fig. 10.30). The periphery is only preserved towards the north-east, which is the rear wall of the dwelling. Prior to excavation, several boulders lay in the interior but these were clearly in a secondary

position and may originally have been placed in the segments of the periphery now missing. Originally the floor had been cleared of obstructing boulders. In the centre there is a horseshoe-shaped flagstone pavement opening towards the south-west. There is no hearth but burnt chert found in particular in front of the doorway in the southern part of the feature indicates that an open fire had been present.

Finds: Fig. 10.31. Unfortunately there are discrepancies between the different inventory lists leaving some doubt about which is the most complete. However, the specified find list appears again to be the most complete and therefore our chosen basis for the artefact table. 103 pieces are of quartz crystal, 52 pieces of chert, four bifaces are of quartz, and four blades are of silicified slate.

Fauna: A limited organic assemblage was preserved in feature 243. However, in addition to 32 pieces identified as seal, there are only six fragments which have not been identified.

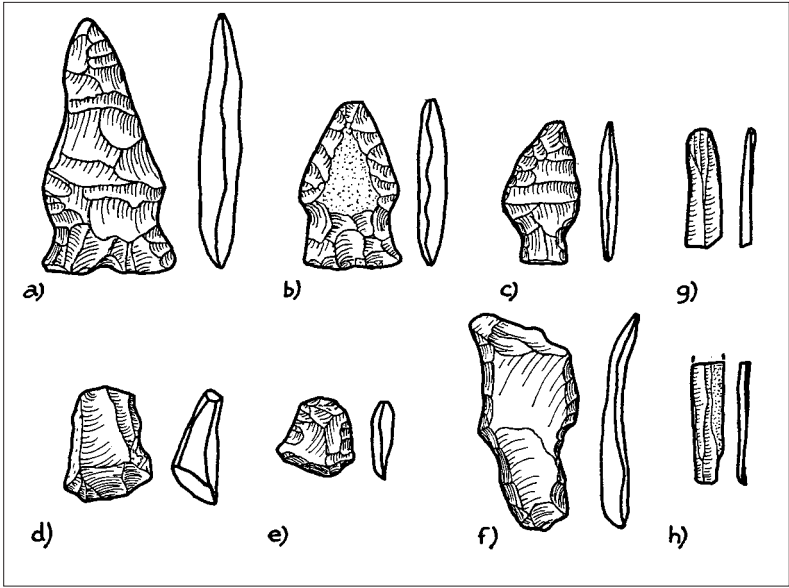


Fig. 10.31. (plate 49) Kap. Skt. Jacques artefacts from feature 243. Drawing Tim Grønnegaard.

Table 10.14. Lithic artefacts Kap Skt. Jacques feature 243.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	13	28.3	46	28.6
Microblades	24	52.2		
Burin spall	1	2.2		
End scrapers	2	4.3		
Axes	1	2.2		
Microblade cores	1	2.2		
Large flake/rough-out	3	6.5	115	71.4
All flakes				
Total	46	100.1	161	100.0

Table 10.15. Faunal remains Kap Skt. Jacques feature 243.

Species	no.
<i>Phoca</i> sp.	32

Feature 283

Mid-passage tent ring (texts 289, 655; drawing 118)
Feature 283 is a well preserved mid-passage tent ring located 17.72 m a.s.l. It is set back 4-5 m from a prominent terrace edge approximately 140 m from the present shore at the southern side of Kap Skt. Jacques. Feature 283 is the easternmost in a cluster of seven features located in a line along the same terrace edge (figs. 10.32, 10.33 and 10.34). Their spacing and similarities in the details of their construction suggest that the seven features are contemporaneous. They offer a unique opportunity to learn about group size and social structure at the otherwise extremely complicated Kap Skt. Jacques settlement.

The feature consists of an approximately 4 m wide area cleared of larger stones. The floor area is bisected by a 1.8 m long and 40 cm wide mid-passage set of 12

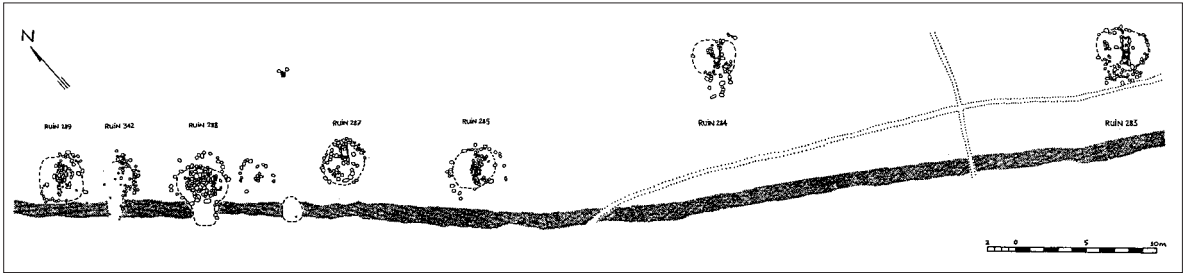
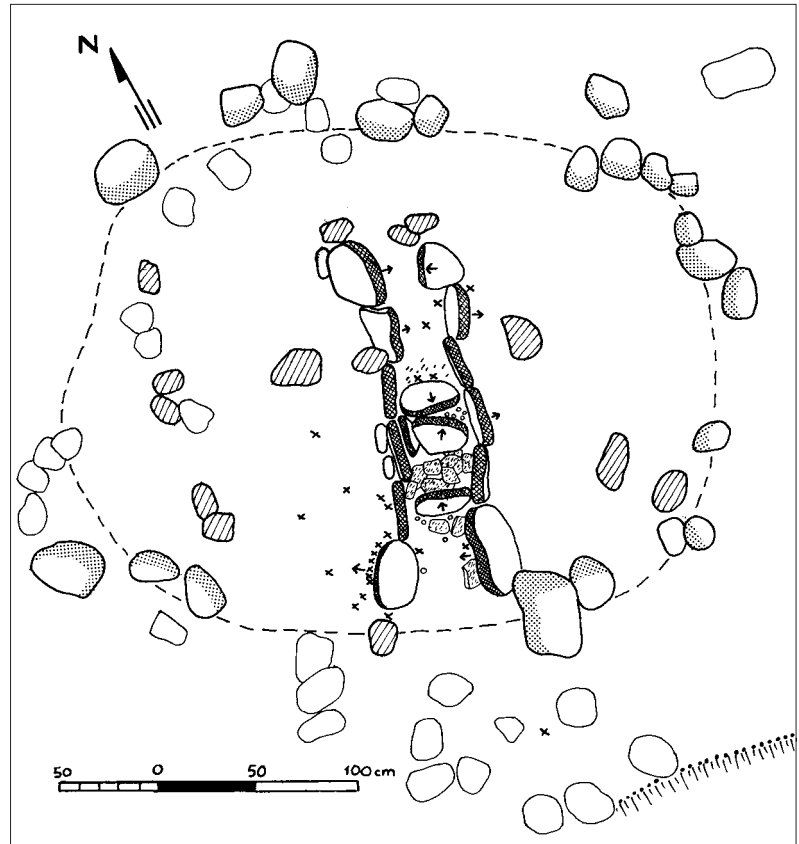


Fig. 10.32. Kap. Skt. Jacques, detailed map of cluster of features 283, 284, 285, 287, 288, 342 and 289 in the central part of the Kap Skt. Jacques. Drawing Tim Grønnegaard.

Fig. 10.33. (drawing 118) Kap Skt. Jacques, feature 283, tent ring with unusually well preserved mid-passage. Drawing Tim Grønnegaard.



vertically placed flagstones. Three transversely placed flagstones divide the mid-passage into four compartments, which apparently have specific functions in relation to the hearth. The southernmost compartment contained a few fire-cracked rocks and fragments of burnt bone. The next compartment, being the southernmost of the two compartments completely enclosed by vertically standing stones, was filled with 8-10 fire-cracked rocks as well as burnt bone. The northernmost of the two central boxes only contained burnt bone. In the northernmost compartment there were remains of decomposed organic material with the appearance of burnt peat. Placed symmetrically on either side of the mid-passage there were two flagstones which may have been for supporting poles in the interior. The periphery was well preserved with an entrance facing south-west towards the terrace slope and ocean.

Finds: A total of 21 lithic artefacts, a piece of worked bone and a mammal tooth were found during excavation. There are minor discrepancies in the number of flakes given in the different descriptions. Tim

Grønnegaard's report on the excavation mentions 12 flakes, whereas both the summarised and the detailed find list mention 14 flakes. The latter sources are the basis for the artefact table below. Four microblades and 11 flakes (including a retouched piece) are of chert and two microblades and four flakes are of quartz crystal.



Fig. 10.34. (photo 698) Kap Skt. Jacques, detail of mid-passage in feature 283.

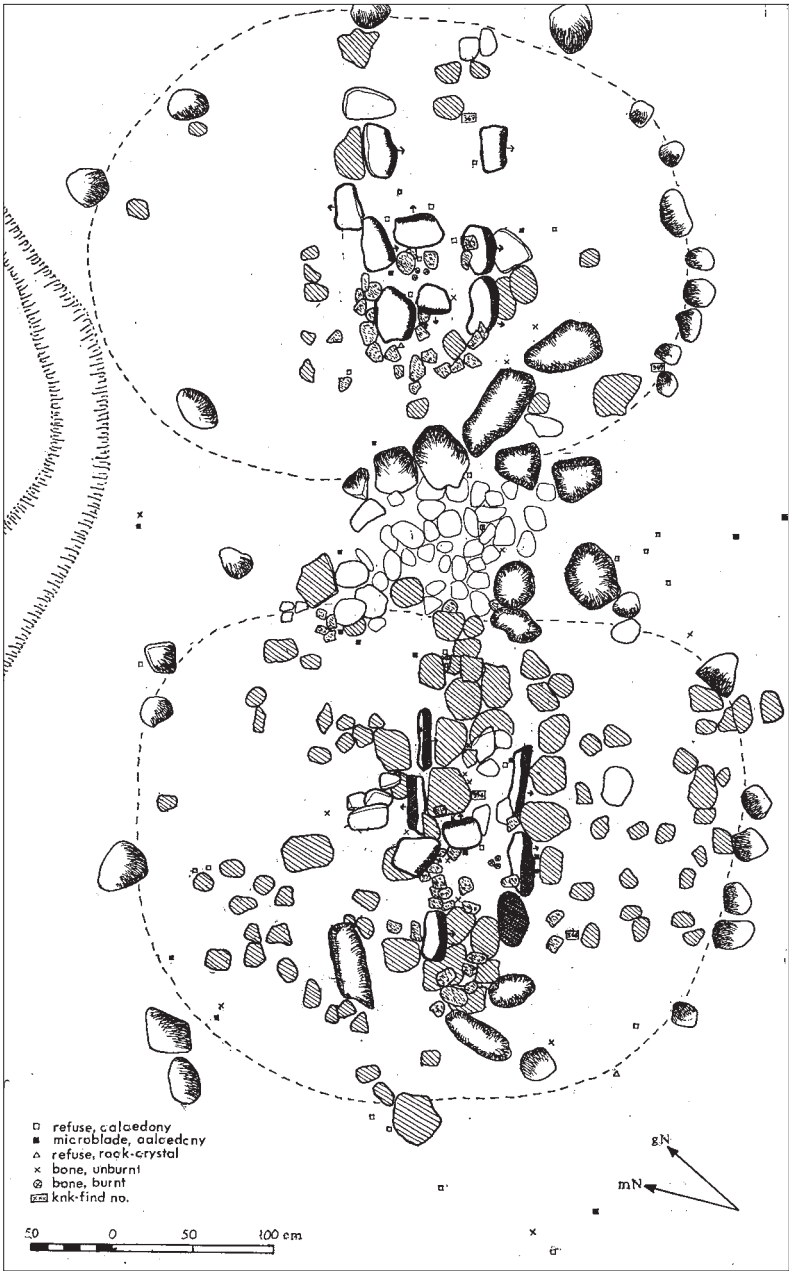


Fig. 10.35. Kap. Skt. Jacques, feature 305. Drawing Tim Grønnegaard.

Table 10.16. Lithic artefacts Kap Skt. Jacques feature 283.

Artefact category	All artefacts
Microblades	6
Retouched flakes	1
All flakes	14
Total	21

Feature 291

Double tent ring with a mid-passage (texts 297, 648; plate 50)

Feature 291 is a double tent ring located on a gravel terrace 15.69 m a.s.l. on the central part of the point.

Table 10.17. Lithic artefacts Kap Skt. Jacques feature 291

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	12
All flakes	37
Total	50

Table 10.18. Faunal remains feature 291.

Species	All artefacts
<i>Phoca</i> sp.	6

Feature 305

Double tent ring with a mid-passage (texts 311, 656)

Feature 305 is located 19.14 m a.s.l. and 10 m from a low terrace slope on the central part of the point (fig. 10.35). 3-8 m north of the feature there are three open-air hearths and close by to the south west of feature 305 is a badly preserved mid-passage ruin (no. 412). 5 m west of 305 there is a large boulder with large quantities of green quartz flakes around it (feature 402), and 15 m towards the north-west is a meat cache (feature 306). The feature consists of two conjoined, approximately 3.8 m diameter tent rings with mid-passages, which in both ruins are built of four pairs of vertically placed flagstones. The southern ruin is named 305 a, the northern 305 b. The mid-passage in feature 305 a is paved with oval flagstones and there is also a pavement externally along the sides of the mid-passage, whereas only a few paved areas are associated with the mid-passage in 305 b. The mid-passage in 305 a has a single transversely placed flagstone, whereas 305 b has two. Both mid-passages contained numerous fire-cracked rocks, which were found scattered towards the entrance, and fragments of burnt bone.

In his report to Knuth, T. Grønnegaard discusses the chronology of the two features. It is mentioned that fire-cracked rocks in 305 b are covered by flagstones from 305 a, and that this may suggest that the two features represent two successive occupations rather than a double dwelling.

Finds: According to both the specified and the summarised find list a total of 55 lithic artefacts were retrieved from feature 305. Data from the specified find list have been entered in the table below. 53 objects are of chert, whereas just two flakes are of quartz crystal. In addition to the lithic artefacts, a minor sample of seal bones was retrieved as tabulated below.

Table 10.19. Lithic artefacts Kap Skt. Jacques feature 305.

Artefact category	All artefacts
Bifaces, all fragments included	1
Microblades	17
Side blades	1
Burin spall	1
All flakes	35
Total	55

Table 10.20. Faunal remains feature 305 Bones.

Species	All artefacts
<i>Phoca</i> sp.	29
<i>Phoca hispida</i>	9
Total	38

Feature 363

Culture layer (texts 369, 657)

Feature 363 is a 4 x 4 m excavated area with no evident structures, located a few hundred metres from the tip of Kap Skt. Jacques and just 2.5 m a.s.l., approximately 25 m from the southern shore. The area was excavated due to an abundance of lithic artefacts as well as bone and wooden objects. Apart from a single microblade of chert, all the lithic objects are of quartz crystal. The 12 artefacts of organic material included six pointed bone objects, a pointed object of ivory, an ivory awl with a notch for lashing, a flat wooden piece with a hole, an oval wooden lid and two wooden pegs.

Table 10.21. Lithic artefacts Kap Skt. Jacques feature 363.

Artefact category	All artefacts
Bifaces, all fragments included	5
Microblades	10
End scrapers	2
Drills	2
Other	2
Microblade cores	4
All flakes	52
Total	77

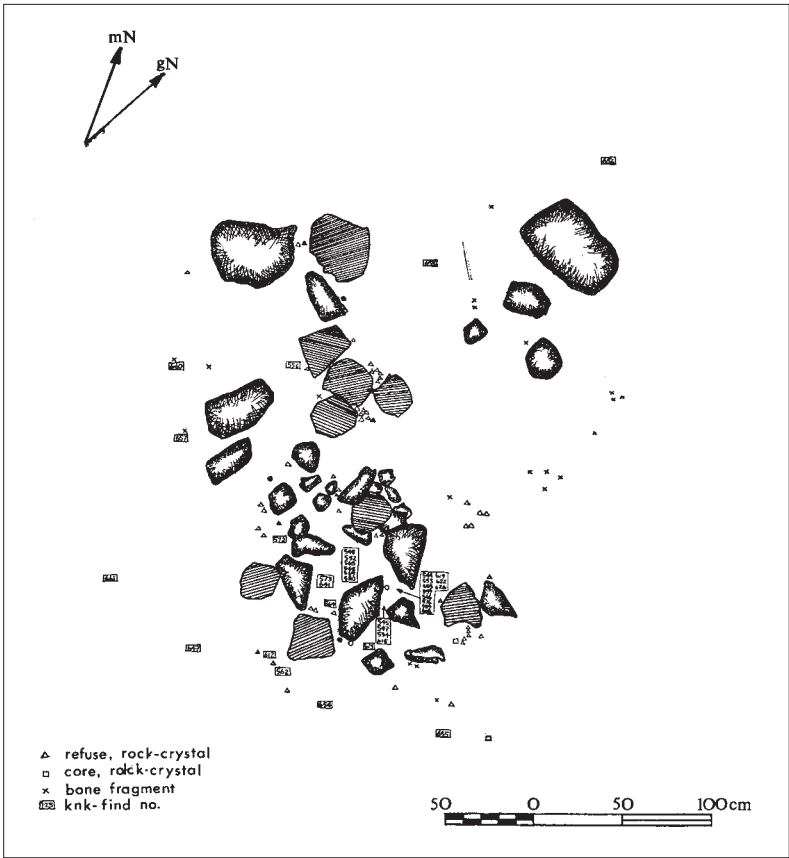


Fig. 10.36. Kap. Skt. Jacques, feature 426. Drawing Tim Grønnegaard.

Table 10.22. Faunal remains feature 363.

Species	Tools	%
<i>Phoca</i> sp.	57	35.0
<i>Phoca hispidae</i>	56	34.4
<i>Phoca groenlandica</i>	8	4.9
<i>Ursus maritimus</i>	41	25.2
<i>Ovibos moschatus</i>	1	0.6
Total	163	100.1

Feature 382

(text 389, photo 349)

Feature 382 was not excavated. In 1987, however, a large number of artefacts were collected from the area. Unfortunately there is no description of the feature. The collected items are listed in Table 10.23.

Table 10.23. Lithic artefacts Kap. Skt. Jacques feature 382.

Artefact category	Tools	%	All artefacts	%
Bifaces, all fragments included	3	8.8	34	26.8
Microblades	30	88.2		
Large flake/rough-out	1	2.9		
Whetstone			1	0.8
All flakes			92	72.4
Total	34	99.9	127	100.0

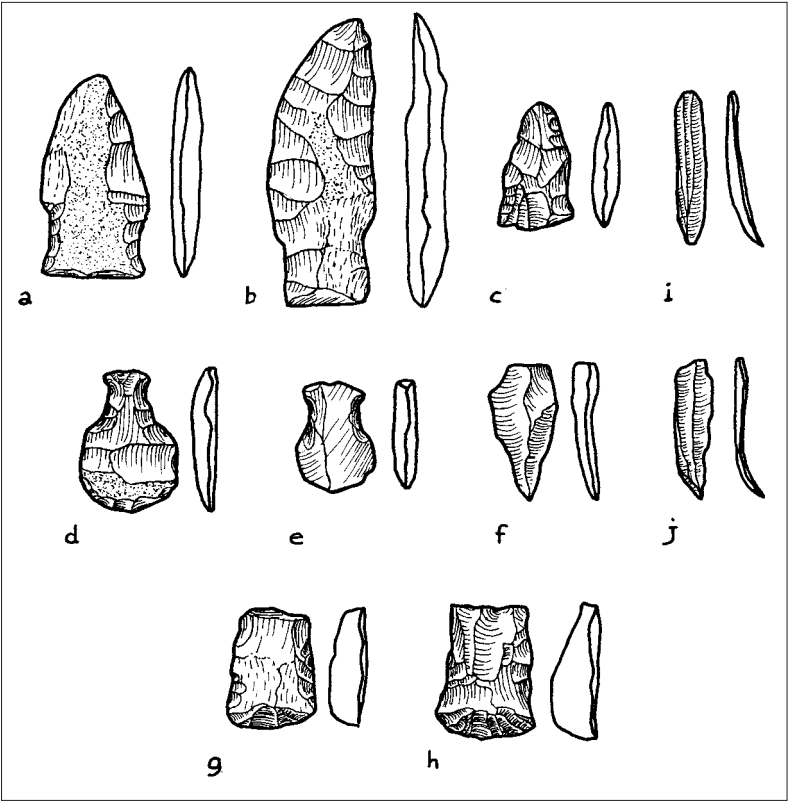
Feature 426

Artefact concentration (texts 433, 658; plate 51, 52)

Feature 426 is a concentration of artefacts similar to feature 363 but located even closer to the sea around 15 m south-west of feature 363 and only 2.07 m a.s.l. (figs. 10.36 and 10.37) Several flagstones were seen in the area with the many finds. They did not appear to be placed in any pattern, however, and they may be in a secondary position since they often lay on top of the artefact-bearing stratum.

Finds: Knuth named the site ‘Skatkisten’ (the

Fig. 10.37. (plate 51) Kap Skt. Jacques, artefacts from feature 426. Drawing Tim Grønnegaard.



Treasure Chest) due to its abundance of artefacts. The 325 lithic artefacts are tabulated below. Among the organic objects are four pointed objects of bone, two wooden pieces resembling blubber pounders, a wooden stick with grooves at either end for lashing and a piece of bone with a hole at either end. Of the lithic artefacts, 280 are of quartz crystal, 37 are of chert, six of quartzite and one implement is a partly polished object of silicified slate.

Table 10.24. Lithic artefacts Kap Skt. Jacques feature 426.

Artefact category	Tools	All artefacts	%
Bifaces, all fragments			
included	24	100	30.8
Microblades	35		
Burin-like tools	1		
Side blades	1		
End scrapers	6		
Retouched flakes	2		
Microblade cores	6		
Large flake/rough-out	21		
Other	4		
All flakes		225	69.2
Total	100	325	100.0

Table 10.25. Faunal remains feature 426.

Species	All artefacts
<i>Phoca</i> sp.	23
<i>Phoca hispida</i>	11
<i>Ursus maritimus</i>	5
<i>Ovibos moschatus</i>	3
Total	42

Feature 428

Artefact concentration (texts 435, 659)

Feature 428 is an area approximately 2.1 m in diameter cleared of larger stones. Several small flat stones are scattered in the area and some of these are fire-cracked.

Table 10.26. Lithic artefacts Kap Skt. Jacques feature 428.

Artefact category	All artefacts
Bifaces, all fragments included	4
Microblades	4
Side blades	1
End scrapers	1
Drill	1
Microblade cores	1
Flakes	12
Total	24

Table 10.27. Faunal remains feature 428.

Species	All artefacts
<i>Phoca</i> sp.	4

Feature 448

Feature 448 is a mid-passage ruin located on a terrace 8.94 m a.s.l., approximately 100 m from the tip of the point. In the log book Knuth mentions that feature 448 was previously numbered 51, and he refers to this description. However, the description of feature 51 informs us that the feature is at an elevation of 8.83 m a.s.l., and indeed features 448 and 51 are marked in very close proximity on the site map. Features 51 and 448 must, therefore, still be regarded as individual features.

Finds: Knuth has listed a total of eight lithic artefacts in the specified artefact list.

Table 10.28. Lithic artefacts Kap Skt. Jacques feature 448.

Artefact category	All artefacts
Bifaces, all fragments included	5
Microblades	1
Burin-like tools	1
Side blades	1
Total	8

Thule Culture

Thule tent rings are found dispersed between the Palaeo-Eskimo features on the tip of Kap Skt. Jacques where occasional registrations of tent rings with a well preserved transversely placed platform edge enable us to separate some Thule dwellings from the Palaeo-Eskimo examples. However, in many cases there are tent rings with boulders lying high in the gravel of a

more recent appearance, but without structural details which can enable us to suggest any chronological relationship. The presence of Thule settlements on the tip of Kap Skt. Jacques is further indicated by an ulu of ground slate as well as the harpoon head found in feature 120. Apart from these scattered traces of Thule people the most solid evidence of Thule settlement is located in the far eastern part of Kap Skt. Jacques. Here there are the remains of 3-5 disintegrated turf houses covered by relatively rich grass vegetation and with a few whalebones lying around. Numerous artefacts have been found scattered over a boulder field a few hundred metres in front of the Thule settlement. The presence of sledge shoes and trace buckles among the scattered objects made Knuth suggest that the artefacts were the remains of a fully-equipped dog sledge which, for unknown reasons, was left in the middle of nowhere. During the 1988 field trip an area of c. 15 m² was excavated and all of the 72 artefacts were plotted onto a plan drawing.

In 1989 several more objects were collected from the boulder field surrounding the initial find spot. The identified finds from the area are three trace buckles of bone or antler, three ladles of musk-ox horn, three wooden dolls of typical Thule style, two sledge shoes of narwhal tooth, two snow-knives of whale bone, a pearl or line fitting of tooth, a wound plug of narwhal tooth, three handles or shafts of whalebone, a wooden throwing board (drawing 110), a wooden bottom and a lid of a baleen container (drawing 112), a whetstone, a piece of wood used as a base for a fire drill and a polished lance blade of slate (drawing 113). In addition to these finds there are numerous pieces of worked wood, wooden pegs (drawing 114), a narwhal tooth bar as well as baleen strings and fragments of leather thongs and a piece of birch bark.

128 bones were collected from the find concentration.

All of these objects could originally have been cached but there were no visible remains of a stone-built cache or other kind of protective arrangement. Thus the presence of the sledge shoes and trace buckles makes Knuth's suggestion of a fully packed dog sledge seem reasonable. It is interesting to note that this find is the second of its kind from North-east Greenland. The find probably represents a packed dog sledge which for unknown reasons was abandoned in the field.

Fig. 10.38. Raw material frequencies in selected features from Kap Skt. Jacques.

It is apparent that there is only a little quartz crystal in features 305 and 283 located respectively 19 and 17 m a.s.l., whereas the features on the lower terraces have between 60 and 100% quartz crystal in the lithic material.

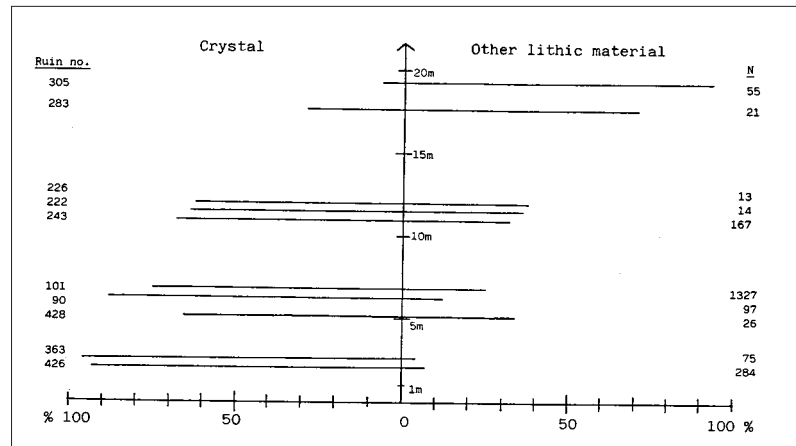


Table 10.29. Bones from sledge.

Species	No.	%
<i>Phoca</i> sp.	7	5.5
<i>Phoca hispida</i>	58	45.3
<i>Erignatus barbatus</i>	12	9.4
<i>Cystophora cristata</i>	1	0.8
<i>Ursus maritimus</i>	25	19.5
<i>Monodon monocerus</i>	7	5.5
unidentified	18	14.1
Total	128	100.1

Summary and Discussion of Kap Skt. Jacques

Windswept and hidden in the mist of the Polar Sea, Kap Skt. Jacques on the south-western corner of Île de France is an enigmatic place. With the presence of hundreds of ruins the present description is far from being a full account of this spectacular site. Knuth's descriptions and excavations do, however, enable us to form an impression of the site. Initially all of the ruins were assigned to the Independence II or Dorset cultures since no artefacts of early Palaeo-Eskimo type were found. However, Knuth has shown that there may be organisational or chronological differences between ruins at higher elevations when compared to those at lower elevations. By plotting the number of artefacts of quartz crystal against the number of artefacts made from other raw materials (fig. 10.38) Knuth has shown that the incidence of quartz crystal increases at lower elevations. One should, however, pay attention to the limited number of finds in the two highest ruins (features 283 and 305) which weakens the statistical significance of the graph. The occur-

rence of boulder and flagstone mid-passages seems to be mixed so that there is no evident preference for flagstones or boulders as building materials on any part of the cape. In addition, there are several mid-passage features which are built of both boulders and flagstones.

Economy: Even though the bone samples are small, one can attempt to compare the Palaeo-Eskimo evidence with that of the Thule culture (table 10.30). It must be remembered that the bones believed to be Palaeo-Eskimo in origin (since they were collected from ruins with a lithic inventory) represent several episodes of habitation, whereas the bones collected from the area with the dog sledge probably only represent a single episode. The difference in species composition may thus reflect exactly these differences in sample origin rather than any cultural difference. Anyway, it is interesting to note that large seals and narwhal are found in the much later Thule sample, whereas several more fragile bones such as a bird bone from a fulmar and a single piece of cod were only preserved in the Palaeo-Eskimo material. This makes it seem unlikely that the differences in the species composition result from bio-taphonomic processes. The fauna table thus seems to represent a genuine sample of the bones left on the Thule locality in the easternmost part of the cape as well as on the various Palaeo-Eskimo ruins.

The presence of harp seal in the Palaeo-Eskimo sample and its absence in the Thule sample may suggest that climatic or seasonal factors can explain the differences between the faunal material of the two epochs. The species composition in the Palaeo-Eskimo sample, as well as the location of the Palaeo-Eskimo

settlement towards the tip of Kap Skt. Jacques, suggests that most of the Palaeo-Eskimo features are warm season habitations whereas the bone sample from the Thule dog sledge represents an episode of cold season habitation. The Thule people utilised a broader spectrum of the available resources than the Palaeo-Eskimo peoples, probably due to superior technology. The lack of fox and musk ox in the Thule bone sample, on the other hand, cannot be used to deduce that these species were not hunted by the Thule people because the bones from the abandoned dog sledge likely only represent a single or a few hunting episodes.

Table 10.30. Identified bones from Palaeo-Eskimo and Thule features on Kap Skt. Jacques.

species	Palaeo-Eskimo	%	Thule	%
<i>Phoca hispida</i>	94	59.1	58	55.2
<i>Phoca groenlandica</i>	8	5.0	1	1.0
<i>Erignatus barbatus</i>			12	11.4
<i>Cystophora cristata</i>			1	1.0
<i>Monodon monocerous</i>			8	7.6
<i>Ursus maritimus</i>	46	28.9	25	23.8
<i>Gadus ogac</i>	1	0.6		
<i>Ovibos moschatus</i>	4	2.5		
<i>Alopex lagopus</i>	5	3.1		
<i>Fulmarus glacialis</i>	1	0.6		
Total	159	99.8	105	100.0

Kap Skt. Jacques – a Palaeo-Eskimo Gathering Site?

The state of preservation as well as the spatial arrangement of Palaeo-Eskimo features may, in some cases, indicate the degree to which the many dwellings are palimpsests. In the case of feature 90 it is evident that an older mid-passage has been disturbed by a younger one. The many mid-passages without a periphery, as well as the presence of several hundred badly preserved features, further seems to indicate that Kap Skt. Jacques must hold ruins left by numerous episodes of habitation. The presence of well defined clusters of features such as the linear arrangement of features 283, 284, 285, 287, 288, 342 and 289 (see fig. 10.32) suggests that these seven dwellings could be contemporaneous. When comparing such dwelling clusters to the common occurrence of isolated Independence II mid-passage dwellings in the nearby Dove Bugt one does get the impression of Kap Skt. Jacques

as an aggregation site. However, apart from the notion that there are several cases in which 3-10 features are arranged linearly or in a cluster as if the dwellings stood simultaneously, there is presently little evidence to suggest exactly how many episodes of habitation there have been on Kap Skt. Jacques.

10.11 Syttenkilometernæsset

Thule

76Ø1-000-036

Site no. 150; drawings 74-77, 246; photos 669-687

Man-made features on Syttenkilometernæsset (Seventeen Kilometre Point, named by the Danmark Expedition due to its location seventeen kilometres north of Danmarkshavn) were initially discovered by Duc d'Orleans' Belgica Expedition. Later a more thorough account of the settlement was given by the Denmark Expedition which registered 16 winter houses, 15 tent rings, 18 caches, three open-air hearths, three kayak supports as well as other undesignated boulder features. Knuth visited the site during Dansk Nordøst-grønlands Ekspedition 1938-39 and again in 1950, when he produced a more detailed site map (fig. 10.39, drawing 77) and excavated seven features (figs. 10.40, 10.41 and 10.42). Unfortunately, it is difficult to identify Knuth's pencil sketches and most of the photographs with an exact feature. In Thostrup's description five features were given individual numbers whereas the remaining 11 dwellings were given just one number (no. 72). In his more detailed site map Knuth re-numbered the feature numbers given by Thostrup, so that the site consists of six groups with feature numbers 1 to 17.

Group I: features 1, 2, 3, 4

Group II: feature 5

Group III: features 6, 7, 8, 9

Group IV: feature 10

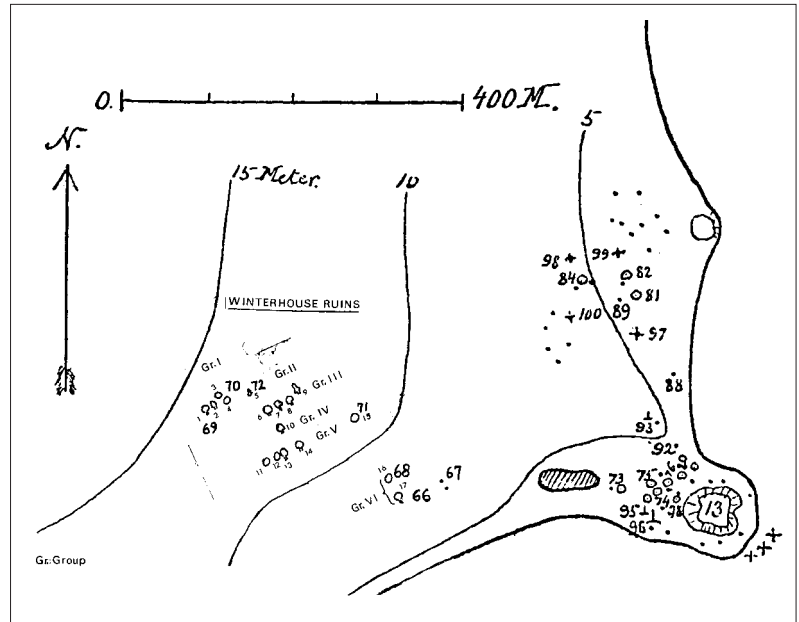
Group V: features 11, 12, 13, 14, 15

Group VI: features 16, 17

Knuth's group I, features 1 and 4, corresponds to Thostrup's features 69 and 70, Knuth's groups VI, 16 and 17 correspond to Thostrup's numbers 68 and 66. Knuth's group V, 15 corresponds to Thostrup's number 71. The remaining features, which were only num-

Fig. 10.39. (drawing 77)

Syddenkilometernæsset, features registered by the Danmark Expedition and the more detailed mapping conducted by Knuth in the western part of the locality.



bered individually by Knuth, were lumped together by Thostrup under number 72.

In the autumn of 1938 the site was excavated by Norwegian archaeologist Willie Knuthsen who took

part in a French-Norwegian expedition to the area.

Knuth noticed that the following nine features had been excavated by the Norwegians: group I, 1 (= Thostrup no. 69), group I, 2, group III, 6 (= Thostrup

Fig. 10.40. (photo 673)

Syddenkilometernæsset, umiaq supports, 1950.



Fig. 10.41. (photo 670)

Syddenkilometernæsset, unidentified dwelling, 1950.





Fig. 10.42. (photo 672)
Syttenkilometernæsset, unidentified
dwelling, 1950.

no. 72), group III, 7 (= Thostrup no. 72), group IV, 10 (= Thostrup no. 72), group V, 11 (= Thostrup no. 72), group V, 12 (= Thostrup no. 72), group V, 13 (= Thostrup no. 72) and group V, 14 (= Thostrup no. 72). The entrance passages in features V, 12 and V, 13 were not excavated. The finds from these excavations were

registered under museum numbers 38817-38864 at the Ethnographic Museum of the University of Oslo in Norway.

During his visit to the site in 1950 Knuth excavated the features group I, 3, I, 4 (= Thostrup no. 70), group II, 5 (= Thostrup no. 72), group III, 9 (= Thostrup no. 72), group V, 15 (= Thostrup no. 71), group VI, 16 (= Thostrup no. 68) and group VI, 17 (= Thostrup no. 66). Of these, the excavations of groups II, 5 and III, 9 were not finished. Group III, 8 remains un-excavated. In the National Museum of Denmark surface-collected finds from 1939 and excavated finds from 1950 are registered under the numbers LI.5751-5757 and LI.6598-6621.

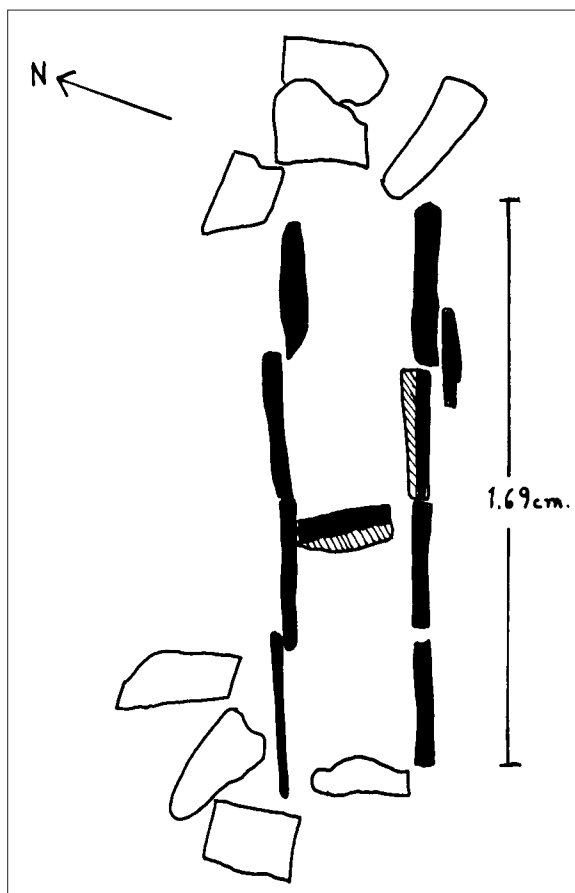


Fig. 10.43. (drawing 78) Renskæret, sketch of mid-passage.
Drawing by Bertel Møhl.

10.12 Renskæret

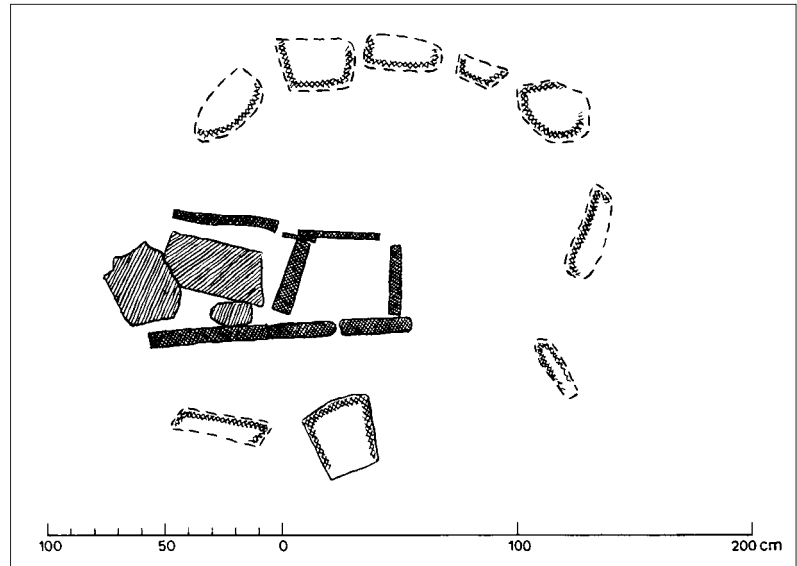
Independence II, Thule

76ØI-000-029

Site no.143; drawing 78

Renskæret (Caribou Skerry) is a small 16 m high islet to the south of Kap Bismarck. During some summers it is surrounded by open water, whereas during others there is only open water to the west of it. Thostrup (1911) mentions six winter houses, tent rings, shelters, meat caches, open-air hearths and three sets of umiaq supports. In addition to these registrations Knuth received a report on the presence of a mid-passage feature located 6.8 m a.s.l. (fig. 10.43). It is not known exactly where the ruin is located but Knuth assumes that it is to be found on the southern side of the islet where Thostrup mentions the presence of many tent rings. The height above sea level, further convinces him to believe that the mid-passage must be Independence II.

Fig. 10.44. (drawing 94) Stormbugtens Østside, sketch of mid-passage initially registered by members of the Danmark Expedition (Bendix Thostrup ruin no. 247).



10.13 Wendel Pynt

Independence II?

76ØI-000-052

Site no. 164; texts 634, 635, 644; drawings 109, 109
Bendix Thostrup published accounts of two tent rings at the locality Wendel Pynt which have the appearance of what we today know as mid-passage ruins or axial features. Thostrup noted that the features were very old, and in 1950 Knuth managed to relocate them. Knuth notes that the two tent rings are located in coarse gravel. The features were difficult to locate because they are covered by the same dark grey lichen as covers the surrounding gravel. Knuth further mentions that large portions of the mid-passages as well as of the tent rings had slid down the slope towards the bay.

10.14 Stormbugtens Østside

Independence II?

76ØI-000-056

Site no. 168; text 639; drawing 99

On the eastern side of Stormbugten (Storm Bay) there is another locality from where Thostrup (1911:256) has described two ancient looking tent rings bisected by two rows of vertically placed flat stones. In 1950 Knuth also re-located these. Knuth described the tent rings as being irregular, and with the tent ring stones placed very close to the mid-passages as if they had been

moved towards the centre of the features (fig. 10.44). The mid-passages are built of 5-7 cm thick flat stones set on edge. Between the two parallel rows of stones there are transversely placed stones dividing off a box in the centre. Knuth sketched the northern of the two features which are located 3 m from each other.

