

Palaeoeskimo dwellings in Greenland: A survey Les habitations paléoesquimaudes du Groenland: une synthèse

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Résumé de l'article

Au Groenland, les habitations paléoesquimaudes sont principalement concentrées au nord et au nord-est de l'île. On en retrouve quelques-unes au sud-est, à l'ouest (de Nuuk à la baie de Disko) et au nord-ouest (Inglefield Land et Washington Land). Durant l'ensemble de la période du Paléoesquimaude, on remarque la présence d'aménagements axiaux dans les habitations. Au Paléoesquimaude ancien (Saqqaquien et Indépendancien I), le foyer, en forme de boîte, se situe à l'intérieur de deux rangées parallèles faites de dalles ou de blocs. Les pierres pour la cuisson et/ou l'ébullition sont courantes durant le Saqqaquien puis se rarifient au Dorsétien. Au cours du Saqqaquien récent, on observe un changement dans le style des habitations avec l'intégration de plateformes de couchage, tel qu'illustré dans la région de Disko Bay. Durant l'Indépendancien II, les bordures externes de l'aménagement axial s'étendent souvent vers le devant de l'habitation et peuvent avoir des "ailes" à une ou aux deux extrémités. Le Dorsétien ancien n'est recensé qu'au nord-ouest du Groenland où on a répertorié, dans la région d'Inglefield Land, au moins quatre types d'habitations dont certaines plus substantielles comportaient un aménagement axial bien défini.

Palaeoeskimo dwellings in Greenland: A survey

Claus Andreasen*

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Au Groenland, les habitations paléoesquimaudes sont principalement concentrées au nord et au nord-est de l'île. On en retrouve quelques-unes au sud-est, à l'ouest (de Nuuk à la baie de Disko) et au nord-ouest (Inglefield Land et Washington Land). Durant l'ensemble de la période du Paléoesquimau, on remarque la présence d'aménagements axiaux dans les habitations. Au Paléoesquimau ancien (Saqqauien et Indépendancien I), le foyer, en forme de boîte, se situe à l'intérieur de deux rangées parallèles faites de dalles ou de blocs. Les pierres pour la cuisson et/ou l'ébullition sont courantes durant le Saqqauien puis se rarifient au Dorsétien. Au cours du Saqqauien récent, on observe un changement dans le style des habitations avec l'intégration de plateformes de couchage, tel qu'illustré dans la région de Disko Bay. Durant l'Indépendancien II, les bordures externes de l'aménagement axial s'étendent souvent vers le devant de l'habitation et peuvent avoir des "ailes" à une ou aux deux extrémités. Le Dorsétien ancien n'est recensé qu'au nord-ouest du Groenland où on a répertorié, dans la région d'Inglefield Land, au moins quatre types d'habitations dont certaines plus substantielles comportaient un aménagement axial bien défini.

Abstract: Palaeoeskimo dwellings in Greenland: A survey

In Greenland, Palaeoeskimo dwellings are mostly concentrated in the north and northeast parts of the island. Some are found in the southeast, in the west (from Nuuk to Disko Bay), and in the northwest (Inglefield Land and Washington Land). During the entire period, Palaeoeskimo dwellings show an emphasis on an axial element. In the Early Palaeoeskimo period (Saqqaq and Independence I) the fireplace is a separate square box inside two parallel rows of flags or boulders. Cooking and/or seething stones are common during Saqqaq and rare in Dorset. In Late Saqqaq, a shift in dwelling style to a platform-like dwelling is indicated by material from the Disko Bay region. During Independence II, the external borders of the axial feature often extend towards the front of the dwelling and may display "wings" at one or both ends. Late Dorset is only found in Northwest Greenland where the material from Inglefield Land documents the presence of at least four dwelling types with a clear axial element in the more substantial ruins.

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Background

The history of archaeological research in Greenland shall only briefly be reiterated here as it has been vividly described from the 1840s onwards by Jørgen Meldgaard (1996). Suffice it to say that only a few researchers were actively involved in the archaeological research in Greenland during most of the 20th century. This situation was somewhat improved when Greenland obtained Home Rule in 1979¹ and local museums were established in many Greenlandic towns. The museum boards often employed young Danish archaeologists as heads of the local museums and through the cooperation with Danish as well as Nordic, European and North American archaeologists, new fieldwork was initiated in many places. During the 1980s, fieldwork was undertaken as contract-work in connection with different industrial development projects (Andreasen 1986, 1988; Grønnow 1996b). These activities created a number of reports "on file" but few scientific publications.

