Chapter 4 – Culture

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Archaeological SEA of the "hydroelectric area" between Sisimiut/Kangerlussuaq and Nuup kangerlua

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The interior between Kangerlussuaq and Nuup kangerlua is the largest landlocked area in Greenland, and also the richest in resources. There is relatively easy access from the coast to the interior via valleys, rivers and lakes. Place names, ancient habitations, historical literature, old maps and so on all provide documentary evidence that the area has been exploited from the beginning of colonization in the 1700s up to the present day and that its history can be traced even further back in time, which is supported by the regional archaeology. Archaeological research can trace the use of the area back to the first people in the country; although the familiar traces become fainter and fewer, the further back we go.

Increasingly, understanding the way in which the area has been exploited over the ages seems to be central to our understanding of the local and regional past settlement patterns on the outer coast, but there is a dearth of data.

1.2 Conclusion

From the whole of the Palaeo-Eskimo part of West Greenland's prehistory (2400-100 AD), very little evidence has been recorded of the active use of the interior in the form of tent camps. Practically all knowledge of the Palaeo-Eskimos comes from the coastal settlements. This is scarcely a true or fair picture of the situation throughout the period.
It is essential to obtain a far more soundly founded picture of the prehistory of the great inland, because this is also instrumental in putting a more finessed perspective on the coastal settlements and thus on the individual periods of civilization.

The Norsemen (1000-1350 AD) must have had structures in the interior, but such finds would not involve any fundamental change to our understanding of the Norsemen's life and economy in the immediate term. There must also be structures along the west coast, stemming from their travels to the north and their exploration of the country, where encounters took place with the Thule culture. Throughout the Norse period we find bones from walruses (chiefly

skulls and penises) on the farms. They must come from the north, and during the latter part of the period from areas where the Inuit have settled. These sites have not yet been found either.

The Thule culture established itself all across the area from c. 1300 onwards, over the next 400-500 years. Along the way, changes take place in structural forms, organization of settlements, financial focus, climate, contact with Europeans, access to raw materials and resources etc.
The Thule culture builds up its use of the interior, which fluctuates in intensity over the centuries. These shifts are assumed to reflect variations in reindeer numbers. However, we lack a detailed chronological knowledge of the settlements on the outer coast and cannot, therefore, evaluate whether changes in social or economic structures in these areas may also have a bearing on the settlement and exploitation pattern seen in the interior.

The coastal area or coastal areas included in substantial plans of placing the smelting plant must be carefully examined and investigated. The focus will be on well preserved and informative Thule structures, and particular attention will be paid to the presence of Norse or Palaeo-Eskimo relics.

New techniques such as aDNA must be applied in order to find the human element at the Palaeo-Eskimo sites (there are no skeletons or burials from this period) and data collected for a better understanding and appreciation of local and regional changes to landscape forms over time.

In overall terms, human settlement in the area and the use of land and sea extend over 3,000 years. From this period, but spread over a stretch of coast extending some 300 km as the crow flies and inland to a depth of some 100 km, we have approx. 1,000 Eskimo settlements, incl. a number of disused settlements and structures from the Colonial period and six Norse farms, cf. Table 1.
Of these 1,000 sites, the quantity in the Sarfartoq-Tasersiaq area alone makes up almost 44%. The quantity of known settlements (34) in the interior south of the Ice Cap is incredibly small in relation to the extent of structures along the coast and their ease of access. The figures are scarcely representative, therefore.

Nor do the dots provide adequate documentation. Each dot may mark one grave, one tent ring or a summer site with many tent rings, a settlement of 5,000

sq.m with ten homes and 15 graves, or a settlement of 40 sq.m or a plain old hearth etc.
The dots are not an expression of a number of structures, merely an expression of how man has made a great or small impression in the landscape.

The wealth of ancient monuments north of the Ice Cap is a scientific gold mine, which also imparts to the landscape a unique value in terms of the cultural landscape.
The poverty south of the Ice Cap makes it extremely imperative to have all potential settlement areas investigated carefully and to have all threatened structures examined in great detail, so that they can be placed in the right context.
In this area the known ancient monuments and potential settlement areas near lakes and rivers make up an unusual little pool of information-rich components, which can tell the tale of mankind and his presence in West Greenland over 3,000 years.

These days we take the appearance of the landscape for granted, and look for the past in a contemporary landscape, but have the rivers changed their course? Has the water level in delta areas and in the lakes been the same throughout the entire period? Has the vegetation changed its nature, and when? How has the correlation between sea and land evolved locally? The analysis is a scientific one, but such information is essential to understanding the landscapes that humans could exploit.
Throughout the whole of the period man has exploited both coast and inland. Nature removes and has removed many ancient monuments, but irrespective of how ancient monuments are vanishing, it will diminish our capability to understand how man and cultures through the millennia have acted in complex and different ecological areas and zones. The cultural dynamic and evolutionary phenomena functioned in a natural arena where mankind was a player without any of the modern-day capabilities for reshaping it. It is important, therefore, to view the ancient monuments in their own natural setting, not just within a contemporary framework.

All areas of the interior affected by hydroelectric plants and changes to lakes and rivers must be carefully examined. The interior is either unknown or virtually only ”populated” with structures from the Thule culture, which have not yet been attached to any chronological skeleton of any depth. The rich and varied source material on the Thule culture can be put to further use, providing we can expand our understanding of the structural forms in the interior and the causes of shifts

in exploitation of the area. This can only be done by means of intensive reconnoitring and professional excavations of entire structures and settlements.

Central West Greenland is unique in Greenland, climatically, topographically and in terms of resources; and that has created altogether extraordinary conditions and opportunities for its shifting cultures. If the man-made components and impressions on the landscape are ruined, the population of Greenland, tourists and research will for ever have lost their access to that part of history and hence to the opportunity to understand and convey the past in a far more subtly detailed way than we are currently able to do. That is why as much information as possible must be safeguarded.

2.0 Introduction

The interior between Kangerlussuaq and Nuup kangerlua is the largest landlocked area in Greenland, and also the richest in resources. There is relatively easy access from the coast to the interior via valleys, rivers and lakes. Place names, ancient habitations, historical literature, old maps and so on all provide documentary evidence that the area has been exploited from the beginning of colonization in the 1700s up to the present day and that its history can be traced even further back in time, which is supported by the regional archaeology. Archaeological research can trace the use of the area back to the first people in the country; although the familiar traces become fainter and fewer, the further back we go.

Increasingly, understanding the way in which the area has been exploited over the ages seems to be central to our understanding of the local and regional past settlement patterns on the outer coast, but there is a dearth of data.

3.0 Archaeological knowledge of the area

The archaeological maps of the areas are based on reports from users of the landscape and from archaeologists who have travelled around the areas. Such travels have differed widely in nature and scope. That means that the quantity and the quality of the ancient monument data available is highly variable by nature. The data can vary from: ”a tent ring on the north side of the river” to a detailed description of structures and complexes, incl. hand-drawn outline maps, photos, GPS positions, finds, dating, the cultural-historical value of the locality etc.

