

The Archaeology of the Thule District.

Erik Holtved; Archaeological Investigations in the Thule District I-II.

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By Therkel Mathiassen.

This new large work, a book of 492 pages, 49 plates and 109 figures in the text, makes a fresh and very important contribution to the Eskimo-archaeology of Greenland, indeed to Eskimo-archaeology on the whole.

As part of the systematic archaeological examination of the Eskimo settlement of Greenland, which I undertook on behalf of the Commission for Scientific Investigation in Greenland, commencing in the year 1929 and continuing during the years immediately following,¹⁾ it was the intention to make a thorough exploration of the Thule District as well. However, my appointment to the Prehistoric Department of the National Museum meant my bringing my work in Greenland to a close after completing the Julianehaab District investigation in 1934. But in Erik Holtved I had found a man in whose hands I could safely leave the continuation of the work. As my collaborator on my last two journeys, to Disko Bay in 1933 and Julianehaab in 1934, I had learned to know him as a skilful and painstaking excavator, and at the same time as a man of unusual qualifications for expedition life.

Accordingly, Holtved spent the two years 1935—37 in the Thule District. A preliminary report of the results of that journey appeared in *Geografisk Tidsskrift* 1938.²⁾ Holtved arrived at Thule

¹⁾ Therkel Mathiassen: Inugsuk, Medd. o. G. 77. 1930. Ancient Eskimo Settlements in the Kangâmiut Area. Ibid. 91. Nr. 1. 1931. Prehistory of the Angmagssalik Eskimos. Ibid. 92, Nr. 4. 1933. Contributions to the Archaeology of Disko Bay. Ibid. 93. Nr. 2. 1934. The Former Eskimo Settlements on Frederik VI's Coast. Ibid. 109. Nr. 2. 1936. The Eskimo Archaeology of Julianehaab District. Ibid. 118. Nr. 1. 1936. And see articles in *Geografisk Tidsskrift* 1930. A comprehensive survey in "Skrælingerne i Grønland". 1935.

²⁾ See also Holtved's book, *Polaeskimoer*. 1942.

on August 11th, and during the remainder of that first summer he worked on the excavation of ancient house ruins at the large old settlement at Ūmánaq at Thule itself. The summer of 1936 was spent on Inglefield Land north of the narrows at Smith Sound, where he excavated several ancient ruin settlements discovered by Knud Rasmussen: Inuarfigssuaq and Ruin Island in Marshall Bay, Cape Kent and Cape Russell to the north, and Aunartog to the south. The journey up there and life on the spot — far and away the most northerly site of archaeological investigations — did not proceed without difficulty; but thanks to Holtved's great store of energy and his happy knack of associating with Eskimos, he succeeded in completing the excavations, with rich results: At Inuarfigssuaq he excavated 28 ruins and two large middens, on Ruin Island six, at Cape Kent six, at Cape Russell two and at Aunartog eight house ruins; the total yield from all these was a collection about 2400 artefacts.

In the summer of 1937 he was again at Thule until he left for home on August 13th. He examined the ancient ruins there, excavating a total of 22 as well as two large middens, especially a large area of the well-known "Comer's Midden", from which Captain G. Comer and the Second Thule Expedition had recovered rich collections; by reason of its thickness and the different characters of the layers this midden proved to be of very great chronological importance. At Thule itself (Ūmánaq) Holtved dug up about 8600 artefacts.

The whole of this great collection of specimens, about 12,000 in all, was presented to the National Museum on Holtved's return.

The Thule District is a key-position in the archaeology of Greenland, and the classification and examination of such a large, systematically excavated material was likely to produce interesting new results. Nor is one disappointed in this when reading Holtved's large and richly illustrated book. It is in two parts: A descriptive part, in which ruins and finds are described at length, with many useful survey tables and a wealth of pictures; and an analytical part, in which the material is analyzed and compared and the more general conclusions arrived at. All in all, it is a model of a sober and rational handling of a great and abstruse material.

The chief result of the book is an account of the culture development in this most northwestern part of Greenland. And the conclusions arrived at are surprising, in fact to some extent sensational.