In the 1990s, research initiatives funded mainly by Danish and Nordic research agencies kept a certain momentum going in archaeological research² and by the late 1990s, SILA³ took over as the main entrepreneur in Denmark together with their Greenland associates. Due to these initiatives, a number of conferences on Arctic archaeology were held in Denmark that brought out some of the — mainly — eastern Arctic research (Appelt *et al.* eds 2000; Grønnow and Pind eds 1996; Møbjerg *et al.* eds 1988). Furthermore, funding was available to publish recent and older material, resulting in a number of new publications that have been or will soon be published⁴.

As detailed accounts and drawings on dwellings are or will soon be available in the above mentioned publications, the aim of this article is to give a brief survey of Palaeoeskimo research in different parts of Greenland with a special focus on dwellings.

Palaeoeskimo archaeology

By the end of the 1950s, the presence of a Palaeoeskimo period had been established in Disko Bay (Larsen and Meldgaard 1958) and in Peary Land (Knuth 1954, 1958; Grønnow and Jensen 2003: 13-31). In the next two decades, archaeological fieldwork did not focus specifically on Palaeoeskimo archaeology. However, since the 1980s, the enthusiasm of many new local museums, the obligations of the Greenland National Museum to survey all Greenland for prehistoric sites, and better funding, brought along a substantial amount of new information on many

¹ Legal affairs relating to museums and protection of prehistoric sites were taken over by the Greenland Home Rule Authority on January 1st, 1981.

² One of these was Arneborg and Gulløv eds (1998), another was the joint Nordic "Sydostbugt Projekt" initiated by the Qasigiannuit and Aasiaat Museums.

³ SILA is the Greenland Research Centre at the Danish National Museum.

⁴ These activities are mainly due to one of several initiatives taken by SILA but others have contributed too. Among the Palaeoeskimo publications to come, some will deal with Independence II in Northeast Greenland (Andreasen and Coulson), Early and Late Saqqaq in the Sisimiut area (Gotfredsen and Møbjerg), Late Dorset in the Thule area (Appelt). Recently, Grønnow and Jensen (2003) published a detailed account of Knuth's work in North and Northeast Greenland which the present author did not have full access to when writing this article.

aspects of the Palaeoeskimo distribution and way of life of Saqqaq and Dorset populations in most of Greenland. The concepts of Independence I and Independence II⁵ in North- and Northeast Greenland are still valid, and Late Dorset settlements are still only known from Northwest Greenland⁶ (Figure 1).

From the 1980s to the present

North and East Greenland

North Greenland (*i.e.* Peary Land) is probably the best documented area due to Knuth's work (Grønnow and Jensen 2003; Jensen and Kristoffersen 2002; Knuth 1981, 1982, 1983). On the east coast of northernmost East Greenland, the outer part of Scoresbysund, the Ammassalik and the Skjoldungen areas have been surveyed and a few sites have been excavated (for regional surveys see: Andreassen 1996, 2000; Jensen 1994, 1996; Møbjerg 1986, 1988a, 1988b; Tuborg and Sandell 1999). Ruins and finds all date to Independence I or Independence II, and Saqqaq or Early Dorset.

Southwest Greenland

Except for a few Dorset finds, Palaeoeskimo sites are virtually unknown from Kap Farvel to Nuuk (Algreen Møller *et al.* 2003; Raahauge and Appelt 2002). The Nuuk area holds a large number of Saqqaq and Dorset sites (Gulløv 1983; Gulløv and Kapel 1988; Hinnerson Berglund, this volume) and a few of the rare inland Palaeoeskimo sites (Appelt and Pind 1996; Gulløv and Ilkjær 1968; Kapel 1993). Coastal sites have been located in the Maniitsoq municipality (Petersen 1988)⁷. Surveys in the Sisimiut area have yielded a large number of Palaeoeskimo sites of which some have been excavated (Gotfredsen and Møbjerg in prep.; Kramer 1996a, 1996b; Møbjerg 1997, 1999). In contrast to this coastal abundance, the interior of West Greenland, so rich in living resources and Thule culture sites, has only yielded very few traces of Palaeoeskimo occupation (Gabriel *et al.* 2002; Kapel 1996; Odgaard *et al.* 2003; Schilling 1996). Based on Meldgaard's initial work in the 1950s, Disko Bay is well known in terms of surveys and excavations (Grønnow 1990, 1994, 1996a; Grønnow and Meldgaard 1991; Hansen and Jensen 1991; Jensen 1995, 1998; Meldgaard 1983; Møbjerg 1986; Olsen 1998; Rasch and Jensen 1997). North of Disko Bay, the Ummannaq-Upernavik area has with a few exceptions not been subject to systematic surveys and little is known about Palaeoeskimo sites.

⁵ The term Independence II is very difficult to apply as the material in many ways can not be distinguished from Early Dorset in other parts of Greenland (Elling 1992). The term Independence II is inherited from Knuth and is not applied outside North and Northeast Greenland.

⁶ The presence of Late Dorset in Northeast Greenland has been assumed by Andreassen (2000: 87), but this is doubtful.