Research-related or social interests may mean that the knowledge of, say, the Norsemen’s sites is intense in one area, while the knowledge of Eskimo sites in the same area is limited etc.

The possibility of combining oral knowledge, local traditions, place names and archaeological know-how is present to a quite exceptional extent in the Tasersiaq-Sarfartoq area.

An examination of the whole of this large area shows that there are fewer Palaeo-Eskimo habitations at Nuup kangerlua compared to the Sisimiut area. In the Nuuk area these habitations are currently located virtually on the water's edge and are on their way under the surface of the ocean, while in Sisimiut they are several metres above sea level.
The cause is the highly disparate upheaval of the earth's crust after the last ice age. In the Nuuk area the landscape has sunk further down than in Sisimiut. In areas with limited material from a particular period of civilization preserved along the coasts, therefore, it becomes all the more interesting to investigate the interior for traces of the same culture.

Inland >< coast
As a general rule the coastline near the sea and in some of the large fjords is relatively well-known in archaeological terms, whereas the upland is largely unknown, archaeologically, the Tasersiaq-Sarfartoq area being an obvious exception.

Sisimiut: the area around the town is very well known, partly because there have been many successions of archaeologically skilled management at the museum and several excavations, which have yielded incredibly essential information about Palaeo-Eskimo cultural conditions among other things. All the localities excavated are near to the coast.

The interior between Kangerlussuaq and Sisimiut is rich in ancient monuments, but only partly known, and not in detail.

Sarfartoq-Tasersiaq: the country to the immediate south of Kangerlussuaq, is historically well known, partly because Jens Kreutzmann (1828-99) from Kangaamiut, who was a very knowledgeable user of the area, made a detailed map of it in 1863 with a wealth of place names; there are many myths, legends and tales linked with the area, and its good hunting seems to have lured hunters for ever, right up into recent times, so that its history is also documented with paper, pencil and cameras.
Aron from Kangeq (1822-69) and Jens Kreutzmann have visited the area and contributed fine watercolours chronicling events in the area.

Maniitsoq: coast and islands around the town are partially known but to all intents and purposes only through brief registration visits and information from local informants.

Kangerlussuatsiaq/Evighedsfjorden (Eternity Fjord): has not been investigated archaeologically. The link between the settlements on the outer coast near Atammik, Maniitsoq, Kangaamiut etc. and on to the interior is traditionally regarded as passing through Kangerlussuaq and thence on into the country via the large valleys. However, it has never been investigated whether there is supposed to have been a more direct connection in other eras via Kangerlussuatsiaq/Evighedsfjorden to Tasersiaq.

The interior south of Sukkertoppen Iskappe (Sugartop Mountain Ice Cap): there have been no archaeological visits throughout the vast area and the large fjords from the Ice Cap to Nuup kangerlua. The existence of a few settlements is based primarily on information from older hunters and local historians. As a rule such scanty information is dated and often imprecise. Odd items of more recent information have sometimes been documented by a photograph of some site. Topographically speaking, there is a possible ”route” into the country from Isortoq/Søndre (Southern) Isortoq and on via Majoqqaq to the great lakes adjoining the inland ice. Similarly, Niaqunngunaq/Fiskefjord indicate a possible route into the interior to the lakes.
This raises great interest in these lakes, the access routes to them and the whole of the inland area.

On the Akia coast (Nuuk), settlement is comparatively well known from the interior areas near Ujarassuit/Anavik to the outer coast at Kangeq and on up along the coast to about Niaqunngunaq/Fiskefjord at Atammik. This coastline plays host to many habitations from the past, both small and great, reflecting what was sometimes very extensive and dense settlement in the area, and although the focus is on the sea, the few middens that have been examined show that hunting for reindeer also played an essential role. Again, only the developments near the coast are well known.

The islands south-west of Nuuk are in need of modern examination. Odd localities are known, but more recent information indicates that there is more past activity in the area in different periods of civilization than known to date.

4.0 Resumé

The very different situation in the various sub-areas means that the cultural-historical conclusions drawn about the history of the sub-areas and regions is not always rooted in properly consolidated knowledge, making it difficult to compare and contrast the different areas.

Topographical examination of the areas shows that there are settlement opportunities everywhere and relatively easy access from the coast to the interior and its resources.

From around 14-1500 onwards, parts of the current inland are known to have been farmed extensively, whereas usage for the whole of the period before that time is virtually unknown.

The traces of the past in the interior are linked to summer activities and are generally tent camps, hunting or shooting hides, small hunting camps, tent rings, depots, slaughter sites, hearths, graves and beacons/cairns. Localities intended for longer stays and interment are often near lakes and rivers, while beacons, hides and depots occur in many places.

Inadvertent destruction, removing evidence of the former history of this literally unique, historic Greenland cultural landscape will remove information and the opportunity for a more varied and well-documented understanding of the past for all eternity. It will eliminate the possibility of confronting and juxtaposing several types of sources (archaeological, ethnological and historical) and thereby arriving at a more nuanced understanding of the past. That is why careful study of these territories is so important before they should be released.

5.0 Greenland's periods of civilization

Greenland's past history includes three great Eskimo immigrations and two European ones. The Eskimo ones arrive in North Greenland, while the European ones come to the south-west coast. The chronological sequence in mid-Greenland is:

Palaeo-Eskimos		
Saqqaq	2400 BC–800 BC	virtually only known from the outer coast
Greenland Dorset	800 BC–100 AD(?)	virtually only known from the outer coast
Neo-Eskimos		
The Thule culture	1300 AD–1750 AD	known on the outer coast and in the interior
Norsemen		
Norsemen, Vesterbygd	985 AD–1350 AD	known from Nuup kangerlua southwards
European period		
Late Thule and the Colonial period	1721 onwards	primarily relics along the coasts, but widespread use of the inner areas, particularly on either side of Kangerlussuaq.

5.1 The Palaeo-eskimos

Saqqaq

The oldest wave of immigration to Greenland is dated around 2400 BC. They came from Canada, but their cultural background was in Alaska. They have been named the Saqqaq culture. The Saqqaq culture is found from Thule in the north to the Nuuk/Paamiut area, where the traces almost disappear—presumably, again, because of subsidence and submergence. On the southeast coast they are present up to Clavering Island/Dove Bay.

Carbon-14 datings show that the Saqqaq culture ceased in around 800 BC. Saqqaq is thus present in the area for more than 1,500 years: the longest continuous period of settlement in Greenland's history.

Sisimiut and the Sarfartoq-Tasersiaq area: About 30-35 large and small habitations are known in the area, some in the fjords, incl. one big one at Angujaartorfik in Kangerlussuaq and 4-5 small sites in the interior south of Kangerlussuaq.
Despite this relatively modest presence, the area is one of the Saqqaq culture's areas central to our understanding of its inherent dynamic and phasing. Palaeo-Eskimo habitations have only been excavated on the outer coast.

