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CONTRIBUTIONS TO THE ARCHAEOLOGY OF DISKO BAY

BY

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WITH 75 FIGURES IN THE TEXT AND 13 PLATES

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I. INTRODUCTION

Disko Bay, which lies on the northern part of the West Coast of Greenland, is the classical region for the study of Greenland antiquities. It is from these parts that the majority of the Eskimo stone implements which have found their way to many European museums during the nineteenth century have come. This is the region that produced the great Pfaff collection, got together in Jakobshavn during a residence of more than twenty years in Greenland by the Danish physician C. G. F. Pfaff, a collection now in the Stockholm Ethnographical Museum. It was essentially on material from Disko Bay that Professor O. Solberg wrote his "Beiträge zu Vorgeschichte der Osteskimo", which for many years was fundamental in Eskimo archaeology. This rich hunting area, especially the regions round about the two largest ice fjords in West Greenland, Jakobshavn and Torssukátak, has obviously provided sustenance for a relatively dense population from earliest times to our day, and consequently it was just the place to make a study of the development in culture that has taken place in West Greenland.

My excavations in 1929 in Upernivik district (Inugsuk), and in 1930 in Sukkertoppen district (Kangâmiut area) having given a preliminary idea of matters on the northern and southern west coast respectively, the natural consequence was to make a systematic examination of Disko Bay. Apart from some small excavations made by Thomas Thomsen, in 1909, and excavations at Sermermiut, extending over a period of years by M. P. Porsild (not published), no systematic excavation had been made there. The material on which Solberg built his studies is museum material, collected by laymen and therefore accompanied by only very defective particulars concerning the conditions under which they were found. Scattered finds from Disko Bay have also been published by Nordenskiöld[1]), Porsild[2]), Birket-Smith[3]), and Thomsen[4]), but

[1]) 1885.
[2]) 1915.
[3]) 1924.
[4]) 1928.

no attempt had been made at arranging the specimens in chronological order for the purpose of arriving at some understanding of the development through which the culture has passed. This was the principal object of the investigation I made in 1933 with the support of the Commission for the Scientific Investigation of Greenland. In particular, my object was to discover how far back the settlement extended; in other words, to trace the earliest house ruins in the area. Next, the chronology of the Greenland types on which I had commenced with my two previous papers was to be extended, expecially with regard to the stone implements, of which a number had been found during the two previous investigations, but which here, in or near the basalt region, from which the best stone material came, would presumably occur in much greater numbers.

My expedition set out on the 24th of May on the m. s. "Disko". Mr. Erik Holtved accompanied me as my assistant, having acquired much experience in excavating on two previous Greenland expeditions (in 1931 with Dr. Knud Rasmussen in Lindenow Fjord, in 1932 with Dr. Poul Nørlund in Julianehaab district), and was thus able to give me much valuable help. On the 11th of June the "Disko" arrived at Godhavn.

During the week commencing with the 14th of June I reconnoitred the area, whereafter most of the ruined sites in Jakobshavn and Christianshaab district, between Ikamiut in the south and Atâ in the north, were visited. In the period from 22nd June to the 1st of August we were excavating on the island of Igdlutalik, high up in Atâ Sound, just south of the ice fjord Torssukátak. Other ruined sites in the vicinity were visited on small excursions from there. On 1st August we went by motorboat from Igdlutalik southwards about Arveprindsens Ejland to Ritenbenk, and on northwards to the outpost Qeqertaq, visiting several ruins on the way. At Qeqertaq we excavated from August 4th to 6th, but moved the following day to the adjacent large ruined settlement of Igdlorssuit, where we worked until August 25th; on August 14th—15th I was on a motorboat trip in Sarqaq, visiting several ruins on the way. On September 1st we travelled by the "Disko" from Ritenbenk southwards; while in Jakobshavn we surveyed the Sermermiut settlement. After calling at Egedesminde, Holstensborg, Sukkertoppen and Godthaab we arrived in Copenhagen on September 24th.

In all, we were at 50 settlements with a total of 185 house ruins, viz. 20 settlements with 45 ruins in Christianshaab district, 13 with 53 ruins in Jakobshavn, and 17 with 86 ruins in Ritenbenk district. At Igdlutalik we excavated ten ruins and 360 square metres of midden; 36 graves were also examined; these excavations produced 2713 specimens in addition to 55 skeletons (of which many were defective) and a number

of animal bones. At Qeqertaq we excavated about twenty square metres of midden and found 288 specimens. Finally, at Igdlorssuit 18 ruins and 72 square metres of midden, and we also examined eight graves; the result was 766 specimens and the remains of eight skeletons.

All these artefacts are now in the National Museum in Copenhagen, the animal bones in the University Zoological Museum, and the human bones in the University Museum of Normal Anatomy.

II. RUINED SETTLEMENTS IN DISKO BAY

Nature, History and Present Habitation of the Region.

As our area of investigation we chose the inner part of Disko Bay between Sydostbugten and Sarqaq, an elongated area stretching from lat. 68°30′ to 70° N, from long. 50° to 52° W. (Pl. 11); it comprises the districts of Christianshaab and Jakobshavn, and the southeast, most densely populated half of Ritenbenk district. The outer part of the bay, which comes under the districts of Egedesminde and Godhavn, was not examined; the limited time at our disposal made it necessary to set these boundaries. The northwest part of Ritenbenk district, which comprises both shores of Vaigat, was not examined either.

Topographically this region is a primitive rock land of medium height, considerably cut up by valleys, fjords and sounds. The land is lowest round about Sydostbugten, where wide plains of clay and sand reach out to the coasts, whereas only on the southeast do the hills exceed 300 metres. The country south of the ice fjord of Jakobshavn has peaks of 5—600 metres, and northwards from the ice fjord they increase to 6—700 metres; indeed, in Arveprindsens Ejland and near the ice cap some of them reach more than 800 metres. On the whole, the country has the character of a plateau, as the nearest mountains are more or less of equal height. Nowhere in this country are there any local glaciers, but the smooth white surface of the ice cap can be seen in the background everywhere, rising steadily to considerable heights. Five very productive glaciers extend from the ice cap down into the sea: on the south Jakobshavn's Glacier, one of the most productive glaciers in Greenland, which continuously fills Jakobshavn's great ice fjord with large and small icebergs. Then, on the north in Atâ Sound, two large glaciers, of which the most southerly one, at Eqe, is the least productive; on the other hand the two glaciers in Torssukátak ice fjord are very active and often fill this large fjord with bergs right out to the mouth.

North of Torssukátak the heights rise in towards the interior, where the terrain becomes mountainous with peaks of more than a thousand

metres and many local glaciers. A little north of Sarqaq the primitive rock ceases and is replaced by the basalt land with coal-bearing formations of the Nûgssuaq Peninsula.

The sea is always full of icebergs; no other region in Greenland has bergs in such numbers and of such size; the ice fjord and the iceberg shoal at Jakobshavn are especially famous. Sydostbugten, however, is relatively free of icebergs owing to the currents.

Sydostbugten and the fjords, especially the great Tasiusaq, a branch of Jakobshavn's ice fjord, usually have good flat winter ice from November almost till May; round the outer parts of the coast conditions are more uncertain and irregular. As a rule Jakobshavn's ice fjord freezes over during several periods every winter, but the ice is frequently broken up by the calving of the glaciers. Atâ Sound is often frozen over, but cut up by the currents, so that the principal sledge routes there have to turn inland. Both Torssukátak and the outer coast north of Ritenbenk to Sarqaq are usually frozen, but the ice is not especially reliable.

The climate is more stable than in most other parts of West Greenland; the proximity of the inland ice and the considerable distance from the open sea exert their influence here. Both summer and winter the weather is mostly calm and clear, the huge quantities of ice have a cooling effect upon the summer temperature. Jakobshavn, which lies almost in the middle of the area, has a mean temperature for July of $+7^1/_2°$, for February $\div 20°$, for the whole year $\div 6°$. The average rainfall is about 220 mm, and mostly is precipitated in the autumn months, which have the most unsettled and windy weather. The prevailing winds are from the east; the rainfall comes with south and southwest winds; the violent Føhn gales come from the southeast. The dark winter period lasts from five to seven weeks.

The vegetation is the usual in North Greenland; it is most luxuriant towards the south, in Sydostbugten, where, here and there, is high willow bush. Crowberry and bilberry grow everywhere; at Christianshaab there are many whortleberries. As a rule there is no lack of heather for fuel.

Fauna. Terrestrial animals are of no great importance in this area. There are caribou in the southern part of Christianshaab district and on Nûgssuaq Peninsula north of Qeqertaq, but in no great numbers. Foxes are fairly numerous in Sydostbugten, but not otherwise. There are hares and ptarmigan everywhere.

On the other hand marine animals are plentiful. The harp seal comes in spring in large numbers, and again in autumn. All the year round there are fjord seal in quantities, especially round about the large ice fjords. Bearded seal and bladder-nose seal are met with now and then, the latter especially at Rodebay. In Ritenbenk district there

are some walruses, especially to the north, and here and there white whales occur in large schools; there are narwhals at Torssukátak.

There are many sea fowl; it is true that the eider duck has fallen off in numbers, but gulls, tern and guillemot are very plentiful, often on high bird cliffs such as Agpat, which has given the colony of Ritenbenk its Greenland name, and Naujat at Torssukátak.

Of the fishes the halibut at Jakobshavn ice fjord is particularly important; it also occurs at Torssukátak, but in smaller numbers. Sharks are very numerous everywhere. During the past few years cod have begun to come in fairly large numbers, especially on the south. The angmagssat occurs plentifully in the early summer, and salmon trout are caught in several places. Mussels, particularly blue mussels, are common everywhere.

On account of the calm summer weather there are many mosquitoes; Christianshaab district especially is notorious as one of the worst parts of Greenland.

Present Population. Throughout the whole of the area now being discussed live 1756 Greenlanders, and in addition there are 22 Danes[1]). In the southerly part, Christianshaab district, there are 630 Greenlanders, and of this total the two outposts in Sydostbugten, Ikamiut and Akugdlit have 82 and 97 respectively; the colony of Christianshaab has 142; the population is most dense to the north, near Jakobshavn ice fjord; here lies the large outpost Claushavn with 113 Greenlanders and the settlement of Nordre Huse with 139, and Eqe with 57 inhabitants.

In Jakobshavn district there are 756 Greenlanders and 14 Danes. The great majority of these people live in the colony of Jakobshavn with its two "suburbs", Pitorqeq and Igdlumiut, which together have 589 inhabitants (apart from the 14 Danes). Thus round about Jakobshavn ice fjord live a total of 911 people, or more than half of the population of the entire area.

More to the north in Jakobshavn district we have the outpost Rodebay with 93 inhabitants, and up in Atâ Sound the outpost Atâ with 54, and the settlement Arsivik with 20 people.

In the part of Ritenbenk district dealt with here live 370 people in all; of these the colony shelters 109, the outpost Qeqertaq 71, the settlements Nûgâq and Ikorfat 29 and 19 respectively, and the outpost Sarqaq 142.

In former times the profitable sealing was the cause of the dense

[1]) This figure is up to 1st January 1933.

population round about Jakobshavn's ice fjord, but it is the good halibut fishing on the iceberg shoal that has created modern Jakobshavn, the largest settlement in North Greenland; the settlement south of the ice fjord also benefits from it.

Ritenbenk and Christianshaab are small colonies, where a large number of the Greenland population are in the service of the Administration. The settlements in Sydostbugten, in Atâ Sound, around Torssukátak and Sarqaq are still sealing places where the population lives mostly on the seal, in summer hunting it in their kayaks, in winter with nets. Shark fishing is also of some importance, whereas it is only in the north that caribou hunting is of any significance in the two months that comprise the season.

The population is growing steadily. For purposes of comparison with the figures given above the numbers of Greenland inhabitants in 1915 will be shown below:

	1915	1933
Ikamiut	82	82
Akugdlit	93	97
Christianshaab	93	142
Claushavn	100	113
Nordre Huse	91	139
Eqe	33	57
Jakobshavn	368	589
Rodebay	127	93
Atâ	59	54
Arsivik	18	20
Ritenbenk	129	109
Qeqertaq	67	71
Igdlorssuit	14	—
Nûgâq	38	29
Naujat	12	—
Ikorfat	22	19
Akúnaq	21	—
Sarqaq	170	142
Totals...	1537	1756

It will be observed that there has been a movement among the population down towards the ice fjord, where Jakobshavn alone has had an increase of more than two hundred. The movement from the northern settlements to some extent may also be due to the establishment of the mining town of Qutdligssat in the north of Vajgat, a locality which in 1933 had 217 inhabitants.

These people's production may be illustrated by the trade lists for 1932:

	Seal Blubber Bbl.	Liver Bbl.	Fox Skins.	Seal Skins.	Halibut Bbl.	Cod Tons
Christianshaab District .	364	794	147	—	8	68
Jakobshavn District . . .	473	806	86	451	960	—
Ritenbenk District[1]) . . .	654	219	74	1276	—	—

History. The following is a brief summary of the history of the area, taken principally from H. Ostermann in "Grønland"[2]).

Apart from the accounts in the sagas concerning the land in the north visited by the Norsemen on their summer excursions (it has proved impossible to identify these places), these regions are mentioned for the first time in the literature by Feykes Haan in his description of the Dutch whaling in Greenland in 1720. He names several localities in Sydostbugten, "Vire Bay" (Christianshaab Bay), "Maklykout" (Jakobshavn Harbour), "Rodebay" and "Swarte Vogel Bay" (Ritenbenk), where there were "wild men's houses". It is thus apparent that the Dutch carried on fairly extensive whaling in Disko Bay prior to the Danish colonisation. This whaling, and simultaneous bartering with the Greenlanders, lasted throughout the greater part of the eighteenth century; nevertheless they received a serious check after the "naval battle" at Jakobshavn in 1739, when the Danes captured four Dutch ships. Still, in 1746 there were forty Dutch vessels up there, and round about 1776 there were many whalers in Disko Bay and Vajgat.

The first Danish expedition to these parts was sent out from Godthaab in 1727, and in 1734 Jakob Severin had the first colony established in Disko Bay, Christianshaab. There Poul Egede was a missionary from 1736 to 1740; in 1737 he visited Sermermiut on the north side of the ice fjord, the largest settlement he had seen in Greenland. In 1741 the lodge Claushavn was started, and in the same year a "summer mission lodge" at Jakobshavn; most of the heathens of the area, however, continued to live at Sermermiut; from 1745 Jakobshavn was inhabited in winter and gradually grew into a busy trading place. In 1752 the Christianshaab mission was moved to Claushavn, where it remained for many years; in the years 1826—29 the colony had also been transplanted there but was afterwards moved back to Christianshaab.

The colony of Ritenbenk was established in 1755 at the present Sarqaq; in 1781 it was moved to its present position for the sake of

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[1]) These figures are for the whole district.

[2]) Grønland I, p. 117, 182 and 243.

the whales, a change which had already been proposed by the merchant C. C. Dalager in 1763. The whaling industry, and sealing with nets introduced about 1770, gradually gave rise to the establishment of a number of new settlements: in 1798 the outpost Island was started in the south part of Tasiusaq, a place which was only finally abandoned in 1841. In 1783 the whaling station of Igdlutsiaq was started south of Ritenbenk, and in the same year Klokkerhuk was established as a rather large-scale whaling station; for a number of years it was very productive and was not finally deserted as a settlement until 1870.

In 1793 a net-sealing station was started in Smallesund at Torssukátak, in 1799 at Qeqertaq, in 1805 at Ana, 1806 at Itivdliarsuk, 1820 at Niaqornaq, and 1826 at Igdluluarsuk. Most of these experiments, however, were soon abandoned. Qeqertaq became an outpost in 1830, Sarqaq in 1840.

Jakobshavn's first outpost, Pâkitsoq, was started in 1832; Rodebay only became an outpost in 1877, after having been a net-sealing station in 1790. Atâ became an outpost in 1852.

Of the settlement in Sydostbugten both Ikamiut and Akugdlit were net-sealing stations from 1817 and 1797 respectively; the former became an outpost in 1848, the latter in 1856.

Ruined Settlements.

While in Disko Bay in 1933 I visited in all fifty places where there were ruins of winter houses; I considered it of importance to go to as many places as possible in order to make a survey of the archaeology of the whole area. Nevertheless, I was unable to visit all the ruins in the area in the limited time at my disposal; this applies, for instance, to the very inaccessible places up in Tasiusaq in Jakobshavn's ice fjord and in the inner part of Torssukátak. Most of the time, of course, had to be employed in the work of excavation.

The map on Pl. 11 shows all the ruined places in the area, both those which I know from personal inspection and the others about which I have acquired information along other channels. Special signatures are employed on the map for the places known to have been inhabited after the Danish colonisation (1734), those which are still inhabited, and those which have ruins of the earliest type of house. Otherwise the map has been drawn from the new topographical map issued by the Danish Geodetic Institute[1]).

[1]) A new, more modern spelling of the Greenland names has been used on this map. All the same I do not consider it reasonable now, in the middle of a series of papers, to alter the Greenland spelling. Thus the usual official spelling is employed in this paper.

A brief description will now be given of the places I visited, followed by the others. Those settlements where extensive excavations were made will be dealt with in greater detail in separate chapters.

Places visited.

Most of the places referred to below have been seen only on fleeting visits, where a sketchy drawing was made of the settlement, the various ruins were surveyed, photographs taken, and in most cases small sample excavations in order to ascertain whether there was any deep layer of refuse in front of any of the ruins. Thus it is not possible to give any extensive description and dating for each place, nor is this necessary in order to arrive at an idea of the habitation of the area throughout the ages.

Puangiarssuk. This settlement lies on a point a little to the northwest of the outpost Ikamiut on the east side of Sydostbugten. On the north side of a small cove lie two ruined houses. About 8 m above sea level is a large rectangular house, 10 × 3.5 m, with the passage in the southwest side; the walls are barely 1 m high but are thickly overgrown with a luxuriant *Alopecurus* vegetation, so that only few stones are visible; several storerooms lie round about this house, and in one of them we saw a large whale bone.

A little to the southeast of it, and about 4 m above sea level, is the other ruin, also four-sided, 7 × 4 m, thickly overgrown with grass. On the point there are also two more recent tent rings, an ancient disturbed grave, recent caches, cooking places, etc.

Puangiarssuk is not known to have been inhabited since the colonisation; as early a writer as Giesecke[1]) mentions old, long-deserted ruins here.

Ikamiut. The outpost itself is a fairly old settlement which has been regularly inhabited at any rate since 1781, and since 1848 has been an outpost. In addition, several finds of ancient relics (in the Pfaff Collection, Stockholm, for instance, a harpoon-head of the Inugsuk type and a bladder dart head with a ring of barbs) indicate early habitation here. There has been a nângíssat at this spot[2]).

At the outpost itself there are now no early ruins; but about three kilometres to the southwest there is a house ruin, four-sided, 4 × 5 m, about 6 m above sea level. The walls are about 1 m high but are thickly overgrown with grass. Outside the house passage is a midden with quantities of seal bones and broken faience and window-glass, which do not indicate any high age.

There is a fairly undisturbed grave near the ruin.

[1]) Page 427.

[2]) Porsild 1920, page 302.

Eqerqoq. On the south side of the island, rather high up (about 18 m above the sea), are two almost entirely flattened-out and thickly overgrown ruins of houses, but not with the usual luxuriance of vegetation, so that they do not stand out very conspicuously. They are rather small, measuring 5 × $3^1/_2$ and 5 × 5 m, and it is impossible to determine their shape; one has the passage on the southeast, the other on the southwest. A few almost entirely decomposed bones were found outside only one of the ruins.

The shape, size and state of preservation of these ruins would seem to say that they are of the earliest, small round type of house.

The place is not known to have been inhabited since the colonisation.

Angnertussoq. At the head of a cove in the most southwesterly corner of Sydostbugten, and lying on the south side of the mouth of a small river, are three more recent house sites with turf walls containing a few stones here and there, in height a little over one metre; the houses have not been dug down into the subsoil; two of them, however, have a sunken, stone-set passage, whereas the third is built on to one of the others. They are four-sided and rather small, the largest measuring $3^1/_2$ × 5 m; in both passages there is a cooking niche.

There is a fairly extensive midden with sherds of faience and earthenware.

This locality is known to have been inhabited in the nineteenth century.

Ikerakitsorssuit. On the south side of the island, by the sound, lies a house ruin which has been almost entirely washed away; only a few stones and turf remains are left; on the beach are scattered bones of whale, seal, caribou, and we also found a fragment of a soapstone cooking pot.

Nothing is known of its having been inhabited since the colonisation.

Sârdlat. On the northwest side of the island, so low that the sea washes the passage, is an oblong house ruin, 7 × $3^1/_2$ m, with a passage on the west; the south wall is well-preserved, set with stones, 1 m high, whereas the others are in a state of demolition and overgrown with grass. Most of the midden has been washed away; in what was left we saw many bones of seal and a worked piece of antler.

Since the colonisation this locality has apparantly not been inhabited, but a local tradition says that the house was once used by the Greenlander Qalajaq, who killed another man in order to get his wife, almost at the time when Christianshaab was founded (1734).

Tugssâq. On the east side of a small cove on the south side of the island lies the largest ruined settlement in Sydostbugten. There are in all seven ruins, as well as three old graves in rather disturbed condition.

1. An oblong, somewhat overgrown ruin, about 9 × 4 m, divided into two parts and having a passage $8^1/_2$ m long running from the east corner, its outer end bending sharply towards the north; near the end of the passage is a large stone-set cache. Outside the house, which lies about 5 m above sea level, is a steep cliff, and below it is a midden with well-preserved bones, pieces of wood, and mussel shells.

2. Lies about 20 m further towards the northeast and about 10 m above sea level. It is an almost entirely flattened ruin, 8 × 4 m, overgrown with a luxuriant carpet of grass. There does not seem to be any midden in front of the passage, which opens towards the southeast.

A grassy area between ruins 1 and 2 may also be a house site.

3. About 30 m northwest of No. 2 and 14 m above the sea is an almost completely demolished ruin, about 10 m long.

4. About 10 m northwest of No. 3 and about 15 m above sea level is a house ruin measuring about 6 × 3 m, flattened out and overgrown with dwarf willow and crowberry (no grass), so that the form cannot be distinguished.

5. About 20 m east of ruin 3 and approximately 16 m above sea level lies a flattened-out, heather-clad house site, about 5 × 4 m, with a passage running WSW.

6. Lying about 20 m northwest of No. 4 and about 18 m above the sea, is an almost completely flattened-out house site, 7 m long, with a passage running SE.; there is no grass on it, only dwarf willow and crowberry.

7. About 10 m northeast of No. 6 and 21 m above sea level is a large oblong house ruin with stone walls, thickly overgrown and 1 m high, and a passage running SE.; partly overgrown with grass.

Judging by appearances, Tugssâq seems to have house ruins of very different ages; some of them, Nos. 4 and 5(?), are presumably of the earliest, round type, whereas Nos. 1 and 7 are not particularly old.

According to Christianshaab parish records, Tugssâq was inhabited in the years from 1777 to 1783, but is not mentioned later; apparently house No. 1 at any rate dates from that period. Local tradition says that the Greenlander Qalajaq lived there before he fled to Sârdlat.

Akugdlît. The outpost Akugdlît is an ancient settlement. It is mentioned in the parish records for 1781 but was uninhabited thereafter for some years; in 1797 it became a net-sealing station; in 1805 there was only one inhabited house, with six people in it; it became an outpost in 1856.

Giesecke[1]) says that there were ruins of several old winter houses.

At one or two places within the area of this outpost there are now

[1]) p. 426.



Fig. 1. The Outpost of Akugdlit.

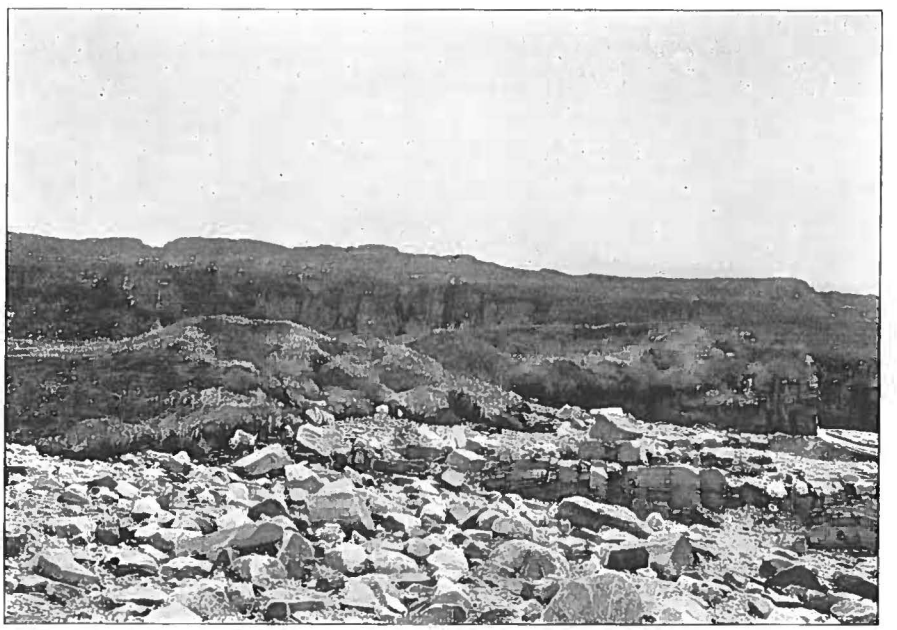

Fig. 2. Houses of Sâtut, almost washed away.

old house sites which, however, are almost unrecognisable on account of the peat digging that has been going on; in several places there are rather deep, old middens.

Sãtut. On the west side of a bay on the south side of the island are two house ruins, both so near the beach that the passage is entirely or partly washed away (Fig. 2). One seems to be a small four-sided house, about $2^1/_2 \times 3$ m; a short length of the stone rear wall is visible; the passage faces the west. The other house is larger, 7×4 m, oblong, with a rear wall 1 m high, whereas the passage, which has faced the north, and most of the front wall, have been washed away. Both houses are rather thickly overgrown with grass. The bones in the remains of the midden are almost decomposed.

The spot is not known to have been inhabited since the colonisation.

Niaqornaq. On the southeast side of the point at the entrance to the fjord Orpigsôq lie three house ruins. The most northerly, about 3 m above the sea, is a small four-sided house, 4×5 m, with a passage $4^1/_2$ m long on the SSE. side. The walls are about $^1/_2$ m high and thickly overgrown with grass. There does not seem to be much midden, but what there is contains well-preserved bones.

A little more to the south, about 4 m above sea level, is another house of the same form, $5^3/_4 \times 5^1/_2$ m; no passage is evident. The west wall has a length of turf wall to a height of 75 cm preserved. There is a rather extensive midden containing sherds of earthenware dishes.

About 45 m south of the foregoing house, right down on the beach, is a house almost washed away, only a few flat stones and turf remnants with bones being left; at high tide the water covers it entirely. This spot is known to have been inhabited in 1835 and in 1846; the two first-named houses presumably date from that period.

Igdlorssuatsiait. On a low point on the northwest side of the fjord Kangersuneq is a four-sided ruin, $4 \times 5^1/_2$ m, with a fairly well-preserved stone-set wall 1 m high and a passage running southeast; lyme-grass (*Elymus*) grows vigorously over it. The ruin lies just by the beach, and most of the midden has been washed away; in the remains of it are well-preserved bones.

In addition, the whole point is covered with tent rings, while bones are scattered everywhere.

Igdlorssuatsiait is not known to have been inhabited as a winter settlement since the colonisation.

Nîsat. On the south side of a rather low point are three house ruins. That to the north is a small four-sided house, 5×5 m, with fairly low stone-set walls; the passage, which is partly washed away,

faces the southwest. Most of the midden is gone, too. Near the house are several caches, and a little higher up there is a grave of the kind still in use. In the remains of the midden were well-preserved bones (seal, white whale), and the rounded end mounting of a kayak paddle.

About a hundred metres to the SSE. is an oblong ruin, 8 × $4^1/_2$ m, with a passage running SSE.; it lies about 1 m higher than the high-water mark, about the beach, and seems to be older than the foregoing house. There is not much midden.

Outside this house, by the beach, is a tussocky, thickly-overgrown area, about 12 m long, with a passage facing SSE.; in the midden, which is partly washed away, were several bones.

A number of tent rings were observed at this spot.

In 1805 there was one inhabited house, with sixteen people, at Nîsat; the place was still inhabited in 1811.

Christianshaab. At Bryghusbugten are the ruins dating from the first founding of the colony in 1734; in 1767 it was moved to its present position. A little to the east of the manager's house, high up above a slope, is a four-sided ruin with a rather deep midden which is slipping down; there are sherds of faience right to the bottom.

Nevertheless, some few specimens are reminiscent of fairly ancient habitation here; these include a scraper blade of stone[1]) and two connected chain links, both in the Pfaff collection.

Savik. In a little cove in the north point of the island are two ruins. On the east side is an oblong site, 6 × 4 m, with stone-set walls, thickly overgrown with lyme-grass; the house passage is washed away and the sea is breaking down the front wall.

On the west side of the cove is an almost demolished house ruin with a right-angled corner.

Between these two ruins is a large cache, and just behind the first house is a stone-paved platform, 2.5 × 3.8 m, presumably the site of a tent; near it is a similarly paved tent place, $3^1/_2$ × 5 m; presumably the marshy ground has been the cause of these tent sites being set with stones.

Nothing is known of this spot having been inhabited since the colonisation.

Rypeholm. On a small, low prominence in the narrow sound which cuts the island off from the mainland are the remains of a house ruin almost entirely washed away; thick turf remains with bones and sawn pieces of wood are all that is left. There are also two tent rings. Everything is overgrown with lyme-grass.

The place is not known to have been inhabited since the colonisation.

[1]) Figured by Solberg, Pl. 1.8.

Igdlúnguaq. In a small cove about 2 km north of Claushavn there is a rather large old settlement with five house ruins.

1. About 5 m above sea level and about 20 m from the beach lies a small, four-sided ruin, $4^1/_2 \times 5$ m, with a passage in the south-west, its outer end bending westwards. The walls are entirely overgrown with a vigorous *Alopecurus* vegetation. There is a fairly extensive midden with well-preserved bones (seal, white whale, dog).

2. Just southeast of this house, and about 1 m lower, is a ruin of the same form and state of preservation, $4^1/_2 \times 6$ m.

3. A little behind the foregoing and about 2 m higher is an oblong house, $5^1/_2 \times 3^1/_2$ m, very flattened out, with a passage facing the south-west; the grass is less luxuriant on this one.

4. North of No. 3 is an almost entirely demolished house with a thick covering of grass; apparently it is oblong, about $7^1/_2 \times 3$ m.

5. A little way behind No. 3 and about 10 m above sea level is an oblong ruin, $5 \times 3^1/_2$ m, thickly overgrown with grass.

A little south of this house is possibly another ruin, but it is so overgrown that more careful examination is necessary to decide the point.

Nearer the beach is a modern tent place.

Igdlúnguaq is not known to have been inhabited since the colonisation.

Igdlumiut. This locality is in a wide valley about 1 km south of Nordre Huse. It has four ruins:

1. A small, apparently round house, about $4^1/_2$ m in diameter, with a passage facing the south and bending westwards; the very thick growth of *Alopecurus*, however, does not indicate that it is one of the earliest type. About 10 m above sea level.

2. Just behind No. 1, an oblong house, 4×3 m, entirely overgrown; no stones were to be seen in the walls.

3. About 50 m from the beach and 20 m above sea level is a thickly grass-grown area, about 7 m long; a right-angled corner is visible; there is no obvious passage, but bones and blue mussels were seen outside. Possibly there are several houses about here.

4. Just south of the valley, among the rocks, is a four-sided ruin, 6×6 m, with fairly well-preserved stone walls; it lies 3 m above sea level but well on to the beach, so that the passage, the front wall, and most of the south wall have fallen down.

This place was inhabited from 1779 to 1812, and again in 1846; in 1793 there were two inhabited houses with fifty-two people; in 1808 still two houses with forty-two people. These two houses are apparently Nos. 1 and 4.

Nordre Huse. Right out by the beach on the south is a stretch of midden a metre thick containing many bones; in it we found a stone knife blade. South of the place is a nângíssat.

Since ancient times this spot has been an important settlement. Poul Egede says that the largest settlement south of the ice fjord was at its mouth. In 1778 most of the heathens of Claushavn were still living there, distributed between the settlements of Qaersormiut, Narssarmiut and Igdlumiut. In 1808 there were two inhabited houses and thirty-seven people at Qaersormiut, at Narssarmiut two houses and twenty inhabitants. These two places are now merged into the large settlement of Nordre Huse.

A number of relics from Claushavn are now in the National Museum and in the Pfaff Collection[1]). No doubt these objects mostly came from the old habitations at the ice fjord, where the settlement seems to have been much earlier than at Claushavn itself.

Arqutdluk. This is the name of a house ruin lying in a gully between Nordre Huse and Eqe, about 8 m above sea level. It is a large oblong ruin which, on account of its length (12 m), has had to be laid obliquely across the gully. The walls are in a bad state of collapse; a lot of turf has been taken from it. There seems to be a rather extensive midden.

Eqe. This settlement, which now has six small inhabited houses, lies at the outer end of the point facing the ice fjord. The whole area is one large midden, apparently very deep; house sites are to be seen in several places, and they have been despoiled of stones and turf. Whale bones and some strips of baleen were seen; but the frozen ground did not permit of a closer examination.

Eqe is undoubtedly a very ancient place. In 1793 there was one inhabited house with thirteen people, whereas in 1811 forty people lived there.

Sermermiut. Leaving Christianshaab district, we proceed north of the ice fiord to Jakobshavn district.

In a valley down towards the ice fiord, about 3 km southwest of Jakobshavn, lies the largest and most famous ruined locality in North Greenland, Sermermiut.

At least 22 ruins lie there, on both sides of a small ravine, and in the cliffs out towards the beach there are midden deposits of a depth up to 2 m, from which quantities of animal bones, baleen, and relics stick out everywhere. During the course of the years quantities of these relics have been collected from the beach, most of them stone objects

[1]) For instance, a harpoon head of the Thule type (fig. Greenland II, page 229, Fig. 26.1), an oval baleen cup, stone implements (fig. Solberg, Pl. 6.17 and 12.33).

which have found their way to museums, particularly the National Museum and the Ethnographical Museum in Stockholm, the Pfaff Collection; many of them have been figured by Solberg, some by various other writers.

These house ruins at Sermermiut do not give the impression of being particularly old; but as in the time of Poul Egede numbers of Greenlanders lived there[1]), most of them very likely were inhabited at that time; there is no doubt, however, that remains of much older habitations lie under them. In 1778 most of the heathens in Jakobshavn were still living at Sermermiut. In 1793 the place was uninhabited; but in 1803 we find 52 inhabitants there, and there were still some in the 1850's.

Sermermiut has repeatedly been described in the literature[2]). In 1909 Inspector Thomas Thomsen made a small excavation there; M. P. Porsild has excavated there for several years running and has a large material of relics from the locality and, until that material is published, it is not reasonable that others should work there; at our visit we therefore confined ourselves to surveying and inspecting; some specimens (including a chopping block of whalebone) were gathered on the beach, and a small basket of baleen[3]) sticking out from the lowest layer of the midden was brought home. Sermermiut, however, certainly deserves a monograph, supported upon additional extensive excavations; large parts of the midden slip down on to the beach every year and are washed away.

Avdlorafingmiut. This locality — "the people of the striding place", from a cleft in the rock — is only about half a kilometre to the west of Sermermiut in a small valley. It has five house ruins, all four-sided and overgrown with luxuriant *Alopecurus*.

1. About 7 × 5 m, with the passage facing SW.; the walls quite low. Seems to have a fairly extensive midden. Lies about 10 m above sea level.

2. About twenty metres SSE. of No. 1 and at a similar level above the sea; also has low, overgrown walls and a large midden. About 4 × 3 m.

3. Above these two, approximately 15 metres above sea level, about 7 × $5^1/_2$ m. In one corner the stones are visible in the walls. The passage, with roofing stones in position, runs out from one corner. Here, too, there seems to be a large midden.

4. Above the latter, about twenty metres above the sea. About 7 × $4^1/_4$ m; at the end is a large cache; the passage is visible only in

[1]) Poul Egede, p. 93.
[2]) Rink, Grønland II, p. 120. Solberg, p. 12. Grønland I, p. 183.
[3]) Inugsuk, Pl. 19.13.

the form of a depression, running SSW. Seems to have a large midden.

5. Lies about 100 m south of the other house group and about 12 m above the sea. Approximately 5 × 3 m; thickly overgrown; indistinct passage; some midden; but the terrain falls steeply down to the beach.

This place is not known to have been inhabited since the colonization.

Jakobshavn. Nowadays there are no old ruins at this thickly populated colony with its two "suburbs" Pitorqeq and Igdlumiut; a third suburb, Kingigtoq, out on the point running into the fjord, was inhabited until a few years ago, but is now deserted. Nevertheless, a number of old relics indicate that the place was inhabited before the Danish colonization. No doubt most of them, marked "Jakobshavn", came from the settlement at the ice fiord, but some are expressly stated to have been found at the colony, for instance a collection of 22 stone implements in the National Museum[1]). At Pitorqeq a piece of bell metal was found in a bog[2]), and a grave find from there contains a single-legged kayak stand and a three-legged sealing stool[3]).

Qarqat. At this place, which lies directly south of Nordre Næs at Jakobshavn, there is an oblong house ruin about 10 m above sea level, measuring 10 × $4^1/_2$ m, with a passage facing SW. It is thickly overgrown with grass and has low walls. There seems to be a quantity of midden.

The place does not seem to have been inhabited since colonization.

Savèrneq. On the west side of the island, at the south side of a small cove, lie two ruins. One is about 3 m above sea level and about 30 m from the beach; it is a large, oblong ruin, about 11 × $4^1/_2$ m, with the passage running WNW. Grass grows thick upon it, so that the stones in the walls cannot be seen. In front of the house is a stone cache, and also a large midden. Behind this ruin are five graves, all disturbed.

The second ruin lies just by the beach; it is oblong too, $4^1/_2$ × $3^1/_4$ m, with the passage running northwest; the walls are fairly well-preserved, 1 m high, with stones. The south wall of the house is washed by the sea.

This place was inhabited in 1857[4]).

Rodebay. On both sides of a low isthmus south of the outpost are five ruins, four on the east side and one on the west. Three of the

[1]) Acquired by the colony manager N. Thron.
[2]) Nat. Mus. La 10, brought home by Commander R. Hammer.
[3]) Fig. Birket-Smith 1924, fig. 236.
[4]) Rink, Grønland I, p. 132.

houses on the east coast lie 8 to 10 m above sea level; they are oblong, in a bad state of collapse, and covered with grass, which hides the stones in the walls; one house is 8 × 3 m, one 7 × 3, and one, that most to the east, is $4^1/_2 \times 2^1/_2$ m; all have their passage on the east side. There are fairly rich midden deposits (up to 30 cm thick) with many bones and blue mussels.

Just northwest of the uppermost of these, about 10 m above the sea, is a small round house site, approximately 4 × 3 m, with a sunk passage facing ENE.; it is very much flattened out and has not the luxuriance of grass that covers the other ruins. In front of it lies a thin midden deposit, rich in cut pieces of baleen and blue mussel shells, as well as bones here and there.

Apparently this is one of the earliest types of houses.

Above this group of houses are three graves, one of them in a good state of preservation.

On the west coast of the isthmus just near the beach is an oblong ruin, approximately $7 \times 3^1/_2$ m, thickly overgrown but with stone set walls that are easily recognisable; a wall across the middle has formed a room $2^1/_2$ m long; apparently it was built in order to make the house smaller. Most of the midden has been washed away.

It is said that there is a nângíssat at Rodebay[1]).

Rodebay was one of the principal trading places of the Dutch before the Danish colonisation[2]). It is mentioned several times as being inhabited in the eighteenth century. In 1790 it became a net-sealing place; it was only in 1877 that it actually became an outpost, but since then it has been one of the most productive in Disko Bay.

A sealing net of baleen was found in a grave there[3]).

Kangârssuk. On the north side of a small inlet in a point a little to the north of Rodebay lies a large oblong ruin, $8 \times 4^1/_2$ m, so near to the beach that the passage and most of the front wall has collapsed. The walls are thickly overgrown with lyme-grass. In the bluff is a midden deposit half a metre thick with well-preserved bones and blue mussels; we found the end of a harpoon foreshaft of whale bone which had been severed by drilling.

This spot is not known to have been inhabited since the colonisation.

Niaqornaq. On the south side of the point at the entrance to Pâkitsoq Fjord, lying on a flat plain about 7 m above sea level, are three house ruins, several tent rings and two practically undisturbed graves.

1. Is of the four-sided type, $5^1/_2 \times 4$ m, with the passage running

[1]) Porsild, 1920, Fig. 4.

[2]) On the history of this place see "Gronland", I, p. 204.

[3]) Porsild, 1915, Fig. 28.

obliquely from one corner in the direction WSW. The walls are low; there is some midden deposit with well-preserved bones.

2. Apparently oblong, approximately 8 × 3½ m, but completely overgrown with dense willow bush so that the shape is difficult to discern.

3. Nearer the beach than the other two. A small, four-sided house, 4½ × 5 m, with low distinct walls and a vigorous growth of *Elymus*. A part of the midden has been washed away; in the other part we found a large opalescent glass bead as well as sherds of faience and earthenware.

Niaqornaq is known to have been inhabited for a period round about 1850; in 1857 it had 29 inhabitants[1]).

Qilersiut. This extensive ruined settlement lies on a gentle slope down towards a small cove on the south side and near the mouth of Pâkitsoq Fjord. It contains eight house ruins and six graves, all more or less disturbed.

Highest of all, about 15 m above sea level, are three very small, apparently round houses, almost entirely flattened out and covered with willow bush (no *Alopecurus*). Two of them are quite close together so that one side wall does for both, but each has its own passage. They are 4 × 2 and 2½ × 2½ m; the third, which is 2½ m in diameter, lies a little more to the north. The bones in the middens in front of these houses were almost entirely decomposed.

About two metres lower are two other houses; one is four-sided, about 4 × 4½ m with the passage running WSW.; it is covered with thick grass. The other is a new turf house built on the site of an earlier oblong house. There are rather deep midden deposits in front of these houses.

About two metres further down is a large oblong house, 9½ × 4½ m, thickly overgrown, with distinct stone walls and luxuriant grass; this house has a very deep midden containing quantities of mussel shells. Near it, a couple of metres lower, is a new turf house built upon an old site.

Finally, a little more to the south, about 8 m above sea level, is a third new turf house also built upon an old, rather small site.

Qilersiut has been inhabited from 1902 to 1914, but otherwise not since the colonisation. This place is connected with the legend of the Greenlander Qilersiússáinaq, who is said to have given it its name; the story says that he landed on the east coast but was home-sick and returned. He was a great whaler and caught whales by stealing in upon them with his kayak when they lay on the surface, and with a knife cutting through the flukes of the tail near the root; they then fell off as soon as the whale began to move its tail.

[1]) Rink, Grønland, I, p. 132.

Pâkitsoq. On the rather extensive plain which lies two or three metres above sea level are five sites of comparatively new turf houses and a number of recent tent rings. Judging from the vegetation, there is a good deal of rubbish strewn about the place.

Pâkitsoq was inhabited throughout most of the nineteenth century until 1902; in 1832 it became an outpost, and in 1857 it had fourteen inhabitants. It is held that the settlement is detrimental to sealing in the principal lead just there; nowadays the place is most frequently visited by sealers from Rodebay.

Qitermiut. On a low point jutting out from a high cliff lie two house ruins two or three metres above sea level. Both are of the oblong type, and measure 7 × 4 and $6^1/_2$ × 4 m respectively, with overgrown walls in which a few stones can be seen; one has the passage running southwest, the other running south. There is some midden deposit at both houses. There are also three tent rings on the point.

The place is not known to have been inhabited since the colonisation.

Sagdliaruseq. About three metres above sea level, just near the beach, lies a thickly overgrown four-sided ruin, approximately $5^1/_2$ × 5 m; the walls are almost entirely covered by willow bush. The passage is partly collapsed. In the remains of the midden we saw the head of a clay pipe.

A little more to the east are possibly the remains of another larger ruin just by the beach.

The place is not known to have been inhabited since the colonisation.

Marrât. Right down by the beach is a thickly overgrown ruin, the form of which could not be discerned.

Igdluluarssiup Talerua. On the south side of the low isthmus of the point, about six metres above sea level, is an oblong ruin, 6 × 4 m, with rather low overgrown walls of turf; the passage runs southwards and turns to the southwest.

There is a rather extensive midden deposit containing well-preserved bones, while broken bottles do not indicate any great age, although nothing is known of any habitation since the colonisation.

There are also tent rings, and on the north side of the isthmus there is a nângíssat (Fig. 3), 28 m long set with twenty rather large stones.

W now leave Jakobshavn district and proceed to Ritenbenk.

Igdlutalik. This place, where we made our most extensive excavation, will be fully described in the following.

Pisigsarfik. Above a small bluff which is at present slipping, about 5 m above the level of the sea, lies a four-sided ruin, $3^1/_2$ × $4^1/_2$ m,

hidden under a thick growth of grass. Apparently the house has once been larger ($11^1/_2$ m long) but has later been made shorter and broader; in the earlier part of the house, now almost completely flattened out, four large deep stone-set caches have been built. In the bluff is a 20 cm layer of midden, in which were worked antler and whale bone, fragments of cooking pots, and a broken piece of a European iron knife blade.

A little to the east and about ten metres higher up lies a ruin which looks as if it were of the earliest type, oval, 3 × 4 m, with the passage running southwest; the walls are merely indicated as quite low mounds;



Fig. 3. Nângissat at Igdluluarssiup Talerua.

at the rear wall were two graves, but containing no skeletal parts. There seems to be no midden.

In the census lists compiled by the Inspectorate in 1795, mention is made of one inhabited house at "Pisigsarpoq" between Akúnaq and Sarqaq. As no ruined site of this name is known up here, the probability is that Pisigsarfik is the place that is meant.

