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Article abstract

During the sixties, a number of large-scale archaeological surveys were conducted by the Danish National Museum in the Godthåb Fjord area on central west coast Greenland. The surveys led to extensive excavations including those of Saqqaq sites. However, descriptions of most of these sites have been preliminary published only, and the Palaeo-Eskimo settlement pattern of Godthåb Fjord has never been synthesized. The paper includes information on the Itinnera, Nuunnguaq and Tuapassuit sites, revealing both distinct intra-site similarities and variability. It is suggested that the Saqqaq site Tuapassuit is an aggregation camp, thus pushing evidence of this phenomenon several centuries further back in time than previously known.

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Martin Appelt*

Résumé: L'architecture d'un site de rassemblement paléoesquimau: un exemple du fjord de Godthåb au Groenland

Durant les années soixante, des reconnaissances archéologiques à grande échelle furent conduites par le Danish National Museum dans la région du fjord de Godthåb dans le centre de la côte orientale du Groenland. De ces reconnaissances suivirent des fouilles extensives, incluant celles de sites saqqaquiens. Cependant, ces sites ne furent décrits que dans des publications préliminaires et le schème d'établissement paléoesquimau du fjord de Godthåb n'a jamais fait l'objet d'une synthèse. Cet article inclut des informations concernant les sites Itinnera, Nuunnguaq et Tuapassuit, qui présentent à la fois des similarités et des variations intra-sites. On suggère que le site saqqaquien Tuapassuit est un camp de rassemblement, ce qui laisse entrevoir qu'un tel phénomène ait pu se produire quelques siècles plus tôt qu'antérieurement supposé.

Abstract: Palaeo-Eskimo gathering site architecture: An example from Godthåb Fjord, Greenland

During the sixties, a number of large-scale archaeological surveys were conducted by the Danish National Museum in the Godthåb Fjord area on central west coast Greenland. The surveys led to extensive excavations including those of Saqqaq sites. However, descriptions of most of these sites have been preliminary published only, and the Palaeo-Eskimo settlement pattern of Godthåb Fjord has never been synthesized. The paper includes information on the Itinnera, Nuunnguaq and Tuapassuit sites, revealing both distinct intra-site similarities and variability. It is suggested that the Saqqaq site Tuapassuit is an aggregation camp, thus pushing evidence of this phenomenon several centuries further back in time than previously known.

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Introduction

Mobility is essential to understanding life in the Arctic. Prehistoric as well as more recent hunter-gatherers of the Arctic navigated in an environment of migratory game and non-living resources (such as driftwood and lithic raw materials) that are often widely spaced. Given this distribution of the resources it becomes crucial for humans to time their movements in the landscapes in such a way that the maximum number of prey-animals can be caught when they are to be found in large numbers in small geographical areas (Rowley-Conwy 1999). Only few areas in the eastern Arctic, such as some of the areas around Foxe Basin (Murray 1999), will have sufficient resources available year round to allow people to stay in just one place. Our interpretations and understanding of Palaeo-Eskimo patterns of mobility are primarily deduced by combining three, partly independent, sources: the ethnographic data on the historically described settlement patterns; information on historic and present day distribution of the living resources; and the distribution and lay-out of the known Palaeo-Eskimo sites.

A major problem in interpreting the nature of specific Palaeo-Eskimo sites in relation to patterns of mobility is the poor organic preservation at most sites, preventing us, amongst other things, from determining the specific use of a site. In an attempt to overcome these obstacles, Tinna Møbjerg has separated out a number of parameters that may guide us in identifying "base camps" from other sites in a given geographical region (Møbjerg 1986). Important parameters are: the size of the site in relation to other sites in a given region; the nature of the dwelling structures and other structures; and the size and composition of the artefact inventory. Furthermore, in the case of sites from the older parts of the Saqqaq culture found in Greenland, the amount of fire-cracked rocks may be an indication of both length of stay and season of occupation. In a very simplistic model one may suggest, for example, that "large" sites (as measured in number of m² covered) with sizeable amounts of artefacts including most or all of the spectrum of formal artefact classes and types of lithic reduction sequences, combined with the presence of many and different constructions (dwellings, graves, caches, traps, etc.) are very likely to be the remains of base camps. If the site contains caches and large amounts of fire-cracked rocks, one may furthermore suggest that it was used during a cold season. Conversely, small sites with limited amounts of material, with no or very ephemeral remains of a dwelling structure, are likely to be the remains of a short stay.

The reconstruction of intra-regional mobility is primarily deduced from the distribution of geographically restricted lithic resources, for example soapstone and killiaq (the silicified slate dominating the Saqqaq tool manufacture), as found on the archaeological sites. A number of areas in Greenland (such as the Sisimiut and the Disko Bay areas) hold the potential for combining the above-mentioned sources into a detailed description of Palaeo-Eskimo patterns of mobility. The present article will focus on a third area, the Nuuk area, where enough surveys have been carried out to enable such analysis. Ethnographic descriptions of settlements patterns and the exploitation of both living and non-living resources are among the first from Greenland, beginning with the writings of missionary Hans Egede in the first half of

the 18th century (Egede 1925a, 1925b), and followed by other useful accounts such as the one given by Daniel Bruun from around the turn of the 20th century (Buun 1908).