Evidently, the basis for using the interior was not large base camps in the interior, as with the later Thule culture. Instead, Saqqaq may possibly have set up base camps at the fjord coast, whence they set off on expeditions up country.
The scanty current data suggest that the Saqqaq groups that made their way up into the fjords set up home on larger settlements at the mouth of the extensive valleys and rivers that lead inland. From these coastal sites they would set off hunting and fishing. During their hunting trips the hunting groups would set up small camps of a transitory nature near the lakes. These traces can be out in the open, they can be covered by vegetation, but they can also lie beneath the housing sites of later eras.

The volume of sites and structures is no match for what it should be, considering that the Saqqaq have been present for more than 1,500 years. *There ought to be many more sites.*
The few sites in the interior reflect the fact that use of the interior took place either to a limited extent or for only a very short period of time in the local history and development of the culture, or that our knowledge is altogether incomplete.
No excavations have been carried out at the known fjord and inland sites; no chronological skeleton exists; and there is largely a lack of data on all Saqqaq activity along the fjord coasts and in the interior.

Any construction or other activity that removes the accessible cultural-historic remains in the area or eliminates our chances of scanning the landscape runs the risk of removing the traces of the Saqqaq culture.

Maniitsoq and the interior: Odd Saqqaq sites are known as well as loose finds of stone implements, showing that the Saqqaq peoples inhabited the area and used its resources. As yet, no stone age settlements have been found in the fjords and the interior or any other signs of this area having been used.

Nuup kangerlua: around 50 habitations throughout the area are known, but in Akia/the north country there are only a few Saqqaq sites, all virtually without any organic material. It is incredibly difficult, therefore, to assess whether there is some seasonal variation at these sites: are they spring, summer or winter sites? It is virtually impossible to date them from the appearance of the stone implements, as the Saqqaq people were apparently incredibly conservative: their stone implements remained virtually unchanged for 1,500 years and cannot be used to date the sites, therefore.

South of the coastline in question along Nuup kangerlua are a number of large Saqqaq sites in the Nuuk fjord area: Tuapassuit near Qoornoq, Itinnera and near Kapisillit. These sites served as rallying grounds in summer and indicate that people went hunting in the interior from here, i.e. a way of life that may be reminiscent of the one we possibly see in the Kangerlussuaq area.
This will be able to be confirmed or refuted through intensive studies in the interior, where the banks of rivers and lakes in particular can only attract attention.

The dire lack of knowledge about the oldest culture in Greenland and its way of self-organizing will be exacerbated further if the potential Palaeo-Eskimo settlement areas along rivers and lakes are destroyed for ever.

Dorset
Shortly after 1000 BC a new culture emerges in Greenland, the Dorset culture, which in the High Arctic is called Independence II. It has its origins in eastern Canada.
Dorset is found in the same areas as Saqqaq around Sisimiut and Nuuk, but not to the same extent. Again, this may be due to changes in the relation between land and sea, many coastal Dorset sites being located beneath the surface of the sea these days, but it may also be due to lack of knowledge.

Central mid-Greenland encapsulates particularly interesting problems in conjunction with the change from Saqqaq to Dorset, which remain unsolved.

Sisimiut: Carbon-14 datings show that the Saqqaq culture ceased between 800-400 BC and was followed by the Dorset culture.
There seems to be some discontinuity between the two cultures in a well-resourced area like Disko Bay, but at Sisimiut a certain amount of archaeological data and datings have gradually been generated, clearly suggesting that the two cultures overlap.

A chronological overlap must mean that there is either direct continuity, i.e. that the Saqqaq people, influenced by ideas from outside, altered their material culture to a culture shaped by Dorset, or that the Saqqaq culture coexisted alongside the new Dorset culture for 100-200 years, after which the Saqqaq peoples disappeared.
Right now it looks as if coastal locations around Sisimiut present the only places in West Greenland where we have any chance of having these essential cultural-historical issues illuminated.
Dorset is virtually unknown in the interior. That seems so peculiar that it is only fair to assume that the lack of Palaeo-Eskimo presence in the interior is down to a lack of studies, rather, and perhaps the sparse relics lie hidden beneath the more robust construction sites of later eras from the Thule culture, or we have been looking in the wrong places.
At a single Dorset locality on the north side of Kangerlussuaq, remains of a sled have been found. Dorset scarcely had sled dogs, so they must have pulled the sled themselves. The presence inside Kangerlussuaq of ”winter objects” can be interpreted to mean that the Kangerlussuaq area/the interior was not just a summer resource. Maybe they stayed in the fjords in winter too, where they may have settled at the edge of the ice.
The possibility that the interior south of Kangerlussuaq may have been used in autumn-winter increases the research value of the area, but just makes it even more difficult to find the necessary traces of them, because in that case tents would have been pitched on the frozen surface without the use of stones to weight down the tent. The implication is that searching must be carried out much more intensively at all potential localities for leftover implements of stone.

<u>From Sugartop Mountain Ice Cap to Nuup kangerlua:</u> Dorset is absent here. Given that it would have been possible to penetrate inland via fjords, rivers and lakes and exploit the rich hunting grounds, archaeologists have taken the view for years that finds will come along once the area is visited professionally.
There are Dorset sites along the Akia coast, and perhaps these indicate that the exploitation was of the same type as at Sisimiut: based out of camps on the fjord coast, and from there in small raids inland.
The great opportunity now is to try this out at localities at risk of being violently disrupted

The fundamental lack of knowledge about the Dorset culture’s way of self-organizing will be exacerbated further if the potentially most important Palaeo-Eskimo settlement areas near rivers and lakes are destroyed for ever. The same applies to the outer coast areas.

Conclusion to the Palaeo--Eskimos

The central West Greenland inland includes very few traces of the Palaeo-Eskimos. The known occurrences are primarily from the Saqqaq culture, while there are both Saqqaq and Dorset along the fjord and outer coasts.
The Palaeo-Eskimos' lack of presence in the interior may be due either to a lack of knowledge of the areas or to their not having been there.

Palaeo-Eskimo sites are often extremely hard to find. The few structural traces may be partly or fully covered by sand and vegetation. Large amounts of bone material no longer lie out in the open, the implements have been reduced to stone residues.
The sites may be located higher up in the terrain than those of the Thule culture—or lower! They may be in the same locations in the interior–or in entirely different locations.
The Palaeo-Eskimo groups' preferences when choosing a camp were certainly guided by important choices; the sitings are not random; there seems to be a pattern between the sites on the outer coast near the fjords both in Saqqaq and Dorset. There is presumably also a pattern in the inland settlement, but we have too few data to see it; therefore, large areas need to be investigated and reconnoitred very carefully using specialists.