⁷ Especially during recent surveys by Joel Berglund *et al.* for the Greenland National Museum and Archives.



Figure 1. Map of Greenland with important names mentioned in the text

Northwest Greenland

A large number of Palaeoeskimo sites from Early Palaeoeskimo to Late Dorset have been mapped in the Thule District (Diklev and Madsen 1992). This was followed by a regional survey and excavations on Late Dorset sites in Hatherton Bay, Inglefield Land, in 1996-1997 (Appelt and Gulløv eds 1999). The same periods are present on Washington Land but in much smaller quantity (Andreasen 2000; Andreasen and Lange 2000). Hall Land has a few Independence I and Late Dorset sites (Grønnow and Jensen 2003: 48-49).

Regional analyses of settlement patterns and types have been undertaken in Disko Bay and Ammassalik (Møbjerg 1986; Olsen 1998), in Nuuk (Gulløv and Kapel 1988; Appelt, this volume), in the Scoresbysund area (Tuborg and Sandell 1999: 137-144), to some extent in Peary Land (Knuth 1967a: 209-211; Knuth 1967b: 60-62) and in greater detail by Grønnow and Jensen (2003: 328-339).

By 2003, major parts of Greenland had been surveyed but some areas need to be re-surveyed and others are almost *terra incognita* in terms of Palaeoeskimo settlement or land use: from Clavering Ø to Jameson Land and the inner parts of Scoresbysund in East Greenland, major parts of the interior in Southwest and West Greenland, most of the area from Ummannaq to Kap York, and the North Greenland fjords and coasts from Hall Land to Peary Land/Jørgen Brønlund Fjord.

Dwellings of the Early Palaeoeskimo period: Independence I and Saqqaq

Independence I dwellings

The high visibility of features and Knuth's persistent work in Peary Land has given the most comprehensive and detailed Palaeoeskimo material from one region in Greenland. When summarising his work, Knuth identified a handful of dwelling types in Independence I and II (Knuth 1967a, 1967b). Knuth did comment on some of the variability seen among the Independence dwellings, but focused on one distinct house form: the "elliptical double platform dwelling." It is described as a stone build midpassage with a separate box-fireplace inside the two parallel walls, normally built by flags and circumscribed by a periphery. This axial arrangement left two elliptical formed floor areas on either side of the midpassage. The floor is levelled somewhat by scraping aside the upper rough layer of the gravel. The periphery is made of gravel, stones or a combination of both (Knuth 1954: 371) (Figure 2). It was Knuth's impression that these well constructed stone build midpassages most likely reflected a winter residence. He suggested that "circular hearth tent rings" — with single, centrally placed square hearth — should be perceived as wintertime dwellings (*ibid.*). He also remarked that flagging or pavements on the interior floors are rare, that a cache sometimes is built on the inner or outer side of the periphery, and that the midpassage is normally built at a right angle to the coast-line, whether it is a lake, the sea or a river.

Later investigation has shown that in Peary Land another interior layout was also used during the Independence I period. A fine example was excavated on the Adam C. Knuth Site in Frigg Fjord in 2001 (Figure 3). The dwelling had a central fireplace surrounded on three sides by a kind of platform and an open space on the fourth side towards the entrance (Jensen and Pedersen 2002). This kind of "platform dwelling" is not among the dwelling types defined by Knuth but they do seem to be present at other Peary Land settlements. The term "platform dwelling" should not be understood as a new type as it has already been suggested for the layout of a dwelling found in Disko Bay (Olsen 1998; see below).

Midpassages — most with a stone periphery — and isolated square hearths with fire-cracked seething and/or cooking stones have been found along the northern part of the Northeast Coast but neither in quantities nor in a quality like the remains from Peary Land (Andreasen 1996, 2000). Knuth's southernmost finds of Independence I material is from Zackenberg in Young Sound at ca. 74° N (Knuth 1952), where a recent survey has recorded more Independence I sites (Andreasen and Sørensen 2003).

Saqqaq dwellings

Although a relatively large number of Palaeoeskimo dwellings have been found along the West Coast, few have been published in detail. By analogy to the Peary Land material, the term midpassage is also used in West Greenland but it is becoming increasingly obvious that no clear definition of this term has ever been developed (Olsen 1998: 103). In general, most dwellings seem to be of round to elliptical shape delineated by a low gravel wall or a loose aggregation of stones with a centrally placed fireplace or a box-shaped hearth. At Tuapassuit (Nuuk Fjord region), a large site with more than 100 hearths (a few inside a midpassage-like feature) is situated along the raised beach terraces. Some twenty of these were excavated (Gulløv and Kapel 1988; Appelt, this volume).