Palaeo-Eskimo sites in the Nuuk area

Truly systematic archaeological surveys, targeting both Neo-Eskimo and Palaeo-Eskimo sites, started only from the beginning of the 1950s, and were followed by a number of excavations during the 1960s. A general description of all known sites in the area up to the beginning of the 1980s were published in Greenlandic and Danish in 1983 (Gulløv 1983), while a more comprehensive summary on the Palaeo-Eskimo sites was made in 1987 (Gulløv and Kapel 1988). Today an updated database on both the Palaeo- and Neo-Eskimo sites is available at the Greenland National Museum and Archives (The Greenland Site Database). Furthermore, most information on the archaeological sites has been paired with a large amount of environmental information into a GIS-based CD-rom released in 2000 (Mosbech 2000).

At present, 45 places in the Nuuk area have produced Palaeo-Eskimo artefacts (Figure 1), not including the results of recent year surveys and excavations by the Greenland National Museum and Archives (see Hinnerson Berglund, this volume). Thirty-two of these sites produced one or just a few artefacts as stray finds, while 13 sites have produced sufficient material to allow a determination as either Saqqaq or Dorset sites; seven Saqqaq, five Dorset and one site that contain materials from both groups. Only four sites have been made subject of systematic excavations, while an additional three sites were only test-excavated — none has been published *in extenso*.

Most sites are found in the inner parts of the fiord system, while only eight are found on the outer coast, mainly along the Nepisat Sound. Just one of the outer coastal sites — Itissalik — was partly excavated. The Saqqaq occupation layer was found during the process of excavating an 18th century winterhouse (Gulløv and Kapel 1973, 1988) that had been constructed on top of a Saqqaq habitation layer. The excavation revealed a substantial occupation layer and a "simple" hearth. The lack of periphery around the hearth is likely to be a product of rock scavenging during the construction of the 18th century house. The Saqqaq lithic material included some 650 pieces, of which 35 can be characterised as formal artefacts.

The four inner fiord Saqqaq sites have a number of features in common; they are all relatively large sites, they seem to be oriented towards caribou hunting, they are all located with the possibility of exploiting at least one other important animal species (supposing the distribution of game was roughly similar to the historically known situation), all sites are located at the coastline and three out of four sites are at the "mouth" of large valleys that connect one large fiord with another.

The Kilaarsarfik site

The Kilaarsarfik site was found and excavated by a joint Greenlandic, American and Danish team in 1984, while excavating the remains of the Norse farm "Sandnæs,"

in the innermost part of the Ameralik fiord (Elling 1986; Gulløv and Kapel 1988). It is situated at the end of a small naze, at the high tide mark. Field A covered an area of 18.5 m² that according to the excavators' report only covered a very small portion of the site. The excavated material from field A is exclusively of Saqqaq provenience, including a little more than 9,500 flakes (almost exclusively tiny re-sharpening flakes), five burins, 14 blades or fragments thereof, two microblade cores, 14 fragments of microblades, one axe blade, one grinding stone, and 102 burin spalls. Field B is located a short distance from field A, at about 3 m above the high tide mark. The 3 m² large field seems to contain material from both forms of Greenlandic Dorset¹ and a thin layer that most probably is of Saqqaq origin. Beside a small number of flakes, the field produced 12 formed artefacts, of which eight are microblade fragments. The site had almost no preservation for organics, but the few bones found connected to the Dorset component are caribou. The site is located in a traditional caribou hunting area and close to a breeding area for harbour seal.

The Itinnera site

Itinnera is probably the most well known of the three sites having figured as a sort of *locus classicus* for the Saqqaq culture. The site was discovered in 1957 by the then newly established reindeer herder Jens Rosing. It was excavated from 1958 to 1963 (by, among others, Helge Larsen, Jørgen Meldgaard and Jens Rosing). It is situated in the middle of a small bay, on the southern side of the Pisissarfik fiord, some 120 km from Nuuk and 4 km southwest of the village Kapisillit (Figure 1). Few information is available on the excavations, the layout and artefact material from the site (see Fitzhugh 1984; Gulløv and Kapel 1988; Meldgaard 1961, 1975, 1977; Rosing 1978), but the major results of the archaeozoological data were published in Møhl (1972). The excavations at Itinnera covered about 300 m², or about 50% of the estimated total size of the site. The excavated area seems to have uncovered some 10 hearth features of which one had a well-defined periphery, while the very complex formation history of the site blurred the segregation of periphery for any of the other nine hearths. The artefact inventory included some 1,269 formed lithic artefacts, along with a little more than 14,000 flakes, including the full range of the Saqqaq lithic industry (Gulløv and Kapel 1988). Two radiocarbon dates on caribou bone suggest that at least part of the site was used over a couple hundred years, within the younger half of the Saqqaq