Destruction of the most obvious habitation sites like the banks and shores of the great lakes, along the rivers and in the valley systems between the fjord coast and the lakes will eliminate the most important scope for obtaining a knowledge-based interpretation and understanding of the way the West Greenland Palaeo-Eskimo society self-organized and how they exploited the land.

5.2 The Norsemen

The Norsemen came from Iceland and Norway in c. 985. They settled in two areas: "Østerbygden" ("East Village") in south-west Greenland and "Vesterbygden" ("West Village"), which spread out into the inner part of the Godthåb Fjord, with the northernmost mediaeval farms, churches, cemeteries and so on organized like a community, which functioned until c. 1350 AD.
There are a lot of animal bones on all the farms excavated, showing inter alia that the interior has been exploited for hunting of the greatest resource: reindeer. In a few spots in "Vesterbygden" between the farms there is something resembling a Norse hunting system with beacons.

The cultural baggage which the Norsemen brought with them from Norway also included a knowledge of reindeer hunting in the interior and on Højfjeldet using beacon systems, pit traps, hides etc. It must therefore be surmised that in the case of the Norsemen there may be hunting structures in the mountains that are simply not yet known to the archaeologists. The hunting structures are expected to be both hunting systems for reindeer and fox traps–possibly even the so-called wolf traps.
The Norsemen must also have had housing or depot sites along the west coast, originating from their travels northwards and their exploration of the country. Both Maniitsoq and Sisimiut are good candidates, but nothing has so far been recorded.

Conclusion to the Norsemen
Norse exploitation of the landscape involved sheep and goats being kept in the vicinity of the farms. Vesterbygden has no traces of the animals having been sent up into the mountains (to alpine pastures or *sæters*). That means possibly that the reindeer may have been close enough to the village for hunting to have been operated largely from the farms. No one knows, however, because, among other areas, the interior north of Nuup kangerlua has not been scanned at all for Norse evidence of their presence or non-presence.

5.3 Thule
The Thule culture people are the forefathers of modern-day Greenlanders. They entered Greenland from Alaska via Canada in the 1100s AD. After a brief stay in the Thule area a group continued down along the west coast in the 1200s; another journeyed to the north and down into East Greenland. The Norsemen disappeared in about 1450 AD, and shortly afterwards the two migrating Thule groups met, so for a period there is Eskimo settlement in virtually all accessible parts of Greenland.
The Thule peoples are particularly mobile with their dog sleds, umiaqs (women's boats) and kayaks, and highly refined hunting and sealing equipment, which enabled them to exploit all the resources of the land and sea. In summer they lived in tents, in winter in houses of stone, whalebone and peat. These winter houses leave a far more solid impression in the landscape than the tents, which were the dominant housing down through the whole Palaeo-Eskimo period. It is this difference, among others, that makes it so difficult to find the Palaeo-Eskimos and yet so easy to find the small and large Thule winter sites.

Shortly after the Thule peoples had arrived in mid-Greenland and settled along the coast, exploitation of the country's resources started, as documented in part at the great inland camp Aasivissuit north of Kangerlussuaq Airport.
After the Thule culture had spread around Greenland, regional differences began to arise, and during the 15-1600s a trading network came about, bringing together people and taking raw materials from one area to another. At Disko Bay there are whales, and whalebone (or baleen) was a great trading commodity; around Sisimiut walrus (tusks) and quantities of reindeer (hides) are to be found in the interior; and in the Nuuk area there is valuable soapstone; and so on. These trading networks stretched from Ammassalik on the east coast to Disko Bay on the west coast. During the same period a network of habitations and large-scale rallying grounds is developing in the interior, which are taken into service in the summer, while the remainder of the year is spent on the coast. During this period we see the most intensive interaction between inland and coast.
In the late 1600s and in the 1700s European whalers came to the area specifically around Sisimiut, and rendezvous points arose between the Thule peoples and the Europeans, at which they used to exchange goods.

Among the structural forms there is a change in their housing in the latter half of the 1600s, from the little round single-family house to the large long-house ("the communal house"), which then becomes dominant at the Thule habitations along the coast. Around the same habitations yet another new element crops up: burials. These are found as small and large stone cists around the habitations, in caves, on the coast and in the interior.

Prior to Danish colonization in 1721 there had already been some concentration of the Thule culture, which congregated around large winter habitations, from which the surrounding countryside continued to be exploited through minor relocations and the summertime dispersal around the landscape, including the interior.

The colonization from 1721 onwards sees a 'freezing' of these habitations; the trading networks are dismantled and desist; but the local move between the summer sites in the interior and the winter sites on the coasts continues.

During the latter half of the 1800s there is considerable gathering of local knowledge, myths, legends and stories about the life and history of the Inuits (Thule culture). This knowledge goes from present to past and is an altogether unique body of material for elucidating the use of the land, telling their own story

and supplementing the archaeological knowledge provided by the ancient monuments. Using these sources, settlements can be brought to life with place names and known, historical characters. Sometimes the history of a settlement or family can be followed down through centuries.

The Sisimiut area includes a great many Thule sites, only few of which have been excavated. Our detailed knowledge of the Thule culture is primarily based on a collation of the material culture known from a large area from Upernavik to Sisimiut = the area where the dog sled was an important component of the mode of transport.
It remains important to safeguard and collect the knowledge that is linked to these localities, so that we can better understand and illuminate the Thule culture's regional variations, and the dynamic and chronology of it.

Sarfartoq-Tasersiaq: virtually all known structures in this vast inland area stem from the Thule culture up to the present. We know names of areas, rivers, lakes, settlements; we know stories about dead people and their graves. We have information about forms of hunting, the use of beacon systems etc., but the archaeological material also shows the occurrence of structural forms that either differ from the norm or are not mentioned. This tells us that there is a more varied story hidden among the archaeological material than the one that is readily accessible.
Studies at Aasivissuit, north of Kangerlussuaq, showed that the intensity with which the interior was exploited varied in keeping with the volume of resources present. The fluctuations in reindeer stocks apparently result in different ways of exploiting the interior and in changes in social organization. The large gathering camps are seen as a result of periods with large quantities of reindeer; the smaller camps are satellite camps or must be linked with periods of fewer reindeer.

Painstaking studies of the settlements, incl. excavations and datings, can not only give us insight into the Thule culture's ability to make strategic changes in terms of exploiting available resources but, conversely, this information can also be used in a biological context to shed light on the natural fluctuations in reindeer populations over hundreds of years.

Maniitsoq and the interior: In this area the Thule culture changes character slightly. The basic features are the same as to the north, but climatic conditions lead to the disappearance of the dog sled, with the kayak undergoing refined

development, ending up as a craft that can function in the coastal area, with its abundance of waves.
It is assumed that the few known localities in the interior stem from the Thule culture, but from what period is not known.
Oral history often links the groups in the Maniitsoq area together in their use of Sarfartoq-Tasersiaq, and indicates that contact takes place by sailing into Kangerlussuaq. However, the existence of some connection should also be considered between Kangerlussuatsiaq/Evighedsfjord to Tasersiaq, where there actually are a number of hunting camps at the site of the connecting valley, Ujaraannaq, down to Kangerlussuatsiaq.