No sites match Qeqertasussuk in south eastern Disko Bay which is unique due to the rich organic material from the deep, frozen, stratified midden and the well-preserved material from the midden and the structures. Qeqertasussuk is situated on a saddle-formed promontory, a tombolo, with a number of midpassages and box hearths filled with fire-cracked rocks on the upper parts of the wind-swept saddle. Below this barren part of the site were the extensive midden area and some deeply buried structures. In the words of one of the excavators, the midpassage dwellings could be described as follows: "Along the sides of A8 (a midpassage) the surface was covered with a compact layer of birch brushwood and heather. On either side of this small floor a slightly raised platform consisted of alternating layers of grass turf and heather" (Grønnow 1994: 204). Structure A8 belongs to the only known dwelling with indications that wooden tent poles were used in the construction of the superstructure as parts of wooden stakes were found vertically situated in the turf. The use of turf and brushwood in the interior has been reported from other features in West Greenland. At Qajaa in Jakobshavn Icefjord, Meldgaard (1983, 1991) described baleen used as floor-covering in combination with turf and brushwood. The use of turf and brushwood in

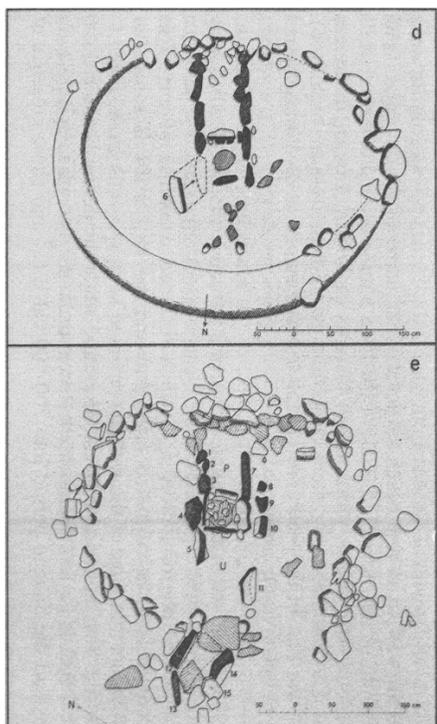


Figure 2. Independence I structures from Peary Land. Top: Deltaterraserne, ruin 11. Bottom: Gammel Strand, ruin 3 (from Knuth 1967a: 213, Plate II)

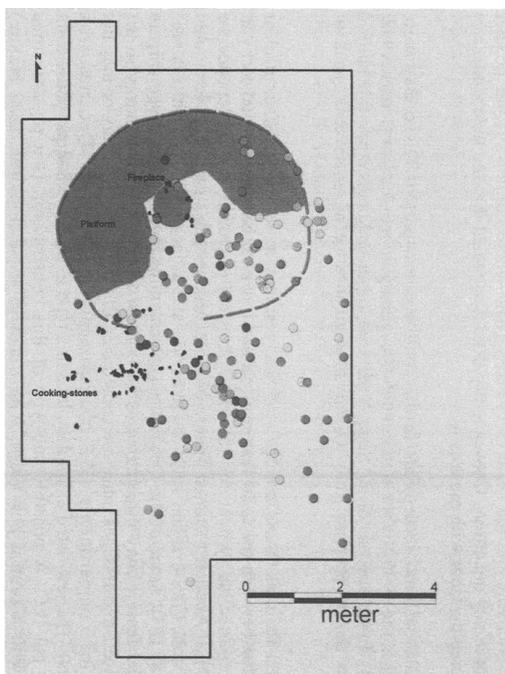


Figure 3. Independence I structure no. III, 1 at Adam C. Knuth site (adapted in English from Jensen and Pedersen 2002: 79, Figure 11)

the interior is contrary to the features in Peary Land where neither turf nor heather were present in any quantities. Consequently, Knuth assumed that the Independence I people covered the floor with muskox hides.

The Palaeoeskimo settlements in the south-western part of Disko Bay were investigated in the 1990s by the museums in Qasigiannnguit and Aasiaat (Jensen 1998; Olsen 1998). In his analysis of the Saqqaq material, Olsen indicates a possible shift in architecture during Saqqaq time. Olsen distinguishes between several types of dwellings:

1) Axial features: these are built of heavy stones and "seem to lack a clear differentiation between the axial feature itself and a central box hearth flanked by it, which is reported as typical for the High Arctic Pre-Dorset and Independence complexes. [...] Another common feature of these structures is a considerable amount of boiling stones/fire-cracked rock found inside and adjacent to the axial feature" (Olsen 1998: 103). Some of the Qeqertasussuk structures belong to this type (Figure 4). The axial feature may in some cases be built of flagstones, but contrary to the Independence I midpassages, most are constructed of boulders. They may or may not have interior compartments (2-3 compartments in the older Qeqertasussuk midpassages). The few dated examples place this type in an Early Saqqaq phase from 2500-2000 cal B.C. A possible sub-type of this construction is a regular stone periphery with a central box-hearth with traces of expansions (an axial feature) towards the tent ring in one or both sides. They may have their main occurrence between 2500-1600 cal B.C.