10.15 Stormnæs

Independence II

76ØI-000-039

Site no. 153; texts 633, 636; drawings 79, 80, 248; photos 607-611, 688-689

Thostrup (1911:275) mentions the presence of several tent rings, many shelter ruins, open-air hearths, a trap and meat caches at the Stormnæs (Storm Point) locality. In 1956 the locality was visited by Bertel Møhl, who also reported the Independence II feature on Rensskæret to Knuth. B. Møhl sketched two mid-passage features. In 1986 they were relocated by Knuth who on this occasion added a few additional notes on the features. The features are located on the westernmost of the many small projections on Stormnæs and both are oriented towards the east. However, several more features were located and excavated when Knuth and Andreasen visited Stormnæs in 1987. The fieldwork in 1987 thus documented the presence of at least 23 features, 19 of which are believed to be of Independence II origin (Andreasen pers. comm.).



Fig. 10.45. (photo 689) Stormnæs, mid-passage, feature 1. Photo by B. Møhl 1956.



Fig. 10.46. (photo 688) Stormnæs, mid-passage, feature 2. Photo by B. Møhl 1956.

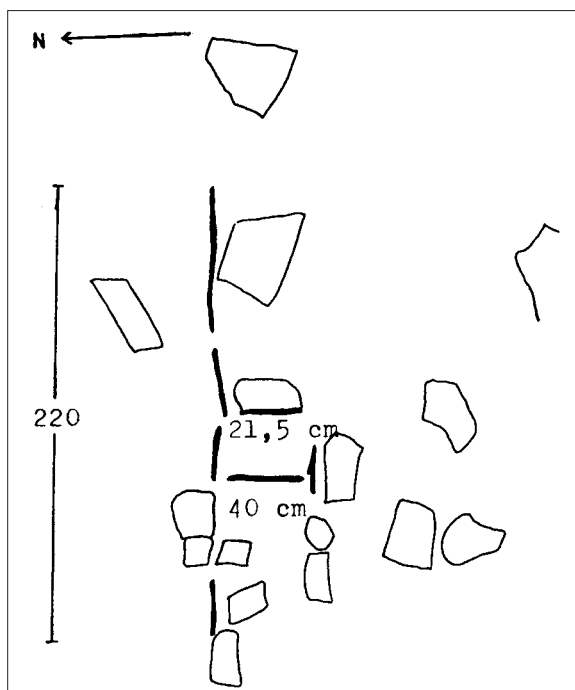


Fig. 10.47. (drawing 79) Stormnæs, mid-passage, feature 1. Sketch by B. Møhl 1956.

Feature 1

Mid-passage (drawing 79; photos 607-608, 688)

Feature 1 is a c. 2.2 m long and 40 cm wide mid-passage of vertically placed flagstones (figs. 10.45 and 10.47). There is no clear periphery. The feature is located at 5.75 m a.s.l. On the surface in feature 1 Knuth found seven flakes and two fragments of microblades, all of quartz crystal. These finds have not been recorded in the archives of the National Museum of Denmark, probably due to the fact that the Greenland National Museum and Archives became the antiquarian authority in 1982.

Feature 2

Mid-passage (drawing 80; photos 607-608, 689)

Feature 2 is located to the north of feature 1 (figs. 10.46 and 10.48). It is a mid-passage somewhat shorter than feature 1 but with a more intact approximately 2 x 3 m boulder periphery.

Feature 3

Knuth further mentions the presence of a flagstone

platform to the north of feature 2 which he calls feature 3.

10.16 Snenæs

Thule

76ØI-000-030

Site no. 144; drawings 95, 96, 97, 98

Thostrup (1911) mentions 13 winter houses, eight tent rings, two shelter ruins, 13 traps, meat caches, two children's playing features and three graves, the latter located on the hill approximately 0.5 km to the north of the settlement. Three houses were excavated by the Denmark Expedition but a site map was not produced until Knuth visited the site in 1939 and 1950 (fig. 10.49). Knuth also excavated four of the dwellings, of which three were sketched.

Knuth has described the Snenæs (Snow Point) site thoroughly in his unpublished manuscript on Dansk

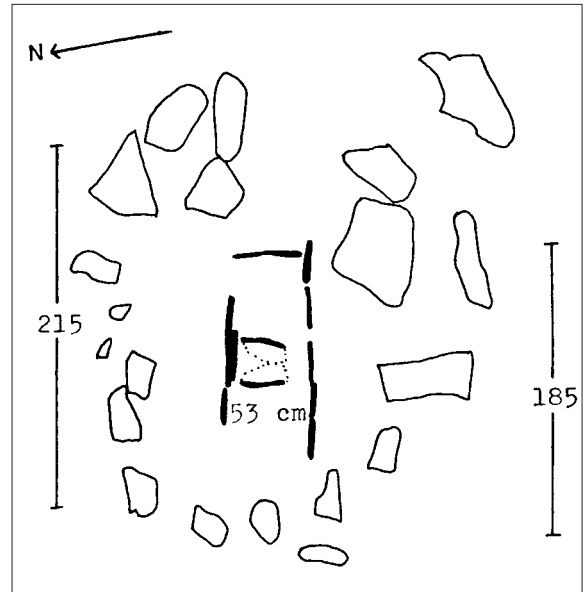


Fig. 10.48. (drawing 80) Stormnæs, mid-passage, feature 2. Sketch by B. Møhl 1956.

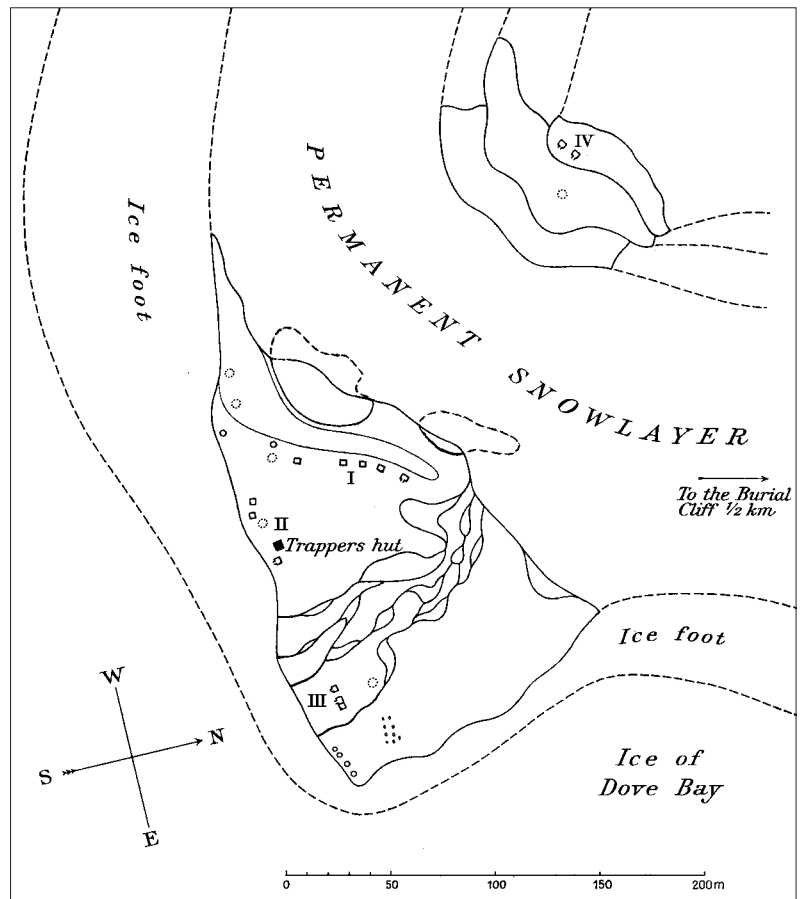


Fig. 10.49. (drawing 95) Snenæs, site map of the Snenæs site.



Fig. 10.50. (photo 691) Snenæs, bag of bird skin (L1.6632) from the house, feature 398. The bag measures 21.5 cm from bottom to top.

Nordøstgrønlands Ekspedition 1938-39. The following descriptions of the site and the excavated features are extracts or quotes from Knuth's manuscript.

Feature Descriptions

Group 1, house 398

The ruin is the north-easternmost one in the row of houses across the point. It was roughly excavated during the Denmark Expedition by Bendix Thostrup, who illustrates the ruin schematically and presents the following description: 'Winter house 398 lay furthest to

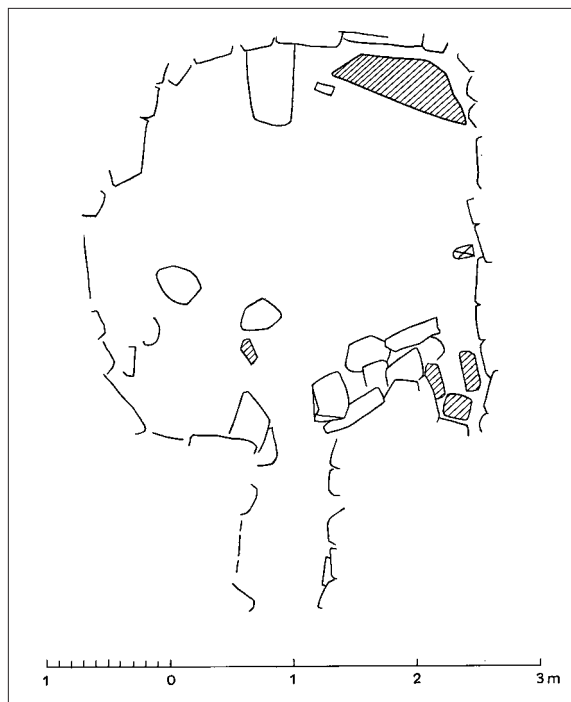


Fig. 10.51. (drawing 96) Snenæs house, feature 399.

the east. The roof had fallen in and above the platform we found a quantity of frozen whalebone but no weapons or utensils; the examination was, however, somewhat hasty. Fjord seal, bones from the Greenland whale and a piece of large whale bone'. The Inventory at the National Museum of Denmark mentions that the followings objects were found in house 398 at Snenæs (fig. 10.50): 'Ulo blade of green slate, fragmented (L.3869), a piece of quartzite rough-hewn along two edges (L.3870), a large piece of un-worked slate (L.3871), a small oval wooden base (L.3872), wooden pins (L.3873-3874), pieces of copper and hide (L.3875-76), broad strips of baleen (L.3877)'.

Group 1, house 399 (drawing 96)

House 399 is a winter house with cold trap entrance, situated in the row of houses across the point, immediately south-west of 398 (fig. 10.51). The interior was 3 m wide and 3.1 m from the front wall to the rear. No outer contours were seen. The interior room was nearly square, apart from a large curved niche in the west wall. The rear part of the room, where the platform had been, was clearly elevated above the floor. A large flat stone in the north-eastern rear corner may be a platform stone or a roof stone that had fallen down. In

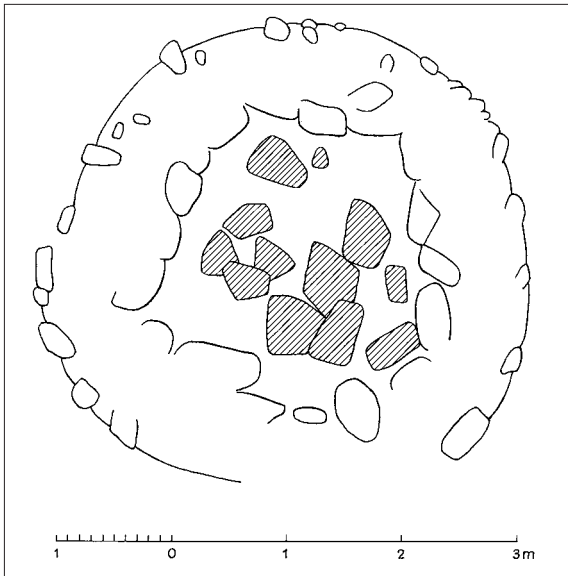


Fig. 10.52. (drawing 97) Snenæs house, feature 401.

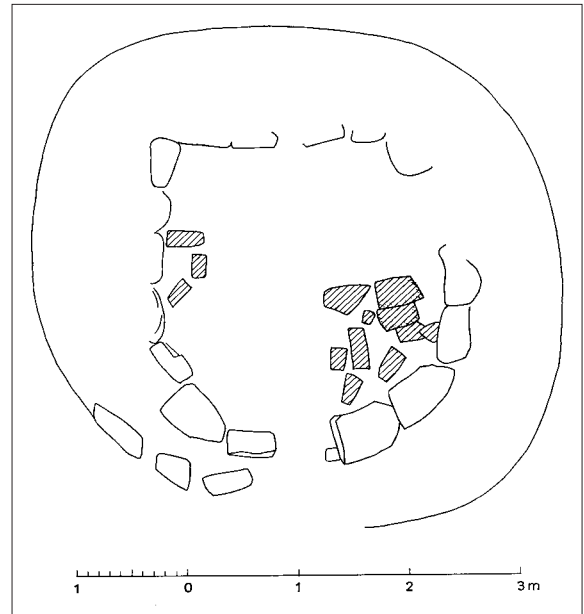


Fig. 10.53. (drawing 98) Snenæs house, feature 403.

the north-eastern front corner, to the right of the entrance passage, was a narrow flagged niche. Knuth only found caribou antler and bones, mostly of large sea mammals. Knuth thus mentions a very large *scapula*, probably from a narwhal. A radiocarbon date (K-567) has been obtained on baleen yielding an uncalibrated date of 410 ± 100 BP, which overlaps with many of the more reliable Thule dates from Peary Land.

Group 1, house 401 (drawing 97)

House 401 is situated in the middle of the row of ruins constituting group I (fig. 10.52). The outer contours are clearly marked by a circle of stones around a low mound so that the ruin appears to be circular. The walls were 90-100 cm thick. The room inside the walls was small and of irregular shape, narrowest at the rear wall. The interior measurements of the feature are 2.2 m at the front and 1.4 m at the rear. The room measures 2 m along the south-western wall and 2.2 m along the north-eastern wall. There were no traces of an entrance passage. The interior was filled with large stones. Knuth therefore believed that the feature had been used as a meat cache. There were no finds in the feature.

Group 2, house 403 (drawing 98)

House 403 is the westernmost house in the row of ruins running along the present coastline, named group II by Knuth. The outer contour of the house was

almost on level with the surrounding surface but it stood out, however, against the surrounding gravel (fig. 10.53). The maximum breadth of the wall was 1.15 m. The interior was defined by large, mostly irregular boulders which were tightly packed. However, along the rear of the east wall, and at the 50 cm wide entrance wall, stones were missing. The room was square. Knuth measured the distance from the front wall to the rear to be 2.63 m, exactly the same distance he measured between the eastern and western walls. In the eastern corner of the house later inhabitants at Snenæs had built a cache. Upon removal of the stones the floor of the corner appeared to be paved with flagstones. There were no traces of any entrance passage.

Finds: Below the cache in the eastern corner of the house Knuth found fragments of caribou antler, seal bones, one bone mounting for a kayak paddle (LI.5762), a trace buckle of bone (LI.5763), a whetstone with concave grinding at the ends (LI.5764), an ulu with a blade of green slate and a wooden handle (LI.5765).

10.17 Rypefjeldet

Thule

76Ø1-000-025

Site no. 139; drawings 16, 81, 82, 83

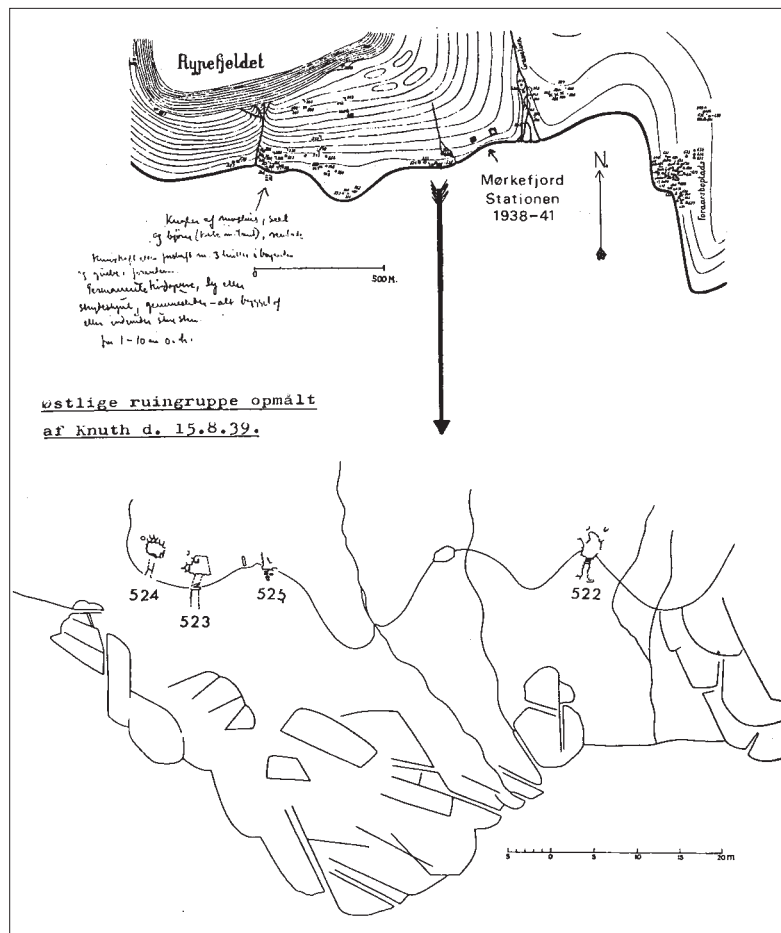


Fig. 10.54. (drawing 81) Rypefjeldet, site map of some of the houses excavated by Knuth.

Like most other Thule sites in Dove Bugt, Rypefjeldet (Ptarmigan Hill) was initially mapped by the Denmark Expedition. Thostrup (1911:299-315) describes ten winter houses, 12 tent rings, 12 shelter ruins, 13 traps, 19 permanent caches, 13 temporary caches, four open-air hearths, four graves and four other boulder structures of which one is a children's play feature. Rypefjeldet is, therefore, not just a single site but a whole group of settlements located along the shores below the southern slopes of Rypefjeldet. The site, or sites, is located in the immediate vicinity of Mørkefjord Stationen where Knuth over-wintered during the first years of the Dansk Nordøstgrønlands Ekspedition 1938-39. Rypefjeldet is thus a site where Knuth excavated Thule winter houses whenever the situation prevented him from getting around elsewhere in the landscape during his management of the expedition (fig. 10.54). Knuth re-excavated winter houses 522, 523, 524, 527 and 528 which had already been excavated by members of the Denmark Expedition, and he also pro-

duced a more detailed site map of the part of the Rypefjeldet site which he named the Eastern Group, situated a few hundred metres to west of the Mørkefjord Station.

Eastern Group house 522

In house 522 Knuth found nothing but bones of walrus, bearded seal, fjord seal, caribou, musk ox and a piece of whalebone.

Eastern Group house 523

In house 523 he found a rough-out for a large slate knife (LI.5767), two ground slate knives and a point of flint (LI.5770), a drill shank of wood (LI.5771). He also mentions that bones of polar bear, fjord seal and caribou (bones as well as antler) were found in the house.

Eastern Group house 524

This feature is the westernmost house in the Eastern Group. Originally it was excavated by Mylius-Erichsen

and Bendix Thstrup, and depicted by Achton Friis (Thstrup 1911:44). To the description given by the Denmark Expedition, Knuth adds that a characteristic feature of house 524 is that the roof was preserved over the entire rear part above the platform, where the large flat stones in the false arch still bore each other and also above the front corners at the east and west walls. Wooden rafters were used in the construction. In addition to the finds of the Denmark Expedition Knuth lists the following finds excavated by himself in feature 524: the butt end of an ice pick, narwhal tusk (LI.5772), a fragment of an ulo blade of slate (LI.5773), a piece of whale baleen with a hole (LI.5777), a spoon of musk-ox horn, (LI.5778), a curved handle of musk-ox horn (LI.5780) and a drill or bodkin of caribou antler (LI.5781). In the upper end of the passage Knuth found a large piece of a musk-ox hide, and in and around it lay some tapes of hide, bound in knots and bows together with some twisted sinew threads.

Western Group house 527

This house is located in a little gully near the shore, with a slope of 7-8 m from the mouth of the passage down to the water. In the bottom of the gully there is a little stream. The group only consists of two houses, built close together. House 527 is the westernmost of these two houses. Knuth's re-examination of the house showed that the large western side chamber of the house had hardly been excavated on the Denmark Expedition as it was full of bones. Among the bones Knuth found a harpoon head with a hole for a single line. On the floor in front of the smaller eastern side chamber some further finds were made: a harpoon head of bone with a hole for a single line (LI.5782, plate 41,2), a harpoon blade of slate (LI.5783, plate 42,5), a harpoon blade of slate (LI.57834, plate 42,4) and a fragment of a knife blade of slate (LI.5785, plate 42,5).

Western Group house 528

House 528 is located immediately to the east of house 527. In addition to the finds of the Denmark Expedition, Knuth found a rough adze head of caribou antler without holes but with a belt for lashing (LI.5786), fragments of soapstone with two holes (LI.5787) and a pointed roughly-worked bone splinter with a barb (LI.5788). In addition to these finds Knuth also found bones of hare, polar bear, fjord seal and

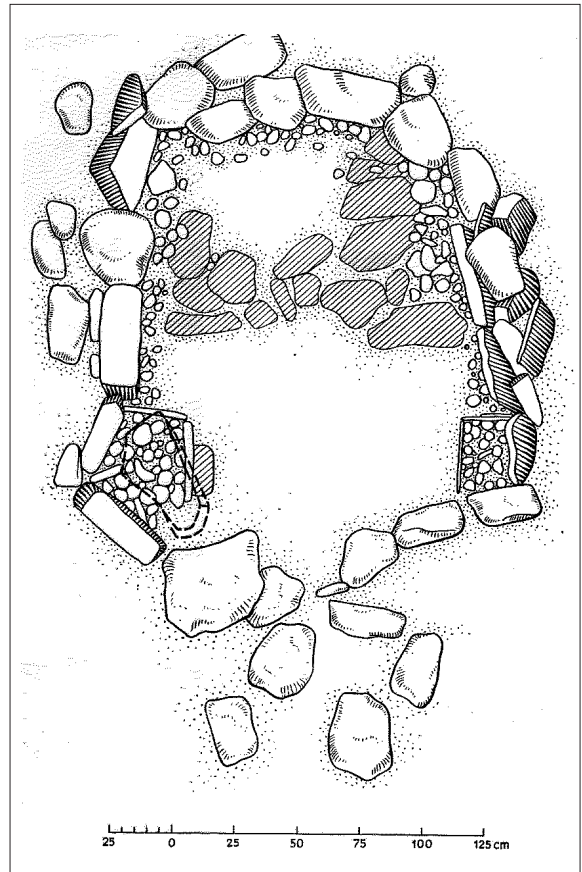


Fig. 10.55. (drawing 82) Rypefjeldet, shelter ruin 563.

caribou (including many antlers, some of which were cast).

Shelter ruins: In addition to this Knuth sketched shelter ruins 563 and 572 (figs. 10.55 and 10.56). Both have well defined partially paved platforms. Their interior is framed by red and white stones. The side chambers are filled with cobblestones in the same colours. Shelter 572 is built against a large erratic which makes up the rear wall.

Other finds: From a grave numbered 529 Knuth retrieved seven cylindrical coal beads (L.3064), an ulo with a wooden handle and slate blade (L.3067), a 'small splitting block' (must be a microblade core) of flint (L.3069), a propeller-shaped buckle (L.3072), five bodkins or needles of bone (L.3073-3077), a toy fore-shaft for a kayak harpoon (L.3076), a winged needle house of bone (L.3079) and the oval bottom of a wooden vessel (L.3080). Finally, in the tent rings at the Rypefjeld settlement, Knuth collected the following: Tent ring 549: a mirror of mica set in a frame of twisted sinew thread (L.4078). Tent ring 552: three pieces of

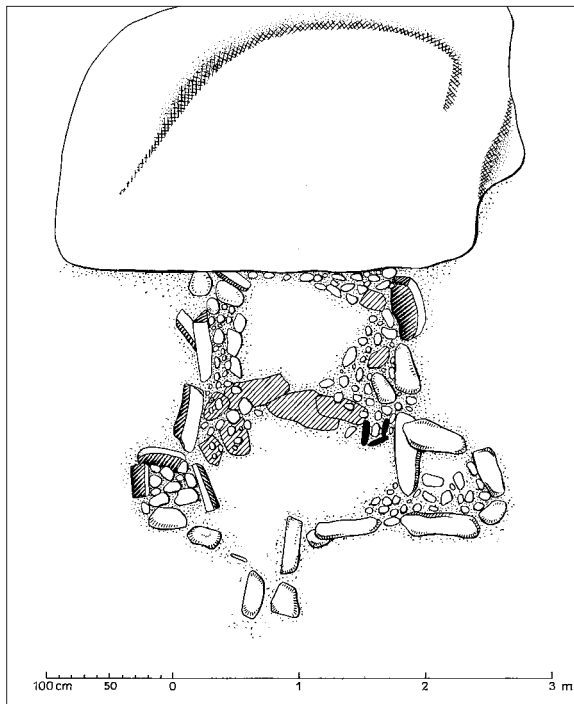


Fig. 10.56. (drawing 83) Rypefjeldet, shelter ruin 572.

sledge shoes (L.4093-40945). Tent ring 549: a bodkin of bone with a flat grip (L.4110). Finally, from shelter ruin 565: the end of a toy bow of wood (L.4113).

10.18 Kalven

Independence I or II

76ØI-000-017

Site no. 132; text 642

Kalven (The Calf) is a minor site visited by Knuth in 1939. He found a tent ring and two fox traps. In his

diary he noted that one of the fox traps was located inside the tent ring. Later, when he had defined the Palaeo-Eskimo cultures, Knuth reconsidered this statement, now realising that it was probably a mid-passage.

10.19 Vædderhornet

Thule

76ØI-000-042

Site no. 156; drawing 99

Vædderhornet (Rams Horn) is the name of a low point protruding from the mountain Vædderen at the head of Dove Bugt, between Mørkefjord and Hellefjord. The site was visited by Knuth in 1939 when he registered four tent rings, a shelter ruin with cobblestones of white quartz in the corners formed between the platform edge and walls in the interior (fig. 10.57). Knuth also noted three meat caches, one of which had a box-shaped chamber. Knuth believes that the shelter is the same as Thostrup (1911:321) gave the number 657.

10.20 Vædderen Sydøst-hjørnet

Independence II

76ØI-000-057

Site no. 169; text 641; drawing 100

In 1939 Knuth discovered two tent rings on the small bay turning away from Dove Bugt towards Hellefjord, and forming the rear side of the south-east point of Vædderen. One of the tent rings was located on the flat shore just opposite Dott's Ø to the east of the large

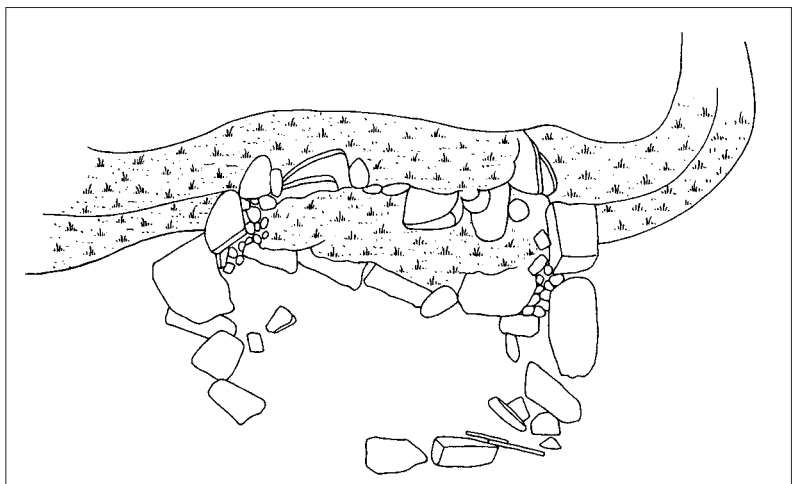
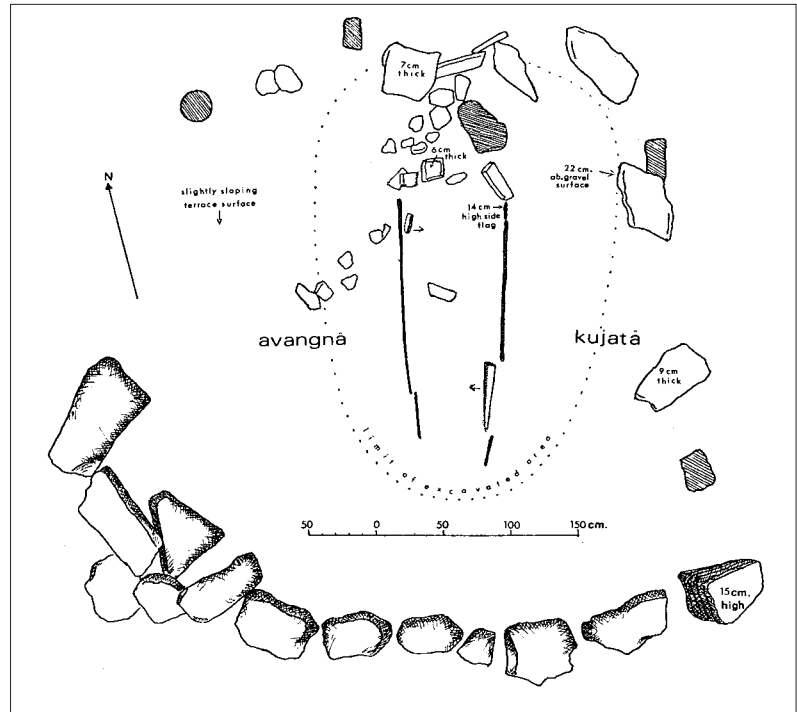


Fig. 10.57. (drawing 99)
Vædderhornet, shelter ruin registered by Knuth.

Fig. 10.58. (drawing 66) Dott Sund, ruin a. Presumably this ruin is the same as that registered as 'Vædderen Sydøsthjørnet'.



river with waterfalls. The other was a mid-passage tent ring situated on the edge of a shore terrace to the south of the river with waterfalls. The dwelling is characterised by its large size, measuring more than 5 m in width and 3.7 m from front to rear. The front of the tent ring is very solidly built of two rows of boulders as if they had been placed in order to reinforce the terrace edge. The remainder of the tent ring adjoins this solid foundation as a semi-circle of smaller stones. Along the central axis there is a mid-passage of two vertically placed very thin slabs more than 1.5 m long but only 0.5 cm thick. The flagstones are placed almost parallel, narrowing only slightly towards the front. In 1987 Knuth revisited the locality. However, the feature, which Knuth sketched on this occasion, is so different from the one he sketched in 1939 that he speculated whether the mid-passage sketched in 1939 really is the same as the one he sketched in 1987. The flagstones in the mid-passage feature narrow towards the rear and not towards the front. Similarly, the solid foundation of two rows of stones in the feature seen in 1939 was not recognised in the 1987 feature. The latter only had a single row of large boulders along the front facing the bay towards south. A mid-passage feature very similar to the one sketched by Knuth was registered at Dott Sund 76Ø1-000-058 (site no. 170, see below).

10.21 Dott Sund

Independence II

76Ø1-000-058

Site no. 170; drawing 66; photo 612

In the archives at the National Museum of Denmark an Independence II feature is registered at the Dott Sund (Dott Sound) site which was excavated by Knuth and Andreassen during their fieldwork in 1987. This Dott Sund locality has the same co-ordinates as the Vædderen Sydøst-hjørnet site (see the above mentioned locality 76Ø1-000-057/site 169), and it is probably the same locality but in the archives of the National Museum of Denmark only Neo-Eskimo features and remains from the historical period have been registered at the Vædderen Sydøst-hjørnet site. The drawing of the mid-passage feature appears to be very similar to Knuth's sketches from Vædderen Sydøst-hjørnet, so presumably it is the same feature (fig. 10.58).

10.22 Spydøen

Thule

76Ø1-000-032

Site no. 146

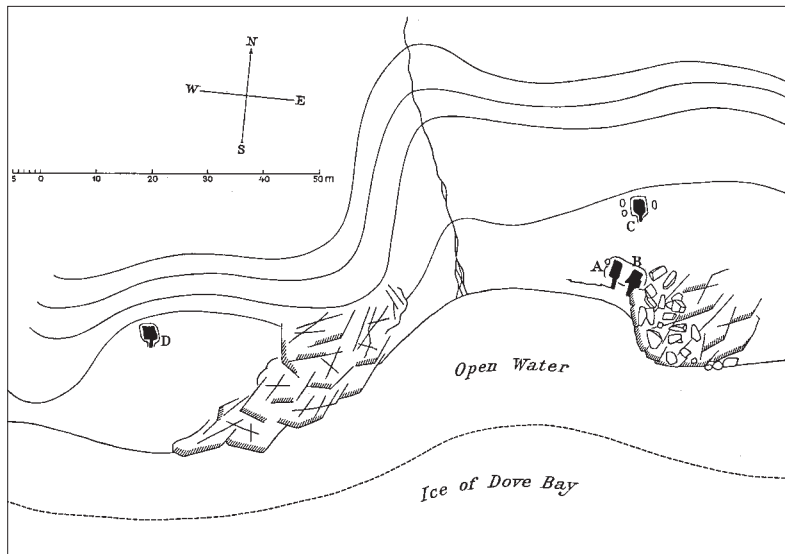


Fig. 10.59. (drawing 84) Port Arthur, site map with the location of the four ruins A, B, C and D.

Spydøen (Spear Island) is a minor island north of Spydøden (Cape Spear). On the northern point of the island Knuth located numerous meat caches and on the southern point he found three well preserved tent rings and a more rudimentary one.

10.23 Port Arthur

Thule

76ØI-000-047

Site no. 51; drawings 84, 85, 86, 87, 88; plates 41, 42

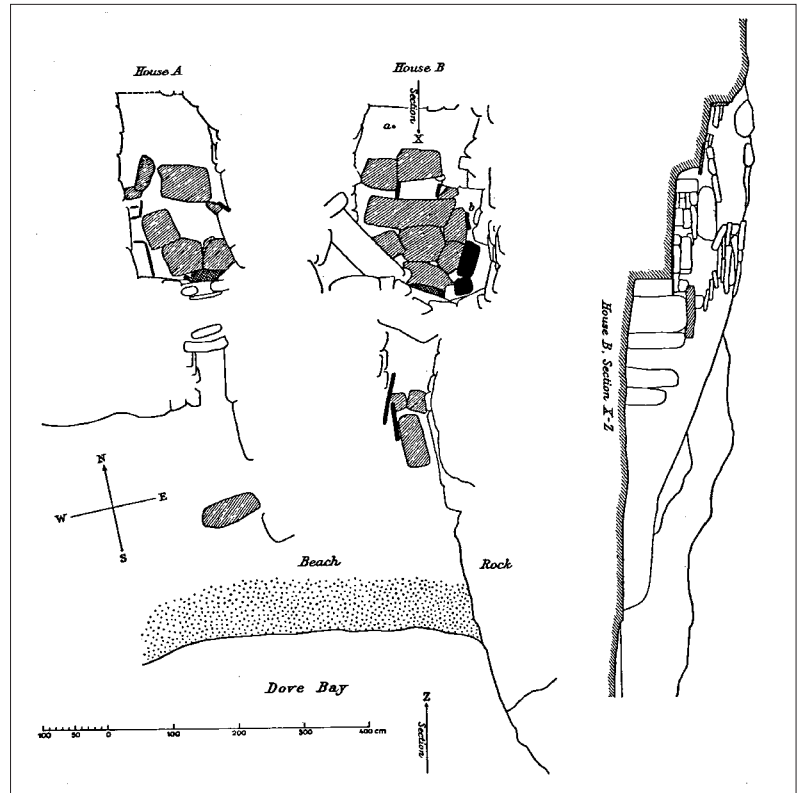
The Port Arthur settlement consists of four winter houses discovered during the Dansk Nordøstgrønlands Ekspedition 1938-39 (fig. 10.59). The four dwellings are situated on the east coast of Daniel Bruuns Land, below a steep cliff and immediately to the north of the narrows leading to the small fjord named Port Arthur. In addition to the winter houses there is a female grave quite a way to the W-SW of the settlement and approximately 60-75 m a.s.l., on the plateau which separates Dove Bugt from Port Arthur. Knuth visited the site in the middle of July and on 7th-8th August 1939. During these visits all of the houses were excavated and three of them and the grave were surveyed. Apart from minor alterations, the description of features and finds from Port Arthur presented in the following sections is from Knuth's unpublished manuscript 'Contributions to the Archaeology of the Northernmost East Greenland' (Knuth 1942).

"The distinctive mark of the settlement, when seen from the bay, is a small rocky point covered by nature with large, loose stone blocks. The spaces and hollows between the rocks have been filled in with stones by the Eskimos and used as meat caches or covered positions during the seal hunt. Quite near the shore and just towards the south side of the rocky point stand the two younger houses A and B, almost built together, and with their well preserved still covered passages facing directly to the south. At the foot of the mountain slope, about 10 m behind this group stands an earlier ruin, C, and about 90 m further to the south along the shore and 20 m from the coast, south of a small rock, stands another one, D. Both these ruins, the passages of which were facing the water (south-east) only appeared as low overgrown depressions in the ground, and during the visit in July they were flooded with water. On account of this, C was so heavily sunken that it could not be measured, and it was impossible to work in D, so the excavation of this ruin was made during a subsequent visit on 7th – 8th August. On the same occasion the woman's grave was found up in the mountain at a place to which the steep snow tongues in July had barred all access.

House A (drawing 85)

The westernmost of the younger houses was, as the neighbouring house B, constructed so that it exploited the difference in level of the ground at the step from the house floor to the floor of the passage (fig. 10.60).

Fig. 10.60. (drawing 85) Port Arthur, house A and B with transect.



The rear wall and the east wall appeared to have been displaced through shifting of earth, deposits of which filled the rear part of the platform. On account of this shifting of earth the house certainly appeared narrower than it had been originally, as the room measured 1.4-1.5 m x 3 m; but even if we take a certain change into consideration it would always have been considerably deeper from door to rear wall than it would have been broad.

The platform had no supports and was not sharply separated from the house floor. If we are justified in considering the large flagstone in the middle of the house as a platform stone, the platform has been 1.67 m deep from front edge to rear wall. In front of the platform there was a lamp stand at both sides. Near the front wall there was a side chamber, also at both sides; the left one lay within the house itself, delimited by narrow flagstones set on edge and with a floor 18 cm lower than the floor of the room. The right one was a recess under the east wall without any kind of separation from the main room.

The roof stones of the passage were preserved in the innermost part of the passage. The step from the floor of the room to that of the passage was 22 cm

high, under the outermost roof stone the height of the passage was 60 cm and at the same place the passage was 46 cm broad. In front of the preserved roof stones the east wall of the passage was built up of large stone blocks 50 and 40 cm high and 90 and 95 cm long. West of the house, at a distance of 2.45 m from the rear, a small round depression was found in the ground, presumably a meat cache. During excavation in the house a subterranean spring began to flow whereby the entire floor became under water.

Finds: On the floor: two knife blades of slate (LI.5796-5797), fragment of a sledge shoe (LI.5798), two pieces of walrus tusk with a drilled hole (LI.5799-5800), fragment of a whetstone of slate (LI.5801), a fragment of slate knife blade (LI.5802), a small harpoon blade of slate (LI.5803), an arrowhead of slate with shaft tongue and one barb (LI.5809, fig. 10.65 no. 9), an arrowhead of green slate (LI.5810, fig. 10.65 no. 6), drill mouthpiece of caribou *astragalus* (LI.5811), a drilled ring of narwhal tooth (LI.5812) and an ajagaq of seal *humerus* (LI.5815, plate 43,8). By the lamp stand to the right Knuth found three pieces of a sandstone cooking pot, one with a suspension hole in the edge (LI.5816-5817, a-b). On the platform: two frag-

ments of slate blades (LI.5804-5805), fragment of a toy soapstone lamp without a wick ledge (LI.5806), a fragmented whetstone of slate (LI.5807), drill bits of green slate (LI.5808) and a snow-knife of bone with two shoulders, used as scraper.

House B (drawing 85)

The easternmost of the two later houses was the best preserved of all the ruins. It was situated at a fairly dry site and built in such a way towards the rocky point that the quite low vertical west wall of the latter formed the east wall of the passage of the house. The construction of the house exploited the difference in level of the ground, not only, like A, by the step from the floor of the room to that of the passage, but also by the step from the platform to the floor of the room.

The main room appeared to have been rectangular, 2 x 3 m, with the greater measurement from front to rear wall. The rear half of the room was taken up by an elevated platform, which at least at the front had been covered by stones. Some of the platform stones were still found in their original positions and in front of them were the platform supports, a couple of slender stones on edge, which seem to indicate that there has been a hollow under the platform. If the front edge of these supports also marks the front edge of the platform, the platform has been 1.46 m deep, i.e. it has taken up almost exactly half of the room (the inner side of the front wall making several bends). The height of the platform above the floor was most favourably measured near the east wall, and here it was 32 cm. The rear wall towered 70 cm above the level of the platform. Near 'a' a wooden pin stuck out of the gravel in the rear part of the platform.

The floor of the front half of the house was beautifully flagged and the rearmost flagstone, just in front of the platform supports, was very large, 130 x 50 cm. A flat stone on edge 'b' near the east wall must have been a lamp stand. The space between this stone and the wall was very deep and full of large *vertebrae* and other seal bones. The lamp pin of slate, many of the flint pieces and a good proportion of the worked and well preserved objects (LI.5842-5849) entered in the following list under 'lamp stand' were found here.

At the front of the house a side chamber was found on either side of the door. Just like in house A, the east or right side of the chamber was constructed as a recess under the east wall itself so that the latter,

with a construction of projecting supporting and roofing stones, covered the chamber and continued with four courses above it. In contradistinction to the corresponding chamber in house A, the side chamber was delimited towards the house by a low, semi-circular wall of rather large regular stone blocks, the upper sides of which were elevated 32 cm above the floor of the house. At the base, the walls of the side chamber were 'lined' with vertical flagstones. The floor, which was flagged, lay 10 cm lower than the floor of the house proper. The western or left side chamber in the house was formed in the acute-angled south-west corner by a very long bench-like stone – no doubt a side platform. This stretched across the corner from west wall to south wall, resting on both walls so that its lower edge was elevated 30 cm above the floor of the house. Both side chambers were full of fresh-looking bones, often joined together as they are in living animals. On the whole there were unusually many bones in the house, but transport conditions did not allow me to bring them back.