Akia–Nuup kangerlua: the mouth of Nuup kangerlua with the islands and Akia contain large quantities of Thule settlements, and there are exceptionally plentiful opportunities for piecing oral knowledge, local history and ancient monuments together into a living narrative reaching at least as far back as the 17th century.
Reindeer hunting and the exploitation of the ample soapstone deposits were important facets of the Thule culture when they became important trading commodities in the large trading networks of the 1600s.
A number of excavations have been done around Kangeq, but only few further into the fjords. The few known inland locations had never been visited by archaeologists until the summer of 2007.

There are many, as yet unexploited possibilities for research to elucidate these inland localities properly and, among other things, evaluate whether there are particular hallmarks to these sites and structures that differentiate them from the forms of housing further to the north in the Sarfartoq-Tasersiaq area. If this were to be the case, an archaeological opening would arise for linking populations from different regions with structures in those regions where they meet and hence, for example, an opportunity to investigate whether regional groups intermixed at the inland localities. From other localities it is known that a rallying area for different regional groups is also reflected in the fact that they live together but individually at particularly important rallying grounds.

On the face of it, it seems odd that so few new Thule structures turned up this year, as previous studies at Kangerluarsunnguup Tasersua (”Buksefjordssø” or ”Trouser Fjord Lake”) south of Nuuk documented large and small summer sites along the shores of the lake and the presence of smaller satellite sites in the highlands—that is to say, a system reminiscent of the Sarfartoq-Tasersiaq area with its large base camps in the interior.

It is altogether crucial to have all of these sites, old and new, properly investigated and dated in order to elucidate whether there are differences in the Thule culture's strategies and its actions in exploiting the interior in the north and south parts of the Nuuk area, respectively.

5.4 European period

The European period starts with the arrival of Hans Egede in Akia/Nuup kangerlua in 1721, when he settles down on Håbets Ø (the Island of Hope) and later in Nuuk. After this there is a gradual build-up of the permanent, Danish presence on the west coast.
With the establishment of the colonies and their need to purchase goods on a regular basis from the local, Greenland hunting population, the latter develops a tie with the colony with its church and European goods. That puts a halt to the interregional trading, which now goes local, and the population moves around within one district in an annual cycle; the occupational pattern adapts to the Greenland Trade Department's requirement for particular products etc.
Under pressure from the Greenland Mission, Eskimo building practice is changed from the long-house (multi-family house) back to single-family housing, only now in a new, more straight-walled form on account of the access to timber.
European rectangular plots based on tents mingle with the rounded Eskimo ones; burials still take place in the mountains, on the coast and inland, but are now increasingly associated with the new church buildings and cemeteries.
The European period during the 17 and 1800s includes both a traditional Thule culture, in which costumes, hunting equipment, peat houses etc. assimilate European elements, as well as out-and-out Danish relics from the period, like the buildings and structures of the Greenland Trade Department and Greenland Mission.

On the basis of its registers, the Greenland National Museum cannot distinguish between early and late phases of the Thule culture and cannot yet single out special structures from a specific century.
Down through the 18th and 19th centuries, a number of colonies, settlements and trading stations are established, some of which close down quickly or by 1900, whereas others continue to exist into the 20th century. All such stations in this area are linked to the coast, with none in the interior.

Until the first half of the 1900s, crossings were still sailing from towns, settlements and the trading stations on the outer coast into the country for summer hunting. The large old sites were still being utilized; the animals were

hunted and slaughtered, and the whole lot transported out to the coast and sailed home to the winter site.

During the latter half of the 1900s the hunters still come sailing from afar. Some settle down for a lengthy time in camps near the fjord coast, particularly near Angujaartorfik, hiking in to hunt. The quarry is prepared at the outer coast. Others hike in and out on short trips.
As thought-provoking as it is, this latest way of exploiting the terrain seems more in harmony with the Palaeo-Eskimo tradition than with the Thule culture.

6.0 Conclusion
From the whole of the Palaeo-Eskimo part of West Greenland's prehistory (2400-100 AD), very little evidence has been recorded of the active use of the interior in the form of tent camps. Practically all knowledge of the Palaeo-Eskimos comes from the coastal settlements. This is scarcely a true or fair picture of the situation throughout the period.
It is essential to obtain a far more soundly founded picture of the prehistory of the great inland, because this is also instrumental in putting a more finessed perspective on the coastal settlements and thus on the individual periods of civilization.

The Norsemen (1000-1350 AD) must have had structures in the interior, but such finds would not involve any fundamental change to our understanding of the Norsemen's life and economy in the immediate term. There must also be structures along the west coast, stemming from their travels to the north and their exploration of the country, where encounters took place with the Thule culture. Throughout the Norse period we find bones from walruses (chiefly skulls and penises) on the farms. They must come from the north, and during the latter part of the period from areas where the Inuit have settled. These sites have not yet been found either.

The Thule culture established itself all across the area from c. 1300 onwards, over the next 400-500 years. Along the way, changes take place in structural forms, organization of settlements, financial focus, climate, contact with Europeans, access to raw materials and resources etc.
The Thule culture builds up its use of the interior, which fluctuates in intensity over the centuries. These shifts are assumed to reflect variations in reindeer numbers. However, we lack a detailed chronological knowledge of the settlements on the outer coast and cannot, therefore, evaluate whether changes

in social or economic structures in these areas may also have a bearing on the settlement and exploitation pattern seen in the interior.

The coastal area or coastal areas included in substantial plans of placing the smelting plant must be carefully examined and investigated. The focus will be on well preserved and informative Thule structures, and particular attention will be paid to the presence of Norse or Palaeo-Eskimo relics.

New techniques such as aDNA must be applied in order to find the human element at the Palaeo-Eskimo sites (there are no skeletons or burials from this period) and data collected for a better understanding and appreciation of local and regional changes to landscape forms over time.

In overall terms, human settlement in the area and the use of land and sea extend over 3,000 years. From this period, but spread over a stretch of coast extending some 300 km as the crow flies and inland to a depth of some 100 km, we have approx. 1,000 Eskimo settlements, incl. a number of disused settlements and structures from the Colonial period and six Norse farms, cf. Table 1.
Of these 1,000 sites, the quantity in the Sarfartoq-Tasersiaq area alone makes up almost 44%. The quantity of known settlements (34) in the interior south of the Ice Cap is incredibly small in relation to the extent of structures along the coast and their ease of access. The figures are scarcely representative, therefore.

Nor do the dots provide adequate documentation. Each dot may mark one grave, one tent ring or a summer site with many tent rings, a settlement of 5,000 sq.m with ten homes and 15 graves, or a settlement of 40 sq.m or a plain old hearth etc.
The dots are not an expression of a number of structures, merely an expression of how man has made a great or small impression in the landscape.