2) Circular or oval tent rings where the stone-lined central hearth may take different shapes are found in many places. Like the axial features, the few dated fall within 2500-1600 cal B.C.

3) The platform-dwelling is a new type identified through the Disko Bay work and described as "a dwelling with of circular floor plan and a central box hearth. Between the hearth and the wall, in an area which covers about a quarter of the floor plan, is an even platform built of flat stones [...]. Half of the floor plan is cleared of stone, while the remaining quarter contains more mixed features of boiling stones, flagstones and / or slabs. The estimated diameter of the floor is 4.5-5 m" (Olsen 1998: 106). Although turf was part of the wall construction in one case, these dwellings are not seen as being complete turf houses.

Olsen (1998) suggested that sometime between 2000 and 1700 cal B.C. there may have occurred a shift in dwelling type from the Qeqertasussuk axial feature type with a tent superstructure to platform dwellings which included more use of turf. This however still remains to be further documented and the suggestion is somewhat hampered by the fact that most of the well documented Saqqaq dwellings are dated to the first half of the Saqqaq period in West Greenland while the period between 1700 and 700-400 cal B.C. is far less documented. Recent excavations on the Nipisat site in Sisimiut do extend the Saqqaq period into 700-400 cal B.C.⁸ and show presence of

⁸ More precise dates from this period are not available due to the plateau on the calibration curve.

Early Dorset elements in a Late Saqqaq context. In the final Saqqaq phase at Nipisat, the midpassage dwelling and the box hearth have disappeared (Gotfredsen and Møbjerg in prep.).

Finally, it should be mentioned that Jensen (1998) is inclined to interpret one of Knuth's Independence I dwellings at the Memnon Site (on the east side of Warming Land, North-Greenland) as a platform-dwelling⁹. This indicates that the distinction made by Olsen may have further merits than just for the Disko Bay area and that a more meticulous study may reveal more examples.

The study undertaken by Olsen included information on the fireplaces and the fire-cracked stones associated with these. Fire-cracked stones are a common element on Saqqaq and Independence I sites. Olsen (1998: 116) suggests that sites with many individual structures and many cooking-stones are base-camps while smaller sites with few cooking stones are "special purpose camps." This aspect as well as the cosmological concept and the functional aspects of the fireplace during Palaeoeskimo times have recently been analyzed in great detail by Odgaard (2001).

Independence II dwellings

The title of this section indicates that all Greenland will be treated as one period (Independence) as the old distinction between Independence II and Dorset is regarded more as a product of research history than of archaeological analysis (Elling 1996; Jensen 1998).

Northeast and East Greenland

The Independence II period is the least known in terms of excavated dwellings since most of the latter are from North and Northeast Greenland and a few from Disko Bay. Based on the few midpassages from Peary Land, Knuth showed that "his" Independence II midpassages normally were built by slimmer flagstones than in the preceding period and that they tended to converge towards the front (*i.e.* the coastline). The fireplace is no longer a square box put into the axial feature but is simply formed by two stones or slabs across in the centre. In some cases, Knuth (1967b) noted the presence of flagstones vertically placed (that he called "wings"), and protruding from the midpassage: sometimes in the front, sometimes in the back, sometimes in both ends but only on one side, etc. (Figure 5). This special element which has not been reported outside North and Northeast Greenland is also present in Jøkelbugten, north of Dove Bugt (Andreasen and Elling 1991) (Figure 6) and on the island of Pullersuaq in front of the Humboldt Glacier, Washington Land (Andreasen 2000: 85). Amorphous flagging is often seen in front of midpassages without a periphery. The midpassage or axial feature can be circumscribed by a stone periphery, a gravel berm or a combination of the two. The floor area is normally cleared of stones and the floor itself

⁹ Jens Fog Jensen (pers. comm. 2003).

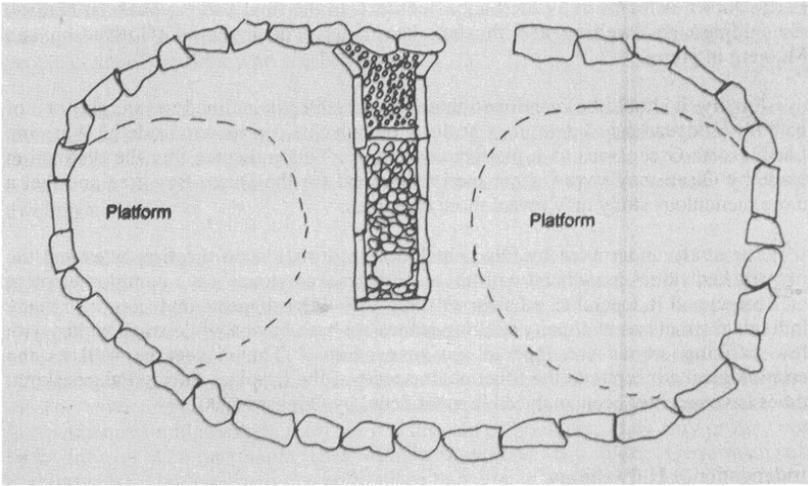


Figure 4. Saqqaq structure (A8) at Qeqertasussuk, Disko Bay (adapted in English from Grønnow and Meldgaard 1991: 17)