Nearest to the house, the roof stones of the passage still lay in their original positions in the south wall of the house. A step of 56 cm led from the house down into the passage, the height of which from floor to underside of roof stones was 85 cm. Below the roof stones the passage was 85 cm wide, at the narrowest place further out 60 cm. The outmost part of the west wall of the passage appeared to have been partly made of flat stones set on edge.

The finds from the house are: At the lamp stand: side prong for a bird dart (LI.5842, fig. 10.64 no.7), a well preserved ulu blade of red slate (LI.5843, fig. 10.65 no.15), a slightly curved slate knife (LI.5844), an ornamental bodkin of whale bone with a dotted ornament (LI.5845, fig. 10.67 no.1), a propeller-shaped buckle of walrus tusk (LI.5846, fig. 10.67 no.2), a fragment of heavy slate knife (LI.5847), lamp trimmer of slate (LI.5848), an adze head of caribou antler with a small blade slit and two deep drilled transverse grooves (LI.5849) and a drilled piece of walrus tusk (LI.5850). On the house floor: a bone piece with a hole (LI.5820, fig. 10.67 no. 10), a drill bit of slate (LI.5821, fig. 10.65 no.7), a knife handle of wood with a side groove and central hole (LI.5841, fig. 10.66 no.2), 17 pieces of flint most of which were found near the lamp stand (LI.5851) and a drilled piece of caribou antler (LI.5852). Left side chamber: a fragment of a sledge

shoe (LI.5818), the rear part of dog whip or back scratcher (LI.5819, fig. 10.66 no.4), long drilled piece of walrus tusk (LI.5823), fragment of slate blade (LI.5824), double-edged harpoon blade of green slate (LI.5825), two fragments of harpoon blades of slate (LI.5826-5827) and a harpoon head of caribou antler with single dorsal spur of Innussuk type and with inserted double-edged blade of green slate (LI.5828). Right side chamber: a foreshaft of bone (LI.5829, fig. 10.64 no.9), fragments of slate blades (LI.5830-5831), a piece of slate, ground and with the beginning of a hole (LI.5832), fragment of a harpoon blade of slate (LI.5833) and a whetstone (LI.5836). In the passage: a whetstone (LI.5837), weathered knife blade of slate (LI.5838), fragment of ulo blade of slate (LI.5839) and an edge mount with seven holes (LI.5840, fig. 10.67 no. 4).

House C

As mentioned above, this house was situated behind houses A and B and was probably older than these and was too sunken to allow detailed measurements to be made. Its main dimensions were: width 1.9 m, length (depth) 3 m and the depth of the platform from front edge to rear wall 1.2 m; in the right front corner of the house was a side chamber extending 65 cm into the wall and covered by a roof stone 62 cm above the floor of the house.

Finds: In the house: On the floor: two lamp trimmers of wood (LI.5854 and LI.5856), trace buckle of narwhal tooth (LI.5858) and two-handed scraper of bear femur (LI.5859, fig. 10.66 no. 9). Right side chamber: pendant shaped like a white whale of walrus tusk with a suspension hole (LI.5853).

House D (drawing 86)

The house was situated at some distance from the other above-mentioned ruins. Before it was excavated it was only slightly visible above ground. After its excavation, however, it appeared to consist of a rather regular rectangular room, about 2.2 m broad and about 2.7 m deep (fig. 10.61). The platform consisted mainly of gravel but near the front edge were a few platform stones. Like house B it rested on supports in the form of stones set on edge. Thus the front edge of the platform was elevated 13 cm above the floor of the house and the platform was 1.5-1.6 m deep from front edge to rear wall. On the floor to the right, just in front of the

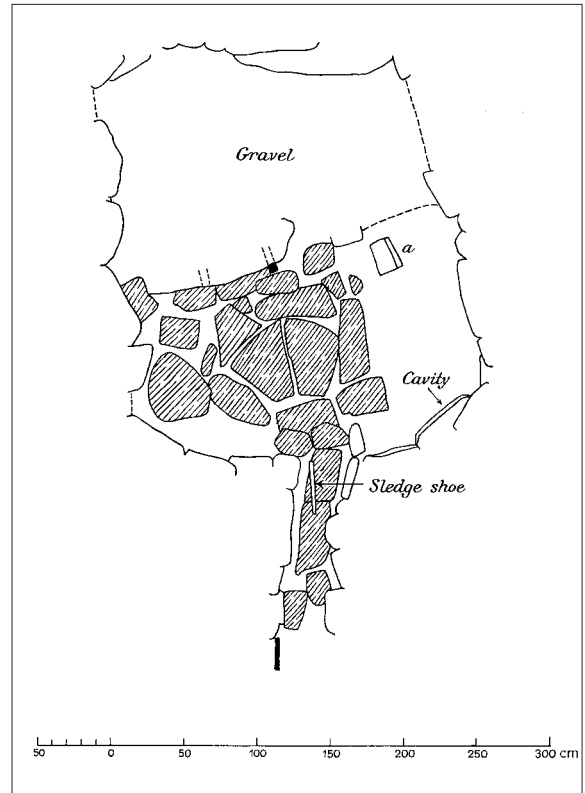


Fig. 10.61. (drawing 86) Port Arthur, house D.

platform, was stone 'a' which must be presumed to be an overturned lamp stand. Only two thirds of the floor was flagged. In the right front corner of the house there was a hiding place under a circle of projecting stones in the wall. From the floor of the house to the flagged floor of the passage there was a 30 cm high step. The very narrow and probably caved-in passage had a width of 24-34 cm. A 60 cm long fragment of a sledge shoe (fig. 10.63), which was found in the upper end of the passage near the doorstep, may have served in the construction as a support for the roof of the passage. On account of its size I did not bring this fragment of sledge shoe back but contented myself with measuring and drawing it.

Finds: In the house: the butt end of a foreshaft of narwhal tooth with scarf face (LI.5861), ulo blade of slate with two holes (LI.5863), ten pieces of flint and other stone pieces (LI.5864), harpoon blade of brown slate (LI.5865, fig. 10.65 no. 2), fragment of drill bit of brown slate (LI.5866), ulo blade with two holes (LI.5867) and a knife blade (?) of thin, hammered copper (LI.5871, fig. 10.67 no.6).

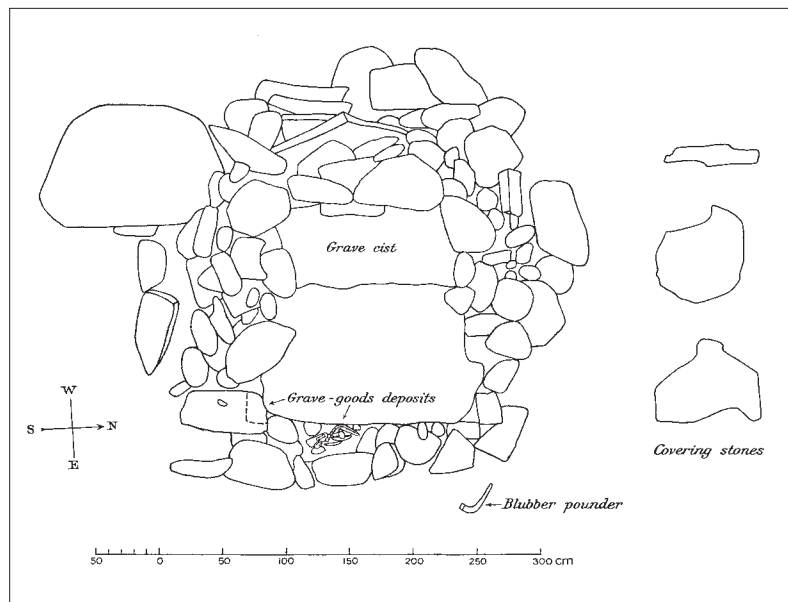


Fig. 10.62. (drawing 87) Port Arthur, woman's grave.

The woman's grave

This was found quite a distance to the W-SW of the settlement, about 60-75 m a.s.l. on the plateau forming the upper side of the mountain isthmus between Dove Bugt and the bay of Port Arthur. It was built against a detached erratic stone block (fig. 10.62), on the west side of the latter, i.e. on the side facing away from Dove Bugt so that the longitudinal axis of the grave lay almost north-south. On the east side of the stone there was the much smaller grave goods chamber. The main chamber, which only contained the remnants of a *radius* and a rib, measured about 64 cm in width and 1.3 m in length. The height of the stone block towards the grave chamber was 60 cm, while the adjoining wall inclined slightly westwards so that the two west corners were elevated about 50 cm above the terrain. Three roof stones lay in place from the stone block to the wall.

The grave chamber appeared to be divided into two rooms, a larger one at the north end and a smaller one at the south end. Under an inclined stone in the latter was the large wooden handle of an ulo (LI.5873), while the following lay in the northern room: a large well-preserved blade of green slate (LI.5872) matching the above-mentioned ulo handle, an adze of caribou antler, the blade and handle of which lay separately (LI.5874), two fragments of a soapstone miniature cooking pot (LI.5875), a winged needle case of walrus tusk (LI.5876), the wooden bottom and parts of a side piece of a baleen box (LI.5877-5878), four pieces of the oval wooden bottom of a pot (LI.5879) and a fragment of small oval wooden bottom (LI.5880). Outside the grave chamber, on the ground, was a blubber pounder of wood (LI.5881)".

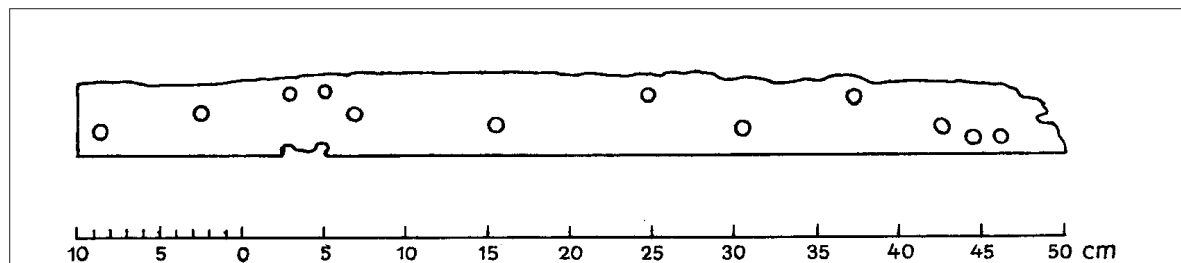


Fig. 10.63. (drawing 88) Port Arthur, sledge shoe from house D.

Fig. 10.64. (plate 41) Artefacts from various localities in North-east Greenland. Dove Bugt: 1) Harpoon head, Innusuk type 0.087 m. LI.5961. Gefionshavn. 2) Harpoon head, reindeer antl. 0.077 m. L1.5782. Rypefjeld. House 527. 3) Harpoon head, N.E. Grl. Type I. 0.082 m. L1.5758. Stormbugt. Terrain find. 4) Harpoon head. NE. Grl. Type 0.090 m. L1.5898. Gefionshavn,. House B. 5) Harpoon head. NE. Grl. Type 0.041 m. L1.5937. Gefionshavn. House D. 6) Harpoon foreshaft 0.165 m. L1.5911 Gefionshavn. House B. 7) Leister prong ? 0.197 m. L1.5842. Port Arthur. House B) 8. Foreshaft ? Narwhal tusk 0.205 m. L1.5766. Snenæs. House 403. 9) Foreshaft or lancehead 0.215 m. L1.5829. Port Arthur. House B. 10) Arrow rear end, wood 0.270 m. L1.6657. Snenæs. House 399 (1950).



10.24 Røde Ø

Independence II, Thule

76ØI-000-024

Site no. 138; texts 629, 630; drawings 62, 63, 64, 247; photos 654, 655; plate 29

Knuth visited the island Røde Ø (Red Island) in August 1939. On the northernmost point of the island he registered four tent rings, one of these is a mid-passage tent ring which was sketched (fig. 10.69). In 1987 Knuth returned and on that occasion another mid-passage ruin was registered. Unfortunately the number T1

noted for the ruin does not fit with feature numbers on the site map. The ruin is registered as being located 11.63 m a.s.l. whereas the corresponding number 1 on the site map has an associated elevation of just 1.82 m a.s.l. So in the present publication we will call the mid-passage feature registered by Knuth in 1939 feature 1 and the one registered in 1987 feature 2. The remaining tent rings are presumed to be of Thule origin.

Feature 1

Mid-passage tent ring (drawing 62)

Feature 1 is an approximately 3.5 m circular tent ring of tightly packed boulders located on an earthen area

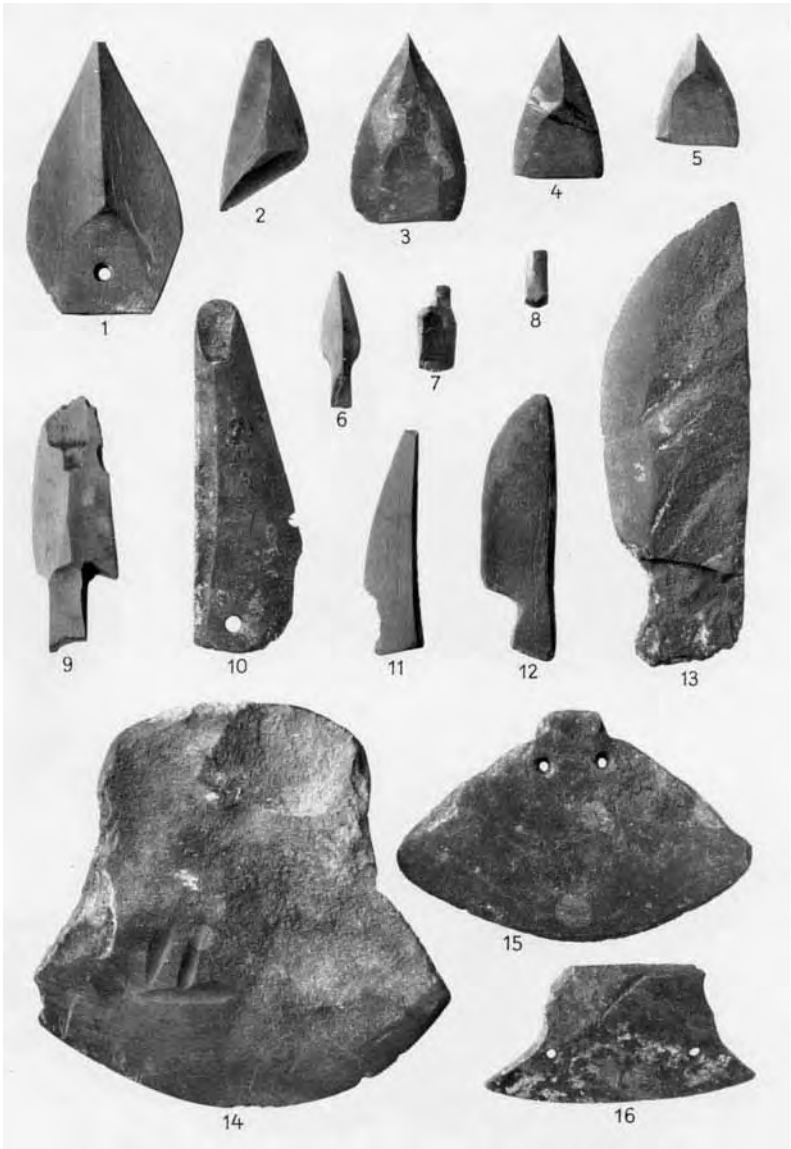


Fig. 10.65. (plate 42) Artefacts from various localities in North-east Greenland. Dove Bugt. 1) Harpoon blade, slate 0.0745 m. L1.5929. Gefionshavn. House C. 2) Harpoon blade, slate 0.0494 m. L1.5865. Port Arthur. House D. 3) Harpoon blade, slate 0.0512 m. L1.5775. Rypefjeld. House 524. 4) Harpoon blade, slate 0.0393 m. L1.5784. Rypefjeld. House 527. 5) Harpoon blade, slate 0.0305 m. L1.5783. Rypefjeld. House 527. 6) Arrowhead, slate 0.0378 L1.5810. Port Arthur. House A. 7) Drill point, slate, 0.0243 m. L1.5821. Port Arthur. House B. 8) Drill point, slate, 0.0160 m. L1.5808. Port Arthur. House A. 9) Knife blade, slate 0.705 m. L1.5809. Port Arthur. House A. 10) Knife blade, slate 0.0970 L1.5950. Gefionshavn. House E. 11) Knife blade, slate 0.0623 L1.5894. Flade Teltø. 12) Knife blade, slate, 0.0732 m. L1.5914. Gefionshavn. House B. 13) Knife blade, slate 0.1287 m. L1.5900. Gefionshavn. House B. 14) Ulo blade, slate, 0.1100 m. L1.6658. Rypefjeld. Forårsboplads (1950). 15) Ulo blade, slate 0.0970 m. L1.5843. Port Arthur. House B. 16) Ulo blade, slate 0.0740 m. L1.5939. Gefionshavn. House D.

among rocks where the level space was just large enough for the tent ring. Only one side of the ring was fully preserved. The mid-passage is approximately 2.8 m long and 50 cm wide and constructed of several thin vertically placed flagstones. There are also a few flagstones both inside and along the outside of the mid-passage. Knuth's companion Ove Rosbach found an axe of black chert (fig. 10.70).

Table 10.31. Lithic artefacts Røde Ø feature 1.

Artefact category	No.
Axes	1

Feature 2

Mid-passage (drawing 63)

Feature 2 is a large tent ring, approximately 6 x 4 m, with the short axis bisected by a mid-passage. However, in this tent ring only a few vertically placed flagstones remain *in situ* and there are few flagstones in the interior.

10.25 Gefionshavn

Thule

76Ø1-000-046 (drawing 63)

Site no. 62; drawings 89, 90, 91, 92, 93; photo 690

Fig 10.66. (plate 43) Artefacts from various localities in North-east Greenland. Dove Bugt. 1) Adze head, reindeer antler 0.100 m. L1.6665. Rypefjeld. Tenting grounds. 2) Knife handle, wood 0.109 m. L1.5841. Port Arthur. House B. 3) End mounting f. kayak paddle. 0.052 m. L1. 5762. Snenæs. House 403. 4) Piece of walrus tusk 0.066 m. L1.5819. Port Arthur. House B. 5) Uloq with wooden handle .,081 m. L1.5912. Gefionshavn. House B. 6) Trace buckle, narwhal tusk 0.090 m. L1.5938. Gefionshavn. House D. 7) Trace buckle, narwhal tusk 0.067 m. L1.5763. Snenæs. House 403. 8) Ajagaq, seal *humerus* 0.144 m. L1.5815. Port Arthur. House A. 9) Two-handed scraper, bear f. 0.254 m. L1.5859. Port Arthur. House C.



As was the case with the locality of Port Arthur, Knuth has given a complete description of Gefionshavn in his unpublished manuscript 'Contribution to the Archaeology of the Northernmost East Greenland' (Knuth 1942). The following description is from this manuscript.

"On the south-west side of the large Gotfred Hansens Ø, in a bay behind a point, lie the ruins of a winter settlement facing south towards A. Stellings Sund. The bay was discovered in 1932 when, on the 21st August, the expedition of the Hunting Company Nanok with the chartered ship M/S U/S Gefion anchored at the idyllic

place which was named after the ship. The ruin settlement, which already then was ascertained and entered on a sketch map by Captain Riis-Carstensen, is situated on the west side of the bay grouped on two low rocks, flanking a small inlet into which falls a small stream. It is typical of such places usually called 'umivik' by the Eskimos, i.e. a landing place for umiaks, and as hunters who have recently come home have informed us that yet another ruin settlement with winter houses has been found near Gefionshavn, the designation Umivik may very well be used to describe the one dealt with here in contradistinction to the other. According to hunter Richard Nielsen's statement the latter appears

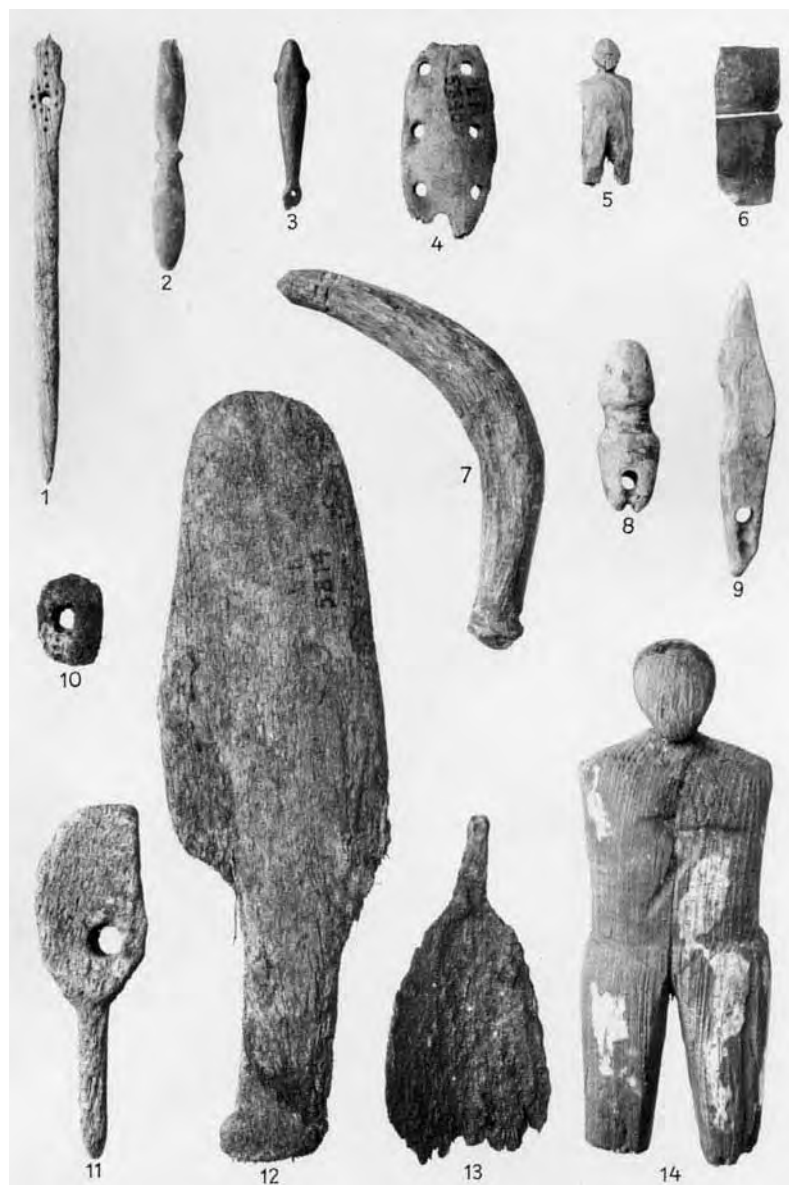


Fig 10.67. (plate 44) Artefacts from various localities in north-east Greenland. Dove Bugt. 1) Bodkin, walrus tusk 0.1145 m. L1.5845. Port Arthur. House B. 2) Propeller ornament, ivory 0.0600 m. L1.5846. Port Arthur. House B. 3) Pendant, white whale fig. 0.043 m. L1.5843. Port Arthur. House C. 4) Vaulted bone mounting 0.050 m. L1.5840. Port Arthur. House B. 5) Wooden doll 0.037 m. L1.6630. Snenæs. House 398, (1950). 6) Thin piece of copper 0.034 m. L1.5871. Port Arthur. House D. 7) Curve handle, musk-ox horn 0.111 m. L1.5780. Rypefjeld. House 524. 8) Toggle f. sledge line 0.044 L1.5759. Stormbugt. 9) Toggle (or spike) 0.071 m. L1.5760. Stormbugt. 10) Pierced piece of bone. 0.023 m. L1.5820. Port Arthur. House B. 11) Bodkin or marline spike 0.092 m. L1.5928. Gefionshavn. House C. 12) Snow-knife 0.197 m. L1.5814. Port Arthur. House A. 13) Spoon of musk-ox horn 0.090 m. L1.5778. Rypefjeld. House 524. 14) Wooden doll 0.130 m. L1.6629. Snenæs. House 398.

to consist of two house ruins and is said to be situated on the south coast of Godfred Hansens Ø, about 1.5 km east of Gefionshavn and just before a small inlet with basalt mountains (fig. 10.71).

Of the two rocks making up the Umivik settlement, one, lying just south of the umiak inlet, has only meat caches and a shooting wall where the hunters have lain in cover towards the bay. The house ruins and tent rings, shelters and meat caches are situated on the rock, on slightly sloping ground with a series of solifluction tongues in terraces above each other, where Nanok established the hunting station Aal-

borghus in 1938. When on the 9th August the Greenlander Ove Rossbach and I arrived at the place by motor-boat from the north we saw, as we knew in advance, that four of the six certain house ruins had been rummaged in and disturbed by members of the expedition led by the American photographer Miss Louisa A. Boyd on board the Norwegian hunting vessel Veslekari in 1938. They had mostly dug in the archaeologically most sensitive places in the ruins; in front of and below the platforms where most finds are made. Much valuable material for judging the culture of the houses must thereby be presumed to have been lost.



Fig. 10.68. (plate 45). Artefacts from Port Arthur 1) Ulu with wooden handle 0.1255 m. L1.5872-73. Port Arthur. Woman's grave. 2) Winged needle case, ivory. 0.0805 m. L1.5876. Port Arthur. Woman's grave. 3) Ladle, reindeer antler 0.1750 m. L1.5874a,b. Port Arthur. Woman's grave. 4) Blubber pounder, wood 0.3800 m. L1.5881. Port Arthur. Woman's grave.

This is the more regrettable as preservation conditions proved to be exceptionally good. Something was, however, left behind.

The house ruins can be divided into two groups, a main group facing the sea situated on top of the low plateau of the rocky point where the passages point in a south-easterly direction, and a smaller group consisting of two ruins facing away from the sea and situated

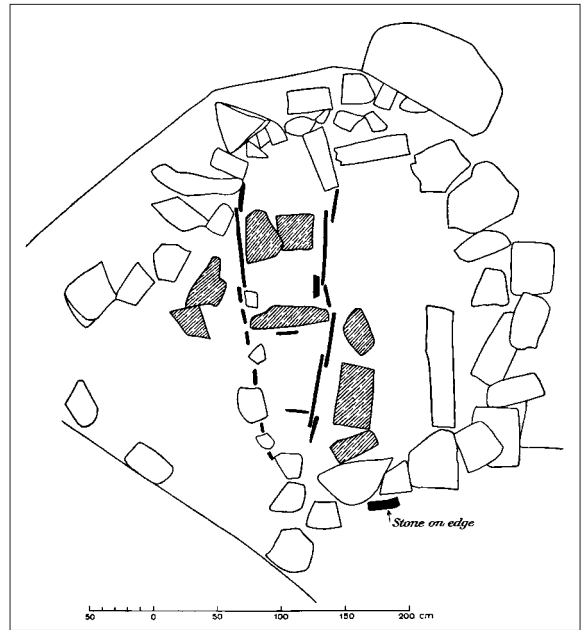


Fig. 10.69. (drawing 62) Røde Ø, northern point. Mid-passage ruin registered by Knuth in 1939.



Fig. 10.70. (plate 29) Large core or axe (L1.5897) found in the mid-passage feature at Røde Ø in 1939, m: 0,072.

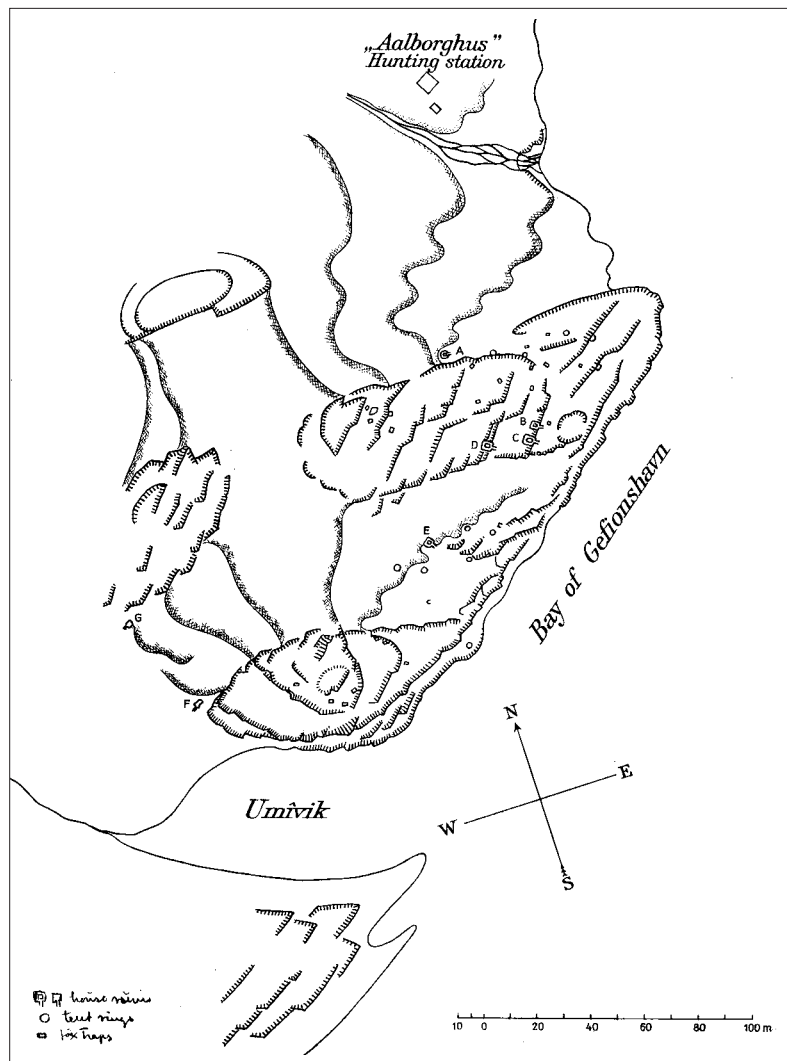


Fig 10.71. (drawing 89) Gefionshavn, site map.

on the slope from the rock towards the valley in which the small stream runs towards the umiak inlet. The passages of these two ruins point to the south-west.

House A

A circular depression with the suggestion of passage. It was overgrown with white mountain heather and situated about 800 m from the sea, wedged into a corner between the steep northern side of the rocky plateau and one of the solifluction tongues. Around the depression there was a clear circular elevation and in this 'wall', about 1 m thick, lay many stones. The part of the depression that could resemble a passage faced the sea in a due easterly direction. When we dug in the 'house' it proved to be full of gravel that may have blown down from the slope behind. A few bones were

also found, but we were unable to say for certain if it was actually a house ruin.

House B

The north-easternmost of two ruins lying close to each other and which were nearer to the fall of the rock towards the sea than any of the other homes (fig. 10.72). At the front wall on both sides of the entrance there was a store room. If account is not taken of these side chambers, the form of the main room of the house was rectangular with the greatest distance from front to rear wall; the main measurements were 2.5 x 3.42 m. The front edge of the platform was marked by platform supports on edges a, b, c and d, sticking up about 20 cm above the level of the floor of the house and the depth of the platform could thus be measured to 1.5 m.

The rear part of the platform consisted of gravel. The platform stones, which had lain over the front supports, were absent. They can be presumed to have been removed by the people from M/S Veslekari, who among other things have been digging between the two platform supports c and d. As the space under the platform had been completely emptied of culture layers, the support b showed a height of 30 cm. On the left side at the front edge of the platform there were lamp stands on edge, and on the floor in front of them was blubber. A similar accumulation of blubber was found on the other side of the front edge of the platform where another lamp can be presumed to have stood. A fairly thick layer of blubber was also found between the mouth of the passage into the house and the left side chamber. This left side chamber had two flagged floors, an upper one 23 cm and a lower and older one 34 cm below the level of the house floor. It was full of blubber and bones and, furthermore, contained the claws of a bear. In contradistinction to the left side chamber the right one was covered and the height from the floor of the room to the large stones covering the chamber was 55 cm. In addition to the two side chambers a small store room was found against the inner side of the south-west wall of the house, delimited by flat stones set on edge.

In this house, and in the neighbouring house C, the step from the house floor to the floor of the passage was a natural ledge. The difference in height between the two levels was 72 cm near the doorstep, and in the case of house C the latter was found a good way inside the house. The roof stones lay in place in the entire thickness of the front wall. Towards the house the passage had a height of 80 cm from floor to roof stone. Above the latter there was a construction of stone like a window frame, consisting of two low side sills on which a flat, horizontal stone rested so that together with the roof stone of the passage it formed the upper and lower sill of the rooms respectively. Outside the house to the right of the passage and in front of the front wall was a sunken meat cache.

Finds: In the house: three harpoon heads, NE Gr. type I (LI.5898, fig. 10.64 no 4) – found below the platform near the central support c – (LI.5899 and LI.5910), foreshaft of bone with hole and round tenon (LI.5911, fig. 10.64 no. 6), two slate knives (LI.5900, fig. 10.65 no. 13) – found below the platform between a and west wall – and (LI.5914, fig. 10.65 no. 12), ulo

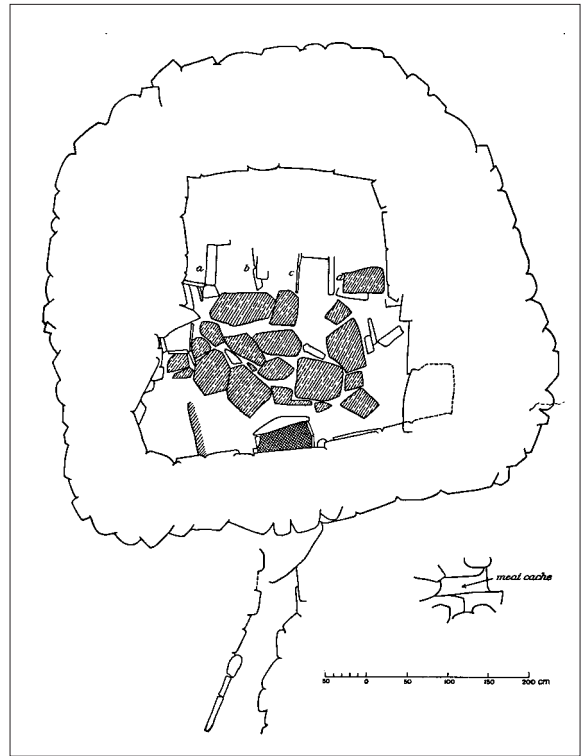


Fig 10.72. (drawing 90) Gefionshavn, house B.

with slate blade and wooden handle (LI.5922), fragments of knives and ulo blades (LI.5904, LI.5913 and LI.5905), a fragment of a wooden bow (LI.5909), whetstone (LI.5915), fragment of adze head, bone (LI.5916), four pieces of quartz – one with ground face (found at the lamp stand), fragment of two-handed scraper (?) and a drill bit of narwhal tooth.

The following bones were found in house B: fjord seal about 160 specimens, caribou about 46 specimens, plus ten pieces of antler, snow hare about 26 specimens, harp seal three specimens, musk ox three specimens, polar bear one specimen, narwhal one specimen and barnacle goose one specimen.

House C

Neighbouring house to house B, lying south-west of the latter. The form of the house room, apart from the side chambers at the front wall, was square, 2 x 2 m (fig. 10.73). The front wall was distinct and stood to a height of several courses, the rear wall on level with the terrain behind the house and the side wall on both sides of the platform were heavily sunken. Platform supports as found in house B were not found here. Only the south-westernmost of the flat platform

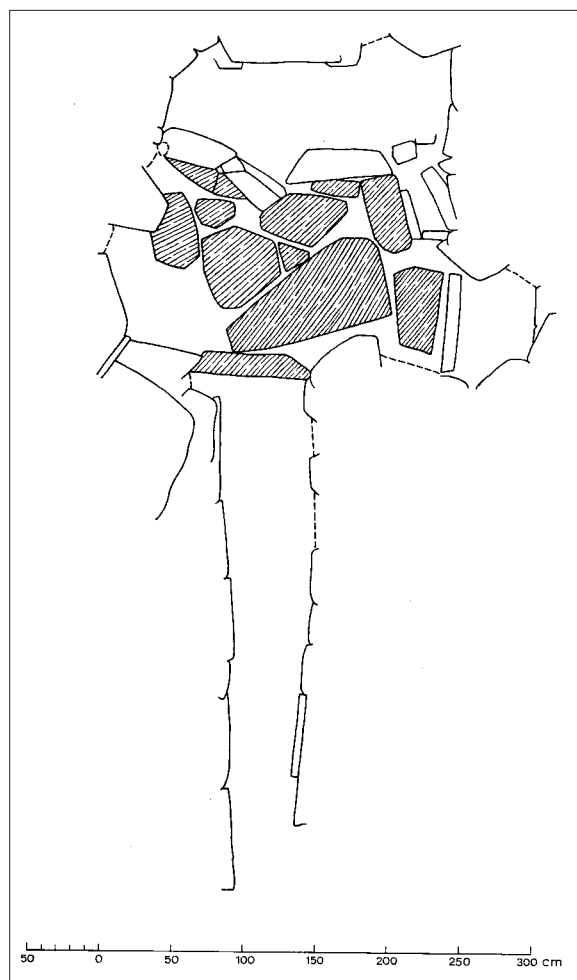


Fig. 10.73. (drawing 91) Gefionshavn, house C.

stones marking the front edge of the platform was elevated 7 cm above the floor. The long platform stone in the middle of the house rested directly on the floor. The depth of the platform from front edge to rear wall was only 80 cm. In front of the platform were blubber layers as from lamp stands on both sides, and against the north-east wall there was standing lamp support sticking 20 cm above the floor.

The floor was covered with large flagstones. The side chambers formed recesses in the walls and lacked flagging. In the left side chamber the rocky ground formed the floor. The right one was separated by a step from the main room and was sunken by 19 cm in relation to the floor of the house. In this chamber was a stone lamp without a wick ledge lying upside down. As was the case in the neighbouring house B (and in house D), the step from the floor of the room to that of

the passage was formed by a natural ledge in the rocky ground, and in a large part of the passage the rock made up the floor. In contradistinction to the two houses B and D, the passage was very long (3.5 m) and very well preserved, particularly with regard to the south-west wall. Similarly it was very deep, the step to the floor of the room lying 74 cm above that of the passage. The width of the passage near the door to the house was 57 cm. Its sides were constructed of large flat stones set on edge. In the ground in front of the house, 1.5 m west of the mouth of the passage, there was a sunken coffin-shaped meat cache corresponding to that east of the mouth of the passage in house B.

Findings: On the floor: a fragment of ulu blade of slate (LI.5927), a flat bone piece with a hole and with a round point – maybe a bodkin (LI.5928). In the south-west corner: rectangular whetstone (LI.5931), two fragments of slate blades (LI.5933-5934) and an arrowhead with scarf face of caribou antler (LI.5935). On the platform: a harpoon blade of slate (LI.5929). In the annex to north-east: deep segment-shaped lamp of soapstone without a wick ledge (LI.5924) found upside down (fig. 10.74) and a hewn, curved piece of whalebone (LI.5925). In the passage: flat piece of sledge shoe with two oblique holes at one end and one and a half holes at the other (LI.5936) and a ground blade of green slate (LI.5930).

Bones from house C: fjord seal about 70 specimens of both old and young animals, caribou about 20 specimens and fragments of antler (the bones split through the marrow), snow hare ten specimens, harp seal three specimens and polar bear one specimen.

House D

This house is situated 10 m behind B and C at a slightly higher level and further away from the coast (fig. 10.75). During construction the terraces of the rocky ground were utilised not only between the floor and the passage but also between the platform and the floor. The outer walls were very clearly seen to consist of three courses which, by way of their rounded corners, gave the ruin outwardly an elliptical form but the room was expressly rectangular (apart from the side-chamber) with its greatest length from front to rear wall. Main dimensions: about 2 x 2.50 m. The platform, which comprised the natural rocky ground without further stone cover, was elevated 17 cm above the floor. From front edge to rear wall it had an average

Fig 10.74. (photo 690) Gefionshavn, soapstone vessel from house C.



width of 85 cm. The floor was flagged except in the right front corner and in front of the east end of the platform where a layer of blubber marked the location of the lamp. Here, close to the edge of the platform, was a small round room in the wall where a fragment of slate blade lay. A very large side chamber with a thick layer of bones and blubber adjoined the front part of the main room as a recess in its left side. It was separated from the room by two long stones set on edge. The passage led about 50 cm into the house, and where it met the vertical face of the rock, a step of 62 cm was formed up to the floor. The length of the passage was 4 m, the width near the door being 82 cm. The roof stones in the front wall were preserved, and the innermost of them near the internal door hole was elevated 70 cm above the floor of the passage. As was the case with house B, a small construction of stone looking like a window frame was found above this roof stone, 20 cm high and 22 cm broad.

Finds: In the house: On the floor in front of the east end of the platform (lamp stand): two harpoon heads NE Gr. Type I (LI.5936-5837, fig. 10.64 no. 5), trace buckle of narwhal tooth with drilled holes in the narrow sides (LI.5938, fig. 10.66 no.6) and a ulo blade of slate with two holes (LI.5939, fig. 10.66 no. 16). Other part of the floor: fragment of slate ulo with two small holes – found in two pieces to the right of the entrance (LI.5940 a and b), fragments of sledge shoe (LI.5942), a fragment of slate knife blade (LI.5943), two fragments of slate blades, worked pieces of caribou antler and stone items (scrapers ??).

Bones in house D: fjord seal about 70 specimens,

caribou about 20 specimens (from small animals) and four fragments of antler, snow hare eight specimens and harp seal two specimens. In addition to these bones there was a large dorsal *vertebra*, probably of narwhal, in the south-east corner of the house.