Ana. About ten metres above sea level, with their passages facing west, lie three four-sided ruins in a row, $3^1/_2$ m wide and from 5 to 8 m long; a recent turf house has been built over the middle one. At the highest part of the point is the site of another house which was still inhabited in 1908.

Over a large part of the point there is a fairly thick midden deposit. On the plain there are several tent rings and caches.

In 1793 twenty-one people were living at Ana, in 1805 a Danish colonist settled there with his Greenland family.

Ilerfit. As a pendant to Igdlutalik on the west side of the same lead lies the large settlement of Ilerfit on the island of Qeqertakavsaq. It is on the south side of a point, down towards a small shallow bay. It comprises at least eight ruined houses:

1. To the west, about three metres above sea level, is a small four-sided house, 4 × 3 m, with a passage running southeast, and thickly overgrown with *Alopecurus*.

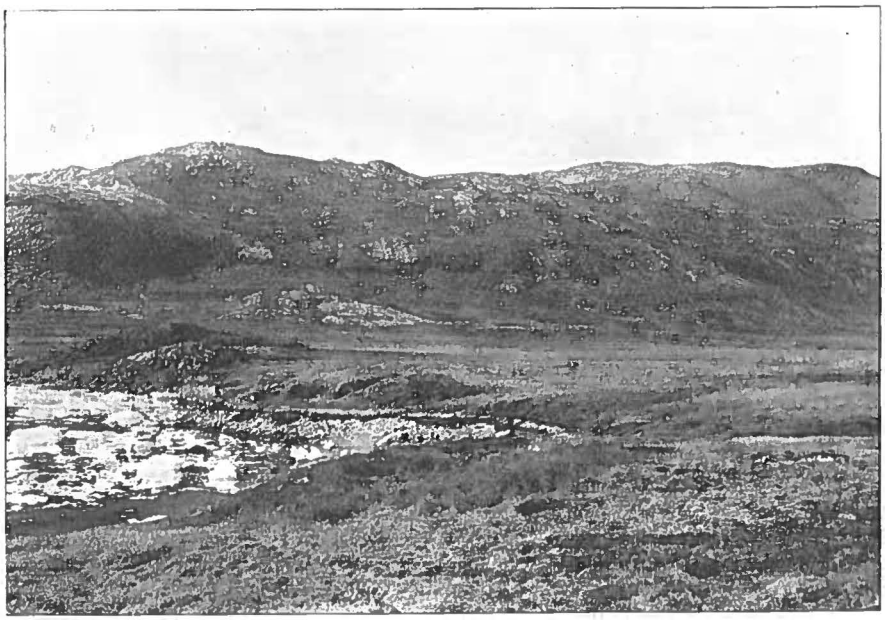

Fig. 4. The village site of Ilerfit.

2. More to the east, about two metres above sea level, is a house measuring about 6 × 4 m, thickly overgrown with lyme-grass; most of the midden has been washed away.

3. Again to the east, about three metres above the sea, is probably a small, four-sided house, 3 × 2 m, with the passage facing the west. Entirely overgrown.

4. Near No. 3 is a house, apparently 6 m long, but with a thick covering of grass.

5. Right down by the beach, presumably the remains of a house now almost washed away.

6. To the east again, a four-sided house, 5 × 3 m, three or four metres above sea level. Thickly overgrown.

7—8. Farthest east lie two four-sided houses with a common

wall between them and passages running southwest. They lie about three metres above the sea, each measures 5 × 4 m and is thickly overgrown with grass. There is half a metre of midden deposit containing many bones.

It is possible that there are other ruins round about, but no more could be distinguished with certainty.

Round about the houses were seven graves, and on the stony gravel terrain east of them were at least seventeen graves, several of which were large, well-built and undisturbed. The name of the places is not undeserved, for Ilerfit means "the graves".

Fig. 4 is the settlement of Ilerfit seen from the east.

Klokkerhuk. This large settlement lies near the south end of Arveprindsens Ejland, on a short, broad gravel isthmus connecting a rocky knoll with the land behind. It has nine house ruins:

1. Farthest north, about two metres above the sea, a small, four-sided ruin, $3^1/_2 \times 5$ m, with a straight, stone-set rear wall and a passage on the west side; in the passage is a cooking niche, and in the southeast corner a recent cache.

2. Above this one, about five metres above sea level, is a new travellers' house built upon an earlier site; iron and sawn wood are to be seen in the midden.

3. A little more to the east, about seven metres above the sea, up a cliff, is a house about $7^1/_2 \times 4$ m, square, with high stone-set walls and very luxuriant grass; outside are quantities of whale bones.

4. A little to the south, about four metres above sea level, in the middle of the isthmus, is a four-sided house, 4 × 5 m, with fairly well-preserved walls and a passage with a cooking niche in the west side.

5. By the side of this house is one of quite the same form and size. In the bluff below these houses is a midden deposit one metre thick with many stones, probably the remains of several houses.

Just south of the other ruins and near the beach is a group of three houses lying about two metres above sea level:

6. A small, rounded four-sided house, about 3 × 3 m, with the passage running southwest; the grass is anything but luxuriant.

7. A four-sided house, about 4 × 4 m, with distinct stone walls; some grass.

8. Alongside No. 7, probably a small, four-sided house.

9. About 100 m south of these, in a rather secluded position, seven or eight metres above sea level, is a four-sided ruin, 4 × 4, with the passage in the west side, thickly overgrown with grass; it has some midden.

In the very stony terrain about this ruin are at least ten graves and five caches.

In 1783 the merchant Dalager established a large whaling station here, "Logen Arveprindsens Ejland", or "Klokkerhuk"; 105 Greenlanders were living there in 1784. During the first few years the whaling went on satisfactorily, but after Dalager's death in 1799 it declined rapidly and ceased entirely in the 1830's. In 1854 Klokkerhuk became an outpost, but the population was in a wretched state, and in 1870 it was entirely abandoned as a settlement[1]).

Nûk. Lies about two kilometres north of Klokkerhuk and is part of this settlement. There are four ruins:

1. About five metres above sea level, a large, four-sided house with the passage running SSW., with luxuriant vegetation and some midden deposit (faience sherds).

2. Close by its side is a small, thickly overgrown house, the shape of which is impossible to determine, with some wall stones and the passage running SSW.

3. A little farther back, about seven metres above the sea, is an earlier house, very much overgrown and rather small; its shape cannot be discerned. There is a quantity of grass on the house, but not much midden.

4. A little more to the north, near the latter house and at the same level there is a thickly overgrown mound of earth with several deep depressions in it, apparently a house with the roof still lying there.

In the very stony terrain south of the houses are about twenty graves, all disturbed.

It would seem that the history of Nûk is the same as that of Klokkerhuk.

Ritenbenk. The colony of Ritenbenk has undoubtedly been inhabited prior to the Danish colonisation, which dates from 1781; Feykes Haan refers to "wild men's houses" at "Swarte Vogel Bay"[1]), and in the National Museum there are several old objects, including stone artefacts, from Ritenbenk. There are no old house ruins in this locality.

Niaqornaq. On the point at the entrance to Torssukátak there are, in a small bay, lying so low that the sea is washing them away, three four-sided house ruins; on the south a small turf house, then close together two houses measuring 5×4 and 4×4 m respectively, their front walls and passage washed away; lying about are remains of iron mountings and other modern things, which is not to be wondered

[1]) Grønland, I, p. 246. Rink, Grønland, I, p. 137.

[2]) Grønland, I, p. 243.

at as the spot was still inhabited in the eigteen-fifties; in the eighteen-twenties this was a net-sealing place.

Inspector Thomas Thomsen made a small excavation here in 1909, but it mostly produced more recent finds. The midden was then 1.10 m thick; apparently a large part of it has since been taken by the sea.

Nûgâq. The present settlement of Nûgâq is famous as a good place for finding Eskimo relics. H. Ostermann, for instance, writes: "evidence of the habitation of the place prior to the colonisation and very far back in time is given in numerous finds of stone implements; next after Sermermiut, this locality — and to some extent Qeqertaq — is the most productive in Greenland in this respect"[1]). Hammer, too, refers to its wealth of relics[2]).

At the National Museum there is a handsome grave find from Nûgâq, brought home by Thomsen from his journey in 1909; it contains types from the Inugsuk Culture, including a number of ornamental bodkins and a piece of cloth, apparently from the Norsemen[3]).

Accordingly Nûgâq was a place which had my attention with regard to the prospects of an excavation. Conditions, however, were unfavourable. We saw only one small, roundish ruin with a vigorous carpet of grass, but it had been partly destroyed by peat-cutting; and on the rather uneven ground on which the settlement lies there seems to be no thick, early culture deposit; the specimens are mostly found while cutting peat, scattered about the place.

Igdlorssuit and Qeqertaq, where excavations were made, will be referred to in greater detail later on.

Ikorfat. In addition to the two houses now inhabited and five recent house sites, there are three house ruins lying further away from the sea, and about 8 m above sea level:

1. On the west, a thickly overgrown ruin, apparently a house of the earliest type, with three rounded platforms-rooms; it measures about 8 × 4 m and has no *Alopecurus* vegetation.

2. Is quite like No. 1 but has two platform-rooms, $4^1/_2 \times 3$ m; neither of these two houses has a midden.

3. A large, four-sided ruin, 6 × 5 m, with a passage 5 m long; a fairly thick covering of *Alopecurus*. There is some midden with well-preserved bones and mussel shells.

In 1793 Ikorfat had one inhabited house with sixteen people;

[1]) Grønland, I p. 262.
[2]) Hammer, p. 12.
[3]) See Inugsuk, pp. 226 and 286.

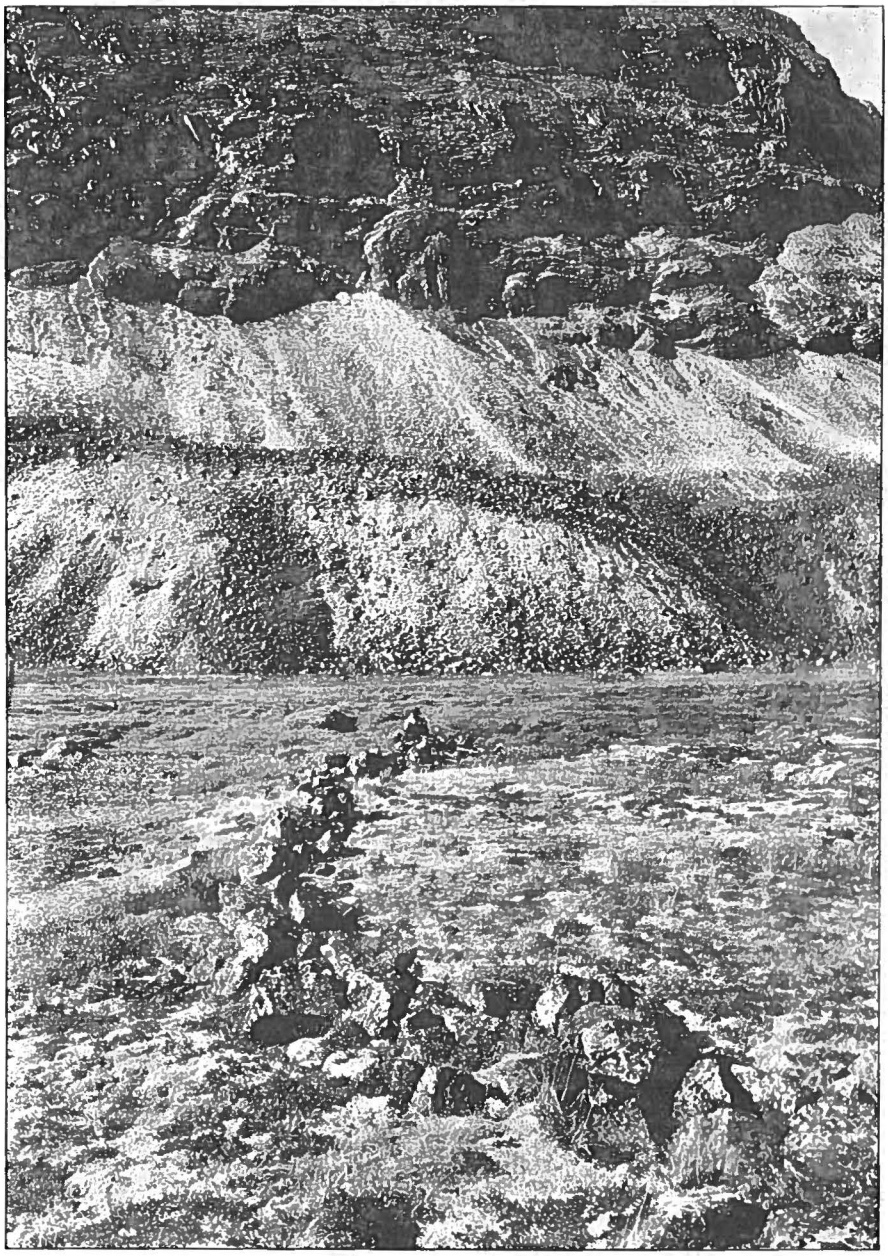

Fig. 5. Caribou fence at Saputit; upper end.



Fig. 6. Caribou fence at Saputit; lower end.

it was still inhabited in 1858, whereafter it lay deserted until the last generation[1]).

Igdlutsiaq. Lies on a point about one kilometre west of Ikorfat. A couple of metres above sea level lies a four-sided ruin with fairly distinct stone-set walls and a passage with several of the roofing stones in position. It measures about 6 × 5 m. There is a luxuriant growth of grass and a midden a metre thick with many bones, now in process of being washed away by the sea; fragments of baleen and of angmaq can be seen.

Just to the east of this house lie the remains of a ruin, apparently four-sided but now almost demolished by the sea.

Igdlutsiaq in 1793 had one inhabited house with nineteen tenants but is not mentioned later as being inhabited.

Aqajarua. On the west side of a small, round cove lies a four-sided ruin, very near to the beach; it is 5 × 4 m and its walls are well covered with grass; in the middle of the house is a perpendicular stone pillar. There is not much midden, but it has a few well-preserved bones. In Jakobshavn parish records the place "Aqusarioq" and "Arokosariarmiut" is referred to as having been inhabited in the years 1812 and 1842—57; possibly this is the same place.

Akúnaq. Besides six recent sites there are the remains of an almost washed-away, earlier house lying nearest the east. On the point on which the three westernmost houses lie there seems to be the site of an old, oblong house, 6 × 5 m, about 6 m above sea level. There is said to be a nãngíssat at Akúnaq[2]).

Akúnaq is an ancient settlement. In 1787 it had a teacher; from 1793 to 1805 it was uninhabited; in 1816 nineteen people were living there; in 1850 it was again uninhabited; since then it has been inhabited right up to 1930[3]).

A number of relics found seem to indicate much greater age than this; I acquired several stone implements which had been found there. Ancient harpoon heads and objects of stone from this locality are figured by Swenander[4]) and Solberg[5]).

Saputit. On the west side of this bay, which probably has received its name from a salmon weir in the river running into the bay, is the

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[1]) Grønland, I, p. 263.
[2]) Porsild, 1920, fig. 4.
[3]) Grønland, I, p. 263.
[4]) Figg. 6, 8, 16, 57 and 68.
[5]) Pl. 12.31.

caribou fence which Porsild has previously described[1]). It runs from the beach and extends about 600 m into the country and has two openings. It is not quite so straight as Porsild's drawing indicates. Otherwise I have nothing to add to his description, but have included two photographs to illustrate its upper and lower ends; this is probably the best preserved caribou fence in Greenland.

Niaqornârssuk. Just above the high-water mark is a foursided ruin, $5^1/_2 \times 4$ m, with a passage 4 m long; the walls are thickly overgrown with *Alopecurus*. Most of the midden is washed away.

The place is not known to have been inhabited since colonisation.

Sarqaq. Sarqaq is an old settlement; the colony of Ritenbenk was founded there in 1755, but was removed in 1782. As a settlement, however, this place is undoubtedly much older, judging from the many relics that have come from there[2]).

Nevertheless no ancient ruins are to be seen on this densely populated place. On the north side are one or two places with broken-down middens about 1 m thick containing bones and baleen.

Igdluluarsuk. At the head of a small cove 3—4 kilometres northwest of Sarqaq is a rather large settlement with eight ruins.

1. To the west, about 8 m above the sea, lies a very old, small ruin covered with willow bush, measuring about $4 \times 3^1/_2$ m, with a passage on the southeast. There is no midden. It seems to be of the earliest house type.

2. Below it, about 2 m above sea level, lies a ruin hidden under lyme-grass, seemingly at least 7 m long, but its shape is impossible to determine. Most of the midden has been washed away, and very decomposed bones could be seen in what was left of it.

3. A little more to the east, on the edge of the beach, a ruin almost washed away and with a vigorous growth of *Alopecurus*; there are well-preserved bones in the wall.

4. Again near the beach lies a mound of earth about 7 m long under a thick growth of *Alopecurus*; the front edge and the passage are washed away; in the bluff are well-preserved bones, including pieces of whale bone.

5. Just east of a brook is a thickly-overgrown ruin, foursided, 5×5 m, with stone walls; vegetation rather thin.

6—7. Lie above No. 5, about 6 m higher than sea level. This is

[1]) 1920, p. 304.

[2]) See, for instance, Porsild, 1915, figg. 11B—C, 42B and F, 47C, 51, 55A, 57B—C, 58A and D—E. Birket-Smith 1924, fig. 46.

a double house with a common wall, but each with its own passage. The rooms measure $4^1/_2 \times 5$ m. There is a luxuriant growth of grass and a large midden with sherds of faience.

8. Most to the east, with the passage facing the south, lies a small house, apparently four-sided, 5×4 m, with thickly-overgrown walls in which no stones are to be seen; grass luxuriant. About 4 m above sea level. No midden.

The place is not known to have been inhabited since the colonisation.

Places not visited.

In Sydostbugten lies the settlement of Sarpiussat, which is known to have been inhabited from 1835 to 1855; it was a net sealing place and in 1850 had fourteen inhabitants.

Nûk, on the point SW. of Christianshaab, was inhabited in the time of Poul Egede[2]); in 1793 it had forty-eight inhabitants and in 1811 people were still living there.

Two other settlements in Sydostbugten, Imerigsoq and Qeqertarmiut[3]), could not be located. The same applies to Akuliarusersuaq and Aulatsivik, which are mentioned in the Claushavn parish register as having been inhabited in 1819 and 1832 respectively.

In the large gulf of Tasiusaq inside of Claushavn, there has formerly been a rather large settlement on account of the good sealing; sealers still go there from Claushavn.

In 1797 was established to the southeast the outpost of Island (Qavdlunâp Nunâ), where the able-seaman Jens Hvass lived for twenty years. The last inhabitants, three families, fled in 1841 to Claushavn on account of famine, but all perished when crossing a lake in kayaks, which were tied together but which capsized[4]).

More to the north, near the ice fjord, lay three settlements: Inugsuk, mentioned as inhabited from 1775 and having fifty-nine inhabitants in 1793. Qajâ has been a large and ancient settlement. It was visited by A. E. Nordenskiöld on his first Greenland expedition. About this place he said that the number of houses and graves, and the depth of the middens showed that it had been inhabited for a long time; the land must have sunk since the houses were built, as the sea washed against them. It was possible to distinguish a thick round stone wall, 3—4 feet high, and 8 feet in diameter, divided into two rooms by a partition wall. A brook had cut through the midden and there a number of stone

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[1]) Rink, p. 117.
[2]) Poul Egede, p. 73.
[3]) Grønland, I, p. 117.
[4]) Grønland, II, p. 119.

implements were gathered, but no iron; an oval, pierced ornament of copper was found. There were also bones of caribou, bear, walrus, bladder-nose, bearded seal, three other seals, white whale, and gull. Relics were also found in the graves[1]). A wooden tray[2]) and a stone knife blade[3]) are figured from Qajâ.

Neither Qajâ nor Upernivik, the third settlement in the ice fjord, is known to have been inhabited since the colonisation.

In Jakobshavn district, high up in Atâ Sound, lies the large settlement of Igdluluarssuit. In 1798 it had forty-eight inhabitants. From about 1820 it was a trading post, but was deserted about 1890.

Not far from there lies Ulugssat, which is not known to have been inhabited since the colonisation.

A little to the south of Ritenbenk lies Igdlutsiaq, where in 1783 a whaling station was established, but abandoned again in 1804. On Sønderø near Ritenbenk there are also some ruins; there are several relics from there in the National Museum taken from houses and graves. According to the Greenlanders, Kangârssuk, north of Ritenbenk, has been inhabited since the colonisation. At Ikerasánguaq (Smallesund) there was an attempt at net sealing in 1793; people were living there still in 1859; there are said to be early house ruins on the south side.

In the inner part of Torssukátak lie a number of settlements which now are all deserted. Naujât, just inside of Nûgâq, has only been inhabited in recent times, from 1913. Itivdliarssuk in 1793 had eleven inhabitants and was still inhabited in 1845. In the inner part of Torssukátak lie Qeqertarssuit (several ruins), Inugsuk and Igdlúnguaq, which according to report have not been inhabited since the colonisation. We were unable to locate the ruins of Sangmissoq mentioned by Giesecke in Torssukátak[4]).

There are said to be three old ruins at Ujaqajugat, about 4 kilometres northeast of Igdluluarssuk near Sarqaq.

[1]) Nordenskiöld, 1871, p. 1022 seq.
[2]) Birket-Smith, 1924, fig. 282b.
[3]) Solberg, Pl. 3.10.
[4]) Giesecke, p. 360.

III. THE SETTLEMENT OF IGDLUTALIK

As the site of the first and most extensive excavation that summer we selected the island of Igdlutalik, which lies just south of Torssukátak, a little north of the boundary between the districts of Jakobshavn and Ritenbenk. As a result of its remote situation, not much notice has been taken of this large collection of ruins, which thus have been allowed to lie undisturbed. Porsild, who paid a brief visit to the spot, says that there were three nängissats there, two for grown ups and one for children, and he figures one of them[1]). On this place Ostermann writes in "Grønland": "This has been a very large settlement. There are at least eighteen house sites, about half of them very old, forty to fifty graves, and a large "playground" (with various intervals between the stones)"[2]). As far as is known, no one has lived there since the colonisation; it is not referred to in the old church records or in the census lists, and no ancient local tradition says anything about the settlement than that it has been very old. It was these circumstances, combined with the many ruins of houses, graves, and large middens, which induced me to choose the spot for our first large excavation. We were at Igdlutalik from June 21st till August 1st.

The settlement lies on the west point of a small, rather low island of micaceous schist and gabbro, about two kilometres long from north to south and one kilometre wide from east to west. It lies out in a sound through which runs a swift current on account of the tides which come in through Atâ Sound to Torssukátak and out in the opposite direction. This sound is never frozen over in winter, and usually there are plenty of seals to be had; on the west side of the sound is another large settlement, Ilerfit[3]). In summer, too, there is good sealing (harp seal, fjord seal, speckled seal), and the people of the surrounding settlements,

[1]) Porsild, 1920, p. 300 and fig. 3. On his map Igdlutalik is erroneously shown as lying at Igdluluarssuit.

[2]) Grønland, I, p. 183.

[3]) See p. 26.

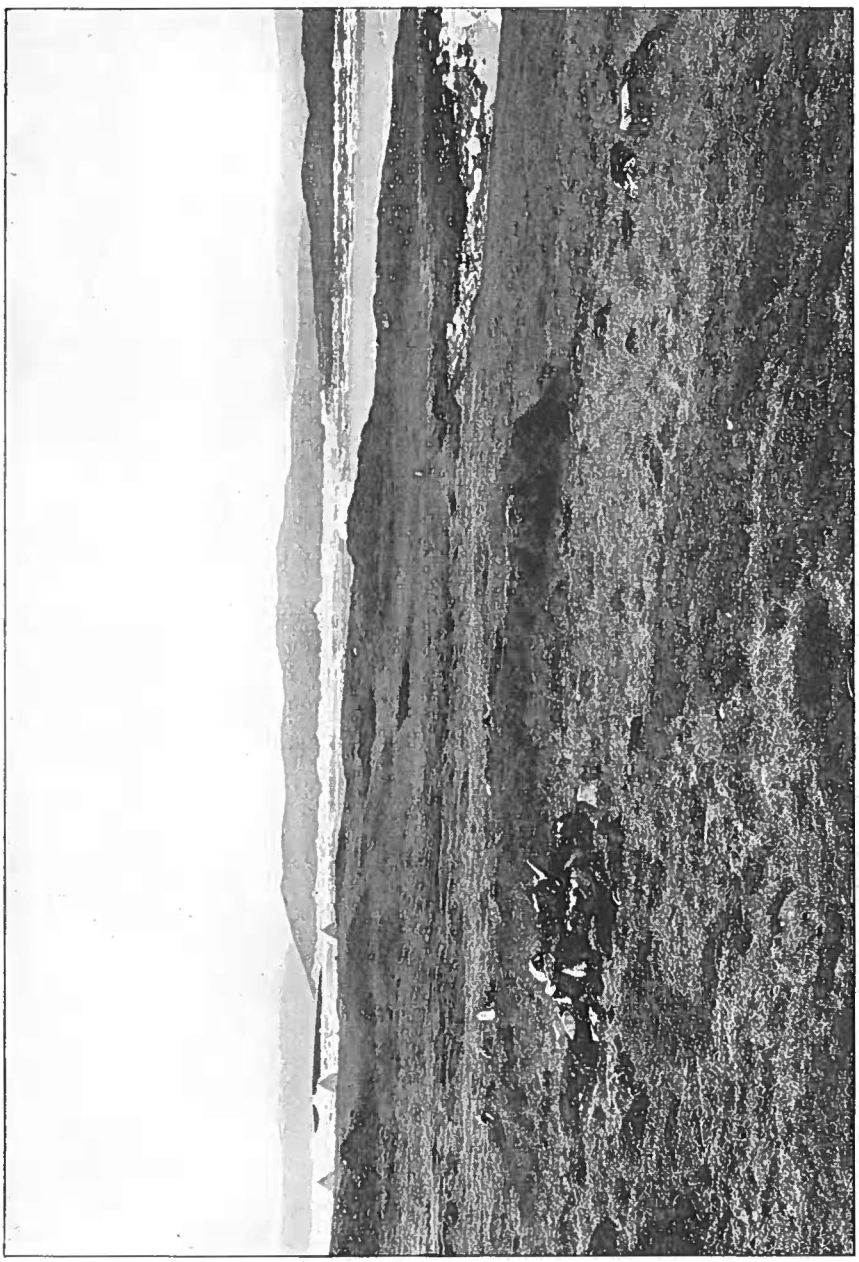

Fig. 7. The village site of Igdlutalik.

Atâ, Arsivik and Nûgâq often live in tents at Igdlutalik or other places in the vicinity (Ilerfit, Igdlúnguaq, Pisigsarfik, Ana). The many ruins round about are evidence that there has been a dense population in earlier times. One difficulty is the calf ice from Torssukátak and the large glacier of Kangilerngata Sermia, which often block up the water round about

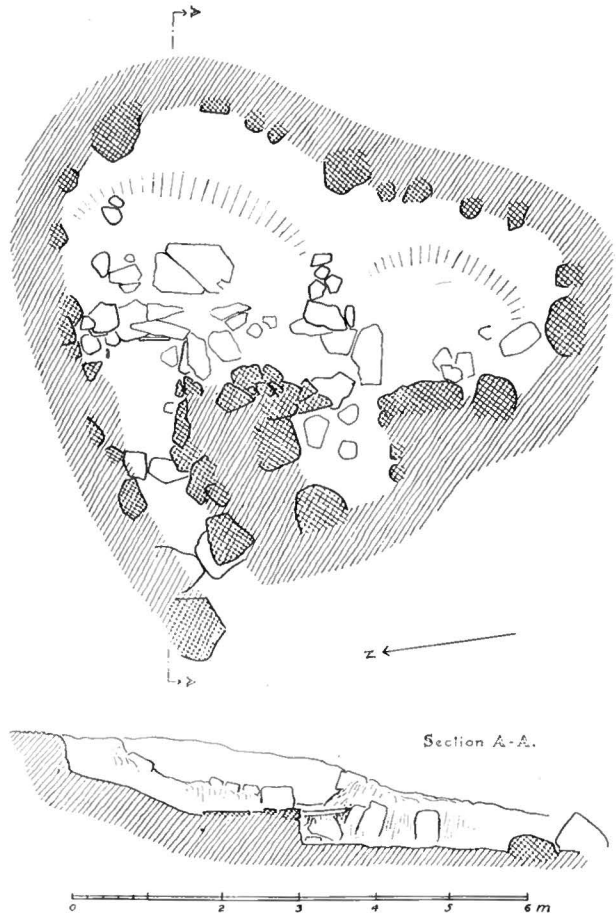

Fig. 8. Plan and section of house VI, Igdlutalik.

Igdlutalik and, on account of the rapid current, make navigation dangerous. When we arrived at the spot we got ashore on the east end of the island just by the skin of our teeth, and the motorboat which later on was to bring our baggage over could not get in to the island at all for ice.

A plan of the settlement of Igdlutalik is given on Pl. 12. It lies on rather low ground on both sides of a small marshy depression, where

a small stream runs throughout the greater part of summer. The ground is stony moraine gravel; in several places, however, there are outcrops of rock in the form of low knolls and on the north side of the settlement the rock forms steep bluffs down to the sea. South of the stream a low rocky point runs far out; the south coast at its west end is formed of rock, more to the east of a low cliff of moraine gravel. Apart from the rocky knolls, some of which are naked, others overgrown with willow, heather and lichen, the terrain where the houses lie is marshy and covered with a thick layer of moss and having a vegetation of *Vaccinium*



Fig. 9. House VI, Igdlutalik.

uliginosum, *Empetrum nigrum*, *Betula nana*, species of *Carex* and *Luzula*, etc. Round about and growing over ruins I—II and V is a quantity of *Alopecurus*, but it has not the luxuriant, sappy-green character that one sees on more recent settlements; the houses more to the north, VI—X, have no vegetation to distinguish them from the surrounding tundra.

Along the south coast towards the east a dry gravel plain rises gently towards a rocky knoll about twenty metres high, and north of the settlement there is a similar but smaller plain of gravel. It is mostly in these stretches of gravel that the many graves lie.

At this spot there are ten house ruins (actually eleven, as one, No. V, is a double house); in some cases we were unable to definitely

identify them; in between houses IV and V and south of II are what appear to be remains of houses, but sample excavations did not seem to confirm this supposition. In addition, there are forty-four graves, twenty-six of which are on the gravel plain to the south, nine on the

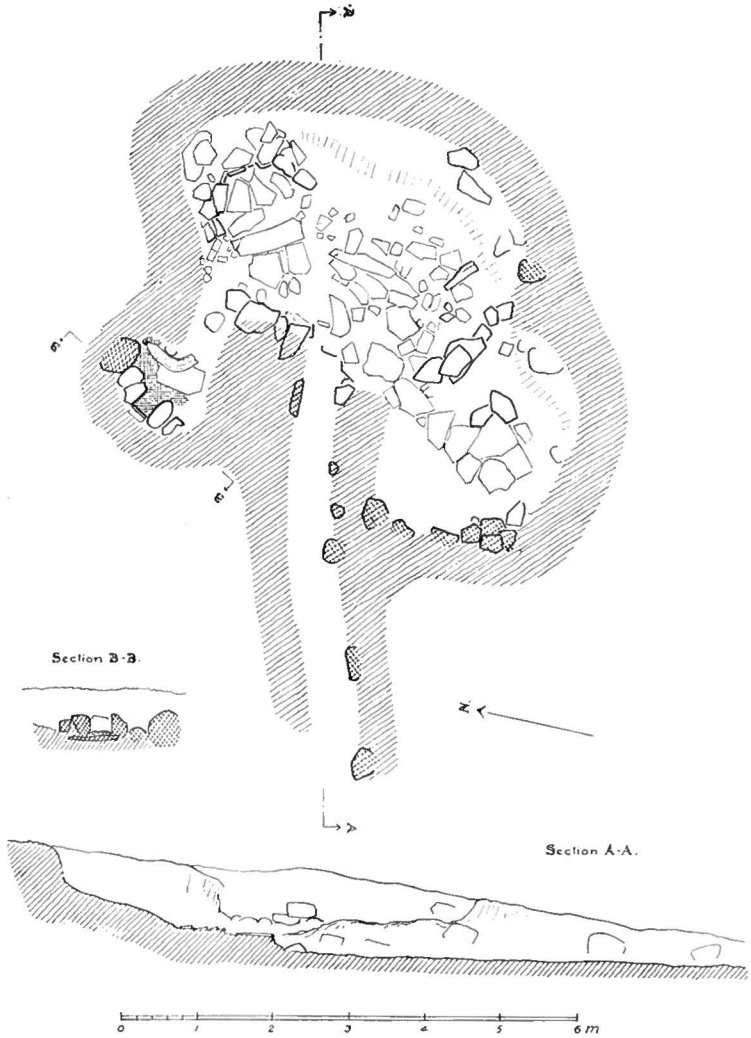

Fig. 10. Plan and sections of house VII, Igdlutalik.

terrain north of the settlement, whilst the remaining nine lie among or near the houses (one in ruin VI). In addition there are four tent rings, three of which on the point are recent, eighteen caches, of which two on the point are recent, a pair of collapsed kayak supports (stone pillars) near the beach, and three more recent stone fox traps of the box variety; and finally we have the four nängíssats highest up on the gravel plain.

All the ruins and thirty-six of the graves were examined, and in addition we excavated 360 sqm of different middens; by this means we unearthed 2713 specimens and about 55 skeletons.

This being the first time that a systematic excavation of a large number of old ruins had been made on the northern west coast, great importance was attached to making most careful excavations, measurements, drawings and photographs of the houses, and likewise in the



Fig. 11. House VII, Igdlutalik.

following these will be described in full in order to make clear the various types of houses used down through the ages; for this purpose Igdlutalik with its many undisturbed ruins of widely different ages was excellent.

House Group VI—X.

The most northerly group of ruins, VI—X, lies rather isolated from the others and all fairly close together. Their appearance, state of preservation and situation, all argue that they are contemporaneous, that they have been inhabited at the same time. Before excavation their appearance indicated that they were the earliest houses at Igdlutalik. No thick growth of grass announced the presence of any ruins; in the vegetation there was nothing to distinguish them from the surrounding boggy plain with its crowberry and bilberry bush. The ruins themselves were not at all prominent in the terrain: shallow depressions,

sometimes surrounded by a very low mound of earth, from which another depression, the passage, runs westwards towards the sea; in some cases we were not even sure that they were ruins until our excavation proved it; only very occasionally was there a stone projecting from the boggy peat. Nor had the middens any covering of grass; everything argued that the organic rubbish which feeds the plants had long been decomposed.

These ruins lie from $2^1/_2$ to 5 m above the sea. Towards the stony beach the ground below them falls down in a bluff about 2 m high, towards the north consisting of rock, on the south of moraine gravel.

House Ruin VI. Fig. 8 is a plan and a longitudinal section of this house after excavation, and Fig. 9 is a photograph of it taken from the northeast. The house has been dug 0.75—1 m into the gravel, and the passage another 40 cm lower, rather less at the outer end, as the house lies on a slight slope. The walls are rather indistinct; nevertheless they contain a number of stones, the arrangement of which shows that the house has consisted of two round rooms connected by an opening barely one metre wide; the wall stones, however, do not form any continuous row, but in most cases lie at considerable intervals; apparently they have only been put in to stiffen the gravel walls and prevent them from slipping; the walls are not built of courses of stones; only one course can be seen, and these stones are not more than 30 or 40 cm high.

Particularly in the large room to the north the floor was partly covered with flat stones resting on gravel; in other places the gravel itself formed the floor. The platforms had only scattered, smaller stones, and otherwise were of gravel, rising gently towards the back wall. The edge of the platform cannot be distinguished; the platform itself has been of gravel supported by wood or whale bone, and has slipped down. The passage has had stone walls, but both the roofing stones and some of the side stones had fallen in, as the photograph shows.

In the middle of the west wall of the house a small projection had been built out, of stone; as the slag (of bone and blubber) and soot on the stones show, this recess has been used for cooking purposes. Later, however, a body has been interred in it (grave 44), as we found the remains of a human skeleton, covered with a large heap of flat stones. In addition, we found human bones in the passage and in the midden outside.

The house contained 34 artefacts, a quantity of animal bones, mostly seal but also a few large whale bones, a piece of narwhal tusk, bones of caribou, two pieces of baleen, a few of wood, and blue mussel shells. Everything was in an advanced stage of decomposition.

In front of house ruin VI we excavated an area of 84 sq.m., Field

B. Here the profile was: at the top, a layer of moss about 20 cm thick almost devoid of culture deposit; underlying this a mouldered layer of peat, at the most 20 cm thick, with a few, often badly decomposed bones (seal, caribou, narwhal, whale, dog); below this a layer of fat, amorphous peat without bones resting upon moraine gravel; this latter layer varied in thickness. In one of the fields, B 10, we counted and recovered bones as follows:

Layer 1: None.
— 2: 54 bones, seal, caribou, whale, walrus, white whale.
— 3: 21 bones, mostly seal.
Field B contained 17 artefacts.

House Ruin VII. This house is shown on figg. 10 and 11. Its construction is similar to house VI, consisting of two rounded rooms connected by an opening; these two rooms, however, lie at an angle to the passage, and the "kitchen" is in the northwest corner of the house. The west wall and the partition wall are almost entirely of stones. There is a regular flooring of flat stones covering the most of the floor area. On the place of the platform in the large room there are several large stones which apparently have served to support the platform; the boundary towards the floor is formed of a row of stones set on edge, which have an indentation, probably a cavity under the platform; in it were a number of good specimens (lamps, snow goggles, harpoon heads, etc.). From the large room a passage with gravel walls leads to the "kitchen", where the fireplace was formed of three stones on edge; round about was a quantity of slag. In the passage were only a few stones, standing on edge.

In this house, especially just above the floor, was a good deal more refuse than in house VI; 66 specimens, bones of seal, caribou, whale and a quantity of baleen.

There does not seem to be much midden outside the passage.

House Ruin VIII. Fig. 12 gives the plan and longitudinal section of this ruin. Construction and ground plan are the same as those of VI and VII, except that the smaller room is more rectangular and has more stones in the walls, but like them in only one course. The large room has a handsome, regularly-laid floor and below it was a second floor; there was a quantity of refuse between the two floors. The edge of the platform was formed of a row of stones set upright, and behind these a quantity of smaller stones forming a kind of paving. In contrast to this room the smaller, four-sided room gave a curious impression of never having been inhabited; there is only a single floor stone, the

rest being gravel, and a large boulder in situ projects a good way up through the gravel; there was scarcely any culture deposit in this room.

The passage was in a bad state of collapse; there was no "kitchen".

House VIII produced in all 64 specimens.

Below house ruin VIII we excavated 24 sqm, Field C; the culture

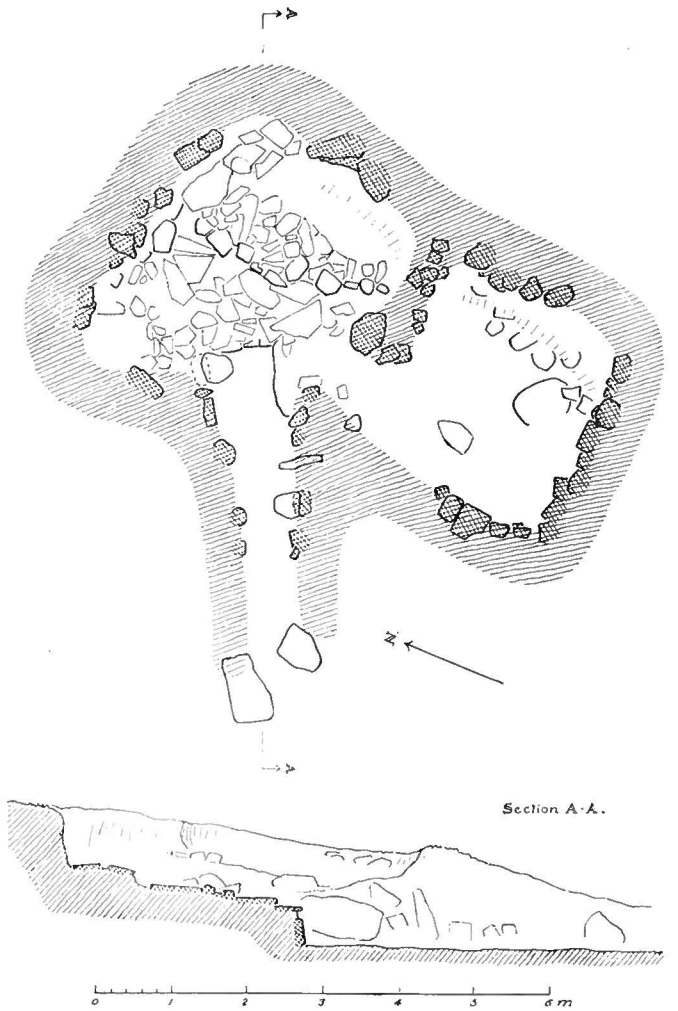

Fig. 12. Plan and section of house VIII, Igdlutalik.

deposits were extremely thin and poor as regards both bones and artefacts; almost everything of bone was decomposed. We found only three specimens, all of stone.

House Ruin IX. Consists of one room only, with a "kitchen" on the southwest side; only towards the south are there any stones

in the wall; the shape seems to be irregularly rounded (fig. 13). There are some floor stones, otherwise gravel. The edge of the platform is marked by several stones on edge. On the north side is a long cavity bordered at the orifice by a long stone and on the inside by stones set on edge; apparently there has been a cavity under the platform as in house VII; in it we found many specimens (harpoon heads, foreshaft,

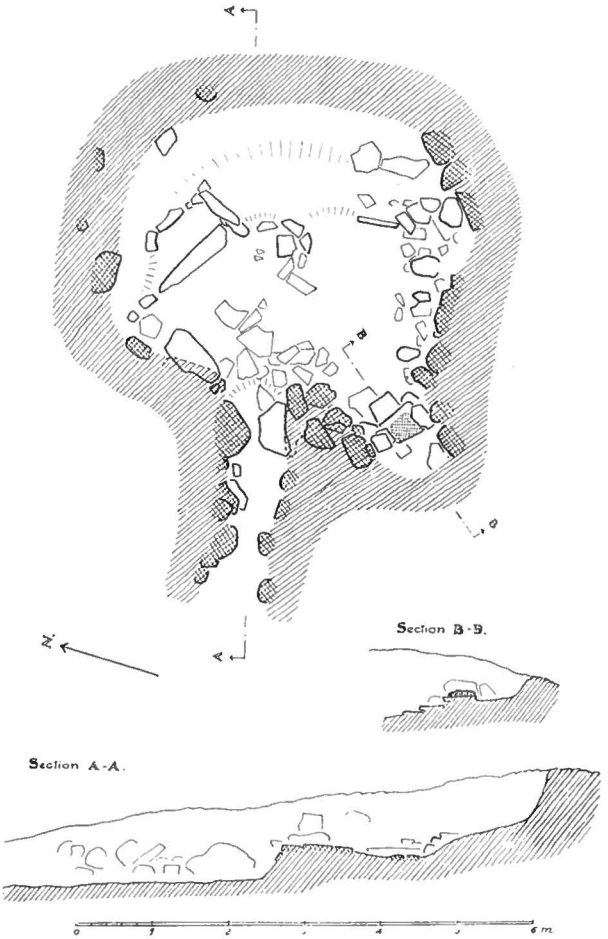

Fig. 13. Plan and sections of house IX, Igdlutalik.

two-handed scraper, scraping board, doll, etc.). In the kitchen was a large cake of slag; near it lay a human skull. The side stones of the passage were partly in position; at its innermost end was a large boulder in situ.

This house yielded 48 artefacts, two large whale bones, other bones (mostly seal), pieces of baleen, blue mussel hides.

There does not seem to be any refuse outside.

House Ruin X. A rather small house, rounded-foursided in form (fig. 14); there are a number of stones in the side walls. There are also floor stones, and there seems to have been a cavity under the platform

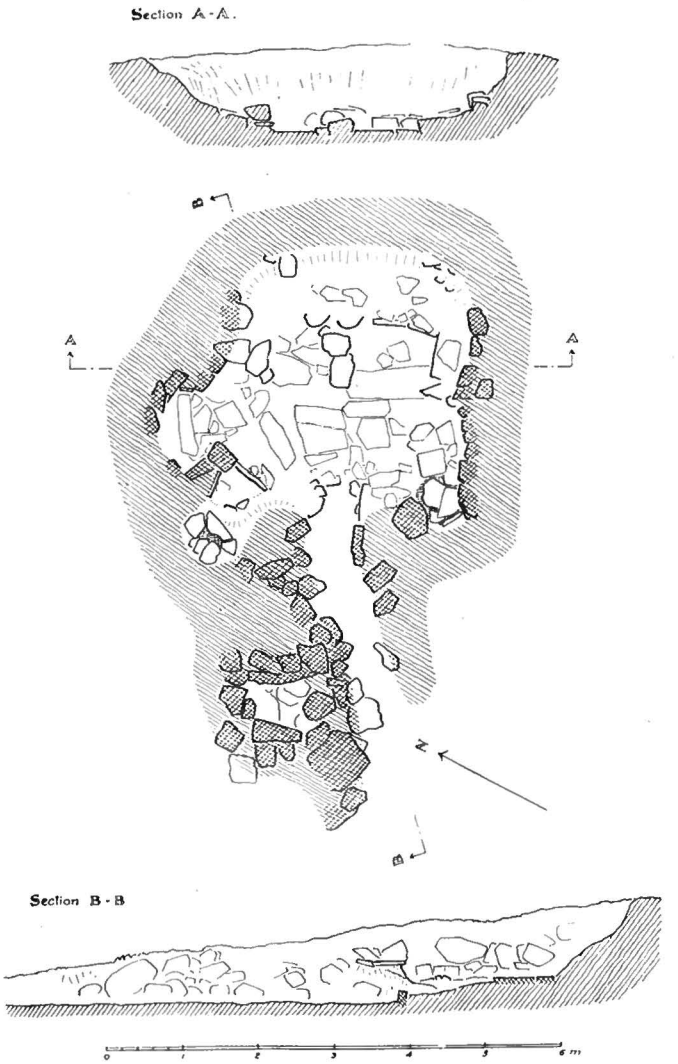

Fig. 14. Plan and sections of house X, Igdlutalik.

at both sides of two stones which have supported the platform. In this house there are two cooking places in the two front corners; there is also a recess towards the north. In the passage only a few side stones are in position; just north of it is a large cache.