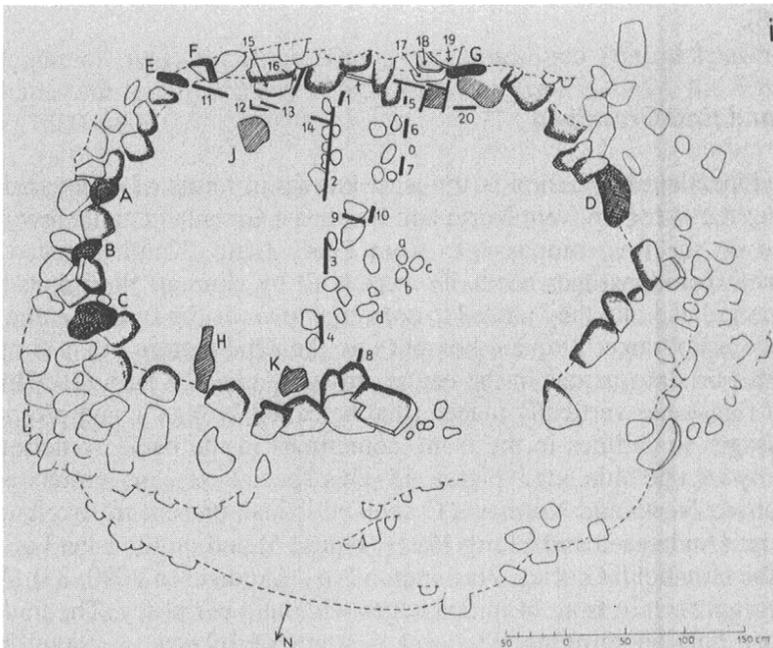


Figure 5. Independence II ruin 5 with "wings" (eastern wing formed by flagstones 11, 12 and 13), Deltaterrasserne, Peary Land (from Knuth 1967a: 215, Plate IV)

appears slightly dug down. Interior flagging occurs in a number of these ruins (Figure 7).

A few midpassage structures on Pullersuaq and Winstedt Site (Washington Land), seem to include a kind of pot-supports. Due to their context, they may be Early Dorset (Andreasen 2000: 85-86). If this is correct, it is the first known appearance in Greenland of an element otherwise associated with Late Dorset. Besides these elements, few architectural details are known from the published literature¹⁰.

The Independence II is little known in most parts of Greenland but in sheer numbers it holds probably more recorded dwellings than the previous period due to the huge site on Kap Sankt Jacques on Île de France (Northeast Greenland). The size (almost 570 features) was first observed in 1987 (Andreasen 2003; Andreasen and Elling 1991) and later documented by Knuth's visits to the island (Jensen 2000b: 202-203; Grønnow and Jensen 2003: 278-296). It is assumed that apart from some Thule features, the rest belongs to Early Dorset. Some 275 ruins are of the midpassage type built of flagstones, of flat or rounded boulders, or any kind of mixture of these. Inside, the periphery flagging is often seen on one or both floor-spaces, midpassages may have parallel walls or be contracted on the middle part (thus diverging in one or both ends); in some cases, there is no stone-built midpassage but a flagging on each side of the interior with an open space between (the axial element). In one case, two tent rings — each with a stone-built midpassage and some interior flagging — are built so close to each other that they must have formed a contemporary double dwelling (Grønnow and Jensen 2003: 290).

When discussing both small and large sites, it has often been assumed — but never documented — that all or many of the dwellings were contemporary (*e.g.*, Grønnow and Jensen 2003: 288). Recently, contemporaneity between a group of dwellings and middens has been documented on the Eigil Knuth site, Holm Land in Northeast Greenland (Andreasen and Coulson, in prep). Although the vaguely defined dwellings and their associated middens were distributed over a large area, it was possible to document through refitting analysis, technological traits and spatial distribution of raw material, that most likely at least five dwelling-midden areas were contemporary and that the site was organized with one central feature with four dwellings and their associated middens around it. The dwellings had no periphery and no stone-built midpassage, but each had a vaguely defined rectangular fireplace area marked by a few fist-sized stones within which the gravel and sand was dark, fatty and blubber-stained. In a few cases, flags were seen along the fireplace or a little away. Activity areas of almost equal size are seen on either side of the fireplace. Interior or exterior flagging was not encountered. The zoological material indicates a spring/summer occupation which fits with present-day hunting possibilities and the general impression that less well-defined features are warm-season dwellings.