¹ The term Greenlandic Dorset is used as a replacement for the terms "Dorset I" and "Early-Dorset" in Greenland. Recent research in Northwest Greenland has shown that what had formerly been known as "Dorset II" (*e.g.*, Meldgaard 1977) is best termed Late-Dorset (Appelt *et al.* 1997; Appelt and Gulløv eds 1999). The archaeological remains are fully comparable to what is known as Late-Dorset in Canada (Maxwell 1985; McGhee 1996; Schledermann 1990), and with our present knowledge, the sites in Northwest Greenland are an integral part of what one might call the High Arctic Late-Dorset society (ca. A.D. 750-1300.) (Appelt 2003). Having dismissed the use of the term "Dorset II" it seems irrelevant to maintain the use of the term "Dorset I." Other recent research has shown that some areas (*e.g.*, the Sisimiut area) may have material that should be considered transitional in between Saqqaq and Dorset (containing some artefacts that fall outside the range of most Canadian late Pre-Dorset and Early-Dorset inventories) (Møbjerg 1997; Jensen 1998). For the time being very little is known about the dating of these "transitional" sites, as well as the "pure Dorset" sites, except that most sites probably date somewhere in between 700 B.C. to A.D 100-200 (Jens Fog Jensen, pers. comm. 2003). Due to a combination of factors like the possible Saqqaq influence on the Greenlandic Dorset groups, and the lack of chronological consistency with the Pre-Dorset/Dorset transition in central parts of Canada and the unique artefacts found in the Greenlandic Dorset sites, it seems reasonable to suggest the use of the term "Greenlandic Dorset." Furthermore, lack of Middle-Dorset sites from Greenland also makes it somewhat less than logical to operate with the term "Early-Dorset."

period (K-1193; 3140 ± 120 B.P. [1600-1210 cal B.C.] and K-588; 2960 ± 110 B.P. [1370-1010 cal B.C.]).

The Nuunguaq site

At the innermost part of the Pisissarfik Fjord, some ten km northwest of Kapisillit, we find the second large Saqqaq site in the area; Nuunnguaq (Figure 1). Jørgen Meldgaard discovered the site in 1952 during his reconnaissance of the Nuuk area. It is situated at 2-6 m above the present sea level along an approx. 500 m x 30 m plane and well-drained beachline. The western side of the site is delimited by the Kapisillit stream, which in historic times is Greenland's only stream with a local salmon population (Smidt 1989). On the eastern side, a low-lying and swampy area delimits the site, bordering a low ridge on the eastern side of a small land bridge leading to the Kangiussap Nunaa Peninsula. The land bridge is a natural bottleneck for the local caribou migrations. The major excavations of the site were done in 1960 (Features 1-7) and 1963 (Features A-E) by, among others, Jørgen Meldgaard, Hans Berg, Jens Rosing, James Giddings and Douglas D. Anderson (Figure 2). Eigil Knuth visited and excavated a small part of the site in 1962, but unfortunately no record of the excavation exists.

Even though the site had no organic preservation, it seems very likely that the major emphasis of the site was on caribou hunting and salmon fishing, but other locally available resources, such as cod and harp seals, were probably also exploited.

Prior to presenting some features of the site, a few comments should be made on the excavation strategy. Excavations were done following many of the same procedures used in excavations in Greenland today, with four important exceptions, that prevent several types of analyses; flakes were collected by structure (including the midden area in front of the dwelling features), only fully intact and well-defined lithic artefacts were piece-plotted, very few observations were recorded on the stratigraphy, and no sieving was done of the excavated material. Field notes of the excavations reveal that most structures were covered by an approx. 5 cm thick vegetation-layer, under which a 5-10 cm layer of wind deposited sand rested directly on the occupation layer. Most parts of the site are well preserved with only minor areas towards the coastline showing geoturbation and some disturbance of the western part of the site, caused by peat cutting for smoke-ovens.

Structure A (Appelt and Pind 1996: Figure 10.4) is the easternmost of the excavated dwelling structures. It consists of an oval to square area, about 5.5 m x 5 m, with the periphery formed by head-sized stones (Figure 3). The ground plan seems to be close to the original layout of the dwelling structure, with only few stones lying out of their original position. At the centre of the dwelling, an approx. 200 cm x 80 cm axial feature divides the structure in three parts. Twelve stones in two rows raised on the edge outline the axial feature. In between the rows, the southern end of the floor is covered by five stoneslabs, while the northern end was filled with a mixture of fire-cracked rocks and some charcoal. A large rock fills out most of the space between the southern end of the axial feature and the back wall, and the excavators suggest that the