House E

House E is situated about 40 m south-west of house D, at the same level and at the same distance from the

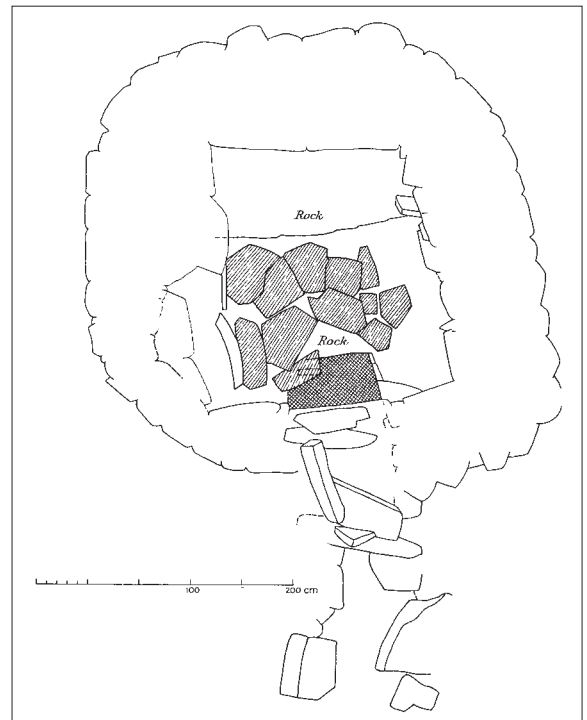


Fig.10.75. (drawing 92) Gefionshavn, house D.

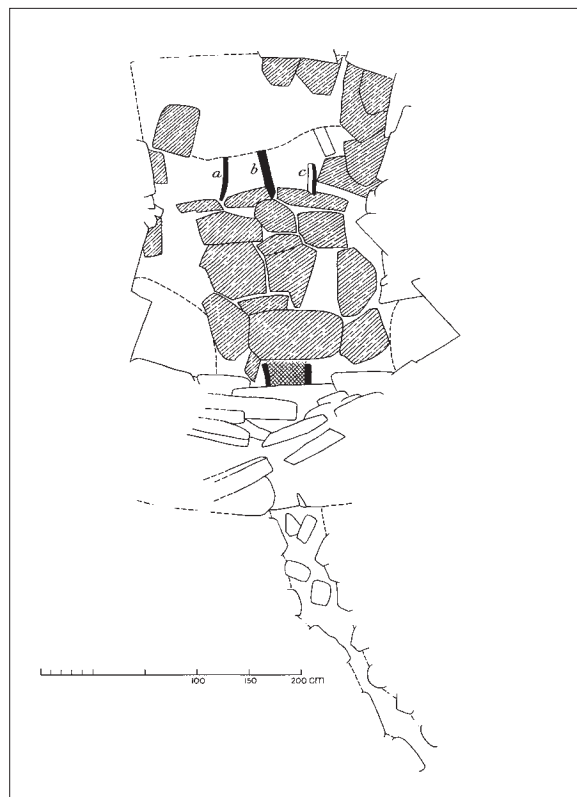


Fig.10.76. (drawing 93) Gefionshavn, house F.

sea. The house was heavily sunken and rather small. It was not delineated. The front width of the room was 2 m, and at the front edge of the platform only 1.6 m. The rear and side walls at the platform were lacking as they had been destroyed by gravel flowing down from the terrain behind. The platform was elevated 30 cm above the floor, the flagstones of which bulged upwards and lay unevenly.

Under the central part of the platform were two narrow platform supports, displaced by the solifluction. A thick hard layer of blubber near the north-east wall suggested that there may have been a side chamber, but as it was impossible to remove the blubber the question could not be resolved.

Much seemed to indicate that the house had also had a side chamber at the opposite side. A long roof stone lay in place over the passage towards the room of the house, but the room below it was filled by solifluction earth and the rest of the passage was heavily sunken.

Finds: In the house: three harpoon heads of bone NE Gr. Type 1 (LI.5955, unfinished, LI.5956, defective,

LI.5957, defective), knife blade of green slate (LI.5950, plate 42,10) three fragments of knife and ulo blades (LI.5952-54) and a piece of sledge shoe with nine holes (LI.5951).

Bones in house E: fjord seal about 85 specimens (both young and old animals) from at least nine different individuals), caribou ten specimens, snow hare three specimens, harp seal one specimen, polar bear two specimens, musk ox one specimen, fulmar six specimens.

House F

Situated well over 100 m from E in a westerly direction, at the foot of the slope leading down from the rock down towards a valley in which the small stream falls into the umiak inlet (fig. 10.76). Accordingly, this house (in addition to the 'neighbouring house' G) faces in another direction than the other above-mentioned ruins of the settlement, as its passage runs south-west, towards the valley of the rivulet. The position of the house seems to presuppose that the water of the small inlet, into which the rivulet falls, extended somewhat higher up the valley at the time when the houses were inhabited than it does now.

As shown by the drawing, the form of the house was rather irregular. This can certainly only partly be ascribed to the shifting of earth. Only the front wall and the front corners showed distinct outer contours. Apart from the acute angled store room in the south corner of the room of the house, the house was rectangular in form with its greatest length from front to rear wall, and its main dimension was still approximately 2.2 x 3 m. Three erect platform supports a, b and c were still present in the middle of the house, and the front edges indicated a depth of the platform from front edge to rear wall of about 1.3 m. The floor under the platform lay considerably deeper than the large flagged floor of the house. Between platform supports a and b, where the 'Miss Boyd Expedition' had been digging before me, was a room lying about 30 cm deeper than the floor of the house. Between b and c the level was 20 cm deeper. In the case of a and b, the height of the platform supports themselves was 53 cm, so the platform stones must have lain about 13 cm above the floor of the house. A good number of flat stones were found on the platform, particularly against the rear wall and eastern side wall. Some of these stones must certainly be presumed to originate

from the roof. In front of the platform the flagging of the house floor was lacking against the north-western side wall, and a layer of blubber here indicated that there had been a lamp stand. Both the acute-angled front corners of the room presumably served as depots. The northernmost of them appeared as a sunken hole, filled with blubber.

The passage still had its roofing through the entire thickness of the front wall. The door towards the room of the house consisted of a 96 cm long roof stone resting on a couple of supports standing 38 cm apart. The floor of the passage lay at least 50 cm lower than that of the house, but as an intermediate step between these two levels there was a large rectangular flagstone, sunken in relation to the floor. The passage, which was also heavily sunken, had a length of 4.8 m measured from the inner side of the large roof stone above the door.

Finds: In the house: a split-off piece of heavy narwhal tooth, maybe a fragment of a cylindrical shaft mounting, with a hole (LI.5958), a piece of heavy shaft mounting for a toy harpoon with scarf face and tenon groove (LI.5959) and a fragment of slate knife blade (LI.5960). Bones from the house were not retained and brought back.

House G

Situated about 40 m from F in a northerly direction, proved on excavation to be full of stones and gravel which had flowed down from the terrain behind. Not even bones were preserved. No measurements could be made.

Graves

In spite of a very careful search everywhere within a broad radius of the settlement we did not succeed in finding any signs of the existence of a burial place.”

10.26 Summary and Discussion of the East Coast from Nordostrundingen to Dove Bugt

As mentioned in the introduction to chapter 10, Knuth is the only archaeologist to have worked in all the areas described in the previous chapters. Accordingly, in chapters two to nine, one can rely on the sites and features described being very close to what has actual-

ly been recorded in these regions. This is very different from the situation in North-east Greenland south of Nordostrundingen, described in chapter 10, because considerable archaeological research has been carried out in this area, both before and after Knuth. Prior to Knuth's initial voyage to North-east Greenland in 1938, a tremendous body of evidence was collected by the Denmark Expedition (Thostrup 1911), and after Knuth the Greenland National Museum and Archives has surveyed and excavated Palaeo-Eskimo sites in the area from Dove Bugt to Holm Land (Andreasen 1996, 1997a, 1997b, 1998, 2000). However, the following discussion deals solely with the sites described by Knuth. In his unpublished manuscript from Dansk Nordøstgrønlands Ekspedition 1938-39, Knuth has a detailed discussion of the Thule sites he excavated. This discussion has been included as a direct quote to summarise the Thule settlements. The summary of the Palaeo-Eskimo evidence below is, on the other hand, solely the work of the present author.

Summary and Discussion of Palaeo-Eskimo Sites in North-east Greenland

In spite of the fact that the data presented in the present chapter are far from representative of the true number of sites, the character and cultural affiliation of the sites investigated by Knuth does seem to represent the general pattern. None of the sites discovered or excavated by Knuth is an Independence I site. Independence I is indeed known from the area, and it may also be present at some of the Palaeo-Eskimo sites discovered by Knuth, but even if that were the case he never found sufficient evidence to support such a conclusion. More recent fieldwork has documented some Independence I sites in the area, but they remain very sparsely represented (Andreasen 1996). When considering the dominance of Independence I in Peary Land it is even more difficult to understand why so few Independence I sites are known from the coastal areas of North-east Greenland. At present, we do not know whether the lack of sites is due to post-depositional factors which could, for example, be related to North-east Greenland having a different history of relative sea level than Peary Land, or whether it reflects the fact that Independence I had so few settlements in the area that they are very difficult to locate.

A total of 24 sites are described by Knuth. Of these, 16 sites have Thule settlements and 11 sites have

Independence II settlements (both Independence II and Thule have been registered at three localities). The numbers of Independence II sites in relation to Thule sites is in stark contrast to the situation in Peary Land and Johannes V. Jensen Land, where only a small handful of eight Independence II sites are known in contrast to at least 32 Thule sites.

In relation to Independence II, the site on Kap Skt. Jacques is remarkable. Even if one postulates that many of the more than 500 features may be of Thule origin, 274 features with a mid-passage remain from Independence II or at least from the Palaeo-Eskimo period. In terms of the number of features, Kap Skt. Jacques is the largest Independence II site known, and it is also among the largest Palaeo-Eskimo sites from the entire Eastern Arctic. This extremely large settlement by Independence II people on Île de France underlines that the Independence II presence in Peary Land is sporadic whereas in North-east Greenland it must have been much more long lasting and encompassed more people. Another very striking feature in comparison to Peary Land is the general wealth of sites and features known from North-east Greenland. Indeed, this may to some extent be a consequence of the history of research, but it is remarkable that at least 943 features are known from the 23 settlements from North-east Greenland. In spite of the fact that these sites only make up a fraction of the total number of sites in the records of the Greenland National Museum and Archives, the number of Knuth's features in this chapter surpasses the total number of features presented in all the previous chapters.

In addition to the many features on the Thule sites south of Nordostrundingen there are also other geographic variations. First of all, at Sophus Müllers Næs, and continuing to the south, genuine Thule winter houses with cold-trap entrances are found. This is a demonstration of the invisible line running along 81° N. North of this latitude Thule winter houses do not occur either in West or East Greenland. Approximately along the same latitude we find graves – a find group which is not known from Peary Land – and an abundance of large and surprisingly well built caches, also unknown in Peary Land both with regard to the details of their construction and their number.

Clearly, the Thule settlement in North-east Greenland fits the dichotomy known from the rest of Greenland: large winter settlements with earthen

houses in the vicinity of which most graves are found and tent ring sites where the summer was spent. This pattern cannot be recognised in Peary Land. Thule presence there seems to be confined to task-specific groups or travelling parties passing through the area.

In his unpublished manuscript prepared after the Dansk Nordøstgrønlands Ekspedition 1938-39, Knuth discusses the details of the Thule settlements in North-east Greenland at some length. In spite of the fact that some of the considerations presented may be outdated we have chosen to present Knuth's discussion in its full length:

General Observations on the Thule Settlements (from Knuth 1942)

“A comparison between the winter house ruins described and delineated above will soon convince one that among them we find ruins of different types and correspondingly of different ages.

Later house ruins. It is easiest to interpret the later houses as representatives of a probably not very distant Eskimo settlement. Namely the houses of the umivik settlement at Gefionshavn, the two houses A and B at Port Arthur, the three houses 522-523-524 and maybe also the houses 527 and 528 at Rypefjeldet and finally houses 406 and 407 at Snenæs. Common to these house ruins were first and foremost their good condition of preservation, the high overgrown walls and the long deep, solidly-built passages which, with the exception of one (house C at Gefionshavn), had a larger or smaller number of their roof stones lying in place. The rooms of all the ruins were rectangular with distinctly marked corners and the greatest dimension from door to rear wall. The floors were always beautifully covered with large flagstones, the platforms most often without flagging to the rear but with a front edge of stone, which at any rate in three cases rested on platform supports of stone, parallel to the side walls (house B at Port Arthur and houses B and F at Gefionshavn). In these houses the platform was narrower than the house room in front on account of a thickening of the side walls. The steps from the passages to the floors of the houses were usually very high (50-74 cm) and in the ruins in which Bendix Thstrup found no step but an evenly inclining transition (houses 522 and 528 at Rypefjeldet) it may be supposed that water streaming through the place had levelled out the steps. In house D at Gefionshavn the passage went

about 50 cm into the house. All the ruins had annexes at the front walls, most often one both to the right and left of the entrance but at any rate at one side. In a couple of cases the floors of these annexes lay deeper than the floor of the house and were delimited towards the latter by means of stones set on edge, for instance in house C at Gefionshavn, where the find of a lamp in the side chamber seems to indicate that it was used as cooking place. Two of the houses had a rectangular depot chamber instead of an annexe in one front corner standing within the house walls and limited by flat flagstones set on edge (house 524 at Rypefjeldet and house A, Port Arthur). Four of the houses had recess-like chambers above the innermost door roof stone (406 and 407 at Snenæs, and houses B and D at Port Arthur). Finally, it can be stated that the houses were situated near the present coastline and, in most cases, were built together two and two or lay close to each other (houses 406 and 407 at Snenæs, houses 523 and 524 of the eastern and 527 and 528 of the western settlement at Rypefjeldet).

All these traits will be re-found in Helge Larsen's description of the latest house type, type 3, at Dødemandsbugten, corresponding to the Second Stage of the Mixed culture, and it is no novelty to suppose that this house type is represented in the Dove Bugt area. Helge Larsen himself mentions the possibility that there may be a connection between house type 3 at Dødemandsbugten and the houses in the Dove Bugt area, which Bendix Thostrup considers latest, namely 523 and 524 at Rypefjeldet and 406 and 407 at Snenæs. With the increase and extension of the material for comparison obtained by our expedition this supposition must be said to rest on a more certain foundation. The immediate impression of the youngest house ruins of the Dove Bugt area viewed against the background of the corresponding ruins from Dødemandsbugten is, in addition, that the former are better preserved and of more recent date than the latter, which of course may partly be due to their more northerly position with the somewhat colder and drier climate. Regarding Bendix Thostrup's theory that among the later houses in the Dove Bugt area it should be possible to distinguish between two periods of settlement with a short interval of time between them, a theory which among other things is based on the relationship between house groups 522-524 and 527-528 at Rypefjeldet. I dare not, as mentioned above, deny that two

such more recent periods have existed. On the other hand, I do not think that I have made any observations in support of the theory, and I am inclined to think that the differences there may be between the ruins of the most recent houses are not greater than they may have been conditioned by coincidences and the natural conditions of the various places of settlement.

Earlier House Ruins. The existence of such was first pointed out by Bendix Thostrup, and I also realised it during many visits to the settlements of the area, among others 17-km Næsset and Rypefjeldet. As a basis for a more objective judgement of the problem, however, only four measured and excavated ruins may be taken into consideration here, namely houses 399, 401 and 403 at Snenæs and house D at Port Arthur.

All these houses had quite low wall mounds so that the floor of their interior most often appeared as a depression in the terrain, and they were overgrown predominantly by white mountain heather and willow. Besides, they seem to be divided into two types with house 399 from Snenæs and house D at Port Arthur as representatives of one and houses 401 and 403 at Snenæs as representatives of the other.

The two houses of the first type had both quite short passages without roof stones, rounded-off front corners with a small recess into the front wall itself to the right of the entrances and in addition distinct platforms of gravel. House D at Port Arthur had even a single large stone near the front edge of the platform resting on platform supports. The two other houses appeared with almost circular mounds outwardly, lacked passages completely and their construction on the whole looked more primitive and irregular. Their mounds were so sunken that the stone row of the inner wall was often lying bare so that the rear sides of the stones towards the mound were visible from above. The room of the houses was seen to be flagged, but there were no traces of any difference in level between platform and floor. The identification of these two older house types with Helge Larsen's older types from Dødemandsbugten is not quite as easy as was the case with the later type.

Square Houses: There are some indications that these – house 399 from Snenæs and house D from Port Arthur – may be classed among Helge Larsen's type 2 from Dødemandsbugten: The condition of preservation, the existence of a distinct passage and platform, the slightly curved front wall. House D from Port

Arthur may also appear to have its greatest width in front of the edge of the platform. But the most characteristic feature of Larsen's house type 2, the curved rear wall, was lacking completely and the heavily stressed resemblance with the Cape York house type is not found or is at any rate forced into the background in favour of a resemblance between the two mentioned Dove Bugt houses, in which other traits are dominant. No traces are seen of side platforms, and the rather large 'grease-lined' pits on both sides of the entrance, significant of house type 2, are replaced by small recesses in the front wall – only to the right of the door – which are not rounded off. Furthermore, the passages are short and do not continue into the house as stated by Larsen.

The impression of another relationship asserts itself through a striking resemblance of these square Dove Bugt houses to the house at Sophus Müllers Næs. The latter has almost the same main dimensions as house D at Port Arthur and the same differences in height between the platform, the floor and the passage. If house 399 at Snenæs is included, a trait common for all three houses is the quite short passage. Characteristic of the house at Sophus Müllers Næs is, however, the construction of internal side chambers, which must be presumed to have served as foundations for side platforms. This trait is common to the house at Sophus Müllers Næs and the houses of group 2 at Dødemandsbugten which, in several cases, had side platforms but these had not at all the regular careful construction found in the houses so far to the north.

It is impossible to exclude the possibility that there may be a connection between the rectangular houses at Sophus Müllers Næs and the similarly rectangular looking houses at Dove Bugt, house 399 at Snenæs and house D at Port Arthur, to which may be added the un-measured house C at the same settlement. Besides, Larsen has in fact expressed his supposition that a rectangular house type may have immigrated from the north, however, on basis of the apparently false view that the older house of the Dove Bugt area, like the houses of type 2 at Dødemandsbugten, were of the pear-shaped Cape York type.

In deriving his own house type 2 from the Cape York type Larsen, to no slight extent, relied on the older houses of the Dove Bugt area, as he was thrown upon judging them after Bendix Thstrup's descrip-

tions and sketches, the insufficiency of which, however, he fully realised. The measurements made by me of the older houses 401 and 403 at Snenæs show quite different ground plans than Bendix Thstrup's drawings, and house 392 from Snenæs, which by Larsen is mentioned as 'pear-shaped', is in all probability a more recent house like 406 and 407, which are also by Bendix Thstrup sketched as pear-shaped. The basis for the fact that – as also Therkel Mathiassen says – we find the Cape York house as the dominant type in the Dove Bugt area is thus considerably weakened, and it is further weakened in another way by Holtved's statement that he considers the Cape York house in its typical pear-shaped form a comparatively recent phenomenon. The basis of a relationship between the older pear-shaped house in the Cape York district and the Dove Bugt area is thus lacking in both terminals of the line of connection and to this must finally be added, as was expressed in the conclusion of the first chapter of this book and which Helge Larsen mentions himself, that the older immigration from the north and northwest needs not necessarily to have passed through the Cape York district.

If we suppose that the older rectangular houses at Dove Bugt belong to a type coming from the north different from and independent of the pear-shaped Cape York type, the question is then how this type is related to Helge Larsen's house type 2. With the unfortunately still very sparse knowledge of the older house types at Dove Bugt and of the ruins on the stretch between Dove Bugt and Dødemandsbugten the problem cannot be solved for certain and we must confine ourselves to guesses. The following facts are decisive: Firstly that the older rectangular houses of the type found at Dove Bugt are not found in the Clavering district, while on the other hand the type 2 houses from Dødemandsbugten are apparently not found in the Dove Bugt area. And secondly, that the sunken condition of the ruins and the sparse material found in the older rectangular houses at Dove Bugt speak in favour of the fact that they are of somewhat older date than the type 2 houses at Dødemandsbugten. It would be possible to draw the conclusion from these two facts that the type 2 houses at Dødemandsbugten (and the corresponding houses in the Ella Ø area) are due to a more southerly development arisen through a cross between the rectangular houses coming from the north and the round Inugsuk houses coming from the south, corre-

sponding to Helge Larsen's First Stage of the Mixed Culture, a cross in which traits of the Cape York house type as such are not to be found. This cross may have arisen outside Dødemandsbugten as stated by Helge Larsen, but more probably to the south than to the north of it which would be a more natural explanation of the appearance of Angmagssalik elements in the First Stage of the Mixed Culture. This house type spreads northwards with the culture to Dødemandsbugten and perhaps still further north, but it does not reach the Dove Bugt area such as was the case with house type 3.

Round houses: Of such we have only measurements of two specimens, namely 401 and 403 at Snenæs. The comparison between them and Helge Larsen's house types leads to similar contemplation as have just been dealt with above. It is tempting to jump to the conclusion that in the two Dove Bugt houses we see Helge Larsen's house type 1: "Rounded houses – with one or two rooms, with no pits by the wall in the foremost part of the house and with no cavities under the platform". It also holds good for the Dove Bugt houses what Larsen says about the type 1 houses at Dødemandsbugten that they are situated "far back in the settlement, all on slight eminencies in the terrain, perhaps remnants of terraces". The Snenæs houses are situated if not directly on then at any rate just in front of an old terrace, rather far inland on the point.

But in several other respects there is a lack of resemblance. The Snenæs houses are not "entirely dug into the ground" their rooms inside the walls are not of oval shape but have partly straight walls, and they completely lack the distinct passages of the houses from Dødemandsbugten. Facing these round houses our attention is once more drawn northward instead of southward, this time to Eskimonæsset where we found round houses in the middle of a flat point and

elevated above the terrain on a gravel terrace. Like the Snenæs house these houses had flagged floors, were lacking platforms and passages and, as far as could be ascertained, their interiors were of rather irregular shape. Like the house at Sophus Müllers Næs, however, they had internal side chambers or fireplaces which were not found in the Dove Bugt houses.

In the round houses at Eskimonæsset a number of long whalebones were found on the floor and against the wall mounds so that they may be supposed to originate from the roof construction. Only in one of the five houses on which Larsen builds his house type 1, namely houses 3 of group I, were whalebones found, a thick piece of whale-rib serving as a roofing-beam over the passage. Bendix Thstrup states that in one of the older ruins at Snenæs (398) "a quantity of frozen whale-bones" was found on the platform, more particularly bones of the Greenland whale.

Thus, it is actually tempting to see a connection between the round houses at Eskimonæsset and the round houses at Dove Bugt, so that one may get the idea that also the round house type at Dove Bugt has come from the north. The condition of preservation of the round Snenæs house in relation to the older rectangular ones, and the way in which the two forms are placed among each other on the point, seems to indicate contemporaneity or at any rate something very close to it, just as was the case with the round and the rectangular houses round the mouth of the Ingolf-fjord. If this contemporaneity is correct it may be imagined that also the round houses coming from the north in some way or other have contributed to the house type or types of the Mixed Culture at Dødemandsbugten. It is of course not out the question, however, that they may represent a more recent immigration from the north."

Discussion and Conclusions

A total of 154 archaeological sites have been presented. 51 sites with a total of 244 features are Independence I sites, 23 sites with a total of 416 features belong to Independence II and two are Late Dorset sites with just two features. 63 sites with a total of 626 features are of Thule origin and, finally, 29 sites with at least 46 features remain undated.

11.1 Chronology

Relative Chronology

During his initial years of research in Peary Land Knuth had neither relative nor absolute means of dating. Therefore, the Stone Age sites were first compared to the Cape Dorset material published by Jenness (Knuth 1952). However, already during his 1954 field-work Knuth noticed that typological differences in the lithic inventory were related to site elevation and thus he was able to establish a relative chronology based on a combination of typology and beach ridge chronology (Knuth 1958a and b). Soon after, Knuth's chronology was supported by radiocarbon dates, suggesting that the earliest Independence I sites located between 10 and approximately 20 m a.s.l. were 4400 to 3800 years old, whereas the younger Independence II sites, normally located 6 to 10 m a.s.l., were approximately 2800 to 2400 years old. In Knuth's (1967a) opinion the typological differences between the Peary Land material and the Stone Age material known from West Greenland were significant enough to suggest that the Stone Age cultures in North-east Greenland had developed in isolation. The early radiocarbon dates combined with the complete dominance of musk ox in the faunal material at the Peary Land sites thus appeared to confirm Steensby's thesis of an early High Arctic pioneer population entering Greenland along the Musk-Ox Way. In this framework the West Greenland Saqqaq culture fitted in nicely as the more southern dispersal of a caribou-hunting people who later evolved into the Dorset. In accordance with Danish custom, the Stone Age cultures of Peary Land were named after the site (Independence Fjord) where the material was first

scientifically described, but in Knuth's cosmology the naming also indicated independence from the other Palaeo-Eskimo varieties known from the Eastern Arctic (Knuth 1967b:15).

Screening the Radiocarbon Dates

Knuth's series of 71 radiocarbon dates (fig. 11.1) should be sorted and screened prior to any cultural-historical reconstruction. In order to verify the more reliable measurements we must sort out driftwood dates and dates on marine material, due to the well known difficulties of comparing such dates with dates for local terrestrial material. Secondly, there are a few obviously erroneous dates which should be left out and, thirdly, the dates should be treated regionally in order to gain a reliable impression of the presence or absence of mankind in specific regions. Here, focus will be placed on Knuth's dates from Peary Land which has the largest suite of radiocarbon dates.

Three dates, K-135, K-870 and K-2835 are considered erroneous because they are way out of line with the expected. All three of them are for musk-ox bone collected from surface deposits, and these dates illustrate how careful one should be when dealing with surface sites in a desert environment where archaeological sites may be palimpsests of many different cultural as well as zoological episodes. Samples K-135 and K-870 are, accordingly, too recent to fit the expected Palaeo-Eskimo ages. Sample K-135 from Deltaterrasserne (no. 291), terrace D, feature 5, is a bulk sample of musk-ox, fox and hare bones. Since the arctic fox is semi-marine, one should actually disregard the date for this reason alone. However, the possible marine influence would make the date too old whereas it actually turns out to be too young to date the Independence II habitation indicated by the typology of the artefacts. Within one standard deviation the calibrated calendar date comes out to between c.1400 AD and present, which may suggest that Thule people have disturbed feature 5. Within one standard deviation another radiocarbon measurement (K-4499) conducted on musk-ox bone from feature 5 has dated the feature to between 760 cal. BC and 390 cal. BC, which

Lab.no	Site name	Material	Species	¹⁴ C BP	±	¹³ C	Cal. ± standard deviation	reference
K-2560	Old Nuulliit, C-3	bone, <i>humerus</i>	<i>Ursus maritimus</i> <i>arcticus</i>	5060	95	-12.4		
K-754	Deltaterrasserne, 13	charcoal, driftwood	<i>Picea</i> sp.	4540	120		3500-3030 BC	Knuth 1984
K-1628	Old Nuulliit, 13	bone	whale	4500	110			
K-755	Deltaterrasserne, 12	charcoal, driftwood	<i>Picea</i> sp.	4140	120		2880-2570 BC	Knuth 1984
K-138	Prinsesse Ingeborg Halvø, C	driftwood		4040	170		2900-2350 BC	Knuth 1984
K-938	Pearylandville, 24	charcoal	<i>Salix</i> sp.	3950	120		2620-2200 BC	Knuth 1984
K-1260	Kettle Lake, S, M-3	charcoal	<i>Salix arctica</i>	3930	130		2580-2200 BC	Knuth 1984
K-5075	Kettle Lake N, 4	bone	<i>Ovibos moschatus</i>	3920	85	-18.9	2560-2230 BC	
K-928	Portfjeldet, 1	charcoal	<i>Salix</i> sp.	3890	120		2560-2140 BC	Knuth 1984
K-3366	Solbakken, 2 B	bone	<i>Ovibos moschatus</i>	3870	85	-18.8	2470-2200 BC	Knuth 1984
K-929	Portfjeldet, 2	charcoal	<i>Salix</i> sp.	3860	120		2480-2130 BC	Knuth 1984
K-756	Wychoff Land, 1	charcoal, driftwood	<i>Larix</i> sp.	3850	120		2470-2130 BC	Knuth 1984
K-4497	Deltaterrasserne, 14	bone	<i>Ovibos moschatus</i>	3850	90	-18.6	2460-2200 BC	
K-939	Pearylandville, 10a	charcoal	<i>Salix</i> sp.	3840	120		2470-2130 BC	Knuth 1984
K-4498	Deltaterrasserne, 12	bone	<i>Ovibos moschatus</i>	3840	85	-19.6	2450-2150 BC	
K-3364	Midternæs, 6	bone	<i>Ovibos moschatus</i>	3830	85	-19.3	2460-2140 BC	Knuth 1984
K-1261	Kettle Lake, S, T-3	charcoal	<i>Salix arctica</i>	3810	130		2460-2040 BC	Knuth 1984
K-1062	Vendenæs, 4	charcoal	<i>Salix</i> sp.	3800	120		2460-2040 BC	Knuth 1984
K-3362	Kap Peter Henrik, N-3	bone	<i>Ovibos moschatus</i>	3800	85	-18.5	2410-2050 BC	Knuth 1984
K-5074	Kettle Lake Sq K	bone	<i>Ovibos moschatus</i>	3800	80	-19.4	2400-2060 BC	
K-930	Portfjeldet, 3	charcoal	<i>Salix</i> sp.	3790	120		2460-2030 BC	Knuth 1984
K-5076	Portfjeldet, 3	bone	<i>Ovibos moschatus</i>	3790	60	-19.8	2340-2060 BC	
K-932	Vandfaldsnæs, 15	charcoal	<i>Salix</i> sp.	3780	120		2410-2030 BC	Knuth 1984
K-4676	Adam C. Knuth Site, II, 1	antler	<i>Rangifer tarandus</i>	3780	80	-20.7	2340-2030 BC	
K-2561	Old Nuulliit, A-2	tooth	<i>Odobenus rosmarus</i>	3770	90	-13.2		
Ua-1687	Deltaterrasserne, 13	bone	<i>Ovibos moschatus</i>	3770	75		2300-2030 BC	
K-1262	Kettle Lake, N, 4	charcoal	<i>Salix arctica</i>	3760	130		2400-1970 BC	Knuth 1984
K-1061	Vendenæs, 3	charcoal	<i>Salix</i> sp.	3760	120		2400-1970 BC	Knuth 1984
K-4258	Kap Holbæk, I, A+B	bone	<i>Ovibos moschatus</i>	3760	70	-18.6	2290-2030 BC	
K-5739	Bob's Site, Cache C,3	bone	<i>Ovibos moschatus</i>	3730	85	-20.5	2290-1970 BC	
K-564	Den Blå Flints Boplads, Ruin D	charcoal, driftwood		3700	120		2290-1910 BC	Knuth 1984
K-753	Ranum Elv, 1	driftwood	<i>Larix</i> sp.	3680	120		2280-1880 BC	Knuth 1984
K-3531	Adam C. Knuth Site, III, 1	bone	<i>Ovibos moschatus</i>	3670	80	-19.6	2200-1930 BC	Knuth 1984
K-4058	Pearylandville, 7	bone	<i>Ovibos moschatus</i>	3670	75	-19.9	2190-1940 BC	Knuth 1984
K-3532	Adam C. Knuth Site, II, 1	bone	<i>Ovibos moschatus</i>	3630	80	-19.4	2140-1880 BC	Knuth 1984
K-1196	Gammel Strand Nord, 3	charcoal	<i>Salix</i> sp.	3620	110		2140-1770 BC	Knuth 1984
K-563	Kap Holbæk I A + B	charcoal, driftwood		3610	120		2140-1770 BC	Knuth 1984
K-3365	Martins Site, A	bone	<i>Ovibos moschatus</i>	3590	60	-20.0	2040-1780 BC	Knuth 1984

Fig 11.1. 'Knuth dates' from Northern Greenland. Complete list of radiocarbon dates conducted on archaeological material from Northern Greenland.

DISCUSSION AND CONCLUSION

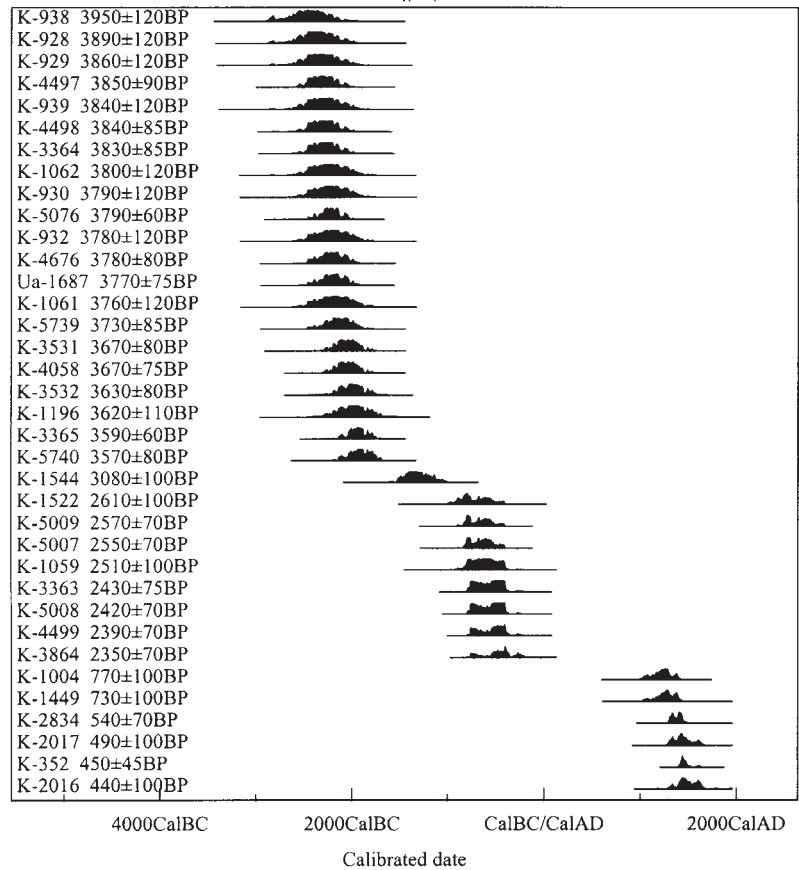
Lab.no	Site name	Material	Species	¹⁴ C BP	±	¹³ C	Cal. ± standard deviation	reference
K-5740	Vandfaldsnæs, 15	bone	<i>Ovibos moschatus</i>	3570	80	-20.0	2030-1770 BC	
K-150	Deltaterrasserne, 5	charcoal, driftwood		3290	130		1740-1420 BC	Knuth 1984
K-933	Vandfaldsnæs, 9	charcoal, driftwood	<i>Larix</i> sp.	3180	110		1610-1310 BC	Knuth 1984
K-1544	Engnæs, 1	charcoal	<i>Salix</i> sp.	3080	100		1490-1130 BC	Knuth 1984
K-142	Kap Holbæk, II, A	charcoal, driftwood		3030	130		1430-1050 BC	Knuth 1984
K-565	Kap Holbæk Gr. II	charcoal, driftwood		3000	120		1400-1050 BC	Knuth 1984
Ua-1288	Kap Skt. Jacques, 101	bone	Marine	2965	70	-15.4		
K-934	Vandfaldsnæs, 9	charcoal	<i>Picea</i> sp.	2740	100		1000-800 BC	Knuth 1984
K-1522	Engnæs, 5	charcoal	<i>Salix</i> sp.	2610	100		900-540 BC	Knuth 1984
K-5009	Vandfaldsnæs, 11	bone	<i>Ovibos moschatus</i>	2570	70	-19.5	820-540 BC	
K-5007	Deltaterrasserne, 18	bone	<i>Ovibos moschatus</i>	2550	70	-20.5	810-520 BC	
K-1059	Hellebæk, A+B	charcoal	<i>Salix</i> sp.	2510	110		800-510 BC	Knuth 1984
K-5077	Kap Holbæk, IV	bone	<i>Ovibos moschatus</i>	2460	75	-18.1	760-410 BC	
K-4259	Kap Holbæk, II, A	bone	<i>Ovibos moschatus</i>	2450	70	-20.6	760-400 BC	
K-3363	Kap Mylius-Erichsen, 1	bone	<i>Ovibos moschatus</i>	2430	75	-20.4	760-400 BC	Knuth 1984
K-5008	Vandfaldsnæs, 9	bone	<i>Ovibos moschatus</i>	2430	70	-20.4	760-380 BC	
K-4499	Deltaterrasserne, 5	bone	<i>Ovibos moschatus</i>	2390	70	-19.9	760-390 BC	
K-3360	Juniskæret	bone	<i>Ovibos moschatus</i>	2370	75	-20.5	760-380 BC	Knuth 1984
K-3361	Kap Ludovika	bone	<i>Ovibos moschatus</i>	2370	75	-20.7	760-380 BC	Knuth 1984
K-3864	Engnæs, 4	bone	<i>Ovibos moschatus</i>	2350	70	-19.1	760-250 BC	Knuth 1984
Ua-1686?	Kap Skt. Jacques, 426	bone	<i>Ovibos moschatus</i>	2340	70	-20.5	800-200 BC	
K-2835	Uranienborg	bone	<i>Ovibos moschatus</i>	1810	75	-19.6	90-330 AD	
K-5010	Kap Skt. Jacques	bone	<i>Homo sapiens</i>	1210	60	-14.2		
K-1004	Teltnæs	charcoal	<i>Salix</i> sp.	770	100		1070-1390 AD	Knuth 1984
K-1449	Kølnæs	wood	<i>Quercus</i> sp.	730	100		1190-1400 AD	Knuth 1984
K-4256	Kap Buddington, LK hus	bone	<i>Ovibos, Alopex</i> , hare	690	65	-21.4	1270-1400 AD	
K-1259	Ella Lake, GRA	charcoal	<i>Salix</i> sp.	570	100		1300-1590 AD	Knuth 1984
K-2834	Uranienborg	bone	<i>Ovibos moschatus</i>	540	70	-19.8	1300-1440 AD	Knuth 1984
K-2017	Mellelbygdén	bone	<i>Ovibos moschatus</i>	490	100		1300-1620 AD	Knuth 1984
K-566	Kølnæs	baleen	<i>Cetacea</i>	460	100			Knuth 1984
K-352	Kølnæs	bone	<i>Ovibos moschatus</i>	450	45		1420-1480 AD	Knuth 1984
K-2016	Blanknæs	bone	<i>Ovibos moschatus</i>	440	100		1400-1630 AD	Knuth 1984
K-567	Snenæs, Dove Bugt	baleen	<i>Cetacea</i> , sp.	410	100			Knuth 1984
K-135	Deltaterrasserne	bone	<i>Ovibos, Alopex</i> , hare	330	130		1400-1800 AD	
K-870	Deltaterrasserne	horn	<i>Ovibos moschatus</i>	60	100		1680-	

Fig 11.1. Continued.

is much more in concordance with other Independence II dates from the area. Whatever the explanation for the odd date may be, Knuth himself chose to omit the sample from the list published in 1981. Sample K-870 is a measurement carried out on musk-ox horn from feature 10 at Deltaterrasserne. Feature 10

is an Independence I mid-passage ruin located 14.7 m a.s.l. and the recent date of 60 BP clearly supports Knuth's decision in omitting this from his discussion of the cultural history of Peary Land. Sample K-2835 is a measurement on musk-ox bone collected from the surface on a moraine slope below the Thule shelter ruins

Fig. 11.2. Selected dates from Peary Land. Calibrated terrestrial radiocarbon dates from Peary Land. The Independence I, Independence II and Thule cultures stand out as three well defined episodes of settlement separated by several centuries where no humans lived in Peary Land. Only the K-1544 date from Engnæs lies in the intermediate period between Independence I and II. However, this date should probably be omitted due to mixing of older and younger charcoal.



at the site of Uranienborg (no. 288). Within one standard deviation the measurement calibrates to between 90 cal. AD and 330 cal. AD, which is too early when compared to other Thule dates from Uranienborg as well as to other Thule sites in Peary Land. Another musk-ox measurement (K-2834) from Uranienborg has placed the settlement between 1300 and 1440 cal. AD. Knuth had more confidence in this date, and he thus excluded the K-2835 measurement from his published Thule dates.

When driftwood dates, marine dates and the erroneous dates are disregarded, we are left with 36 dates from Peary Land and the Independence Fjord – Danmark Fjord area, conducted on local wood or bone of musk ox. These dates (fig. 11.2) clearly indicate the episodic character of the human presence in Peary Land.

Absolute Chronology, Independence I and II

Independence I is dated by 22 radiocarbon measurements from 10 different sites. K-938 dated to 3950 BP is the oldest Independence I date on terrestrial material (charcoal, *Salix* sp.). Within one standard deviation

the calibrated date, with 63.4% confidence limits, lies between 2620 cal. BC and 2270 cal. BC, and with 4.9% confidence limits between 2260 and 2200 cal. BC. Unfortunately, this particular dating came out during the early years of the radiocarbon laboratory in Copenhagen and it has a relatively large uncertainty of ± 120 years resulting in the broad time span of the calibrated date. The same goes for the other early dates for charcoal (K-928, K-929 and K-939). Taking the earliest musk-ox bone date, K-4497 (3850 ± 90 BP), into consideration, we can narrow down the dating of the earliest presence of Independence I. Within one standard deviation this date comes out with a time span of 2460–2200 cal. BC (68.2% probability). The latest Independence I dating in Peary Land on musk-ox bone is K-5740 (3570 ± 80 BP). Within one standard deviation the calibrated date from this is 2030–1770 cal. BC (68.2% probability). With a probability of 49.9% this date lies within the period 2030–1860 cal. BC. Based on these measurements the maximum time span of Independence I in Peary Land is estimated at 2460–1860 cal. BC.

Independence II dates are even more clustered than those for Independence I, since all the Independence II dates lie within a 400-year interval from 800 cal. BC to 400 cal. BC. With one standard deviation, all the Independence II dates fall between 900 cal. BC and 250 cal. BC. However, the earliest date (K-1522: 2610 \pm 100 BP) only has a probability of 37.8% of being older than 750 cal. BC and the latest date (K-3864: 2350 \pm 70 BP) is due to a very low probability of just 3% for having the youngest date located in the interval between 280 cal. BC and 250 cal. BC. If this probability is omitted, all the Independence II dates are earlier than 350 cal. BC. However, one must stress the problem of a plateau on the radiocarbon calibration curve exactly between 800 and 400 cal. BC (Pearson 1987; van der Plicht & Mook 1987). This plateau is a serious problem when using radiocarbon dating to establish the chronology of Independence II sites with any degree of accuracy.