One element in particular makes the Independence II features in the northernmost corner of East Greenland special. On top of the dwellings and the midden areas, a large

¹⁰ See however Grønnow and Jensen (2003) for detailed information on all ruins mapped and excavated by Knuth in North and Northeast Greenland.



Figure 6. Independence II ruin built of slender flags and with very worn-down "wings" in both ends. Flagging is seen in front of the midpassage. Amorphous flagging is often seen in front of midpassages without a periphery. Feature on unnamed island in Kofoed-Hansen Isfjord, Northeast Greenland (photo: Claus Andreasen).



Figure 7. Independence II ruin with flagged floor, Kuhn Ø, Northeast Greenland (photo: Claus Andreasen)

number of fist-sized black stones were placed, seemingly when or soon after the features were abandoned. The stones are local and only very few — if any — show signs of having been in or near an open fire. This element is not known outside the NEWland region¹¹ and so far, the idea behind this phenomenon remains unexplained (Andreassen 1997).

Recently, two new kinds of features were observed on the east coast of Wollaston Foreland. One is a triangular flagging of flat boulders with two sides almost of the same length (about 1.5-1.7 m), and the third facing the sea is a little shorter (1.2-1.4 m). Only a handful of these structures was recorded and most at the same site. None were excavated and the character of this feature remains unknown. A single find, a scraper with sharp flaring edges, dates these structures to Independence II. Another element on the same site consisted of three large oblong flat boulders set in a triangular formation¹². They seemed to be outdoor elements and of the same kind as reported from the Phalarope site, Somerset Island (Damkjar, this volume), where the suggestion is that they are a kind of pot or lamp support. The site is dated to the Transitional period with clear Independence II traits.

Finally, circular or amorphous flagging sometimes with a central scatter of fire-place debris are found on many Independence II sites.

West Greenland

Dorset dwellings from West Greenland are few and mainly restricted to the southern part of Disko Bay (Jensen 1998). Generally there is little difference between Saqqaq and Dorset dwellings. Circular to ovate tent rings with a stone periphery and a central hearth constitute one group, another is the midpassage with a stone periphery. Like in North and Northeast Greenland, the midpassage is divided into three or more compartments by stones (flags or boulders) set across between the midpassage walls. Boiling stones disappear.

A third type was found on Annertusuaqqap Nuua (Jensen 1998). This feature was described as a "5 x 2.5-3 m large paved floor area consisting of two circular to ovate flagstone pavements separated by a 2.5 x 0.7 m large unpaved floor area" and "without any definite periphery" (Jensen 1998: 66). The dwelling was partly dug into a slope and some supporting flags were stacked against the earth wall. This is the same interior layout as seen on some of the Kap Sankt Jacques features. A summary of the West Greenland dwelling styles has been published by Jensen (1998) (Figure 8), with the warning that the complicated Dorset ruins in the southern Disko Bay "[...] might also reflect that the prehistoric site variability was bigger than it appears" (Jensen 1998: 73).

¹¹ NEWland is a name often applied to this area consisting of the land areas: Amdrup Land, Holm Land and Hovgaard Ø between the northeast corner of Greenland and the huge 79-Glacier south of Hovgaard Ø. This area borders the Northeast Water-polynya (NEW-polynya), hence the name, which was first applied during international research into the NEW-polynya in 1993. For details about this program, see the 1997 special issue (vol. 10) of *Journal of Marine Systems*.

¹² These were remarked during fieldwork but unfortunately, neither drawings nor photographs were made.

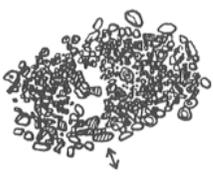
	SAQQAQ	DORSET
NO STRUCTURE ONLY LITHICS		
SIMPLE HEARTH		 Oqaatsut
STONE-BUILT HEARTH	 Orpissooq	
STONE-BUILT HEARTH + TENT RING	 Brinchip Tupegarfikuuta	 Ikkarfussuup Timaa
MID-PASSAGE WITH TENT RING	 Kannala	 Innartalik
SODHOUSE	 Niivertussannguaq	 Annertusuaqqap Nuua

Figure 8. Summary of Saqqaq and Early Dorset structures from Mid-west Greenland (from Jensen 1998: 75, Figure 13)

Late Dorset

Late Dorset structures are restricted to North West Greenland, *i.e.* Inglefield Land (Appelt *et al.* 1998; Appelt and Gulløv eds 1999; Holtved 1944), Washington Land (Andreasen and Lange 2000) and Hall Land (Grønnow and Jensen 2003: 35-36, 45-46; Knuth 1984: 84; Mathiassen 1928). The information on the two ruins from two separate sites on Hall Land are scant and the tent rings on Washington Land are similar to the Inglefield Land material where surveys and excavations have established four dwelling-types (Appelt and Gulløv eds 1999).