The earliest culture observable in the Thule District is the

curious Dorset culture, one which otherwise has been found only in the regions round about Hudson Strait and on Baffin Island,³⁾ a strange, foreign-looking Eskimo culture, one that is characterized by small flint blades for weapons and tools, small, slender implements of bone, and an unusual line ornamentation. At Thule we know it mostly from some middens at Inuarfigssuaq, whereas there are objects of its type scattered about in various house ruins, chiefly in Inglefield Land.

The next to appear is a phase of the Thule culture, that ancient, highly developed culture of marine-mammal hunting, occurring especially at a number of settlements in Arctic Canada. To this culture belong most of the house ruins at Inuarfigssuaq; in one of the middens there we see that the lower strata belong to Dorset, the upper ones to Thule — a factor of importance in our understanding of the relative ages of the two cultures.

Through a somewhat later phase of this Thule culture, represented by some few ruins at Inuarfigssuaq, the houses at Cape Kent and Cape Russell, the earliest houses at Thule, and the earliest part of Comer's Midden, we reach the next culture period, the Inugsuk culture, named after a mediaeval, West Greenland culture, strongly characterized by whaling, originally discovered at the settlement of Inugsuk near Upernivik. The Inugsuk culture is a direct derivative of the Thule culture, but richer than its progenitor, partly as a result of new developments, partly owing to various impulses from the outside, including the Norse culture in the southern part of West Greenland. The Inugsuk culture in the Thule region differs from that in West Greenland in that on certain points it has remained at an earlier phase; for instance, the old Thule harpoon heads with an open socket still play a large rôle, whereas in West Greenland they have been forced well into the background by the type with the closed socket. The Inugsuk period is represented by most of the houses at Thule and most of Comer's Midden. A slightly later phase is represented by other houses at Thule and the youngest part of Comer's Midden.

And then, here in the time of the Inugsuk comes a surprisingly new intrusion with the settlement on Ruin Island near Inuarfigssuaq, a culture that is more closely associated with Alaska, i.e. the latter's Penuk phase, than any other culture in Greenland and Arctic Canada. Holtved considers this Ruin Island group as a new

³⁾ I had, however, described some few Dorset elements earlier in a find made by Lauge Koch in Hall Land, still more to the north than Inglefield Land (Medd. o. G. 71. 1928).

immigration from Alaska direct across the islands in the Arctic archipelago, without touching Baffin Island and the mainland coast at Hudson Bay and the Northwest Passage, and there is scarcely any doubt that he is right. Right down at Thule in two house ruins we encounter the influence of the Ruin-Island people. The "kitchens" with an open fireplace, observed in houses of the Inugsuk culture in Thule and West Greenland, seem to originate from that invasion.

The date of this Ruin Island immigration, and simultaneously of the Thule District's Inugsuk culture, is indicated by the Norse relics most surprisingly found, not only at Thule but also on Ruin Island right up at Inglefield Land: Games pieces, a leg of a metal cooking-pot, a comb, a spoon-case, knife blade, etc. These Norse objects themselves permit of no exact dating; but at any rate they place the time to the Middle Ages, and most probably to the 14th century, when we have the Norse intrusion at Inugsuk and where, through the rune-stone at Kingigtorsuaq, we know that Norsemen must have been up in Upernivik District. Now, whether the Norsemen ever reached the Thule District (which is not entirely out of the question, even if they were never as far north as Inglefield Land), or these Norse relics got up here through the medium of barter with Eskimos living more to the south, they give us an idea of where we are in time; and this is confirmed by the close cultural association between the Inugsuk culture at Thule and Inugsuk itself. By this means we secure a fairly useful absolute date for at any rate one of the culture phases in the Thule District; and with this as his basis Holtved has set up an approximate date for the other culture periods of the district:

Dorset culture	10th century or earlier.
Thule culture	10th—12th century.
Early transitional culture	13th century.
Inugsuk culture	14th—15th century.
Ruin Island group	14th century.
Late transitional culture	16th century.
Modern Polar-Eskimo culture	19th century.

The Thule district has not produced finds from the 17th—18th century.

Holtved puts the Dorset culture to the 10th century, because Are Frode records it that when the first Norsemen came to Greenland in 985 they found evidence that the country had been inhabited by Scraelings; there is the possibility that these may have been Dorset

Eskimos⁴), though no trace of them has yet been discovered by excavation in more southerly parts of Greenland.

This then is Holtved's chronological table of the Thule District, built upon a close study of the occurrence of the various forms of implements and a cautious and sober evaluation of the chronological features; it is scarcely open to much serious criticism.