Only a single measurement (K-1544: 3080 \pm 100 BP) is located in the gap between Independence I and II. This is a measurement conducted on willow charcoal from feature 1 at the Engnæs site (no. 293). Several comments must be attached to this date. Firstly, it is a bulk sample which may enhance the possibility of mixing older with younger material. Secondly, feature 1 at Engnæs is an odd and possibly disturbed feature, but in general it is difficult to establish the exact character of the settlement due to the lack of site maps and detailed drawings of the individual features.

If the K-1544 date is accepted then the long period of time between Independence I and II witnessed a sporadic settlement in Peary Land in accordance with the suggested continuity between the two cultures on Northern Ellesmere Island (Sutherland 1996:280ff). However, the artefacts from the Engnæs feature 1 are typically Independence II and there are no typological indications of a transitional character in this material. If K-1544 is omitted then there appears to have been a gap of almost 1000 years between Independence I and II with no human presence in Peary Land.

Absolute Chronology, Thule Culture

The last occupational episode documented in Peary Land is the Thule culture. The Thule people have left several large sites with monumental dwelling remains. However, in spite of the well preserved dwelling features the Thule sites are generally characterised by an

extreme scarcity of finds. In addition, Knuth had little interest in the more recent settlement episodes, and he therefore undertook only a few systematic excavations of Thule features. Eight radiocarbon dates have been conducted on material from Thule sites. One of these is the K-2835 (mentioned above) from Uranienborg (no. 288) which is considered too old, one is for baleen from the umiaq on Kølneæs (no. 269), one is for oak wood from the same umiaq. So only four to five Thule dates are left for discussion from the Peary Land area. Within one standard deviation these dates fall between 1070 cal. AD and 1630 cal. AD. The relatively early date of 1070 \pm 100 cal. AD for *Salix* (willow) charcoal from the Teltnæs site (no. 312) may represent a hitherto unrecognised migration into Peary Land, but as long as the date stands isolated, far-reaching conclusions should be avoided. On the application form for the radiocarbon lab Knuth speculated that since feature 4 at Teltnæs differs from any other of the features known from the large Thule sites in the same area, it may be related to an early Thule wave of people passing through the Peary Land corridor. Indeed feature 4 on Teltnæs may seem special but it is more due to the fact that gravel was used as a building material and not so much the shape that makes it special. Instead the overall outline of feature 4 seems to be similar to many shelter ruins. The remaining Thule dates cluster between 1400-1500 cal. AD, and therefore the Thule settlement of Peary Land seems to comprise just one or perhaps a few ventures.

Other Radiocarbon Dates

A few more dates from localities outside Peary Land (table 11.1) should be discussed separately: K-4256 (690 \pm 65 BP) is a date conducted on material collected from the Late Dorset feature at Kap Buddington (site no. 266) discovered by Lauge Koch and later published by Mathiassen in his description of Eskimo relics from Washington and Hall Land (Mathiassen 1928). When comparing this date to the published Late Dorset radiocarbon dates from Inglefield Land (Lund-Rasmussen *et al.* 1999) it is seen that the date from Kap Buddington (in more recent publications named Cape Tyson) belongs to the final Late Dorset of Northern Greenland. The calibrated Kap Buddington date falls between 1270 and 1400 cal. AD which, in the radiocarbon sense, makes it contemporaneous with the early Thule dates from the same area.

K-5010 is a problematic date. It was conducted on human bone from Kap Skt. Jacques on Île de France. Within one standard deviation the calibrated value for this date lies between 710 and 900 cal. AD. The possible influence of extra reservoir effect is not calculated in the date. The information from the laboratory in Copenhagen states that 400-500 years should probably be subtracted from the age in order to get a reasonably correct figure. Doing this would bring K-5010 in line with other Thule dates from Peary Land.

Conclusion on the Absolute Dates

Taken as a whole, the radiocarbon dates from Peary Land seem to cluster within three well defined periods of time, the first being the longer occupational episode of Independence I. Its maximum range within one standard deviation is 2460 cal. BC to 1860 cal. BC. The second occupation episode is the brief Independence II at sometime between 900 cal. BC and 400 cal. BC and the third occupational episode comprises the ventures of the Thule people probably between 1400-1500 AD. The significant level of overlap between the dates within each period may reflect that the northernmost part of the world witnessed only a single or a few historical episodes of human exploration, migration and settlement within each cultural historical period.

11.2 Settlement Patterns

Independence I – the First People

The Routes of the Pioneers. Independence I is identified as the earliest settlement phase in the Eastern Canadian High Arctic (e.g. Helmer 1991; McGhee 1979; Schledermann 1990; Sutherland 1996). Accordingly, the archaeological traces in Peary Land must be seen as reflecting the northeasternmost extension of the initial colonisation of the Arctic.

Only four Independence I sites are known from the area from Hall Land to Peary Land and of these, two are from Hall Land where Independence I is well represented with the Solbakken site (no. 274). The many dwellings on Solbakken demonstrate the presence of a population of a certain size. Solbakken could well be a small aggregation site for the pioneers coming from Northern Ellesmere Island into Greenland. All of the features on Solbakken leave the impression of being short term even though a few may have been

re-occupied a few times as indicated by their stratification. Soon the pioneers pushed further east, but we cannot follow their exact routes. It is unknown whether the initial routes of migration went over land or whether the groups, by means of kayak-like vessels such as the ones known from the Saqqaq culture (Grønnow 1994), took advantage of more favourable open-water conditions than those prevailing today. The Memnon sites (no. 273) may be camping grounds left during the initial eastward push and if so these two localities show that the groups occasionally split into family units during the migration into this previously unoccupied region. In this way, even a relatively small initial population could gather information on a vast territory.

Taken together Røde Enkesæde (no. 331) and the small Memnon sites may, however, indicate another scenario: The warmer conditions during early Independence I could have enabled humans, for a period of time, to settle down along the Polar Sea. These desolate and today almost unknown regions may have been occupied more intensively than indicated by the present scanty evidence. The lack of systematic research in the coastal areas from Hall Land to Peary Land prevents us from evaluating these scenarios.

When the Independence I people entered Wandel Dal and Jørgen Brønlund Fjord they found conditions very favourable. Presumably the route to this 'High Arctic oasis' went through J. P. Koch Fjord, but other topographical corridors are possible as well. Recent studies indicate a much more limited local glaciation of Peary Land than that of today (Hammer 2001). A route from De Long Bugt via Nordpasset to the head of Frederick E. Hyde Fjord or a coastal migration along the shores of Johannes V. Jensen Land represent two alternative gateways to central Peary Land. Anyway, Wandel Dal and Jørgen Brønlund Fjord remain the only areas containing enough Independence I sites to indicate anything but a sporadic occupation. Along Øvre and Nedre Midsommersø and in Jørgen Brønlund Fjord several Independence I settlements have been discovered and here it is possible to discuss the settlement pattern in detail.

Settlement Patterns in the Area of Wandel Dal – Jørgen Brønlund Fjord

In his most detailed account of the archaeology of Peary Land, Knuth (1967a and b) distinguished



Fig. 11.3. Number of features on Independence I sites along Øvre and Nedre Midsommersø in Wandel Dal and along the shores of Jørgen Brønlund Fjord. The Independence I settlement is clearly concentrated around the western end of Øvre Midsommersø, Nedre Midsommersø and Jørgen Brønlund Fjord. The large sites of Pearylandville, Deltaterrasserne and Gammel Strand Nord clearly stand out as major settlements. Note the 16 features at the locality Kølterrasserne are marked as a single settlement (large site at Independence Fjord in the far right part of the map). In reality this site consists of 16 more or less isolated features situated several hundred metres from each other so that the settlements actually are dispersed along several kilometres of shoreline. Kølterrasserne should probably more correctly be seen as an amalgamation of small sites. Knuth, however, treated the features as a single site, and we have thus described and shown the features as such.



Fig. 11.4. Number of features on Independence II sites along Øvre and Nedre Midsommersø in Wandel Dal and Jørgen Brønlund Fjord. When compared to the Independence I settlement it is seen that the Independence II settlement is restricted to just seven localities and with most features concentrated on the sites of Engnæs, Deltaterrasserne, Vandfaldsnæs and Kap Mylius-Erichsen. There are only a few small specialised camps in the vicinity of these larger settlements.



Fig. 11.5. Number of features at Thule sites along Øvre and Nedre Midsommersø in Wandel Dal and Jørgen Brønlund Fjord. When compared to the Palaeo-Eskimo settlement pattern it is clearly seen that the Thule localities are much more evenly distributed in the Wandel Dal – Brønlund Fjord system. The large Thule localities of Stjerneborg and Uranienborg thus constitute the only known human settlements at Aftenstjernesø in the western end of Wandel Dal.

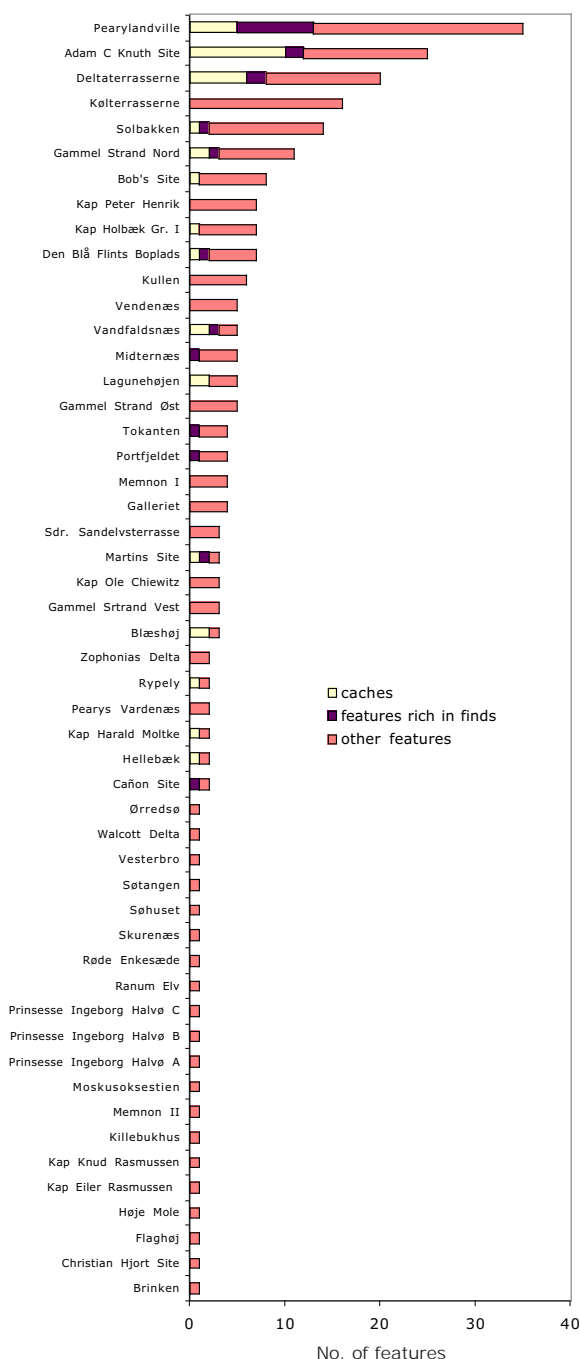
between large aggregation sites and small single or two family units (Knuth 1967). Knuth argued that the many small sites around the mouth of Jørgen Brønlund Fjord had presumably been used during spring in March and April and that people withdrew during August via the Portfjeldet site (no. 305) to Pearylandville (no. 292) where they stayed during the dark period.

In the following the present authors supplement and discuss Knuth's interpretation of the settlement pattern of Independence I (fig. 11.3). Future analyses on lithic and bone artefacts and debris, including distribution patterns, refitting sequences and 'chaîne opératoire' analyses, may add substantial information on the site formation processes in Peary Land and thus contribute to a better understanding of the formation of the large sites.

In general, the sites classified by Knuth as large aggregation sites such as Pearylandville (no. 292), Deltaterrasserne (no. 291) and Gammel Strand Nord (no. 423) are also the ones with the largest number of finds. This, of course, reflects the fact that many dwellings generally result in many artefacts. However, in the area of Wandel Dal and Jørgen Brønlund Fjord

there are only 17 features with a lithic component of more than 100 artefacts: One is located at the double-feature site of Cañon Lejren (no. 377), one at the large triple-feature Martin's site (no. 346), one at the quadruple-feature site of Tokanten (no. 347), one at Portfjeldet with its four features and one at Vandfaldsnæs (no. 307) with its four features. Another is located at Midternæs (no. 306) with its five features, one at Gammel Strand Nord (no. 423) which has 11 Independence I features, two at Deltaterrasserne with its 20 features and 8 are located at Pearylandville which has a total of at least 35 features.

This distribution of dwellings with a large quantity of lithic material demonstrates that any given Independence I ruin has a 14.9% chance of being a 'rich' feature if it is located on a site with five or more features whereas it only has an 8.8% chance if it is located on a site with five or less features. Accepting that the amount of lithic artefacts and debris varies with length of stay as well as intensity of activities during the occupation, this evidence reflects the fact that dwellings on the larger sites generally were used for a longer period of time than dwellings at the smaller localities.



Winter versus Summer Settlements

Knuth (1967a:201) clearly stated that the distinction between summer and winter dwellings inherited from Neo-Eskimo archaeology cannot be adopted in the interpretation of the Palaeo-Eskimo dwelling types. However, in the following we will discuss whether the repeated occurrence of caches and features rich in lithics on the larger sites indicates that these were

Fig. 11.6. Relationship between the occurrence of caches, features rich in finds and total number of features at Independence I sites in Northernmost Greenland. The features rich in finds most often occur on sites with caches, and massive lithic reduction is in no case registered at sites with just a single feature. Note the site of Kølterrasserne in the easternmost part of Jørgen Brønlund Fjord is registered as a relatively large settlement with 16 features. However none of these is rich in finds and there are no caches. This supports the suggestion that the Kølterrasserne site is, in reality, not a single site but an amalgamation of isolated features. So for any future statistical treatment of these data Kølterrasserne should be categorised as several smaller sites with just a single or a few features.

used as more permanently settled winter camps, at least during some periods.

Since all of the Palaeo-Eskimo dwellings registered by Knuth are tent-ring type dwellings, he argued that the unpredictability of the whereabouts of the musk oxen never enabled Independence I to establish any kind of permanent winter camps. However, as was shown above, there are differences in the layout and size of the sites, and these differences are most reasonably interpreted as resulting from seasonal migrations between small dispersed spring and summer camps with just one or a few families, and larger aggregation camps believed to have been occupied throughout the cold season. Most of the small summer camps are dispersed around the mouth of Jørgen Brønlund Fjord, while several short-term occupations are also located in the landscape surrounding Pearylandville. If one accepts using the amount of lithics as a measure of length of stay, it then follows that the large aggregation camps in general contain the dwellings of the most stable character. A quantitative analysis of finds in relation to caches further enlightens this distinction between small and large sites (fig. 11.6): Caches are relatively rare at Independence I sites. Only 12 of the 51 Independence I sites described in Northern Greenland have caches, and out of a total of 244 features at Independence I sites just 37 are caches. However, the caches are clearly more common at the large sites which also tend to contain the ruins with most finds (fig. 11.4). 11,141 lithic finds, or 84% out of a total of 13,247 finds from all Independence I sites described in the previous chapters, are from sites with caches, in spite of the fact that only 24% of the Independence sites contain caches. In other words, the Independence

I sites with caches constitute 24% of all Independence I sites but they hold 84% of the lithic finds. These figures demonstrate a strong positive correlation between large sites with many dwellings, dwellings with a high number of finds and caches. Since caches are supposed mainly to have been used for the storage of winter supplies, it is therefore suggested that Pearylandville (no. 292), Deltaterrasserne (no. 291), Vandfaldsnæs (no. 307), Gammel Strand Nord (no. 423), Adam C. Knuth site (no. 277) and Den Blå Flints Boplads (no. 296) are indeed winter settlements. Here people lived for months, and much of the flint knapping was done at these localities in order to prepare tools for later personal use or even for exchange.

As can be seen from the descriptions of the fauna there are only limited positive indicators for winter occupation at any of the Palaeo-Eskimo sites, and often the season indicated by the fauna contradicts the season indicated not only by the lithic material but also by the character of the features. Features such as Pearylandville features 10 and 23 and Vandfaldsnæs feature 15 are suggested to be winter occupations on the amount of lithic material, but numerous bird and char bones indicate that they were probably also warm season habitations. As a consequence, the postulate of winter occupation on the sites rich in finds must be balanced by the fact, that the 'winter' occupations are those that archaeologically 'have it all' and that these features may actually have been occupied more or less on an all-year-round basis, whereas the summer sites are those which have only scanty evidence of occupation or which have only summer indicators.

The opposite conflict of evidence is also seen. The sole occurrence of hare and musk ox in feature 3c on Bob's site (no. 345) and the foetal musk-ox bones in feature 26 at Pearylandville (no. 292) were interpreted as positive indicators for a winter occupation. In both cases, however, the features and lithic finds are such that they appear to suggest warm season features. Feature 3c on Bob's site is without doubt an outdoor hearth located in front of the dwelling, so in this case one can reasonably suggest that the bones originate from a few specific activities related to the flensing and consumption of musk ox and hare. The foetal musk-ox bones found in feature 26 at Pearylandville must, however, originate from a musk ox killed in late winter or early spring. The relatively limited lithic material from this feature does not suggest that fea-

ture 26, if occupied during winter, was inhabited for any substantial period of time. So in this case the foetal musk-ox bones would have to be explained by the caching of food or by accepting Knuth's thesis of temporary dwellings used winter and summer and with no differentiation between the dwelling types used in the different seasons.

In conclusion it must be underlined that evidence on site seasonality in Peary Land is contradictory. This problem must be addressed through more detailed analyses of the faunal material, e.g. tooth sectioning, and further contextual archaeological analyses of the sites, dwelling structures and artefacts. It must be kept in mind that food transportation and storage was an integral part of the subsistence strategy of the Independence people. Accordingly, there is not a simple correlation between the seasonality of the faunal remains at a site and the actual season of occupation.

Settlement Patterns outside the Wandel Dal – Brønlund Fjord Corridor

The number of Independence I sites drops remarkably when moving from the densely populated Wandel Dal and Jørgen Brønlund Fjord to the other regions dealt with in the present publication. Accordingly, this information cannot be used for any detailed quantitative analysis. However, the distribution of sites does demonstrate that the Independence I people reached all parts of Peary Land and adjacent regions. It is also important to note that even the coastal area on the eastern shore of Peary Land has been settled. Frigg Fjord and the head of Danmark Fjord are the only two places where the settlements in terms of size and number of finds are comparable to the settlements at Øvre and Nedre Midsommersø and Jørgen Brønlund Fjord. The head of Danmark Fjord appears to have supported a relatively large Independence I population; not as many as in the central area, but enough to create a few medium-sized habitation sites such as Den Blå Flints Boplads (no. 296) where a group of four families may have lived for a longer period of time, probably during some cold seasons. As was seen in Jørgen Brønlund Fjord, such a long-term settlement in a given area is also reflected by a number of smaller sites in the surrounding landscape, such as Zophonias Delta (no. 352), Christian Hjort site (no. 369) and Ranum Elv (no. 297), where a single or a few families probably lived during the warm season. Accordingly, the

Independence I settlement pattern at the head of Danmark Fjord is comparable to the pattern known from central Peary Land, even if it is based on a smaller number of sites.

The Independence I settlement pattern in Frigg Fjord may differ from this. In terms of numbers of features, Adam C. Knuth site (no. 277) is the second largest Independence I site known from the whole of High Arctic Greenland. One would clearly expect that a site of this magnitude was part of a settlement system which also included several minor satellite sites with just a single or a few dwellings. However, the large Adam C. Knuth site is virtually isolated. Knuth may have overlooked small and temporary campsites in some cases, but if the Independence I people had lived in other parts of Frigg Fjord for a longer period of time then more sites would certainly have been found during our surveys in 2001 (Jensen & Pedersen 2002). We found only a single, small camp, which we named the Gravel Terraces, approximately 10 km north-west of Adam C. Knuth site. Therefore, it seems more in line with the available data to interpret Adam C. Knuth site as a large semi-permanent site representing a specific historical event – an attempt to establish human settlement in the northernmost part of the world. Two radiocarbon dates from Adam C. Knuth site show that at least dwellings II,1 and III,1 belong to the later part of the Independence I period in Northernmost Greenland. The events which led up to the creation of this site could therefore be as follows: After some decades of settlement along Øvre and Nedre Midsommersø and Jørgen Brønlund Fjord, the musk-ox stock in this area became depleted and a larger group of people decided to move to Frigg Fjord where herds of musk oxen had been spotted and where also a rich lithic resource was located. While moving into this area, the group of four to eight families may, in the initial phase, have chosen to establish a single large camp. The social relationships and food sharing between the families could have buffered the uncertain resource situation which they all faced moving out of the familiar hunting grounds further south. However, the resources of the Frigg Fjord area were neither large nor diverse enough to form the basis for a local settlement pattern. After a few years the occupants of Adam C. Knuth site must have faced a new crisis in the musk-ox stock which in this case may have forced them out of northernmost Peary Land for good.

Another aspect of Adam C. Knuth site is the important raw material source close by. The large quantities of lithic artefacts and debris at the site, including numerous rough-outs and cores at various stages of preparation and reduction, clearly show that the local grey to black chert was used for the production of a comprehensive tool inventory. So, as an alternative to the scenario described above, one may interpret Adam C. Knuth site as an outlying specialised camp which actually is part of the settlement system in Wandel Dal and Jørgen Brønlund Fjord. The primary purpose of staying in Frigg Fjord would then have been the ‘mining’ and initial working of this lithic material.

The Independence I settlement in the area south of Nordostrundingen is only scantily known. Sites have been identified all the way along the shores of North-east Greenland, at least down to Zachenberg around 74° N and more recently several sites have been located in northernmost East Greenland from Dove Bugt to Holm Land (Andreasen 1998). When these early settlements are compared to the much more frequent and larger Independence II sites in that area it becomes evident that after Independence I the population centre moved from Peary Land to North-east Greenland.

Independence II – Settlement Patterns

Travelling from Northern Ellesmere Island, where Independence II sites have been identified (Knuth 1965b; Sutherland 1996), *via* Hall Land towards central Peary Land, Engnæs (no. 293) in upper Wandel Dal is the first site from this culture that one encounters. It is remarkable that no other Independence II sites have been found on this long stretch, even considering the limited surveys in this area.

In the area along Øvre and Nedre Midsommersø and Jørgen Brønlund Fjord just seven Independence II sites, with a total of 46 features, have been found (fig. 11.4). Engnæs is the only inland site along Øvre and Nedre Midsommersø – all the other Independence II sites (Hellebæk (no. 309), Deltaterasserne (no. 291), Vandfaldsnæs (no. 307), Kap Mylius Erichsen (no. 310), Genbonæs (no. GB) and Kap Harald Moltke (no. 314)) are clearly concentrated along Jørgen Brønlund Fjord. In terms of numbers of features, Kap Mylius Erichsen, with a total of 11 features, is the largest Independence II site in Peary Land. Only Engnæs and Vandfaldsnæs contain ruins with more than 100 lithic

artefacts. These sites are actually the only two Independence II sites in central Peary Land where more than 100 artefacts have been recovered from all the investigated features. When this limited Independence II presence is compared to the 33 Independence I sites – with a total of at least 158 features – it becomes clear that the Independence II settlement of Peary Land consisted only of a single or a few episodes of occupation by a small population. Six dwellings have been located at Kap Mylius-Erichsen, five at Engnæs and Vandfaldsnæs, four at Delta-terrasserne and just a single dwelling on the remaining three Independence II sites in Wandel Dal and Jørgen Brønlund Fjord. This evidence suggests therefore that probably no more than four to six families constituted the entire Independence II population of central Peary Land. The archaeological traces may reflect one or a few migration episodes across northernmost Greenland and/or a brief occupation period. This small Independence II group must, on a regular basis, have been in contact with the population on Ellesmere Island (Schledermann 1990; Sutherland 1996) or North-east Greenland (Andreasen 2000).

The lithic material offers another quantitative measure of the Independence II settlement in Greenland. A total of 4282 lithic objects have been collected from the Independence II features described in the previous chapters. Of these, 2523 are from sites in the coastal area described in chapter 10. Kap Skt. Jacques, with a total of 2419 lithic finds, constitutes the single Independence II locality with by far the largest number of lithics known from northernmost Greenland. In Peary Land, Independence Fjord, Danmark Fjord and Johannes V. Jensen Land only 1759 lithic objects have been found on Independence II sites. When compared to the more than 12000 objects found on Independence I sites in the same area, the number of lithics clearly underlines the impression of a very limited Independence II settlement in Peary Land.

The Independence II occupation apparently never developed a complicated settlement system in central Peary Land including specialised camps and aggregation camps. Instead, the Independence II families appear to have roamed the area together. A few single family camps such as Genbonæs (no. GB) and Kap Harald Moltke (no. 314) show that a small social unit did occasionally split off in order to explore alternative hunting grounds. This settlement system is very dif-

ferent from the Independence I system along Midsømersøerne and Jørgen Brønlund Fjord as described above. The total population and duration of the Independence II occupation in Peary Land itself appear to have been, respectively, extremely low and extremely brief.

Forty Palaeo-Eskimo sites are known in Wandel Dal and Jørgen Brønlund Fjord (sites with both Independence I and II count as two individual sites). As mentioned above, only seven of these, or approximately 17%, are Independence II. In contrast, Independence Fjord, the Station Nord area and Danmark Fjord include nine Independence I sites with a total of 29 features and seven Independence II sites with a total 27 features. The traces of the Independence II become, therefore, more frequent as one moves from central Peary Land towards the more marine environments of the areas to the east and south-east of Peary Land.

Further south there is a total dominance of Independence II in the coastal regions between Nordostrundingen and Dove Bugt. Knuth did not register a single Independence I site in this area. Recently Andreasen (1998) has identified a few Independence I sites here, but Independence II is still dominant. There are plenty of small sites in these coastal areas with just a single or a few Independence II dwellings at each site, as well as larger aggregation camps of which Kap Skt. Jacques (no. 2) at Île de France with its 500 features is the most prominent.

Furthermore, in the coastal area south of Nordostrundingen the Independence II sites show a pronounced shift in raw material preference as quartz crystal becomes dominant. In contrast, quartz crystal is very rare at Independence II sites in Peary Land. The geographical shift in raw materials could indicate that exchange between Peary Land and North-east Greenland was quite limited. This underlines the impression of a very brief Independence II settlement episode in Peary Land, whereas this culture, with its more diverse resources, thrived in North-east Greenland for a longer period. This point of view has already been elaborated upon in the presentation of the radiocarbon evidence above.

Thule Culture: The Last Wave of Migrating Hunters

With a total of 60 Thule sites, the settlements from this period appear to occur in numbers comparable to

those for Independence I settlements (fig. 11.5). However, in terms of the number of features Thule is by far dominant. This is mainly due to the many features that have been registered on the Thule settlements in the coastal areas of North-east Greenland. In Peary Land there are just about the same number of Thule features as there are Independence I features (Knuth 1981). From Hall Land to Peary Land the Thule migration from west to east has left four small tent ring sites (nos. 276, GD, 376 and 267) and a single shelter ruin (no. ES). Some of these traces could well have been left by the same people who later had to abandon their umiaq at the spectacular site at Kølneæs (no. 269). The tent rings at Strømstedet (no. 267) mark a point of particular interest because it is precisely here one has to turn south into J.P. Koch Fjord if one wishes to travel through the corridor of Wandel Dal – Jørgen Brønlund Fjord. The Thule people must have done so. In the westernmost part of Wandel Dal the large Thule sites Stjerneborg (no. 330) and Uranienborg (no. 288) are located on the shores of the ice-dammed Aftenstjernesø. The situation regarding these large sites in the westernmost part of Wandel Dal makes the distribution of the Thule sites markedly different from that of Palaeo-Eskimo sites in the same area. Both the Independence I and Independence II sites are concentrated along the fjord and the lakes in the eastern part of the Wandel Dal – Jørgen Brønlund Fjord valley system. On the other hand, the Thule sites are, as Knuth (1981) has noted, evenly distributed throughout the valley system as if they were traces of travelling parties passing through the area. Support for this hypothesis is found in the fact that the differentiated settlement system of the Independence I can barely be traced in the Thule period, even if there are more Thule dwellings than Independence I dwellings in the area.

Lack of finds at the sites hampers attempts to establish the seasonality and economy of the Thule settlements in Peary Land. However, there may be a hint in the fact that many of the Thule sites are located on relatively undulating ground with large boulders. This is different from the Palaeo-Eskimo sites which are situated on even gravel terraces. Perhaps snow was used as a building material in the Thule shelter ruins and access to suitable snow could, accordingly, have influenced the choice of camping ground.

In contrast to the temporary nature of the Thule culture in Peary Land, the evidence from North-east

Greenland reflects a more complex settlement pattern. Accordingly, Thule winter houses occur from Sophus Müllers Næs and further south. In the vicinity of the Thule winter sites in North-east Greenland there are numerous very large and solidly-built caches. Similarly, there are graves and many sites show very large quantities of finds and animal bones. The Thule evidence in North-east Greenland clearly reflects a long lasting hunting society, the North-east Greenland Thule culture, which thrived here from the mid-1400s AD onwards. In Peary Land, on the other hand, there are, as described above, only temporary settlements from the initial Thule migration into northernmost Greenland. The radiocarbon dates, the few harpoon heads and the presence of Norse objects in Peary Land further indicate that the migrants were closely related to the Ruin Island phase in Smith Sund in North-west Greenland (Holtved 1944; McCollough 1989; Gulløv 1997).

11.3 Epilogue

In this book, it has been our aim to compile and present the archaeological information which Knuth gathered through 60 years of research in High Arctic Greenland. The present authors have, as outlined above, analysed only a few aspects of the information concerning the chronological frames, geographical distribution and settlement pattern of the three cultures – Independence I, Independence II and Thule.

Hopefully, this book and the database provide great opportunities for alternative approaches and interpretations. In some respects the information is heterogeneous but a starting point for future analyses has been provided. For example, it is possible to carry out detailed analyses of the dwelling structures and, in some cases, also the distribution of artefacts inside and outside the dwellings. Future analyses should perhaps explore the layout of the sites. It is our impression that it is possible to extract sufficient coherent data from the catalogue and the database to examine how the different cultures structured their settlements through time in different areas of the High Arctic Greenland depending on topographical position, local resources and seasonality. This again could facilitate analyses of the social structure of the societies living under such extreme conditions.

'History is old and avaricious. In one hand it holds millions of nameless destinies, migrations of people, the dread of slaves and the defeats of kings. With the other hand it passes us a shard.' (Hansen 1962:332)

History presented a handful of artefacts and stone-built structures on deserted High Arctic coasts to Eigil Knuth. The driving force behind his research was the desire to seize the contents of the other hand of History, which held the key to an understanding of the life and destiny of the Independence people and the Thule migrants. Through his many papers Knuth shared his empirical data, knowledge and interpretations with the scientific world, but he never managed to compile and publish the entire body of information. The obvious reason for this is of course the enormous

quantity of data which finally has been compiled in this book. Having known him, however, one also senses another underlying reason: Knuth considered Peary Land and its prehistoric people an integral part of his own cosmos which no outsider was really allowed to enter and to explore.

Since his discovery of the first stone tools in Peary Land during the expedition in 1947, Knuth devoted his entire life and fortune to the quest for these High Arctic pioneering societies. His investigations have made an important contribution to world prehistory: they elucidate human migration and life in one of the most remote geographical zones and one of the most extreme environments ever colonised by Man.

The Zoo-archaeology of Peary Land and Adjacent Areas

The purpose of this research was to undertake a complete analysis of all Palaeo-Eskimo faunal remains collected by Eigil Knuth between 1947 and 1985 during his Danish Peary Land expeditions. My research on Knuth's sites was part of a larger program of study that focused on temporal and regional differences in animal exploitation in the High Arctic of Canada and Greenland during the Palaeo-Eskimo stage (c. 4000–1000 BP) of prehistory (Darwent 2001a). Although my initial purpose for studying the fauna from Northern Greenland was to add to a larger database on High Arctic subsistence and Eastern Arctic mammalian biogeography, this research also resulted in the first analysis and synthesis of Knuth's faunal material since his 1967 publication *Archaeology of the Musk-Ox Way* and a list of identified species. The following report is an account of the zoo-archaeology of Peary Land and its adjacent regions.

Methods

All bone material collected by Knuth in Northern Greenland is currently stored at the Zoological Museum, University of Copenhagen. I undertook analysis of these remains in 1998 and 1999, and I concentrated my efforts on those sites that had information on the age of the bone material either in the Zoological Museum archives, on tags included with the faunal remains or in published reports by Knuth. I excluded five sites with Palaeo-Eskimo remains from my analysis – Frigg Fjord, Kap Holbæk, Kap Knud Rasmussen, Midsommersøerne, and Skurenæs – because I could not discern, based on the information available, which ruin feature and bone material belonged to which period of site occupation – Independence I, Independence II or Thule. With the exception of the Adam C. Knuth site, all Palaeo-Eskimo archaeological faunal material from these sites was identified by the author using comparative faunal collections at the Zoological Museum. Bone from some Thule period sites and those with unknown affiliation were identified by either Ulrik or Jeppe Møhl. A list of identified species

is included in the appendix. Several sites have yet to be examined; these sites are also listed in the appendix with their ZMK (Zoologisk Museum, København) accession numbers.

Typically, faunal material was collected by Knuth in a non-systematic fashion from the remains of abandoned dwellings or from dwellings and associated middens, meat caches, external hearths or from among clusters of lithic and osseous debitage. He variously refers to his collection areas as 'tomt' (site), 'telt-ring' (tent ring) or 'ruin'. In most cases he apparently collected and separated the faunal remains from particular archaeological features. However, numbering on the bags often was not consistent and thus assigning the location of bone material to a certain ruin feature was sometimes problematic. Although in some cases large bones were left in the field because of weight considerations, nearly all bone was collected from each feature including the tiny spines and ribs from arctic char.

In the following description of the zoo-archaeological remains I present taxonomic abundance measured as the *number of identified specimens* (NISP) per taxon – e.g. species, genera, family or higher taxonomic category (e.g. Lyman 1994b). A *specimen* is a 'bone or tooth, or fragment thereof, from an archaeological or paleontological site, while an *element* is a single complete bone or tooth in the skeleton of an animal' (Grayson 1984:16, following Shotwell 1955, 1958). My use of the term *faunal assemblage* follows Grayson (1984:17), such that it refers 'to the entire set of faunal specimens from a given cultural or geological context, in which the defining context is provided by the analyst'. Typically an assemblage will refer to the set of faunal specimens recovered from a single site – as defined by the archaeologist.

Summary of Independence I Fauna

Based on the number of identified specimens, Greenland assemblages from this period comprise predominantly arctic fox, arctic hare and musk-ox remains

(tables 1.1, 1.2, fig. 1). Animals not only provided a source of food, but also a source of fur and fuel. Although dogs are always described as a partner in musk-ox hunting (e.g. McGhee 1996), not one dog or wolf bone was identified from Knuth's collections. Given numerous remains of arctic char, fish appear to have been an important resource to past occupants of the Peary Land interior. The presence of delicate arctic char bones also points to exceedingly good preservation since fish bones typically are rare in Greenland assemblages (Knud Rosenlund, personal communication 1999). With few exceptions, bird remains comprise a significant portion of each locality. The most common genera represented are goose (*Branta* sp.) and ptarmigan. Various gulls and shorebirds were also identified, but these were recovered in much smaller numbers than were waterfowl and ptarmigan. The number of different bird species identified is higher in the Jørgen Brønlund Fjord region than in the Midsommersø, Frederick Hyde Fjord and Hall Land regions.

Only a few fragments of caribou antler were noted in these collections. These could have come from much older shed antlers or been carried in as raw material from outside the region. Meldgaard (1986: 37) presents an extensive survey of caribou zoo-geography in Greenland and notes only one fragment of a caribou metacarpal from the Pearylandville site (not noted in my analysis).

For comparison, bone remains from interior sites on Northern Ellesmere Island (Balkwill n.d.; Sutherland 1996) suggest a general pattern of musk-ox hunting supplemented by arctic hare, birds, and, to a much lesser degree, freshwater fish and arctic fox. In contrast, Canadian coastal localities are dominated by small seals and to a lesser extent bearded seals. The high abundance of these marine species correlates with toggling and non-toggling harpoons from Devon Island localities (Helmer 1991; McGhee 1979), with one harpoon from the Bache Peninsula region (Schledermann 1990) and with the proximity of open-water polynyas (Schledermann 1980). Such proximity to polynyas is likely the reason for greater waterfowl diversity in Canadian assemblages. Brent goose, snow goose, long-tailed duck and two species of eider duck, as opposed to terrestrially adapted birds such as ptarmigan, are most frequently recovered from Canadian coastal sites (Darwent 2001a).

Faunal remains from all Independence I suggest

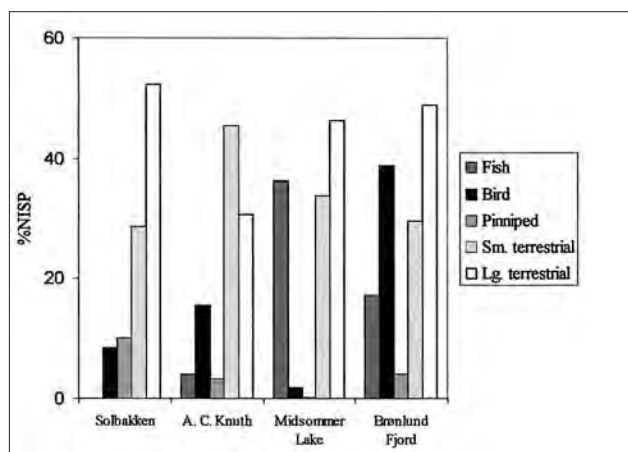


Fig. 1. Relative frequency of faunal remains from Independence I sites in Northern Greenland.

that High Arctic pioneers did not focus exclusively on one species; rather, the assemblages indicate diverse and flexible subsistence economies, likely based on the relative abundance of certain species in specific geographic locales. In other words, hunters were opportunistic and obtained animals more or less in proportion to their availability on the landscape. They were, however, not actively exploiting potentially available larger marine resources such as walrus or whale.

With the exception of one walrus bone recovered from the Icebreaker Beach site in the North Devon Lowlands, all other evidence of walrus in High Arctic assemblages is in the form of ivory implements or debitage – the raw material for which could be scavenged from beached walruses. There is evidence from Knuth's Slikbugten (see section 5.26) site (ZMK1090/1966), located at the entrance to Jørgen Brønlund Fjord, that walrus were more widely distributed – their modern range currently does not extend much farther north than the Bache Peninsula/Qaanaaq latitude. Bones from this collection include a *pelvis*, *sacrum*, thoracic *vertebra*, complete *tibia* and *astragalus* of a young walrus. It is unlikely that the rear quarter of a walrus would have been humanly transported over 400 km along the north-eastern coast of Greenland, and these remains are apparently those of an old beached carcass. This find is possibly Independence I in age; however, its significance to paleobiology is that it is the most northern record of walrus in the Eastern Arctic (Dyke *et al.* 1999).

There are differences between Northern Greenland regions in the taxonomic composition of Inde-

ZOO-ARCHAEOLOGY OF PEARY LAND AND ADJACENT AREAS

Table 1.1. Independence I fauna identified from sites in Hall Land (Solbakken); Frederick Hyde Fjord, Peary Land (Adam C. Knuth site); Midsommersø, Peary Land (Bob's site, Pearylandville, Portfjæld, Tokanten and Walcott Delta).

TAXA	Solbakken	Adam C. Knuth	Bob's site	Pearylandville	Portfjæld	Tokanten	Walcott Delta
Fish							
Arctic char (<i>Salvelinus alpinus</i>)	–	34	3	209	–	–	17
Fish indeterminate	–	–	2	417	–	–	26
Total fish	–	34	5	626	–	–	43
Birds							
Brent/barnacle goose (<i>Branta sp.</i>)	–	1	–	2	1	–	–
Brent goose (<i>Branta bernicla</i>)	–	17	–	–	–	–	–
King eider (<i>Somateria spectabilis</i>)	1	–	–	–	–	–	–
Rock ptarmigan (<i>Lagopus mutus</i>)	2	59	1	6	–	2	–
Red knot (<i>Calidris canutus</i>)	–	1	–	–	–	–	–
Glaucous gull (<i>Larus hyperboreus</i>)	–	3	–	3	–	–	–
Little auk (<i>Alle alle</i>)	2	–	–	–	–	–	–
Bird indeterminate	–	48	3	4	–	11	1
Total birds	5	129	4	15	1	13	1
Mammals							
Arctic hare (<i>Lepus arcticus</i>)	15	34	11	501	–	11	6
Collared lemming (<i>Dicrostonyx torquatus</i>)	–	2	2	4	–	–	–
Arctic fox (<i>Alopex lagopus</i>)	2	346	–	83	1	–	–
Polar bear (<i>Ursus maritimus</i>)	9	3	–	2	–	–	–
Walrus/whale (<i>Odobenus rosmarus/cetacea</i>)	–	1	–	–	–	–	–
Bearded seal (<i>Erignathus barbatus</i>)	–	14	–	–	–	–	–
Small seal (<i>Phoca sp.</i>)	2	10	1	–	–	–	–
Ringed seal (<i>Phoca hispida</i>)	4	10	–	–	–	–	–
Harp (<i>Phoca groenlandica</i>)	–	1	–	–	–	–	–
Artiodactyl	16	–	10	105	–	–	–
Caribou (<i>Rangifer tarandus</i>)	–	(1) ^a	–	(2)	–	–	–
Musk ox (<i>Ovibos moschatus</i>)	12	242	50	229	1	–	1
Large terrestrial mammal	3	20	15	91	8	–	2
Total mammals	63	683	89	1015	10	11	9
NISP	68	846	98	1656	11	24	53
Unidentified	54	439	90	954	1	38	22
TOTAL	122	1285	188	2610	12	62	75
Richness ^b	8	14	6	10	3	2	4

^a Caribou antler fragments and incisor not included in NISP or species richness counts.