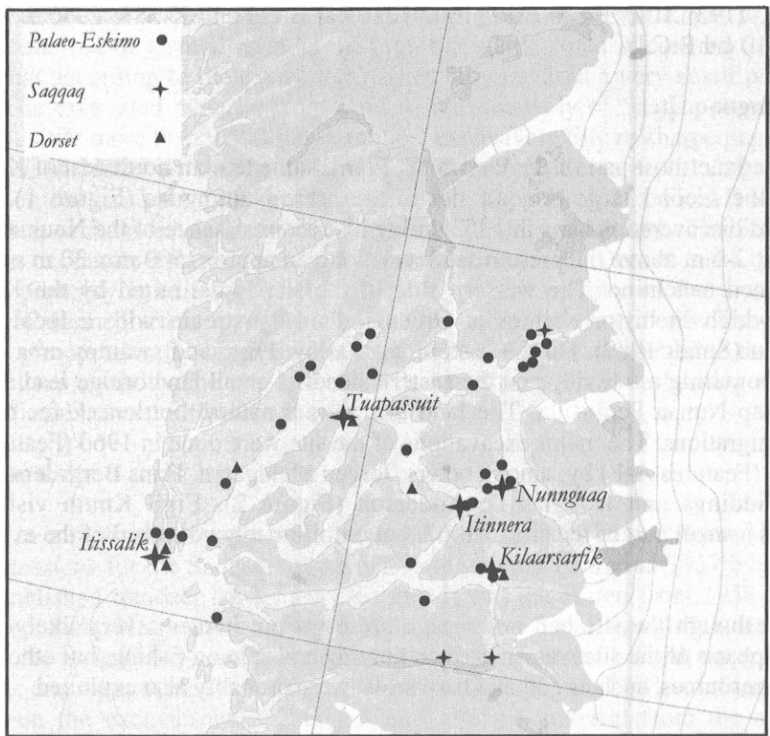


Figure 1. Palaeo-Eskimo sites in the Nuuk area

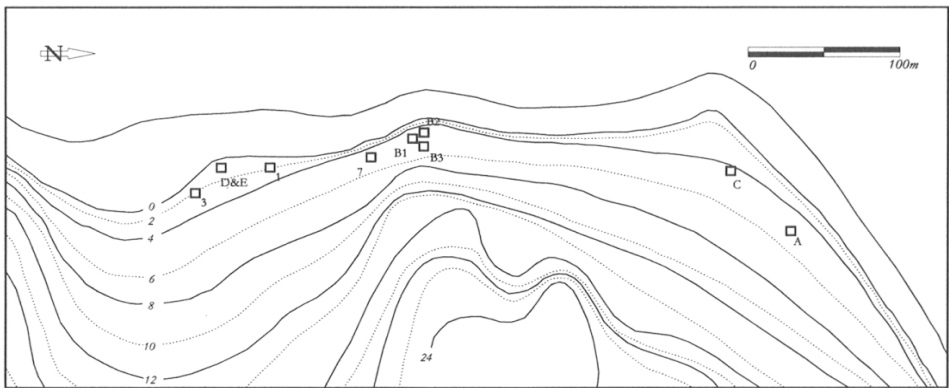


Figure 2. The Nunnguaq site (after Appelt and Pind 1996)

rock should be considered part of the axial feature. A few scattered stoneslabs were found in between the supposed entrance in the northern wall (towards the coastline) and the axial feature, and may have been part of an entrance flagging. A line of smaller stones on the eastern side of the axial feature may be interpreted as the remains of a platform edge, thus leaving an empty area in between the 120 cm wide platform and the axial feature. According to one of the excavator's diary (Hans Berg) the excavation revealed three hearths, but unfortunately the position of the hearth inside the axial feature cannot be seen on the plan drawing. The midden area connected to Structure A covered at least 16 m², from the entrance of the dwelling towards the coastline. The number of lithic artefacts and fragments thereof is 321 of which 252 are flakes or flake fragments.

Structure B1 (Appelt and Pind 1996: Figure 10.3) is located on the central part of the site and characterised by a very heavy periphery demarking an oval living area about 600 cm x 420 cm. The periphery consists of a double row of large rocks, which according to the excavators had a turf-like substance in between. A break in the periphery suggests that the entrance to the structure was facing the coastline (west). The central part of the dwelling contained a box-hearth (60-80 cm across) of which three sides were delimited by four upright stoneslabs, and containing a concentration of fire-cracked stones. A small area with flagging on the backside of the box-hearth may have been a platform connected to the hearth. From the entrance area towards the coast, the remains of a large midden was found. Structure B1 was the last of three structures having been in the area. Little remained of the two first dwellings as stones from these dwellings had been used to construct structure B1, the two other structures only being visible as oval concentrations of lithic artefact materials. The find material from structure B1 and midden included 1,374 whole and fragmented artefacts of which 1,184 are flakes.