There were not many bones (seal, caribou), and outside scarely any refuse. We found 28 specimens inside the house.

House Ruin V and Field A.

House Ruin V, which lies about 3 m above sea level, prior to excavation was a very tussocky mound, about 15 × 5 m, from which two depressions ran westwards; a tall stone pillar projected in the middle of the site. The whole house was thickly overgrown with *Alopecurus*.

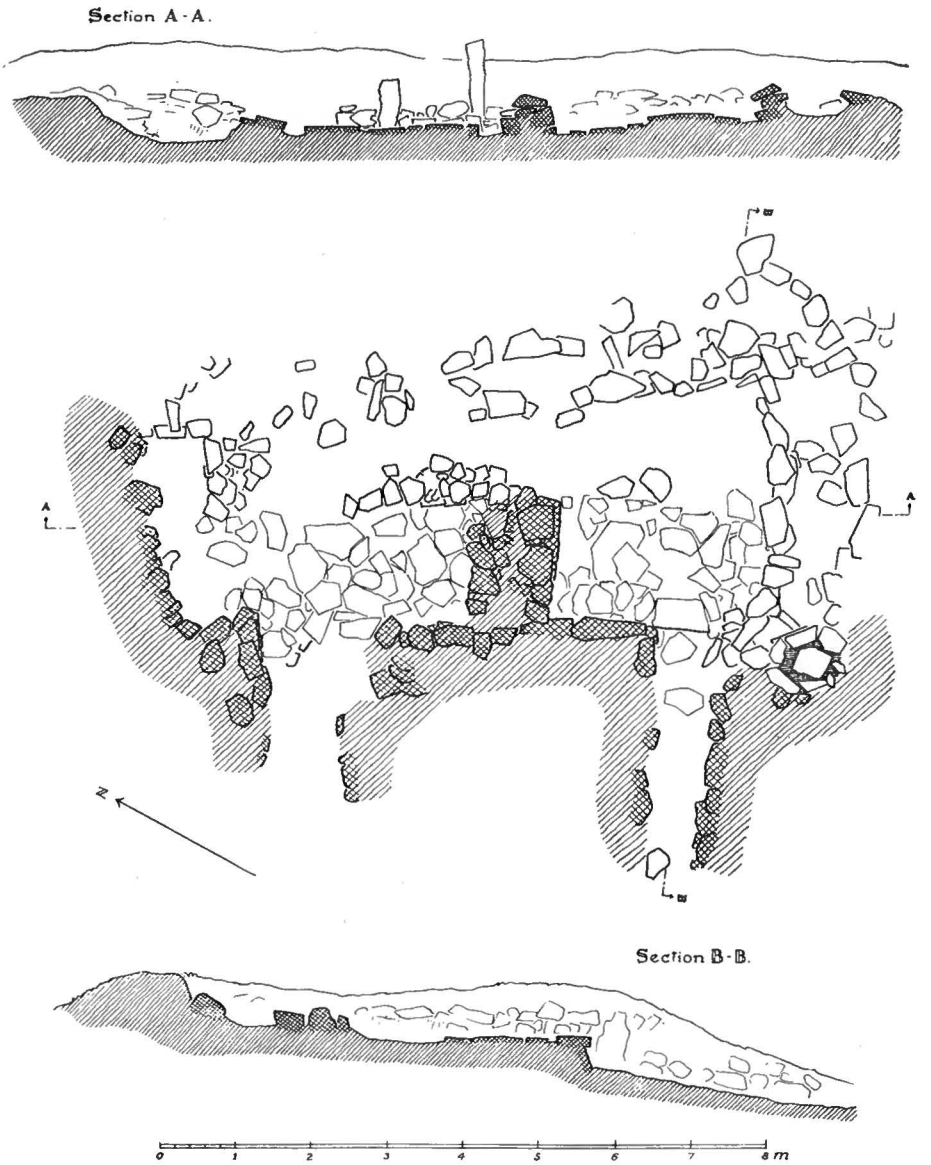

Fig. 15. Plan and sections of house V, Igdlutalik.

Our excavation proved it to be a double house, consisting of two small, four-sided houses with a common side wall and parallel passages running WSW. The whole ruin was in a very collapsed and flattened-out condition, so that it was often difficult to determine the outlines. The best-preserved was the west wall between the two passages, the south wall and part of the north wall; only a fragment of the east wall was preserved towards the south. All the walls mostly have only one course of stones, although here and there were two. The two houses



Fig. 16. House V, Igdlutalik.

are separated by a very solidly-built, wide wall of two courses of stones; this, however, extends only as far as the edge of the platform, which, especially in the north room, is marked by a row of stones in which the large stone pillar, 1.3 m high, stands. In both rooms there is a handsome, regular flooring. At the northeast side is a setting of stones which seems to have bordered a cavity under the platform, and in the southwest side is a small shelf made of flat stones. The south passage is rather well-built, the north passage is marked only by a few stones on edge and a depression.

A plan of this complex is shown in fig. 15, whilst fig. 16 is a photograph taken from the northeast corner.

The construction thus disclosed, however, represents only the last habitation on this site. Outside the walls in all directions were many other stones and culture earth, but no stone lying in its original position.

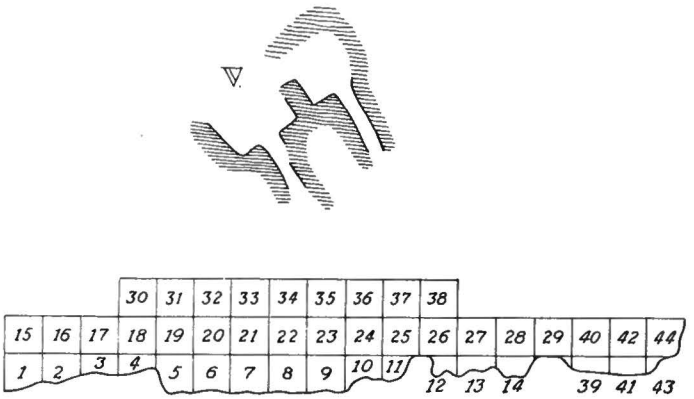

Fig. 17. Plan of Excavation Field A, Igdlutalik.

And below the floors were several layers of floor stones down to a depth of half a metre under the first floor, and between these floors was a good deal of refuse and many specimens; on the other hand there were not many on the platforms or outside the walls. The rich culture deposit extended sideways out under the walls and in under the partition wall; apparently in the course of time one house has been built on top of another; now, however, the form and size of these houses cannot be ascertained.

In house V we found a total of 472 specimens.

That house V has been inhabited for a very long period is also indicated by the large midden at the front. There we laid out Field A,

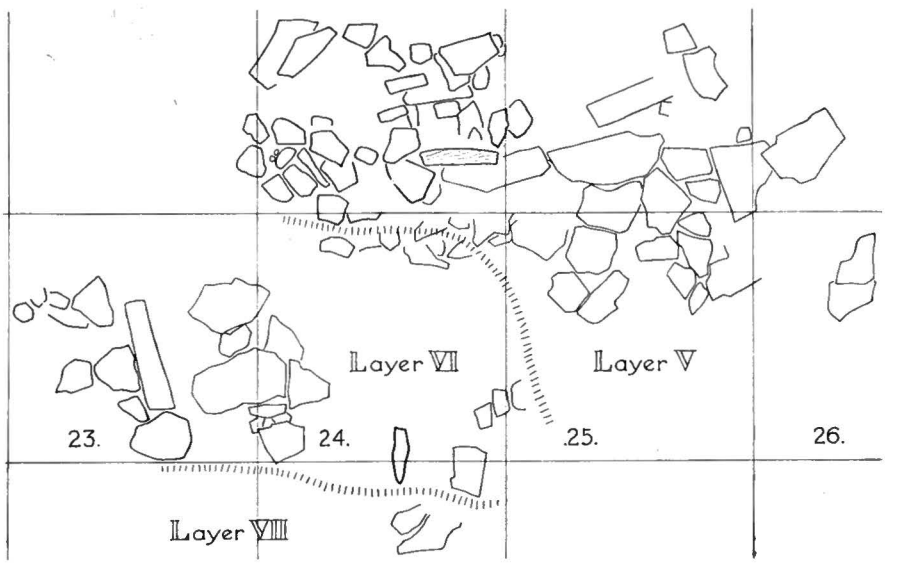

Fig. 18. Old floors in Fields A 23—26, Igdlutalik.

comprising in all 44 squares of 4 sqm; several of these squares, however, were rather smaller on account of the uneven coastline (fig. 17). On the beach side this midden terminated in a bluff, often about 1 m in height. The thickness of this midden was greatest in its middle, with a maximum of 1.20 m; on the north side it was about 0.80—1 m, towards the south, in squares A 29 and 39—44, it fell from 0.50 to 0.25 m on the extreme south side; the last squares, A 41—44, now lay right below the high water mark. In the upper row of squares, A 30—38, the thickness on an average was slightly less. It was greatest, 1 m, in A 34—35, otherwise it varied from 0.70 to 0.80 m.

The uppermost layer, 10—15 cm, consisted mostly of mossy turf, almost without bones or other refuse. Layer 2 (where nothing else is indicated the thickness of the layers is 10 cm) was also mossy here and there, with no artefacts but in most cases consisting of turfy culture earth with a number of bones, a few mussel shells (*Mytilus*, *Mya truncata*), several large whale bones. Layers 3—4 were of similar character, often with many bones. The lower half of the midden, especially its middle and southerly parts, was very rich in bones, baleen, mussel shells, pieces of skin, blubber, and artefacts, and in several places we found remains of pavings of flat stones, apparently the remains of ancient houses, sometimes one above the other. Fig. 18 illustrates two of these floorings in the squares 23—26 and the neighbouring squares, in layers 5 and 6. Other old floors like this were found in A 3, layer 5, A 5—6, and 19—20, layer 6, in square A 38, layer 4, A 15, layer 10. In A 26, lower half, were the remains of a passage, the bottom of which had been dug about half a metre down into the gravel; its direction was SW.—NE., and apparently belonged to one of the floors in A 25, 37 and 38. Particularly over and between these old floors the culture deposit was very rich, with a good deal of blubber and many specimens. Apparently this has been the site of a row of old houses which have gradually been washed away and disturbed in other ways, and in the course of time their remains have been covered with the refuse of house V lying above. When these houses were inhabited the sea level must have been somewhat lower than it is now.

As an example of the bones contained in Field A, I give below the numbers in one square metre of A 20:

Layer 1: None.
— 2: 315, mostly seal (fjord seal, harp seal), caribou, bird.
— 3: 970, lying tightly packed in the layer, well-preserved, apparently from the last tenants of house 5.
— 4: 510, mostly seal and also some bird.
— 5: 260.

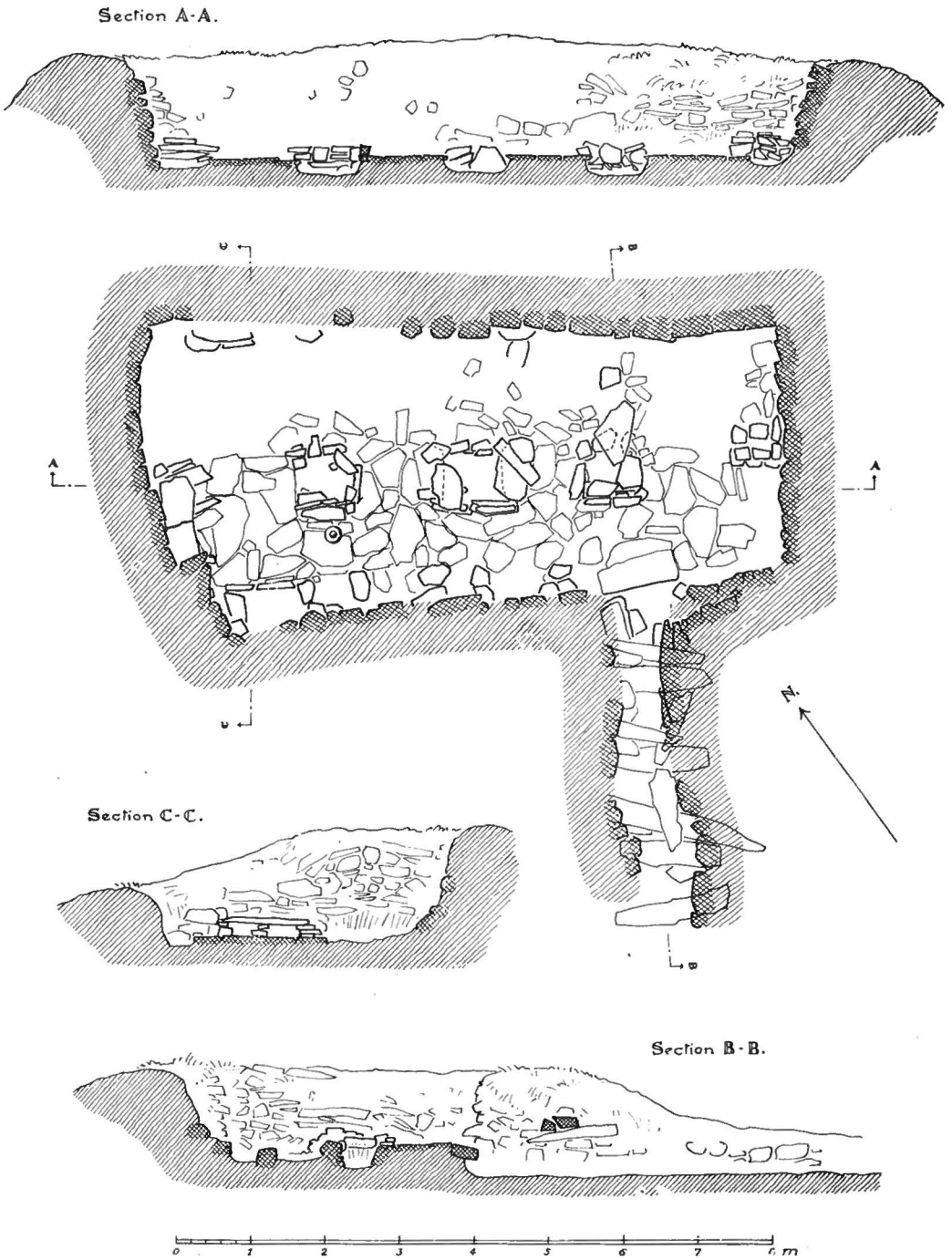

Fig. 19. Plan and sections of house III, Igdlutalik.

Layer 6: 35; here the other organic refuse predominates.
— 7: 75.
— 8: 26.
— 9: 24.
— 10: 40.

Towards the north the layers became more turfy and poorer in bones and artefacts.

Field A was the richest finding place at Igdlutalik; in all we found 1155 specimens there, and even then this midden was nothing like exhausted; the parts excavated, however, were the middle and richest.



Fig. 20. House III, during excavation; Igdlutalik.

House Ruin III.

This was the newest looking and most well-preserved house at Igdlutalik. To some extent the walls were still standing in their original height; part of the rear wall, however, had fallen in; most of the roofing stones of the passage were in position; in several places the floor was covered only with a thin layer of moss. The walls, and most of the interior of the house, were overgrown with vigorous *Alopecurus* vegetation.

Fig. 19 is a plan of this house, and three sections through it. Fig. 20 is the interior of the house during excavation, after the earth covering the floor and the collapsed wall stones had been removed; fig. 21 shows the condition after excavation had been completed; fig. 22 is the passage after the roofing stones had been uncovered.



Fig. 21. House III after excavation; Igdlutalik.

House III is a typical example of a large, oblong common house. The walls are built of stones to a height of about 1 m above the floor. The floor is covered with a regular paving of flat stones carefully fitted in to one another. The place of the platform has scarcely any stones at all; apparently it has been of wood; only in the southeast end was there an erection of stones. At the ends of the platform are the lamp tables, built of stones to a height of 30—40 cm, covered on the top by a large stone slab; in the northwest end, however, this was broken, whereas in the southeast end it was missing. In addition, three lamp



Fig. 22. House III, passage; Igdlutalik.

tables were built out on the floor from the edge of the platform, their four sides formed of stones set on edge, the top being formed of one or two flat stones which, however, were not in position; one was there, it is true, but was broken and had fallen in. Below these lamp tables there was no floor, but deep pits full of rubbish; in the middle one lay a four-sided piece of seal skin, 80 × 55 cm, full of bones; obviously it has been cut to the shape of the pit, and apparently served for collecting gnawed bones for the dogs.

Along the front wall of the house there has been a narrow window platform; the stone supports for it were still in position; there were no floor stones under it; at its northwest end there was a refuse pit, bounded by a stone set on edge and full of bones; in it was a large, round wooden bowl of European workmanship.

At the edge of one of the lamp tables (see fig. 20) a whale vertebra stood on the floor; in its upper surface a shallow round hollow had been cut as if for a foundation for one of the roof posts.

The passage was in good condition, with very long roofing stones (fig. 22) and a stone floor; it was $4^1/_2$ m long and $^1/_2$ m wide.

The length of the house is $8^1/_2$ m, its greatest breadth 4 m. It contained a number of artefacts (142 in all) that show that the tenants have had some intercourse with Europeans, presumably whalers.

In Greenland one rarely finds so old a house in such good condition. This fact persuaded me to leave it in the condition it was after the excavation had been completed and as it appears in fig. 21, without removing the floor stones, even if a number of specimens no doubt lie under it. The intention is that this house shall stand as a memorial of the past, so that at any rate at one place in Greenland it will be possible to see a house of the type which went out of use more than a hundred years ago.

House Ruin I.

Next to house ruin III, No. I was the best preserved of the ruins at Igdlutalik; the walls were in such condition that the oblong shape was quite distinct, although they were thickly covered with *Alopecurus*.

After being excavated, the ground plan appeared as depicted on fig. 23; fig. 24 is the house seen from the north end. It is an oblong, double house like V, but has only one passage, and the partition wall does not run continuously, as there is an opening connecting the two rooms.

The walls are of stone, from 50 cm to 1 m high; the floors and the passage have a regular stone paving; on the platform areas, which lie a little higher, there are several scattered stones. The partition wall is solidly built of stone. The passage is sunk deep down; two large roofing-stones had collapsed into it.

In this case, too, there has been a habitation prior to the date of the present house; 30 cm under the floor in the south room we found another floor, and in the other room, too, were floor-stones at a deeper level; the gravel bottom lies half a metre under the uppermost floor; the partition wall was built on top of culture earth.

There was a good deal of refuse and many specimens in this house, especially just over and between the floors; under the upper floor we found a small baleen dipper shown on fig. 45. The total number of specimens found in house I was 231.

House Ruins II and IV and Fields D and E.

Whereas the finds from the above localities: houses VI—X and Fields B and C, house V and Field A, house III and house I, each forms a complete whole, dating from a limited period and without foreign

intrusions, this is not entirely the case with regard to the two ruins II and IV and Fields D and E. House ruin II lies below the passage of house I and was partly full of refuse from that house; house IV lies lower down

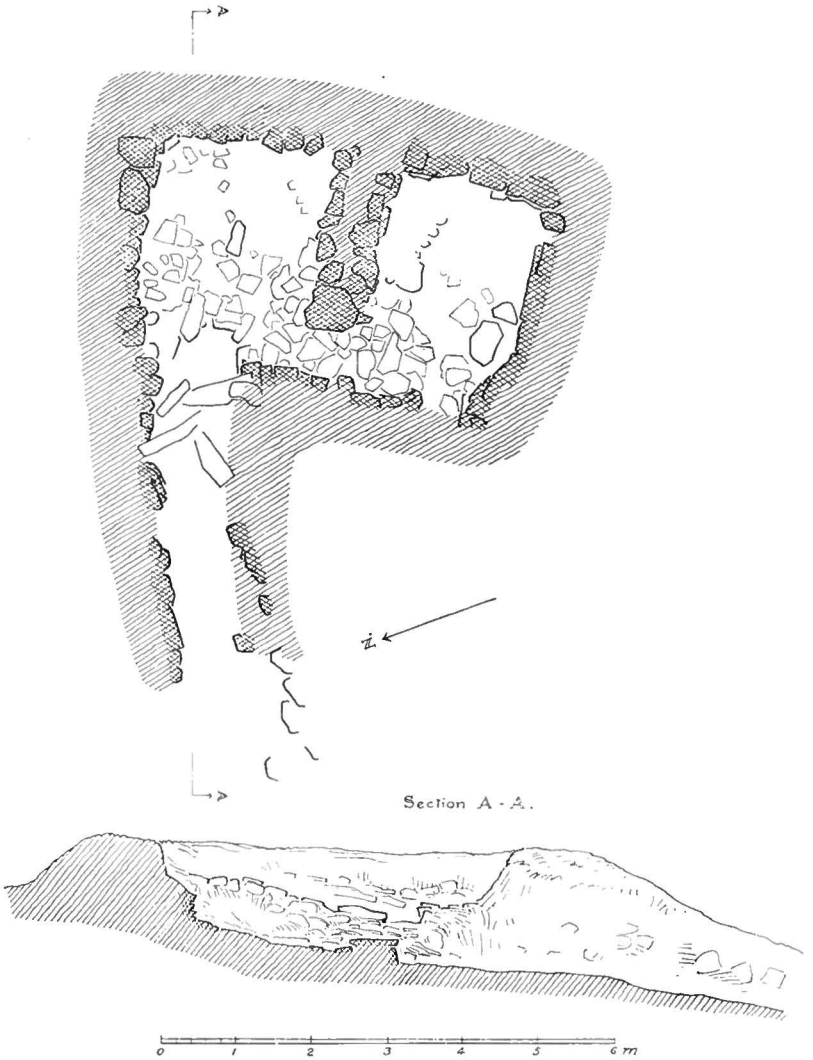

Fig. 23. Plan and section of house I, Igdlutalik.

and near to house III, and was also half full of refuse from it. These two houses undoubtedly are older than those lying above them; but not only have they been utilised as refuse pits for them, they have also provided stones for their building, so that their original size and shape cannot be determined; it is also impossible to decide which specimens belong to the houses themselves and which have come from the newer

ones. On the whole, the objects lying in the upper layers would belong to the later houses, whereas those in the lower layers, especially about the floors, would belong to the older ones; the nature of the specimens, too, will assist us in many cases, but it is impossible to draw any definite line between them.

The same applies to Fields D and E. The former contains objects mostly from house III, but earlier objects from IV are very possibly mixed among them. Field E may originate from both I and II. In addi-

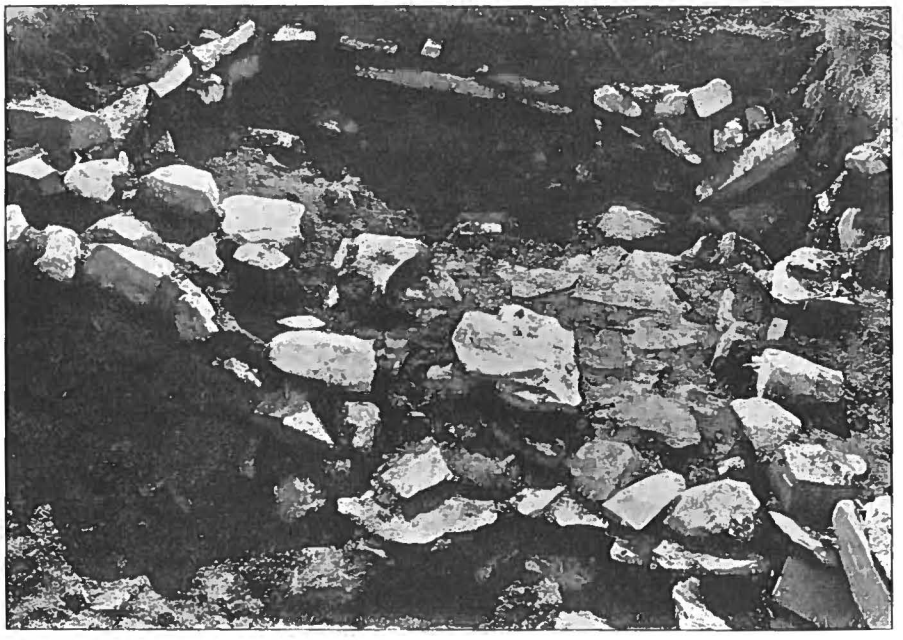

Fig. 24. House I, Igdlutalik.

tion, the culture layers in both fields are so thin that a stratigraphical separation cannot be made with certainty.

House Ruin IV. Prior to excavation this house appeared as a shallow depression in the ground, about 5 × 4 m, from which the passage ran westwards. It was covered with the usual moss vegetation and here and there *Alopecurus*.

Excavation proved it to be a rather small, apparently rounded house, measuring about 4 × $3^1/_2$ m, with a passage 3m long; there were, however, hardly any stones in their original position; only a few wall and floor stones were left, and it was only in the passage that most of the side stones were still in position. In the middle of the house lay two large, long stones in prolongation of the passage, but these, too,

were out of position, as there was some culture deposit under them. Apparently stones had been taken from this ruin to build the adjacent house III.

House IV contained 51 specimens and a number of animal bones, especially in the upper layer, which apparently is midden rubbish from III; in the lower layers there were objects which indicate that this house is much older.

House II. Before this house was excavated its appearance was that of an oblong depression, about $6^1/_2 \times 4$ m, with a passage; it was thickly covered with grass. This house, too, was so disturbed, apparently through the removal of stones for II, that nothing definite could be ascertained as to its original shape and size. The passage, which is preserved to some extent, seems to run into the house at an angle, and at both sides of its opening into the house was a stone flooring; in the middle of the house there seems to have been a stone-built cavity under the platform, as in ruin VII, and in it we found a little refuse, presumably from the first habitation. Otherwise there was neither wall nor floor stones in the house.

In the house was a good deal of refuse — 192 specimens were found — mostly from house I, it having served as a refuse pit for the latter.

Field D. This field, of which 40 sqm were excavated, lies before the passage of house III, in boggy ground, covered with moss and scattered *Alopecurus*. Under a layer of moss 10—20 cm thick was a culture deposit about 10 cm thick containing many bones; below it was sterile moss-turf or gravel. In two of the uppermost fields was a thin layer of gravel separated by two layers of turf, both with bones, as if there had been two periods of settlement; two finds of very ancient types in the bottom of the culture deposit also seem to point in the same direction. It may be that there has been an earlier house where ruin III now stands — or the old specimens have come from the adjacent house IV.

Field D yielded in all 121 specimens.

Field E. Below and to the west of houses I and II we made sample excavations in three places of in all 24 sqm. The culture deposit everywhere was thin and poor; there were some bones and mussel shells, and we found 13 specimens. It did not seem worth while to continue excavation there.

Graves at Igdlutalik.

In and around the settlement of Igdlutalik were no fewer than 44 graves, a larger number than I have seen at any other ruined Greenland settlement. In Arctic Canada at the ancient settlement of Naujan

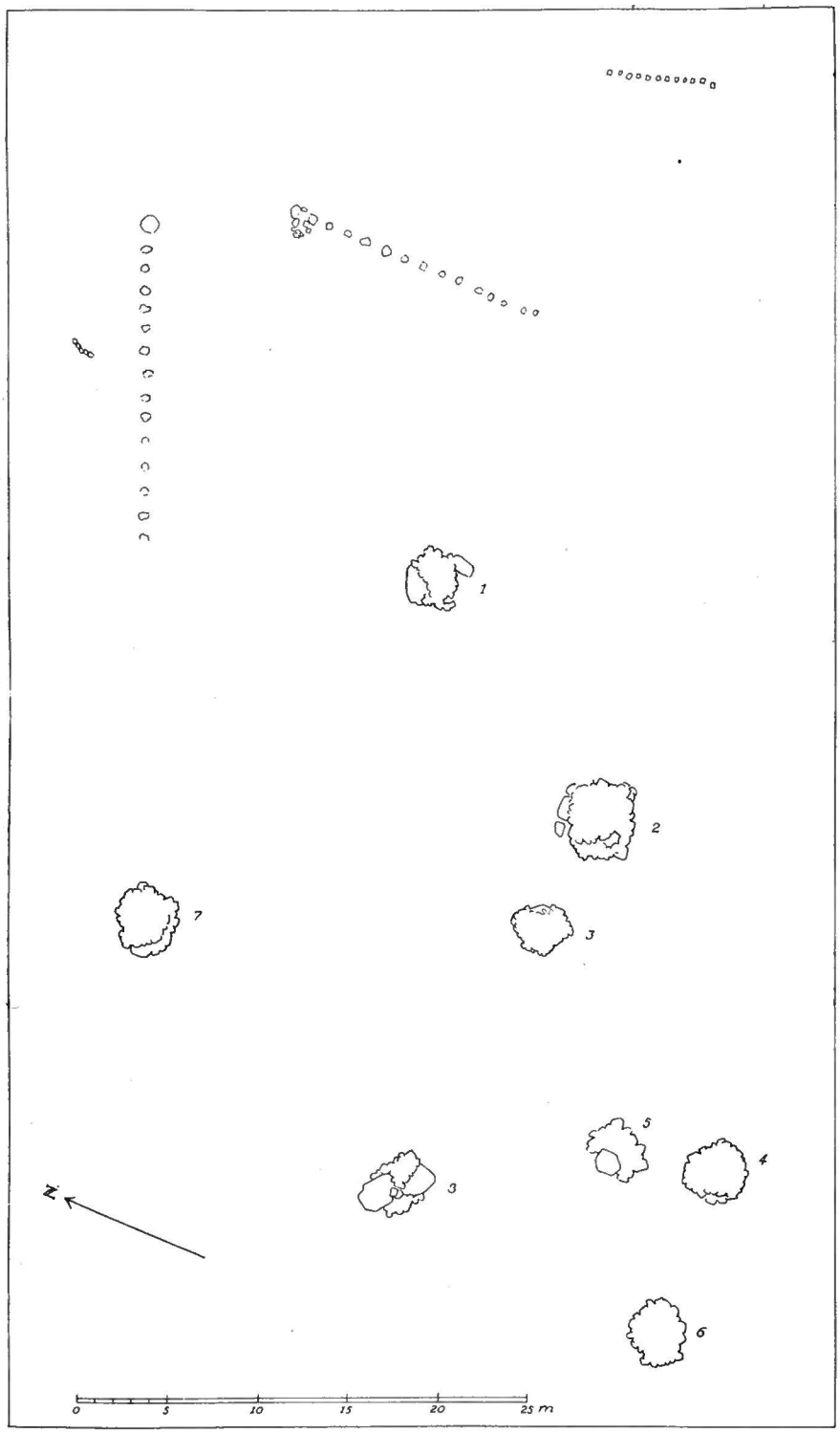

Fig. 25. Plan of graves 1—8 and nângissat, Igdlutalik.



Fig. 26. Grave 7, Igdlutalik.

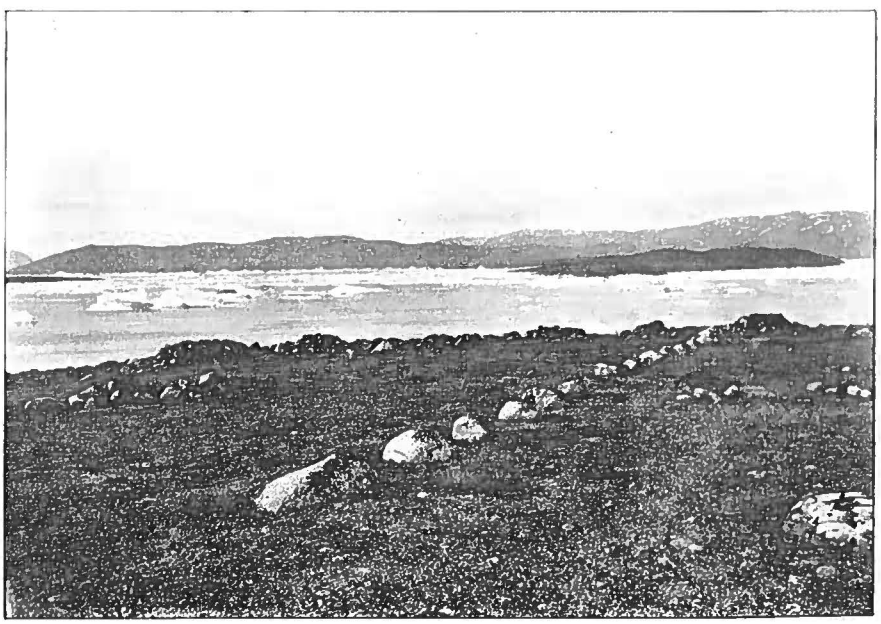

Fig. 27. Nängissat, Igdlutalik.

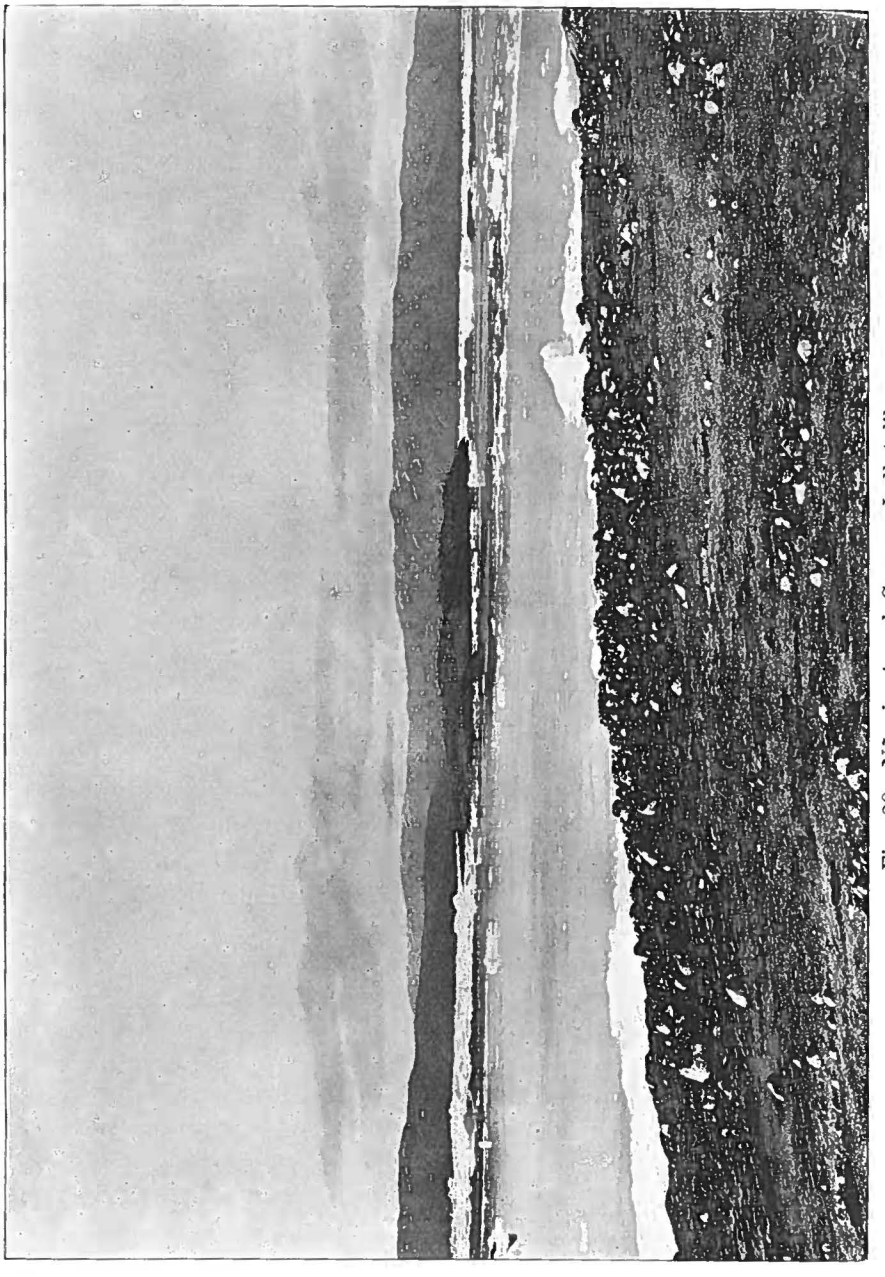

Fig. 28. Nängissat and Graves; Igdlutalik.

there were still more (63)[1]). Of these graves 26 lay on the smoothly-sloping gravel plain stretching eastwards from the house group I—II, nine on the gravel north of group VI—X, whilst the other nine lay scattered between and round about the ruins. The situation and orientation on the various graves are shown on the map.

Only 36 of these graves were examined. The other eight lay at the top of the gravel plain towards the east, and together with the four nângíssat, formed an uncommonly handsome group which I left alone as a memorial. These eight graves, of which fig. 25 gives a plan, give the

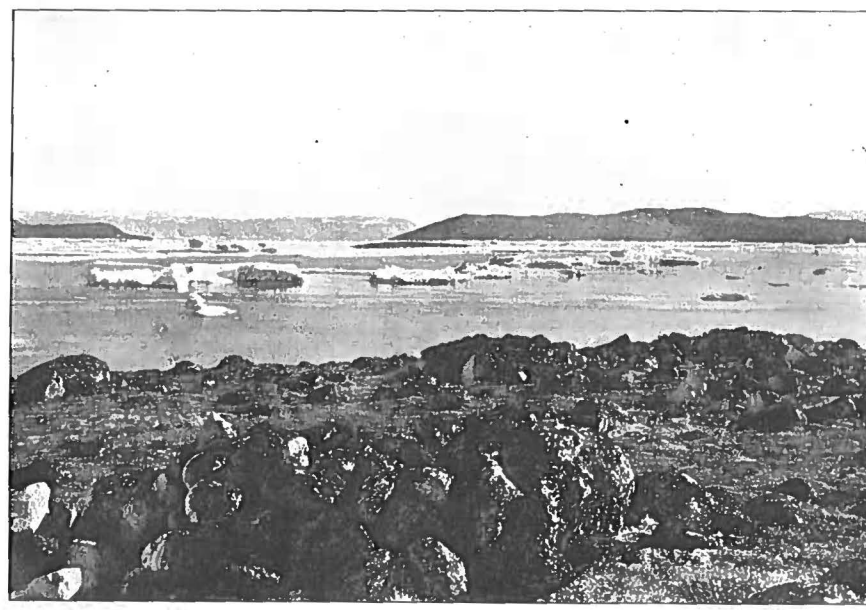

Fig. 29. Graves preserved as memorial, Igdlutalik.

impression of being very old, and are covered with lichen. Nos. 1—4 and 6—7 are large, well-built, undisturbed graves, although a few stones have been taken away from the outer part of some of them in earlier times, probably during a search for grave goods. Nos. 2, 4, 6 and 7 especially are very large and handsome graves covered with great heaps of round stones. Large boulders in situ go towards the construction of them all; at grave 7, which has a fine, open position in the middle of the plateau (fig. 26), only one or two small boulders in situ have been used.

Grave 5 is lower than the others and seems to have two chambers, one of which is in a rather collapsed state. Grave 8 lies in a gulley between two large boulders and is slightly disturbed.

In grave 5 there is in one chamber at least one well-preserved

[1]) Mathiassen, 1927, I, page 90 seq.

Grave No.	Grave Chamber		No. of Skeletons	Position of skull	Condition of Grave	Grave Goods
	Length	Breadth				
9	1.5	0.6	1	middle	collapsed	
10	1.0	0.5	2	SE.	almost undist.	
11	1.65	0.65	2	WNW.	undisturbed.	
12	0.95	0.75	2	NE.	undisturbed.	2 pierced teeth.
13	1.2	0.5	1	NNW.	almost undist.	Oval bowl bottom; fire-drilling stick.
14	1.15	1.0	3	S.	undisturbed.	Oval bowl bottom; ulo blade of iron; toy harpoon head.
15	1.5	0.5	5	S. and N.	almost undist.	Knife with side groove, thimble holder, 2 fire-drilling sticks; sledge shoe.
16	1.5	0.65	2	W.	almost undist.	Snow knife.
17	1.0	0.6	1	—	collapsed	Arrowhead, cylindrical bone tube.
18	1.5	0.6	2	N.	slightly dist.	Two badly decomposed wood sticks.
19	1.0	0.5	—	—	collapsed	Thick pointed piece of whale bone.
20	1.0	0.7	—	—	open, empty	
21	—	—	—	—	collapsed	
22	1.25	0.75	1	NE.	undisturbed	
23	1.9	0.7	—	—	collapsed	
24	0.6	0.45	1	middle	slightly dist.	Thin wooden pole.
25	0.8	0.6	1	—	badly dist.	Ajagaq, whetstone.
26	1.3	0.8	—	—	collapsed	
27	1.2	0.7	1	S.	collapsed	
28	1.1	0.7	4	S.	slightly dist.	
29	1.3	0.8	6	ENE.	slightly dist.	Wooden bowl.
30	—	—	2	—	collapsed	
31	—	—	—	—	open, entirely dist.	
32	1.6	0.7	3	NE.; middle	almost undist.	Knife with side groove, drill mouthpiece, ladle of bone.
33	1.0	0.4	1	—	collapsed	Comb, three ornamental bodkins.
34	1.25	0.6	3	NW.; SE.	almost undist.	Needle-case, ear-drop, bowl bottom.
35	1.9	0.7	2	—	slightly dist.	Wooden bowl.
36	1.2	0.55	1	E.	almost undist.	
37	—	—	—	—	entirely destroyed	
38	—	—	—	—	badly disturbed	
39	1.2	0.7	2	SW.	collapsed	
40	0.7	0.6	—	—	collapsed	
41	1.0	0.6	1	NE.	collapsed	
42	0.9	0.7	—	—	open; dist.	
43	1.4	0.8	1	—	badly dist.	
44	—	—	1	—	badly dist.	

skeleton; in grave 8 there are only scattered remains. In the other preserved graves it is not possible to say how many skeletons they contain.

Together with these consecrated graves lie the four nängíssat, whose lengths and orientation are also shown on the plan, fig. 25. The largest, which is 18 m long, consists of 15 rather large stones; the next has 16 stones in a row 15 m long; the third is 6 m long and consists of 12 rather small stones; and finally there is a fourth, $2^1/_2$ m long, consisting of five small stones placed close together. Thus there are nängíssat both for adults and for children of various ages. As far as I am aware, this is the largest nängíssat place in Greenland. Actually, the spot is

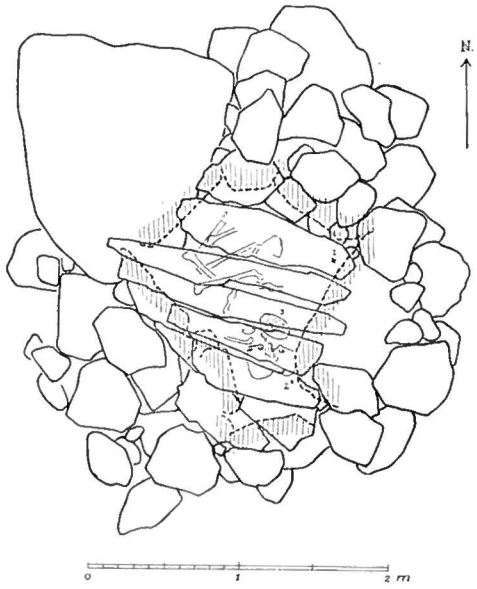

Fig. 30. Plan of grave 14, Igdlutalik.

an ideal one, a smooth, grassy plain at the top with a magnificent view over the surrounding country and ice-choked sounds.

Fig. 27—28 shows the nängíssat place with the consecrated graves in the background; fig. 27 shows the largest and the smallest nängíssat, fig. 28 the other two. Fig. 29 is a group of the consecrated graves with grave 1 in the foreground; in the background is Atâ Sound with Arsivik and Igdluluarsiup Talerua.

The table page 63 contains a summary of the 36 graves that were examined. All the graves seemed to be old and were well-grown with lichen. The orientation of the single graves will be seen on the plan.

A description will be given of some of the graves, handsome, well-built typical specimens, as well as graves where a good find of

interesting goods was made, or those to which some special interest is otherwise attached.

Grave 14 is a large, well-built, undisturbed grave, and is shown in plan on fig. 30. This plan illustrates the irregularly-angular grave chamber, which contained the skeletons of two adults and one child with their heads at the south end; two of the sides of this cist are formed of large stones in situ; five long, flat stones form a lid over the grave, and in addition it was heaped over with rounded stone boulders. The

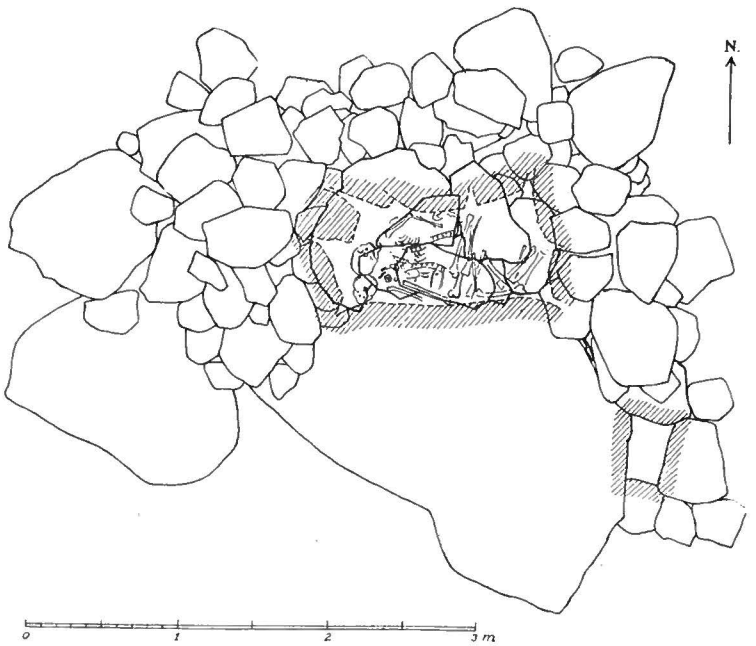

Fig. 31. Plan of grave 16, Igdlutalik.

bottom of the grave was formed of flat stones. The grave goods in it consisted of a badly-decomposed ulo blade with a tang of iron (drawing No. 1), an oval bowl bottom of whale bone (3), and a toy harpoon head of bone, thin, barbless and bladeless (2). The ulo blade shows that this grave is one of the most recent in the locality, presumably contemporaneous with house 3.