The wealth of ancient monuments north of the Ice Cap is a scientific gold mine, which also imparts to the landscape a unique value in terms of the cultural landscape.
The poverty south of the Ice Cap makes it extremely imperative to have all potential settlement areas investigated carefully and to have all threatened structures examined in great detail, so that they can be placed in the right context.

In this area the known ancient monuments and potential settlement areas near lakes and rivers make up an unusual little pool of information-rich components, which can tell the tale of mankind and his presence in West Greenland over 3,000 years.

These days we take the appearance of the landscape for granted, and look for the past in a contemporary landscape, but have the rivers changed their course? Has the water level in delta areas and in the lakes been the same throughout the entire period? Has the vegetation changed its nature, and when? How has the correlation between sea and land evolved locally? The analysis is a scientific one, but such information is essential to understanding the landscapes that humans could exploit.
Throughout the whole of the period man has exploited both coast and inland. Nature removes and has removed many ancient monuments, but irrespective of how ancient monuments are vanishing, it will diminish our capability to understand how man and cultures through the millennia have acted in complex and different ecological areas and zones. The cultural dynamic and evolutionary phenomena functioned in a natural arena where mankind was a player without any of the modern-day capabilities for reshaping it. It is important, therefore, to view the ancient monuments in their own natural setting, not just within a contemporary framework.

All areas of the interior affected by hydroelectric plants and changes to lakes and rivers must be carefully examined. The interior is either unknown or virtually only ”populated” with structures from the Thule culture, which have not yet been attached to any chronological skeleton of any depth. The rich and varied source material on the Thule culture can be put to further use, providing we can expand our understanding of the structural forms in the interior and the causes of shifts in exploitation of the area. This can only be done by means of intensive reconnoitring and professional excavations of entire structures and settlements.

Central West Greenland is unique in Greenland, climatically, topographically and in terms of resources; and that has created altogether extraordinary conditions and opportunities for its shifting cultures. If the man-made components and impressions on the landscape are ruined, the population of Greenland, tourists and research will for ever have lost their access to that part of history and hence to the opportunity to understand and convey the past in a far more subtly detailed way than we are currently able to do. That is why as much information as possible must be safeguarded.

7.0 Appendix 1

Fig. 1. Hunting ground from the Thule culture or Colonial Age. Such structures are very difficult to date, but form part of essential sources of information concerning the country's exploitation.

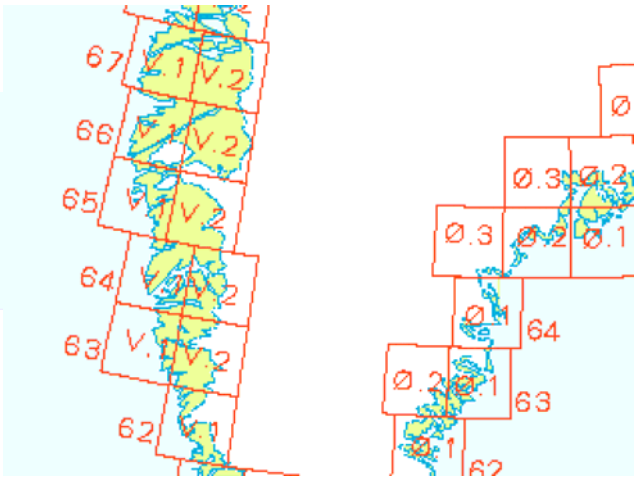
Fig. 2. The grandiose Arnangarnup Qoorua with the meandering course of the River Sarfartoq. In the brown brush lies one of the really big settlements: Eqalummiut, home to people including the prophet Habakkuk of Kangaamiut

near Maniitsoq in the 1780s. The site has relics left from the Palaeo-Eskimo age.

Fig. 3. On these sandy highland expanses with a good view over to areas with more vegetation, older settlements may be concealed, particularly Palaeo-Eskimo ones.

Fig. 4. Settlement area with Thule houses deteriorating on the Akia coast, Nuup kangerlua.

Table 1. Recorded sites and information about sites between Nuuk and Sisimiut



Map area 65V1 near Maniitsoq has not been updated.

The newly recorded sites from 2007 have not been included.

All in all, it will bring the total figure up to approx. 1,000–1,050 sites.

	Map sheet	Eskimo sites	Norsemen sites	Total
The Nuup kangerlua area		64V1-00I	46	6
	64V1-III	84		
	64V1-0IV	24		160
The Maniitsoq area	65V1-00I	17		
	65V1-0II	60		
	65V1-0IV	38		115
The Ice Cap–Nuup kangerlua	65V2-00I	1		
	65V2-0II	20		
	65V2-III	7		
	65V2-0IV	6		34
The Sisimiut area	66V1-0II	9		
	66V1-0IV	131		
Sisimiut-Kangerlussuaq	66V1-00I	92		232
The Sarfartoq-Tasersiaq area	66V2-00I	75		
	66V2-0II	56		
	66V2-III	130		
	66V2-0IV	177		438
				979