^b Richness refers to the minimum number of species represent

pendence I assemblages. The past inhabitants, whose artefacts Knuth named Independence I, had highly varied economies, ranging from high frequencies of hare and fish at Pearylandville, to high frequencies of fox at Adam C. Knuth and to intensive use of musk ox

at Kap Peter Henrik. Musk ox is the prominent species in Greenland assemblages for the most part because this area and Northern Ellesmere Island have a glacial-margin type of vegetation that can support this species (e.g. Klein 1996). Although we now know that seals

Table 1.2. Independence I fauna identified from sites on Jørgen Brønlund Fjord and Independence Fjord, Peary Land. Total NISP for all Independence I sites in Northern Greenland.

TAXA	Deltaterrasserne	Galleriet/Søhuset	Gammel Strand	Kap Peter Henrik	Killebukhus	Kølterrasserne	Lagunehøjten	Midternæs	Vandfaldsnæs	Vendenæs	ALL Ind. I sites
Fish											
Arctic char	118	1	–	–	–	3	–	12	–	1	398
Fish indeterminate	19	–	1	–	3	5	–	17	4	1	495
Total fish	137	1	1	–	3	8	–	29	4	2	893
Birds											
Goose/duck (Anatidae)	2	–	1	–	–	–	–	–	–	–	3
Brent/barnacle goose	88	2	3	4	–	3	–	2	28	1	135
Brent goose	1	–	–	–	–	–	–	–	–	–	18
Eider (<i>Somateria</i> sp.)	–	–	–	–	–	–	–	–	3	–	3
King eider	–	–	–	–	–	2	–	1	1	–	5
Long-tailed duck (<i>Clangula hyemalis</i>)	2	–	–	–	–	–	–	–	–	–	2
Rock ptarmigan	2	–	1	–	–	–	–	3	23	9	108
Ruddy turnstone (<i>Arenaria interpres</i>)	–	–	–	1	–	–	–	–	–	–	1
Red knot	1	–	–	–	–	–	–	–	–	–	2
Gull (Laridae)	–	–	–	–	–	–	–	–	1	–	1
Glaucous gull	–	–	–	–	1	2	–	–	4	–	13
Black-legged kittiwake (<i>Rissa tridactyla</i>)	–	–	–	–	–	4	–	–	–	–	4
Ivory gull (<i>Pagophila eburnea</i>)	7	–	–	–	–	–	–	–	–	–	7
Little auk	–	–	–	–	–	–	–	–	–	–	2
Snow bunting (<i>Plectrophenax nivalis</i>)	–	–	2	–	–	–	–	–	–	–	2
Bird indeterminate	60	4	16	3	2	45	–	21	49	9	276
Total birds	163	6	23	8	3	56	–	27	109	19	582
Mammals											
Arctic hare	80	2	5	20	1	2	2	11	15	10	726
Collared lemming	–	–	–	–	–	1	–	1	–	–	10
Arctic fox	129	1	–	2	–	–	–	9	29	–	602
Polar bear	–	–	–	3	–	–	–	–	–	–	17
Walrus/whale	–	–	–	–	–	–	–	–	–	–	1
Bearded seal	–	–	–	–	–	–	–	–	–	–	14
Small seal	–	18	–	–	–	6	–	8	–	–	45
Ringed seal	–	7	–	–	–	2	–	2	–	–	25
Harp seal	–	–	–	–	–	–	–	–	–	–	1
Artiodactyl	13	–	1	27	5	4	–	10	10	–	201
Caribou	–	–	–	–	–	–	–	–	–	(1)	(4)
Musk-ox	74	–	25	164	–	7	7	26	13	6	857
Large terrestrial mammal	30	–	1	58	–	1	7	17	7	6	266
Total mammals	326	28	32	274	6	23	16	84	74	22	2765
NISP	626	35	56	282	12	87	16	140	187	43	4240
Unidentified	137	26	13	177	80	93	5	107	121	17	2374
TOTAL	763	61	69	459	92	180	21	247	308	60	6614
Richness	9	6	6	6	5	9	2	9	8	6	21

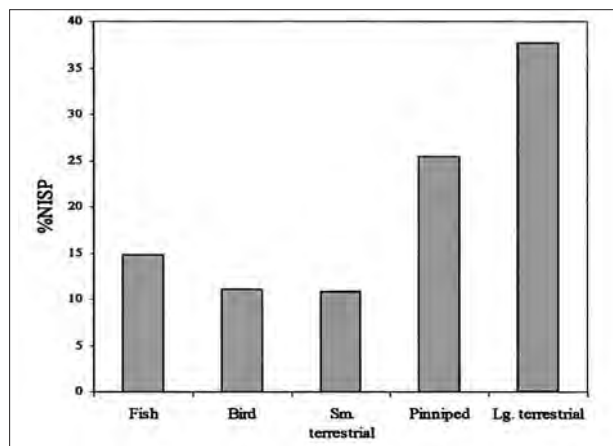


Fig. 2. Relative frequency of faunal remains from Independence II sites in Peary Land.

also were important to Independence I economies, particularly in the Canadian Arctic (Darwent 2001a, 2001b), the earliest occupants of the High Arctic were initially identified in Peary Land (e.g. Knuth 1967) and, because of this, musk ox and their first hunters became linked in the archaeological literature. This discussion of Independence I sites in Northern Greenland illustrates the flexibility and resilience of these highly mobile hunters and demonstrates that the draw of Peary Land was its relatively rich High Arctic terrestrial and aquatic resources.

Summary of Independence II Fauna

Fewer Independence II sites have been recorded and therefore less faunal material collected compared to Independence I sites in Peary Land. Faunal assemblages collected from fjord localities comprise predominantly musk ox and ringed seal and to a lesser extent hare and fox (table 1.3, fig. 2). Like the Independence I collections, no dog or wolf bones were identified. The difference between Independence I and II assemblages in Peary Land is most obvious for the Vandfaldsnæs site where the relative frequency of seal increases from 0 to 58% of the mammalian assemblage, and the relative frequency of artiodactyl, musk ox and large terrestrial mammal decreases from 40% to 27%. The increase in ringed seals may reflect their increased abundance in this region coincident with cooler climatic conditions. More importantly, however, climatic change and other factors likely resulted in a decrease in musk ox populations. In response, inhabitants of Northern Greenland apparently shifted to incorporating more seals into their diet.

Assemblages recovered from excavations near Midsommersø are dominated by the remains of arctic char. Although arctic char is the most common fish taxa in High Arctic freshwater and marine environments (Froese & Pauly 2001) and tends to dominate zoo-archaeological fish remains, two specimens of marine cod were identified from the Vandfaldsnæs site, near the confluence of Independence and Jørgen Brønlund Fjord. Cod has not been identified from any other High Arctic assemblage in Canada or Greenland (Darwent 2001a). Bird remains comprise primarily small goose to large duck-sized waterfowl, long-tailed duck and ptarmigan.

Southeast of Peary Land, on the north-eastern coast of Greenland and near the 'North-east water polynya', excavation was undertaken at the Independence II Eigil Knuth site by Claus Andreassen (2001) in 1996. This site is situated on the tip of Holm Land on the outer coast of Greenland – roughly parallel in latitude to the Lolland Sø site. Analysis of faunal remains by B. Bendix of the Zoological Museum, University of Copenhagen, reveals that seal and walrus are the most prevalent species in assemblages recovered from midden deposits, whereas musk ox are rare. In addition, nine out of ten Canadian Independence II or early Dorset assemblages have walrus remains, and these assemblages are also heavily dominated by seals.

Continuing the trend of declining relative frequencies of artiodactyls, no remains of musk ox and caribou have been recovered from sites in the Bache Peninsula region of Ellesmere Island (Schledermann 1990). Although the Arctic experienced a minor climatic warming approximately 2700–2800 BP (Barry *et al.* 1977; Fitzhugh 1997), which corresponds to reoccupation of Northern Greenland, Independence II is characterised generally by cooling and drying. These conditions appear to have been favourable for seals but apparently not for artiodactyls in the Bache Peninsula region, and to a lesser extent this is also true in Peary Land.

Independence II fauna from sites located on Øvre Midsommersø (Engnæs), Jørgen Brønlund Fjord (Deltaterrasserne, Genbonæs, Hellebæk, Vandfaldsnæs, Kap Harald Moltke, and Kap Mylius-Erichsen), Hagen Fjord (Kap Ludovika) and Lolland Lake near the head of Danmark Fjord (Lolland Sø).

Table 1.3. Independence II fauna.

TAXA	Arnakke	Engnaes	Delaterrasserne	Genbonaes	Hellebaek	Vandfaldsnaes	Kap Harald Moltke	Kap Mylius-Erichsen	Kap Ludovika	Lolland Sø	TOTAL
Fish											
Arctic char	–	18	–	–	1	7	–	6	–	–	32
Cod (<i>Gadidae</i>)	–	–	–	–	–	2	–	–	–	–	2
Fish indeterminate	–	24	–	1	3	21	–	8	–	–	57
Total fish	–	42	–	1	4	30	–	14	–	–	91
Birds											
Brent/barnacle goose	–	–	–	–	2	16	–	–	1	–	19
Long-tailed duck	–	–	–	–	2	4	–	–	–	–	6
Rock ptarmigan	–	–	–	–	–	8	3	–	–	–	11
Glaucous gull	–	–	–	–	–	1	–	–	–	–	1
Bird indeterminate	2	–	–	2	–	8	15	4	–	–	31
Total birds	2	–	–	2	4	37	18	4	1	–	68
Mammals											
Arctic hare	–	–	11	1	3	6	–	13	–	–	34
Collared lemming	–	4	–	–	1	2	–	1	–	–	8
Bowhead whale (<i>Balaena mysticetus</i>)	–	–	–	–	–	–	–	–	1	–	1
Arctic fox	–	–	8	–	–	13	–	2	–	2	25
Small seal	–	–	–	–	37	77	11	17	2	–	144
Ringed seal	–	–	–	–	1	7	2	–	2	–	12
Artiodactyl	3	–	6	12	3	–	–	58	–	–	82
Caribou	–	–	(1)	–	–	–	–	–	–	–	(1)
Musk ox	1	1	23	2	–	14	–	34	7	10	92
Lg. terrestrial mammal	–	–	2	5	–	25	2	15	5	3	57
Total mammals	4	5	50	20	45	144	15	140	17	15	455
NISP	6	47	50	23	53	211	33	158	18	15	614
unidentified	35	5	–	181	20	118	13	456	10	1	839
TOTAL	41	52	50	204	73	329	46	614	28	16	1453
Richness	2	3	3	4	7	11	3	7	4	2	12

Appendix 2

Faunal Remains from all Features

Table 2.1. Faunal remains from Kap Buddington.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	scapula	complete	R/L	juvenile	2
Bird	femur	dist. + shaft		juvenile	1
Bird	tibia	dist. + shaft		juvenile	1
Arctic hare	cranium	maxilla + frontal		sent for C14 dating	1
Arctic hare	mandible	complete	R/L	sent for C14 dating	2
Arctic hare	phalanx 1 hind	complete		sent for C14 dating	1
Arctic fox	radius	complete	R	sent for C14 dating	1
Arctic fox	tibia	midshaft		sent for C14 dating	1
Ring seal	cranium	petrous	R		1
Ring seal	cranium	zygomatic arch	R		1
Ring seal	mandible	horiz. ramus	R	canine + postcanines	1
Small seal	rib	prox. shaft			2
Small seal	ulna	dist. + shaft	R	fused; >7-8	1
Small seal	metacarpal 1	complete	R/L	fused; >7-8	2
Small seal	phalanx 1 front	complete		fused; >6	2
Small seal	metatarsal 2	complete	L	fused; >7-8	1
Small seal	metatarsal 3, 4	complete	R	fused; >7-8	2
Small seal	phalanx 1 hind	complete		fused; >7-8	8
Small seal	phalanx 2 hind	complete		fused; >7-8	7
Musk ox	rib	midshaft		sent for C14 dating	1
Lg. terres. mamm.	uniden.	fragment		sent for C14 dating	2
Total					41

Table 2.2. Faunal remains from Solbakken feature 6.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	second phalanx	complete			1
Arctic fox	calcaneum	complete	L		1
Arctic fox	tibia	distal + shaft	R	sm. canid gnawing	1
Ringed seal	mandible	horizontal ramus	R	no teeth	1
Artiodactyl	premolar/molar	fragment			15
Musk ox	cranium	basioccipital			1
Musk ox	cervical	centrum		mineralized	1
Musk ox	thoracic	centrum		mineralized	1
Musk ox	humerus	anterior midshaft	R	<10cm, spiral frac.	1
Musk ox	humerus	midshaft		<10cm, spiral frac.	1
Musk ox	femur	midshaft		C14 sample	1
Lg. terres. mammal	long bone	shaft fragment			2
Unidentified					27
Total					54

Table 2.3. Faunal remains from Solbakken feature 8.

Taxa	Element	Portion	Side	Comments	No.
King eider	furculum	lateral half	R		1
Rock ptarmigan	tibiotarsus	midshaft	R		1
Rock ptarmigan	femur	prox. + shaft			1
Little auk	humerus	prox. + shaft	L		1
Little auk	furculum	lateral half	R		1
Arctic hare	rib	head/tub. + shaft	R		1
Arctic hare	rib	tubercle + shaft	L		1
Arctic hare	rib	midshaft			6
Arctic hare	incisor	fragment			3
Arctic hare	cranium	frontal	L		1
Arctic hare	sacral vert.	fragment			2
Arctic hare	radius	midshaft	R		1
Polar bear	incisor	root			1
Polar bear	maxillary I2	cementum	R		1
Polar bear	maxillary I3	cementum	R		1
Polar bear	maxillary I3	split	L		1
Polar bear	canine	cementum		adult	1
Polar bear	maxillary canine	complete	L	deciduous	1
Polar bear	maxillary canine	complete	R	deciduous	1
Polar bear	maxillary PM4	complete	R		1
Polar bear	mandibular M3	complete	R		1
Small seal	costal cartilage	complete			1
Artiodactyl	rib	midshaft			1
Musk ox	rib	head/tub. + shaft	R	large, "old bull"	1
Musk ox	incisor	complete		deciduous, worn	1
Lg. terres. mammal	long bone	shaft		< 5cm, spiral frac.	1
Lg. terres. mammal	uniden.	uniden.			4
unidentified				6 burnt fragments	22
Total					61

Table 2.4. Fish remains from Engnæs feature 3.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	R/L		3
Arctic char	dentary	complete	R		2
Arctic char	mesopterygoid	complete	R		2
Arctic char	preopercle	complete	R		1
Fish	rib/ray/spine	complete			4
Total					12

FAUNAL REMAINS FROM ALL FEATURES

Table 2.5. Faunal remains from Engnæs feature 5.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	branchiostegal ray	complete	L		1
Arctic char	ceratobranchial	complete			2
Arctic char	parasphenoid	complete			1
Arctic char	quadrate	complete	R		1
Arctic char	vertebra	spinous process			1
Fish	rib/ray/spine	fragment			11
Collared lemming	femur	distal	L	juvenile	1
Collared lemming	humerus	complete	L	juvenile	1
Collared lemming	humerus	cylinder, no ends	L		1
Musk ox	maxillary deciduous molar	complete		juvenile (<6 mo.)	1
Total					21

Table 2.6. Faunal remains from Tokanten feature 2.

Taxa	Element	Portion	Side	Comments	No.
Rock ptarmigan	tarsometatarsus	dist. + shaft	R	juvenile	1
Rock ptarmigan	ulna	dist. + shaft	L	juvenile	1
Bird	rib	midshaft frag.			5
Bird	scapula	proximal	R/L	juvenile	2
Bird	long bone	shaft		1 adult, 2 juvenile	3
Bird	phalanx	proximal		juvenile	1
Arctic hare	radius	prox. + shaft	R		1
Arctic hare	radius	dist. midshaft	R		1
Arctic hare	rib	head/tub. + prox. shaft		1 burnt black/grey	2
Arctic hare	rib	midshaft		1 burnt brown/black	3
Arctic hare	rib	sternal shaft		2 burnt black/grey	3
Arctic hare	caudal vert.	complete			1
Total					24

Table 2.7. Faunal remains from Walcott Delta.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	L		1
Arctic char	basipterygium	complete	R		2
Arctic char	branchiostegal ray	complete	R		1
Arctic char	ceratobranchial	complete			3
Arctic char	ceratohyal	complete	R/L		2
Arctic char	coracoid	complete	R		1
Arctic char	dentary	fragment	R		1
Arctic char	mesopterygoid	complete	R		1
Arctic char	pteroic	complete	L		1
Arctic char	supraoccipital	complete			1
Arctic char	thoracic vert.	complete			3
Fish	rib/ray/spine	fragment		3 burnt brown/black	19
Fish	unidentified	fragment		1 burnt brown/black	7
Bird	phalanx	dist.			1
Arctic hare	mandible	mesial	R	foetal	1
Arctic hare	scapula	complete	R	foetal	1
Arctic hare	humerus	complete	L	foetal	1
Arctic hare	humerus	dist. + shaft	R		1
Arctic hare	tibia	proximal, posterior shaft	L		1
Arctic hare	ulna	prox. + shaft	L		1
Musk ox	humerus	posterior midshaft		<10cm, spiral frac.; burnt	1
Lg. terres. mam.	long bone	shaft fragment		<10cm, spiral frac.; burnt	2
Total					53

Table 2.8. Faunal remains from Bob's site feature 3b.

Taxa	Element	Portion	Side	Comments	No.
Bird	furculum	fragment			1
Small seal	rib	midshaft fragment			1
Artiodactyl	rib	midshaft fragment			1
Musk ox	mandible	ascending ramus	L	sm. canid gnawing	1
Musk ox	mandible	lingual alveolus frag.	L	2 striae on lingual surface	1
Musk ox	mandible	alveolus + dPM4, M1		juvenile, ca. 1 years	1
Musk ox	mandibular incisor	root			2
Musk ox	mandibular M2	complete	L+R	no wear	2
Musk ox	radius	posterior midshaft	R	long spiral fracture	1
Musk ox	ulna	midshaft fragment	R		1
Musk ox	pelvis	acetab. + ilium frag.	R	5 striae near acetabulum	1
Musk ox	femur	proximal, anterior shaft	L	<10cm, spiral fracture	1
Musk ox	femur	distal, posterior shaft	L	<10cm, spiral fracture	1
Lg. terres. mam.	long bone	shaft fragment		1 with spiral fracture	2
Total					17

FAUNAL REMAINS FROM ALL FEATURES

Table 2.9. Faunal remains from Bob's site feature 3c.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	cranium	mesial maxilla	L	1 incisor	1
Arctic hare	humerus	cylinder, no ends	L		1
Arctic hare	radius	dist. + shaft	R	rodent gnawing	1
Arctic hare	radius	prox. + shaft	R		1
Arctic hare	ulna	cylinder, no ends	R		1
Arctic hare	rib	complete	R		1
Arctic hare	rib	complete	L		2
Arctic hare	rib	midshaft fragment			1
Artiodactyl	premolar/molar	fragment			8
Musk ox	cranium	auditory bulla	R		1
Musk ox	maxillary M2	complete	L	worn	1
Musk ox	maxillary M2	complete	R	no wear	1
Musk ox	maxillary M3	complete	R	slight wear	1
Musk ox	mandible	ascending ramus	L		1
Musk ox	mandible	mesial + PM2	L	no wear	1
Musk ox	mandible	mesial + PM2, 3, 4	R	very worn	1
Musk ox	mandible	alveolus fragment			4
Musk ox	mandibular M1	complete	R	worn	1
Musk ox	mandibular dM3	complete	L	worn	1
Musk ox	mandibular PM3	complete			1
Musk ox	incisor	complete		unworn	1
Musk ox	deciduous incisor	complete		very worn	6
Musk ox	deciduous molar	complete		very worn	1
Musk ox	rib	prox. shaft	R		1
Musk ox	humerus	distal + shaft	R	spiral fracture; C14 dating	1
Musk ox	humerus	anterior midshaft frag.	R		1
Musk ox	humerus	posterior midshaft	R	<15cm, impact scar, long spiral	1
Musk ox	humerus	distal, posterior shaft	L	<15cm, long spiral fracture	1
Musk ox	pelvis	ischium fragment	R		1
Musk ox	femur	lateral midshaft	L	<10cm, impact scar, spiral frac.	1
Musk ox	femur	proximal, posterior shaft	L	<10cm, spiral fracture	1
Musk ox	femur	posterior midshaft frag.	L	2 striae transverse to shaft	1
Musk ox	tibia	dist + shaft	L	partially burnt; unfused	1
Musk ox	tibia	medial midshaft frag.	L	<10cm, impact scar, long spiral	1
Musk ox	tibia	anterior midshaft frag.	L	<15cm, long spiral	1
Musk ox	tibia	anterior midshaft frag.	R	<10cm, spiral fracture	1
Musk ox	tibia	anterior, proximal shaft	R	<10cm, spiral fracture	1
Musk ox	lateral maleolus	complete	L		1
Lg. terres. mam.	axial	fragment			2
Lg. terres. mam.	long bone	shaft fragment		<10cm, 4 striae, impact scar	1
Lg. terres. mam.	long bone	shaft fragment		<15cm, impact scar, spiral	1
Lg. terres. mam.	long bone	shaft fragment		burnt uniformly black	1
Lg. terres. mam.	long bone	shaft fragment			8
Total					67

Table 2.10. Faunal remains from Bob's site feature 5.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	ceratohyal	complete	L		1
Fish	rib	fragment			1
Rock ptarmigan	scapula	proximal	L		1
Bird	furculum	fragment		juvenile	1
Collared lemming	pelvis	acetabulum + ilium	L		1
Collared lemming	tibia	cylinder, no ends	R		1
Arctic hare	rib	midshaft fragment			2
Artiodactyl	premolar/molar	fragment			1
Musk ox	femur	proximal, posterior shaft	L		1
Total					10

Table 2.11. Faunal remains from Pearylandville feature 10a.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	radius	cylinder, no ends	R		1
Glaucous gull	radius	cylinder, no ends	R	slight burning	1
Glaucous gull	ulna	cylinder, no ends	R	slight burning	1
Glaucous gull	ulna	dist. + shaft	L	burnt brown/black	1
Arctic hare	mandible	mesial ramus	R		1
Arctic hare	premolar/molar	fragment			5
Arctic hare	rib	proximal shaft			4
Arctic hare	rib	head/tub. + prox. shaft			4
Arctic hare	ulna	prox. + shaft	L	fusion line	1
Arctic hare	phalanx 1 (front)	complete			1
Arctic fox	cranium	zygomatic arch	R		1
Arctic fox	mandible	ramus + C, PM3, 4, M1	R		1
Arctic fox	radius	prox. + shaft	R		1
Arctic fox	caudal vert.	complete			2
Arctic fox	humerus	dist. + shaft	R		1
Arctic fox	rib	head/tub. + prox. shaft	L	1 burnt black	3
Arctic fox	rib	complete	R		1
Arctic fox	rib	midshaft		slight burning	3
Arctic fox	sternum	complete			2
Musk ox	mandibular incisor	complete	R	I2 & I3, worn	2
Musk ox	rib	midshaft fragment		burnt brown/black	1
Musk ox	phalanx 2	complete		prox. unfused	1
Total					39

FAUNAL REMAINS FROM ALL FEATURES

Table 2.12. Fish and bird remains from Pearylandville feature 10b.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	R	burnt brown/black	1
Arctic char	basipterygium	complete	R	burnt black	1
Arctic char	branchiostegal ray	complete	R	burnt brown/black	2
Arctic char	branchiostegal ray	complete	L	burnt brown/black	1
Arctic char	ceratohyal	complete	L	burnt black	1
Arctic char	cleithrum	ventral	L	burnt black	1
Arctic char	dentary	complete	L/R	burnt brown/black	2
Arctic char	epihyal	complete	L	burnt brown/black	1
Arctic char	haemal spine	complete		burnt brown/black	1
Arctic char	interopercle	complete	L	burnt brown/black	1
Arctic char	maxilla	complete	R	burnt brown/black	1
Arctic char	pharyngobranchial	complete	L		1
Arctic char	posttemporal	complete	R	burnt black	1
Fish	rib/ray/spine	complete		burnt brown/black (5)	14
Fish	unidentified	fragment		burnt brown/black	4
Rock ptarmigan	tibia	dist. + shaft	R		1
Total					34

Table 2.13. Mammal remains from Pearylandville feature 10b.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	phalanx 1	complete			1
Arctic fox	cranium	auditory bulla fragment		slight burning	1
Arctic fox	rib	complete	R	burnt brown/black	2
Arctic fox	rib	complete	L		1
Arctic fox	rib	head/tub. + prox. shaft		burnt brown/black	2
Arctic fox	rib	fragment			1
Arctic fox	lumbar	complete		slight burning	1
Arctic fox	caudal vert.	complete		unfused	1
Arctic fox	radius	dist. + shaft	L		1
Arctic fox	ulna	prox. + shaft	L		1
Arctic fox	metacarpal 5	dist. + shaft	L		1
Arctic fox	calcaneum	complete	L	burnt black	1
Arctic fox	metatarsal 4	prox. + shaft	L	slight burning	1
Arctic fox	phalanx 1	complete		slight burning	1
Arctic fox	phalanx 2	complete		slight burning	2
Polar bear	phalanx 3	complete			1
Polar bear	radius	prox. + shaft			1
Artiodactyl	cranium	fragment		burnt brown/black	3
Artiodactyl	premolar/molar	fragment		4 burnt black	33
Musk ox	cranium	premaxilla		burnt brown/black	1
Musk ox	mandible	mesial ramus	L	burnt black	1
Musk ox	mandibular incisor	complete		burnt black	3
Musk ox	mandibular M3	cementum	L	burnt brown/black	1
Musk ox	mandibular PM	fragment			2
Musk ox	rib	midshaft fragment		2 heavy cut marks; burnt	1
Musk ox	rib	midshaft fragment		burnt brown/black	1
Musk ox	radius	prox. + shaft	R	fused	1
Musk ox	radius	prox. epiphysis	R	unfused	1
Musk ox	radius/ulna	dist. + shaft	R	fused; very large male	1
Musk ox	ulna	prox. + shaft	R	fused	1
Musk ox	pelvis	acetabulum + ischium	L	burnt brown/black	1
Musk ox	tibia	dist. + shaft	R	burnt black	1
Musk ox	tibia	midshaft	R	burnt black; spiral fracture	1
Musk ox	tibia	proximal, anterior shaft	L	burnt brown	1
Musk ox	tibia	proximal midshaft	L	burnt black; spiral fracture	1
Musk ox	tibia	dist. + shaft	L		1
Lg. terres. mam.	long bone	shaft fragment		spiral frac. (2), burnt (2)	5
Total					81

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Table 2.14. Faunal remains from Pearylandville feature 15.

Taxa	Element	Portion	Side	Comments	No.
Rock ptarmigan	humerus	proximal shaft	L	calcined grey/white	1
Arctic hare	rib	proximal shaft	R		2
Arctic hare	scapula	glenoid + blade frag.	L		1
Arctic hare	tibia	dist. + shaft	L		1
Arctic hare	tarsal	complete	R		2
Artiodactyl	premolar/molar	fragment			3
Artiodactyl	lumbar	transv. process frag.			1
Musk ox	mandibular I3	complete	R	adult, unworn (ca. 1-2 yrs.)	1
Musk ox	rib	sternal shaft fragment			2
Musk ox	tibia	proximal, anterior shaft	R	<10cm, spiral fracture	1
Lg. terres. mam.	cranium	fragment			1
Lg. terres. mam.	long bone	shaft fragment		5-10 cm, spiral fracture	5
Total					21

Table 2.15. Faunal remains from Pearylandville features 19, 20 & 21.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	radius	split cylinder, no ends		tool debitage	1
Arctic hare	cranium	temporo-zygomatic			1
Arctic hare	cranium	fragment			16
Arctic hare	cranium	maxilla, frontal, parietals		burnt uniformly black	2
Arctic hare	cranium	frontal, parietal	R		1
Arctic hare	cranium	parietal, temporal	L		1
Arctic hare	cranium	auditory bulla	R	burnt black	1
Arctic hare	cranium	occipital fragment		1 burnt black	4
Arctic hare	mandible	complete	R	M1/M2	1
Arctic hare	mandible	horizontal ramus	R/L	all teeth	2
Arctic hare	mandible	dist. ramus	L		1
Arctic hare	mandible	mesial ramus	R		2
Arctic hare	mandible	ascending ramus	R/L	1 burnt brown/black	2
Arctic hare	incisor	complete		2 burnt brown/black	6
Arctic hare	atlas	complete		1 burnt brown/black	2
Arctic hare	axis	complete		1 burnt brown/black	2
Arctic hare	cervical	complete		burnt black	1
Arctic hare	lumbar vert.	transv. proc.		2 burnt brown/black	3
Arctic hare	rib	complete	R		3
Arctic hare	rib	head/tub. + prox. shaft	R/L	5 burnt brown/black	9
Arctic hare	rib	shaft fragment		34 burnt brown/black	52
Arctic hare	scapula	complete	R/L	burnt black	2
Arctic hare	scapula	glenoid + blade frag.	L		2
Arctic hare	scapula	blade fragment			3
Arctic hare	humerus	complete	R	burnt black	1
Arctic hare	humerus	cylinder, no ends	R	burnt black	1
Arctic hare	humerus	prox. end	R	burnt black	1
Arctic hare	humerus	dist. + shaft	R		1
Arctic hare	humerus	dist. + shaft	L	burnt black	1
Arctic hare	humerus	dist. end	R	calcined	1
Arctic hare	radius	complete	R/L	burnt brown/black	2
Arctic hare	radius	prox. + shaft	L		2
Arctic hare	radius	prox. + shaft	L	2 burnt brown/black	4

Table 2.15. Continued.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	radius	prox. + shaft	R	burnt all black	1
Arctic hare	ulna	complete	R/L	burnt all black	2
Arctic hare	ulna	prox. + shaft	R	2 burnt all black	5
Arctic hare	ulna	prox. + shaft	L		1
Arctic hare	ulna	prox. end	L		1
Arctic hare	ulna	prox. shaft fragment	L		2
Arctic hare	metacarpal 1	complete	L		3
Arctic hare	metacarpal 2	complete	L	2 burnt brown/black	4
Arctic hare	metacarpal 2	complete	R	burnt brown/black	1
Arctic hare	metacarpal 3	complete	R/L	burnt brown/black	4
Arctic hare	metacarpal 4	complete	L	3 burnt brown/black	4
Arctic hare	metacarpal 5	complete	L	3 burnt brown/black	4
Arctic hare	phalanx 1, front	complete		2 burnt all black	9
Arctic hare	phalanx 2, front	complete		1 burnt all black	5
Arctic hare	pelvis	acetab. + ilium	R	burnt black/grey	1
Arctic hare	pelvis	acetab. + pubis/ischium	R	1 burnt all black	2
Arctic hare	femur	complete	R		1
Arctic hare	femur	prox. + shaft	R		2
Arctic hare	femur	prox. shaft	R		1
Arctic hare	femur	prox. shaft	L	1 burnt brown/black	3
Arctic hare	femur	dist. end	R/L	1 burnt brown/black	3
Arctic hare	tibia	cylinder, no ends	R	3 burnt brown/black	5
Arctic hare	tibia	cylinder, no ends	L	2 burnt brown/black	3
Arctic hare	tibia	prox. + shaft	R	burnt red/brown	2
Arctic hare	tibia	shaft fragment			3
Arctic hare	astragalus	complete	R	burnt black	1
Arctic hare	calcaneum	complete	R/L	1 burnt brown/black	4
Arctic hare	navicular	complete	R/L	1 burnt all black	3
Arctic hare	metatarsal 2	complete	R/L	3 burnt brown/black	6
Arctic hare	metatarsal 3	complete	R/L	2 burnt brown/black	5
Arctic hare	metatarsal 3	prox. + shaft	L		1
Arctic hare	metatarsal 4	complete	R/L	2 burnt brown/black	4
Arctic hare	metatarsal 5	complete	R/L	burnt brown/black	4
Arctic hare	metatarsal	dist. + shaft			1
Arctic hare	phalanx 1, hind	complete		4 burnt all black	9
Arctic hare	phalanx 2, hind	complete		3 burnt brown/black	4
Arctic hare	phalanx 3	complete		burnt brown/black	3
Arctic fox	tibia	prox. + shaft	L		1
Musk ox	cranium	auditory bulla frag.	R	burnt brown/black	1
Lg. terres. mam.	cranium	fragment		6 burnt brown/black	9
Total					263

FAUNAL REMAINS FROM ALL FEATURES

Table 2.16. Fish and bird remains from Pearylandville features 23a & 23b.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	R		1
Arctic char	branchiostegal ray	complete	R		2
Arctic char	basipterygium	complete	R/L		2
Arctic char	cleithrum	ventral 1/2	L		1
Arctic char	dentary	complete	L		2
Arctic char	ectopterygoid	complete	L		2
Arctic char	hyomandibular	complete	L		1
Arctic char	maxilla	complete	R		3
Arctic char	mesopterygoid	complete	R		1
Arctic char	parasphenoid	anterior 1/2		1 burnt brown/black	3
Arctic char	parasphenoid	fragment		burnt brown/black	1
Arctic char	postcleithrum	complete	R		1
Arctic char	posttemporal	complete	L		1
Arctic char	quadrate	fragment			1
Arctic char	retroarticular	complete	L		1
Arctic char	urohyal	complete			1
Arctic char	thoracic vertebra	complete			2
Fish	rib/ray/spine	fragment			81
Fish	uniden.	fragment			11
Bird	cranium	fragment			3
Bird	tracheal ring	complete			1
Total					122

Table 2.17. Small mammal remains from Pearylandville features 23a & 23b.

Taxa	Element	Portion	Side	Comments	No.
Collared lemming	incisor	complete			1
Collared lemming	pelvis	complete	L		1
Collared lemming	radius + ulna	prox. + shaft	R		2
Arctic hare	cranium	parietal/temporal	R	burnt brown/black	1
Arctic hare	maxillary incisor	complete		burnt brown/black	1
Arctic hare	rib	head/tub. + prox. shaft	R/L		3
Arctic hare	rib	shaft fragment			5
Arctic hare	scapula	blade fragment	L		1
Arctic hare	radius	dist. + shaft	R		1
Arctic hare	ulna	midshaft	R		1
Arctic hare	femur	dist. + shaft	L		1
Arctic hare	femur	prox. end	R	burnt brown/black	1
Arctic fox	mandible	distal	L	burnt brown/black	1
Arctic fox	thoracic	complete			1
Arctic fox	scapula	glenoid	L		1
Arctic fox	humerus	distal shaft	R		1
Arctic fox	tibia	cylinder, no ends	R		1
Arctic fox	tibia	midshaft fragment	R		1
Total					25

Table 2.18. Large mammal remains from Pearylandville feature 23a & 23b.

Taxa	Element	Portion	Side	Comments	No.
Artiodactyl	premolar/molar	fragment		1 burnt brown/black	9
Artiodactyl	vertebra	centrum fragment		burnt black/white	2
Artiodactyl	rib	shaft fragment			5
Artiodactyl	long bone	shaft fragment		1 burnt black; spiral fracture	12
Musk ox	cranium	occipital			1
Musk ox	maxillary M2	fragment	R	slight wear; burnt brown/black	1
Musk ox	mandibular I3	complete	L	slight wear; burnt brown/black	1
Musk ox	mandibular M2	complete	R	slight wear; burnt brown/black	1
Musk ox	hyoid	complete	L	slight wear; burnt brown/black	1
Musk ox	thoracic	spinous process		burnt brown/black	1
Musk ox	rib	proximal shaft			3
Musk ox	rib	midshaft		1 burnt brown/black	9
Musk ox	scapula	blade fragment	R/L		3
Musk ox	scapula	glenoid + blade frag.	L	burnt brown/black	1
Musk ox	humerus	anterior midshaft		<15cm, spiral fracture	1
Musk ox	radius	prox. + shaft	R/L	1 spiral fracture; 1 burnt red/brown	3
Musk ox	radius	proximal, posterior shaft	L	2 striae; burnt red/brown	2
Musk ox	ulna	prox. + shaft	R		1
Musk ox	metacarpal	prox. + shaft	R		1
Musk ox	pelvis	acetabulum	L		1
Musk ox	pelvis	ilium	L		2
Musk ox	femur	anterior midshaft	L	2 striae across midshaft	1
Musk ox	femur	distal, posterior shaft	R		1
Musk ox	tibia	midshaft fragment	R	1 burnt brown/black	3
Musk ox	tibia	distal + shaft	R		1
Musk ox	tibia	posterior midshaft	L	2 striae across midshaft (2)	3
Musk ox	metatarsal	prox. + shaft	R	25+ striae on prox. shaft; spiral frac.	1
Musk ox	metatarsal	prox. + shaft	L		1
Musk ox	astragalus	fragment	L		1
Musk ox	phalanx 1	complete	R		1
Lg. terres. mam.	axial	fragment			31
Total					105

FAUNAL REMAINS FROM ALL FEATURES

Table 2.19. Fish and bird remains from Pearylandville feature 24.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	R		1
Arctic char	angular	complete	L		4
Arctic char	basipterygium	complete	R		5
Arctic char	basipterygium	complete	L		1
Arctic char	ceratobranchial	complete		1 burnt brown/black	14
Arctic char	cleithrum	complete/ventral	R		8
Arctic char	cleithrum	ventral	L		5
Arctic char	coracoid	complete	R		3
Arctic char	coracoid	complete	L		1
Arctic char	dentary	complete	L	1 burnt brown/black	5
Arctic char	dentary	complete	L	70mm long; burnt brown/black	1
Arctic char	dentary	complete	R	1 burnt brown/black	4
Arctic char	dentary	fragment			1
Arctic char	ectopterygoid	complete	R/L		2
Arctic char	exoccipital	complete	L		2
Arctic char	expanded haemal spine	complete			3
Arctic char	frontal	ventral	R		2
Arctic char	hyomandibular	complete	R		2
Arctic char	hyomandibular	complete	L		4
Arctic char	interopercle	anterior	R		1
Arctic char	lingual plate	complete			1
Arctic char	maxilla	complete	L		6
Arctic char	maxilla	fragment			8
Arctic char	mesopterygoid	anterior	R/L		3
Arctic char	mesopterygoid	complete	R/L		2
Arctic char	mesopterygoid	posterior	R/L		4
Arctic char	mesopterygoid	fragment	L		1
Arctic char	opercle	articular facet	R		1
Arctic char	palatine	complete	R/L		4
Arctic char	parasphenoid	fragment			3
Arctic char	parasphenoid	complete		1 burnt brown/black	4
Arctic char	pharyngeal plate	complete	L		1
Arctic char	postcleithrum	complete	R		1
Arctic char	posttemporal	complete	R/L		4
Arctic char	preopercle	fragment	L		1
Arctic char	pteroic	complete	R/L		2
Arctic char	quadrate	complete	R/L		2
Arctic char	suprapreopercle	complete	R/L		2
Arctic char	symplectic	complete	R		1
Arctic char	tooth	complete			2
Arctic char	urohyal	complete			1
Arctic char	thoracic vert.	complete			17
Arctic char	precaudal vert.	complete			1
Arctic char	caudal vert.	complete		1 burnt brown/black	19
Arctic char	vertebra	fragment			6
Fish	rib/ray/spine	fragment			268
Fish	uniden.	fragment			39
Bird	cranium	fragment			1
Total					474

Table 2.20. Small mammal remains from Pearylandville feature 24.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	cranium	mesial maxilla	L		1
Arctic hare	cranium	occipital + petrous			1
Arctic hare	maxillary incisor	complete	L		1
Arctic hare	mandible	ascending ramus	R		1
Arctic hare	sternubra	complete		4 burnt brown/black; striae ventral surface (1)	9
Arctic hare	rib	complete	R/L		2
Arctic hare	rib	tubercle + prox. shaft	L		1
Arctic hare	rib	midshaft			9
Arctic hare	pelvis	complete	R		2
Arctic hare	femur	complete	R		1
Arctic hare	tibia	prox. + shaft	R	impact scar; spiral fracture	1
Arctic fox	cervical	complete			2
Arctic fox	thoracic	complete		1 burnt brown/black	8
Arctic fox	thoracic	centrum			2
Arctic fox	lumbar	centrum			1
Arctic fox	sternubra	complete			2
Arctic fox	rib	head/tub. + prox. shaft	R/L		3
Arctic fox	rib	midshaft		2 burnt brown/black	7
Arctic fox	humerus	complete	R		1
Arctic fox	femur	complete	L		2
Arctic fox	tibia	complete	L	burnt red	1
Arctic fox	fibula	dist. + shaft	L	burnt brown/black	1
Arctic fox	astragalus	complete	R		1
Arctic fox	calcaneum	complete	R	burnt brown/black	1
Arctic fox	metatarsal 1-4	complete	L		4
Arctic fox	phalanx 2	complete			1
Arctic fox	phalanx 3	complete			4
Total					70

FAUNAL REMAINS FROM ALL FEATURES

Table 2.21. Large mammal remains from Pearylandville feature 24.