However, this chronological structure opens up much wider perspectives. On looking at a globe we find that the Thule District actually occupies a very central position within the entire Eskimo region. On the one side lies the enormous island of Greenland, and here run important migration routes across Melville Bay to West Greenland, and north about Greenland to East Greenland. On the other side lies the Canadian Arctic archipelago, whence it is possible, though difficult, to travel directly to the mouth of the Mackenzie, the distance being shorter than to Cape Farewell. Nevertheless, that route was scarcely a "highway". The great sledge trail leads from Thule across Ellesmere Land and North Devon to the north of Baffin Island, from where, travelling along the coast, one can reach Hudson Strait and Labrador, whereas the main route runs straight through the country to Iglulik and from there along the east coast of the Melville peninsula to the traffic junction of Repulse Bay, whence one trail goes south along the east coast of Hudson Bay, and another, the main route, runs west along the Northwest Passage to Mackenzie and Alaska. Accordingly the Thule District is a region through which many migrations and impulses may be assumed to have passed, and for this reason the setting up of a satisfactory chronological table there will be of wide importance.

And indeed, Holtved tries to connect the various culture groups in the other parts of the Eskimo region with the Thule table; by means of a careful analysis of these cultures' more or less obvious association with the various culture phases of the Thule District he endeavours to find out which of them comes nearest; in his comparisons he makes extensive use of statistics, the cultures being dissolved into their elements and the occurrence or non-occurrence of these elements within the Thule-District scale is tested; where these elements occur most frequently, there we shall find the nearest association of the culture in question.

⁴) All the same, we cannot be sure that they were not Thule Eskimos; there is nothing to show that the Thule culture does not go so far back and that the Dorset culture is not earlier still.

As far as Greenland is concerned the analysis does not make any great change; in West Greenland especially the chronology is already more or less established, and this and the one drawn up by Holtved support each other mutually. The sole change of any importance is that the quite small find from a group of house ruins on Igdlutalik in the Ritenbenk District, which I considered to be earlier than the Inugsuk culture, now turns to belong to an ancient branch of it.

As far as the Central Eskimo region is concerned, Holtved's method gives interesting results. For the important settlements there, Naujan at Repulse Bay, Mitimatalik and Qilalukan in northern Baffin Island, Kûk on Southampton Island, and Malerualik on King William Island, I was unable to set up an absolute chronology; it was relative only, as I considered Naujan and Malerualik to be earlier than the other three finds. On account of the considerable emergence of the land that must have taken place since the date of the settlement I estimated Naujan's age at about a thousand years, though of course this was pure guesswork; on the other hand I did not consider the latest Naujan and Qilalukan finds to be more than few centuries old. Holtved now arrives at the conclusion that the Central Thule culture can scarcely be earlier than 14th century, though perhaps the earliest houses at Kûk may go back a little into the 13th. The Naujan find itself, which I believed to be the earliest, would have its place in the 14th century and thus would be contemporary with the Greenland Inugsuk culture. I shall revert to this later, however.

In his comparisons with Thule Holtved also brings in the culture phases of Alaska, though with great circumspection on account of the great distance between them; nevertheless, the Ruin Island find demonstrates with great certainty that there was a direct connection; uncertainty sets in when an estimate is to be made of the time it took for the connection to be established. The spot on which the chronology of Alaska is based is on St. Lawrence Island in the Bering Sea, where the Americans Collins, Geist and Rainey have made extensive excavations. The earliest culture there is the "Old Bering Sea", with a curious, rich plastic ornamentation; then follows "Punuk", with a more simple line ornamentation, and finally a Thule-like culture, which is succeeded by and closely approaches the modern Alaska culture of the 19th century. Of these culture phases the one from which the Ruin Island group must have originated is undoubtedly the Punuk. If we allow a hundred years for the migration, this means that Alaska's Punuk culture is scar-

cely earlier than the 13th century; accordingly, it is probable that "Old Bering Sea" dates back to the 11th—12th century and thus would appear to be contemporary with the Thule culture on Inglefield Land. This draws Old Bering Sea well forward in time compared with the dating of the American archaeologists and at the same time makes it impossible to agree with Collins in regarding it as the origin of the eastern Thule culture; according to Holtved, Old Bering Sea and Thule seem rather to be almost contemporary, parallel phenomena, no doubt deriving from a common source. It must of course be admitted that the distance from Thule to the Bering Sea is great, and the uncertainty of the chronology grows with the distance.