Grave 16 is also a large, well-constructed, undisturbed grave; fig. 31 is a plan of it, fig. 32 shows how it looked prior to examination, and fig. 33 its interior after the covering-stones had been removed. This grave is built up against a large boulder in situ, and was covered over with round stones; all the openings had been carefully tightened with small stones. The chamber is rectangular and was covered by 6 wide, flat stones, and the floor also consisted of flat stones; it contained two

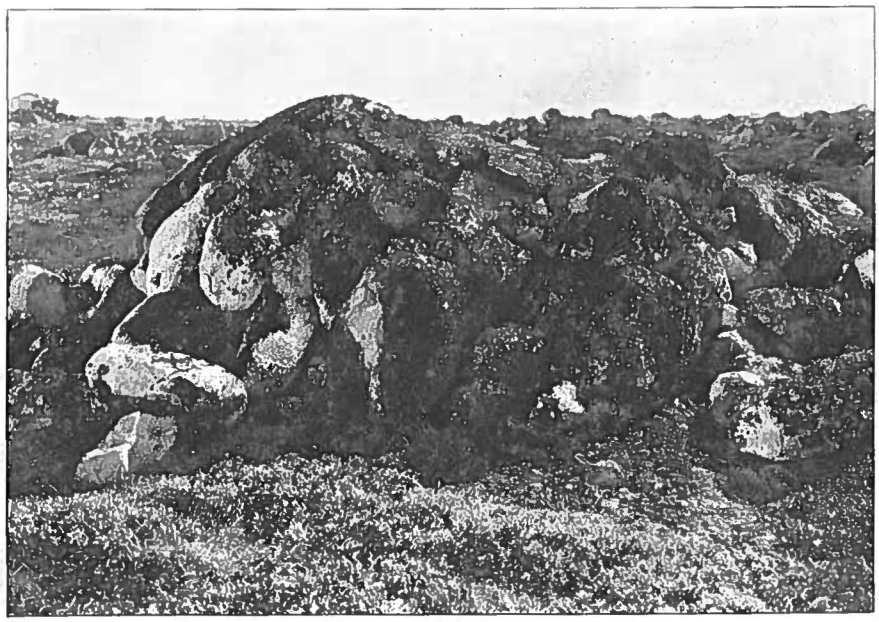

Fig. 32. Grave 16, Igdlutalik.

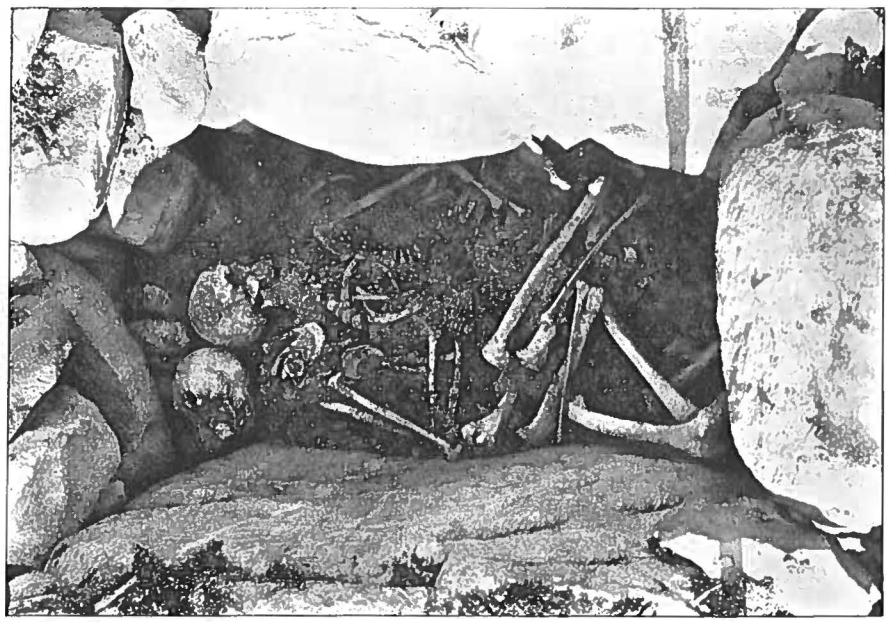

Fig. 33. Interior of grave 16, Igdlutalik.

skeletons lying with their heads at the west end and in the usual attitude with bent knees.

On the east side of a large boulder was a small, four-sided receptacle, apparently for grave goods, open and empty. Between this and the grave chamber, under the stones, were some human bones and a fragment of a snow knife, presumably put there when the grave was emptied at the last interment.

Grave 34, too, is a large, undisturbed grave; only a few of the

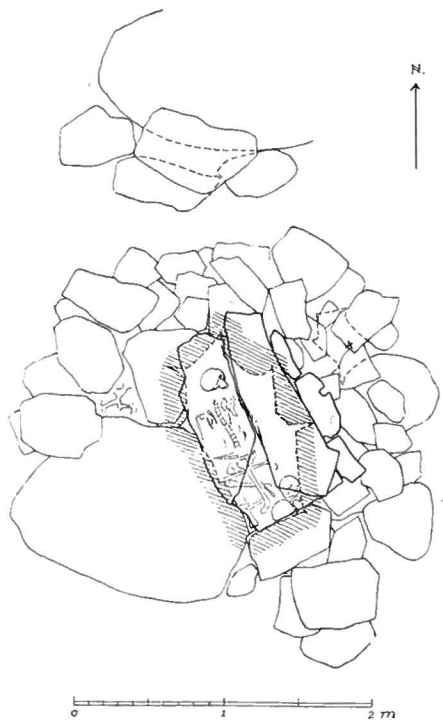

Fig. 34. Plan of grave 34, Igdlutalik.

stones in the periphery had been removed by some one looking for grave goods. Fig. 34 is its plan, fig. 35 a photograph of the interior. Like the others, this grave was built up alongside a large boulder; there are two large, flat lid stones lying longways. Here, again, it will be noticed what little space the grave chamber itself occupies in comparison with the extent of the grave as a whole. The chamber was oblong and contained three skeletons, two with their heads to the southwest, the third to the northwest; the latter was apparently the last to be interred, as the skeleton lay in its orginal position, outstretched with the legs drawn up; at the time of this last interment the skeletal parts of the two previous ones



Fig. 35. Interior of grave 34, Igdlutalik.

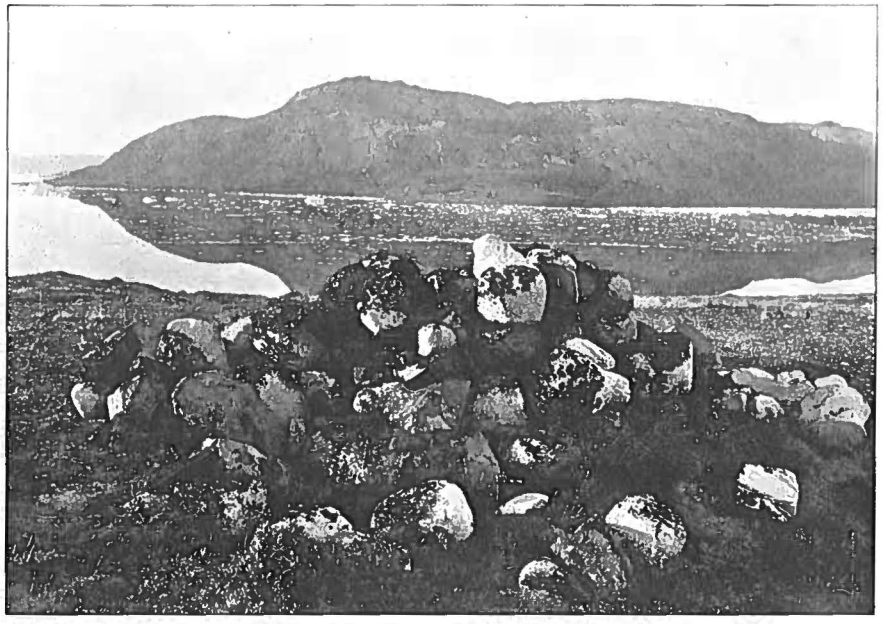

Fig. 36. Grave 36, Igdlutalik.

had been pushed together into the south end of the chamber in order to make room, a circumstance that is not at all uncommon.

Up against a large boulder northwest of the grave was a small, covered cavity, but it was empty. Among the stones northeast of the grave chamber (marked with × on the plan), lay the specimens Pl. 8.14-17: a winged needle-case of walrus ivory, an ear-drop, and a fragment of a small oval bowl bottom of wood. In the wide end of the needle case was the bone button No. 15, which has had its place at the end of the skin thong on which the case was suspended; thus it has hung with the broad end downwards, the opposite to what might have been expected. The needle-case is ornamented with a border consisting of a double line enclosing alternating transversal lines.

Grave 33 had almost collapsed entirely; only one large flat coverstone was in position. In the east end of the grave was a heap of bones in an advanced stage of decomposition, and under them lay the specimens Pl. 8.18-21: a comb in very conventionalised human form, three ornamental bodkins, one of them with a bust. The bottom of the grave was of gravel.

Grave 36 (fig. 36) is a large, well-built grave up against a boulder in situ; a number of the stones round about had been pulled away, apparently when searching for grave goods, a state of affairs one often meets at Igdlutalik; it has happened a considerable time ago; presumably it was Dr. Pfaff's zeal in buying up relics which animated the Eskimos to go in for this large-scale plundering of the graves. Dr. Pfaff was the physician in Jakobshavn. The grave had a rectangular chamber with a floor of flat stones and four flat lid stones; it contained one skeleton with the head towards the east, but no grave goods.

IV. THE FINDS FROM IGDLUTALIK

Apart from the grave finds which have been referred to above, the finds from the settlement of Igdlutalik aggregate 2671 specimens. These will be described in the following. They will be divided into different groups according to age: one special group — presumably the oldest — is the finds from house group VI—X, with the appurtenant middens B and C; this includes 261 specimens. The next, and much the greater, is formed of houses I and V with their middens, first and foremost Field A, but also the upper layers in house II, which were formed of the refuse from house I, and the few specimens from Field E; this group comprises 2015 specimens. A third — the youngest — group is the specimens from house III and the middens, in part Field D, and also the upper layers in house IV; these total 284. Finally, as a fourth group, we have the specimens from the deeper layers in houses II and IV, as well as a few old specimens from Field D; these total 78.

With each of these groups is a list of the specimens found, and this list will be followed by a description of such specimens as may call for special mention; some of them will be figured. In many cases where the type is particularly well-known, a reference to my previous works on the archaeology of Greenland: Inugsuk (cited as: Inugsuk), Ancient Eskimo Habitations in the Kangâmiut Area (cited as: Kangâmiut), and Prehistory of the Angmagssalik Eskimos (cited as Angmagssalik), will suffice.

Most of the types from these localities are well-known from the previous large finds made in Greenland and described in these three works, in which their distribution and chronology have been discussed; as regards these types, reference will therefore only be made to the page in those works (principally the second large find from the northern part of the west coast, Inugsuk) where the particular type is dealt with.

Eskimo Remains from House Group VI—X.

The following is a list of the specimens found in this group, particulars being given of how many of each type were found

in the various ruins. Those in Fields B and C are placed under ruins 6 and 8, from which they came.

List of Specimens.

Type	House Ruin VI		House VII	House VIII		House IX	House X	Total
	The House	Field B		The House	Field C			
Harpoon head, Thule type	..	1	..	..	..	..	..	1
— , Inugsuk type	..	..	2	..	..	3	..	5
— , thin, two barbs, blade slit	..	..	1	..	..	..	..	1
— , flat	..	1	..	..	..	..	..	1
Harpoon blade, of chalcedony	..	..	..	1	..	..	..	1
— foreshaft, fusiform, with one hole	..	..	..	..	..	..	1	1
Ice-hunting harpoon foreshaft	..	..	..	1	..	..	..	1
Mounting of harpoon foreshaft, thick	..	..	1 (?)	..	..	..	..	1 (?)
Ice pick	..	..	..	1	..	1	..	2
Harpoon wing, wide	1	..	..	..	..	..	..	1
Finger rest	..	..	..	1	..	..	..	1
Toggle for harpoon bladder	..	..	..	..	..	..	1	1
Butt of bladder dart head, conical, three holes	..	..	..	1	..	..	..	1
Wound pin	1	1	..	2	..	..	..	4
Leg of sealing foot-stool	..	..	..	..	..	1	1	2
Arrowhead, of bone, knobs on tang	..	..	..	..	..	1	..	1
Knife for pressing out water (?)	..	..	..	..	..	..	1	1
Arrow shaft	..	..	1	..	..	..	..	1
Leister prong	..	..	..	..	..	1	..	1
Gull hook, of wood with oblique shank	..	..	..	..	..	1	..	1
Sledge shoe, whale bone	1	..	4	..	..	1	..	6
— , baleen	..	..	2	..	..	..	..	2
Trace buckle	..	..	..	2	..	1	..	3
Kayak deck beam	..	..	1	1	..	..	..	2
Rest for kayak harpoon	..	..	1	..	..	..	..	1
Snow knife with one shoulder	..	..	..	..	..	..	1	1
Knife handle with end blade	1	..	1	..	..	..	..	2
Knife blade, stone, pointed, two-edged	..	1	2	..	..	..	..	3
— , stone, single-edged	..	..	..	1	..	..	..	1
Whetstone	..	..	5	3	..	5	3	16
Adze head, of bone	..	..	1	..	..	..	..	1
Adze handle, of wood	..	..	1	..	..	..	..	1
Hammer stone	3	..	..	..	1	1	1	6
Bow for drill	..	..	..	1	..	..	..	1
Drill shank	..	..	1	..	..	..	..	1
Drill mouthpiece, caribou astragalus	..	..	1	1	..	..	..	2

Type	House Ruin VI		House VII	House VIII		House IX	House X	Total
	The House	Field B		The House	Field C			
Mattock blade	2	..	..	..	..	..	..	2
Gouge, of stone	..	..	1	..	..	..	..	1
Ulo handle without arm	..	..	..	1	..	..	..	1
Ulo blade (?)	..	..	..	..	..	1	..	1
Scraper blade with convex edge	..	..	..	..	..	1	..	1
Scraper, of bone	..	..	..	1	..	..	..	1
Two-handed scraper	..	..	1	1	..	2	..	4
Lamp with knobs or wick ledge	..	..	2	..	..	..	..	2
Sherds of soapstone cooking-pot	2	2	3	1	1	..	..	9
Indeterminable soap-stone sherds	..	..	..	2	1	1	2	6
Oval meat tray, fragments	1	..	..	2	..	..	..	3
Four-sided tray, fragments	1	..	1	..	..	..	..	2
Oval bowl bottom	2	..	2	1	..	..	..	5
Scoop, of wood	..	..	..	2	..	..	1	3
Spoon, of bone	..	..	..	..	..	1	..	1
Fire-drilling hearth	..	..	1	1	..	1	..	3
Blubber pounder, of wood	..	..	..	..	..	..	1	1
Snow beater, of baleen	..	..	1	..	..	..	1	2
Snow goggles, of bone	..	..	1	..	..	..	..	1
Comb	..	..	..	..	..	..	1	1
Pierced tooth	..	..	..	1	..	..	..	1
Ornamental bodkins	..	..	1	1	..	..	..	2
Drum handles	..	..	1	..	..	..	1	2
Dolls	1	..	..	1	..	1	..	3
Toy arrow shaft	1	..	..	..	..	..	..	1
— head	..	..	..	..	..	..	1	1
Toy lamp with wick ledge	..	..	..	..	..	..	1	1
Toy cooking pot	..	..	..	..	..	1	..	1
Toy umiak	..	..	1	..	..	..	..	1
Sling handle (?)	1	..	2	..	..	..	..	3
Toggle of seal humerus	..	..	1	..	..	..	..	1
Bone mounting	..	..	1	1	..	1	..	3
Baleen implement (use unknown) with hole	..	..	1	..	..	..	..	1
Baleen strips with knots	..	..	..	1	..	1	..	2
Wooden sticks with barbs	1	1	..	..	..	..	..	2

The Specimens Discussed.

With one exception the harpoon heads belong to the thin group; of the various types the Inugsuk head (thin, closed socket, with the blade slit parallel with the line hole, but no barbs) is predominant, as five of the eight heads are of this type. One of these specimens is shown on Pl. 1.1; it is of antler, rather slender, with a single spur bifurcated

at the tip and with an iron blade (presumably telluric iron); one peculiar feature is that on both sides in continuation of the blade slit there is a long socket, presumably for small lateral blades, by which means the edges of the blade have been prolonged. The other Inugsuk harpoon heads are of the same material and are similar in size and shape; one has one spur and three have two; one has had a lashing round the socket to strengthen it; in none of them has the blade been preserved.

To the Thule group (with the open socket) belongs one harpoon head, Pl. 1.2, of antler, with two bilateral barbs; this specimen is badly decomposed. Pl. 1.3 is a small harpoon head of antler, with two bilateral barbs (one of them broken) and a blade slit at right angles with the line hole; with its closed socket it belongs to the Inugsuk group, whereas the oblique spur brings it closer to the Thule group.

Of flat harpoon heads there is only one, a badly decomposed fragment, a fore end, with the blade slit parallel with the line hole; like all the harpoon heads from this house group, it is of antler.

We see that these finds contain seven thin harpoon heads as against one flat one, a proportion which gives them a very old stamp[1]).

The harpoon blade shown on Pl. 1.4 is the only loose blade in this find; it is of chalcedony, a type well-known in the Inugsuk Culture[2]).

Pl. 2.1 is a foreshaft of an ice-hunting harpoon, having a scarf face at the rear end and two holes for the lashing; Pl. 2.2 is a foreshaft of a kayak harpoon, of the ancient fusiform type, without any distinct tenon in the butt[3]); both foreshafts are of whale bone.

Pl. 2.9 is possibly the mounting of the fore end of a harpoon shaft, but the specimen is a rather unusual one, of wood; at the fore end it has a deep, conical socket, round which runs a groove for a lashing; a little further back is pair of holes, and at the rear the specimen has been cut over; it recalls the old, heavy harpoon ferrules of the Thule and Inugsuk Cultures[4]).

An ice pick, of antler, 14.4 cm long, is exactly like Inugsuk Pl. 6.8; another, rather defective, is of whale bone.

Pl.2.10 is a harpoon wing, of whale bone; in the pointed end is a pair of notches for the lashing to the shaft; the other end is cut off; this is the broad form of harpoon wing found in Comer's Midden at Thule and in early finds in West and East Greenland[5]); this, however, is the first time that the harpoon wing has occurred in such an ancient

[1]) Cf. Inugsuk, p. 180 seq., Kangâmiut, p. 71 seq.
[2]) Inugsuk, p. 187.
[3]) Ibid., p. 188.
[4]) Ibid., p. 188.
[5]) See Angmagssalik, p. 77, where this form is discussed.

West Greenland find, although from its distribution one was bound to conclude that it had been known in the Inugsuk Culture.

The finger rest is of antler, thin, bent back over (type: Inugsuk, Pl. 7.1), and the toggle for the harpoon bladder is the usual form, of wood, with knobs on the ends (Inugsuk Pl. 6.13).

Pl. 2.3 is the broken end of a heavy weapon head, apparently of a bladder dart; it is of whale bone, has three holes, and at the rear is conical. We know very little about the bladder dart heads of the Inugsuk Culture; we have only a few broken fore ends of what are presumed to be bladder dart heads, mostly with only one barb[1]); we have no butt ends. The bladder dart heads of the Central Thule Culture are shorter and have only one hole [2]), a type which in Greenland is represented only by one specimen from Akúnaq in the Ritenbenk district. In the find from Comer's Midden (Thule Culture) there is a toy bladder dart head which has two holes, a type which thus goes back to the Thule Culture. Most West Greenland bladder dart heads are longer, with two or three holes like this one[3]). Later, these heads have their barbs arranged in one or several rings (cf. Pl. 4.4).

Pl. 2.12 is the leg of a sealing foot-stool, of wood, of the form characteristic of this article.

Of wound pins there are three, of antler (Pl. 1.8), and one long one, thicker, of wood (Pl. 1.9); otherwise the form is the usual one (Inugsuk Pl. 7.10-12).

Pl. 2.4 is an arrow head, of antler, widened out at the fore end into a roughly formed blade, at the butt having a conical tang with the two knobs that are characteristic of the Inugsuk Culture[4]) (one is partly broken off).

A broken handle of antler with a unilateral end knob seems to be of a knife for pressing out water, similar to Inugsuk Pl. 6.18.

The gull hook of wood with oblique grooves (Inugsuk Pl. 8.13) is represented only by a fragment.

Pl. 2.5 is a rather wide, flat point of antler with one powerful barb, apparently a leister prong.

The sledge shoes are all fragments; on those specimens of whale bone of which the breadth can be measured it is 3.1 and 4.3 cm respectively, rather less than the average at Inugsuk; one of the baleen shoes has been at least 4.3 cm wide.

A trace buckle of whale bone, broad and blunt, is shown on Pl. 1.12; two others, not so wide, are of antler and narwhal ivory.

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[1]) Inugsuk, p. 190; Kangâmiut, p. 79.

[2]) Mathiassen 1927, I, p. 31.

[3]) See, for example, Swenander, figg. 123 and 129.

[4]) Inugsuk, Pl. 7.17—18.

A flat piece of wood, 9 cm long, with flat tongues at the ends, is probably the deck beam of a kayak, near to one of the stems.

Two rests for kayak harpoons are shown on Pl. 1.10-11; one is of wood, the other, which consists of a foot and a crutch jointed into the foot, is of antler. These two rests have probably been used together, the first having been made fast to the kayak just to the right of the man hole, whereas the other has been fixed further forward by the side of the stand; through the hole there has apparently been a thong (or a wooden peg as on a specimen in the National Museum), which has been made fast to the deck thong. We know both types from Inugsuk[1]), the first



Fig. 37. Hammer stone, Igdlutalik. 1 : 2.

one from the Central Thule Culture too[2]), whereas the other seems to be a form peculiar to Greenland.

The only snow knife in this collection is a badly decomposed specimen of the broad, angular type, of whale bone (Inugsuk, Pl. 9.10).

The knife handles are both defective, of antler, with a blade socket in the end; one has had a suspension hole.

Of knife blades we have only fragments, some of rather wide, two-edged, unground blades of angmaq and brown jasper (Pl. 1.6), others of a roughly made, single-edged blade of micaceous schist, slightly ground at the edge.

Under one of the floor stones in house VII lay an adze head (Pl. 2.13) with its handle. The head is of antler, of an old, familiar type with three horizontal holes, a seating for the handle, an eye for a reinforcing lashing, and a wide blade socket for a stone blade (Inugsuk, Pl. 11.3). The handle, of wood, was of the usual form (Inugsuk, Pl. 9.8), 27 cm long but very decomposed.

Fig. 37 is a hammer stone of the fine-grained basaltic rock usually

[1]) Inugsuk, Pl. 8.23 and 21.12.

[2]) Mathiassen, 1927, I, fig. 51.

employed for this purpose, with large bruised facets in all three corners and along one edge. Two others are of the same rock, but smaller.

Whetstones are fairly numerous; the material in most cases is micaceous schist, and also argillaceous slate, gneiss, sandstone, or basalt; some of them have been carefully made, slender, four-sided, whereas others are more crude in form.

Fig. 38 is a piece of a fine-grained basaltic rock, roughly hewn, like an unfinished adze[1]); on one side it is polished by having been used as a whetstone, whereas the ends bear the signs of hammering. Pl. 1.13 is a small stone of soft, red argillaceous slate, with polished sides; possibly it has been used for colouring when "drawing" on other stones.

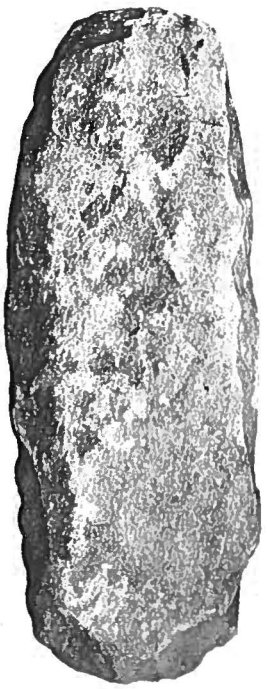

Fig. 38. Whetting and hammerstone, Igdlutalik. 1 : 2.



Fig. 39. Mattock blade, Igdlutalik. 1:4.

Of bow drills we have a well-preserved bow of whale bone with two holes in each end (Inugsuk, Pl. 12.1), a defective shank of whale bone, and two mouthpieces of the bone commonly used for this purpose, caribou astragalus (Inugsuk, Pl. 12.11).

A mattock blade of whale bone with two pairs of notches for the lashing is shown in fig. 39.

Pl. 1.7 is a flat, rather rounded piece of angmaq tapering off to one end where it has a narrow convex, carefully-ground edge, which is very unsymmetrical, one side being flat, the other rounded. On account of its curved shape and the nature of the edge, this specimen does not seem to be suitable for an adze blade; rather would one imagine its employment for hollowing out soapstone vessels or something like that. We have not met with such gouges in the other large West Greenland finds, but Solberg figures several of them — apparently the same implement, all with a short, ground, rounded, unsymmetrical edge; sometimes the whole piece is crooked, one side being almost straight, the other side curved[2]).

An ulo handle is shown on Pl. 2.15; it is of whale bone, narrow, with a thick back and a wide socket for a stone blade (cf. Inugsuk,

[1]) Cf. Mathiassen 1927 I, Pl. 48.2 from Qilalukan.

[2]) Solberg, figg. 4—8; one of them from Sermermiut.

Pl. 12.16); a crudely-formed fragment, of slate, with a slightly ground edge is of an ulo or scraper blade.

Pl. 1.5 is a handsome specimen of the convex-edged scraper blade (Inugsuk, Pl. 13.3-4); it is of brownish-mauve and grey angmaq, and has two notches for the lashing of the handle.

Pl. 2.11 is an implement of whale bone with a transverse, rather thick, worn edge; presumably it is a scraper for softening skin, recalling those found in the Central Thule Culture, made of caribou scapula[1]).

Pl. 2.7 is the two-handed scraper, made of the metatarsal bone



Fig. 40. Lamp fragment, Igdlutalik. 1: 4.

of a caribou; a fragment is of the same bone, whereas two others are of seal tibia and fibula (Inugsuk Pl. 11.15 and 17).

Of lamps we have a large fragment of a big, very wide lamp with a row of knobs near the fore edge (fig. 40), and a smaller fragment of a lamp with a small but distinct wick ledge, 2.3 cm from the edge; both types are characteristic of the Inugsuk Culture[2]) and the Thule Culture[3]), the knobs particularly of the latter.

A curved slab of gneiss, on which is a quantity of blubber, may also have been used as a lamp.

There is a quantity of sherds of soapstone cooking pots, all of the rounded type; two have suspension holes through inside projections (Inugsuk, Pl. 15.10), and two have a projecting ledge on the outside just below the rim.

[1]) Mathiassen 1927 I, Pl. 25.1-3.
[2]) Inugsuk, p. 228; Kangâmiut, p. 97.
[3]) Mathiassen 1927 II, p. 99.

Of wooden trays we have two rather large fragments of the four-sided sort, and two smaller fragments of rounded meat trays; there are also some fragments of oval bowl bottoms, of wood; one, which is only $4^1/_2$ cm long, may have been that of a child (Inugsuk, p. 234 seq.).

Fig. 41 is a dipper of wood, with a bowl almost semi-spherical, cut out in one piece with the wooden handle; in its end knob is a bone



Fig. 41. Wooden dipper, Igdlutalik. 1:2.

peg inserted at an angle, possibly for suspension (Inugsuk, Pl. 16.2 with a similar peg); this dipper is 16 cm long but slightly defective. In addition, we have two broken handles, both with knobs on the end and belonging to wooden dippers of rather large size.

A spoon is of antler, 16 cm long, with a bowl 4.3 cm wide, cut square at the fore end, whereas at the rear it runs smoothly into the handle, which in the end widens out into an oval (cf. Kangâmiut, Pl. 5.4, but narrower); the specimen is badly decomposed.

For fire drilling we have a stick and two hearths of wood.

Fig. 42 is a club, apparently used as a blubber pounder, formed of a very bent branch of driftwood; the handle has a pronounced knob on the end; further along it has a hole through it, apparently for a suspension thong; the face is slightly domed. A rather defective specimen (L 5790), doubtless a blubber pounder of this type, was found in the

lower layers at Sermermiut during the excavation in 1909; otherwise we do not know blubber pounders of this type in West Greenland; the usual implement, both there and in the Central Eskimo region, is of antler (Inugsuk, Pl. 15.11); on the other hand we know them from Northeast Greenland[1]).

Two snow beaters of baleen (Inugsuk, Pl. 19.2-6) are both broken

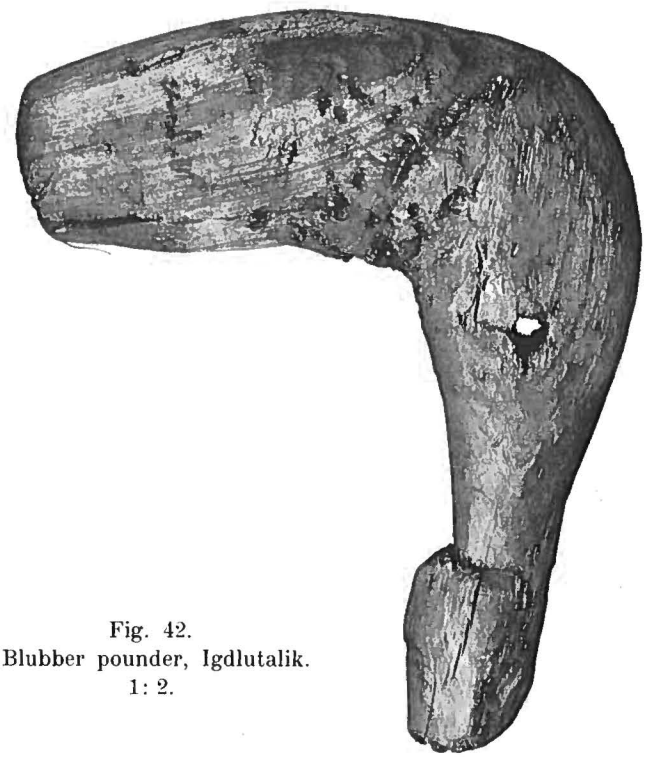

Fig. 42.
Blubber pounder, Igdlutalik.
1: 2.

at the fore end; one has a small, unilateral knob at the end of the handle, the other has a depression in one side of the handle.

A handsome and well-preserved specimen is the snow goggles Pl. 2.14 found in house VII; they are of whale bone and formed partly by cutting, partly by drilling; there are narrow slits for the eyes, and in the ends are pairs of holes for the thongs which have held them on.

We do not know very much about snow goggles in the ancient Eskimo Culture. From the Central Thule Culture we have only a small fragment, of walrus ivory, with eye slits, from Naujan, and an unfinished specimen from Kûk on Southampton Island; the latter, which is of antler, has been given a notch for the nose and seems to be an attempt at a form

[1]) Thalbitzer 1909, fig. 44; several in later finds.

similar to the present specimen[1]); a modern specimen of wood and walrus ivory from the Iglulik Eskimos is also of the same form[2]). In the Greenland Inugsuk Culture no snow goggles have been found so far, but this probably is accidental, as we know of exactly similar forms, of wood, among the modern East and West Greenlanders[3]).

Pl. 1.18 is a comb, of walrus ivory, found in house ruin X; there have been at least six teeth, but they are all broken off; the handle is narrow and has the form of a conventionalized human being of the type we usually find among the dolls, with a flat face devoid of features and without arms; the outline indicates shoulders, waist and hips; the back of the head is somewhat rounded, so one is left in no doubt as to which is back and which is front.

I have on a former occasion discussed the comb in human form[4]); it is an old type, occurring in ancient finds in both Alaska and the Central Region; from Greenland we have a specimen found at Jakobshavn, of unknown age, and very conventionalized specimens from Comer's Midden at Thule (the later layer C), and Dunholm in Scoreby Sound; these latter combs are also similar to the one from grave 33 at Igdlutalik (Pl. 8.21). The comb from house ruin 10 at Igdlutalik is less conventionalized than these other Greenland specimens, its human form being more distinct; this is particularly interesting in combination with its occurrence in this very ancient house group; the conventionalizing is not yet so far advanced as it becomes later.

A pierced tooth is from the white whale, drilled through the root, part of which has been cut off.

Pl. 1.15-16 are two ornamental bodkins; one is of walrus ivory with a profiled head, the other, a smaller one, of a tubular bone with a row of notches down each side of the head.

These ornamental bodkins are common in the Inugsuk Culture[5]), where they often occur in a special form with quite a number of mouldings round the head, a form which I have previously thought may be due to Norse influence[6]). This, however, is scarcely the case with these ornamental bodkins as a whole (although it may be with the special moulded form); in the find from Comer's Midden at Thule there is a specimen

[1]) Mathiassen 1927, I, Pl. 29.3 and 70.9.

[2]) Mathiassen 1928, fig. 154a.

[3]) Thalbitzer 1914, fig. 323; Birket-Smith 1924, fig. 150.

[4]) 1927, II, p. 114—15. The best specimen of this type from Greenland is the handsome example from Dunholm (Thalbitzer 1909, fig. 55), whence we also had the blubber pounder of wood; we have other ancient types from the same locality, such as heavy harpoon shaft mountings and an arrow head (Thalbitzer l. c., figg. 8 and 45); the settlement there seems to be very old.

[5]) Inugsuk Pl. 14.14-19.

[6]) l. c., p. 297.

which most probably has been the prototype of the specimens in the present collection[1]); thus it goes back to the Thule Culture, even if it is not known outside of Greenland.

Pl. 1.17 is a drum handle of wood, of the usual type, with a notch for the frame and two small notches for the lashing on the opposite side (Inugsuk, Pl. 17.8).

Pl. 1.19-21 are three dolls of wood. One, No. 19, is apparently male, with short stumps of arms and a pointed hood, with a natit and short boots; as usual, the face is simply a flat disk. The second (No. 21) is female, with a hair tuft, but rather crudely made; both types are familiar in Inugsuk (Inugsuk, Pl. 18.18 and 20). No. 20 is a peculiar specimen; the extended legs and the position of the arms show that it is intended to represent a man making water, a curious pendant to the man from Inugsuk who is relieving nature [2]). By the way, in the Inugsuk find there is also a small doll which, like this one, stands with its legs apart[3]).

Besides these dolls there are toys of various kinds: an arrow shaft and an arrow head of wood; an umiak of wood, 17 cm long and 3.2 cm wide, pointed at both ends, flat on the under side and hollowed out on the upper side; a defective lamp with a wick ledge and a slightly larger, likewise defective, rounded cooking-pot, both of soapstone.

Of "sling handles" (Inugsuk Pl. 16.8-12) we have two fragments of large specimens; the pointed fore end with the notches is present on both, whereas only one has part of the handle left. In addition, there is a miniature specimen, apparently for a child (Pl. 1.14), rather flat, with a well-formed handle and the fore end slightly defective.

A toggle is of seal humerus, with a hatched belt around the middle (Inugsuk p. 263). We also have some pieces of narrow bone mounting, the unknown baleen implement with a hole which we know from Inugsuk and Comer's Midden (Pl. 2.8)[4]), two strips of baleen with knots, two sticks of wood with barbs, two small bone points, two wooden balls, two stone balls, a length of seal thong, a stick of asbestos, a piece of wooden shaft 38 cm long with scarf faces at both ends, some worked pieces of whale bone, antler, baleen and wood, two pieces of coal, and some chips from the making of stone implements (11 pieces of angmaq, 4 of chalcedony, and 1 of jasper).

To this find we must presumably add that from grave 34, the specimens of which: the needle case with the ancient ornament: two parallel lines with alternating transversal lines, the ear drop, and the oval cup bottom, are naturally associated with it.

[1]) Mathiassen 1927, II, Pl. 78.8.
[2]) Inugsuk Pl. 18.23.
[3]) Inugsuk Pl. 18.15.
[4]) Inugsuk Pl. 19.7. Mathiassen 1927, I, fig. 103.

Cultural Position.

Judging from the shape, state of preservation and situation of these five houses, one would assume that they had been in use at the same time, or at any rate within the same period. Is this assumption confirmed by the finds themselves? Nothing in the finds indicates that these houses are not contemporaneous; the types we have found in the five houses seem to belong to the same stage of culture; almost all the harpoon heads are thin, and the lamps have the wick ledge. Accordingly, there is every reason for regarding these finds as one whole, representing the Eskimo Culture in a definitely limited period; this period has scarcely been very long, having regard to the thinness of the middens outside all the houses. Then what is the position of this find in relation to the other, earlier Greenland finds?

Its close association with the Inugsuk Culture is conspicuous at once. We have constantly referred to corresponding types found in the old part of the large midden at Inugsuk in Upernivik district.

The harpoon heads are very similar to those from Inugsuk: the thin ones with the closed socket predominate, and among them again is the Inugsuk type itself; in addition, however, we find both the Thule type and the flat types represented. Harpoon blades, foreshafts of harpoons and ice hunting harpoons, heavy harpoon shaft mountings, ice picks, finger rests, toggles for harpoon bladder, wound pins, legs for sealing stools, arrow heads of bone with knobs, knife for pressing out water, leister prong, gull hook, sledge shoes of bone and baleen, trace buckles, the two forms of rests for the kayak harpoon, the kayak deck beam, the snow knife, knife handles with end blades, single and two-edged knife blades, whetstones and hammer stones, adze heads and handles, mattock blade, the various parts of the bow drill, ulo without arm, stone scraper blade with convex edge, two-handed scraper, lamps with row of knobs or wick ledge, rounded cooking pots with inside suspension holes, oval and four-sided meat trays, oval bowl bottoms, wooden dippers, bone spoons, fire-drilling sticks, snow beaters of baleen, combs, pierced teeth, ornamental bodkins, drums, dolls of the usual type, toy umiak, "sling handles", toggle of seal humerus, the unknown baleen implement with a hole, and strips of baleen with knots, all are of the characteristic types of the Inugsuk Culture and are known from the Inugsuk find itself. In addition, there are associated types such as the broad harpoon wing, the snow goggles, and, apparently, the gouge; judging from their distribution, these types must also be assumed to belong to the Inugsuk Culture but happen not to have been found in it previously.

For parallels to the bladder dart head with the three holes and the bone scraper we must go to the Thule Culture: to Comer's Midden or

to the Central Region. No doubt the former has also been known in the Inugsuk Culture, as it seems to have been fairly common in West Greenland in earlier times. Finally, we have the blubber pounder of wood, which is mostly known from Northeast Greenland, where it probably also arrived via the Inugsuk Culture; it is possible, however, that it is one of the types which reached Northeast Greenland north about the country together with several Thule types.

But if we make a closer examination of the Inugsuk types found in the earliest house group at Igdlutalik, we will see that the great majority of them belong to the Thule Culture as we find it in Comer's Midden and in the Central Regions. There are extremely few types that are not known outside of West Greenland, actually only the one form of kayak harpoon rest (Pl. 1.10) and the gouge; the latter seems associated with angmaq, the rock which occurs only in West Greenland. Accordingly, this find is almost pure Thule Culture, apart from the fact that most of the harpoon heads have the closed shaft socket; it would thus seem to have an earlier stamp about it than the Inugsuk find itself. This impression is strengthened by a detailed examination of the various types of implements: the proportion between the flat and the thin harpoon heads is slightly smaller than at Inugsuk, but of course the material from there is too small for any conclusions to be drawn. The only harpoon foreshaft has a conical butt, which again is an old feature; the ulo handle has neither arm nor intermediate piece; of the lamps, one is very wide and has a row of knobs as in the Thule Culture; the comb is of the ancient form with the human figure and is less conventionalized than the one from the later layers in Comer's Midden. All this makes the Igdlutalik find appear to be very old.

In addition, however, there is the series of important negative features; the Igdlutalik find contains nothing to indicate any intercourse or influence from the Norsemen. Not only is there nothing which has come direct from the Norsemen, as at Inugsuk[1]); the types which are the result of culture influence from the Norsemen do not occur either: the coopered vessel, spoons of antler with a thin handle and an oval bowl, the knife with the blade groove in a thinner part of the handle[2]), and the screw. Of particular importance in this connexion is the absence of coopered vessels; usually these are extremely common in Inugsuk Culture finds: at Inugsuk itself there were found 34 staves as well as an entire tub[3]); at Qeqertarmiut in the Kangâmiut

[1]) Inugsuk, p. 284 seq.

[2]) Knives with a side groove are known from Thule (Wissler fig. 6), but the type with a thinner blade part is purely West Greenland.

[3]) Inugsuk, p. 237.

district there were 22[1]); and in the find from the rather houses I and V and Field A at Igdlutalik (see p. 85 seq.) we found 43 staves as well as an entire tub, in all representing 2 per cent of the number of objects found there. If coopered vessels had been known at all in this earliest stage one would have expected to find them represented; as the list of finds shows, the conditions for preserving objects of wood were not at all bad.

These negative features weigh heavily in the balance; combined with the earlier features referred to above, they indicate that these, the earliest finds from Igdlutalik, are older than the Inugsuk find and date from a time prior to intercourse with the Norsemen.

Then how old is the Igdlutalik find? On the basis of the objects of Norse origin contained in the Inugsuk find I estimated the latter at the thirteenth-fourteenth century.

During the early part of their settlement in Greenland the Norsemen met no Eskimos, but only traces of them. Only towards the close of the twelfth century do we hear that on their journeys northwards the Norsemen have fallen in with Eskimos; we read in "Historia Norvegiae": ....."on the other side of the Greenlanders towards the north some small people have been found by hunters who have called them Skrællings, and who, if wounded by weapons, while alive, die without shedding blood, but whose blood when they are dead will not cease to flow; but they have no iron at all, and use whales' teeth for arrow heads and pointed stones for knives"[2]). In the course of the thirteenth century the intercourse between the Norsemen and the Eskimos living in the north became more lively, and presumably it is in this period that the Eskimos have received the culture from the Norsemen which stamps the Inugsuk Culture. This gives us an upper limit for the Igdlutalik find, viz. the twelfth century.

As regards the lower boundary, it is assumable that Eskimos were already living in North Greenland when the Norsemen came to the country in 985; otherwise the Eskimos would scarcely have left traces behind them in South Greenland, whether they may have been from an experimental settlement which was later abandoned, or from a first migration round to the east coast[3]). On the other hand, judging from conditions in arctic Canada it is not very likely that the settlement of the northern west coast has taken place much before the tenth century; the great resemblance to the Inugsuk find does not indicate any long period of time between them. Under these circumstances I would estimate

[1]) Kangâmiut, p. 69; that they were not found at the other settlements there is a consequence of the bad conditions for preserving objects of wood.

[2]) Daniel Bruun, p. 138.

[3]) Conditions at Angmagssalik if anything argue in favour of the first possibility.

the earliest finds from Igdlutalik as belonging to the period from the tenth to the twelfth century; accordingly, they are the earliest-known Eskimo finds from West Greenland.

Whether they are from the first or from the latter part of that period is difficult to say as long as we do not know more about the culture developments that took place in the Cape York district. These finds are not pure Thule Culture; the harpoon heads have changed, and one or two forms peculiar to West Greenland have made their appearance. But on the whole this find presumably represents the first Eskimo population that immigrated into West Greenland.

Specimens from Houses I and V and Field A.

Below is a list of the specimens found in houses I (and the upper layers in II, which have come from it), V and Field A; the latter is so divided that the specimens from its upper and lower halves are shown separately. Those from Field E, which presumably came from house I for the most part, are so few and insignificant that they do not appear in the list.

List of Specimens.