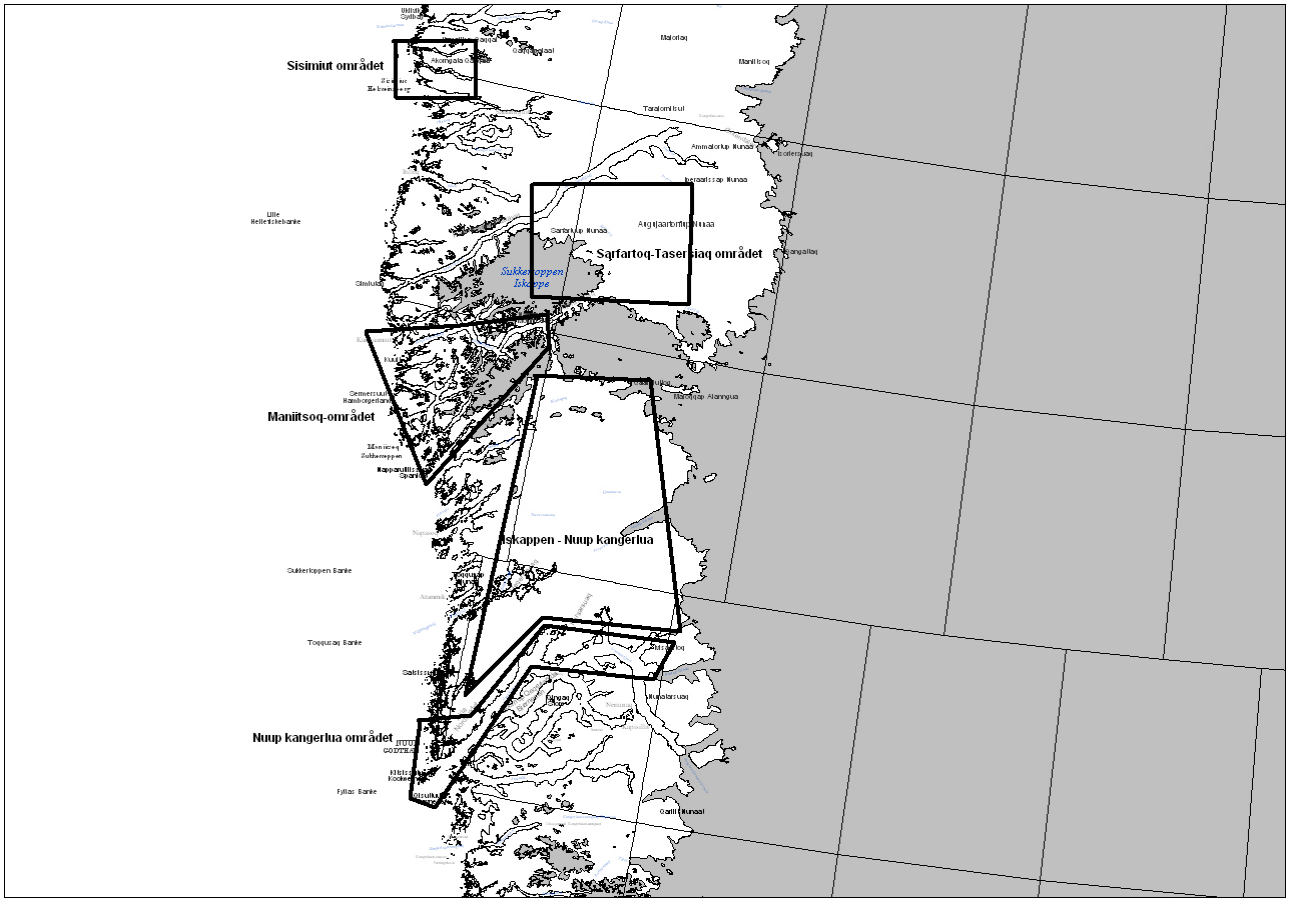


Fig. 4. Rough delimitation of the areas under discussion.