Naturally, the excavations in Thule do not clear up the great problems of the origin of Eskimo cultures and the genetic relationship between the ancient groups Dorset, Thule, Old Bering Sea and Caribou Eskimos; for this we must have recourse to the archaeology of the western regions. But they reveal certain new and important features, that is if the aforesaid theories are correct. In the western regions at a certain point of time there must have been an ancient Eskimo culture with round houses and barbed harpoon heads with open sockets, a kind of "Proto-Thule Culture", the original source of Old Bering Sea on the one hand and Thule on the other; then whether the Dorset culture is a branch of the same stem, or it is due to Indian influence, is very uncertain. The position of the Caribou Eskimos, too, is uncertain; I am still of the opinion that the most natural explanation is that these Eskimos, whom Birket-Smith regards as a survival of the first Eskimos, are a group of coastal Eskimos who, enticed by the herds of caribou, were led into the Barren Grounds and there lost that side of their culture that faced towards the sea.⁵) Holtved seems to hesitate between the two theories; but of course it is a great and far-reaching problem, the solving of which is not essentially aided by his material. It is to be hoped that the large excavations in Alaska by Helge Larsen and Rainey during the last few years will throw some light on these matters.

The age of the Naujan settlement.

There is one point in Holtved's work which I should like to discuss at somewhat greater length, as he and I do not quite agree. This is the question of the age of the Naujan settlement. The

⁵) See my discussion with Birket-Smith on this question in *Geografisk Tidsskrift* 1929 and in *American Anthropologist* 1930.

Naujan find is the core of my work on the archaeology of the Central Eskimos.⁶⁾ It is the largest and, in my opinion, the earliest of the large finds of Canadian Thule culture and it represents the most original form of that culture. Now, through his comparison with conditions in the Thule District, Holtved has arrived at the conviction that Naujan is of almost the same age as Mitimatalik, Qilalukan and Kûk, though Mitimatalik and Kûk may perhaps be a little earlier, Qilalukan a trifle later than Naujan, but that in time they all more or less correspond to Thule's Inugsuk phase, which dates to the 14th—15th century, though more nearly to the earlier part of the period. I, however, am rather inclined to believe that Naujan must be bracketed together with the Thule culture in Inglefield Land, and that the same is the case with Mitimatalik, whereas Qilalukan presumably is contemporary with Thule's Inugsuk phase.

Let us see how Holtved arrives at his conclusion. He reckons with a total of 235 culture elements in the Naujan find. Of these, the following numbers occur in the various culture stages of the Thule District:

In 11th and 12th cent. alone	7	} 14
11th — 13th cent.	3	
13th cent. alone	4	
11th — 15th cent.	25	} 124
11th — 16th "	34	
11th — 19th "	34	
13th — 15th "	12	
13th — 16th "	14	
13th — 19th "	5	
14th — 15th " alone.....	24	} 39
14th — 16th "	9	
14th — 19th "	4	
16th cent. alone	2	

This accounts for 177 elements. The remaining 58 Naujan elements were not found by excavation in the Thule District. Nevertheless, 37 of them have been found elsewhere in Greenland, so that these elements must be assumed to have passed through the Thule District, and it must be merely accidental that they have not been found there. There thus remain 21 other elements which separate Naujan from the Thule District.

⁶⁾ Therkel Mathiassen: *Archaeology of the Central Eskimos I-II*. Rep. of the Fifth Thule Exped. 1921—24. Kbhvn. 1927, Bd. I, pp. 6—102.

On studying this statement it really seems as if Naujan came nearest to the culture of the 14th—15th century, as it has 39 elements in common with the later group and only 14 with the earlier one, disregarding of course the large group of common elements totalling 124.

I am inclined to think, however, that Holtved's statistical method has led to a misleading result, the reason being that he has pressed his culture elements a little too far. Naturally to some extent it is a matter of choice what one takes as a separate culture element; but Holtved has gone rather far in the use of the term "element"; indeed, on certain points I think he has gone to extremes, for instance when he reckons the same form of implement made of different materials (antler, walrus ivory, whale bone, wood, baleen, etc.) as several different elements, or when he counts toys that imitate "grown-up" implements as separate elements; I consider, too, that he has included rather too many uncertain and less characteristic forms. It is true enough that culture connections may often be read from the small features; nevertheless to my mind one ought to differentiate more between essential and inessential, even if there is always a margin for discussion as to whether a type should be included or not.