Type	House I	House II	House V	Field A		Total
				Upper	Lower	
Harpoon head, Thule type	..	..	..	1	2	3
— , Inugsuk type	..	..	1	2	2	5
— , thin, fragment	..	..	..	1	1	2
— , flat, open socket	..	..	..	..	2	2
— , - , closed socket, neither blade nor barb	1	..	1	3	3	8
— , - , blade, barbless	5	5	7	5	5	27
— , - , - , barbed	..	1	2	..	2	5
— , - , fragment	..	1	4	3	3	11
— , several line holes	..	..	..	1	2	3
— , Ituartit	1	..	..	1	..	2
Harpoon blade, stone, notched	1	..	1	2	1	5
— , - , hole	1	..	2	..	..	3
— , - , neither notch nor hole	..	..	1	..	..	1
— , bone	1	..	2	1	2	6
Harpoon foreshaft, one hole, short tenon	2	2	1	1	1	7
— , indeterminable	1	1	1	1	3	7
Ice-hunting harpoon foreshaft	4	1	1	..	..	6
Harpoon shaft mounting, cylindrical	..	..	2	..	2	4
Harpoon shaft, fragment	1	..	..	..	1	2
Harpoon wing	..	..	..	..	1	1
Ice pick	2	1	7	6	9	25

Type	House I	House II	House V	Field A		Total
				Upper	Lower	
Finger rest for harpoon	..	1	1	..	..	2
Tension piece	1	..	1	..	..	2
Swivel	..	1	1	1	..	3
Harpoon bladder mouthpiece	1	..	..	..	..	1
Harpoon bladder plug	1	..	1	3	6	11
Bladder dart butt, conical	1	2	..	3	..	6
— head, with belt of barbs	..	..	1	1	..	2
Head of small lance	..	..	..	1	4	5
Sealing stool seat	..	..	1	1	..	2
— leg	..	..	..	1	3	4
— one-legged, seat for	..	..	..	..	1	1
Wound needle	1	..	1	..	2	4
Wound plug, of wood	..	..	2	2	..	4
Neck piece for towing gear	..	..	..	1	..	1
Seal net of baleen	..	..	..	..	1	1
Bow, of wood, fragment	..	..	2	1	3	6
— , - baleen	..	1	1	..	2	4
Reinforcing piece for bow	1	..	3	1	1	6
Sinew twister	..	1	..	..	2	3
Arrow head, bone, with knobs	1	..	..	1	6	8
— , — , — screw	1	..	1	1	..	3
— , — , indeterminable	1	2	..	3	2	8
— , stone, lanceolate	..	1	2	1	1	5
Arrow shaft	..	..	..	2	4	6
Bird dart head with screw	..	..	1	2	..	3
— prong	2	3	1	2	1	9
— ferrule	..	..	2	..	..	2
Throwing board, fragment	..	1	3	3	4	11
Bola ball (?)	..	..	..	..	1	1
Gull hook, with oblique grooves	..	1	..	..	4	5
— , — hole	..	1	..	..	..	1
Leister prong	2	2	2	10	4	20
Fish hook	..	..	..	1	..	1
Ice scoop, of baleen	1	..	..	..	..	1
Sledge runner, fragment	..	..	..	1	1	2
Sledge cross-slat, fragment	..	1	..	1	1	3
Sledge shoe,, whale bone	13	4	19	14	25	75
— , baleen	..	1	2	..	..	3
Trace buckle	..	..	1	..	4	5
Umiak, rib	..	..	..	1	..	1
— , beam	..	..	..	..	1	1
— , paddle blade	..	..	..	1	..	1
Kayak gunwale	..	..	3	..	..	3
— deck beam	2	..	..	..	2	4
— coaming	..	..	..	1	1	2
— paddle, fragment	1	..	..	..	2	3
— scraper (?)	..	..	..	1	..	1

Type	House I	House II	House V	Field A		Total
				Upper	Lower	
Kayak paddle, end mounting	..	..	2	1	..	3
Thong stud for kayak	..	..	..	1	..	1
Rest for kayak harpoon	..	2	..	..	1	3
Snow knife	..	..	..	3	3	6
Knife with end blade	1	1	1	3	3	9
— — side groove for blade	4	5	2	15	16	42
Knife blade of stone, two-edged	..	..	3	1	1	5
— - — , single-edged	..	..	2	1	..	3
Knife of shark teeth	1	..	..	..	..	1
Whetstone	8	5	15	6	35	69
Hammer stone	4	1	3	1	3	12
Adze head, of bone	..	..	..	..	3	3
Adze blade, of stone	1	..	..	..	..	1
Adze handle	..	..	1	..	..	1
Mattock blade	1	..	..	5	8	14
Wedge	2	1	1	2	4	10
Drill bow	1	..	..	..	1	2
Bow drill shank	3	..	4	2	3	12
— bit, of stone	..	..	1	..	..	1
— mouthpiece	1	..	..	3	2	6
Flint flaker (?)	..	..	..	..	1	1
Thong smoother	2	1	..	..	..	3
Ulo, without arm or intermediate piece	1	3	..	2	9	15
—, with intermediate piece	..	1	2	5	1	9
Ulo blade, of stone	..	..	1	1	..	2
Scraper blade, convex edge	..	..	1	1	..	2
Stone scraper	5	1	13	6	12	37
Baleen shave (?), stone	..	..	..	..	1	1
Two-handed scraper	3	1	1	4	7	16
Needle, bone	1	..	..	..	..	1
Needle-case, winged	..	..	1	1	..	2
Thimble holder	1	..	..	..	..	1
Bodkin	..	1	..	1	1	3
Boot creaser, bone	1	..	2	2	..	5
Boot creaser, stone	1	..	..	..	..	1
Cutting board	..	..	2	..	1	3
Scraping bench	..	..	1	..	..	1
Lamp, with wick ledge	1	..	..	..	4	5
— , — vestigal wick ledge	1	2	..	1	1	5
— , — central partition	..	1	1	2	1	5
— , without wick ledge	1	..	3	4	..	8
— , oval, thick walled	..	..	1	2	1	4
— , indeterminable fragments	..	..	1	..	1	2
Lamp trimmer, asbestos	..	..	1	..	..	1
Cooking pot, fragments	5	..	27	11	19	62
Indeterminable soapstone sherds	4	1	12	21	26	64
Wooden dish, rounded	4	1	19	6	13	43

Type	House I	House II	House V	Field A		Total
				Upper	Lower	
Wooden dish, four-sided	2	..	4	3	3	12
— , indeterminable fragments	6	2	1	3	12	24
Bowl bottom, oval	4	2	8	9	12	35
Sides of oval bowl, baleen	..	..	..	..	2	2
Tub stave	7	2	9	9	17	44
Wooden dipper	1	1	..	2	3	7
Ladle	..	..	..	..	1	1
Spoon	..	..	..	1	4	5
Fire-drilling wood	3	1	16	8	14	42
Drying rack, four-sided	1	..	..	..	..	1
Pot hook	..	..	..	2	..	2
Blubber carrier	..	..	1	..	..	1
Blubber pounder	..	1	1	1	..	3
Meat stick	..	..	3	3	3	9
Baleen basket	..	..	..	..	1	1
Snow beater, of baleen	1	..	..	..	1	2
Kamik straw, of baleen	..	..	..	1	..	1
Comb	..	..	1	..	1	2
Pierced tooth	1	1	1	2	..	5
Drop pendants, of bone	..	1	1	3	..	5
— , - stone	..	..	..	1	2	3
Bead, of bone	..	..	..	1	..	1
Ornamental bodkin	2	2	..	6	2	12
Ajagaq, seal radius	..	..	..	..	1	1
— , — penis bone	..	1	..	..	..	1
— , other forms	1	1	..	..	..	2
Angakoq stone	..	..	..	..	1	1
Top disk	..	..	2	..	..	2
Wind wheel	..	..	..	..	1	1
Drum handle	..	..	1	1	2	4
Drum frame	1	1	..	..	..	2
Doll, Eskimo	6	..	11	10	15	42
— , Norse	..	..	1	..	..	1
Toy harpoon	..	..	..	..	1	1
— harpoon head, thin	..	..	..	..	1	1
— — , flat	..	2	..	..	1	3
— bladder dart head	..	..	..	..	2	2
— sealing stool	..	..	..	1	..	1
— bow of wood	..	..	..	..	2	2
— — - baleen	..	..	1	..	1	2
— arrow shaft	..	..	1	1	1	3
— sledge runner	..	..	1	1	..	2
— sledge cross slat	2	..	2	..	..	4
— umiak steering paddle	..	..	..	..	1	1
— kayak	..	..	2	3	2	7
— kayak paddle	1	..	1	1	2	5
— kayak paddle end mounting	1	..	..	..	1	2

Type	House I	House II	House V	Field A		Total
				Upper	Lower	
Toy baleen knife	..	..	..	1	1	2
— knife with side grooves	..	..	1	..	..	1
— lamp with wick ledge	..	1	..	2	1	4
— — — central partition	..	..	1	..	1	2
— — without wick ledge	..	..	..	1	..	1
— — oval and shapeless	1	..	..	..	1	2
— cooking-pot	..	1	2	4	2	9
— wooden dish	..	..	..	1	1	2
— drum	..	..	..	..	1	1
Edge mounting	2	5	..	5	2	14
Small toggle	2	..	2	..	..	4
"Sling handle"	..	..	..	..	2	2
Gaming piece (?), wood and bone	..	..	..	4	2	6
Peg, wood and bone	..	1	..	1	2	4
Bird bone, pointed	..	4	1	2	4	11
Baleen cord with knots	3	..	18	8	17	46
Baleen with holes	2	..	..	6	11	19
— — barbs	..	1	..	1	1	3
Other worked baleen	3	1	5	1	16	26
Wooden implement, Pl. 7.20	..	..	3	1	1	5
Iron, also in implements	5	2	2	10	4	23
Norse relics	..	..	..	1	2	3
Mica ball	2	..	1	5	6	14
Pyrites	..	..	..	1	..	1
Refuse from making stone implements	5	2	21	20	29	77

In addition to these, we naturally found a large number of bone and wooden objects which could not be identified, fragments of indeterminable stone implements, worked pieces of bone and wood (unfinished objects, chips, etc.); some of these will be described and figured in the following.

General Remarks on the Finds.

Two Culture Layers.

Taking them all round, the finds from the two ruins I and V and the midden layers that came from them, the upper layers in house II and the large midden A, form a homogeneous group; this is especially true of all the finds from houses I, II and V and the upper half of midden A. With their four-sided form, houses I and V closely resemble each other; the only difference is that house I has one passage, whereas house V has two; the specimen types we found in them are so uniform in character that we must regard these two houses as belonging to the same period. Nor can any essential difference be found between the

objects from the earlier and later habitations of these houses, the objects found over and under the uppermost stone floors in the houses; and in addition the objects from the upper half of midden A are associated with them.

Matters seem to be rather otherwise in respect of the objects from the lower half of midden A, the part of this midden that has principally come from the old houses, whose greatly disturbed remains we found in it. These objects seem to date from a somewhat earlier culture period.

In this connexion our attention is particularly drawn to types like the harpoon heads, arrowheads, ulos and lamps, these artefacts being of outstanding importance when making chronological determinations.

If we take the harpoon heads first, we will see that there is not much difference between them:

	Thule Group (Thin, open socket)	Inugsuk Group (Thin, closed socket)	Flat Open socket	Flat Closed socket
House I (and II)	0	0	0	13
— V.....	0	1	0	14
Field A, upper part.....	1	3	0	11
— , lower —	2	3	2	13

I grant that in the lower layers of A there were three harpoon heads with open socket as compared with one in the upper layers and none in the houses; nevertheless the flat, closed-socketed harpoon heads are pronouncedly in the majority in the finds from all four localities.

With regard to the arrow heads, we will observe that in Field A's lower half we find exclusively the type with knobs on the tang (or with nothing at all), but none with a screw, whereas the latter occurs in both A's upper part and in houses I and V.

Of ulos the lower layers yielded 9 without and only one with an intermediate piece, in the upper layers 2 without but 5 with the intermediate piece; here, then, is a distinct difference: the later form with the intermediate piece has become predominant in the upper layers.

As concerns the lamps, in the lower layers we find four with a wick ledge, one with a vestigal wick ledge, one with a central partition, and none without wick ledge or central partition; in the upper layers we find none with a wick ledge, one with a vestigal wick ledge, two with a central partition, and four without anything; here, again, the difference is very distinct, the old form of lamp with the wick ledge is distinctly put into the background in the upper part of midden A (as in the houses), and is replaced by the form without the wick ledge.

But in addition, a number of later types which occur in

the houses and in the upper half of A are entirely absent in the lower half of A. These types are: bladder-dart heads with belt of barbs, neckpiece for towing gear, bird dart head with screw, and wound plug of wood, that is to say, just the most important of the types whose presence or absence signifies the principal difference between the first and the second culture stage in the Kangâmiut area[1]). Even if the number of these types at Igdlutalik is not particularly large, the absence of them all in the lower half of midden A, in conjunction with the aforesaid differences between the arrow heads, ulos and lamps, must mean that the lower half of midden A belongs to a somewhat earlier culture stage than the objects from houses I and V.

Remarks on the various Types.

A general description of all the specimens from these houses would be superfluous; most of them have become too well-known for that. Where the list is not sufficient, it will be supplemented with remarks or descriptions, often with references to other finds, especially Inugsuk, and in addition some of the more characteristic or rare specimens will be figured (Pl. 3—7 and figg. 43—49).

Harpoon Heads. Of Thule harpoon heads, thin, open-socketed, we found three, in A 25[4], A 29[5] and A 33[7]. They are all of antler, with two pairs of holes for the lashing round the open socket; one is of the type with two bilateral barbs (Thule type 2), two of the type without barbs but having the blade slit parallel with the line hole (Thule type 3), (Inugsuk Pl. 5.3). All are defective.

Of the harpoon heads that are somewhat rare in West Greenland, flat, with an open socket (Inugsuk Pl. 5.4) we have two specimens, found in A 19[10] and A 38[9]. One of them (Pl. 3.3) has no blade; the line hole has two orifices on the belly and one on the back. The other is a broken butt with bifurcated spurs. Both are of antler.

Of the Inugsuk harpoon heads (Inugsuk Pl. 5.7-10) two are shown on Pl. 3.1-2; No. 1, the harpoon head itself, and also the blade, which is fastened in by a rivet, are of antler; the spur is somewhat crooked; No. 2 has an iron blade, as well as one spur, and is also of antler, as are all the harpoon heads of this type. A long, thin harpoon head, measuring 8.3 cm, has small grooves in prolongation of the blade for the purpose of accommodating side blades, the intention of which was to lengthen the cutting edge of the blade. Of the other two, one has one spur, the other has two.

Much the greater number of the harpoon heads, however, belong

[1]) Kangâmiut, p. 62.

to the flat group with the closed socket, without or with a blade or barb. The material is mostly antler, although four are of whale bone and one of walrus ivory; many of them have had a reinforcing lashing around the socket. All have two spurs, usually placed dorsally; two have them laterally; a few have the spurs bifurcated by small notches.

The commonest type has a blade slit but no barb (Inugsuk Pl. 5.12-13 and 18); Pl. 3.4-6 and 10 are four harpoon heads of this type; No. 4 has dorsal spurs and an iron blade; No. 5 has bifurcated dorsal spurs, and No. 6 has lateral spurs and a wide blade slit, evidently for a stone blade; No. 10 is the broken fore end of one of these, with a blade of polished angmaq. Another head of this type has an iron blade. Their length is 6—7 cm on an average.

The type with no blade or barbs (Kangâmiut Pl. 1.4) is also fairly common; here, again, the length is 6—7 cm. The type with both blade and barbs (Inugsuk Pl. 5.19) is more rare; all have two bilateral barbs; three of them are unfinished.

Of the harpoon heads with more than one line hole and a seating for the knot in which the line ends (Angmagssalik Pl. 5.13, leister harpoon heads?) two are shown on Pl. 3.7-8; they are both rather powerful, of whale bone, with two spurs; one (No. 8) has three line holes and an iron rivet at the blade socket; the other (No. 7) has four line holes. These leister harpoon heads seem to vary a great deal; we also have one from Inugsuk, but with only a single line hole[1]). The nearest approach to the present specimens are those from Kangerdlugssuaq on the east coast[2]).

The Ituartit harpoon heads (Kangâmiut Pl. 1.8, Angmagssalik Pl. 5.16) are both unfinished specimens.

We have several types of harpoon blades, some of stone, some of bone:

Of the stone blades the most frequent form is a small, unpolished triangular blade with two notches in the rear end for fastening it on (Inugsuk Pl. 5.17); usually they are of chalcedony, 3—4 cm long; Pl. 3.12 is of brownish-mauve silicious slate; a fragment is of chrysoprase. Pl. 3.13 varies from the others in being of polished angmaq.

Another type is the small, triangular facetted angmaq blade with a rivet hole (Inugsuk Pl. 5.14); one of these is shown on Pl. 3.11, and another is to be seen in the harpoon head Pl. 3.10.

Of polished blades without notches or holes (Inugsuk Pl. 5.15) we have the large angmaq blade Pl. 3.14, which, judging from its size, is probably more suitable for a lance than for a harpoon.

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[1]) Inugsuk Pl. 5.20.

[2]) Thalbitzer 1909, fig. 3. Mathiassen, Kangerdlugssuaq, Pl. 2.3.

The bone blades are all of antler and have one or two holes; the corresponding blades from Inugsuk are of bone (Inugsuk Pl. 5.11 and 16). The bone blade in the harpoon head Pl. 3.1 has corners running backwards, which act as barbs[1]), a feature that recurs on another bone blade. Pl. 3.9 is a peculiar blade of bone; it is drawn out into a long point with two barbs, and at the fore end has a small slit for a tip; at the back it has been cut thinner, has a rivet hole and rearward-pointing corners like those referred to above. On putting such a blade into a harpoon head the latter is converted from a toggle to a barbed harpoon.

Other Parts of Harpoons. The foreshafts for kayak harpoons are all of the type with one hole and a distinct tenon in the butt (Kangâmiut Pl. 2.2). A typical specimen is shown on Pl. 4.2; this one is of antler, whereas otherwise they are usually of whale bone; none of them has the gradually-tapering butt familiar to us from the earliest houses (Pl. 2.2).

A powerful foreshaft for an ice-hunting harpoon (Inugsuk Pl. 6.1) is Pl. 4.1; it is of whale bone, whereas two others are of ivory.

Two mountings for harpoon shafts are given on Pl. 4.11-12; they are both rather short and have a small socket in the fore end and a larger one at the other end; on No. 11 the front socket has been made in a separate small piece of walrus ivory, whereas the remainder of the mounting is of antler; the other specimen, which is of bone, is split but has been repaired with a lashing; three holes and a groove have served to keep this lashing in place. The other ferrules are also rather short, with lengths from 2.7 to 5 cm; on an average they are shorter than the ferrules from Inugsuk and Kangâmiut[2]).

Of harpoon shafts of wood the collection contains two broken fore ends with a tenon for a short, cylindrical mounting.

Pl. 4.16 is a harpoon wing, of whale bone, of the old oval form; the fore end is slightly defective. A harpoon wing of the same wide form was found in the earliest houses (Pl. 2.10); here we find them again; accordingly, it must be merely accidental that they have not been found earlier in the Inugsuk Culture.

The ice picks are of the usual form (Inugsuk Pl. 6.8-9); the lengths vary from 8 to 19 cm; only one of them has a hole, and most of them are rather roughly made; one has been used as a wedge. They are all of antler.

Of the finger rests (Inugsuk Pl. 7.1-2) one is of antler with three holes, one of wood with two holes; both are rather pronouncedly bent backwards.

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[1]) Cf. Mathiassen 1930, Pl. 5.3, from Barter Island.

[2]) Inugsuk p. 188, Kangâmiut p. 77.

The tension pieces and swivels for the harpoon line (Kangâmiut Pl. 1.16-17) present no features of particular interest.

A small bladder mouthpiece (Inugsuk Pl. 7.3) for the harpoon bladder, of walrus ivory, formed by drilling, is shown on Pl. 3.23.

Of the oval bladder plugs (Inugsuk Pl. 7.6 and 21.27) with a marginal groove the collection contains a number, of both wood and baleen.

Other Implements for Acquatic Hunting. Of bladder dart heads we have two broken fore ends with a blade slit and barbs, partly arranged in a belt as on Pl. 4.4, which has two belts, each with

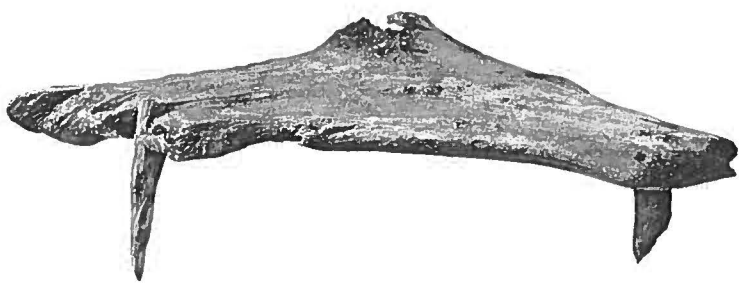

Fig. 43. Sealing foot-stool, Igdlutalik.

three barbs, others with a pair of barbs almost opposite one another. In addition we have some broken butts, conical, with two to three holes; most of them have a rear end smoothly tapering, but one has a pronounced shoulder there, a feature we recognise from several, mostly later bladder dart heads of this type in the National Museum[1]).

Bladder dart heads with the belt of barbs were not found at Inugsuk, but we have them from the second culture stage in the Kangâmiut area (Kangâmiut Pl. 2.10).

Pl. 4.3 is a rather thin piece of whale bone, oval in section, ending at the rear in a stepped scarf face and at the front having a blade slit which has partly been cut off, and in prolongation of it on both sides are small, rather narrow sockets for side blades; a hole runs through the fore end. In form and material the specimen differs from the arrow heads and more probably is a small lance head or the shank of a hunting knife for giving the wounded seal the coup de grace. Two other specimens are of similar slender lances, all of whale bone, whereas two are of somewhat larger lances (Inugsuk Pl. 6.11).

Fig. 43 is a sealing foot-stool of wood; the rear leg is missing, and the others are defective. It is made of a triangular slab of drift-

[1]) See also Swenander fig. 140.

wood, 36 × 26 cm; at the legs there are holes for reinforcing lashings. Another fragment is of a rather narrow, angular sealing stool like Inugsuk Fig. 20. Of the loose legs for sealing stools most are of the usual round form, tapering towards both ends (Pl. 2.12); one, however, is

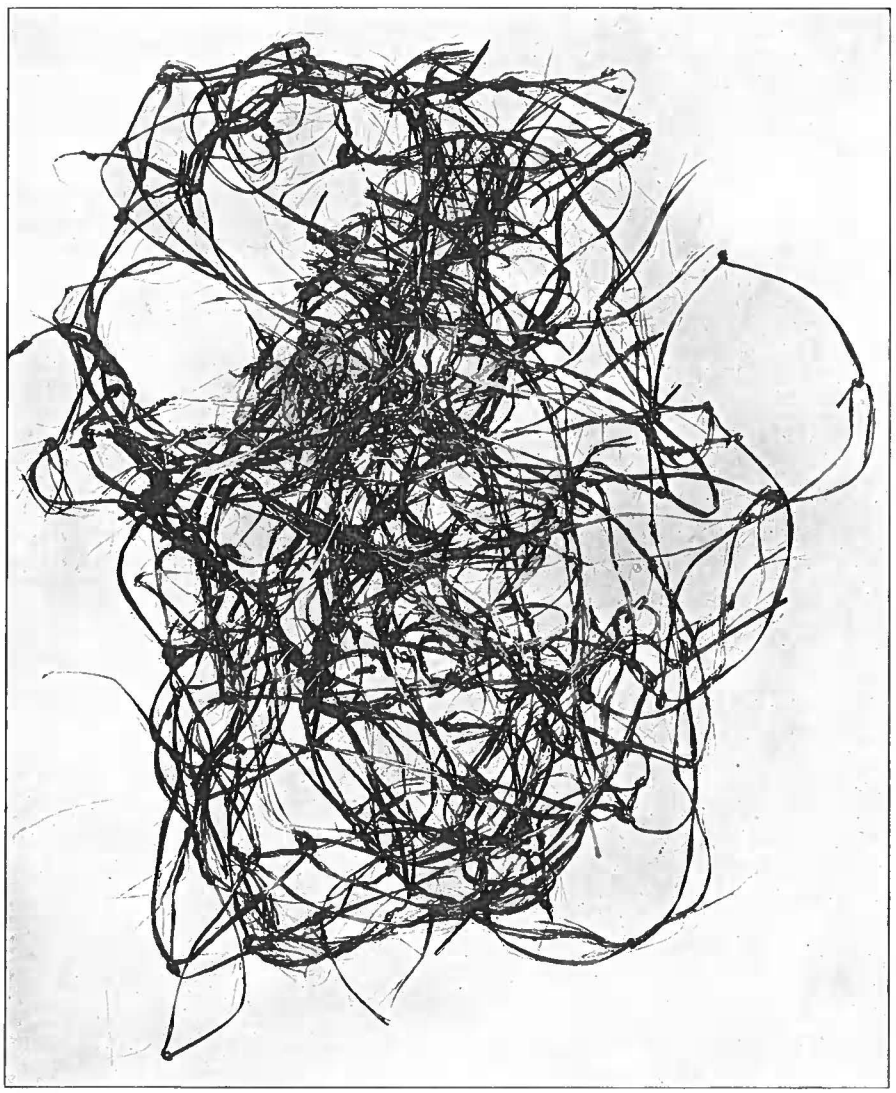

Fig. 44. Baleen sealing net, Igdlutalik.

four-sided at its upper end and is pierced with two holes for lashings (Pl. 5.3).

Pl. 5.2 seems to be the seat of a one-legged sealing stool; it is of wood, defective at one end, slightly concave on the upper side and

convex on the under side (which is shown on the picture); in the middle is a four-sided hole for the leg. The one-legged sealing stool has not previously been found in large early finds in Greenland; it does occur, however, in a grave find from Pitorqeq near Jakobshavn[1]) together with a sealing foot-stool, and it was in use in Greenland in the time of Hans Egede[2]). It is not known outside of West Greenland.

Some wound pins (Inugsuk Pl. 7.10-12) are of antler, 9 to 10 cm long.

Wound plugs of wood also occur, but not in the lower layers of Midden A. Pl. 4.18 is a rather short, thick wound plug with two transversal grooves; another is rather flat, with two notches, not opposite each other, in the edges; a third is a fragment of a rather long wound plug with a screw. The wound plug is also one of the types which first occur in Kangâmiut's second culture stage[3]), but have not been found in Inugsuk's old culture. The same applies to the neck piece for towing gear (Inugsuk Pl. 23.6, from the later culture), which in the present collection occurs with only one specimen, a piece of whale bone 10.2 cm long with three holes; one half of it was found in A 26[2], whilst the other half was in A 26[4].

One of the most interesting specimens in the collections is a sealing net of baleen (fig. 44), found in a tangled bundle in Field A 20, 7—8th layer, that is to say, in the lower half of the midden. It is made of rather thin strips of baleen and has meshes of 17—20 cm knotted with the same kind of knots as the sealing net described by Porsild from a grave at Rodebay [4]) and still used by the Greenlanders when making seal nets. The net otherwise is so decomposed and torn that nothing can be said as to its original size, but it seems to have been rather large; some of the cords have rather a number of knots of other kinds; possibly it is a piece from the edge; nothing definite can be said about it.

The finding of this sealing net — for it must be a sealing net having regard to the size of the mesh — throws light upon an interesting problem: whether the sealing net in Greenland was introduced by Europeans, or whether it is an ancient Eskimo invention, a question which has given rise to much debate[5]). The two nets hitherto found in Greenland, the grave find at Rodebay and the net that was found hanging on an iceberg at Julianehaab, were not discovered together with ob-

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[1]) Birket-Smith 1924, fig. 236.

[2]) Hans Egede 1741, p. 58.

[3]) Kangâmiut Pl. 2.7.

[4]) Porsild 1915, p. 176 seq.

[5]) Ostermann, Gronl. Selsk. Aarsskr. 1917; Porsild ibid. 1919; Birket-Smith 1924, p. 330 seq; Mathiassen 1927, II, p. 27 seq.

jects that could determine their age. Now we have a sealing net found in a layer that is undoubtedly earlier than the time of the whalers and the arrival of Danes in Greenland. Naturally there is the possibility that the Eskimos have learnt to net seals from the Norsemen, although we know scarcely anything of their methods of sealing; but from the net sinkers that have been found we do know that they have had nets. As sealing nets do not seem to have been known in the Central Thule Culture, and as this element in Alaska seems to belong to a relatively late period[1]), it must have originated in Greenland, and accordingly the obvious thing to do is to place it among the elements which the Eskimos learnt from the Norsemen. Davis's remark about the West Greenlanders is interesting: "They make nets to take their fish of the finns of the whale"[2]). It is not clear, however, whether he refers to fishing or sealing nets; and the fishing net has been more widely distributed and was presumably older in the Eskimo Culture than the sealing net[3]).

Bows and Arrows. Of bows we have some small fragments, of wood, and some fragments of baleen; one of the latter is shown on Pl. 5.1; they are of quite the same kinds of bows as those we found in Inugsuk[4]). The collection also contains some bow reinforcing pieces (Inugsuk Pl. 16.17), some of wood, others of antler; some have transversal notches at the ends to hold lashings.

Sinew twisters (Inugsuk Pl. 7.15) also occur, of both wood and antler, with and without the central hole.

Bone arrow heads are present in both main types, with knobs or screw on the conical tang; a specimen of the latter type, defective at the fore end, is shown on Pl. 4.5. The range of these two types is interesting: the arrow heads with knobs are mainly from the lower layers in midden A, whereas the type with the screw does not occur at all there. This confirms what we have previously learnt of the chronology of these two types: the one with the knobs, which we know from the Thule and the Inugsuk Culture, is the earliest, whereas that with the screw does not occur until later (the second culture stage in the Kangâmiut area[5]). In addition, we have a number of arrow heads, mostly crudely-made specimens, of which the tang has neither knobs nor screw.

The material of these arrow heads is antler in every case. In most

[1]) See Mathiassen 1927, II, p. 59.
[2]) Davis p. 20.
[3]) Mathiassen ibid. p. 58 seq.
[4]) Inugsuk Pl. 21.2.
[5]) Inugsuk, p. 195; Kangâmiut p. 81.

cases the length is from 8 to 11 cm, although one is 15 and another 23 cm long; two have one barb, two have two bilateral barbs, and one has three two-rowed barbs; most of them have no barbs.

One arrow head is formed of a flake of tubular bone 7.9 cm long.

Of the stone arrow heads most are of the usual lanceolate, unground or only slightly polished, type, of angmaq (Inugsuk Pl. 8.2, Kangâmiut Pl. 1.19). Pl. 3.15 is a typical unpolished specimen, Pl. 3.16 a polished specimen, both of angmaq; the latter has a broken point. Pl. 3.17 is a rather roughly-made arrow head of slate, with a short tang.

Of the arrow shafts, which are all of wood and broken, one has been strengthened with a whipping of sinew thread.

Implements for Bird Catching and Fishing. Bird darts. Of this implement we have firstly a number of broken butts of heavy heads with a screw, all of whale bone (Kangâmiut fig. 28), but none from the lower layers in A; others are end mountings with a socket for the stud of the throwing board (Inugsuk Pl. 8.15), and finally a number of side prongs; these are all of antler and have from one to four inside barbs; several have a stepped scarf face at the rear (Kangâmiut Pl. 1.12).

Of throwing boards the collection contains only small fragments; on two fragments of handles it can be seen that there has been a hole for the index finger, and on those specimens where it is preserved the fore end is rather thick, with a hole for the stud which has had its place there. These throwing boards are of the same kind as those found in the Inugsuk Culture (Kangâmiut Pl. 2.12 and 16).

The find also contains an object which apparently is a bola ball (Inugsuk Pl. 8.19); it is a four sided piece of whale bone, $5.2 \times 4.4 \times 2.9$ cm, very roughly made, with a hole bored through the edge at one end.

Of gull hooks we have both the type of wood with an oblique groove for a bone point (Inugsuk Pl. 8.13) and the one of bone with a hole and with one end flattened out and widened like a blade (Kangâmiut Pl. 1.13). An uncommon variant of the first type, with the ends pointed and furnished with notches like barbs, is shown on Pl. 3.28.

The leister prongs are fairly numerous, of both bone and wood, with one or several barbs, one or two-rowed; often they are very roughly made, probably for children; the longest measure 15 cm; as a rule the butt end has a scarf face. One cannot say that there is a regular characteristic type, any more than we had in the other Inugsuk finds (Inugsuk Pl. 8.20-22).

A small, poorly made fish hook recalls Kangâmiut Pl. 1.14; it is a stick of antler, 7.4 cm long, with a hole for the string at the top, and

at the bottom a hole in which a small, curved bone has been fixed to form the hook.

A remarkable and interesting specimen is illustrated on fig. 45; it was found under the floor stones in house ruin I. It is a scoop formed of strips of baleen. The upper edge is made of a rather wide baleen

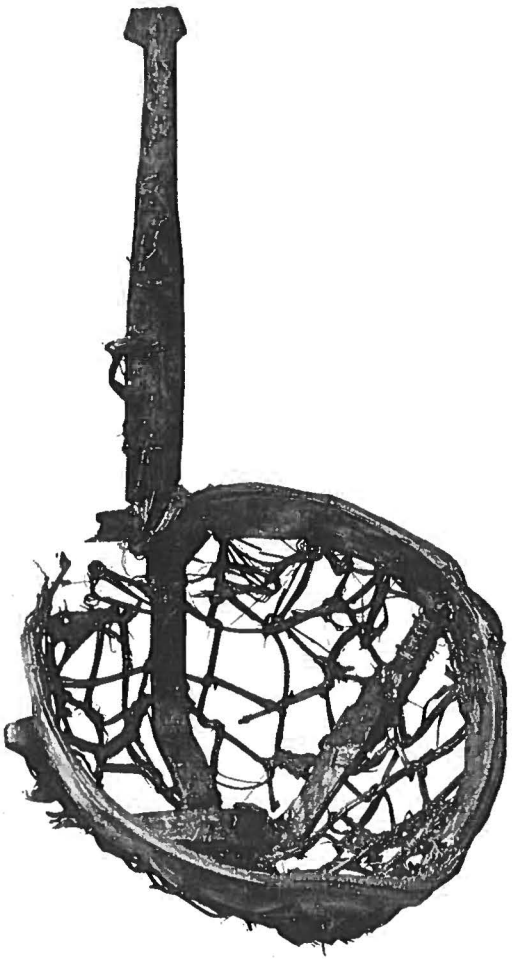

Fig. 45. Baleen ice scoop, Igdlutalik.

strip, and to it are fastened two other strips which cross each other and with their curved form determined the shape of the bowl; one of them continues in a handle. Stretched over this framework is a fine-meshed net of thin baleen cord, the ends of which are made fast in holes in the rim. The diameter of the bowl is 12 cm, whereas the handle is 13 cm long. The specimen is almost in perfect condition, only a small piece of the rim being missing.

This peculiar object, of which no similar specimen has been found anywhere, is presumably an ice scoop used for removing lumps of ice and newly-formed ice out of the hole when fishing. The ice scoops found in the Thule and Inugsuk Cultures are of another form, flat spoons of antler, etc.[1]), and the ice scoops of baleen used in West Greenland when using nets for sealing are quite different in appearance[2]). The nearest parallels to the present specimen come from Alaska[3]), where the ice scoops have a bowl with a bone edging and a net of seal thong; the handle, however, is relatively longer and the bowl smaller than our specimen.

Means of Communication. Of dog sledges we have some fragments of runners and cross slats, and a quantity of bone shoeing.

Of sledge runners we have a fragment of a rear end 23 cm long, 15 cm high and $3^1/_2$ cm wide; at the upper edge are two large oval holes. There is also a fragment of a fore end, no more than 2.6 cm wide, with several tree nails.

A cross slat is 53 cm long, 7 cm wide, with two pairs of notches at each end. Another is 11.4 cm wide and tapers off at the ends.

The sledge shoes, mostly of whale bone, although some are of baleen, are mostly $3^1/_2$ to 4 cm wide; the longest piece measures 24 × 4 cm and has ten holes, two with bone nails. Pl. 4.14 is one of the narrower shoes with eight pairs of holes for the lashings, and also three nail holes.

These pieces are of sledges that resemble those from Inugsuk[4]) but seem to be somewhat smaller and more slender; on the whole the shoes are narrower and are more like the specimens from the earliest culture in the Kangâmiut area[5]).

The trace buckles (Inugsuk Pl. 8.18) are of walrus and narwhal ivory and whale bone; on the whole they are fairly slender. One of walrus ivory, 4.7 cm long, belongs to the type in which the two holes run at right angles to each other (Inugsuk Pl. 8.17).

Of umiaks we have the fragment of a rib like Kangâmiut fig. 30 and a cross beam, 35 × 7 cm, with tapering, pierced ends.

Fig. 46 is apparently the paddle blade of an umiak; it is made out of a whale scapula and is rather defective. On the other hand it may be the blade of a snow shovel (cf. Inugsuk fig. 21).

Of kayaks we have some fragments of gunwales, two fragments of coamings of wood and baleen, and a few deck beams, including a specimen of the beam just forward of the man hole, curved, 3.9 cm wide, with indentations for the fingers (Kangâmiut Pl. 2.19).

[1]) Mathiassen 1927, II, p. 57; Kangâmiut fig. 29.
[2]) Birket-Smith 1924, p. 331.
[3]) Nelson Pl. LXVII.9 from St. Michael.
[4]) Inugsuk p. 202.
[5]) Kangâmiut p. 85.

Of kayak scrapers (Inugsuk p. 208) we have, in addition to a rather doubtful specimen, a defective scraper of antler found on the beach below A.

As two fragments show, the kayak paddle has been of the same wide, pointed form that is so characteristic of the Inugsuk Culture (Kangâmiut Pl. 2.13); the largest of the specimens is 40 cm long, 9 cm wide. Some of them, however, have had bone mountings (Inugsuk Pl. 20.14); one of these is segment-shaped, 4.9 × 2.2 cm, with a socket formed by drilling.

A small, pierced bone mounting may be the thong stud of a kayak (qorut); this does not occur in the Inugsuk Culture but was

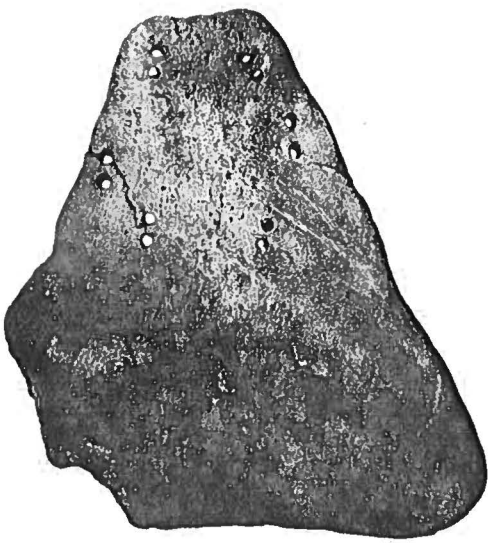

Fig. 46. Umiak oar blade, Igdlutalik. 1:4.

found in the later layers at Inugsuk[1]); in modern West Greenland it is to be seen on all kayaks.

Two rests for the kayak harpoon are of the same form as one of the types in the earliest houses (Pl. 1.10); one of them is of wood, another of baleen (Pl. 4.19); a third is lower, more like Inugsuk Pl. 8.24.

Men's Tools. The snow knives are of the usual West Greenland type, of whale bone, broad, angular, with one inside shoulder (Inugsuk Pl. 9.10); one of the best preserved has a unilateral end knob and is $19^1/_2$ cm long, 6 cm wide; another has been made of two pieces lashed together, handle and blade, which join in a scarf.

A knife handle with a blade socket in the end (Inugsuk

[1]) Inugsuk Pl. 23.18.

Pl. 10.4-8) is shown on Pl. 4.6; it is of antler, having a blade socket in one end, and in the other end a thong hole running from the side out to the end, and beside it a hole drilled through one side. On both sides the specimen is decorated with a roughly incised feather ornament: a medial line from which oblique lines run out to both sides; on one side, however, the medial line is not seen, and on the other it is very faint. This feather ornament was not met with in the Inugsuk Culture, but has been found on some specimens from the Central regions and also from Alaska[1]); a similar ornament occurs on a swivel from Northeast Greenland[2]). With this distribution it is probably only accidental that it was not found in the Inugsuk Culture. This knife was found in A17[10], that is to say, in the lowest part of the midden.

The other knives of this type are devoid of much interest. One handle of antler, 14 cm long, has been whipped with osier, of which some still remains. One has a small iron blade, another a fragment of a stone blade. A whale bone handle, 22 cm long, with a deep blade slit is apparently that of a hunting knife (Inugsuk Pl. 10.1).

Much more numerous are the knives with a side blade fixed in a groove in the side; we have 43 specimens of it[3]), although some are fragments.

The most simple form is represented by Pl. 4.7; it is a roughly made handle of antler with a thong hole, which in one edge near the point has a groove with an iron blade 2.6 cm long; it is an old type, well-known in both the Inugsuk and the Thule Cultures (Inugsuk Pl. 10.3 and p. 213).

This specimen, however, is an exception; all the others belong to the later, special West Greenland type with a long blade groove in one or both edges, and with the blade part thinner and distinct from the handle part; the blade consists of a number of iron lamellae inserted in the groove in such a manner that they overlap. A number of these knives are illustrated on Pl. 3 and 4: Pl. 4.8 is a long knife of whale bone with a long, narrow groove in the concave edge; the blade is missing; the handle, which is much thicker than the blade part, has been whipped with baleen cord to provide a better grip; this whipping, of which some remains are left, has passed through a number of holes.

A similar knife is Pl. 4.9; it is of whale bone and has a similar shoulder where the handle meets the blade part; in the end of the handle is a remnant of a baleen thong. The blade part has grooves in both sides,

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[1]) Mathiassen 1927, I, Pl. 37.9, 62.7, and F. de Laguna Pl. XXI, A5 and 7.

[2]) Thalbitzer 1909, p. 526.

[3]) For comparison: in 1917 Thomsen (p. 430) states that the total number of these knives from West Greenland in the National Museum was 45.

and in one of them an iron lamella is still in position; in the fore end is a nail hole.

Pl. 4.10 is of antler and has two lateral knobs where the blade meets the handle; the latter has been made thicker by fastening on a piece of wood by means of four tree nails; In one edge the thin blade part has a long iron blade, which is so rusty that the lamallae cannot be distinguished.

Pl. 3.18 is a small knife of antler with blade grooves in both edges; in one the whole edge is still in position, consisting of five iron lamallae; in the other only one lamella is preserved. Pl. 3.19 is a small, thin knife of antler with the edge consisting of four lamellae; finally, Pl. 3.20 is a still thinner, roughly made knife of antler with one iron edge, possibly for a child.

The other knives of this type are of antler or whale bone, and one of wood; on the handles of several of them there is some device or other for giving a better grip: transversal grooves, notches, holes for lashings, or the marks of a whipping. The blade part, which is always thinner than the handle, in most cases has only one blade groove; two, however, have two grooves; one has its iron edge complete, four have merely a single lamella.

In no other large Greenland find have anything like so many knives of this type been found as here at Igdlutalik; they seem to have been at the height of their popularity in this period and in this region, where there was easy access to the basalt in which the telluric iron occurs. Ever since Japetus Steenstrup showed[1]) that the iron in these knives was not of European origin, they have been the subject of much interest and have often been discussed[2]). A long dissertation on their distribution and origin would thus be superfluous here. Nevertheless their occurrence in the recent finds gives reason for some remarks:

Knives with a long side groove for the blade occur for the first time in Comer's Midden at Thule[3]), but without the distinct separation between a thick handle and a thinner blade part. In the earliest-known find from West Greenland, from the oldest house group at Igdlutalik, these knives do not occur, even if one might have expected it, having regard to the number of other objects, if it had been known. In the old culture at Inugsuk we have only two of these knives with the distinct handle and blade part; in the earlier finds of the Kangâmiut area and Angmagssalik we have several.

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[1]) Japetus Steenstrup p. 244.

[2]) K. J. V. Steenstrup, M. o. G. V., p. 23 and M. o. G. IV. Thomsen 1917, p. 429 seq. Mathiassen 1927, II, p. 70. Inugsuk p. 212—13 and 292; Kangâmiut p. 90; Angmagssalik p. 52 and 87.

[3]) Wissler 1918, p. 120 seq.

Now they occur in very large numbers in these finds at Igdlutalik. Naturally, it is a form of knife which has grown out of the presence of small quantities of iron; with the introduction of iron knives by the whalers it soon fell into disuse, but in the centuries before then it seems to have grown steadily in importance. Its occurrence here in the West Greenland Inugsuk Culture, and its non-occurrence in the earliest culture, can only strengthen the supposition that European knives (of the Norsemen) are its prototype.

Of knife blades of stone we have both single and two-edged; most of them are fragments of rather poorly-made, unground blades of angmaq. Pl. 3.27 is a crooked, two-edged, unground angmaq blade. A single-edged, ground knife blade, 14 cm long, with a tang, is of micaceous schist.

Pl. 3.21 is a fragment of a knife made of shark's teeth; it is a wooden handle, broken at both ends, with a groove in one side in which are four shark's teeth overlapping one another so that they form a continuous cutting edge; a hole has been cut through the handle. This specimen was found below the upper floor in house I.

This is the first time that the shark-teeth knife in West Greenland has been found together with other objects that are capable of dating it; only one fragment, from a grave on the northern west coast, had hitherto been found, figured by Japetus Steenstrup[1]), who considered these shark-tooth knives to be the prototype of those with iron lamellae. However, we know from the literature that shark-teeth knives have been used in early days in West Greenland, as Olearius[2]) refers to it in the seventeenth century. We know more about it on the east coast: Graah[3]) found one on the southeast coast (Malingisat), and when Holm came to Angmagssalik these knives were used for ritual purposes, for cutting hair on certain occasions[4]). This knife is not known outside of Greenland.

Whetstones (Inugsuk Pl. 11.8) occur in very large numbers (in all 69). In most cases the material is micaceous schist, which is found in situ in Igdlutalik; other stones are also used, however; various crystalline schists, argillaceous slate, sandstone, diabase rocks; one is of the same soft red slate of which we found a specimen in the earliest houses (Pl. 1.13). The shape is mostly irregular, the workmanship crude; several, however, have a regular, four-sided prismatic form; others have only one to three rubbing surfaces. A specimen 11.3 cm long has rounded edges and marks of blows on both ends.

[1]) Pl. 25.
[2]) Olearius p. 174.
[3]) Graah Pl. VIII.
[4]) Holm 1888, p. 62.

Nor do the hammer stones (Inugsuk Pl. 11.10) present anything of particular interest; in most cases they are of the usual basalt or diabase rock with larger or smaller bruises; an oval and rather flat stone has bruises all along the edge.

Pl. 4.13 is an adze head with the blade in position. It is a piece of the stem of an antler, its natural curve determining its form; it is not much worked: one side has been slightly flattened to accommodate the handle, and there are some notches for the lashing. The blade is of angmaq, ground at the edge; one corner is broken off and the fore end of the head is cracked.

Two other adze heads, also of antler, are likewise of rough workmanship; they are both about 12 cm long and have wide sockets for stone blades. An adze blade is of angmaq, 6.3 cm long, with a pointed neck and ground edge. The only adze handle in the collection is a broken fore end, of wood.

Adzes of this type are well-known in the Inugsuk Culture[1]).

Mattock blades (Inugsuk Pl. 9.11) and wedges (Inugsuk Pl. 11.9) present little of interest; the mattocks are all of whale bone, with no hole, about 30 cm long and mostly with three pairs of notches in the side of the butt (cf Fig. 39 from the earliest houses). The wedges, mostly of antler, are usually only roughly made; the largest measures 13.9 × 5 cm.