Taxa	Element	Portion	Side	Comments	No.
Artiodactyl	premolar/molar	fragment			3
Artiodactyl	thoracic	spinous process		2 burnt brown-grey	4
Artiodactyl	rib	shaft fragment			1
Caribou	mandibular I1	complete	L	worn; 7.5-9 years	1
Musk ox	cranium	frontal fragment	R		1
Musk ox	cranium	alveolus fragment		1 burnt red	5
Musk ox	mandible	alveolus fragment			2
Musk ox	mandibular molar	complete		sent for stable isotope analysis 18 June, 1996	1
Musk ox	mandibular M3	complete	L	worn	1
Musk ox	mandibular PM3	fragment	R/L	worn	2
Musk ox	mandibular M/PM	complete		worn to root	2
Musk ox	mandibular incisor	complete		worn	2
Musk ox	hyoid	complete	L		1
Musk ox	lumbar	lateral			1
Musk ox	rib	head/tub. + prox. shaft	R/L		5
Musk ox	rib	midshaft			18
Musk ox	humerus	anterior, proximal shaft	R	burnt brown/black, spiral fracture	1
Musk ox	humerus	posterior midshaft	L	burnt red/brown	1
Musk ox	humerus	posterior midshaft	R	burnt red/brown	1
Musk ox	radius	anterior, proximal shaft	R	2 impact scars; spiral fracture	1
Musk ox	radius	anterior midshaft	L	20+ striae; spiral frac.; burnt br./bl.	1
Musk ox	radius	distal, medial condyle	R	burnt all grey	1
Musk ox	cuneiform	complete	R	2 striae on distal, posterior aspect	1
Musk ox	lunate	complete	R		1
Musk ox	scaphoid	complete	R		1
Musk ox	trap-magnum	complete	R		1
Musk ox	unciform	complete	R		1
Musk ox	accessory carpal	complete	R		1
Musk ox	metacarpal	dist. + shaft	L	30+ striae ant. shaft.; 2 striae condyle	1
Musk ox	metacarpal	prox. + shaft	R	spiral fracture	1
Musk ox	femur	anterior, distal midshaft	L	2 striae across shaft	1
Musk ox	femur	posterior midshaft	R	2 striae across shaft	1
Musk ox	tibia	anterior, proximal shaft	R/L	<10cm; spiral fracture	2
Musk ox	tibia	anterior midshaft	R	3 striae distal midshaft; spiral frac.	1
Musk ox	tibia	dist. + shaft	L	8 striae/chop mark/impact; spiral frac.; burnt	1
Musk ox	tibia	dist. + shaft	R	2 striae/2 impact scars; spiral fracture	1
Musk ox	tibia	dist. + shaft	L	3 striae	1
Musk ox	tibia	dist. + shaft	L	spiral frac.; burnt brown/black	1
Musk ox	tibia	posterior midshaft	L	spiral frac.; burnt brown/black	1
Musk ox	lateral malleolus	complete	R/L	1 burnt brown/black	2
Musk ox	metatarsal	anterior midshaft	R/L	spiral fracture	2
Musk ox	metatarsal	complete medial	L	burnt red	1
Musk ox	metatarsal	prox. + shaft	R	6 striae ant. shaft; spiral frac.	1
Musk ox	metatarsal	prox. + shaft	R	4 striae ant. shaft; burnt brown/black	1
Musk ox	metatarsal	prox. + shaft	L	spiral fracture; burnt brown/black (1)	2
Musk ox	metatarsal	prox. + shaft	R	burnt brown/black	1
Musk ox	metapodial	dist. condyle + shaft			1
Musk ox	phalanx 1	complete	L	1 striae on proximal, lateral surface	1
Musk ox	phalanx 1	complete	R	burnt red	1

Table 2.21. Continued.

Taxa	Element	Portion	Side	Comments	No.
Musk ox	phalanx 2	complete	R	burnt brown/black	1
Musk ox	phalanx 3	complete	R	burnt red-black	1
Musk ox	sesamoid	complete		1 burnt brown/black	4
Musk ox	unident.	fragment		sent for C14 dating 20 December, 1995	4
Lg. terres. mam.	cranium	fragment			8
Lg. terres. mam.	long bone	shaft fragment		<10cm; burnt brown/black	1
Lg. terres. mam.	long bone	shaft fragment		<10cm; 2 striae	1
Lg. terres. mam.	long bone	shaft fragment		<10cm; 1 striae; impact scar/spiral frac.	1
Lg. terres. mam.	long bone	shaft fragment		<10cm; spiral fracture	3
Total					111

Table 2.22. Faunal remains from Pearylandville feature 25.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	mandible	ascending ramus	R		1
Arctic hare	rib	shaft fragment			2
Artiodactyl	premolar/molar	fragment			2
Musk ox	cranium	alveolus fragment	L	burnt brown/black	1
Musk ox	cervical	transv. process			1
Musk ox	rib	shaft fragment			5
Musk ox	humerus	anterior midshaft	R	<10cm; spiral frac.	1
Musk ox	radius	anterior midshaft	R	<10cm; spiral frac.	1
Musk ox	ulna	midshaft		30+ striae across shaft	1
Musk ox	femur	midshaft fragment		<10cm; spiral frac.	1
Musk ox	tibia	posterior midshaft	R	<10cm; spiral frac.	1
Musk ox	tibia	proximal, posterior shaft	R	<10cm; spiral frac.	1
Musk ox	metapodial	distal condyle			2
Lg. terres. mam.	cranium	fragment		1 burnt brown/black	3
Lg. terres. mam.	long bone	shaft fragment		<10 cm; spiral frac.	3
Total					26

FAUNAL REMAINS FROM ALL FEATURES

Table 2.23. Small mammal remains from Pearylandville feature 26.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	cranium	frontal/maxilla		burnt brown/black	1
Arctic hare	cranium	frontal/parietal/temporal		burnt brown/black	1
Arctic hare	cranium	maxilla fragment	R/L	burnt brown/black (2)	6
Arctic hare	cranium	parietal	R/L	burnt brown/black	2
Arctic hare	cranium	auditory bulla	R/L	burnt brown/black (2)	3
Arctic hare	cranium	occipital		burnt brown/black (2)	3
Arctic hare	cranium	fragment		burnt brown/black	3
Arctic hare	maxillary molar/ premolar	fragment		burnt brown/black	5
Arctic hare	mandible	complete	L	burnt brown/black	2
Arctic hare	mandible	horizontal ramus	R	burnt brown/black	1
Arctic hare	mandible	horizontal ramus	L	burnt brown/black	3
Arctic hare	mandible	mesial horiz. ramus	R	burnt brown/black (1)	2
Arctic hare	mandible	mesial horiz. ramus	L	burnt brown/black	3
Arctic hare	mandible	dist. horiz. ramus	L		1
Arctic hare	mandible	mandibular condyle	R/L	burnt red-black	2
Arctic hare	mandibular incisor	complete		burnt brown/black (1)	5
Arctic hare	mandibular molar	complete		burnt brown/black (1)	3
Arctic hare	axis	centrum			1
Arctic hare	cervical	complete		burnt all black (1)	2
Arctic hare	thoracic	complete		burnt brown/black	4
Arctic hare	lumbar	complete		burnt all black	2
Arctic hare	lumbar	transv. process		burnt brown/black (1)	2
Arctic hare	rib	complete	L	burnt brown/black	1
Arctic hare	rib	proximal shaft		burnt brown/black (23)	38
Arctic hare	rib	midshaft		burnt brown/black (2)	12
Arctic hare	scapula	complete	R/L	burnt brown/black	2
Arctic hare	scapula	glenoid + blade frag.	R/L	burnt brown/black	4
Arctic hare	scapula	blade fragment		burnt brown/black (1)	2
Arctic hare	humerus	complete	L	burnt brown/black	1
Arctic hare	humerus	dist. + shaft	R		3
Arctic hare	humerus	dist. + shaft	L		2
Arctic hare	radius	prox. + shaft	R	burnt brown/black	1
Arctic hare	radius	prox. + shaft	L	burnt brown/black	3
Arctic hare	radius	prox. + shaft	R/L	burnt brown/black	3
Arctic hare	radius	dist. + shaft	R	burnt brown/black	1
Arctic hare	radius	cylinder, no ends	L		1
Arctic hare	radius	midshaft	L	burnt brown/black	1
Arctic hare	ulna	prox. + shaft	R/L	burnt brown/black (1)	3
Arctic hare	ulna	dist. + shaft	R/L	burnt brown/black (1)	5
Arctic hare	metacarpal 2, 3, 4	complete	R	burnt brown/black	3
Arctic hare	pelvis	complete	R	burnt brown/black	1
Arctic hare	pelvis	ilium + pubis/ischium frag.	L	burnt brown/black	1
Arctic hare	femur	complete	L	burnt brown/black	1
Arctic hare	femur	dist. + shaft	R	burnt brown/black (1)	2
Arctic hare	femur	proximal shaft	R	burnt brown/black	1
Arctic hare	tibia	prox. + shaft	R	burnt brown/black	1
Arctic hare	tibia	dist. + shaft	L		1
Arctic hare	tibia	midshaft	R/L	burnt brown/black (1)	5
Arctic hare	calcaneum	complete	R/L	burnt all black	3
Arctic hare	tarsal	complete	R		2

Table 2.23. Continued.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	metatarsal 2	complete	R	burnt red-black	2
Arctic hare	metatarsal 2	complete	L	burnt all black (1)	4
Arctic hare	metatarsal 3	complete	R/L	burnt all black	5
Arctic hare	metatarsal 4	complete	R/L	burnt all black	2
Arctic hare	metatarsal 4	prox. + shaft	R		1
Arctic hare	metatarsal 5	complete	R	burnt all black (1)	2
Arctic hare	metatarsal 5	complete	L	burnt red/brown	2
Arctic hare	phalanx 1 hind	prox.			1
Arctic hare	phalanx 1 hind	complete		burnt all black (6)	7
Arctic hare	phalanx 2 hind	complete		burnt brown/black	2
Arctic fox	cranium	temporal	R		1
Arctic fox	mandible	horizontal ramus	L		1
Arctic fox	tibia	cylinder, no ends	R	burnt brown/black	1
Total					192

Table 2.24. Large mammal remains from Pearylandville feature 26.

Taxa	Element	Portion	Side	Comments	No.
Artiodactyl	molar/premolar	fragment		burnt brown/black (1)	3
Musk ox	cranium	fragment		foetal; burnt brown/black (3)	4
Musk ox	cranium	alveolus frag.	L	foetal; burnt brown/black	1
Musk ox	cranium	alveolus frag.		adult	1
Musk ox	cranium	basioccipital frag.		adult	1
Musk ox	cranium	occipital frag.	R	foetal; burnt brown/black	1
Musk ox	cranium	frontal/orbit frag.	L	foetal; burnt brown/black	1
Musk ox	cranium	zygomatic arch	R	adult	1
Musk ox	mandible	dist. horiz. ramus	R	adult; M3 slight wear	1
Musk ox	mandibular I4	complete	L	adult	1
Musk ox	atlas	complete		very large bull	1
Musk ox	lumbar	transv. process		adult; burnt brown/black	1
Musk ox	sacral vertebra	complete		foetal	1
Musk ox	vertebra	lateral		foetal; burnt brown/black	4
Musk ox	rib	complete	L	foetal	1
Musk ox	rib	head/tub. + prox. shaft	R/L	foetal	2
Musk ox	rib	sternal shaft	L	adult	1
Musk ox	rib	midshaft		burnt brown/black (4)	5
Musk ox	scapula	glenoid + blade frag.	L	foetal	1
Musk ox	scapula	spine	L	adult; 5 striae at spine/blade	1
Musk ox	scapula	blade fragment	L	adult; burnt brown/black	1
Musk ox	humerus	dist. + shaft	R	foetal; 3 striae condyle; burnt br/bl	1
Musk ox	humerus	distal condyle	R	adult; burnt brown/black	1
Musk ox	radius	prox. + shaft	L	foetal	2
Musk ox	ulna	prox. + shaft	R	foetal	1
Musk ox	metacarpal	complete lateral	L	foetal; burnt brown/black	1
Musk ox	pelvis	ilium	R	foetal; burnt brown/black	1
Musk ox	femur	cylinder, no ends	R	foetal	1
Musk ox	tibia	cylinder, no ends	R	foetal	1
Musk ox	tibia	proximal, anterior shaft	L	adult	1
Lg. terres. mam.	cranium	fragment			7
Total					52

FAUNAL REMAINS FROM ALL FEATURES

Table 2.25. Faunal remains from Pearylandville feature 28.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	basiopterygium	complete	R		1
Rock ptarmigan	humerus	cylinder, no ends	R		1
Rock ptarmigan	pelvis	acetabulum	R		1
Rock ptarmigan	tibiotarsus	dist. + shaft	R	juvenile	1
Arctic hare	atlas	fragment			1
Arctic hare	phalanx 1	complete			1
Arctic hare	rib	head/tub. + prox. shaft			1
Artiodactyl	premolar/molar	fragment			21
Musk ox	maxillary PM	fragment	L		2
Musk ox	maxillary M	fragment	R/L		3
Musk ox	rib	midshaft			1
Musk ox	metatarsal	dist. + shaft	L		1
Musk ox	tibia	proximal, anterior shaft	R	35+ striae ant. crest; 60+ striae midshaft	1
Musk ox	tibia	distal, posterior shaft	R	<10cm; spiral fracture; burnt black	1
Musk ox	tibia	dist. + shaft	R	spiral fracture	1
Lg. terres. mam.	axial	fragment			4
Lg. terres. mam.	long bone	shaft		<10cm; spiral fracture; burnt black	8
Total					50

Table 2.26. Faunal remains from Hellebæk Group II feature A.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	cleithrum	fragment	R		1
Fish	rib/ray/spine	fragment			3
Brent/barnacle goose	humerus	prox. + shaft	R	tool debitage; sm. canid gnaw prox. end	1
Brent/barnacle goose	femur	complete	R		1
Long-tailed duck	humerus	distal + shaft	R		1
Long-tailed duck	tibiotarsus	distal + shaft	R	burnt uniform black	1
Collared lemming	humerus	cylinder, no ends	L		1
Arctic hare	cranium	maxilla			1
Arctic hare	cranium	occipital fragment	R		1
Arctic hare	mandible	mandibular condyle			1
Ringed seal	femur	midshaft	L		1
Small seal	costal	complete	L		1
Small seal	rib	shaft fragment			5
Small seal	lumbar	fragment		burnt uniform black	1
Small seal	lumbar	spinous process			2
Small seal	metacarpal	dist. + shaft		burnt uniform black; fused	2
Small seal	metacarpal 1	prox. + shaft	R/L	burnt uniform black (1); fused (>7-8 yr.)	2
Small seal	phalanx 3 front	complete		burnt black-white (>1-3)	2
Small seal	pelvis	ischium	R/L	fused (>1-3 yr.)	2
Small seal	tibia	distal + shaft	L	fused	1
Small seal	tibia	midshaft			1
Small seal	calcaneum	tuber calcus	R	burnt uniform black	1
Small seal	metatarsal	dist. + shaft		burnt uniform black; fused	2
Small seal	metatarsal 1	complete	L	fused (>7-8 yr.)	1
Small seal	metatarsal 1	distal + shaft	R	fused (>1-3 yr.)	1
Small seal	metatarsal 2	complete	L	fused (>7-8 yr.)	1
Small seal	metatarsal 3, 4	prox. + shaft	R	burnt uniform black; fused (>7-8 yr.)	2
Small seal	metatarsal 5	prox. + shaft	R	burnt uniform black; fused (>7-8 yr.)	1
Small seal	phalanx 1 hind	complete	R	osteoarthritis; fused (>7-8 yr.)	1
Small seal	phalanx 2 hind	complete		unfused (<1-3 yr.)	1
Small seal	phalanx 2 hind	complete		fused (>7-8 yr.)	2
Small seal	phalanx 2 hind	prox. + shaft		burnt uniform black; unfused (<1-3 yr.)	2
Small seal	phalanx 3 hind	complete		unfused (<4-5); osteoarthritis (1)	1
Small seal	phalanx 3 hind	complete		fused (>4-5); osteoarthritis (1)	2
Artiodactyl	rib	fragment			3
Total					53

FAUNAL REMAINS FROM ALL FEATURES

Table 2.27. Fish & bird remains from Deltaterrasserne features 1 & 2.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	R/L		4
Arctic char	basipterygium	complete	R/L		3
Arctic char	ceratobranchial	complete			1
Arctic char	ceratohyal	complete			1
Arctic char	cleithrum	complete	R/L		6
Arctic char	coracoid	complete	R/L		2
Arctic char	dentary	complete	R/L		5
Arctic char	expanded haemal spine	complete			1
Arctic char	maxilla	complete	R/L		9
Arctic char	mesopterygoid	fragment			1
Arctic char	parasphenoid	complete			2
Arctic char	penultimate	complete			2
Arctic char	posttemporal	complete			1
Arctic char	thoracic vert.	complete			16
Arctic char	precaudal vert.	complete			6
Arctic char	caudal vert.	complete			56
Fish	cranium	fragment			2
Fish	rib/ray/spine	fragment			19
Brent/barnacle goose	radius	cylinder, no ends			1
Total					138

Table 2.28. Hare remains from Deltaterrasserne features 1 & 2.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	Cranium	maxilla	R/L		2
Arctic hare	Cervical	complete			4
Arctic hare	Mandible	distal	R		1
Arctic hare	Mandible	mesial	L		1
Arctic hare	Mandible	horiz. ramus	R		1
Arctic hare	Thoracic	complete			4
Arctic hare	Lumbar	complete			1
Arctic hare	Lumbar	transv. proc.			1
Arctic hare	Rib	complete			22
Arctic hare	Rib	shaft fragment			6
Arctic hare	Humerus	complete	R		1
Arctic hare	Humerus	distal end	R		1
Arctic hare	Humerus	cylinder, no ends	L		1
Arctic hare	Humerus	distal shaft	R		1
Arctic hare	Radius	distal	R		1
Arctic hare	radius	prox.	L		1
Arctic hare	calcaneum	complete	R		1
Arctic hare	metacarpal 2	complete	L		1
Arctic hare	metacarpal 3	complete	R		2
Arctic hare	metacarpal 4	complete	R		1
Arctic hare	pelvis	acetab. + pubis/ischium	L		1
Arctic hare	femur	prox.	R		1
Arctic hare	metatarsal 4	complete	L		1
Arctic hare	phalanx 1 hind	complete			10
Arctic hare	phalanx 2 hind	complete			5
Total					72

FAUNAL REMAINS FROM ALL FEATURES

Table 2.29. Fox remains from Deltaterrasserne features 1 & 2.

Taxa	Element	Portion	Side	Comments	No.
Arctic fox	cranium	parietal	R		1
Arctic fox	cranium	zygomatic	L		1
Arctic fox	mandible	complete	R/L	adult	2
Arctic fox	mandible	complete	R/L	juvenile (canine root open)	2
Arctic fox	mandibular canine	complete	R	juvenile (canine root open)	1
Arctic fox	mandibular M2	complete	R		1
Arctic fox	sternubra	complete			2
Arctic fox	rib	complete	R/L		6
Arctic fox	rib	prox.			8
Arctic fox	rib	midshaft			4
Arctic fox	thoracic	complete			3
Arctic fox	lumbar	complete			2
Arctic fox	caudal vert.	complete			17
Arctic fox	calcaneum	complete	R/L		2
Arctic fox	scapula	glenoid + blade frag.	R/L		3
Arctic fox	humerus	complete	R		1
Arctic fox	humerus	prox. +	L		1
Arctic fox	humerus	prox. epiph.	R		1
Arctic fox	ulna	prox. + shaft	R		1
Arctic fox	metacarpal 1	complete	R		1
Arctic fox	metacarpal 2	complete	R/L		2
Arctic fox	metacarpal 3	complete	R		3
Arctic fox	metacarpal 3	prox.	L		1
Arctic fox	metacarpal 4	complete	R/L		3
Arctic fox	metacarpal 5	complete	R/L		4
Arctic fox	metacarpal 5	distal	R/L		2
Arctic fox	tibia	complete	L		1
Arctic fox	calcaneum	complete	R		1
Arctic fox	metatarsal 2	complete	R		3
Arctic fox	metatarsal 3	complete	R		3
Arctic fox	metatarsal 4	complete	R		3
Arctic fox	metatarsal 5	complete	R		3
Arctic fox	metatarsal	distal			2
Arctic fox	phalanx 1	complete			14
Arctic fox	phalanx 2	complete			1
Arctic fox	phalanx 3	complete			3
Total					109

Table 2.30. Large terrestrial mammal remains from Deltaterrasserne features 1 & 2.

Taxa	Element	Portion	Side	Comments	No.
Artiodactyl	premolar/molar	fragment			6
Musk ox	cranium	frontal/orbit	L		1
Musk ox	cranium	palatine/pterygoid			1
Musk ox	cranium	temporal	L	burnt brown/black	1
Musk ox	cranium	fragment			1
Musk ox	cranium	maxillary M3 + alveolus	L	adult; slight wear	1
Musk ox	cranium	premaxilla/maxilla	R	9 striae buccal surface	1
Musk ox	maxillary dM4	complete	L	juvenile; worn	2
Musk ox	mandible	distal horiz. ramus	L	juvenile; ca. $1\frac{1}{2}$ year	1
Musk ox	mandible	alveolus + PM4	R	adult, worn	1
Musk ox	mandible	mesial			1
Musk ox	mandibular incisor	complete	R/L		3
Musk ox	mandibular dI	complete		juvenile	1
Musk ox	hyoid	complete	R		1
Musk ox	atlas	lateral			1
Musk ox	rib	midshaft	L	40+ striae lateral surface	1
Musk ox	lumbar	transv. process			1
Musk ox	humerus	anterior midshaft	L		1
Musk ox	humerus	lateral midshaft	R	5 cm; spiral fracture	2
Musk ox	humerus	medial midshaft	L	5 cm; impact scar, spiral frac.	1
Musk ox	vestigial metacarpal	complete	L		1
Musk ox	tibia	anterior midshaft			1
Lg. terres. mamm.	axial	fragment			10
Lg. terres. mamm.	vertebra	fragment			2
Lg. terres. mamm.	rib	shaft fragment			2
Lg. terres. mamm.	long bone	shaft fragment			7
Total					52

FAUNAL REMAINS FROM ALL FEATURES

Table 2.31. Bird remains from Deltaterrasserne feature 12.

Taxa	Element	Portion	Side	Comments	No.
Bird	axial	fragment			7
Bird	rib	shaft fragment			28
Bird	scapula	prox.		juvenile	1
Bird	ulna	complete		juvenile	1
Bird	tibiotarsus	complete	R/L	juvenile	1
Bird	long bone	shaft fragment		11 juvenile	21
Bird	phalanx 1, rear	complete		juvenile	1
Duck/goose	femur	complete	L	juvenile	1
Duck/goose	tibiotarsus	complete	L	juvenile	1
Brent goose	cranium	maxilla fragment			1
Brent/barnacle goose	mandible	complete	L		1
Brent/barnacle goose	cervical	complete			1
Brent/barnacle goose	sternum	anterior			2
Brent/barnacle goose	furculum	right half			1
Brent/barnacle goose	coracoid	distal	R		1
Brent/barnacle goose	scapula	prox. + shaft	R/L		2
Brent/barnacle goose	humerus	complete	R	2 juvenile	3
Brent/barnacle goose	humerus	cylinder, no ends	R/L	2 juvenile (R)	3
Brent/barnacle goose	humerus	proximal shaft	L	1 juvenile	3
Brent/barnacle goose	humerus	distal + shaft	R/L		5
Brent/barnacle goose	radius	cylinder, no ends	R/L		4
Brent/barnacle goose	radius	prox. + shaft	R		1
Brent/barnacle goose	radius	distal + shaft	L	juvenile	1
Brent/barnacle goose	ulna	cylinder, no ends	R/L		7
Brent/barnacle goose	ulna	prox. shaft	R/L		3
Brent/barnacle goose	carpometacarpus	complete	L		1
Brent/barnacle goose	phalanx	complete			2
Brent/barnacle goose	pelvis	pubis/ischium	R		1
Brent/barnacle goose	pelvis	pubis	R/L	juvenile	5
Brent/barnacle goose	femur	complete	R/L	juvenile	4
Brent/barnacle goose	femur	cylinder, no ends	R/L		4
Brent/barnacle goose	femur	prox. + shaft	L	juvenile	2
Brent/barnacle goose	femur	distal + shaft	L	juvenile	1
Brent/barnacle goose	fibula	complete	R	2 juvenile	3
Brent/barnacle goose	fibula	prox. + shaft	L	juvenile	2
Brent/barnacle goose	tibiotarsus	complete	R/L	juvenile	6
Brent/barnacle goose	tibiotarsus	prox. + shaft	R	2 juvenile	3
Brent/barnacle goose	tibiotarsus	cylinder, no ends	R/L		4
Brent/barnacle goose	tibiotarsus	distal + shaft	R/L	1 juvenile (L)	3
Brent/barnacle goose	tibiotarsus	distal end	L		1
Brent/barnacle goose	tarsometatarsus	complete	R/L	4 juvenile	5
Brent/barnacle goose	tarsometatarsus	prox. + shaft	R		1
Rock ptarmigan	coracoid	complete	R/L	1 juvenile (L)	2
Red knot	femur	distal + shaft	L		1
Ivory gull	femur	complete	L		1
Total					153

Table 2.32. Mammal remains from Deltaterrasserne feature 12.

Taxa	Element	Portion	Side	Comments	No.
Artiodactyl	premolar/molar	fragment			1
Musk ox	cranium	alveolus + M2	L	adult, slight wear	1
Musk ox	cranium	premaxilla + maxilla	R	14 striae lateral surface (1)	2
Musk ox	maxillary PM4	complete	R	adult; slight wear	1
Musk ox	maxillary M1	complete	R	adult; worn	1
Musk ox	maxillary M2	complete	R/L	adult; worn	2
Musk ox	mandibular incisor	complete		adult; worn	3
Musk ox	mandibular dI	complete		juvenile	3
Musk ox	mandibular M2	complete	R	adult; unworn	1
Musk ox	hyoid	complete	R	juvenile	1
Musk ox	hyoid	prox.	L	adult	1
Musk ox	lumbar	transv. process			1
Musk ox	rib	sternal shaft	R/L		3
Musk ox	scapula	blade fragment	R/L		2
Musk ox	humerus	anterior midshaft	R/L	<10cm; spiral fracture	2
Musk ox	humerus	distal + shaft	L		1
Musk ox	radius	anterior midshaft	L	long spiral fracture	1
Musk ox	pelvis	ischium fragment	R		1
Musk ox	femur	anterior, prox. shaft	R	4+ impact scars; long spiral fracture	1
Musk ox	femur	anterior midshaft	R	long spiral fracture	1
Musk ox	tibia	anterior midshaft	R/L	long spiral fracture	2
Musk ox	metatarsal	distal + shaft	L		1
Lg. terres. mamm.	axial	fragment			7
Lg. terres. mamm.	long bone	shaft fragment			2
Total					42

Table 2.33. Bird remains from Deltaterrasserne feature 13a.

Taxa	Element	Portion	Side	Comments	No.
Long-tailed duck	scapula	prox.	L		1
Long-tailed duck	radius	cylinder, no ends	R		1
Brent/barnacle goose	tarsometatarsus	cylinder, no ends	L	juvenile	1
Ivory gull	mandible	complete	R		1
Ivory gull	mandible	mesial	L		1
Ivory gull	sternum	anterior crest			1
Ivory gull	sternum	lateral border	L		1
Ivory gull	radius	distal + shaft	L		1
Ivory gull	ulna	distal + shaft	L		1
Total					9

FAUNAL REMAINS FROM ALL FEATURES

Table 2.34. Mammal remains from Deltaterrasserne feature 13a.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	rib	sternal shaft	L		1
Arctic hare	ulna	cylinder, no ends	R		1
Arctic hare	ulna	prox. + shaft	L		1
Arctic fox	sternubra	complete			1
Arctic fox	rib	complete	R		1
Arctic fox	rib	shaft fragment			2
Arctic fox	scapula	glenoid + blade fragment	L		1
Arctic fox	radius	distal + shaft	L		1
Arctic fox	ulna	distal + shaft	R		1
Arctic fox	fibula	prox. + shaft	L		1
Artiodactyl	premolar/molar	fragment			1
Musk ox	mandibular dI	complete		sent for C14 dating 22/12/1989, T. Berg	1
Musk ox	hyoid	prox.	R	1 striae	1
Musk ox	rib	midshaft			2
Musk ox	ulna	distal + shaft	L	unfused	1
Musk ox	femur	anterior, prox. shaft	L		1
Musk ox	tibia	midshaft			1
Total					19

Table 2.35. Mammal remains from Deltaterrasserne feature 14.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	pelvis	pubis	L	juvenile	1
Arctic hare	cranium	premaxilla	R		1
Arctic hare	rib	sternal shaft			4
Arctic fox	caudal vert.	complete			1
Arctic fox	cranium	parietal	R/L		2
Arctic fox	humerus	cylinder, no ends	L		1
Arctic fox	humerus	distal + shaft	R		1
Arctic fox	rib	prox. shaft			3
Arctic fox	tibia	midshaft	L		1
Artiodactyl	premolar/molar	fragment			5
Musk ox	cranium	alveolus fragment			1
Musk ox	cranium	temporal fragment	R	juvenile	1
Musk ox	mandibular dI	complete		juvenile	1
Musk ox	mandibular dM2	complete	L	juvenile; v. worn	1
Musk ox	mandibular incisor	complete		adult; worn	2
Total					26

Table 2.36. Faunal remains from Deltaterrasserne feature 5a, interior.

Taxa	Element	Portion	Side	Comments	No.
Musk ox	maxillary PM2	complete	R	adult; worn	1
Musk ox	mandibular incisor	complete		adult; worn	1
Musk ox	maxillary dM1		L	juvenile; unworn (<6mo.)	1
Musk ox	rib	shaft fragment		sent for C14 dating, U. Møhl	1
Musk ox	long bone	shaft fragment		sent for C14 dating, U. Møhl	1
Artiodactyl	premolar/molar	fragment			2
Total					7

Table 2.37. Faunal remains from Deltaterrasserne feature 5a, front.

Taxa	Element	Portion	Side	Comments	No.
Musk ox	cranium	alveolus + PM2	L	adult; worn	1
Musk ox	cranium	alveolus + PM3	R	adult; worn	1
Musk ox	maxillary M3	complete	L	adult	1
Musk ox	rib	shaft fragment		sent for C14 dating, U. Møhl	2
Musk ox	scapula	blade fragment		sent for C14 dating, U. Møhl	1
Musk ox	radius	shaft fragment		sent for C14 dating, U. Møhl	3
Musk ox	metacarpal	distal + shaft		sent for C14 dating, U. Møhl	1
Musk ox	metacarpal	prox. + shaft		sent for C14 dating, U. Møhl	1
Musk ox	metatarsal	prox. + shaft		sent for C14 dating, U. Møhl	1
Total					12

Table 2.38. Faunal remains from Deltaterrasserne feature 5a, east.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	maxillary molar	complete			4
Arctic hare	mandibular molar	complete			3
Arctic hare	ulna	complete		missing	1
Arctic hare	phalanx	complete		missing	3
Arctic fox	maxillary M3	complete	R		1
Arctic fox	humerus	distal + shaft		missing	1
Arctic fox	femur	prox. + shaft		missing	1
Arctic fox	tibia	prox. + shaft		missing	1
Arctic fox	fibula	prox. + shaft	L		1
Arctic fox	phalanx	complete		missing	3
Musk ox	mandibular M3	complete	R	adult; slight wear	1
Total					20

Table 2.39. Faunal remains from Deltaterrasserne feature 18.

Taxa	Element	Portion	Side	Comments	No.
Caribou	antler	tine fragment			1
Musk ox	tibia	anterior, prox. shaft	R/L	spiral fracture; sent for C14 dating	2
Musk ox	rib	midshaft		sent for C14 dating	3
Lg. terres. mamm.	axial	fragment		sent for C14 dating	2
Lg. terres. mamm.	long bone	shaft fragment		sent for C14 dating	4
Total					12

FAUNAL REMAINS FROM ALL FEATURES

Table 2.40. Fish & bird remains from Vandfaldsnæs feature 15.

Taxa	Element	Portion	Side	Comments	No.
Fish	cranium	fragment			4
Brent/barnacle goose	cranium	parietal	L		1
Brent/barnacle goose	cervical	complete			1
Brent/barnacle goose	furculum	fragment			2
Brent/barnacle goose	sternum	fragment			1
Brent/barnacle goose	scapula	prox.	L	juvenile	1
Brent/barnacle goose	coracoid	complete	R	juvenile	2
Brent/barnacle goose	humerus	complete	R	juvenile	1
Brent/barnacle goose	humerus	cylinder, no ends		juvenile	1
Brent/barnacle goose	humerus	prox. end	L		2
Brent/barnacle goose	radius	midshaft	L		1
Brent/barnacle goose	ulna	cylinder, no ends	L		1
Brent/barnacle goose	phalanx 1, wing	complete			3
Brent/barnacle goose	femur	cylinder, no ends	R/L		2
Brent/barnacle goose	femur	distal + shaft	R	juvenile	1
Brent/barnacle goose	femur	prox. + shaft	R	juvenile	1
Brent/barnacle goose	fibula	distal + shaft	L		1
Brent/barnacle goose	tarsometatarsus	complete	R/L	juvenile	3
Brent/barnacle goose	tarsometatarsus	distal shaft	R	burnt black	1
Brent/barnacle goose	phalanx, hind	complete			2
King eider	cranium	frontal	R		1
Eider	furculum	anterior		juvenile	1
Eider	tibiotarsus	midshaft	R		1
Eider	tibiotarsus	prox. + shaft	R	juvenile	1
Rock ptarmigan	furculum	anterior			2
Rock ptarmigan	sternum	anterior spine			1
Rock ptarmigan	coracoid	complete	R	juvenile	1
Rock ptarmigan	scapula	prox.	R/L		2
Rock ptarmigan	humerus	complete	L	juvenile	1
Rock ptarmigan	humerus	cylinder, no ends	R	juvenile (1)	2
Rock ptarmigan	radius	complete	R	juvenile	2
Rock ptarmigan	ulna	distal + shaft	R/L	juvenile	2
Rock ptarmigan	pelvis	pubis		juvenile	1
Rock ptarmigan	sacrum	centrum		juvenile	1
Rock ptarmigan	femur	cylinder, no ends	R		1
Rock ptarmigan	femur	distal + shaft	R	juvenile	2
Rock ptarmigan	tibiotarsus	cylinder, no ends	L		1
Rock ptarmigan	tibiotarsus	prox. + shaft	R	juvenile	1
Rock ptarmigan	tarsometatarsus	complete	L	juvenile (1)	1
Rock ptarmigan	tarsometatarsus	cylinder, no ends	R	juvenile	1
Glaucous gull	cranium	frontal	L		1
Glaucous gull	tibiotarsus	distal + shaft	R		1
Glaucous gull	tibiotarsus	shaft fragment	R		2
Gull	coracoid	complete	L	juvenile	1
Bird	cervical	complete		juvenile	1
Bird	furculum	fragment		juvenile	2
Bird	rib	shaft fragment			14
Bird	scapula	fragment		juvenile	2
Bird	humerus	prox. shaft			1
Bird	radius	complete		juvenile	1
Bird	radius	cylinder, no ends			1

Table 2.40. Continued.

Taxa	Element	Portion	Side	Comments	No.
Bird	ulna	midshaft			2
Bird	pelvis	pubis		juvenile	2
Bird	tibiotarsus	distal + shaft		juvenile	1
Bird	long bone	shaft fragment		juvenile (7)	8
Bird	phalanx	complete		juvenile (13)	14
Total					113

Table 2.41. Mammal remains from Vandfaldsnæs feature 15.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	mandible	distal horiz. ramus	R		1
Arctic hare	rib	shaft fragment			3
Arctic hare	thoracic	complete			1
Arctic hare	ulna	distal shaft			1
Arctic hare	metacarpal	distal + shaft			1
Arctic hare	metacarpal 4, 5	complete	R		2
Arctic hare	phalanx 1 front	complete			1
Arctic hare	tibia	prox. epiph.	R		1
Arctic hare	phalanx 1 hind	complete			3
Arctic hare	phalanx 3	complete			1
Arctic fox	cranium	palate fragment			1
Arctic fox	cranium	parietal	R/L		3
Arctic fox	mandible	ascending ramus	L		1
Arctic fox	mandibular incisor	complete			1
Arctic fox	mandibular canine	complete	L	adult; worn	1
Arctic fox	rib	prox.			10
Arctic fox	rib	shaft fragment			7
Arctic fox	humerus	cylinder, no ends	L		1
Arctic fox	ulna	prox. + shaft	R		1
Arctic fox	pelvis	acetabulum + ilium	R		1
Arctic fox	metatarsal 5	complete	L		1
Arctic fox	phalanx 1 or 2	distal			1
Artiodactyl	premolar/molar	fragment			10
Musk ox	cranium	alveolus fragment			1
Musk ox	mandibular dl	complete		juvenile; worn	1
Musk ox	mandibular incisor	complete		adult; worn	4
Musk ox	maxillary M2	fragment		adult	1
Musk ox	maxillary PM2, 3, 4	complete		adult; slight wear	3
Musk ox	thoracic	spinous process		unfused; juvenile	1
Musk ox	rib	prox.			2
Lg. terres. mamm.	axial	fragment			3
Lg. terres. mamm.	long bone	shaft fragment		5-10cm; spiral fracture	4
Total					74

FAUNAL REMAINS FROM ALL FEATURES

Table 2.42. Fish remains from Vandfaldsnæs feature 9.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	basipterygium	posterior	R		1
Arctic char	maxilla	complete	L		1
Cod (polar cod)	dentary	anterior	L		1
Cod (polar cod)	maxilla	complete	R		1
Fish	cranium	fragment			3
Fish	rib/ray/spine	fragment			7
Total					14

Table 2.43. Bird remains from Vandfaldsnæs feature 9.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	furculum	anterior			1
Brent/barnacle goose	scapula	prox.	R/L		2
Brent/barnacle goose	ulna	midshaft	R		1
Brent/barnacle goose	carpometacarpus	distal + shaft	R		1
Brent/barnacle goose	humerus	cylinder, no ends	L	juvenile	1
Brent/barnacle goose	humerus	distal + shaft	L		1
Brent/barnacle goose	tibiotarsus	complete	R	juvenile	2
Brent/barnacle goose	tibiotarsus	cylinder, no ends	R		1
Brent/barnacle goose	tibiotarsus	dist. + shaft	R/L		2
Brent/barnacle goose	tibiotarsus	prox. + shaft	L	juvenile	1
Brent/barnacle goose	tarsometatarsus	complete	R/L	juvenile (L)	2
Long-tailed duck	carpometacarpus	prox. + shaft	L		1
Long-tailed duck	radius	complete	R		1
Long-tailed duck	tarsometatarsus	complete	R		1
Long-tailed duck	ulna	complete	L		1
Rock ptarmigan	furculum	fragment			2
Rock ptarmigan	coracoid	complete	L		1
Rock ptarmigan	humerus	complete	L	juvenile	1
Rock ptarmigan	humerus	prox. + shaft	R/L	juvenile (1)	2
Rock ptarmigan	carpometacarpus	complete	L		1
Rock ptarmigan	tibiotarsus	midshaft	R		1
Bird	scapula	prox. + shaft		juvenile	1
Bird	radius	prox. + shaft		juvenile	1
Bird	tibiotarsus	midshaft			1
Bird	phalanx	complete			5
Total					35

Table 2.44. Mammal remains from Vandfaldsnæs feature 9.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	mandibular molar	complete			2
Arctic hare	rib	midshaft			1
Arctic hare	scapula	glenoid + blade fragment	R		1
Arctic hare	metacarpal 4	complete	R		1
Collared lemming	cranium	maxilla			1
Collared lemming	humerus	dist. + shaft	L		1
Arctic fox	cranium	basioccipital + temporal	R		1
Arctic fox	cranium	premaxilla	R		1
Arctic fox	mandibular premolar	complete	R		2
Arctic fox	rib	prox. shaft			5
Arctic fox	caudal vert.	complete			1
Arctic fox	humerus	distal + shaft	R		1
Arctic fox	ulna	cylinder, no ends			1
Arctic fox	phalanx 1	complete			1
Ringed seal	mandible	ascending ramus	R	burnt brown/black	1
Ringed seal	mandible	distal horiz. ramus	L		1
Ringed seal	mandible	mesial horiz. ramus	L		1
Ringed seal	rib	shaft fragment			37
Ringed seal	scapula	blade fragment	R		1
Ringed seal	radius	prox. + shaft	R	fused (>4-5 yrs.)	1
Ringed seal	phalanx 1 front	complete		unfused (<6 yrs.)	5
Ringed seal	phalanx 1 front	distal + shaft	L	fused (>6 yrs); sm. canid gnaw	1
Ringed seal	phalanx 3 front	complete		fusion line (1-3 yrs); unfused (<1-3 yrs.)	2
Ringed seal	pelvis	pubis	L	burnt brown/black	1
Ringed seal	baculum	complete		juvenile (52mm)	1
Ringed seal	fibula	cylinder, no ends	R		1
Ringed seal	fibula	midshaft	R	burnt brown/black; sm. canid gnaw	1
Ringed seal	fibula	midshaft	L	3 striae trasverse; sm. canid gnaw	1
Ringed seal	fibula	prox. shaft	L	sm. canid gnaw	1
Ringed seal	phalanx 3 hind	complete		unfused (<4-5 yrs.)	7
Musk ox	costal	fragment			1
Musk ox	rib	shaft fragment		sent for C14 dating (1)	5
Musk ox	thoracic	spinous process			1
Musk ox	maxillary M3	fragment	R	adult; worn	1
Musk ox	humerus	prox. + shaft	R		1
Musk ox	humerus	midshaft		sent for C14 dating	1
Musk ox	metacarpal	distal + shaft			1
Musk ox	tibia	posterior distal shaft	R	5-10cm; spiral fracture	1
Lg. terres. mamm.	axial	fragment			3
Lg. terres. mamm.	long bone	shaft fragment		spiral fracture (4)	10
Lg. terres. mamm.	long bone	shaft fragment		sent for C14 dating	2
Lg. terres. mamm.	unidentified	fragment		sent for C14 dating	3
Total					111

FAUNAL REMAINS FROM ALL FEATURES

Table 2.45. Faunal remains from Vandfaldsnæs feature 10.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	ceratohyal	complete	R		1
Arctic char	maxilla	fragment			1
Fish	rib	complete			1
Ringed seal	radius	prox. + shaft	L	unfused (<4-5 yrs.)	1
Small seal	phalanx 1, 2 hind	complete		prox. unfused (<7-8 yrs.)	2
Small seal	phalanx 3 hind	complete		fused (>4-5 yrs.)	1
Musk ox	rib	midshaft			1
Total					8

Table 2.46. Faunal remains from Vandfaldsnæs feature 11.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	L		1
Arctic char	branchiostegal ray	complete	R		1
Arctic char	hyomandibular	fragment	L		1
Fish	cranium	fragment			4
Fish	rib/ray/spine	fragment			6
Brent/barnacle goose	tibiotarsus	cylinder, no ends	R		1
Glaucous gull	ulna	midshaft			1
Arctic hare	phalanx 3	complete			1
Ringed seal	humerus	cylinder, no ends	L		1
Ringed seal	pelvis	pubis	R		1
Small seal	costal	complete			1
Small seal	atlas	cranial			1
Small seal	lumbar	fragment			1
Small seal	scapula	blade fragment	L		1
Small seal	metacarpal 4	complete	R	distal unfused (<7-8 yrs.)	1
Small seal	metatarsal 1	complete	L	fused (>7-8 yrs.)	1
Small seal	phalanx 1 hind	complete		prox. unfused (<7-8 yrs.)	5
Small seal	phalanx 1 hind	complete		fused (>7-8 yrs.)	2
Small seal	phalanx hind	distal + shaft		fused (>7-8 yrs.)	2
Musk ox	rib	midshaft			1
Lg. terres. mamm.	long bone	shaft fragment		sent for C14 dating	4
Lg. terres. mamm.	uniden.	fragment		sent for C14 dating	3
Total					41

Table 2.47. Faunal remains from Midternæs feature 3.