The winter house is dug approx. 0.5 m into the ground and with straight walls (4-5 m), which in the interior are lined with turf walls. The entrance is marked by a turf sill and oriented towards the sea. The interior is divided into three areas: a platform along one side; a working area along the other; and an open area, a "midpassage" in between. In some cases, this midpassage is a shallow ditch. In a few cases, a stone-built midpassage is seen inside these winter houses (Grønnow 1999). Pot supports can be placed in the centre of the "midpassage." The frequency of pot supports in the Late Dorset structures on Inglefield Land, and the absence of these in dated Independence II structures in North and Northeast Greenland, prompted Andreasen (2000: 85-86) to question the Early Dorset affiliation of pot supports on Washington Land. The warm season dwellings may be simple tent rings without a hearth or with an approx. one meter broad midpassage built by flagstones that include two pot supports made of broad or narrow flags with a carved semi-circle concavity at the top. There is no periphery but occasionally a gravel berm.

The midpassages are well built with great attention for details. Horizontal flags are tightly set together to establish a full covered floor in the midpassage and may be dressed in order to fit. Finally one type of dwelling, consisting of a turf wall around a quadratic floor (3.5 m x 3.5 m) with a more slender midpassage (0.7 m), is seen in a few places. These have no stone periphery.

Arctic megaliths

The most impressive element in Late Dorset is the large megalithic constructions: the long-houses and the fire-place rows often seen in the vicinity of these. The Greenland material will soon be published by M. Appelt¹³ who convincingly argues that they were probably never used as dwellings. The excavations in Hatherton Bugt of such a structure showed they were constructed with the same extraordinary attention for details as in some of the Late Dorset midpassages (Appelt and Gulløv eds 1999). Late Dorset megalithic structures are interpreted as structures which reflect a cosmology which may have been part of life throughout the Palaeoeskimo period (Gulløv and Appelt 2001).

¹³ Martin Appelt has analysed the Late Dorset period in his Ph.D. dissertation (Appelt 2003) and in a contribution to a forthcoming book on Greenland prehistory to be published in 2004.

Conclusion

The Greenland material on dwellings is quite substantial and the archival material offers possibilities for more detailed analyses than so far done. The material does show that the midpassage structure or an axial element — whether with stone-built walls or marked in other ways — is an important aspect of the architecture if not the most important element throughout the entire Palaeoeskimo period. It is also evident that some changes occurred during Late Saqqaq to Early Dorset and from Independence I to Independence II. The structure is no longer as rigid as previously and it may take several shapes. Some details may be restricted to certain regions like the converging walls and wings in North Greenland, and possibly the platform dwelling in West Greenland. The construction of the fireplace changes and the use of cooking and/or seething stones seems to be reduced in Early Dorset and Independence II. However, with the relatively few Early Dorset dwellings on the West Coast, it is unlikely that we have seen the full range of possible types, shapes and details.

Much attention has been drawn to the midpassages but in well-known areas like North Greenland, a variety of "types" or "sub-types" are seen associated with or at the same site as the well built midpassage. This is in sharp contrast with the West Coast of Greenland, where turf and vegetation hide the complexity of many features and sites. In spite of this, a vast amount of material is present for local as well as large-scale regional analysis incorporating major parts of Greenland. It should be possible to examine the relationships between dwelling styles, settlement types and patterns, with local building materials (flags, boulders, turf, cobbles, etc.), ecology, seasonality, and raw material procurement (Jensen 2000a; Jensen and Petersen 1998). Odgaard (1995) has demonstrated how detailed analysis of the fireplaces may elucidate ideological aspects of Palaeoeskimo life. Regions like Nuuk, Sisimiut-Disko Bay and North and Northeast Greenland offer possibilities to study regional patterns of settlement types in relation to migration, settling down, and expansion.

A few studies (Jensen 1994; Jensen and Pedersen 2002) have tentatively analysed the material found in the interior in relation to distribution of raw-material and/or to gender-based activities, but such studies are still too few to form the basis for any far-reaching conclusions. The character of the superstructure is unknown but in a comprehensive study on Arctic tent types based on ethnographic sources and Palaeoeskimo ruins, Odgaard (1995) indicated that the tent was probably dome shaped or built with a purlin. In regard to both tents and fireplaces, she asks for more experimental archaeology in order to better understand these crucial elements of Palaeoeskimo life, cosmology and ideology (Odgaard 1995, 2003).

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