Little information is available on *Structures D* and *E*, due to Eigil Knuth's unregistered excavations in 1962. Judging by the plan drawings done by the 1963 excavation team, the two dwelling structures were square to oval, some 4-5 m in diameter, and placed closely together. Very few of the stones that formed the periphery of structure D remained when the drawing was done in 1963, while a sufficient number of stones remains from Structure E to suggest that the periphery was made by a single line of stones (Figure 4). Remains of a central box-hearth, about 60 cm x 40 cm, were excavated in Structure D and contained a number of fire-cracked rocks. As with Structures B1 and 1, the box-hearth seems to have been three-sided, with the fourth side being left open. If the open side of the hearth is towards the entrance, then the entrance would have been in the northern side of the periphery, *i.e.* not facing the coastline. This suggestion is supported by the location of the midden area on the northern side of Structure D. Nothing is known about possible internal features from Structure E. Judging by the midden area found on the western side of the structure (towards the coast), the entrance to the dwelling may have been towards west. If these interpretations are correct it seems likely that the two structures were actually used at the same time. In Structure D and the connected midden area some 1,251 whole and fragmented artefacts were excavated, of these 1,162 are flakes.



Figure 3. Nuunnguaq: Structure A (photo by Hans Berg)

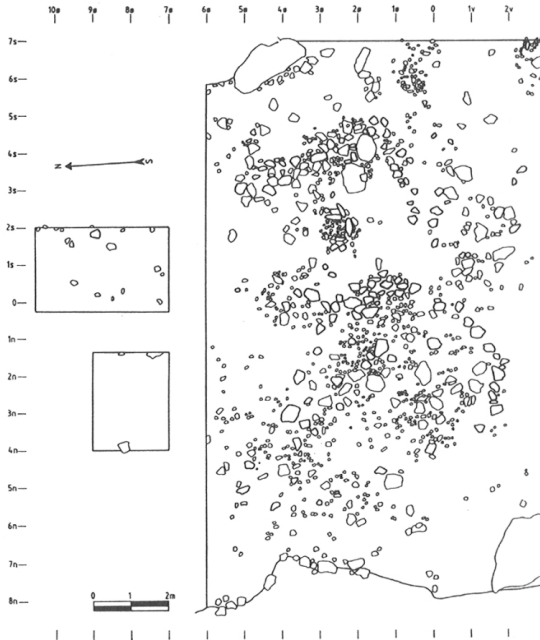


Figure 4. Nuunnguaq: Structures D and E (drawing by Hans Berg)

Only few illustrations and none of the field notes on the structures excavated in 1960 have been available to the present author. Therefore the only remarks that can be made on the 1960 structures is that Structure 1 looks like something in between Structures A and B1; with a periphery defined by a single line of rocks and a three-sided box-hearth that may have been part of an axial-feature containing fire-cracked rocks. According to Jørgen Meldgaard (pers. comm. 1996), the occupation layer in Structure 1 was different from the other excavated structures by being built-up of thin occupation layers and thin layers of windblown sand, indicating that the structure may have been re-occupied several times. The lithic assemblage from Structure 1 contains 1,299 artefacts, of which 1,162 are flakes. Two drawings of the hearths from Structures 3 and 7 suggest that they both had box-hearths similar to the above-mentioned structures.

A description of the major artefact categories and lithic raw materials from each house is given in Appelt and Pind (1996). I will therefore restrict myself to a small schematic discussion on the variability between each assemblage (see Table 1).

Table 1. Artefact inventories from Nunnguaq

	Structure 1	Structure A	Structure B1	Structure D	Structure E
Type of structure	Single lined periphery and box-hearth (mid-passage?)	Single lined periphery and mid-passage	Double lined periphery and box-hearth	Single lined periphery (?) and box-hearth	Single lined periphery and ?
Number of artefacts	187	69	190	95	29
Number of artefact categories	17	11	16	11	7
Number of flakes	1,112	252	1,184	1,162	662
Ratio artefacts to flakes	1:6	1:3.5	1:6	1:12	1:23

The location of Nunnguaq suggests that the site was established to take advantage of the area's rich salmon and caribou populations. Neither excavations nor the general outline of the site provide any direct evidence as to whether any of the structures were used contemporaneously or not. On the basis of available information, it can only be said that Structures B1 to B3 were probably not contemporaneous, while Structures D and E may have been used at the same time. By combining the architectural evidence and the composition of the lithic inventory, the following can be suggested:

- *Structure 1* was re-occupied several times and most probably used for longer periods of times, as the lithic assemblage is rather large, almost every formal artefact class is found in connection to the structure, and both primary and secondary lithic productions took place on the site.
- *Structure A* may be the product of a relatively short-lived occupation, as judged by the small amounts of lithic material, primarily focused on activities including production and reshafting of arrow points, as well as activities involving a heavy emphasis on the use of burins (Appelt 1995).
- As with *Structure 1*, the occupation of *Structure B1* may have taken place during relatively long periods of the year. As judged by the extraordinary solidity of the wall-line and the presence of large amounts of fire-cracked stones, the occupation most likely included wintertime.