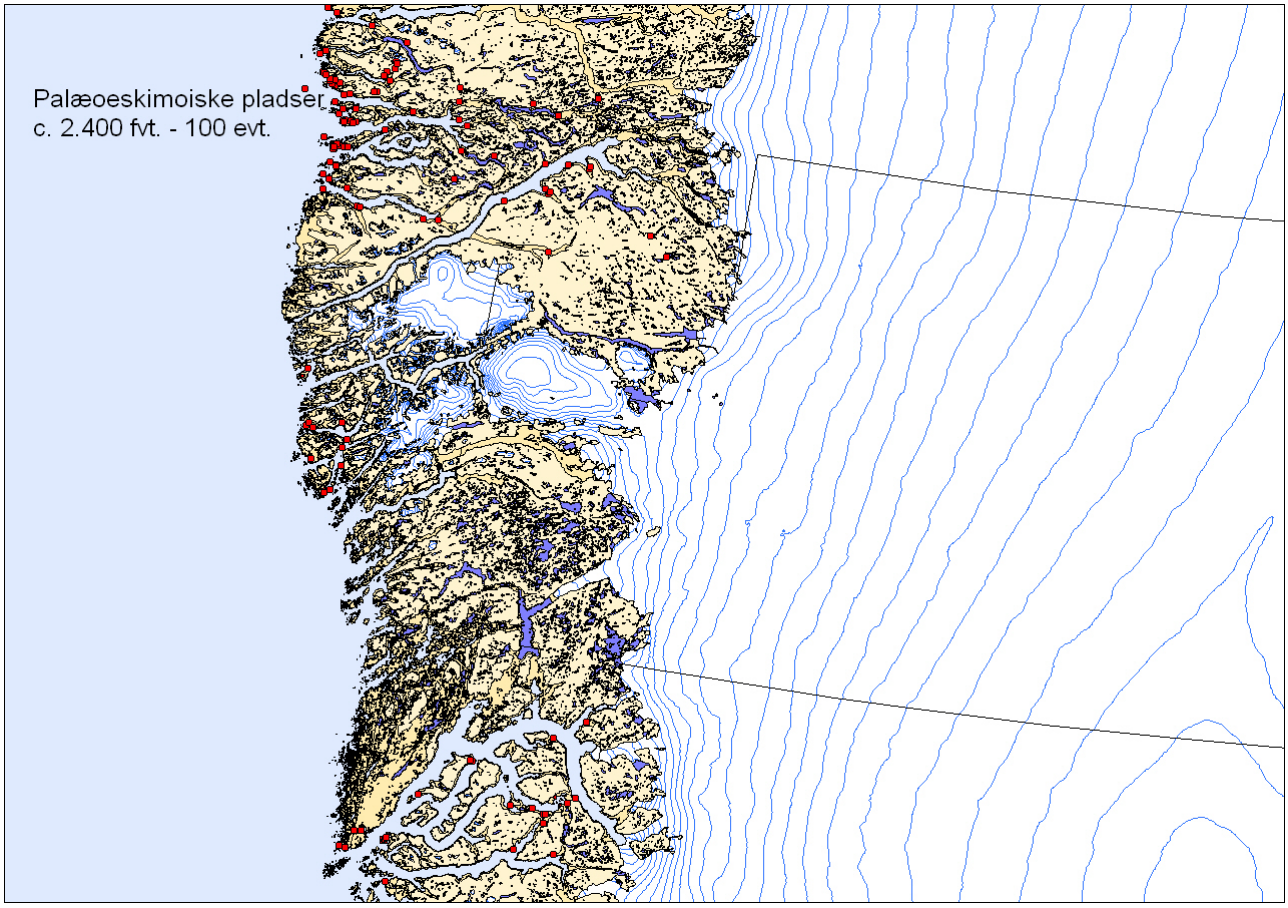


Fig. 5. Dot map with Palaeo-Eskimo sites and relics, c. 2400 BC–100 AD

Key: Palaeo-Eskimo sites, c. 2400 BC to 100 AD

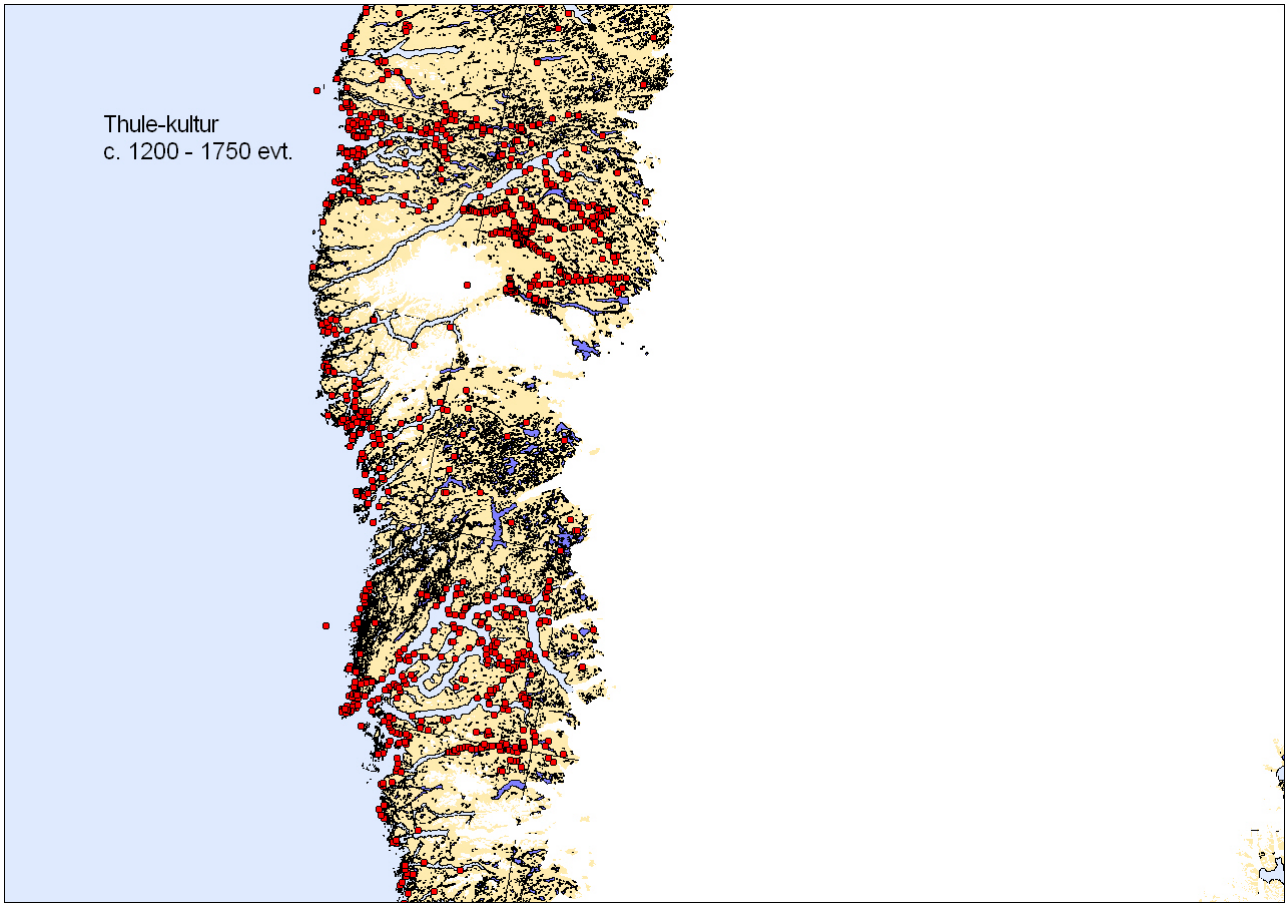


Fig. 6. Dot map with Thule culture sites and relics, c. 1200–1750 AD.

Key: Thule culture, c. 1200 to 1750 AD

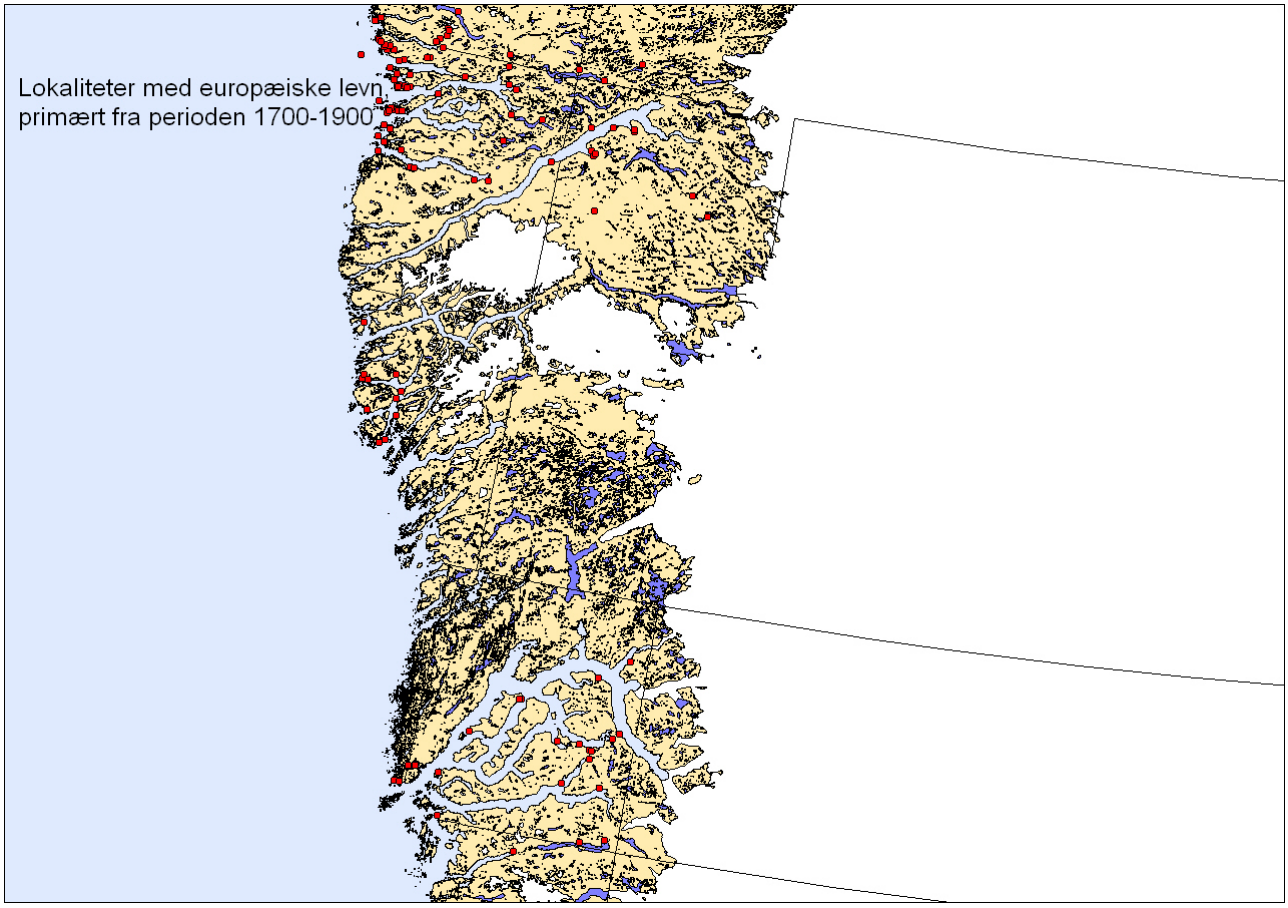


Fig. 7. Dot map with sites and relics from the early Colonial Age, c. 1700-1900 AD.

Key: Localities with European relics primarily from the period 1700-1900