Of bow drills we have a typical shank, Pl. 4.17, of whale bone, with the bit socket broken; three others have an iron bit; some are of wood, the most of bone. Of stone bits we have only the small one shown on Pl. 3.24, of angmaq, with a three-sided, ground point. Of the bows, one is of whale bone, very defective, another of wood, 28 cm long. The mouthpieces, with one exception, are of caribou astragalus, sometimes slightly shaped; one is of wood, poorly made, 3.5 cm long.

The importance of drilling technique is well illustrated by Pl. 5.8, a piece of antler which was to be split into three strips, for which reason about 70 holes have been drilled.

The various parts of the bow drill from these finds are exactly like the corresponding specimens in the Inugsuk Culture[2]).

Pl. 4.15 is a piece of a thick rib, at one end cut into a rounded point, but otherwise unworked; it recalls the flint flakers of walrus rib from Southampton Island[3]), and is possibly one of these implements for flaking the hard flinty rocks, chalcedony, jasper etc. It has not yet been possible to establish with certainty what the flint flaker in Greenland looked like. Thomsen's excavation at Sermermiut in

[1]) Inugsuk p. 215.
[2]) Ibid. p. 218; Kangâmiut p. 92.
[3]) Mathiassen 1927, I, fig. 83.

1909 produced an implement[1]) which, however, more resembles the Indian than the other known Eskimo flint flakers; from Inugsuk I have figured a specimen something like the flint flakers of the Western Eskimos[2]). However, there is no guarantee that these specimens have been used as flint flakers, and the same applies to the one figured here.

Of thong smoothers (Inugsuk Pl. 23.25, later period) we have only two doubtful specimens, of antler. This implement is not known in the old Inugsuk Culture[3]).

Women's Tools. We have ulos in rather large numbers, mostly handles without blades. None of them have any arms. Some of them (9 out of 24) have an intermediate piece between the handle and the blade, in the edge of which the blade has been inserted.

Pl. 6.1-4 represent some ulos of the simplest type, without the intermediate piece. The back is always thicker than the blade part, and sometimes the transition from the one to the other is more or less smooth, as in the case of Nos. 1 and 2, while on others there is a pronounced step, as on No. 4 and one side of No. 3. The material of No. 1 and 3 is whale bone, of No. 2 wood, and of No. 4 antler. No. 2 has an inserted blade of blueish micaceous schist, ground at the edge, which is rather thick; one end of the blade is broken off. No. 3 has a row of small iron flakes set in to form the edge, and No. 1 has also had an iron blade, judging from the narrowness of the groove; on its sides this one has shallow identations for the thumb and middle finger, and in the ends two smaller depressions.

These four specimens represent this find's variants of ulo handles without an intermediate piece. On none of the others is the blade preserved. We know these same variants from Inugsuk (Inugsuk Pl. 12.15-16 and 20).

Of the type with an intermediate piece, Pl. 3.22 is a small but complete specimen. The handle is of wood, thickest on the back, and has been held by three lashings to the intermediate piece, which is of antler and has an iron edge. Three other specimens have the iron edge wholly or partly preserved; several loose intermediate pieces are triangular or trapeziform.

This type of ulo, which corresponds to the knives with iron lamellae and apparently is of the same origin, was not found in the Inugsuk Culture proper; however, there was a specimen of it in the second stage in the Kangâmiut area (Kangâmiut Pl. 3.11, from house 13 at Utorqait);

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[1]) Thomsen 1928, fig. 8.
[2]) Inugsuk Pl. 11.12.
[3]) Ibid. p. 312.

nor have we the type from the earliest houses at Igdlutalik, and, as stated above, it is rare in the lower layers of midden A (only one as against 9 without an intermediate piece), whereas it predominates in the upper layers. Apparently it is a later form which, like the knives with iron lamellae, has been most in use in the period just prior to the arrival of the whalers in the country.

Only a few fragments of ulo blades were found, of micaceous schist.

An exceedingly common type of implement in this find is the stone scraper, consisting of a flat piece of stone, one edge of which along a shorter or longer stretch has been formed into a scraping edge, ground, often in such a way that the two intersecting surfaces form almost a right angle with each other. Often, however, the edge is simply rounded by wear. As a general rule the material of these scrapers is the blueish, glistening, fine-grained micaceous schist which splits into thin plates. It is found in situ at Igdlutalik. More rarely other slaty or sandstony rocks have been used. The shape of these scrapers is sometimes regularly oval (Pl. 6.5), with a scraping edge at both ends, but sometimes all the way round. In most cases, however, they are more irregular in form, like Pl. 6.6, which has a scraping edge along its entire circumference except where the edge is straight; often the scraper is entirely unworked, a rough piece with a short edge. The two specimens figured are typical of the usual size.

This simple type of implement, which in this part of the Igdlutalik find alone occurs to the number of thirty-seven, has hitherto received little attention. No mention is made of it in Solberg's work on Greenland's stone artefacts, and in the National Museum there were previously only three specimens[1]); nor has it occurred in the other large, earlier West Greenland finds, either at Inugsuk or the Kangâmiut area. An implement type like this is, of course, governed by the presence of a suitable rock, and apparently it is the micaceous schist at Igdlutalik that has made it so common there. Of its use there can be no doubt; it is a scraper for softening skins; exactly similar scrapers of thin plates of stone are still used occasionally for this purpose in West Greenland[2]).

The scrapers for softening skins, of stone and bone, occurring in the other early Greenland finds, and also outside of Greenland, are of other forms.

The scraper blade with a convex edge (Inugsuk Pl. 13.3-4) is,

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[1]) From Ikerasánguaq, Egedesminde District (Birket-Smith 1924, fig. 14b). In the large grave find from Eqaluit, Ûmánaq District; from Upernivik at Claushavn.

[2]) Birket-Smith 1924, fig. 70c—d.

on the contrary, but poorly represented here; there are only two small, crude specimens, of chalcedony.

A somewhat defective specimen, of angmaq, is of the type Inugsuk Pl. 13.6, which possibly may be a baleen shave.

The two-handed scraper (Inugsuk Pl. 11.15-17) is also richly represented here (by sixteen specimens); most of them are of caribou metatarsal bone, although one or two are of caribou metacarpal bone and seal fibula.

A small needle of antler is shown on Pl. 7.16; it seems too thick to have served as a sewing needle proper, however.

Both of the needle cases are of the winged type (Inugsuk Pl. 14.2 and fig. 38). A large, handsome specimen, of narwhal ivory, is given on Pl. 6.7; along one "wing" the worker has commenced to drill a row

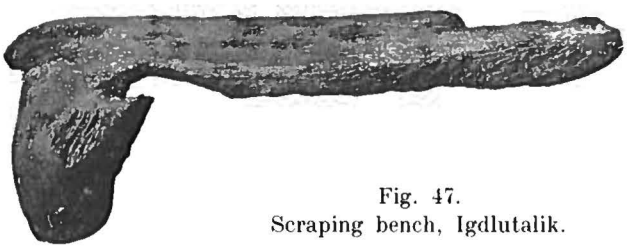

Fig. 47.
Scraping bench, Igdlutalik.

of small holes, but the specimen otherwise is not ornamented. The other is a small, unornamented specimen, of antler.

A thimble holder, of narwhal ivory, is of the type Inugsuk Pl. 14.5.

The bodkins are all sharpened seal fibulae; similar bodkins are known from the Thule Culture and from Angmagssalik[1]).

Pl. 3.25-26 are two small implements with a rounded and rather sharp transversal edge and a suspension hole; one is of narwhal ivory, the other of seal phalange. Apparently these are boot creasers, for crimping kamik soles; three others are of knife handles, the blade part being partly broken off and the remainder cut with an oblique edge. No definite boot creaser was found in the Inugsuk Culture; and it is only later that the boot creaser in West Greenland attains its fixed boot form[2]).

The small oblique-edged boot creaser of stone which we know from the Kangâmiut area[3]) is also represented here.

Two small cutting boards, of wood, have the well-known tapering form at one end.

[1]) Mathiassen 1927, II, p. 98, erroneously called ulna; Angmagssalik p. 92.
[2]) Birket-Smith 1924, fig. 87—89.
[3]) Kangâmiut Pl. 3.18.

Fig. 47 is a scraping bench, formed out of a piece of driftwood, somewhat defective; at one end it widens out downwards, so that it forms a wide foot, narrowest at the middle; from there the very worn and smooth surface slopes down towards the other end. It is 30 cm long, 15 cm wide.

The scraping bench did not occur in the finds from the Inugsuk Culture, but is common in the modern West Greenland Culture and in Angmagssalik[1]), usually with two inserted legs; the present specimen seems to be a primitive form of the same type.

Household Utensils. Lamps of soapstone occur in rather large numbers — though principally fragmentary — and in several



Fig. 48. Cooking pot, Igdlutalik.

different types. The old form with the wick ledge, the characteristic type of the Thule and Inugsuk Cultures (Inugsuk Pl. 15.1; Kangâmiut fig. 32a and 33a), occurs mostly in the lower layers in midden A, and thus once again marks itself as the earliest type.

House I produced a very large lamp, 32 cm long, with the back part broken off up to the wick ledge, which runs 10 cm behind the front edge; the lamp seems to have been used in this condition, and this converted lamp is the only one of the old type occurring in houses I and V and in the upper part of field A. Of the other fragments of lamps of this type one has had a row of knobs, whereas on another the wick ledge does not extend right out to the sides.

Other lamps have vestigal wick ledges (Inugsuk Pl. 15.2), others again have a partition in the middle, often combined with a vestigal wick ledge like Pl. 5.12, which is exactly like a specimen from the Kangâmiut area[2]). Pl. 5.11 is a small segment-shaped lamp without a wick ledge, the type that is predominant in house V and the upper part of field A. Finally, there are some crudely-made lamps formed of a thick lump of poor soapstone in which an oval depression has been made,

[1]) Birket-Smith fig. 73; Angmagssalik fig. 45.
[2]) Kangâmiut fig. 33b.

a type that occurs everywhere, and especially where the soapstone is not of good quality[1]). In house V over the upper floor was one of these, 20 × 15 cm, defective, the remainder of it being found in A 10[2].

A blackened stick of asbestos is presumably a lamp trimmer (Inugsuk p. 228; Angmagssalik Pl. 5.1).

Sherds of soapstone cooking pots are very numerous; the pots have been rounded, mostly oval, and varying greatly in size; in most cases the suspension holes have their position in an inside protuberance (Inugsuk Pl. 15.10); in many cases pieces have been joined together with baleen cord. Fig. 48 is a large piece of a large, thick, rounded



Fig. 49. Coopered tub, Igdlutalik.

cooking pot which has been intended for use over a fire, not over a lamp: there are no suspension holes, but instead an inside ledge in the end which could serve as a handle when it had to be moved; the size of the piece is 22 × 21 cm.

A complete oval wooden tray is shown on Pl. 5.13; it has a flat bottom, is 34 1/2 cm long, and 13 1/2 cm wide; it has been split lengthwise and put together again with strips of baleen, of which a short length is still in one of the holes. In addition, we have many fragments of other wooden trays, both large and small, rounded and four-sided (Inugsuk p. 236).

The oval bowls with a bottom of wood, bone or baleen and sides of baleen (Inugsuk p. 234) have also been extremely common, but only one, a small cup with a wooden bottom 10 cm long, is anything like complete. The loose bottoms are very numerous, usually of wood measuring from 8 to 41 cm in length; only one is of whale bone, 22 × 14 cm, and of baleen there is only a small cup bottom 8 cm long.

There is the baleen side of a large bowl, 35 × 27 cm, and 17 cm high.

Staves for coopered vessels are also among the commonest remains in this group from Igdlutalik; they number in all 42, in addition

[1]) See, for instance, Mathiassen 1927, I, Pl. 26.1-2.

to a loose bottom and a complete tub. The latter (fig. 49), which was recovered in entire condition in Field A 10[6], has a circular bottom and ten staves of very different widths; two of them run up into divided points (one is defective) with two holes for a hank, presumably of baleen cord. This tub has not had a bone edging but has been held together by two hoops of baleen which, however, are now missing, one just above the bottom, the other near the rim; the marks are distinct in both places as the wood there is of another colour, standing out distinctly from the rest. The diameter of the tub at the top is 17, at the bottom 11—12 cm, whereas the height is 12 cm, excluding the handles. A tub with similar baleen hoops was found at Inugsuk (Inugsuk fig. 30).

On the loose staves we find several marks from baleen hoops; four have had a bone edging on the rim and two on the outer side of the rim; in length they vary up to 24 cm, and in breadth up to 11 cm; some of them have been joined together out of two pieces by means of a dovetail scarf: the bottom of one upper end terminates in three points, another in two, and the top of a lower end runs up into a point.

Some wooden dippers, more or less defective, are similar to those from Inugsuk (Inugsuk Pl. 15.5-6).

By the brook — that is to say, not definitely belonging to these layers — we found a ladle 49 cm long, of antler, with a slightly hollowed-out bowl 10 cm wide. Pl. 6.8, which is of whale bone and almost quite flat, may also be a ladle.

Pl. 6.10 and 13 are two spoons, of antler; the former is irregular-angular in shape, due to the piece of antler from which it has been cut; on one side a piece has been lashed on for the purpose of completing the edge. A third spoon recalls Inugsuk Pl. 13.10 but has a wider bowl; a fourth is of wood, with an oval bowl and a short handle; a fifth, of antler, 8.7 cm long, has a long, narrow bowl which runs smoothly into the handle.

There are many pieces of wood for fire drilling, both hearths with holes in them, and drilling sticks (Inugsuk Pl. 16.5-6).

Pl. 5.5 is a stick of wood broken off at one end, four-sided except at the end where it is round; in one side at rather unequal intervals are three hollows and a trace of a fourth. As the grooves for the kayak ribs which are characteristic of kayak gunwales are missing, it can scarcely be one of these. It is rather a piece of the four-sided drying rack now used so generally in West Greenland[1]) and Angmagssalik[2]), but not known outside of Greenland; we did not find it in the Inugsuk Culture, and thus this is the first time it has occurred in an early Green-

[1]) Birket-Smith 1924, fig. 165.

[2]) Thalbitzer 1914, Fig. 260 a.

land find; the specimen was found in house I, and accordingly forms part of the later stages of the find.

Two pot hooks (Inugsuk Pl. 16.4) are of antler and are of the same form (Pl. 5.6); the suspension cord has passed through the hole and been lashed round over the ascending branch.

A blubber pounder (Inugsuk Pl. 15.11) is of antler; the handle consists of the eye branch and the head of a piece of the beam, to which is still attached a fragment of the skull.

A number of meat forks (Inugsuk Pl. 15.4) all without a hole, are mainly of antler, although one is of seal rib; they have lengths from 13 to 17 cm; one has two notches for the fingers.

The three objects Pl. 6.14-16 are apparently blubber carriers for lifting blubber into the lamp or for carrying a lump when going out berrying, a practice still met with in West Greenland[1]). They are all of antler, and none of them suitable for use as leister prongs, even if one has a rather incomprehensible hole; two have finger grips in one edge. These blubber carriers are not known from the finds of the Inugsuk Culture, and all three specimens in the present collection belong to the later part of the find.

A small baleen basket is made in the same manner as Inugsuk Pl. 19.13, but the stitching is in one end, which is wedge-shaped, whereas the other end is rounded.

Clothing and Ornaments. The find contains no actual articles of clothing; for their preservation it requires particularly good conditions. A rolled up bunch of thin baleen strips is probably "kamik straw" like Inugsuk fig. 35. Two snow beaters are of baleen (Inugsuk Pl. 19.2-6 and 21.7-8). One of them is shown on Pl. 5.10; along one edge it has a baleen lashing, possibly to prevent its splitting when in use. Another has a unilateral end knob.

Pl. 7.12 is a comb; it is of narwhal ivory, rather thick and somewhat defective. Another comb, of antler, is very crudely made, irregular in shape and with short teeth of unequal length.

The pierced teeth (Inugsuk p. 251) are of white whale, dog and seal canines.

Some drop pendants of bone (Inugsuk Pl. 18.3-5) are shown on Pl. 7.10 and 13-15. No. 10 is a very small foursided pendant of ivory, No. 13 is made of a seal phalange like many other pendants in earlier finds from Angmagssalik[2]); No. 14 may originally have been a fish hook, as the other side is hollow and widens out below, but is smoothened; finally, No. 15 bears a certain resemblance to the cleft pendants from

[1]) Birket-Smith 1924, fig. 273; see also Angmagssalik fig. 49.

[2]) Angmagssalik Pl. 9.11.

Angmagssalik[1]). In addition, we have a drop pendant of the same form as Pl. 8.5.

Of stone pendants (Inugsuk Pl. 18.2 and 8), two are of slate, flat, small; one of them, which is polished, is shown on Pl. 7.9, the other is unpolished; a third specimen is slender, four-sided, of soapstone, with the hole not drilled right through.

There is also a small round bead of ivory (Pl. 7.11).

Ornamental bodkins (Inugsuk Pl. 14.9-19) are fairly numerous; most of them have a hole at the top and below it a number of grooves or, on the crudest specimens, notches in the edges. A handsome specimen, of walrus ivory, is Pl. 7.7; it is ornamented with a number of drilled holes. A less well-finished specimen, of a tubular bone, is Pl. 7.6. One terminates at the top in a human bust, and the broken specimen Pl. 7.5 in a whole human figure, below which are traces of two grooves. Like many similar specimens from Inugsuk (Inugsuk Pl. 14.14-19) most of these ornamental bodkins have actually not been used as implements. and seem to have been intended principally for ornament.

Games and pastimes. The ajagaqs are partly of the well-known forms, of seal radius or penis bone (Kangâmiut Pl. 5.7-8) whilst one is of a seal tibia with three holes in the thick end, and another one is badly decomposed and unidentifiable.

Two top disks are of baleen (Inugsuk Pl. 21.23), and a wind wheel is of wood (Inugsuk Pl. 20.1).

Some drum handles are of wood (Inugsuk Pl. 17.8) and two fragments of drum frames of whale bone.

Pl. 5.7 is an oval gneiss pebble, one side of which has been rubbed smooth through friction against something hard without actually forming facets: thus it has scarcely been used as a whetstone, and it has no bruises as the hammer stones have. More probably is it one of the stones which the shamans employ in their seances, rubbing it against another stone with a rotating movement in order to conjure up their helping spirit. A stone of this appearance, found at Kûngmiut near Angmagssalik, was identified by Karl Andreassen, the Greenland artist and story-teller, as one of these angakoq stones.

Dolls, as in all other old Eskimo finds, occurred in large numbers, forty-two in all, though many of them are fragmentary. None of them have any features, whilst the arms are indicated on only one specimen, Pl. 7.4. Only three have the hair tuft and thus are definitely female dolls; the others apparently are male, even if the sexual characters, as is usual on old Eskimo dolls, are by no means pronounced; nevertheless, one has a very prominent abdomen as if intended to represent

[1]) l. c. Pl. 9.13.

a pregnant woman. Taking them all round, their size is small, 11 cm at the most; many have the nâtit, and on a number of them the upper edge of the kamiks is indicated; one has a pointed hood. Some of the cruder specimens have no legs and are simply a small block of wood with a head. All the dolls are of wood.

Three of them are shown on Pl. 7.1-3. Nos. 1 and 2 were found close together in A 17[10] and probably are intended to represent a married couple; the man has the nâtit and the upper edge of his kamiks indicated, the woman has breasts (the only one to have this feature) and a brow band made of a small piece of iron; No. 3 is also a woman with a brow band, but in this case simply a cut across the head.

In all their details the dolls in this find resemble those from Inugsuk (Inugsuk, Pl. 18.12-22).

Of toys which imitate the implements and other effects of the adults we have a large number of different objects, as the list shows; toys always are very prominent in Eskimo finds; including the dolls, there are 103 objects which must be placed under this heading.

Some of the specimens — especially those of importance to our understanding of the implements they represent — will be described.

A harpoon of baleen (Pl. 6.17) is quite like Inugsuk Pl. 21.1. Of the harpoon heads one is thin, bladeless, with two barbs, whereas three are flat, barbless, one having a blade slit.

The bladder dart heads are of baleen with two-rowed barbs and a hole near the conical butt (Inugsuk Pl. 21.17).

A wooden bow has the same profile as Kangâmiut Pl. 2.14.

The sledge runners, of wood and baleen, have not the turned-up nose (Inugsuk Pl. 20.2); in most cases the cross slats are widest at the middle (Inugsuk Pl. 20.4).

The kayaks often have a man hole (Inugsuk Pl. 20.6), the paddles have broad, pointed blades, and the end mountings are segment-shaped.

Pl. 7.24 seems to be the steering paddle of an umiak.

A baleen knife is apparently intended to imitate the knives with a side groove, as where the handle joins the blade part there are two knobs on the sides.

Among the lamps the type with the wick ledge also occurs in the later layers; it would seem as if this ancient type has held out longest as a toy, by the way a not uncommon feature.

Of a drum of baleen only the frame is left, 2 cm wide and about 19 cm in diameter.

Objects of uncertain Use.

As in other large finds, we have a number of specimens of the use of which nothing certain can be said. Some of them, however, shall be described or figured.

Pl. 6.9 is the broken fore end of the wooden implement which previously has been called "sling handle" (Inugsuk p. 260 and Pl. 16.8-12); it differs from the others of this type in the fact that the end is cleft, as if to take a thong, a feature which, if anything, strengthens the theory of its use as a sling handle. Another broken fore end lacks this feature.

A quantity of edge mountings, of bone, for wooden trays and the like (Inugsuk Pl. 18.31).

Some small toggles, of bone; one has the winged form similar to that sometimes met with in the Thule Culture[1]); one has a notch in the ends; one is formed like a seal.

Some small gaming pieces, of bone and wood, recall Kangâmiut Pl. 6.19, but are not so well made, in most cases almost rectangular.

A quantity of sharpened bird bones (principally gull radius) are like Inugsuk Pl. 14.3.

Many pieces of worked baleen of various shapes, some with barbs, others with holes, and many thin cords with knots; one piece, 18 × 13 cm, seems to be of a small net with meshes of 5 cm. Two pieces are probably of implements like Inugsuk Pl. 19.7.

Pl. 7.20 is a small object of wood of which we have in all five specimens; one convex side is flat as if it had lain against something; on the other side is a lug with a hole through it, in which is a piece of baleen cord.

Pl. 7.19 is a buckle or something like that, of narwhal ivory; through one end there is one hole, through the other two, at right angles to the first-named.

Pl. 7.17 is a carved stick of wood, and Pl. 7.18 a bone hook on a stick of wood (back scratcher?).

Pl. 6.12 is a small wooden handle or the like, with a groove and a hole containing a remnant of baleen cord in the rather thin edge.

Pl. 5.4, with its transversal groove, is most like a tub stave; but the bone edging and the decided marks of wear on the edges are incomprehensible.

Pl. 5.7 is a strip of baleen to which are lashed two wooden sticks, although one is almost broken off.

Pl. 7.8 is a mica ball; these were present in rather large numbers; they are said to occur in sand somewhere in the vicinity of Torssukátak and presumably have been collected as playthings.

A lump of pyrites may have been used for fire striking.

In addition, there are some skin-stretching pegs, of wood, a number of indeterminable objects of bone and wood, unfinished things and refuse of bone, wood and stone.

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[1]) Mathiassen 1927, I, Pl. 41.7.

Objects indicating Intercourse with Norsemen.

There is nothing in the find to indicate any connexion with the whalers, or with Danish colonization; there are no glass beads, potsherds, or European metal. On the other hand there is a quantity of objects whose presence can only be explained by the intercourse of the Eskimos with the Norsemen on the southern part of the west coast, whether this may have been peaceful trading or booty from attacks on the Norse settlements.

Pl. 6.11 is a dagger handle, of wood; it is a much-worn cylindrical tube of wood, circular in section; at the top it ends in a partly-broken tenon on which there has been a mounting; at the bottom are two rounded extensions, and through one of these is an oblique hole through which an iron rivet has passed to hold the handle to the blade. The specimen is 7.4 cm long. No similar dagger handle has previously been found in Greenland, either in the Norse settlements or in Eskimo ruins; they are familiar objects in the Middle Ages in Europe, where they have been in use from the fourteenth till into the sixteenth century; in the Mediæval Collection at the National Museum in Copenhagen are several of them with the same semispherical protuberances below, and the oblique holes for the rivets. The specimen must be of Norse workmanship.

Pl. 7.22 is a peculiar carving of walrus ivory. It is somewhat flat, only 0.9 cm thick, widest below, where it ends in a flat surface in which there are four holes of different sizes and depths. Just below the middle on both sides there is a horizontal moulding, on one side with a longitudinal line; from this a vertical groove runs upwards, dividing the upper half into two. On one side is a very conventionalized carving of a dragon's head with a very curved neck, pronounced eyes, and exaggerated snout with two large nostrils. It is probable that on the other side there has been a similar head, but it is now very defective and has not been separated from the rest of the specimen by a hole. The entire length is 4.9 cm, and breadth 4.2 cm.

It is not easy to say what this specimen has been used for; from one of the Norse settlements in South Greenland there is a chessman of bone, cylindrical, at the top having an animal's head to each side. Our specimen, however, is scarcely a chessman, even if it can stand upright; more probably it has been fastened as the top piece of some other object. That it is Norse workmanship is beyond all doubt; the motif is entirely foreign to the Eskimos.

Nothing definite may be said as to its age; according to Dr. Poul Nørlund, whom I have consulted concerning the Norse objects, the beast motif is ancient but may very well have survived in this very degenerate form in Greenland far down through time.

The dagger handle and the beast carving were found very close together, both in Field A 19[10], near the bottom of the midden, which there has eleven layers.

Pl. 7.23 is of soapstone and is of quite the same form and size as the loom weights found in such large numbers at the Norse settlements in South Greenland, with a flat and a rounded side; the notch in the side is probably secondary. Presumably this specimen has also come from the Norsemen, for such things are unknown in the Eskimo Culture. It was found in A 40[3]; there the midden is only three layers thick, so that it was found in the bottom layer.

Pl. 7.25 is a fragment of a rather large carving in wood, on one side having a large zig-zag belt in relief. This is scarcely Eskimo work either; the zig-zag ornament is familiar in the old Eskimo Culture, but large relief works of this kind make quite a foreign impression, and in all probability are Norse; this motif is not uncommon in mediæval Europe. It was found in A 6[5] at a place where the midden has ten layers, that is to say, a little above its middle, just over an old floor.

Finally, in Pl. 7.21 we have a small doll, of wood, which seems to represent a Norseman, just like the Norse doll from Inugsuk (Inugsuk Pl. 22.3). It is carved in the usual Eskimo style, without arms and features, with a large hood, the lower edge of which is quite distinct; the lower edge of the cloak is also indicated; on this specimen the cloak is shorter than on the Inugsuk doll. Apparently it has been carved by an Eskimo but is intended to represent a Norseman.

As to its period, the shorter cloak points towards a later age than the Inugsuk doll, which presumably belonged to the latter half of the fourteenth century.

This doll was found under the floor stones in house V, in its northern room, and would thus belong to the later part of the find, but not its very latest.

How have these objects got up there? In advance one should hardly expect that things like these: a broken dagger handle, a small carving in walrus ivory, a loom weight, and a fragment of a large carved wooden board, would form objects of barter between the Norsemen and the Eskimos on their trading journeys, but rather that they were picked up by the Eskimos in the Norse settlements in South Greenland, most probably after they had been deserted by the Norsemen, and then had got up along the coast by being bartered from one to the other. On the other hand the handle may have been complete with its blade, and the carving may have been in position on the object to which it belonged, so that these specimens have been valuable articles of sale, bartered by Norsemen who have travelled to Disko Bay to trade; and

the doll decidedly indicates that the Eskimos at Igdlutalik have seen Norsemen.

At Inugsuk, which lies still more to the north, we also found some objects from the Norsemen[1]): bell metal, woven cloth, a gaming piece, and two wooden carvings, a face with interlaced ribbon ornament on the back, and a small wooden doll definitely representing a Norseman. At Inugsuk, however, we have unmistakable evidence of Norse visits up there in the runestone at Kingigtorssuaq.

Grave find. It may be supposed that the find from grave 33 (Pl. 8.18-21) should be placed under this group; the ornamental bodkins with busts and grooves show that it cannot belong to the earliest culture, whereas at the same time the comb with its conventionalised human figure suggests that it belongs to the earlier part of this group.

Culture and Chronological Position of the Find.

In a discussion on the culture and chronological position of this find group, the first natural thing to do is to compare it with the above described find from the earliest group of houses at Igdlutalik, and then with the other large collective find from the northern west coast of Greenland, the Inugsuk find from the district of Upernivik. The mutual relationship between these two has already been made clear in the foregoing: the earliest find from Igdlutalik is older than the Inugsuk find, as it does not display any influence from the Norse Culture as the latter did; otherwise the two finds are very close to one another.

That the present find group is associated with the Inugsuk find is alone indicated by the constant references to corresponding specimens in it. Particularly conspicuous is the similarity between Inugsuk and the earlier part of the finds here, from the lower half of midden A. Actually, the only real difference is in the harpoon heads, which here have reached a later stage than at Inugsuk; as has already been said, the flat harpoon heads are in decided majority here, whereas at Inugsuk it was the thin heads. The other differences are of no significance from a chronological point of view; the occurrence of the many slate scrapers at Igdlutalik is a local feature, apparently brought about by the excellence of the micaceous schist; and the occurrence of two elements such as the sealing net and the shaman stone, which were not found at Inugsuk, permits of the drawing of no conclusion. The Norse objects do not indicate any very long period; the dagger handle however, the only one that can be dated with any certainty, rather belongs to a somewhat later period than the doll at Inugsuk. All in all, we must accordingly

[1]) Inugsuk, p. 284 seqq. and Pl. 22.

regard the earliest part of Midden A as being a little later than the Inugsuk find; the latter having been put at the thirteenth-fourteenth century, this must, if anything, belong to the fifteenth century.

In the Kangâmiut area the first culture stage, which closely approaches Inugsuk, has been placed to the period about 1350—1500[1]), that is to say, also comprising the fifteenth century; after this, it would seem as if the thin harpoon heads have dominated longer in South Greenland than in North Greenland; but as these datings must necessarily be somewhat hypothetical, nothing definite can be said about them.

In the remainder of the find, from houses I and V and the upper part of field A, the difference from Inugsuk is more striking. The relationship between the finds from these places and that from the lower part of A has already been discussed (p. 89). The harpoon heads are at almost the same stage of development as in the earlier layers; it is interesting to observe that some of the old Thule harpoon heads have remained in use in North Greenland right down into this period. In many other respects, however, there are important differences: in the later find group we have bone arrow heads with the screw, in the earlier group and at Inugsuk exclusively the type with knobs; the ulo with the intermediate piece is common in the later, rare in the early group, and was not found at all at Inugsuk. The lamps with a wick ledge, which predominate in the early layers and at Inugsuk, have been thrust into the background in the later layers, where almost the only specimens found are toys. And, finally, in the later layers a number of new types make their appearance: bladder dart heads with a ring of barbs, wound plugs, the neck piece for towing gear, bird dart heads with the screw, thong smoother, boot creaser and blubber carrier; to this we might add two types occurring with only one specimen, the shark-tooth knife and the four-sided drying rack. The Norse doll also gives the impression of being later than the one from Inugsuk.

Accordingly, we have quite a number of features which show that we have come down in time at Igdlutalik. Many of these features have their parallels in the second culture stage in the Kangâmiut area[2]), which they closely approach. This second culture period has been estimated at from 1500 to 1650 approximately; but whereas in some houses of this period in the Kangâmiut area we found glass beads as a first evidence of the appearance of the whalers in the country in the first half of the seventeenth century, there is nothing of this kind

[1]) Kangâmiut p. 125.
[2]) See Kangâmiut p. 126 seq.

in this find group at Igdlutalik. Taking everything into consideration, we may estimate the finds from houses I and V at Igdlutalik as mainly belonging to the sixteenth century, perhaps some way into the seventeenth.

It is fortunate that the largest find group from Igdlutalik belongs to these periods, fifteenth to sixteenth century, a period that was not represented at Inugsuk and which was comparatively thinly represented in the Kangâmiut area. By means of the Igdlutalik finds the last two centuries prior to the coming of the whalers are thrown into sharper relief; with the whalers' arrival we have the evidence of the literary sources.

The Finds from House III.

Below is a list of the specimens found in house ruin III, or those which have come from it, viz. from Field D and the uppermost four excavation layers of house IV.

Type	House III	Field D	House IV	Total
Harpoon head, flat, two spurs, blade slit	3	..	1	4
— , - , - — , without blade slit	..	1	..	1
— , - one lateral spur, blade slit	1	..	..	1
— , - indet. fragments or unfinished	..	1	..	1
Harpoon shaft mounting, flat	1	..	..	1
Harpoon shaft, with tenon for cyl. mounting	..	1	..	1
Ice pick	3	1	..	4
Bladder dart head, butt, conical, 2—3 holes	2	..	..	2
Neck piece for towing gear	2	..	1	3
Sealing foot stool, seat	..	..	1	1
Throwing board, fragment	1	..	1	2
Wound needle	..	2	..	2
Swivel	1	..	..	1
Bow, of wood, fragment	..	1	..	1
Arrow head, with screw	1	2	..	3
Bird dart, shaft	..	1	..	1
Bird dart, prong	..	3	..	3
Gull hook, with oblique groove	..	1	..	1
Sledge cross slat, fragment	3	1	..	4
— runner, fragment	2	..	..	2
— shoe	5	4	4	13
Kayak beam	..	1	..	1
Kayak coaming, of baleen (?)	..	1	..	1
— gunwale, fragment	1	1	..	2
— thong stud (qorut)	1	..	..	1
Bone button for cord of kayak frock	2	..	..	2
Snow knife	1	..	..	1

Type	House III	Field D	House IV	Total
Knife handle, with end blade	2	2	..	4
— , — side groove for blade	..	3	1	4
Whetstone	7	4	1	12
Wedge	..	2	..	2
Bow drill	1	..	..	1
Thong smoother	1	..	..	1
Stone scraper blade, convex edge	1	..	..	1
Two-handed scraper	1	1	..	2
Lamp, without wick ledge, fragment	..	..	1	1
Cooking pot, fragments	7	1	3	11
Soapstone sherds, indeterminable	..	2	..	2
Wooden tray, rounded, fragment	4	7	..	11
— , four-sided, fragment	1	..	..	1
— , fragment, indeterminable	1	..	..	1
Oval bowl bottom	2	4	..	6
Dipper, of wood	2	..	..	2
Ladle	1	1	1	3
Pot hook	..	..	1	1
Blubber pounder	..	..	1	1
Fire-drilling stick	2	2	..	4
Pierced tooth	..	1	..	1
Ornamental bodkin	1	..	..	1
Ajagaq, of seal penis bone	1	..	..	1
— , - - radius	..	2	..	2
— , other types	2	..	..	2
Drum handle	..	1	..	1
Dolls	..	2	1	3
Toy arrow shaft	1	..	..	1
— paddle, for umiak (?)	2	..	..	2
— bow	1	..	..	1
— harpoon, of bird bone	1	..	..	1
— lamp, with partition wall	..	..	1	1
Edge mountings	2	2	..	4
Small toggle	..	1	..	1
Sharpened bird bones	1	..	..	1
Stone refuse	1	2	1	4
Glass beads	5	..	..	5
Broken bottles	2	1	..	3
Other European objects	5	..	..	5

These finds from house III form the youngest find group from Igdlutalik; the shape of the house itself, its state of preservation, and the nature of the objects show that we are now much farther forward in time, after the period when the European whalers came to the country.

Most of the specimens are familiar types, and observations shall only be made concerning some of them; only a few are illustrated.

The harpoon heads are all flat, and mostly belong to the younger types, either with two lateral spurs (Pl. 8.8) or with only one spur (Pl. 8.7); only one small harpoon head (found in house IV) has two dorsal spurs like the earlier ones of this type.

The only harpoon mounting (Pl. 8.9) is of the flat type, with no socket at the rear, but holes for nails for fastening it to the shaft. A fragment of a harpoon shaft shows, however, that the earlier type with the socket in the back has also been in use.

Pl. 8.11 is a long neck piece for towing gear, of antler. Pl. 8.10 is a swivel, but only the collar part of it. A seat for a sealing stool is rather narrow and angular.

The bow and arrow were still in use; we have both a small fragment of wooden bow, and two fragments of bone arrow heads with the screw.

The sledge fragments are too small to give any idea as to form and size; the pieces of runner are up to 12.7 cm high, 2.7—3.0 cm wide; one has baleen cord in the holes.

The sledge shoes are of whale bone and from 2.5 to 4.4 cm wide.

Two bone buttons from the cord of the kayak frock (Inugsuk Pl. 23.17-18) show that this garment was in use.

Again we find a snow knife, of the usual type, of whale bone, with one shoulder and a hole, with a bent over handle and a unilateral knob; it is broken at the fore end.

Of the knives, a handle of antler, ornamented with longitudinal grooves and with a blade socket in the end, is shown Pl. 8.12; two holes in the rear end indicate its later use as a thong smoother. The ornamentation displays European influence. Another knife is 26 cm long, has a bone handle with a unilateral end knob and a long pointed European iron blade with a tang.

The knives with side grooves also occur, but not in house III itself; one of them, a fragment, of wood, is possibly a shark tooth knife.

A bow drill has an iron bit. We have still a scraper blade with a convex edge; it is of chrysoprase, rather small, 2.8 × 2.5 cm. The two-handed scraper also occurs still, of caribou metatarsus.

The blubber pounder is the usual form, of antler. A wooden dipper is well preserved, with a fairly flat, egg-shaped bowl and a handle with a triangular hole; it is 32 cm long and has been repaired with baleen cord. The pierced tooth is of a white whale. The ornamental bodkin is of antler, small, thin, with a four-sided head and notched edges.

Of the ajagaqs one is made of a small scapula, one of a knife handle of antler, in one end with a small piece of an iron blade; the other end is hollowed out, and it also has five holes drilled in the back.

The dolls (none from house III itself) are of very poor workmanship and defective, without arms and features, and two have no legs either.

Among the toys there is a "harpoon", consisting of a bird bone in which a thinner bone is inserted (Kangâmiut Pl. 6.12).

Of European objects the glass beads include a large one, slightly flat, dark yellow, three small white and one small light-blue. Of three pieces of broken one is of a "gurgle-bottle"[1]) (18th century?). A button of black glass with an iron eye, a type that has been met with in several other Greenland finds of the seventeenth or eighteenth century[2]).

Furthermore, we have a large, round, turned wooden dish, 34 cm in diameter and about 10 cm high, which was found lying in a rubbish pit under the window platform; in 1929 I found a similar tray in a house ruin of the large, four-sided type on the point of Nûgssuaq Peninsula, in the most northern part of Upernivik district.

Of tools of European origin we found a knife, 23 cm long, consisting of a two-edged iron blade with the back end whipped with thong to provide a grip, and a thin saw blade.

A conical cup of tin iron, 19 cm high, lying on the surface of house III, is probably later, a memory of a recent visit.

In addition, the find contains many objects of worked wood and bone, sawn-off caribou tines, etc. The whale vertebra with a socket, and the seal skin in one of the rubbish pits have already been referred to when describing the house.

Chronology.

Nothing is known of Igdlutalik's having been inhabited after the Danish colonization in the district, which was commenced in 1734. Nor do the finds indicate that it was; there are not many objects of European origin, for instance no sherds of faience or china. On the other hand, the objects of European origin found display intercourse with whalers, though they provide no clue for any definite dating.

Among the Eskimo relics there are still several old types, such as the ice pick of bone, bow and arrow heads of bone, gull hook, snow knife, knives with the side groove, scraper blade of stone, two-handed scraper, oval bowl bottom, ajagaqs of seal radius and penis bone; the drum handle is evidence that they were still heathens.

On the other hand, some of the types indicate that we are now well forward in time, for instance the harpoon heads, harpoon shaft mounting, the neck pieces for towing gear, which are modern in form, buttons for the kayak frock, and of the European objects the gurgle-bottle.

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[1]) A liquor bottle of hour-glass shape, the narrow passage between the two halves emitting a gurgling sound when the contents run from one end to the other.

[2]) Angmagssalik p. 102.

The last habitation of house III may probably be put at the beginning of the eighteenth century.

Specimens from Houses II and IV.

Below is a list of the specimens found in the bottom of houses II and IV and presumably belonging to the inhabitants of these houses; it also includes a few old specimens found in the bottom of Field D and either originating from house IV or from an earlier habitation on the site of house III.

Type	House II	House IV	Field D
Harpoon head, Thule Type, 4 barbs, blade slit	1	..	..
— , — , 2 spurs, 2 barbs	..	..	1
— , — , 2 barbs, bladeless	1	..	..
— , Inugsuk type	1	..	1
— , thin, 2 barbs, bladeless	1	..	..
Harpoon foreshaft, fragment	1	..	..
— , with tenon for cyl. mounting	..	1	..
Ice pick	1	..	..
Arrow head with knobs	..	1	1
Arrow shaft	1	..	..
Sledge shoes	4	2	..
Kayak paddle blade, pointed	..	..	1
Knife handle with side groove	1	..	..
Whetstone	3	1	..
Hammer stone	2	..	..
Adze head of bone	..	1	..
Wedge	1	..	..
Stone scraper	..	1	..
Boot creaser, stone	1	..	..
Cooking pot fragment	1	..	1
Soapstone sherds, indeterminable	2	..	..
Wooden tray, fragment	1	1	..
Oval bowl bottoms	2	..	1
Fire drilling stick	1	2	..
Baleen basket	1	..	..
Pierced tooth	1	..	..
Drop pendant	..	1	..
Snow beater of baleen	1	..	..
Doll	3	..	..
Toy bow of baleen	1	..	..
Toy snow beater(?), of wood	1	..	..
Sling handle (?)	1	..	..
Baleen cord with knots	1	5	..
Baleen point with barb	2	..	..
Other worked baleen	2	..	..

This find-group does not form a complete whole as do the others. Houses II and IV were almost full of rubbish from the adjacent houses I and III, but the lower layers in them contained objects of earlier character which must date from their own inhabitants. It is impossible to draw any definite line between these objects; the lower layers naturally will generally contain specimens belonging to the house itself, the upper layers from the later houses; but as stones were doubtless taken from the older house to assist in the building of the later ones, the later rubbish may often have been able to make its way down among the earlier material. Consequently one cannot with certainty say that the specimens listed above as having been found in the lower layers of houses II and IV actually belong there and represent their actual habitation. Where there is a marked difference in age, as seems to be the case with III and IV, the nature of the objects in many cases will help to separate them; in fact it is mostly by applying this criterion that the lowest layer (fourth) in parts of Field D has been separated as being different.

Thus the list contains the specimens from the bottom (the floor and below it) and the passage in house II, from the lowest layer (fourth) in house IV (with the exception of a fairly recent-looking neck piece for towing gear) and from the fourth layer in Field D, which, however, in most places contained only three excavations layers.

Only a few of these specimens need be mentioned:

From House II. Pl. 8.2 is a type of harpoon head not previously found in Greenland, but in the Central Thule Culture[1]). It is of antler and, with its open socket, belongs to the Thule group; it has four barbs and a blade slit. As it was found below a floor stone near the west wall of the house, there is no doubt that it belongs to the first tenants of the house.

Pl. 8.3 is of antler, without blade slit, but with opposed barbs; the blade socket is closed, but broken. It is from the passage, where there also was a badly decomposed Thule harpoon head with two opposed barbs, with no separate blade.

A knife with a side groove has a unilateral end knob, four transversal grooves on the handle and a thin blade part.

Pl. 8.4 is one of the small boot creasers of angmaq, polished, with an oblique edge and broken, as these implements almost always are (Kangâmiut Pl. 3.18). It was found in a cavity which ran in under the platform in the house and thus is another unquestionable relic of the earliest period of this house.

[1]) Mathiassen 1927, II, p. 17 seq.

A baleen knife, 13 × 6 cm, is of the type Inugsuk Pl. 19.13. A doll, 9.8 cm long, has a hair tuft, nâtit and a hint of arms.

From House IV. Pl. 8.6 is a handsome arrow head of antler, with three knobs on the tang. An adze head of the type Pl. 2.13. Pl. 8.5 is a drop pendant of walrus ivory, round, with rounded ends and the hole drilled from the end out to the side.

From Field D. Pl. 8.1 is a peculiar harpoon head of the Thule group, of antler, with two spurs (Inugsuk Pl. 5.5); it has a barb, but is defective at the fore end, where it has broken at a hole from which on the back a groove runs to the line hole; it thus seems to have had two line holes, and accordingly mostly resembles a leister harpoon head.

Chronology.

Owing to the whole character of these finds nothing definite may be said of their culture or chronology. Nevertheless, they seem to be fairly old; the harpoon heads are all thin and the Thule types are very prominent; on the other hand, types such as the stone boot creaser (hitherto known only as far back as to the Second Stage of the Kangâmiut area) and the knife with the side groove do not indicate that they are so old as those of the earliest house group (VI—V) at Igdlutalik. It may be that these two houses represent a period lying somewhere between the earliest settlement and that represented by houses I and V; in that case they would be contemporary with the Inugsuk Find itself. However, the material is too small and uncertain to decide this.

This brings us to the end of our examination of the finds from Igdlutalik. They have shown us two periods which hitherto had not been proberly elucidated in the folk history of West Greenland: The earliest period of settlement, prior to Inugsuk, and the time between Inugsuk and the coming of the whalers to the country; then again, we also obtain a glimpse of a period after that time.

But before we discuss the developments of culture shown us by these finds we must look a little more closely at the other large excavated settlement, Igdlorssuit, and the find from there.

THE SETTLEMENT OF IGDLORSSUIT

On the north side of the entrance to Torssukátak ice fjord the round Qeqertaq Bay cuts into Nûgssuaq Peninsula. From ancient times there has been an important centre of settlement here; with the present outpost of Qeqertaq as their centre lie a large number of present and former settlements: Nûgâq, Naujât, Itivdliarssuk, Igdlorssuit, Ikorfat, Igdlutsiaq, Aqajarua, and Akúnaq. Much the largest of the now uninhabited settlements is Igdlorssuit, which, next after Sermermiut, is the largest ruined settlement in Disko Bay, comprising eighteen old house ruins in addition to two recent house sites, nine old graves, and eleven old caches.