Taxa	Element	Portion	Side	Comments	No.
King eider	femur	complete	L		1
Brent/barnacle goose	coracoid	complete	R	juvenile	1
Brent/barnacle goose	femur	cylinder, no ends	R		1
Rock ptarmigan	carpometacarpus	distal + shaft	R		1
Rock ptarmigan	furculum	anterior			1
Rock ptarmigan	sternum	anterior margin			1
Bird	carpometacarpus	proximal end			1
Bird	femur	cylinder, no ends			1
Bird	phalanx	complete			1
Bird	rib	complete			4
Bird	tibiotarsus	midshaft			1
Bird	vertebra	complete			1
Arctic hare	cervical	complete			1
Arctic hare	humerus	prox. + shaft	L		1
Arctic hare	metatarsal 1, 2, 3, 4	complete	L		4
Arctic hare	phalanx 3	complete			2
Arctic hare	ulna	distal epiph.	L		1
Collared lemming	femur	complete	L		1
Arctic fox	cranium	fragment			2
Arctic fox	radius	distal + shaft	R		1
Ringed seal	cranium	auditory bulla frag.	L		1
Ringed seal	cranium	zygomatic arch	R		1
Small seal	rib	sternal shaft			2
Small seal	phalanx 2 front	complete		prox. unfused (<6 yr.)	1
Small seal	phalanx 1 hind	prox.		unfused (<8 yr.); sm. canid gnaw	1
Small seal	phalanx 2 hind	complete		prox. unfused (<8 yr.)	1
Small seal	phalanx 3 hind	complete		prox. unfused (<5 yr.)	1
Musk ox	humerus	posterior midshaft	L	long spiral fracture	1
Musk ox	mandible	horiz. ramus frag.			1
Musk ox	radius	lateral midshaft	L	impact scar; long spiral frac.	1
Musk ox	tibia	lateral, distal shaft	R		1
Lg. terres. mamm.	axial	fragment		sm. canid gnaw	1
Total					41

FAUNAL REMAINS FROM ALL FEATURES

Table 2.48. Faunal remains from Midternæs feature 5.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	palatine	complete	L		1
Fish	dentary	fragment			2
Fish	rib	complete			6
Bird	rib	shaft fragment			6
Bird	femur	distal end			1
Bird	phalanx	fragment			3
Arctic hare	tibia	distal + shaft			1
Arctic fox	rib	complete	L		2
Arctic fox	metatarsal	distal + shaft			1
Arctic fox	metatarsal 4	prox. + shaft	R		1
Artiodactyl	premolar/molar	fragment			1
Artiodactyl	rib	midshaft	R	sm. canid gnaw (2)	4
Musk ox	mandibular incisor	complete		adult; worn to root	2
Musk ox	rib	head	L		1
Lg. terres. mamm.	long bone	shaft fragment			2
Total					34

Table 2.49. Faunal remains from Midternæs feature 6.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	angular	complete	R		1
Arctic char	basipterigium	complete	L		2
Arctic char	cleithrum	complete	L		2
Arctic char	epihyal	complete	R		1
Arctic char	hyomandibular	fragment	L		1
Arctic char	mesopterygoid	complete	R/L		2
Arctic char	parasphenoid	complete			1
Fish	cranium	fragment			3
Fish	rib	complete	R		3
Bird	rib	complete			1
Bird	vertebra	complete			1
Arctic hare	rib	prox.			1
Arctic fox	calcaneum	complete	R	sm. canid digested	1
Arctic fox	caudal	cranial			1
Small seal	metapodial	prox. + shaft			1
Small seal	phalanx	prox. + shaft			1
Artiodactyl	premolar/molar	fragment			2
Artiodactyl	rib	shaft fragment			1
Artiodactyl	long bone	shaft fragment		spiral fracture; 3 striae (1)	2
Musk ox	mandible	horiz. ramus frag.		sent for C14 dating	3
Musk ox	mandibular incisor	complete			4
Musk ox	rib	midshaft fragment		sent for C14 dating	2
Musk ox	radius	shaft fragment		sent for C14 dating	1
Musk ox	tibia	midshaft fragment		sent for C14 dating	1
Musk ox	long bone	shaft fragment		sent for C14 dating	8
Lg. terres. mamm.	axial	fragment			1
Lg. terres. mamm.	long bone	shaft fragment			12
Total					60

Table 2.50. Faunal remains from Vendenæs feature 3.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	furculum	complete		juvenile; burnt black	1
Bird	carpometacarpus	complete			1
Bird	rib	midshaft			6
Bird	vertebra	complete			1
Rock ptarmigan	radius	distal + shaft	L		1
Rock ptarmigan	ulna	distal + shaft	L		1
Rock ptarmigan	femur	prox + shaft	L		1
Rock ptarmigan	tibia	distal + shaft	L		1
Arctic hare	incisor	fragment			1
Arctic hare	phalanx 3	complete			1
Arctic hare	rib	shaft fragment			4
Arctic hare	ulna	midshaft fragment			1
Caribou	antler	tine fragment			1
Musk ox	rib	sternal shaft			1
Lg. terres. mamm.	rib	shaft fragment			1
Lg. terres. mamm.	long bone	shaft fragment		5-10cm; spiral fracture	1
Total					24

Table 2.51. Faunal remains from Vendenæs feature 5.

Taxa	Element	Portion	Side	Comments	No.
Rock ptarmigan	mandible	complete	L		1
Rock ptarmigan	radius	cylinder, no ends	L		1
Rock ptarmigan	incisor	fragment			1
Rock ptarmigan	lumbar	transv. process			1
Rock ptarmigan	cranium	maxilla	R		1
Bird	scapula	midshaft			1
Arctic hare	radius	cylinder, no ends	L		1
Arctic hare	rib	midshaft			1
Lg. terres. mamm.	long bone	shaft fragment		10cm; long spiral fracture	3
Musk ox	humerus	midshaft			1
Musk ox	radius	midshaft	R		1
Musk ox	rib	midshaft			1
Musk ox	tibia	medial, prox. shaft	R		1
Fish	ray	complete			1
Total					16

FAUNAL REMAINS FROM ALL FEATURES

Table 2.52. Faunal remains from Kap Mylius-Erichsen feature 1a.

Taxa	Element	Portion	Side	Comments	No.
Fish	rib/ray/spine	fragment			1
Fish	unidentified	fragment			1
Arctic hare	metatarsal	distal + shaft			1
Small seal	costal	fragment			1
Small seal	hyoid	complete segment			3
Small seal	scapula	glenoid + blade fragment	L	fused (>1-3 yrs.)	1
Small seal	metacarpal 2	complete		distal unfused (<7-8 yrs.)	1
Small seal	phalanx 1	complete		unfused (<1-3 yrs.)	2
Artiodactyl	premolar/molar	fragment			7
Artiodactyl	costal	complete			2
Artiodactyl	long bone shaft	shaft fragment		sent for C14 dating	13
Musk ox	rib	midshaft		sent for C14 dating	1
Musk ox	humerus	midshaft		sent for C14 dating	1
Musk ox	tibia	anterior proximal shaft	L	burnt brown/black	1
Musk ox	tibia	midshaft		sent for C14 dating	1
Musk ox	metatarsal	midshaft		sent for C14 dating	1
Lg. terres. mamm.	long bone	shaft fragment			1
Total					39

Table 2.53. Faunal remains from Kap Mylius-Erichsen feature 1b.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	caudal vert.	complete			1
Arctic char	ceratohyal	complete	R		1
Arctic char	parasphenoid	fragment			1
Arctic char	parietal	complete	R		1
Arctic char	precaudal vert.	complete			1
Arctic char	thoracic	complete			1
Fish	rib/ray/spine	fragment			4
Fish	unidentified	fragment			2
Bird	tracheal ring	complete		cf. ptarmigan	1
Small seal	costal	fragment			1
Small seal	phalanx 3 hind	complete		unfused (<5 yrs.)	1
Lg. terres. mamm.	long bone	shaft fragment			1
Total					16

Table 2.54. Faunal remains from Kap Mylius-Erichsen feature 3b.

Taxa	Element	Portion	Side	Comments	No.
Arctic fox	radius	distal. + shaft	L		1
Arctic fox	ulna	prox. + shaft	L		1
Small seal	rib	prox. shaft			1
Small seal	phalanx 1 front	complete		fused (>6 yrs.)	2
Musk ox	cranium	fragment			1
Musk ox	rib	midshaft			1
Musk ox	scapula	anterior margin			1
Musk ox	scapula	glenoid + blade fragment	L		1
Musk ox	radius	prox. + medial shaft	R	spiral fracture; burnt brown/black	1
Musk ox	femur	posterior distal shaft	L		1
Musk ox	phalanx 1	distal end			1
Lg. terres. mamm.	long bone	shaft fragment		10cm; spiral fracture	3
Total					15

Table 2.55. Faunal remains from Kap Mylius-Erichsen feature 4.

Taxa	Element	Portion	Side	Comments	No.
Artiodactyl	premolar/molar	fragment			13
Artiodactyl	rib	midshaft		burnt brown/black	1
Musk ox	hyoid	complete	R	adult	1
Musk ox	mandible	alveolus fragment	R		1
Musk ox	mandibular incisor	complete		adult; unworn	1
Musk ox	mandibular incisor	complete	L	adult; worn	1
Musk ox	tibia	posterior midshaft	L	5cm; spiral fracture	1
Musk ox	vertebra	centrum		unfused	1
Musk ox	mandible	alveolus + PM2, 3	R	adult; worn	1
Musk ox	mandible	mandibular symphysis	L		1
Musk ox	rib	midshaft			1
Musk ox	tibia	medial distal shaft	R	10-15cm; spiral fracture	1
Lg. terres. mamm.	axial	fragment			1
Total					25

Table 2.56. Faunal remains from Kap Mylius-Erichsen feature 5.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	mandibular incisor	complete			1
Arctic hare	rib	prox.	R/L		2
Arctic hare	rib	shaft fragment			2
Small seal	phalanx 2 front	complete		fused (>6 yrs)	1
Artiodactyl	premolar/molar	fragment			15
Musk ox	cranium	fragment			1
Musk ox	mandible	alveolus fragment			1
Musk ox	pelvis	acetab. + ilium fragment	L		1
Musk ox	rib	midshaft			2
Lg. terres. mamm.	axial	fragment			5
Lg. terres. mamm.	long bone	shaft fragment		5-10cm; spiral fracture	3
Total					34

FAUNAL REMAINS FROM ALL FEATURES

Table 2.57. Faunal remains from Kap Mylius-Erichsen feature 6.

Taxa	Element	Portion	Side	Comments	No.
Bird	femur	cylinder, no ends			1
Small seal	rib	complete			1
Small seal	phalanx	midshaft fragment			1
Artiodactyl	premolar/molar	fragment			4
Musk ox	mandible	coranoid process	R		1
Musk ox	rib	prox.	L		1
Total					9

Table 2.58. Faunal remains from Kap Mylius-Erichsen feature 7.

Taxa	Element	Portion	Side	Comments	No.
Bird	phalanx 1 digit 2	complete		juvenile	1
Bird	femur	cylinder, no ends		juvenile	1
Arctic hare	metacarpal 2-5	complete			4
Arctic hare	phalanx 2 front	complete			1
Arctic hare	rib	shaft fragment			2
Artiodactyl	premolar/molar	fragment			3
Musk ox	mandibular dI	complete		juvenile; worn	1
Musk ox	maxillary M2	complete	R	adult; worn	1
Musk ox	pelvis	acetab. + ischium fragment	L	fused	1
Musk ox	radius	midshaft			1
Musk ox	tibia	posterior midshaft	R		1
Lg. terres. mamm.	long bone	shaft fragment			1
Total					18

Table 2.59. Faunal remains from Genbonæs.

Taxa	Element	Portion	Side	Comments	No.
Fish	rib	fragment			1
Bird	axial	fragment			2
Arctic hare	rib	prox. shaft	R		1
Artiodactyl	premolar/molar	fragment		burnt brown/black (1)	12
Musk ox	humerus	posterior midshaft	R	spiral fracture	1
Musk ox	hyoid	midsection	L	2 striae on lateral shaft	1
Lg. terres. mamm.	axial	fragment			4
Lg. terres. mamm.	long bone	shaft fragment			1
Total					23

Table 2.60. Faunal remains from Killebukhus.

Taxa	Element	Portion	Side	Comments	No.
Fish	rib/ray/spine	fragment			3
Glaucous gull	femur	prox. + shaft	L		1
Bird	radius	dist. + shaft	L	juvenile	1
Bird	vertebra	fragment		burnt black	1
Arctic hare	rib	prox. shaft	R	burnt black	1
Artiodactyl	premolar/molar	fragment		burnt black	5
Total					12

Table 2.61. Faunal remains from Lagunehøjen.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	tibia	dist. + shaft	L		1
Arctic hare	metatarsal	complete			1
Musk ox	femur	shaft fragment	L	long spiral fracture	4
Musk ox	tibia	anterior midshaft	L	2 striae on anterior crest; long spiral frac.	1
Musk ox	tibia	midshaft		spiral fracture	2
Lg. terres. mamm.	long bone	shaft fragment		spiral fracture; 1 striae (1); impact scar (1)	7
Total					16

Table 2.62. Faunal remains from Kap Harald Moltke.

Taxa	Element	Portion	Side	Comments	No.
Bird	rib	complete			10
Bird	axial	fragment			2
Bird	phalanx 2, digit 2	complete			2
Bird	phalanx 1, hind	complete			1
Rock ptarmigan	mandible	mesial horiz. ramus			1
Rock ptarmigan	humerus	proxima end	R	burnt uniform black	1
Rock ptarmigan	humerus	dist. + shaft	L	burnt brown/black	1
Ringed seal	cranium	temporal	R		1
Ringed seal	cranium	zygomatic arch	L		1
Small seal	cranium	fragment			2
Small seal	hyoid	complete			1
Small seal	rib	shaft fragment			4
Small seal	phalanx	dist. + shaft		fused	1
Small seal	phalanx 2 front	complete		prox. unfused (1-6 yrs.)	1
Small seal	phalanx 1 hind	complete		prox. unfused (1-8 yrs.)	1
Small seal	phalanx 3	complete		unfused (1-5 yrs)	1
Artiodactyl	premolar/molar	fragment			2
Total					33

FAUNAL REMAINS FROM ALL FEATURES

Table 2.63. Faunal remains from Galleriet feature 1.

Taxa	Element	Portion	Side	Comments	No.
Small seal	rib	sternal shaft fragment	R		1
Small seal	rib	head/tub. + shaft	R		1
Small seal	phalanx 3 hind	complete			2
Ringed seal	cranium	premaxilla	L		1
Ringed seal	cranium	alveolus + post canines			1
Ringed seal	atlas + axis	lateral fragment			2
Total					8

Table 2.64. Faunal remains from Søhuset.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	unknown	unknown			1
Brent/barnacle goose	humerus	distal + shaft	L		1
Brent/barnacle goose	humerus	proximal end	L		1
Bird	rib	midshaft			4
Arctic fox	cranium	mesial maxilla	L		1
Small seal	rib	shaft fragment			7
Small seal	costal	fragment			5
Small seal	phalanx 2 hind	complete			2
Ringed seal	mandible	horizontal ramus	R		1
Musk ox	rib	shaft fragment			2
Total					25

Table 2.65. Faunal remains from Gammel Strand Nord features 3 & 4.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	femur	complete	L	juvenile	1
Brent/barnacle goose	tarsometatarsus	complete	L	juvenile	1
Brent/barnacle goose	ulna	cylinder, no ends	R		1
Rock ptarmigan	tarsometatarsus	complete		juvenile	1
Snow bunting	cranium	maxillary fragment			1
Snow bunting	femur	distal + shaft	R		1
Bird	axial	fragment			1
Bird	coracoid	complete	R	juvenile	1
Bird	femur	distal shaft	R	juvenile	1
Bird	radius	cylinder, no ends			4
Bird	rib	shaft fragment			6
Bird	scapula	complete		juvenile	1
Bird	tibiotarsus	distal shaft	R	juvenile	1
Bird	ulna	cylinder, no ends	L	juvenile	1
Total					22

Table 2.66. Mammal remains from Gammel Strand Nord features 3 & 4.

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	rib	complete	R		3
Arctic hare	radius	prox. + shaft			2
Arctic hare	metatarsal	complete			1
Musk ox	mandible	ramus midsection		impact scar; spiral fracture	1
Musk ox	cervical	lateral			1
Musk ox	thoracic	lateral			1
Musk ox	rib	midshaft fragment		carnivore gnawed both ends	4
Musk ox	rib	sternal shaft		1 striae medial surface (1)	2
Musk ox	humerus	anterior midshaft	R	long spiral fracture	1
Musk ox	radius	cylinder, no ends	R	impact scar; long spiral fracture	1
Musk ox	ulna	midshaft fragment	L	1 striae posterior surface	1
Musk ox	pelvis	ilium fragment	R	long spiral fracture	2
Musk ox	tibia	distal, posterior shaft	L	long spiral fracture	1
Musk ox	tibia	posterior midshaft	R	spiral fracture	1
Lg. terres. mam.	long bone	shaft fragment		<10 cm; spiral fracture	1
Total					23

Table 2.67. Faunal remains from Gammel Strand Nord feature 8.

Taxa	Element	Portion	Side	Comments	No.
Fish	uniden.	fragment			1
Musk ox	mandible	basal border	L	long spiral fracture	1
Musk ox	radius	posterior midshaft	R	<10cm; spiral fracture	1
Musk ox	tibia	midshaft fragment	L	<10cm; spiral fracture	2
Musk ox	tibia	midshaft fragment	R	impact scar; long spiral	1
Musk ox	tibia	posterior, distal shaft	L	10-15cm; long spiral	1
Musk ox	metatarsal	distal + shaft		7 striae distal shaft; long spiral	1
Total					8

Table 2.68. Faunal remains from Kølterraserne feature 2

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	metacarpal	complete			1
Arctic hare	scapula	spine fragment	R		1
Artiodactyl	premolar/molar	fragment			4
Musk ox	cranium	premaxilla	L		1
Musk ox	mandible	alveolus fragment	R		1
Musk ox	hyoid	complete	R		1
Musk ox	scapula	blade fragment	R		1
Total					10

FAUNAL REMAINS FROM ALL FEATURES

Table 2.69. Faunal remains from Kølterrasserne feature 10.

Taxa	Element	Portion	Side	Comments	No.
Arctic char	quadrate	complete	L		1
Arctic char	mesopterygoid	complete	R		1
Arctic char	basipterygium	complete	R		1
Fish	cranium	fragment			3
Fish	rib	complete			2
King eider	femur	distal + shaft	L		1
King eider	tibiotarsus	cylinder, no ends	L		1
Glaucous gull	quadrate	complete	L		1
Black-legged kittiwake	sternum	fragment			1
Black-legged kittiwake	ulna	cylinder, no ends	L		1
Black-legged kittiwake	radius	distal end	R		1
Black-legged kittiwake	phalanx 1, digit 2	distal			1
Bird	axial	fragment			3
Bird	rib	complete			8
Bird	scapula	prox.			1
Bird	long bone	fragment			8
Bird	phalanx 1, digit 2	complete			5
Lg. terres. mamm.	long bone	shaft fragment		<5cm; spiral fracture	1
Total					41

Table 2.70. Faunal remains from Kølterrasserne feature 12.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	radius	cylinder, no ends	L		1
Brent/barnacle goose	tibiotarsus	cylinder, no ends	L		1
Brent/barnacle goose	radius	distal + shaft	R		1
Bird	rib	midshaft fragment			5
Bird	fibula	cylinder, no ends			1
Bird	long bone	shaft fragment			10
Collared lemming	femur	prox. + shaft	L		1
Ringed seal	cranium	distal palate	R		1
Ringed seal	mandibular canine	complete	R		1
Small seal	rib	sternal shaft			1
Small seal	fibula	midshaft			2
Small seal	phalanx 2 hind	complete			3
Musk ox	mandibular incisor	complete		adult	1
Musk ox	ulna	cylinder, no ends	L	14 striae at 5 loci; impact scar; spiral fracture	1
Total					30

Table 2.71. Bird & mammal remains from Kap Peter Henrik features N-2 & N-3.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	radius	cylinder, no ends	R/L		2
Brent/barnacle goose	ulna	cylinder, no ends	L		1
Brent/barnacle goose	tibia	cylinder, no ends	R		1
Ruddy turnstone	carpometacarpus	complete	R		1
Arctic hare	cranium	parietal + temporal	R		1
Arctic hare	mandible	complete	L	burnt uniform black	1
Arctic hare	lumbar	complete			2
Arctic hare	rib	prox. shaft	R/L		4
Arctic hare	scapula	glenoid fossa + blade frag.	L		1
Arctic hare	humerus	anterior, distal shaft	L	burnt brown/black	1
Arctic hare	humerus	prox. + shaft	L		1
Arctic hare	ulna	prox. + shaft	R	foetal	1
Arctic hare	metacarpal	dist. + shaft			1
Arctic hare	metacarpal 3, 4, 5	complete	L		3
Arctic hare	femur	cylinder, no ends	L		1
Arctic hare	femur	prox. + shaft	L		1
Arctic hare	tibia	cylinder, no ends	R		1
Arctic hare	tibia	anterior, prox. shaft	L		1
Arctic fox	metacarpal 3	complete	R		1
Arctic fox	metacarpal 4	complete	R		1
Polar bear	cranium	distal maxilla fragment	R		1
Polar bear	rib	proximal shaft	L	sm. canid gnaw (prox. end)	1
Total					29

Table 2.72. Musk-ox remains from Kap Peter Henrik features N-2 & N-3.

Taxa	Element	Portion	Side	Comments	No.
Artiodactyl	molar/premolar	fragment		8 deciduous (burnt black)	18
Artiodactyl	rib	shaft fragment		1 burnt uniform black	3
Musk ox	cranium	complete		newborn; burnt brown/black	1
Musk ox	cranium	premaxilla	L	6 striae	1
Musk ox	cranium	maxilla + dM2/3	R	newborn	1
Musk ox	cranium	distal maxilla	R	newborn; burnt brown/black	1
Musk ox	cranium	petrous	R	newborn	1
Musk ox	cranium	temporo-zygomatic	R	slight burning (1)	2
Musk ox	cranium	fragment			1
Musk ox	maxillary molar	complete		M1(R), M2(2R, 2L), M3(R/L)	7
Musk ox	mandible	ascending ramus	R/L	newborn (L)	2
Musk ox	mandible	coronoid process	R	newborn; burnt brown/black	1
Musk ox	mandible	distal horiz. ramus	L	juvenile (dM4 not erupted)	1
Musk ox	mandible	distal horiz. ramus	R/L		2
Musk ox	mandible	horiz. ramus fragment	R/L	1 sent for C14 dating 01/1979, J. Møhl4	
Musk ox	mandible	mesial horiz. ramus	L	dM1/2/3 erupted	1
Musk ox	mandible	mesial horiz. ramus	L	8 striae; I1, PM2 not erupted	1
Musk ox	mandible	mesial horiz. ramus	R	juvenile	2
Musk ox	mandibular dI	complete		newborn	2
Musk ox	mandibular dM	complete		newborn (1 burnt)	3
Musk ox	mandibular incisor	complete		2 juvenile (1 burnt)	7
Musk ox	mandibular premolar	complete	R		1
Musk ox	mandibular molar	complete		M1, M2(R), M3(3R, 1L)	6

FAUNAL REMAINS FROM ALL FEATURES

Table 2.72. Continued.

Taxa	Element	Portion	Side	Comments	No.
Musk ox	hyoid	complete	L	sent for C14 dating 01/1979, J. Møhl	1
Musk ox	hyoid	prox.	R	burnt black	1
Musk ox	hyoid	prox.	R/L	newborn; burnt uniform black	2
Musk ox	hyoid	dist.	L		1
Musk ox	cervical	fragment			2
Musk ox	lumbar	transv. process		1 juvenile	3
Musk ox	thoracic	spinous process		6 newborn; 3 striae (1), burnt (1)	8
Musk ox	sternubra	complete		juvenile	1
Musk ox	rib	midshaft fragment		1 sent for C14 dating 01/1979, J. Møhl	14
Musk ox	rib	prox.	R/L	16 newborn (2 burnt); 1 sent for C14 dating	27
Musk ox	scapula	complete	R	juvenile	1
Musk ox	scapula	blade fragment	L		1
Musk ox	humerus	anterior, prox. shaft	R/L	juvenile (1); spiral fracture (1)	2
Musk ox	humerus	distal + shaft	R	newborn	1
Musk ox	humerus	midshaft	R/L		4
Musk ox	radius	shaft fragment	R	5-10cm; spiral fracture	3
Musk ox	ulna	midshaft fragment		burnt uniform black	1
Musk ox	ulna	prox. + shaft	R		1
Musk ox	metacarpal	dist. + shaft	R	1 striae anterior shaft; juvenile	1
Musk ox	cuneiform	complete	R	sent for C14 dating 01/1979, J. Møhl	1
Musk ox	lunate	complete	R	1 sent for C14 dating 01/1979, J. Møhl	2
Musk ox	scaphoid	complete	R		1
Musk ox	trapezoid-magnum	complete	R	sent for C14 dating 01/1979, J. Møhl	1
Musk ox	unciform	complete	R		1
Musk ox	pelvis	acetab. + ilium	R	newborn (1 burnt)	3
Musk ox	pelvis	acetab. + ischium	R	newborn	2
Musk ox	pelvis	complete	L	newborn	1
Musk ox	pelvis	ilium fragment	R	newborn	1
Musk ox	pelvis	ischium	R	newborn	1
Musk ox	femur	prox. shaft	L	impact scar (1); spiral fracture	3
Musk ox	femur	distal shaft	L	5-10cm; spiral fracture	2
Musk ox	femur	midshaft		5-10cm; spiral fracture; 1 sent for C14 dating	4
Musk ox	tibia	cylinder, split	R	newborn	2
Musk ox	tibia	prox. shaft	R/L	spiral fracture; 3 striae (1)	6
Musk ox	tibia	midshaft	R/L	1 sent for C14 dating 01/1979, J. Møhl	5
Musk ox	tibia	distal shaft	R		1
Musk ox	vestigial metapodial	prox. + shaft	R		1
Musk ox	phalanx 2	complete			1
Musk ox	long bone	shaft fragment		2 juvenile; adult sent for C14 dating	3
Lg. terres. mamm.	axial	fragment			17
Lg. terres. mamm.	long bone	shaft fragment		5-10cm; spiral fracture	25
Lg. terres. mamm.	long bone	shaft fragment		spiral fracture; sm. canid gnaw	1
Lg. terres. mamm.	long bone	shaft fragment		spiral fracture; burnt black	2
Lg. terres. mamm.	long bone	shaft fragment		impact scar; spiral fracture	1
Total					232

Table 2.73. Faunal remains from Kap Peter Henrik feature N-4.

Taxa	Element	Portion	Side	Comments	No.
Bird	radius	cylinder, no ends			1
Bird	rib	shaft fragment			2
Polar bear	phalanx 1, front	complete			1
Artiodactyl	deciduous molar	fragment			4
Artiodactyl	rib	shaft fragment			2
Lg. terres. mamm.	long bone	shaft fragment		5-10 cm; spiral fracture (1)	10
Lg. terres. mamm.	rib	shaft fragment			2
Total					20

Table 2.74. Faunal remains from Kap Ludovika.

Taxa	Element	Portion	Side	Comments	No.
Brent/barnacle goose	humerus	prox. shaft	R		1
Ringed seal	mandibular canine	complete	R		1
Ringed seal	radius	complete	R	prox. fused; dist. fusion line	1
Small seal	rib	prox. shaft	R		1
Small seal	phalanx 1 front	complete		fused (>6 yrs.)	1
Artiodactyl	premolar/molar	fragment		sent for C14 dating	4
Artiodactyl	costal	fragment			1
Musk ox	mandibular incisor	complete		sent for C14 dating	1
Musk ox	mandibular M3	complete		sent for C14 dating	1
Musk ox	rib	midshaft		sent for C14 dating	1
Musk ox	scapula	blade fragment		sent for C14 dating	1
Musk ox	humerus	midshaft		sent for C14 dating	1
Musk ox	femur	anterior midshaft	R		1
Musk ox	tibia	posterior prox. shaft	R		1
Lg. terres. mamm.	long bone	shaft fragment			5
Total					22

Table 2.75. Faunal remains from Adam C. Knuth ruin II, 1 (1980).

Taxa	Element	Portion	Side	Comments	No.
Arctic hare	humerus	fragment			2
Arctic fox	radius	fragment			1
Arctic fox	ulna	fragment			1
Harp seal	cranium	auditory bulla fragment			1
Bearded seal	cranium	frontal region	L		2
Walrus/whale	cranium	small fragment			1
Musk ox	humerus	proximal end			1
Musk ox	ulna	midshaft fragment			1
Musk ox	pelvis	fragment			1
Musk ox	femur	proximal end			1
Musk ox	tibia	distal end			1
Total					13

FAUNAL REMAINS FROM ALL FEATURES

Table 2.76. Bird remains from Adam C. Knuth ruin II, 1 (1984).

Element	Goose	Brent Goose	Rock Ptarmigan	Red Knot	Glaucous Gull	Bird
Cranium			1			
Mandible			1			
Sternum		1	1			
Scapula	1	2	2			
Coracoid		3	4		1	
Humerus		3	6			
Radius			9			2
Ulna			7			
Carpometacarpus			4	1		
Pelvis		1	4			
Sacrum		1	1			
Femur		2	8			
Tibiotarsus		1	8			
Tarsometatarsus		2	3		1	
Phalanx		1			1	
Indeterminate						46
Total	1	17	59	1	3	48

Table 2.77. Mammal remains from Adam C. Knuth ruin II, 1 (1984).

Element	Arctic Hare	Collared Lemming	Arctic Fox	Polar Bear	Bearded Seal	Small Seal	Ringed Seal	Musk ox
Cranium	1		26		7	1	10	43
Mandible	4		12		1			11
Tooth			23					76
Hyoid								3
Vertebra			20		1	1		5
Rib	15		109	1		4		32
Sternum	1		2					
Scapula	2		11					
Humerus	1	1	14					8
Radius	2	1	15			1		6
Ulna	1		12					1
Metacarpal			20					1
Carpal			1					
Pelvis			3					3
Baculum			1					
Femur	1		5					4
Tibia	1		12					12
Fibula			7					
Metatarsal			25					4
Tarsal			3					6
Phalanx			23	2	3	2		1
Indeterminate								15
Total	29		344	3	12	10	10	231

Table 2.78. Faunal remains from Lolland Sø.

Taxa	Element	Portion	Side	Comments	No.
Arctic fox	radius	prox. + shaft	R		1
Arctic fox	ulna	cylinder, no ends	R		1
Musk ox	mandible	mandibular symphysis	R		1
Musk ox	rib	shaft fragment		burnt brown black (3); sm. canid gnaw (2)	4
Musk ox	scapula	blade frag	R		1
Musk ox	metacarpal	prox. + shaft	R		1
Musk ox	pelvis	ilium	R	juvenile; 1 striae near acetabulum	1
Musk ox	tibia	distal/midshaft	R	spiral fracture; sent for C14 dating	1
Musk ox	metatarsal	cylinder, split longitudinally	L	burnt brown/black	1
Lg. terres. mamm.	long bone	shaft fragment		spiral fracture; burnt brown/black (2)	3
Total					15

Appendix 3

Eigil Knuth's faunal Collections from Northern Greenland

Table 3.1. Zooarchaeological assemblages recorded and examined at the Zoological Museum, University of Copenhagen. This table includes species identifications from sites not examined by Darwent; these data were compiled from the ZMK Archives. ZMK accession numbers refer to Zoologisk Museum København registration numbers. Dates in parentheses indicate the year(s) in which the site was excavated and fauna collected. Bone material from Knuth's excavations was identified by Darwent unless otherwise indicated as being identified by either Jeppe Møhl or Ulrik Møhl.

ZMK File Number	Site / Cultural Affiliation	Features with Faunal Remains Recovered	Species Identified
ZMK116x/1970 (1969)	Arnakke, Independence II	Tomt 3	
ZMK112c/1950 (1947-50) ZMK52/1980 (1980) ZMK43/1986 (1985)	Adam C. Knuth's Site, Independence I	Ruin II, 1 & Ruin III, 1 (U. Møhl); Ruin IIa, 1: Sektor A-C, F-I, L-O (J. Møhl)	ZMK112c/1950 <i>Canis lupus</i> <i>Ovibos moschatus</i> (U. Møhl)
ZMK116f/1970 (1968)	Blanknæs, Thule	n/a	<i>Ovibos moschatus</i> (U. Møhl)
ZMK107a/1974 (1972) ZMK136/1978 (1976-77)	Bob's Site, Independence I	Ruin 1 (1976), 3b (1972), 3c, 5 (1976-1977)	
ZMK112h/1950 (1947-50) ZMK150/1960 (1960) ZMK109a/1966 (1963)	Deltaterrasserne, Independence I	Teltring 1-2, 11, 12, 13 (1947-50) Tomt 12, 13 (1960) Ruin 1-2, 4, 12, 13, 14 (1963)	
ZMK112h/1950 (1947-50)	Deltaterrasserne, Independence II	Teltring/Ruin 5, 15, 16, 18	
ZMK116e/1970 (1968)	Engnæs, Independence II	Tomt 1, 3, 5	
ZMK112k/1950 (1947-50) Ind. I, II & Thule	Friggs Fjord,	n/a	<i>Canis lupus</i> <i>Ovibos moschatus</i> (U. Møhl)
ZMK109k/1966 (1964) ZMK107b/1974 (1973)	Galleriet, Independence I	Ruin 1, 3 (1973), 5 (1964)	
ZMK109m/1966 (1964) ZMK116v/1970 (1968) ZMK107d/1974 (1970) ZMK107c/1974 (1972)	Gammel Strand, Independence I	vest, Tomt 3, 3/4 (1964); vest/nordvest, Tomt 8 (1968); sydvest (1970); nordvest, Ruin 3 (1972)	
ZMK116q/1970 (1969)	Genbonæs, Independence II	hearth	
ZMK109b/1966 (1963)	Hellebæk, Independence II	Gruppe II.a	
ZMK112d/1950 (1947-50)	Hvalterraserne, Independence I	n/a	<i>Canis lupus</i> <i>Ovibos moschatus</i> (U. Møhl)

Table 3.1. Continued.

ZMK File Number	Site / Cultural Affiliation	Features with Faunal Remains Recovered	Species Identified
ZMK151/1960	Juniskæret, Independence II	n/a	<i>Phoca hispida</i> <i>Ovibos moschatus</i> (U. Møhl)
ZMK109j/1966 (1964) ZMK107e/1974 (1973)	Kap Harald Moltke, Independence II	Gruppe I.a (1964), Gruppe I.g (1973)	
ZMK119/1956 (1954-55)	Kap Holbæk, Independence I & II	n/a	<i>Astarte</i> sp. (mollusk) <i>Salvelinus alpinus</i> <i>Lagopus mutus</i> <i>Lepus arcticus</i> <i>Alopex lagopus</i> <i>Ursus maritimus</i> <i>Phoca</i> cf. <i>hispida</i> <i>Phoca</i> sp. <i>Ovibos moschatus</i> (U. Møhl)
ZMK112p/1950 (1947-50) ZMK116a/1970 (1968)	Kap Ludovika, Independence II	Dorset Teltring, Ruin 5-6-7 (1947-50), Ruin ? (1968)	
ZMK109h/1966 (1964) ZMK126/1970 (1969-70)	Kap Mylius-Erichsen, Independence II	Tomt 1a (1964/69), 1b, 2, Ruin 3b, Tomt 4, 4a, b, c, 5, 6, 7 (1969-70)	
ZMK112q/1950 (1947-50) ZMK149/1960 (1960) ZMK109r/1966 (1964) ZMK116n/1970 (1968)	Kap Peter Henrik, Independence I	Teltring A, B (1947-50), Tomt 1, 3 (1960), Tomt N-2, N-3, N-4 (1964/68)	
ZMK116k/1970 (1966-1968)	Killebukhus, Independence I	Ruin 149a (1966/1968)	
ZMK112l/1950 (1947-50)	Kølnæs (Konebådspladsen), Thule	n/a (U. Møhl)	<i>Ovibos moschatus</i>
ZMK107g/1974 (1973)	Køterrasserne, Independence I	Ruin 2, 4, 8, 9, 10, 12a	
ZMK109n/1966 (1963)	Lagunehøjen, Independence I	House	
ZMK154/1960 (1958)	Kap Buddington Late Dorset	House / in front of house	
ZMK120/1956 (1954-55)	Lolland Sø, Independence II	Tomt A	
ZMK116c/1970 (1968)	Martin's Site, Independence I	n/a	<i>Ovibos moschatus</i> (J. Møhl)
ZMK112a/1950(1947-50)	Midsommersørne, Ind. I, II & Thule	n/a <i>Ovibos moschatus</i>	<i>Canis lupus</i> (U. Møhl)
ZMK109f/1966 (1963) ZMK109g/1966 (1964) ZMK116t/1970 (1968-69)	Midternæs, Independence I	Tomt 3 (1963), 5 (1964, 1969), 6 (1968-1969)	

Table 3.1. Continued.

ZMK File Number	Site / Cultural Affiliation	Features with Faunal Remains Recovered	Species Identified
ZMK112b/1950 (1947-50) ZMK116l/1970 (1968)	Oskjægerpynten (Moskusjægerpynten), Thule	n/a	<i>Lepus arcticus</i> <i>Canis familiaris</i> <i>Phoca hispida</i> <i>Ovibos moschatus</i> (U. Møhl)
ZMK109p/1966 (1964) ZMK116a/1970 (1966, 1968-69)	Pearylandville, Independence I	Tomt 1-9, 10, 11, 12, 13, 14, 16-18, 22, 24, 26 (1964), 10b, 15, 23a, 23b, 24, 25, 26, 28 (1966), 19-20, 20-21b (1968)	
ZMK109c/1966 (1963)	Portfjæld, Independence I	Tomt 2, 3	
ZMK112c/1950 (1947-50)	Qisivik, Thule	n/a	<i>Canis lupus</i> <i>Ovibos moschatus</i> (U. Møhl)
ZMK112f/1950 (1945)	Snenæs, Thule	n/a	<i>Phoca hispida</i> (U. Møhl)
ZMK111e/1966 (1965)	Solbakken, Independence I	Tomt 2b, 4, 6-10, 12	
ZMK112m/1950 (1947-50)	Sommernæsset, Thule	n/a	<i>Phoca hispida</i> <i>Erignathus barbatus</i> <i>Ovibos moschatus</i> (U. Møhl)
ZMK109l/1966 (1964) ZMK107h/1974 (1972)	Sundkrogen, Independence I	<i>Søhuset</i> (lake house) Tomt 1 (1964/1972)	
ZMK116h/1970 (1968)	Tokanten, Independence I	Tomt 2	
ZMK141/1976 (1976)	Uranienborg, Thule	n/a	<i>Ovibos moschatus</i> (J. Møhl)
ZMK152/1960 (1960) ZMK109e/1966 (1963-64) ZMK107i/1974 (1968-1970)	Vandfaldsnæs, Independence I	Tomt/Ruin 15 (1960, 1963, 1964, 1968-1970)	
ZMK112g/1950 (1947-50) ZMK109e/1966 (1963-64) ZMK107i/1974 (1968-69)	Vandfaldsnæs, Independence II	Dorset <i>slottet</i> (castle) (1947-50), Ruin 6, 9-9a (1963), 10 (1963-64), 11 (1963), 11a-b, 13 (1968-69)	
ZMK109g/1966 (1963-1964)	Vendenæs, Independence I	Tomt 2 (1963), 3-5 (1964)	
ZMK116g/1970 (1968)	Walcott Delta, Independence I	Tomt 1	
ZMK109s/1966 (1960)	Wykoff Land, Independence II	Tomt 1	<i>Branta bernicla</i> (U. Møhl)

Table 3.2. Zooarchaeological assemblages recorded, but bone not yet examined or identified, at Zoological Museum, University of Copenhagen. ZMK accession numbers refer to Zoologisk Museum København registration numbers. Dates in parentheses indicate the year(s) in which the site was excavated and fauna collected.

ZMK File Number	Site	Cultural Affiliation
ZMK116b/1970 (1966)	Stoppenåls Ruiner	Thule
ZMK112j/1950 (1947–50)	J.P. Koch's Fjord & Strømstedet	Thule
ZMK122/1956 (1954–55)	Herlufsholm Strand	Thule
ZMK112n/1950 (1947–50)	Kap Knud Rasmussen	Independence I, Thule
ZMK109i/1966 (1964)		
ZMK112m/1950 (1947/50)	Skurenæs	Independence I, Thule

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An important part of the heritage of Count Eigil Knuth (1903-1996) is his archaeological archive including contextual information on prehistoric sites gathered during six decades of research in High Arctic Greenland. The finds and observations are a key to the understanding of human life under extreme conditions in a long-term perspective and represent a unique piece of evidence concerning the early cultural history of the Eastern Arctic.

The authors have compiled a database based on Knuth's most substantial contribution to archaeology: the prehistory of Peary Land and adjacent areas in the extreme North Greenland, presenting a total of 154 archaeological sites. 51 are Independence I sites (c. 2460 – 1860 BC), 23 sites belong to Independence II (c. 900 – 400 BC) and 63 sites are of Thule origin (c. 1400 – 1500 AD). New information on the faunal material from Peary Land as well as new data on the dwelling features on the Adam C. Knuth Site, the northernmost ruins of the globe, are included.