Bearing all this in mind I have gone through the Naujan find and have come to the conclusion that it contains 173 elements that are suitable for comparison with other finds. Of these, 32 were not found in the Thule District, though 13 of them have been found in other parts of Greenland; this leaves only 19 elements not known to have been used in Greenland (which again means in the Thule District). The other 141 elements occur in the following manner in the culture groups of the Thule district:

In 11th — 12th cent. alone	12	} 20
11th — 13th "	4	
13th cent. alone	4	
11th — 15th cent.	83	} 102
13th — 15th "	19	
14th — 15th " alone	16	
Ruin Isl. group alone	2	
Dorset group alone.....	1	

For comparison it may be added that 108 of the Thule elements occur at Qilalukan.

The latest culture groups at Thule, 16th—19th century, are not included here as they do not comprise types that are not repre-

sented in the 14th—15th century, so that they signify nothing in the present connection. Another difference from Holtved's table is that in the latter the elements from the Ruin Island group are included in the figures for the 14th—15th century, whereas in mine they are not. Ruin Island, as we have seen, represents a rich and foreign component, presumably an immigrant from the outside, directly from Alaska and avoiding the Central Eskimo region; when examining the culture connections, and thereby the time-relation between Naujan, which probably was not affected by the Ruin-Island migration, and the Thule District, we must therefore ignore such forms as were brought to the Thule District by that migration, as of course they can never be used as evidence of contact between Naujan and Thule.

The table shows that Naujan seems to be associated more with the Thule culture in Inglefield Land, 11th—13th century, especially its earlier part, than with the Inugsuk period, 14th—15th century, as apart from the 102 common elements, it has 20 elements in common with Inglefield Land (16 of them in its earlier part, 11th—12th century) and only 16 in common with Inugsuk. To all appearances this difference is not great; but in reality the 16 elements occurring in the 11th—12th century mean much more than the 16 in the 14th—15th century. The fact is that how great a chance there is of a type's occurring in a find depends very much on the size of that find. In order to demonstrate what this means in the present connection I shall list the total number of objects (identifiable artefacts) from the various culture phases in the Thule District:⁷⁾

Dorset (10th cent.)	218
Thule (early) (11th—12th cent.)	863
Thule (late) (13th cent.)	853
Inugsuk (14th—15th cent.)	2899
Ruin-Isl. group (14th cent.)	731

It will be seen that the Inugsuk phase contains three to four times as many specimens as the old Thule culture of Inglefield Land, and consequently, the chance of a type appearing through excavation must be three or four times greater in the former than in the latter; and more especially it signifies that the quantity in which a form is present means much more in the Thule group than in the Inugsuk group. In comparison it may be stated that the

⁷⁾ It would have been convenient for the reader if these figures had been given in the book; as it is, we must count them ourselves.

Naujan find contains about 2200 and Qilalukan about 1500 determinable objects.

However, the close connection between Naujan and the Thule culture of Inglefield Land becomes still more obvious when we go into detail. This is particularly clear from the *harpoon heads*, which as a rule are among the most sensitive elements and therefore about the best for proving culture relations. The following table gives the absolute numbers and the percentages of the harpoon heads of the four main groups: thin, with open and closed socket, and flat with open and closed socket, in three of the Thule District's culture phases as well as at Naujan and Qilalukan.

	Thule District						Naujan		Qilalukan	
	11-12 C.		13 C.		14-15 C.		No.	%	No.	%
	No.	%	No.	%	No.	%				
Thin, open socket	26	67	7	39	65	54	43	81	35	73
Thin, closed socket	13	33	7	39	46	39	7	13	5	11
Flat, open socket	0	0	3	17	2	2	0	0	6	12
Flat, closed socket	0	0	1	5	6	5	3	6	2	4

Only 3 harpoon heads were found at Mitimatalik, all of the first group.