Igdlorssuit — a name which means "the large houses" — lies on the north side of the long peninsula on the point of which is the settlement of Nûgâq, in towards Qeqertaq Bay. Pl. 13 is a plan of the settlement; fig. 50 is a photograph of the place seen from the southeast.

On the north-west a low rocky point stretches out into the sea. Inside this (near the tents on the photograph) lie the two recent house sites, and below them are three older ruins, XII, XIII and XVIII, dug down into the gravel terrain. A low ridge of rock separates this settlement from a rather large low gravel plain (in the foreground on fig. 50), where the remaining fifteen houses lie.

These fifteen ruins are not at all conspicuous as they lie there on the flat plain covered with willow bush, dwarf birch, crowberry and bilberry; most of them appear simply in the form of very low mounds surrounding a depression; house I is the only one to have any vigorous growth of Alopecurus; some grass, including lyme-grass, grows on group I—II. Otherwise there is only a scattered growth of Alopecurus on a few of the mounds, whereas most of the ruins have the same vegetation as the surrounding plain; several of them were not taken to be ruins at all until our excavations proved it. On and around this plain were most of the graves and caches.

With regard to the heights in the settlement, the following table

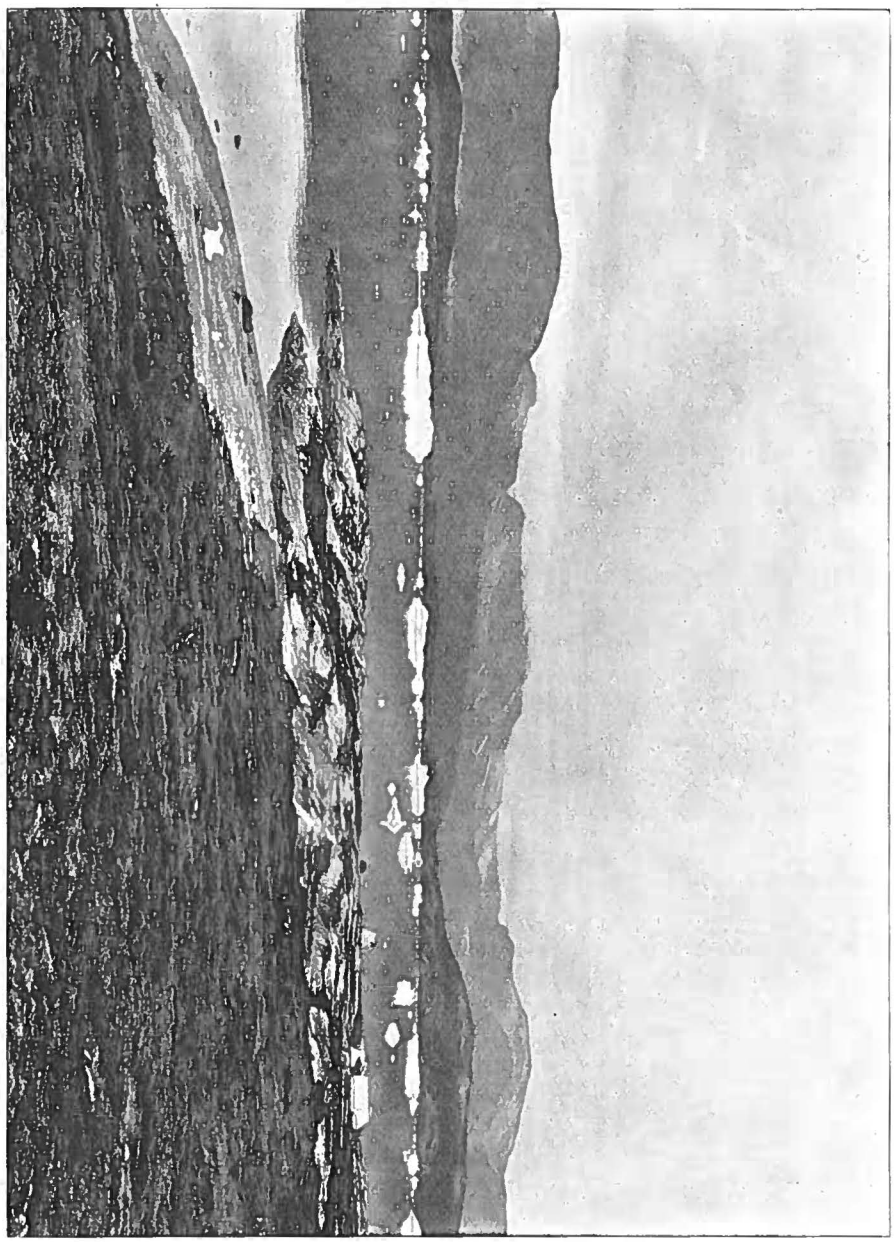

Fig. 50. The village site of Igdlorssuit.

gives the height above sea level (high-water mark), in metres, for the floors of the various houses and the ground surface at the graves:

House	I	1.06	House	XV	3.49
—	II	0.29	—	XVI	4.38
—	III	0.71	—	XVII	2.58
—	IV	1.95	—	XVIII	0.39
—	V	3.00	Recent Sites		4.00 (approx.)
—	VI	2.33	Grave	1	1.23
—	VII	2.60	—	2	2.84
—	VIII	2.49	—	3	3.86
—	IX	3.48	—	4	3.71
—	X	4.78	—	5	6.00 (approx.)
—	XI	4.90	—	6	3.32
—	XII	1.78	—	7	1.75
—	XIII	1.49	—	8	4.19
—	XIV	0.60	—	9	1.69

Round about the recent sites, and to the north and west of them, there is, naturally, the vigorous, sappy-green *Alopecurus* vegetation which marks new settlements; below XIII there was also a quantity of luxuriant grass, as this spot has been used as a flensing and storage place. South of the settlement, rocky slopes rise evenly up and gradually attain fairly great heights; through a by no means difficult pass there is a path over to the earlier settlement of Naujât at Torssukátak itself.

None of the ruins at Igdlorssuit had any m i d d e n of any importance; we excavated four square metres in front of most of the houses; bones were scarcely ever found, simply a few stone flakes or stone objects; in front of XIII was a good deal of stone refuse left from the manufacture of stone implements.

History does not tell us much about Igdlorssuit. In the census taken by the Inspectorate in 1793 Igdlorssuit is mentioned as being inhabited; four families with twenty-two members, all unbaptized, lived there in one house. The house was still inhabited in 1794, but in 1795 Igdlorssuit had no inhabitants. This continued until 1907, when it was a settlement again for a short period, till 1916; in 1915 there were fourteen people living in two houses[1]).

House Ruin I. In both shape and state of preservation this was the most recent ruin at Igdlorssuit except for the two entirely new sites, apparently the one that was inhabited in 1793—94. The walls were still

[1]) Greenland, I, p. 261.

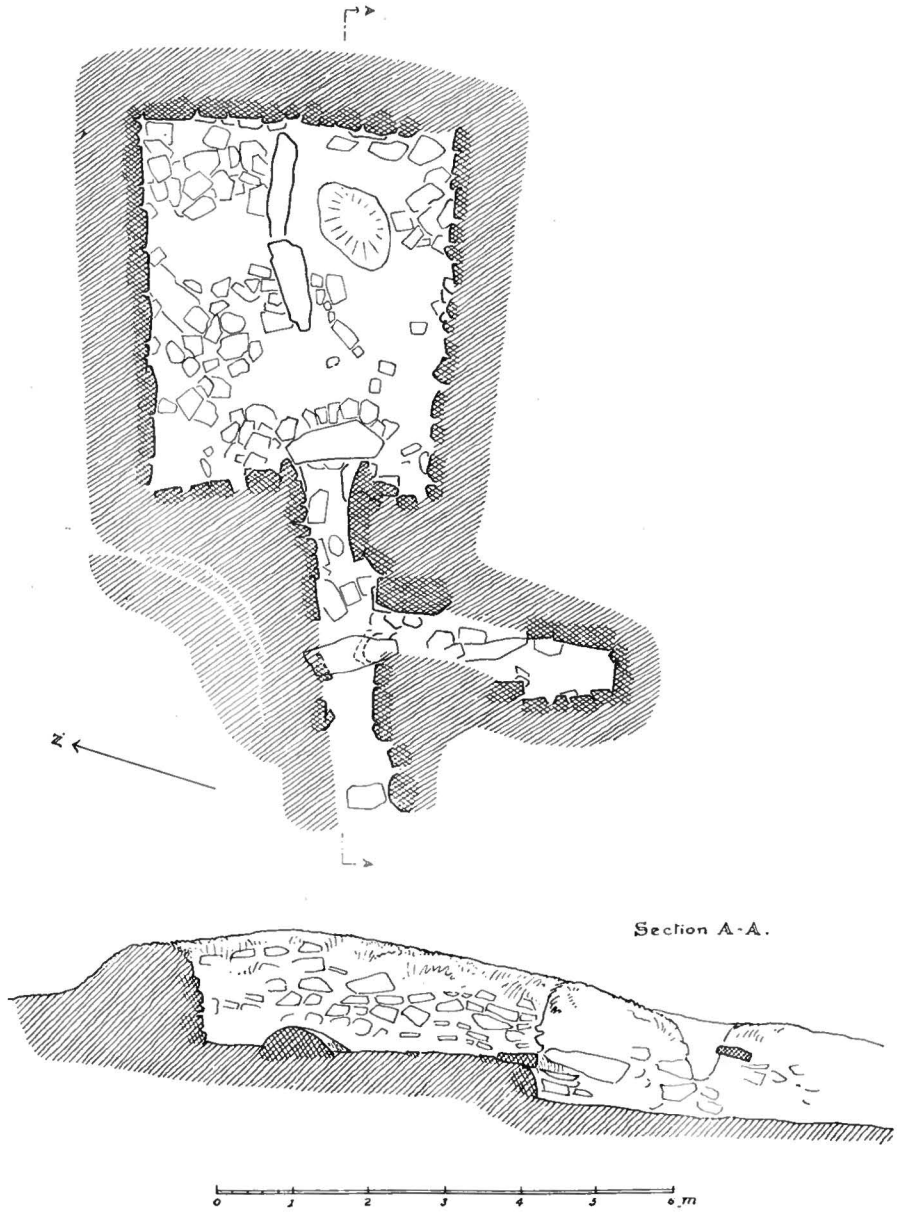

Fig. 51. Plan and section of house I, Igdlorssuit.

fairly well-preserved, the passage had a roofing stone still in position, and the growth of grass on it indicated no great age.

Fig. 51 is a plan and a section of this house, and fig. 52 a photograph taken after excavation.

It is a house of the smaller, four-sided type, its dimensions being greatest in the direction of the passage. The walls are fairly high, towards the south up to 1.7 m above the floor, elsewhere about 1 m; they were all handsomely set with stones; some of them, however, had fallen into the house. The passage, too, was stone-set, but its outer part had collapsed to some extent, as the sea washes into it at high tide. A narrow

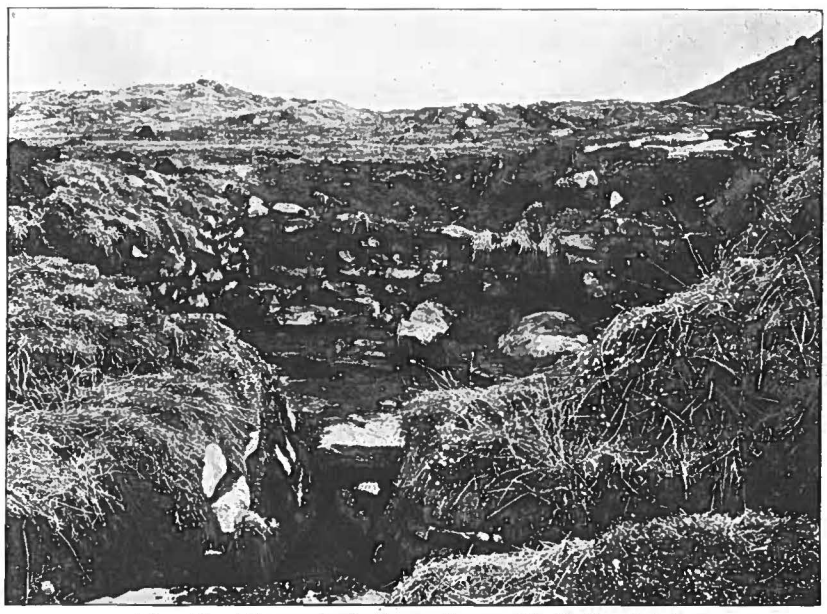

Fig. 52. House I, Igdlorssuit. — E. Holtved fot.

passage runs southwards from the house to a deep, stone-set meat cache. The greater part of the floor area in the house had a paving of flat stones; there were also some stones where the platform had been, but lying more irregularly; there were here a large boulder in situ and two long stones which apparently at one time have stood upright and formed pillars to support the roof.

The house contained many specimens and bones of seal, white whale and caribou, a number of pieces of wood and other refuse.

Most of the midden of this house was washed away; but close up against its north-west side was a rather thick but dried-up culture deposit in which were many flat stones, without, however, forming any distinct construction, as if it was the site of an earlier house now

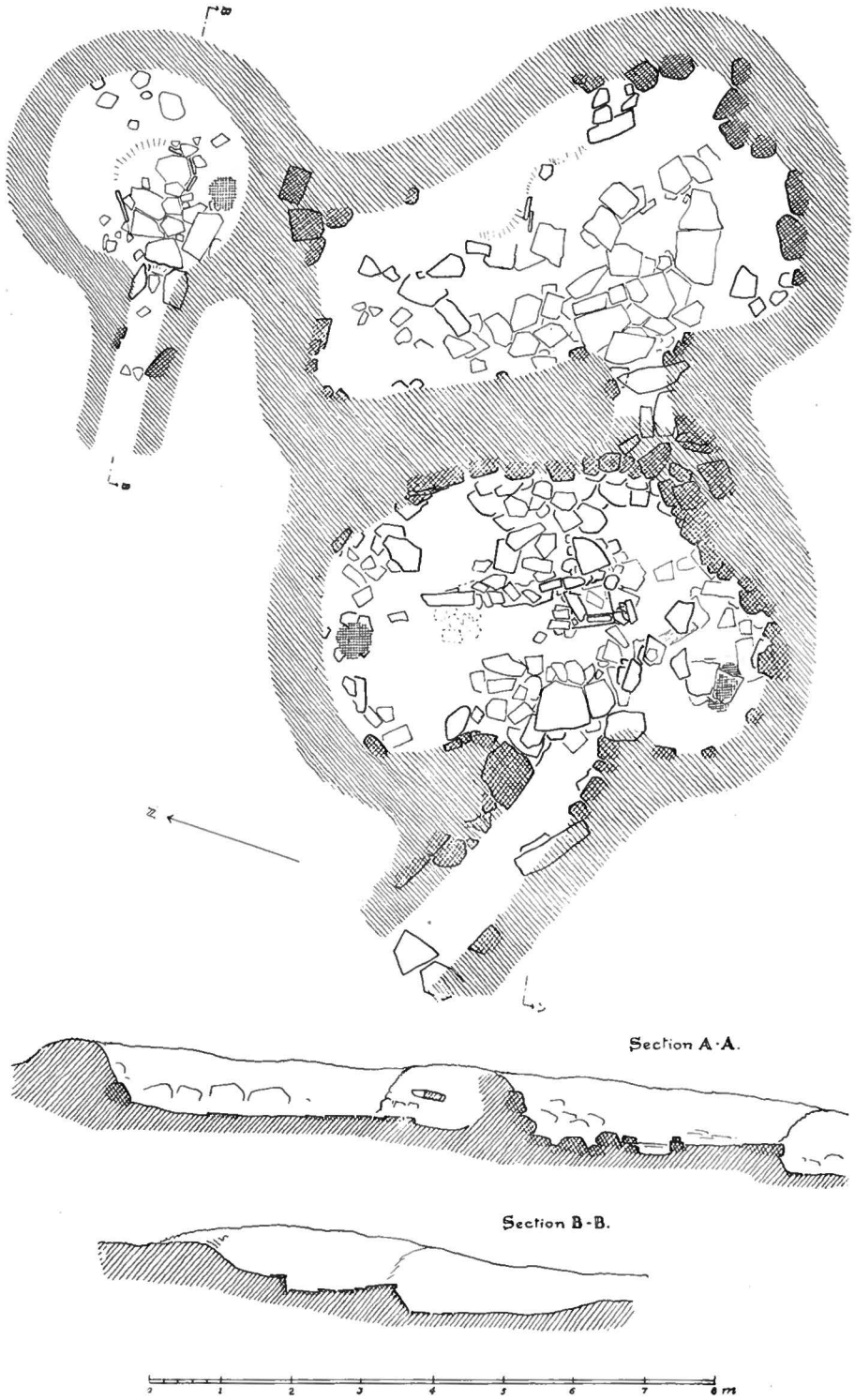

Fig. 53. Plan and sections of houses I, II and XIV, Igdlorssuit.

almost washed away. The upper half of this deposit contained objects from house I, but in the lower part we found a harpoon head, thin, without blade or barb, a piece of fire-drilling wood, and a lump of flint, which indicate earlier habitation.

House Group II, III, and XIV. Again near the beach, and quite low, lay a peculiar group of houses consisting of the two large adjoining houses II and III and the very small ruin XIV. A plan of this complex is given in fig. 53, which also includes two sections.

II and III were two houses, apparently oblong originally, with



Fig. 54. House XIV, Igdlorssuit.

low, collapsed and overgrown walls. House II was the better preserved, with a number of stones still in the walls and a partly stone-set passage running into the house from an angle; the passage was full of sand from the sea. Part of the floor of the house was paved, and there was a distinct stone-set platform edge; in front of it was a stone-set lamp table, as was the case in house III at Igdlutalik; at the most northern part of the wall another lamp place was indicated by a cake of slag. There were many scattered stones where the platform had been.

House III had the rear wall of house II as its front wall; in the walls were only few stones. There was a number of flat floor stones, but no distinct platform edge. The passage seemed to run through the wall of house II; it contained several flat paving stones and a single

side stone set on edge; afterwards, however, the passage has been blocked up by the building of the wall of house II. Presumably house III is a little older than II, but has been abandoned, and house II has been built up against its front wall, thus closing the passage.

These two houses contained a considerable number of specimens, bones and other refuse; in house II were several large whale bones, one of which was to have been split lengthwise, as is evidenced by a number of holes made in it; on the floor in house III lay several boards and large slabs of wood. Whereas most of the specimens in the two houses



Fig. 55. Kitchen in house V, Igdlorssuit.

gave the impression of being fairly recent, a few objects were found in house III that indicate an earlier habitation at this spot.

Up against the north wall of house III lay the very small and much older house XIV, which was only recognised as a ruin when excavated. It had been dug down into gravel and had no grass on it like the other two houses, but had a growth of willow and crowberry. Fig. 54 shows this house after excavation. There were some floor stones and a deep passage, supported by flat stones set on edge; There were no stones in the walls, and the house merged with the surrounding gravel terrain without any sharply-marked boundary. There were no bones in it, merely a few stone objects.

House Ruin IV. Prior to excavation this house appeared as a rounded, tussocky patch with scattered *Alopecurus* vegetation on the higher parts. On excavation there appeared over a fairly large area a quantity of stones forming a confused conglomeration in which it was difficult to distinguish anything. Farthest south there appeared a distinct passage, a cooking niche and a rounded rear wall; but up against this house there seems to have been another, which, however, had no apparent wall or passage. There was a handsome paved floor and a "kitchen" in the north side; the passage seems to have run towards the northwest, but only its innermost end could be distinguished. Outside lay a large cache. House ruin IV is apparently composed of two of the small round houses built together, but in such a state of collapse and destruction that its original form cannot be determined; their diameter seems to be about $3^1/_2$ m.

House Ruin V. Prior to excavation this appeared as a very low, rounded mound with a little *Alopecurus*. This ruin, too, was in a bad state of demolition, so that shape and size were difficult to see. Apparently it is a double house of ancient type. There was a distinct low passage bounded by flat stones on edge, a number of flat paving stones, and, three metres from where it entered the house, a rather large stone on edge which apparently has belonged to the rear wall. In a recess in the northwest side of the house was a handsome kitchen, built of flat stones, one horizontal and three vertical; the large masses of slag round about prove that this cooking place has been used for cooking with bones and blubber over a long period. Fig. 55 shows this kitchen.

Only a few badly-decomposed bones were found in this house.

House Ruin XVII. By the side of house V lay a depression with no covering of grass, which was only recognized as a house when excavated. It revealed a distinct deep passage with many edgestones, a few floor stones, and otherwise a confused jumble of stones over an area of about $4 \times 3^1/_2$ m; form and size were impossible to decide, and it contained only a few bones in an advanced stage of decomposition; apparently the house is of the old type.

House Group VI—VIII. These ruins lie close together and form a connected group; they were flattened out and had only little *Alopecurus* vegetation, but for the most part were covered with willow, crowberry and moss. A plan and section of this group are given on fig. 56.

House VI is a small, round house, dug rather deep into the gravel; there were only few stones in it, some of them set on edge in the passage, others floor stones and those forming the edge of the platform. The

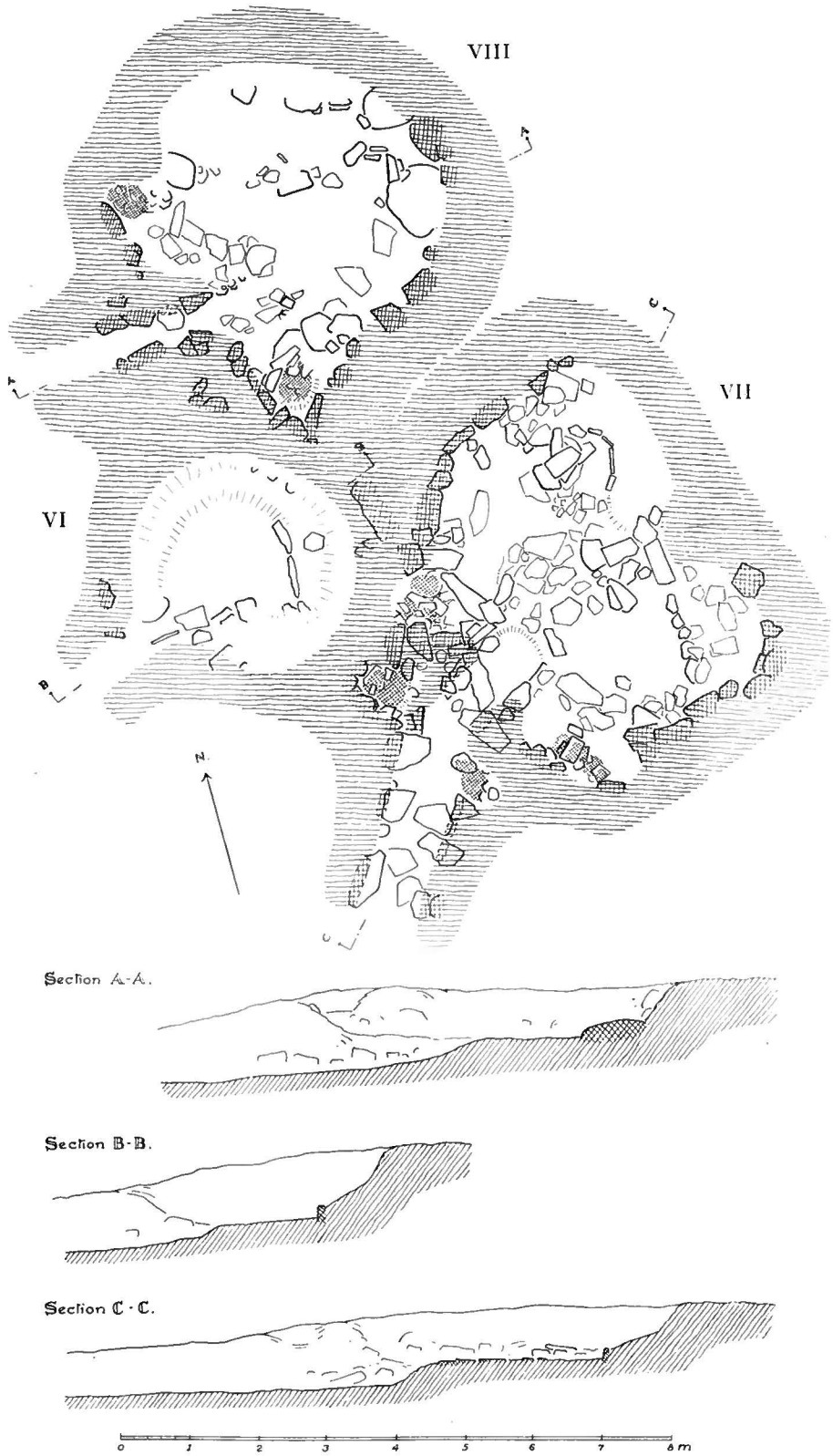

Fig. 56. Plan and sections of houses VI—VIII, Igdlorssuit.

roof construction lay in the bottom of the house; it consisted of eight large pieces of whale rib up to $1^1/_2$ m long, several with notches or cuts made when cutting them up, and a piece of a caribou antler; fig. 57 shows these roof beams lying in the bottom of the house.

House VII is a relatively well-preserved double house of the round type. It has more stones in the wall than is usual in these old houses; nevertheless there is scarcely ever more than one course in the walls; there are no stones in the rear wall of the northern room. The partition wall is marked distinctly by a group of stones. At the same level in both houses lie a number of flat floor stones; otherwise the floor is of gravel.



Fig. 57. Roof of house VI, Igdlorssuit.

In both rooms the edge of the platform is marked off with stones; in under the platform in the north room there seems to have been a cavity, bounded at the rear by a curved row of stones. The passage has a number of stones in the walls, and it bends before emerging into the south room. In prolongation of the passage, but cut off from it by a heap of stones, is a cavity full of rubbish and used as a kitchen; another kitchen is in the south side of the south room, and one in the northwest side of the passage.

Under the floor in the north room was a quantity of rubbish, and 15 cm down was another floor, laid with flat stones; this rested upon gravel; there was no corresponding floor in the south room, where the floor stones rested direct on the gravel bottom.

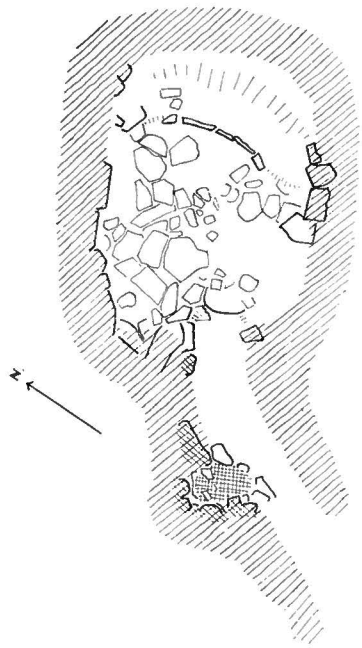

Fig. 58. Plan of the oldest construction in house VII, Igdlorssuit.



Fig. 59. House VII, Igdlorssuit.

This latter floor would seem to supply the explanation of the peculiar construction of this double house: Originally there was only one, the north room, with a stone floor (the lower one) and a straight passage. Fig. 58 shows the stone constructions that still remain of this early

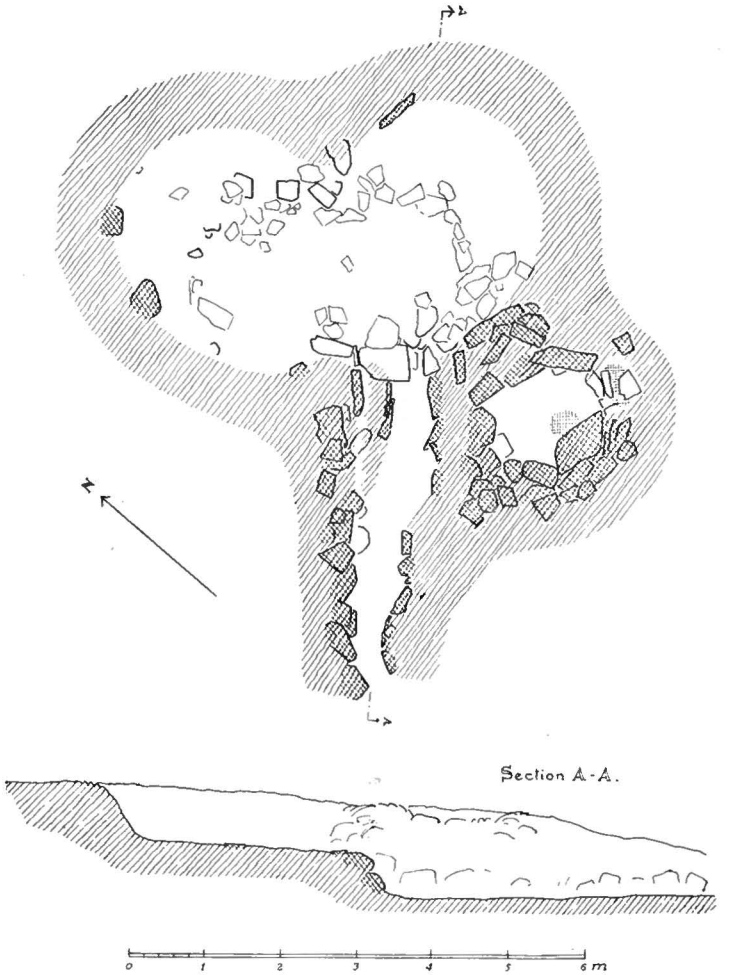

Fig. 60. Plan and section of house IX, Igdlorssuit.

house; there is a handsome floor, and a kitchen in the passage. Later, the south room was added on, a new stone floor was laid over the rubbish in the old house, and on the same level as the new one; simultaneously, the passage was led into the new room. This made the innermost end of the old passage superfluous, it was blocked with stones and used as a kitchen and a refuse pit for the inhabitants of the north house.

In house VII was a quantity of rubbish (seal and whale bones, baleen) and specimens.

Fig. 59 is the house after the excavation of the last culture deposit had been completed; the picture is taken from the north.

House VIII is a fairly large house, apparently another of the old round type; but there were not many stones in the walls; two large boulders in situ were used in the wall construction; in the south and west sides are kitchen recesses with a quantity of slag. There are a number of floor stones, otherwise there is gravel on the floor and the site of the



Fig. 61. Plan and section of house X, Igdlorssuit.

platform. The passage has several stones on edge and is rather deep. North of the end of the passage, about 20 cm below the floor, was another floor of four flat stones which on the north side merged into a layer of ashes leading up to the kitchen; among these ashes lay a large fragment of a metal pan with legs (Fig. 73).

The house contained only few bones (seal, whale), a few outer shells of blue mussel, and pieces of baleen.

House IX. This lay in the form of a dry, round depression with *Alopecurus* here and there on the walls. It turned out to be a double house of the old, round type (fig. 60). In the partition wall between the



Fig. 62. House X, Igdlorssuit.

two rooms was a quantity of stone, but otherwise there were not many stones in the walls. The house had only few floor stones, the remainder being gravel. In the upper end of the passage lay numbers of bones and a quantity of ashes, but apart from these there was nothing but badly decomposed bones (seal, whale) baleen and mussel shells in it. Just south of the passage was a large cache.

House X. Prior to excavation this ruin had the form of an oblong depression with rather high, overgrown walls bearing some *Alopecurus* vegetation. On being excavated it proved to be a fairly large complex, but in such a collapsed state that it seemed to be all mixed up, as will appear from the plan Fig. 61 and the photograph fig. 62. It seems if

anything to be a three-roomed house of the old type, but the wall stones are in position only here and there; it has a number of flat floor stones, a well-built passage and a cache just to the south of the latter. The house contained a quantity of bones (seal, whale, white whale, caribou) but mostly decomposed, some mussel shells and baleen.

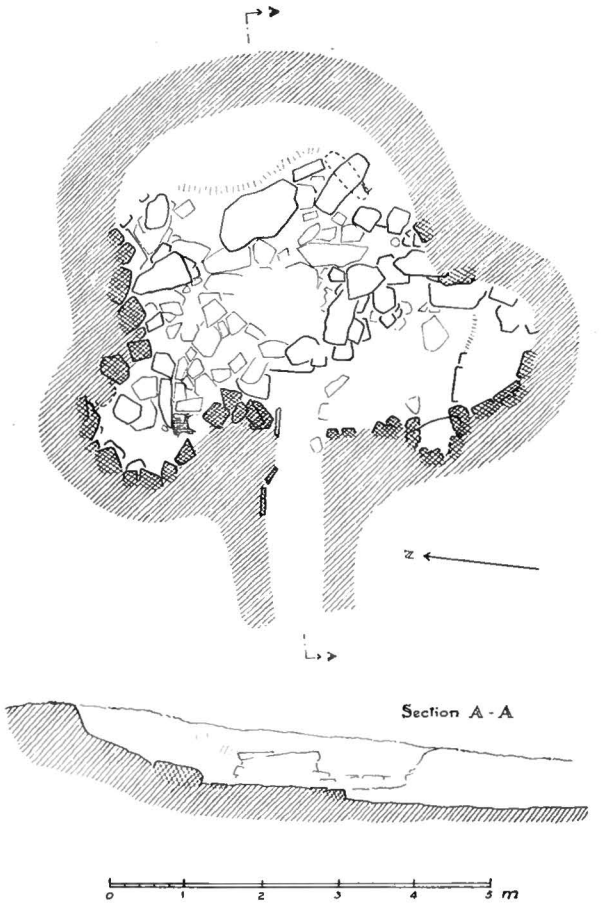

Fig. 63. Plan and section of house XV, Igdlorssuit.

House XV. This was almost unrecognizable as a house before being excavated, but proved to be a typical double house of the old, round type. A plan of it is given on fig. 63, and a photograph fig. 64. The south room is rather small, oval, with a distinct, stone-set wall, floor and platform, both with gravel and separated by an edging of stones; in its west wall two stones formed the lintel of a recess. The north room is larger, has no distinct rear wall, but a stone floor; a cooking recess runs out to the northwest. The passage is marked by some thin slabs of stone on edge, but was still frozen at the bottom when the excavation came to an end.

In the bottom of this ruin we found a quantity of rubbish, containing baleen especially.

House XVI. This, too, was almost indistinguishable before being excavated, being nothing but a very shallow depression with a hole or two in it. Excavation revealed a distinct passage, whereas the house itself seemed to be in a disordered state; it had the appearance of a double house of old type, but too few wall stones were in position for us to decide; there were some floor stones and in the northwest corner a kitchen. The total length of the house seemed to have been



Fig. 64. House XV, Igdlorssiut.

about 6 metres, its breadth about 3 metres and the passage about 5 metres long. This house contained scarcely any bones.

House XI. This ruin, lying at a higher level than any at Igdlorssuit, before excavation consisted of three pits and a passage, and the walls were overgrown with rather luxuriant *Alopecurus* vegetation. There was a good deal of moss in the bottom.

A plan showing this house before excavation is shown on Fig. 65, a photograph on fig. 66.

It is a small, four-sided house with a large stone-set cache at each end. The walls are fairly well preserved, built up of flat stones to a height of $^1/_2$—$^3/_4$ metre. Both floor and platform were stone-set, well pre-

served, and there was a lamp table at each end of the platform. On the floor lay the remains of two human skeletons; only one skull was in anything like good condition and lay in the northwest corner beside the half of a lamp. On the floor stood a whale vertebra with the processes

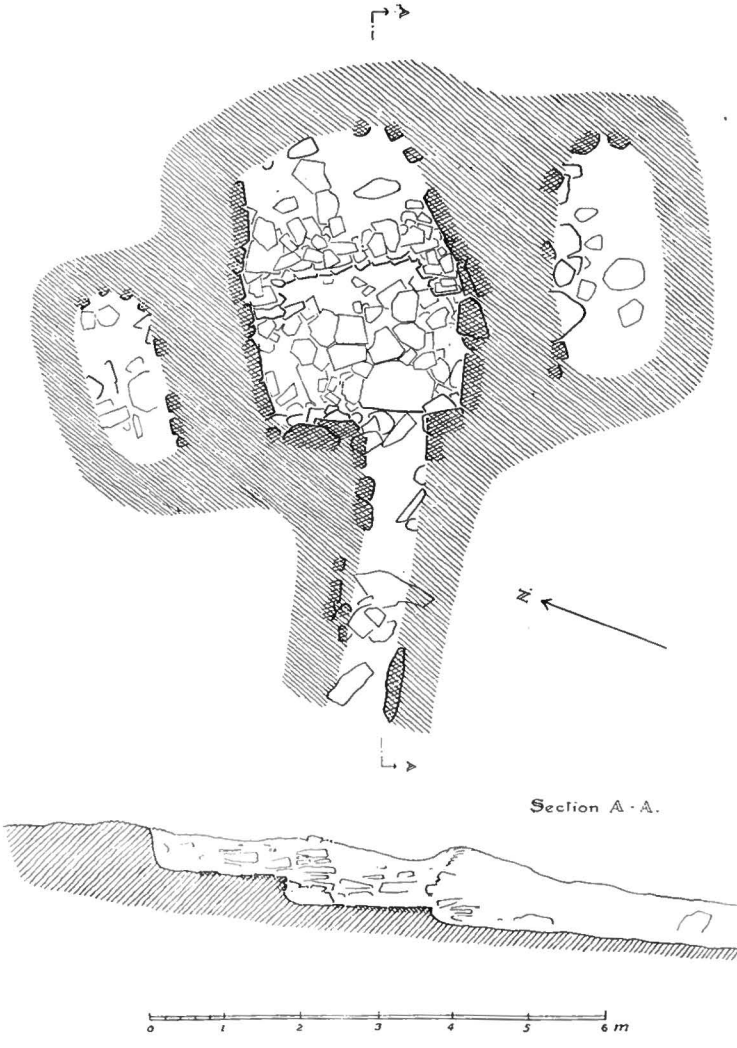

Fig. 65. Plan and section of house XI, Igdlorssuit.

sawn off — possibly used as a stool; it was badly decomposed. On the whole there were many objects in this house, whose last tenants had apparently died inside it. We also found glass beads in it.

House Group XII—XIII and XVIII. A group by itself, separated from the rest of the settlement by a rock shelf, is formed of three houses XII, XIII and XVIII.

House XII (fig. 67) is a very small, round, very old house dug down into the gravel; on the floor were some small, flat floor stones; the solid rock crops out on the platform. The passage was rather deep, with a flagged bottom and a kitchen in the north side. Of bones this house contained nothing but a single seal bone and the fragment of a whale bone.

House XVIII is just like XII, a round pit, 3 metres in diameter, and with the rock cropping out on the platform and a handsome, stone-built passage; in the southwest side of the house is a kitchen with slag.



Fig. 66. House XI, Igdlorssuit.

Inside the house we found nothing but two whale bones, one piece of baleen, a dog jawbone and, in the cleft in the rock on the platform, some seal bones.

Neither of these two houses had any *Alopecurus*, only willow, crowberry and the like.

House XIII is an oblong room, about $4^1/_2 \times 3$ metres, with rather indistinct walls; the rear wall, however, was marked by a row of flat stones; there are a few floor stones, but mostly gravel; the passage was well built, $3^1/_2$ metres long.

On both sides of the upper half of the passage, however, there were many stones and a quantity of rubbish which extended down to a good depth, and at the sides we uncovered two kitchens with a lot of slag, as if an earlier house had stood there. In the rear room there was not much

refuse, and the gravel bottom lay rather high; a large glass bead was found in the upper part of the passage. The objects in the deeper layers round the passage, however, seemed older, and in particular there were many of baleen. It would seem that there has been an older house, which has had a floor on both sides of the passage and possibly a platform on what later was the floor; in that case the newer house was

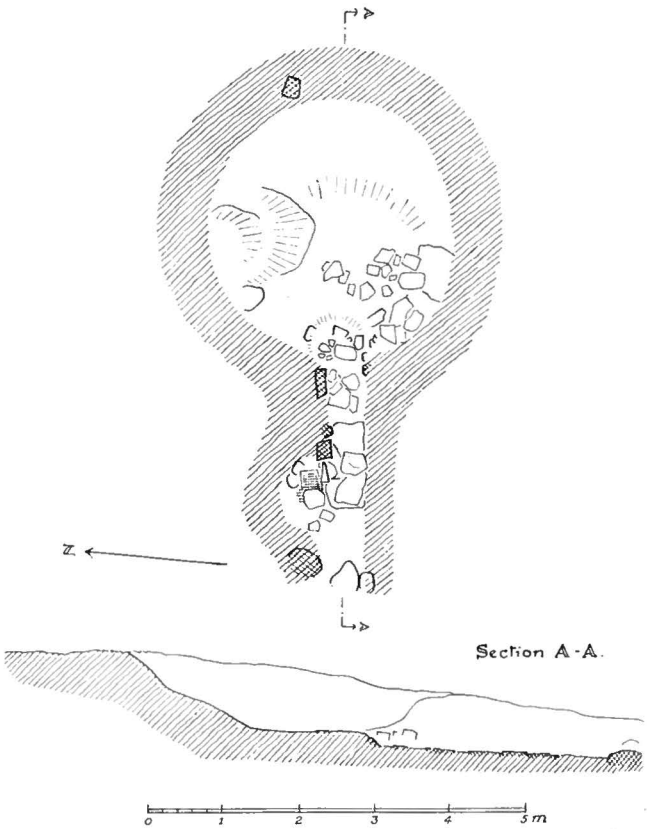

Fig. 67. Plan and section of house VII, Igdlorssuit.

built further back, and the passage has been prolonged through the earlier house. The circumstances are not quite clear.

Graves at Igdlorssuit. In the terrain in and around the settlement of Igdlorssuit we found nine graves; their situation appears on the map, Pl. 3. Most of them were more or less disturbed. Graves 1, 3, 4 and 7 were entirely collapsed and empty.

Grave 2 was practically undisturbed; only one lid stone had fallen

in. It formed an oblong room running NE.—SW., 1.25 × 0.50 metre; it contained nothing but a jaw bone and two limb bones.

Grave 5 was a child's grave lying in a cleft in the rock on the hill side south of the settlement; it contained nothing but decomposed remnants of a skull.

Grave 6 was collapsed a good deal; it formed a room running N.—S. and measured 0.9 × 0.6 metre; in it was a skeleton with the head to the south.

Grave 8 (fig. 68) was a large, well-built grave covered with lichen,



Fig. 68. Grave 8, Igdlorssuit.

almost undisturbed. It was a handsome, rectangular cist, 1.15 × 0.6 metre running E.—W., and containing the remains of three skeletons, two with the heads towards the east, whereas the third skull lay in the southwest corner. Contrary to what was the case at Igdlutalik, no stones had been heaped over this grave, but a number of flat stones had been set up on edge, resting obliquely against the sides of the cist. Under one of these, on the north side, lay quite a number of limb bones, presumably taken out of the grave at the last interment. Some of these edge-set stones had fallen over, apparently overturned by someone when looking for grave goods; nor did the grave contain any.

Grave 9 was also in a fairly good state of preservation; it was a cist 1.20 × 0.45 metre, running NE.—SW., and containing two more

or less well-preserved skeletons with their heads towards the northeast, and the remains of a small child's skull.

The grave also contained a snow knife (or kayak scraper), a wound plug, a fire drill, a bone point, a piece of wood with nails in it, a worked, indeterminable piece of wood, and a cut piece of antler. As the grave lies in a place that is in frequent use for camping and flensing, it is doubtful which of these objects are original and which are accidental, later mixtures.

VI. THE FINDS FROM IGDLORSSUIT

The find from Igdlorssuit contains 766 specimens, taken from 18 house ruins and one grave; whereas a good number of those from Igdlutalik were from middens, none of the houses at Igdlorssuit had any refuse deposits of any significance, and only a few sample fields were excavated in them.

The chances of preservation at Igdlorssuit were much poorer than at Igdlutalik. The houses were dug down into a dry gravel plain, and in many of the houses frost and water had decomposed almost all the bones and objects of bone and baleen; only here and there was there a permanently frozen stratum. This explains why the finds from Igdlorssuit are so few numerically as compared with the large number of houses examined, and why the finds on the whole give such a poor impression. In addition, the paucity of the finds makes it difficult to date the various houses. Nevertheless, they include much that is of interest as a supplement to the Igdlutalik find.

The finds from Igdlorssuit fall naturally into two main groups:

1) Those from the houses of the ancient round or clover-leaf shaped type, i. e. from Houses IV—X, XII and XIV—XVIII; to these must be added the few old specimens found in the bottom of house III and also those from the structures on both sides and in the bottom of the passage to house XIII; these finds closely approach those from the old houses. None of them contain glass beads.
2) The finds from the later houses of the foursided type, houses I—III, XI and XIII; all these contained glass beads as evidence of the arrival of the whalers or the Danes in the country.

As regards the materials, they are mostly the same as at Igdlutalik. On account of the conditions for preservation the objects of stone predominate: soapstone, slate, sandstone, basalt, angmaq, chalcedony, jasper, chrysoprase, etc.