If the double wall-line and fire-cracked stones are diagnostic of winter occupation, Structures 1, A and D may have been cold season, but not winter, dwellings (due to the presence of fire-cracked rocks, but lack of double wall-line). One may furthermore suggest that the three last mentioned structures were used one or several times during autumn, as judged by the relatively large amounts of arrow points, and low frequency of harpoon endblades (Appelt 1995). All and all, the evidence suggests that even though the site may cover as much as 12,000 m², it should not be considered a "large" site. It was probably developed by several independent visits, at different times of the year and of variable lengths.

A single radiocarbon date (Ka-6079) was run on charcoal (of locally growing *Juniperus communis* and *Betula nana*) from the hearth of *Structure 1*. In conventional years, the charcoal dates the use of *Structure 1* to 3530 ± 60 B.P (1940-1740 cal B.C.).

The Tuopassuit site

The Tuopassuit site is situated in a small bay facing south on the northwestern "corner" of Bjørneø, about halfway between the outer coast and the inland ice-cap (Figure 5). The site is located on five raised beach-ridges and was found in 1963 by Hans Berg and Jens Rosing, when excavating at Nuunguaq. Jens Rosing (pers. comm. 2002) estimates that the site consists of more than 100 hearth features, which could be seen as large stones protruding a thin vegetation cover, distributed over an area of more than 25,000 m². In 1963, Berg and Rosing made test pits directly into 10 of the hearth features revealing a few artefacts of Saqqaq provenience. In 1968, the National Museum returned to the site and Hans Christian Gulløv and Jørgen Ilkjær excavated some 388 m², uncovering 12 of the hearth features (Figure 6).

Gulløv and Ilkjær (1968) suggest that all the hearths are of the same general type, but variously preserved. The type includes one or two stoneslabs, some 30 cm in diameter, surrounded by a number of head-sized stones on edge. The two most well-preserved hearth features can be characterised as actual "box-hearths," of which one seems to have been part of an actual axial feature ("mid-passage") (Figure 7). Inside the



Figure 5. The Tuapassuit site (photo by Hans Christian Gulløv)

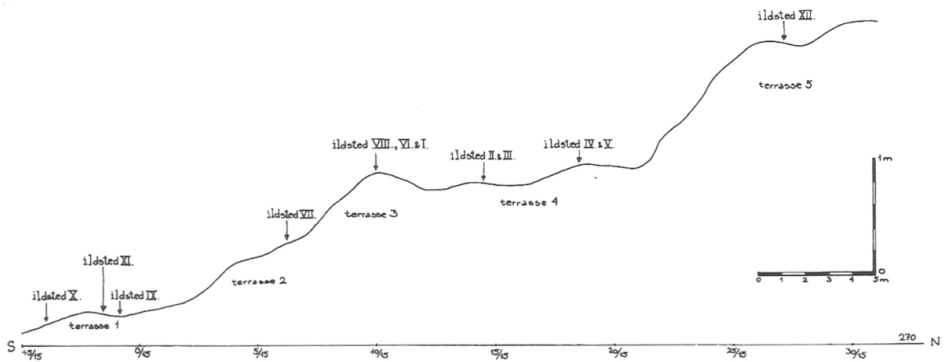


Figure 6. Tuapassuit, coastal profiles (drawing by Hans Christian Gulløv). Ildsted means "hearth".

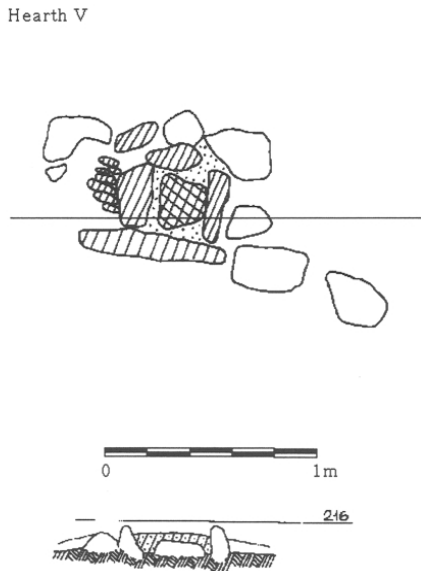
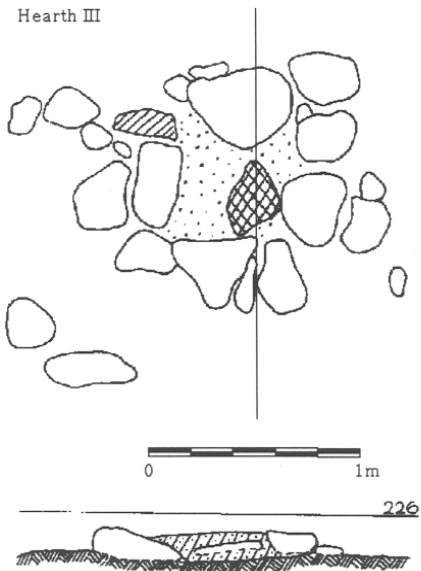


Figure 7. Tuapassuit, hearths III and V (drawing by Hans Christian Gulløv)

box are found a heavy layer of charcoal, and ash mixed with sand. In or on this layer, most hearths have fist-sized fire-cracked rocks (between 20 and 90). No archaeologically recognisable periphery was found connected to the hearth features, with the exception of a crescent-shaped band of dark soil a couple of metres from one of the hearths that may be the remains of a wind-screen. The total number of artefacts from the excavations is 108 lithic pieces, of which 77 are flakes, almost equally divided between rock crystal and killiaq (silicified slate) (Gulløv and Kapel 1988).