According to this table Naujan comes closest to Thule's 11th—12th century too; indeed, in actual fact it represents a still earlier phase, as the true Thule harpoon head — thin with open socket — is still more predominant. Qilalukan represents a somewhat later phase; the Thule harpoons are still dominant, but a large part of them are the long barbed heads with several barbs which occur neither at Naujan nor in the Thule District, and which undoubtedly are due to a separate development in the Central Thule culture. Another important feature is that the youngest harpoon group, the flat head with an open socket, occurs in Thule's Inugsuk phase and at Qilalukan, but not at Naujan or in Inglefield Land.

There is another interesting factor in the proportions between barbed and toggle harpoons within the Thule group. Here are the figures, shown as percentages:

Harpoon heads, thin, open socket	Thule District			Central Region	
	11-12 C.	13 C.	14-15 C.	Naujan	Qilalukan ^s
Barbed	73	57	29	60	54
Toggle	27	43	71	40	46

^s) The long barbed harpoons with more than two barbs are not included in this table.

The three harpoons at Mitimatalik are barbed.

Here again Naujan comes closer to Inglefield Land's Thule culture than to the Inugsuk culture; in this case, however, we must be cautious about drawing conclusions that are too far-reaching, as the use of these two harpoon heads, no doubt designed for two different kinds of game, to some extent must depend on the numbers of these animals within the region, that is to say the factor is geographical.

Much more important from a chronological point of view is an element to which great weight is attached by both American archaeologists (Jenness, Collins) and Holtved. This is the manner in which the lashing is placed around the open socket of the harpoon head. In the earliest method the thong passes through two narrow slots, but later it is taken through two drilled holes; now and then, apparently much later, the lashing lies in a groove. In his discussion on the relative ages of the finds at Thule and in Inglefield Land Holtved utilizes these different methods, and quite justifiably, I think.

Now if we examine what the position is in this respect at Naujan and Qilalukan and in the various phases of the Thule District, we can compile the following table, with the figures shown as percentages; it comprises only the true Thule harpoon head, the thin one.

	Thule District			Central Region	
	11-12 C.	13 C.	14-15 C.	Naujan	Qilalukan
Slots	73	29	9	74	10
Holes	27	71	91	21	53
Grooves	0	0	0	5	37

Of the three harpoon heads from Mitimatalik at least two are slotted.

Thus there is no doubt that in this respect the harpoon heads of the Naujan find are very close to those of Inglefield Land's Thule culture, and at the same time Qilalukan is nearest the Inugsuk phase, 14th—15th century.

Another feature that associates Naujan's harpoons with Inglefield Land is the ornamentation. The Y-ornament most frequently found on the Naujan harpoons recurs on four of those from Inuarfigssuaq, but on only one in Thule's Inugsuk phase, and on none at all at Qilalukan; the triangle ornament forward of the line hole occurs again only at Naujan and in the Thule culture of Inglefield Land, and the same is the case with the vestigial sideblade grooves,

though these have also been found on Ruin Island, freshly imported from Alaska, where these side blades are of frequent occurrence.

All in all, the harpoon heads of Naujan and the Thule culture of Inglefield Land are very similar, really astonishingly similar when we consider distance and environment; it can scarcely be explained otherwise than by concordance in time.

However, there are still more important artefact forms that are common to Naujan and Thule's 11—12th century but lacking in the Inugsuk phase; these include the remarkable knife handle consisting of two lengthwise halves lashed together round the blade, the long flensing knife, the mattock with a socket for the shaft, the winged button, etc. Holtved sets up the knife with side blades as an important feature which brings Naujan nearer the 14th—15th than the 11th—12 century; in my opinion, however, the Dorset knives in the Thule houses in Inglefield Land come closer to the Naujan knives than the Inugsuk knives with their thin blade-part and long groove. Flint implements are much more numerous at Naujan and Inglefield Land than in Thule's Inugsuk culture. Finally, there are certain negative features that are also of importance; for example, the seal-scratcher, movable lance-head, stone maul with a baleen handle, ulo with a whipping of baleen, and platform mat of baleen from Qilalukan and the Inugsuk culture, but from neither Naujan⁹⁾ nor Inglefield Land.

On the other hand, there are also differences between Naujan and Inglefield Land's Thule culture. Naujan has 19 types that have not been found in Greenland, including important forms of fairly frequent occurrence, such as the harpoon foreshaft with a hole in the side, the bird dart, toboggan, bird figures of walrus ivory,¹⁰⁾ and pottery, all of them types which in the main were not found at Qilalukan and therefore suggest the commencement of a local development at Naujan; the first two elements were found in a rather late grave at Naujan, suggesting that at any rate these two belong to the latest at Naujan.