A single radiocarbon date (K-1537), from Hearth Feature 4, was run on locally growing wood (*Salix sp.* and *Betula sp.*) giving a date of 3620 ± 100 B.P. (2140-1700 cal B.C.), thus confirming a Saqqaq affiliation, as suggested by the few artefacts found.

Two major obstacles present themselves if we are to understand the function of the Tuapassuit site. It is difficult to assess how many of the hearths were used contemporaneously, and the lack of fauna preservation makes it difficult, on purely archaeological grounds, to suggest a possible seasonality for the site. The economy and function of the site therefore are more of a qualified guess than based on empirical data. The general impression though, is that even if the stones in only two of the hearth features were not knocked over, there does not seem to have been much scavenging of stones in between the hearths. This suggests that several of the hearths were used at the same time.

Looking at the architecture of the hearths, several observations may be of importance: they are box-hearths; all constructed around a "bottom" stone slab most often fire-cracked; they all contained heavily fire-cracked rocks; and the fire-cracked rocks were found in a layer of sand mixed with charcoal and ash, with no traces of lipid substances. When combining these observations with the fact that very few artefacts were found in connection to the hearths, as well as the lack of any substantial peripheries, it can be suggested that they each represent a very short occupation episode (Olsen 1998). One may furthermore suggest that the production of "transportable heat-packages" (the fire-cracked rocks) was central to the activities at the site. Indeed, the practical function of the box-hearths is to ensure relatively high levels of heat (by fast heating the transportable rocks), and a long lasting heat-production (by convection heat since both the transportable stones and the stone in the hearth itself would have been slow in releasing warmth again) (Odgaard 2001). Another important observation is that all of the transportable stones, as well as the stoneslabs at the bottom of the hearths, have been heavily affected by heating, which indicates repeated use of both the hearths and the stones. The next question is, of course, what kinds of activities are connected to this type of heat-production. Had the box-hearths been connected to well-defined peripheries like at the Nuunnguaq site (where cooking was confirmed by the presence of burnt lipid substances on much of the material), they would have been obvious solutions to daily needs for cooking and heating the dwellings.

Summing up these considerations, the Tuapassuit site may have been a short-term gathering site focusing on some specialised activity that involved an intense use of a particular kind of heat-production. Looking at the artefact material from the site does not give any hints as to what this activity might have been, since the few artefacts are

of no particular type. The lack of solid peripheries around the hearths and the very sparse artefact assemblage probably indicate that the site was used during the summertime on the way to other sites. Early 20th century information on a nearby winter site suggests that in summer and autumn, people from the area moved north and northwest either to hunt harp seal or ringed seal some 25 km from Tuapassuit, or went inland for caribou hunting and trout fishing (Gulløv 1983).

Discussion

When looking at the excavated Palaeo-Eskimo sites in the Godthåb Fjord, it is striking that three out of five (Nunnguaq, Itinnera and Kilaarsarfik) are found at the innermost parts of the fjord, at places that also in historic times have been caribou hunting areas or "gateways" to large caribou hunting areas. As suggested by the fact that the animals at Itinnera (the only site with organic preservation) were brought back intact, the three mentioned sites may have been in actual caribou hunting areas. However, it seems likely that the Tuapassuit site may have been located more in an "entrance-way"-like position. One may furthermore speculate about the variable use of the sites as a result of the well-known fluctuations in caribou populations (Meldgaard 1986), and/or a variable size of the inland areas through the Saqqaq period, as suggested by various models on the position of the inland ice-cap that at least in the Disko Bay may have been as much as 20 km further inland (Weidick *et al.* 1990).

Outside the Godthåb fiord at least one site in the Maniitsoq/Sisimiut area is located at a similar position in the landscape; the Angujaartorfik site on the southern part of Søndre Strømfjord (Kapel 1996). Within an area of approximately 15,000 m² a little more than 30 Palaeo-Eskimo tent rings were found. The site is situated on a number of raised beach terraces on the northern side of a bay that marks the entrance to the large "Paradise Valley" that continues deep into what in historic times has been a very important caribou hunting area; Angujaartorfiup Nunaa (Secher *et al.* 1987). Many of the tent rings recorded at the site have heavy peripheries and some have box-hearths. Judged by the lithic material collected on the surface, the site contains a fairly large amount of material and was probably established to exploit the caribou in the vicinity of the site, as well as the trout running in the river at the head of the bay (Kapel, pers. comm. 2001).