Again, there are elements in the Thule culture of Inglefield Land which were not found at Naujan. On page 140 Holtved gives a list of types from Inuarfigssuaq which have not been met with in the Canadian Thule culture. This list, however, is capable of considerable reduction; some of the elements do actually occur

⁹⁾ The baleen shown in fig. 15, from Naujan, is very doubtful as a platform mat.

¹⁰⁾ One specimen from Ita may have been brought along by the Baffinlanders who immigrated in the 19th century.

in the Canadian Thule culture, though not all from Naujan; others belong to the Dorset culture and thus mean nothing in the present connection; others again I consider to be uncertain or not very outstanding. As the more important remaining there are the harpoon head, thin, closed socket, the blade parallel to the line hole; the swivel, the digging-stick (sometimes difficult to identify), hook-shaped thimble holder, basketry (perishes easily), comb with a hexagonal handle or a handle with convex sides, and the mica mirror.

Taking them all round, however, my opinion is that these two finds, Naujan and Inglefield Land's Thule culture, are so close together that they must be almost contemporary. This is not saying that the Thule culture in Inglefield Land was derived directly from Naujan; the special Naujan forms mentioned above do not suggest it; it is more likely that the two finds derive from one root, a Thule culture embracing the types which are common to the two groups of finds; on the other hand, the division cannot lie very far back. I consider therefore that if we put Naujan at the 11th—13th century we shall not be very far wrong; I am inclined to believe that its most recent parts extend a little farther down in time than the earliest Thule group in Inglefield Land, perhaps contemporaneously with the younger find group there.

It is a peculiar circumstance that in Inglefield Land there seem to be no stone graves in connection with the settlements, whereas there are many round about the Naujan settlement; apparently there is some difference here. However, the graves at Naujan from which grave goods were recovered seem to belong to a late section of the settlement there; for example, all the harpoon heads have holes for the lashing, and several of them belong to the forms that were developed out of the type Thule 2. This means that we have no definite evidence of stone graves of the early settlement at Naujan.

Next, a few words on the position of Qilalukan. Both Mitimatilik and Malerualik on King William Island are very close to Naujan and are probably of the same period; presumably the same may be said of the earliest houses at Kûk on Southampton Island. Qilalukan, on the other hand — or at any rate the greater part of the find — is undoubtedly somewhat later. Quite a number of elements — some have already been mentioned above — associate this find with the Inugsuk phase of the Thule District, so that there is every reason for placing Qilalukan to the 14th—15th century. But the culture we find at Qilalukan is not Inugsuk; it is a develop-

ment of the Thule culture, characterized by long barbed harpoons with several barbs, and a number of other elements. Qilalukan and Thule's Inugsuk culture must be said to be parallel, contemporary, two branches on the same stem, the ancient Thule culture.

Whether the Naujan find is a couple of centuries older or younger, however, is not a matter that affects the main results in Holtved's book. These results are: 1) A demonstration that a pure Dorset culture once existed in Greenland, 2) that there was a pure Thule culture, 3) that the Inugsuk culture, and through it Norse influence, reached right up into the Thule District, 4) that the Ruin Islanders immigrated direct from Alaska, and finally, 5) the mutual ages of these culture groups and their absolute chronology. With these results Holtved has created a chronological backbone for all Eskimo archaeology that will always be of permanent value.

As far as the archaeology of Greenland is concerned, it means that we now know better what to look for when seeking for traces of the Eskimos who were in West Greenland before the Norsemen; in all probability they were the bearers of the Dorset culture. Many of the stone implements of that culture have been found in West Greenland; but as many of them were absorbed into the later Inugsuk culture, we cannot be certain that they are earlier than that culture. At several places in West Greenland (and actually in East Greenland too) very old-looking house ruins have been found which, on excavation, contained nothing; I recollect very ancient groups of houses at Itsarnisarmiut in the Tingmiarmiut region, and Sermitsiarmiut in the Anoritoq region, both in southeastern Greenland. It is possible that in some of the houses at such places we have the mysterious Eskimo traces found by the first Norsemen when they came to Greenland.