Another Saqqaq site where caribou hunting seems to have played an important economic role is the Nipisat site (Gotfredsen 1998; Møbjerg 1999). In spite of its location on a small island on the outer coast in the Sisimiut district, caribou bones made up a substantial part of the large bone assemblage (numbering about 65,000 bones). The caribou seem to have been caught on the nearby mainland, as they were brought to the island as whole carcasses (Gotfredsen 1996, 1998). In historic times caribou are seen at the outer coast only at very high peaks of their population, while the more stable and ethnographically described hunting areas are found some 100 km inland (Grønnow *et al.* 1983). The excavations (approx. 200 m²) revealed one dwelling feature with a centrally placed three-sided box-hearth filled with fire-cracked rocks and a box-hearth without periphery. The dwelling's periphery was formed by a single line of rocks

(Møbjerg 1998). Fauna analyses from the site suggest that it was used from June to September.

When summarising the information from the various Saqqaq sites mentioned, there seems to exist a group of very large sites, 15,000 m² or more. While these sites probably were all oriented towards caribou hunting and have their large scale in common, their use cannot be described as being uniform. Hence, although Itinnera may have been a very large caribou hunting camp, the diversity of the structures, and the size and composition of the lithic assemblages from Nuunnguaq reveals a more diversified picture. The Tuapassuit site is difficult to interpret, but the architectural uniformity together with the limited artefact assemblages do suggest that the hearths result from a short occupational episode during the warm season use of the site, for the same activities. Given these lines of arguments, I suggest that Tuapassuit should be considered one of the few Palaeo-Eskimo gathering sites so far located in Greenland. Specifically, the location of Tuapassuit indicates that the Palaeo-Eskimo settlement pattern of the Godthåb Fjord may have been somewhat different from Inuit use of the area, in that gathering sites first and foremost seem to have been located at the outer coast or further inland in historic times (Egede 1925a). One problem with this interpretation is that we know far too little about the Palaeo-Eskimo use of the outer coastal areas since only parts of one site (Itissalik) have been excavated.

Most Arctic archaeologists probably imagine a system of mobility involving periodic aggregations as a prerequisite for sustaining a viable social organisation. If the present interpretation of Tuapassuit is correct, the site may be the first solid archaeological evidence for the existence of actual gathering sites in the Saqqaq period. Having thus established a possible presence of gathering sites in the Early Palaeo-Eskimo period one may begin to speculate on their possible role in relation to issues such as: patterns of mobility, long-distance exchange of raw materials, and Early Palaeo-Eskimo social organisation.

Generally, our knowledge on Palaeo-Eskimo gathering sites from Greenland is from sites far apart in time and space, such as the Independence II/Early Dorset site Cap Saint Jacques at Île de France in North-east Greenland (Jensen 2000) and the Late Dorset megalith sites in Inglefield Land in North-west Greenland (Appelt and Gulløv 1999). When comparing Tuapassuit with the latter two sites, one is more stricken by their differences than their similarities, both with regards to their layout and architecture, which points to the importance of investigating gathering sites in their specific ecological and historic contexts. The different content of the sites attests to the different social, economic or ideological emphases of the groups involved. Hence, during the Saqqaq period of West Greenland, the long-distance movement of lithic raw materials, such as killiaq and agate from the Disko Bay (Jensen *et al.* 1997) indirectly suggests that their exchange may have been important at some of the gathering sites, as evident from their high proportion (50-75%) in lithic assemblages from the Nuuk area (Gulløv and Kapel 1988: Figure 4), some 800 km from the quarries as the crow flies.

Returning to Tuapassuit, one may wonder about the particular circumstances that produced its archaeological remains, and what the dominant activity might have been at

the site. Could it be that the stones (that ended up being fire-cracked) were used for heating a lightly built and temporary structure, like a "sweat-lodge," in connection with Saqqaq groups gathering and "cleaning" themselves prior to moving from the sea to the inland? Even though this suggestion is purely speculative, a land-sea dichotomy does not seem to be foreign to the Palaeo-Eskimo tradition. Maxwell (1985: 165-166) suggested that the lack of needles from Dorset late-summer to early-fall sites on Baffin Island is most readily explained as expressing taboos separating activities relating to land mammals and sea mammals. Similarly McGhee (1977) suggests that a land-sea dichotomy may be seen in the inventories of some early Thule sites.

An alternative explanation is of course that the hearths were used for some outdoor cooking activity of something that did not produce grease while being cooked, as has for instance been suggested for the Saqqaq trout fishing and caribou hunting site Orpissooq in the south-eastern part of Disko Bay (Hansen and Jensen 1991; Jensen 1998).

While no solid archaeological "evidence" or formal analogy has been established for the interpretation of the Tuapassuit site, it is the hope of the author that these suggestions may inspire further reflections along these lines.

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