Specimens from the Earlier

Below is a list of the specimens found in houses IV, V, VI, VII finds from III and XIII. Those found in middens

Type	III	IV	V	VI	VII
Harpoon head, Thule type	..	..	..	..	..
— , Inugsuk type	1	..	..	..	..
Leister harpoon head	..	..	..	..	..
Harpoon blade of stone with notches	..	..	..	1	..
— - — — hole	..	..	..	..	..
— - — without notches and hole	..	..	..	..	1
Harpoon foreshaft, conical butt, one hole	..	..	..	..	..
Harpoon shaft mounting, cylindrical	..	..	..	1	..
Ice pick	..	..	..	..	..
Tension piece for harpoon line	..	..	..	..	1
Wound pin	..	..	..	..	..
Sealing footstool leg	..	..	..	..	..
Bow, of baleen	..	..	..	..	..
Sinew twister for bow	..	..	..	..	..
Arrow head of bone, with knobs	..	..	..	..	1
— - — , indeterminable	..	..	..	..	..
— - stone, lanceolate	..	..	1	..	..
Bird dart head, whale bone, pointed butt	..	..	..	..	..
— prong	..	..	..	..	..
Gull hook with hole	..	..	..	..	1
Leister prong	..	..	..	..	..
Sledge shoe, whalebone	..	1	..	..	1
Rest for kayak harpoon	..	..	..	..	..
Snow knife	..	..	..	..	..
Snow shovel	..	..	..	..	..
Knife with end blade	..	..	..	..	..
— — side groove	..	..	..	..	1
Knife blade, stone, single edged	..	..	..	..	..
— , — , two edged	1	..	..	1	..
Whetstone	..	2	3	..	9
Hammer stone	..	2	..	1	1
Adze head, bone	..	..	..	..	..
— blade, stone	..	..	..	..	1
Mattock blade	..	..	..	1	..
Wedge	..	..	..	..	..
Drill bit, stone	1	..	..	..	..
Bow-drill mouthpiece	..	..	..	..	1
Ulo, no stalk or intermediate piece	..	..	..	..	..
Ulo blade, stone	..	..	..	..	..
Scraper, stone	..	..	..	..	..
Scraper blade, convex edge	..	..	..	..	1
— , concave edge	..	..	..	..	..
Two-handed scraper	..	..	..	..	..
Gouge, stone	..	1	..	..	..

Houses at Igdlorssuit.

VIII, IX, X, XII, XIV, XV, XVI, XVII and XVIII and the earlier are included under the houses from which they came.

VIII	IX	X	XII	XIII	XIV	XV	XVI	XVII	XVIII	Total
..	..	..	..	..	..	1	..	..	..	1
..	..	..	..	1	..	2	..	..	..	4
..	..	..	..	..	..	1	..	..	..	1
..	..	..	..	1	..	..	..	..	..	2
..	..	1	..	..	..	..	..	..	..	1
..	..	..	1	..	..	..	..	..	..	2
..	..	1	..	1	..	..	..	..	..	2
..	..	..	..	1	..	..	..	..	..	2
..	..	1	..	..	..	1	..	..	..	2
..	1	..	..	..	..	..	..	..	..	2
..	..	..	..	..	..	2	..	..	..	2
..	..	..	..	1	..	..	..	..	..	1
..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	1	..	..	..	1
..	..	..	..	..	..	1	..	..	..	2
..	..	..	..	..	..	1	..	..	..	1
..	..	..	1	1	..	..	..	..	..	3
..	..	1	..	..	..	..	..	..	..	1
..	1	..	..	..	..	1	..	..	..	2
..	..	..	..	..	..	..	..	..	..	1
..	..	1	..	..	..	..	..	..	..	1
..	1	6	..	..	..	1	..	..	..	10
..	..	..	..	1	..	..	..	..	..	1
..	1	1	..	1	..	..	..	..	..	3
..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	1	..	..	..	1
..	..	1	..	..	..	..	..	..	..	2
..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	1	..	..	1	4
..	3	9	2	2	..	4	..	..	..	34
2	..	1	..	1	1	..	..	..	..	9
..	..	..	..	1	..	..	..	..	..	1
..	..	1	..	..	..	..	..	..	..	2
..	..	2	..	..	1	..	..	..	..	4
..	1	1	..	..	..	..	..	..	..	2
..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	1	..	..	..	2
..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	1	..	..	1
1	..	2	..	..	..	..	1	..	..	4
..	..	..	..	2	..	..	..	..	..	3
..	..	..	1	..	..	..	..	..	..	1
..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	1

Type	III	IV	V	VI	VII
Baleen shave(?), stone	..	1	..	..	..
Needle case, winged	..	..	..	..	1
Boot creaser, stone	..	..	..	..	..
Cutting board	..	..	..	..	..
Lamp, with wick ledge	1	2	2	..	..
— , — vestigal wick ledge	..	..	..	..	..
— , — without wick ledge	..	..	..	..	..
— , oval, thick-walled and indeterminable	..	1	1	..	..
Cooking pot, fragments	..	3	2	4	5
Soapstone sherds, indeterminable	..	2	..	..	9
Wooden tray, indeterminable fragments	..	..	..	..	..
Bowl bottom, oval	..	..	..	..	1
Baleen sides of oval bowl	..	..	..	..	1
Baleen knife	..	..	..	..	..
Spoon	..	..	..	..	..
Platform mattress, baleen	..	..	..	..	..
Snow beater, baleen	..	..	..	..	2
Drop pendant, stone	..	1	..	..	..
Ajagaq of seal humerus	..	..	..	..	..
Drum frame	..	..	..	..	..
Toy knife, baleen	..	..	..	..	1
— lamp, thick, shapeless	..	..	1	..	..
— cooking pot	..	..	..	..	..
Baleen with knots	..	..	..	..	2
Other worked baleen	..	..	..	..	1
Edge mounting, of bone	..	..	..	..	..
Iron	..	..	..	..	1
Norse relics	..	..	..	..	..
Stone chippings	..	6	9	4	29
Coal	..	2	..	..	..

Remarks on Certain Implement Types.

The harpoon heads are all thin; one, from house XV, is of the Thule type with the blade slit parallel with the line hole, no barbs; it is of antler and in an advanced stage of decomposition. Three are of the Inugsuk type; one is of antler with a small inserted blade of bone, and two are of whale bone.

The leister harpoon head is a small specimen, 5.5 cm long, of antler, with one spur and the point thin in the direction of the line hole.

Of the harpoon blades of stone, three are given on Pl. 9.1,4 and 5; the first is of flint, the second of chalcedony, the third of angmaq; all are unpolished and in the butt end have a notch for the shaft.

A long, slender harpoon foreshaft is of the old type with the conical butt and one hole; shown on Pl. 9.6.

VIII	IX	X	XII	XIII	XIV	XV	XVI	XVII	XVIII	Total
..	..	..	1	..	..	..	..	..	..	2
..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	1	..	..	..	1
..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	5
1	..	1	..	..	..	..	1	..	..	3
..	1	..	..	..	..	..	..	..	..	1
..	2	2	..	..	..	..	..	..	..	6
2	8	6	..	1	2	4	1	2	1	41
..	5	10	2	..	3	6	3	2	..	42
..	..	..	1	..	1	..	..	..	..	2
..	..	2	..	..	1	..	..	..	..	4
..	..	..	..	..	..	..	..	..	..	1
1	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	1	..	..	..	1
..	..	..	..	1	..	..	..	..	..	1
..	..	..	..	3	..	..	..	..	..	5
..	..	..	..	..	..	..	..	..	..	1
..	..	1	..	..	..	..	..	..	..	1
1	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	1
1	..	..	..	..	..	..	..	..	..	1
..	1	..	..	..	..	..	..	..	..	3
..	..	..	..	4	..	1	..	..	..	6
..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	1
2	..	..	..	..	..	..	..	..	..	2
4	6	32	12	383	..	38	4	1	10	538
..	..	..	..	..	..	..	..	..	..	2

A tension piece for the harpoon line has two holes as well as two small holes to fasten it on the shaft.

Of the bone arrow heads one has one barb and one has two-rowed barbs. A lanceolate arrow head of angmaq, unpolished, is Pl. 9.2. A sinew twister is of antler.

A bird dart head of whale bone is thick, pointed at the butt, and has one barb at the fore end; another has one barb, but is defective at the rear end. A side prong has two inside barbs.

A sledge shoe is of whale bone, 52 cm lang and 5.0 cm wide; others have breadths from 3.6 to 4.0 cm; one is of narwhal ivory.

A rest for a kayak harpoon, of wood, has a similar wide form to Inugsuk Pl. 8.25.

A snow knife of whale bone is of the usual angular form with one inside shoulder.

Fig. 69 is presumably a snow shovel, of whale bone, 53 cm long; in one end is a transversal groove which forms a hand grip; almost at the middle are two pairs of holes, presumably for a hank of thong. The snow shovel was represented at Inugsuk, but this one is rather different (Inugsuk fig. 21).

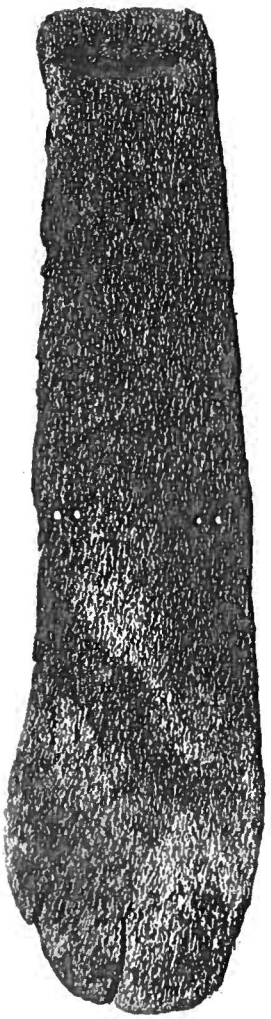

Fig. 69. Snow shovel?, Igdlorssuit.

Pl. 9.11 is a handsome knife with a side groove for a blade; it is of whale bone, has a groove in one side and on both sides of the handle is decorated with cursorily incised longitudinal and transversal lines.

Some knife blades of stone are shown Pl. 9.3, 8, 9 and 10. The first is a polished, two-edged angmaq blade; the second is a large, somewhat crooked two-edged angmaq blade, with only faint traces of grinding on one side; there is a faint hint of a tang; the extreme point has been broken off. Nos. 9 and 10 are smaller, slightly crooked, two-edged blades of chrysoprase.

A hammer stone of basalt has notches at one end and in the sides to give the fingers a better grip.

An adze head is of antler, with two horizontal holes and a seating for the handle. An adze blade of angmaq is shown on Pl. 9.7.

A drill bit of angmaq is of the usual three-sided polished type with cuneiform edge.

The bow-drill mouthpieces are all of caribou astragalus.

Among the ulos are a narrow, thick handle of whale bone and the fragment of a slate blade.

In this find, too, we have scrapers of roughly formed slabs of slate, so common at Igdlutalik.

Two scraper blades with a convex edge are shown on Pl. 9.12 and 15; both are unpolished, one of angmaq, the other of chrysoprase. The scraper with the concave edge (Inugsuk Pl. 13.5), which happens not to have been found at Igdlutalik, is here represented by a handsome specimen of chalcedony (Pl. 9.13).

The two-handed scraper is of caribou metatarsus. A stone implement is very like Pl. 1.7, of angmaq, 5.4 cm long, with a polished transversal edge.

The boot creaser of angmaq occurs in one specimen, from house

XV; whereas previously we knew of it only from the Second Stage in the Kangâmiut area[1]; its occurrence here, lowest in house II at Igdlutalik and in house XV at Igdlorssuit, seems to indicate that it has also been known in earlier times and that it is merely accidental that it was not found in the old layers at Inugsuk.

A small cutting board of wood, of the usual form pointed at one end, on this specimen ends in a human head[2].

Of the lamps the type with the wick ledge occurs most frequently. A peculiar specimen of the type with the vestigal wick ledge is shown on Fig. 70. It is a coarsely made, very thick-walled lamp made out of a solid lump of soapstone; the hollow is almost oval, and along one edge is a small wick ledge divided in the middle by a notch.

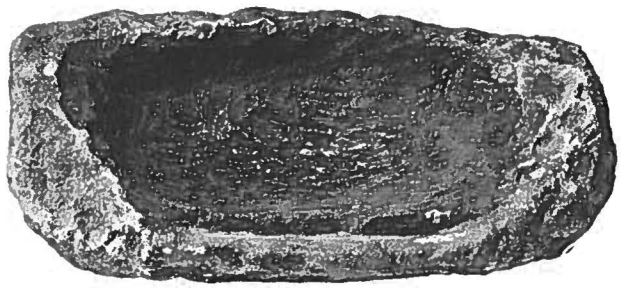

Fig. 70. Lamp, Igdlorssuit. 1: 4.

Of the cooking pots some have the usual feature with the suspension holes in projections on the inner side.

A small oval bowl with a wooden bottom, 15 cm long, has its baleen sides more or less preserved. Another bowl bottom is of whale bone, and one of wood is 31 cm long. A small baleen knife is of the same shape as Inugsuk Pl. 19.13.

A spoon of antler has its bowl and handle merging smoothly into each other, but it is very defective.

The platform mattress of baleen (Inugsuk fig. 32), which was not found at Igdlutalik, is here represented by some very decomposed fragments found in the bottom of the passage to house XIII.

Fig. 71 shows two well-preserved snow beaters, of baleen.

A drop pendant is of soapstone, four-sided, rather large and coarsely made.

Among other objects there is a strip of baleen whipped with baleen cord (fig. 72).

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[1] Kangâmiut p. 93 seq.

[2] Cf. Kangâmiut Pl. 3.17 and 4.2.

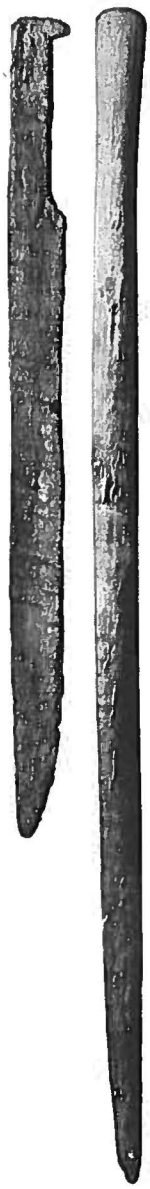

Fig. 71. Snow beaters, Igdlorssuit. 1: 4.

Of drums we have nothing but a rather doubtful fragment of a frame, of baleen.

In house VIII we found two objects that presumably have come from the Norsemen. One is an iron knife blade, 8 cm long, pointed, very rusty, found in the south kitchen. The other is half of a bronze cooking pot, Fig. 73. It is the form well known from the late Middle Ages, with a hank and a three-sided leg preserved. It has been about 17 cm high. It was found badly burnt and partly covered with hard slag, in the bottom of the north kitchen, under thick layers of ashes and slag. Regarding this pot Dr. Poul Nørlund says: "Among the dated bronze cooking pots in the National Museum this is most like one from the end of the 15th century, found in Frøslev Parish, Stevns District (Denmark) (No. D 1427), but really there is no reason why it should not be much older. A pot from the first half of the 14th century, found in Langesø Wood on Funen (D 6471) is very like it, although the feet have a rather better termination. On the other hand it is very improbable that this specimen is 17th century".

Fragments of similar cooking pots have been found in the Norse settlements in Greenland, but never so large as this.



Fig. 72. Baleen implement, Igdlorssuit. 1:4.

Culture and Chronological Position.

The finds from the old houses at Igdlorssuit do not form any complete whole, from one and the same period, and indeed there is no reason why they should, for there is no guarantee that all these houses have been anything like contemporary. As regards several of the houses (IV, V, VI, IX, XII, XIV, XVII and XVIII) the finds are so sparse and devoid of characteristic features that there is nothing certain to be said about their age. On the other hand, the state of preservation of most of the houses indicates considerable age.

Nevertheless, one thing may be said with certainty: there is

nothing in the find as a whole that is not contained in the Inugsuk Culture; none of the types that separate that culture from those that followed it are represented here. On the other hand it seems likely that some of the finds may have belonged to the still earlier period that is represented by houses VI—X at Igdlutalik. This is especially applicable to the finds from house XV, whose three harpoon heads are all thin and on the whole bear the stamp of old age; on the other hand the occurrence of a special West Greenland type like the boot creaser does not confirm this view. All the same, the state of preservation of this house shows that it is one of the earliest in the settlement.

Of the other more voluminous finds we have in house VII a type like the knife with the side groove, in house VIII the bronze cooking



Fig. 73. Norse metal cooking pot, Igdlorssuit. 1:4.

pot, and in house X another knife with the side groove, features which argue that these houses are not of the earliest period. As houses VI—VIII according to their situation must be assumed to have been in use at the same time, the inference is that they all — bronze cooking pot as well — must belong to the late Middle Ages, which means the Inugsuk Culture. In itself the finds from the earliest habitation of house XIII might well be from the earliest period, but as the distinction from the later objects in that house cannot be made with full certainty, no helpful conclusions may be drawn from them.

All in all it is most probable that the earliest settlement at Igdlorssuit belongs to the Inugsuk Culture (13th—14th centuries), although some of the houses possibly go still farther back.

Specimens from the Newer Houses at Igdlorssuit.

The following is a list of the specimens found in the house ruins I, II, III (with the exception of the oldest objects from the bottom layer), XI and XIII (the upper, later part).

	I	II	III	XI	XIII	Total
Harpoon head, flat, two spurs, blade slit	1	..	..	..	..	1
— , - , — , — barbed	..	..	1	..	..	1
— , - , one spur, blade slit	..	..	2	..	..	2
— , - , fragments	..	..	2	..	..	2
Harpoon mounting, flat	1	..	..	..	..	1
Ice pick	..	..	1	..	..	1
Swivel	..	..	1	..	..	1
Bladder dart head with barb belt	..	..	..	1	..	1
— , butt of, conical	..	1	..	..	..	1
— mounting	..	1	..	..	..	1
Neck piece for towing gear	..	..	..	1	..	1
Arrow head with screw	..	..	1	..	..	1
Bird dart head with socket for iron point	..	1	..	..	..	1
— side prong	1	..	..	..	..	1
— mounting	..	..	1	..	..	1
Sledge runner, fragment	..	1	..	..	..	1
Sledge shoe	15	4	2	1	..	22
Trace buckle	..	..	..	1	..	1
Umiak rib	..	1	2	..	..	3
Kayak paddle mounting	1	..	..	1	..	2
Harpoon rest for kayak stand	1	..	..	..	..	1
Knife with end blade	..	..	2	..	1	3
Knife blade of stone, two-edged	1	..	..	..	..	1
Whetstone	5	3	4	12	4	28
Hammer stone	..	..	3	..	..	3
Adze head	1	..	..	..	..	1
— blade of stone	..	..	..	..	1	1
Bow-drill shank	..	..	1	..	..	1
Drill bit of stone	1	..	..	..	..	1
Ulo, without arm and interm. piece	1	..	..	..	..	1
—, with arm	..	..	2	..	..	2
Stone scraper	1	1	1	3	..	6
Scraper blade, stone, convex edge	..	..	..	..	1	1
— , — , concave edge	..	..	..	..	1	1
Two-handed scraper	..	..	1	..	1	2
Kamiut stick	..	1	..	..	..	1
Boot creaser	1	..	1	..	..	2
Bone needle	..	..	1	..	..	1
Bodkin	..	1	..	..	..	1
Lamp without wick ledge	..	..	..	1	1	2
Cooking pot fragments	4	3	7	1	..	15
Soapstone sherds, indeterminable	5	4	11	3	1	24
Wooden tray, rounded	..	..	1	..	..	1
— , indeterm. fragments	1	..	2	..	..	3
Oval bowl bottom	..	..	3	2	..	5
Stave of coopered vessel	..	..	1	..	..	1
Spoon	..	1	2	1	..	4
Ladle	..	1	1	..	..	2

	I	II	III	XI	XIII	Total
						11
Fire-drilling wood	..	..	1	..	..	
Comb	..	..	..	1	..	
Pierced tooth	..	..	..	1	..	1
Bear's tooth, pierced	..	..	..	..	1	1
Stone bead	..	..	..	..	1	1
Ajagaq, seal radius	..	..	..	1	..	1
— , - penis bone	..	1	..	1	..	2
Spindle buzz	1	..	..	..	..	1
Doll, Eskimo	2	..	2	1	..	5
— , European	1	..	..	..	..	1
Toy harpoon	1	..	..	..	..	1
— sledge upstander	1	..	..	..	..	1
— sledge cross slat	2	..	1	..	..	3
— kayak	..	..	1	..	..	1
— lamp without wick ledge	1	..	..	..	..	1
— wooden tray	..	..	1	..	..	1
Crossbow	1	..	..	..	..	1
Edge mounting of bone	..	..	4	..	..	4
Sharpened bird bone	..	1	..	..	..	1
Glass beads	16	14	30	4	1	65
Potsherds, European	39	4	4	2	..	49
Gun flint	5	..	1	..	..	6
Other European objects	23	20	18	2	..	63
Stone chippings	16	5	10	15	27	73

Observations on some of the Specimens.

The great majority of the objects found in these later houses are so well known as to type that it would be superfluous to describe them. Only a few shall be singled out and illustrated.

All the harpoon heads are flat and are of later forms, like Pl. 10.1-2 or Inugsuk Pl. 23.1. One bladder dart head is of whale bone, 28 cm long, conical at the butt, with two holes, an iron blade at the fore end, and two barbs at the same level and on the same side.

The sledge shoes are rather narrow on the whole, $2^1/_2$—3 cm wide, all of whale bone. The mounting for a kayak paddle is of the modern, wide type, and the harpoon rest is the bone rod which is fastened to the modern kayak stand. The umiak ribs are of the type Kangâmiut fig. 30.

A knife handle is shown on Pl. 10.3; it is of antler, has had a European iron blade with a tang, and is decorated with dot and circle ornaments. From house XIII came a knife with a handle of antler and an end blade of brass, single edged and pointed.

A lamp from house XI is of the modern type, deep, narrow, segment shaped, with rather steep walls and a flat bottom.

The slate scrapers occur here again, similar in form to those from the earlier houses.

Pl. 10.4 is a boot creaser of walrus ivory, a handsome specimen, with a sharp transversal edge and dot ornaments on both edges of the handle. Another boot creaser is a flat rod of narwhal ivory with a transversal edge and a hole through the other end.

An oval wooden tray, 26 × 17 cm, has an edging of bone. A spoon of antler is shown on Pl. 10.5.

A comb is a poorly-made specimen, of antler.

Pl. 10.6 is an ajagaq, formed out of a piece of seal penis bone with three holes in the under side and with one end hollowed out. Fig. 74 is a spindle buzz, a familiar toy in modern West Greenland-culture[1]); the top disk consists of a white whale or narwhal vertebra.

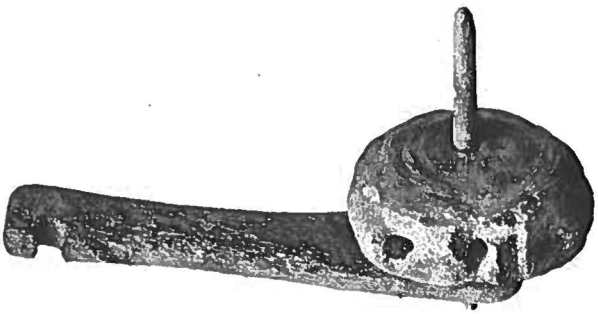

Fig. 74. Spindle buzz, Igdlorssuit. 1:2.

The Eskimo dolls, like the earlier specimens, have neither arms nor features, but are more simple again, being straight up and down, without indicating anything of the profile of the body. Pl. 10.9 is a small doll representing a European woman, with long gown and kerchief on her head.

European Objects[2]). These houses have a wealth of imported European objects, by means of which the finds may be dated more or less accurately.

From house XIII, however, apart from the knife already referred to, we have nothing but a large, angular, opalescent glass bead (Pl. 10.7), found in the upper layer of the passage.

From house I we have many glass beads, including two of the large round opalescent kind (Kangâmiut Pl. 7.15), one of which, Pl. 10.8, has been used as a peg top; then there are two fairly large, long, one

[1]) Birket-Smith 1924, fig. 300.

[2]) Keeper Chr. Axel Jensen of the Nat. Mus. has assisted me in identifying these things.

white and one cloudy; three of medium size, clear, colourless, brown and blue; six small blue and one small blue striped. Among European earthenware there is a quantity of broken English faience, with no transfer, from the latter part of the 18th century. There are also a gun flint, two two-pronged forks with round wooden handles, a wooden spoon, the blade of a table knife, a door hinge, nails, file, saw blade, thimble, horn comb, mouthpiece of a clay pipe, etc. etc.

From the two nearly contemporary houses II—III we also have a lot of glass beads, mostly of the same forms as in I, but including others: large, facetted (Kangâmiut Pl. 7.17), two large opalescent, with twisted longitudinal fluting, etc. Also a quantity of faience sherds, and toys that again point towards the close of the 18th century. The bottom of a tin can (18th century) with the handle, used for cooking purposes or the like. A number of knives, principally table knives, one with the dot and circle ornament and one with cross-hatching on the handle, a file, a saw blade, an iron fish hook, a thimble, a horn comb, a gun flint, a barrel bottom, two black glass buttoms with iron eye, etc.

From house XI we have: two table knives; four glass beads: one large, long, blue and three small blue; two faience sherds, one blue patterned (18th century); both have holes drilled in them for binding them together (for mending them).

Chronology.

The last known habitation of Igdlorssuit (apart from the quite recent settlement) was in 1794, and thus the latest of the houses there must date from then; these apparently include house I, the condition of which indicated that it was the latest of them. All the same, II and III are scarcely much older; the objects that can be dated from them also belong the latter half of the 18th century.

House XI, on the other hand, seems to be somewhat older, judging from the few objects of European origin; still, the faience sherds also point to the 18th century. Accordingly, this house is probably from the first half of that century.

House XIII contained only one large glass bead, and on the whole the find from this house gives the impression of being rather older, including as it does the many implements of stone; but, as has already been mentioned, there seems to have been an earlier house on this site, and its relics are not always easy to keep separate from those of the last habitation.

In House I a few earlier implements were found too: two-edged knife blade of stone, adze head of bone and a drill bit of angmaq, whose presence in a house dating from 1794 is surprising; but it has been stated in the foregoing that there seems to have been an earlier habitation

there, and these objects may have been recovered by the later tenants. The same applies to house III, whereas houses II and XI had no earlier types.

The Igdlorssuit settlement has thus provided a most useful supplement to Igdlutalik. Besides throwing more light on the house types by its many dwellings, we have finds from it that fill up periods which were not represented, or only poorly represented, at Igdlutalik: the Inugsuk Culture itself and the latter half of the 18th century.

VII. THE OUTPOST OF QEQERTAQ

Next after Sermermiut, Qeqertaq is the place where more stone implements have been found than in any place of West Greenland; in the National Museum in Copenhagen and the Pfaff Collection in Riksmuseets Etnografiska Avdelning in Stockholm there are numbers of stone implements from there, and its wealth of these artefacts has been referred to in the literature on several occasions[1]); many of the specimens from there have been figured by Solberg: harpoon blades, knife blades, scrapers with convex and concave edge, drills, adze blades, arrow heads, sewing knives and others. It was therefore only natural that I should have in mind the possibility of making a systematic excavation at this settlement. In the days from 4th to 6th August we accordingly made an excavation, but conditions did not seem encouraging for a protracted investigation.

Fig. 75 shows Qeqertaq seen from a mountain top to the north of this outpost, which lies on the south point of this fairly large island. Among the houses there is a good deal of midden deposit, most of it recent, of course, and it is on the beach below the houses that the many stone objects have been collected, gradually as the sea has washed them out of the middens; the submergence of the land has meant that many of these are now under water at high tide; on the whole, conditions were not favourable to excavation at the outpost itself.

About 400 metres north of the houses, on the east side of the island, there is a rather extensive area, about 100 metres long and 50 metres wide, overgrown with luxuriant grass and having a steep, fairly high bluff out towards the beach. This area is shown on the photograph Fig. 75; the tents are on the south part of it.

On this area lie four house ruins, all quite new, and three graves; the house last inhabited was abandoned in 1927. Thus the site was covered with recent rubbish, including large heaps of ashes from the houses.

The face of the midden was thickest on the south, where it had

[1]) K. J. V. Steenstrup in M. o. G. V. p. 26. Solberg, p. 15. "Grønland", I, pp. 243 and 262.

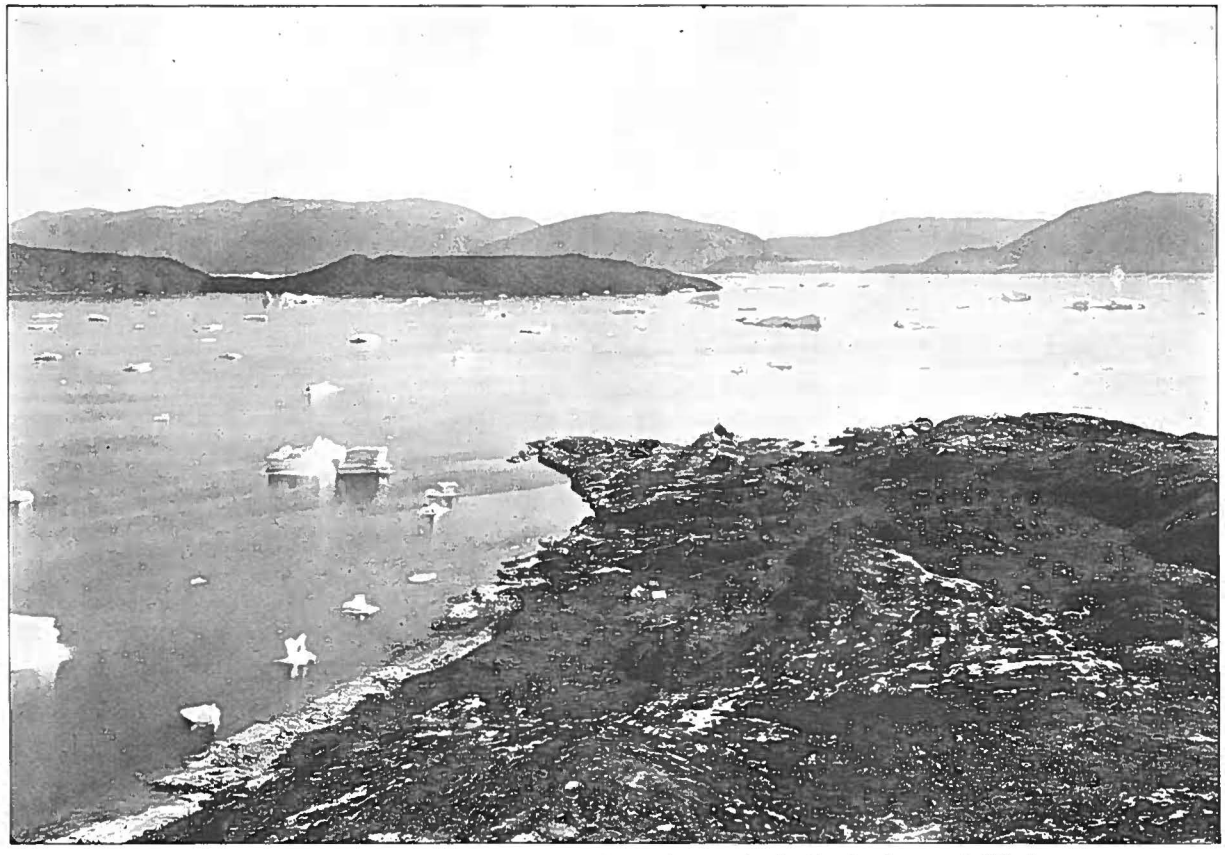

Fig. 75. The village of Qeqertaq, seen from the north; in the background Nûgâq.

a height of 1—1.50 metre along a stretch of about 20 metres. The upper two-thirds consisted of relatively recent refuse, from the 19th and 20th centuries, but its lowest part was much older. The boundary between the two settlements was very distinct everywhere, as the earlier layers were much more weathered and did not contain any broken faience or earthenware, which was present almost everywhere in the later layers.

Along this face we excavated a number of fields over a stretch of 18 metres; on account of the uneven course of the face the width of the fields is not always 2 metres; in all the excavated area was about 20 sq. metres; the result was 288 specimens.

At one place in the old layers there seemed to be the remains of a house; there were several large stones, two of which stood up on edge, and a good deal of blubber and refuse. At this spot the upper edge of the bluff was 2.34 metres above high water mark, whereas the substratum below the midden was only 0.79 metre above the mark; here the substratum was 0.40—0.50 metre lower than at the sides, so the house has been dug down to a corresponding depth into the ground.

The finds from Qeqertaq.

The earlier finds. The following types came from the lower, earlier layers in the midden at Qeqertaq:

Lance blade of flint (Pl. 10.13); harpoon blade of whale bone; butt of bladder dart head with two holes; bladder mouthpiece; bone arrow head with one barb; bow of wood; sledge shoes of whale bone (4—5 cm wide), trace buckle; whetstone; adze head of bone and adze blade of angmaq; drill shank of wood (22 cm long with a socket open to one side); ulo handle without arm and intermediate piece; scraper blades with convex and concave edge; slate scraper; baleen shave; two-handed scraper; lamp with wick ledge; fragments of cooking pots; rounded wooden tray; oval bowl with baleen sides; tub stave; unfinished drop pendant of soapstone; ajagaq of seal radius; top disk (?) of baleen; seal figure of wood; toy arrow shaft and toy sledge cross slat. There were no glass beads or European objects.

These types mostly indicate the Inugsuk Culture, which means contemporaneity with the early settlement at Igdlorssuit close by.

The later finds. Above these old layers was a thick midden deposit in which European objects, especially faience sherds, predominated. The greater part of these layers seem to be from the first half of the 19th century, judging from the pottery, which is the same as that found in the later layers at Inugsuk[1]). Over this again was the entirely recent deposit.

[1]) Inugsuk p. 318.

Some of these objects from the 1st half of the 19th century are described below:

Pl. 10.10-11 are two modern harpoon heads; No. 10 is the thin type that has remained longest in use; it was also found at Ukîvinguaq in the Kangâmiut area, in a find from the close of the 18th century[1]). No. 11 is of a form similar to Inugsuk Pl. 23.3.

We have also narrow harpoon wings with seal-tail ornamentation; bladder dart head butts, conical, with a powerful shoulder; a two-edged knife blade of flint (Pl. 10.12; probably recovered from the old layers). The doll Pl. 10.14 with its pronounced female attributes is very like the dolls from the new habitation at Inugsuk[2]).

Pl. 10.15 is a wooden implement strikingly like the "sling handles" of the early culture; it has the same notch in the end as the specimen Pl. 6.9 and has undoubtedly been used for exactly the same purpose (toy?); unfortunately, the hand-grip is missing; another fragment of the same kind of implement is still smaller.

Among the European objects was a knife handle like Inugsuk Pl. 23.20; even if in Europe these knives belong to the latter part of the 17th century, this proves that they have been in use in Greenland right up to the beginning of the 19th century, a circumstance that also acquires significance to the dating of the later settlement at Inugsuk[3]). Among the faience sherds we have exactly the same kinds as Inugsuk Pl. 25.9, as well as imitation china and fragments of cups of the "Castle" series[4]). Then there is a large opalescent glass bead used as a top, the head of a clay pipe with a face on it, etc.

The finds from Qeqertaq do not tell us much that is new; but by means of the finds of recent objects we are enabled through archaeological finds to follow the development of the culture in this region for another half century onwards. This, however, brings us well within the period already well known from the literature.

[1]) Kangâmiut p. 117.
[2]) Inugsuk Pl. 25.3-4.
[3]) Inugsuk p. 311 and 319.
[4]) Ibid. Pl. 25.12.

VIII. CULTURE DEVELOPMENTS IN DISKO BAY

The Culture Periods in Disko Bay.

We have now gone through the finds brought to light by the archaeological investigation of Disko Bay in 1933. Not all the periods were equally well established by the finds, and there are several gaps that one would like to fill. Nevertheless, I consider that the material is sufficiently large, supplemented by what was known through other channels, to endeavour to undertake a collective survey of the implement culture of the region from earliest times up to the present day.

In this work there is important support in the investigations at Inugsuk; although that place lies more to the north, the distance is no greater than that we may be allowed to assume that developments at the two places have been more or less the same; there has undoubtedly been lively intercourse between them, for one thing because it was from the basalt region, Disko Bay and Ũmánaq fjord, that the people more to the north obtained their stone material: angmaq, chalcedony, etc. No doubt Disko Bay has been somewhat in advance in developments, with its dense population and excellent communications between the various settlements, and its better connection with Europeans — first the Norsemen, later the whalers and the Danish colonization.

Other support is provided by the culture development that has proceeded on the south part of the west coast, revealed by the finds in the Kangâmiut area. This region has received its first inhabitants from the northern part of that coast, mostly probably, in fact, from Disko Bay, which no doubt since early times has been the most densely populated part of the west coast of Greenland. In certain respects these more southerly parts have been in advance of Disko Bay; in all probability they have had earlier contact with the whalers than the Eskimos in North Greenland.

First Period (presumably about 10—12th Century). The earliest known finds from Disko Bay came from house group VI—X at Igdlu-

talik. They are not so complete as might have been desired, but nevertheless give a very good picture of the implement culture.

We find here a culture that has departed only very little from the Thule Culture of the Cape York District, represented by the find from Thule (Comer's Midden). The principal difference is that most of the harpoon heads have developed a closed socket, and that two new elements have made their appearance: a kayak harpoon rest, and what seems to be a gouge. Accordingly, this must very closely approach the culture of the first Eskimos to come in to West Greenland from the north.

Outstanding features in this earliest culture are: the thin harpoon heads, the fusiform harpoon foreshaft, arrow heads with knobs on the tang, ulo handle without arm and intermediate piece, lamps with a row of knobs or a wick ledge. In particular, however, this culture is characterized by a number of negative features: no knives with the side groove, no ulos with the intermediate piece, and no staves of coopered vessels, or other things which mean intercourse with the Norsemen. Nor has it any of the stone implements that are peculiar to West Greenland (apart from the one mentioned) and occur later in such large numbers in this very region.

Second Period (about 13—14th Century). This is the era of the Inugsuk Culture, perhaps the period in the prehistory of West Greenland that is best known, especially through the large Inugsuk Find itself. In the find material from Disko Bay this period is not particularly well represented, presumably by the earlier finds from Igdlorssuit and Qeqertaq and possibly by one or two smaller finds from Igdlutalik (houses II and IV).

The implement types occurring in this period are principally the same as in the earliest period, but there are several new ones as well. New stone implements are added: lanceolate arrow heads, cuneiform drill bits, boot creasers. And next we have the Norse influence: coopering, spoons of mediaeval form, knives with a blade groove in the thinner part. And to these we must add objects which have come direct from the Norsemen: at Inugsuk the bell metal, woven cloth, a gaming piece; here: a bronze cooking pot.

It is in this period that the Eskimos come into frequent intercourse with the Norsemen on their trading journeys northwards. It is also towards the close of this period that the great migration southwards begins, the migration which round about the year 1350 meant the destruction of the West Settlement and led to the appearance of the first immigrants to the southern part of Greenland's east coast, south about Cape Farewell. The earliest culture in the Kangâmiut area is the Inugsuk stage.

Third Period (presumably 15th century). It is this period that is represented by the rather large and rich find from the lower half of Midden A at Igdlutalik. The culture of that period is very similar to that of the foregoing period, Inugsuk Culture. The one actual difference in reality is that the harpoon heads from being thin now become flat; otherwise the implement cultures of the two periods are practically the same. Norse influence is still strong; we find many tub staves and knives with the side groove, and we find things like the dragon carving, the dagger handle and the loom weight, which bear witness of direct connection with them.

No stage corresponding to this has hitherto been found on the southern part of the west coast; in the Kangâmiut area the Inugsuk Culture seems to have been followed direct by a culture corresponding to that of the next period. Thus it looks as if the Inugsuk Culture proper had held out longer in South Greenland than in North Greenland, or, in other words: that in South Greenland the Eskimos had continued to use thin harpoon heads farther down in time than in North Greenland.

Fourth Period (presumably 16th and part of 17th Century). This period is also well represented through the finds from house ruins I and V and the upper part of Field A at Igdlutalik. It stands out clearly from the foregoing period through the appearance of a number of new types: Bladder dart heads with belts of barbs, wound plugs, arrow heads and bird dart heads with the screw, the neck piece for towing gear, thong smoother, boot creaser, blubber carrier, shark-tooth knife, the four-sided drying rack; ulos with intermediate piece become very prominent; ancient types, such as the lamp with the wick ledge, are forced into the background. As yet we still find evidence (the doll from Igdlutalik and the wooden carving with the zigzag line — which from its finding place may be of the previous period) of contact with the Norsemen in the earliest part of the period. But the glass beads and other objects from the whalers do not occur here. This period corresponds to the Second Culture Stage in the Kangâmiut area; the latter, however, extends some way into the whaling period.

Fifth Period (from the middle of the 17th Century to 1734). This is the whaler period, the period prior to the Danish colonization, when the Greenlanders received their European things by bartering with the whalers, who mostly were Dutch. To this period belong house ruin III at Igdlutalik, XI and XIII at Igdlorssuit; of these the first two presumably belong to the later and ruin XIII to an early part of this period.

The finds from these are stamped by glass beads from the whalers, whereas there is not much European pottery as yet. Many of the modern Eskimo implement types make their first appearance: the flat harpoon heads with one or two lateral spurs, the bone buttons for the kayak frock, and the modern deep lamps without the wick ledge. Nevertheless, a number of the old types have remained in use: a few stone implements: adze blades, scrapers with convex and concave edges; gull hook with the oblique groove, snow knife, knife with side groove, two-handed scraper, ornamental bodkin, the drum, ajagaq of seal radius. Baleen is going out of use rapidly as a material; Eskimo whaling has fallen off considerably and the baleen has become an important trading object.

Sixth Period (the Danish colonization, after 1734). With the Danish colonization in Disko Bay — which began in 1734 with the founding of Christianshaab — a new period sets in; it has also left its mark in the finds: A quantity of European things are found in the houses, such as pottery, tools, utensils, gun flints, etc. Houses I—III at Igdlorssuit are from this period, and the greater part of the finds from Qeqertaq from its later part, the first half of the 19th Century.

The Eskimo implement types now display almost the same forms as those in use to this day: Modern harpoon heads (Pl. 10.1-2 and 10-11), bird dart heads with iron point, the broad kayak paddle mountings, the modern kayak stand, the ulo with arms, the kamiut stick, spindle buzz, while the dolls become pronouncedly sexed.

We still find older types, however, such as the ice pick, arrow heads with the screw, and tub staves, but only in the earlier part of the period. The drums disappear — Christianity has come.

To some extent this period corresponds to the new settlement at Inugsuk, and also to the Fifth and Sixth Stage in the Kangâmiut area.

Development of the House Types.

At Inugsuk only the house types of the later settlement were known; so much the more important was it here to make a close examination of the types that had been in use in the course of time. For that reason great weight was attached to a careful survey of as many house ruins as possible and to dating them by means of the finds. In all 28 ruins were excavated: 10 at Igdlutalik and 18 at Igdlorssuit. In the foregoing they have been described and illustrated by means of plans and photographs. The finds have been described and arranged chronologically. In the following we shall now consider the various house types and their chronology and compare this with what we know of the southern part of the west coast, the Kangâmiut area.

The round house. Houses VI—X at Igdlutalik and IV—X, XII and XIV—XVIII at Igdlorssuit are all of the same type, which will be dealt with together; these are the houses belonging to the first two culture periods.

A common feature of them all is that their shape is more or less rounded and that their walls are very crudely built. They are dug down into the ground, and for the most part the walls are formed simply of the ground in which they are sunk; as a rule, however, this is supported by stones more or less, but they never have the character of masonry in the proper sense, such as we find in the later houses. At the most, as in parts of the wall of house VII, we find two courses of stones in the wall. This unsolid construction is the reason why these houses usually are in such a collapsed and flattened state that it is often difficult to discern them in the terrain.

Inside the house there is usually a floor paved with flat stones; the platform, on the other hand, in most cases has not been paved; it lies higher and usually has gravel or scattered stones to support the actual platform, which no doubt has been made of drift wood or whale bone. Under the platform there is often a cavity, bordered by stones set on edge, probably used as a receptacle for implements or stores.

From the floor runs the passage, dug still deeper into the ground, a narrow corridor supported by stones set on edge and covered over with stone slabs, thereafter buried in earth so that only the mouth was to be seen from the outside.

As a general rule this house has one or several "kitchens", places where cooking has been done over a fire fed with blubber and bones, wood, etc. Sometimes it is carefully built of flat stone slabs (fig. 55), whereas in other cases it appears merely in the form of a pile of slag. Most frequently this kitchen has its place in a bulge in the fore part of the house, more rarely in the passage; some houses have had two kitchens, one at each side of the passage — most probably one for each family living in the house. Having regard to the stench made by cooking with blubber and bones, it has been found advisable to build a separate room for it; these rooms must have been covered over on account of the snow, but must have had a large smoke hole. Pieces of coal have occasionally been found in the middens, but there is no direct evidence that it has been used for fuel.

As to the construction of the roof of the house itself we do not know much; whale bones, caribou antlers, pieces of driftwood, and flat stones have no doubt been employed, and on top there has probably been a covering of skin and turf.

The form and size of these houses vary greatly, as will appear from the many plans given in the foregoing. Some are very small, round

houses, others are large complexes with two, or more rarely three, rooms built together and with a common passage. The shape of these rooms also varies a good deal, some of them being round, others oval or irregularly angular, but never a regular rectangle. Partition walls, often roughly built, divide the rooms, which are connected by narrow, often paved openings; apparently each of these rooms has housed one family.

This type of house is very familiar in Greenland; in Upernivik district in 1929 I saw a number of houses of similar type[1]); it is the type we find as the earliest in the Kangâmiut area[2]) on the southern part of the west coast; it is the same type that is earliest in the Angmagssalik area[3]). Nor is there any doubt as to the origin of this house: It is the house of the Thule Culture, The Whale Bone House[4]), transplanted on to Greenland soil.

The small four-sided house. The house type of the Third Culture Period is not known to us; but as the culture very closely approaches that of the previous period, it is surely probable that the house does the same, that the change-over to the four-sided house does not occur until the Fourth Period, i. e. it happened in the 16th Century.

Houses I and V belong to this period, though doubtless its later part, as at both places there has been an earlier settlement with a similar culture.

House V is really two small, four-sided houses built together, each with its own passage. Here again the walls are very roughly built; the edge of the platform is distinctly marked with a row of stones and two stone pillars to support the roof; there is a handsome stone floor, and here again the passage is deep down.

House I is more solidly built, with fairly high walls of stone; like V it consists of two rooms separated by a stone wall; but these two rooms are connected by a narrow passage and there is only one common passage, which runs out from one room. This actually is the old double house, which has become four-sided. Each family still has its own room, and these are solidly separated; the large common houses have not yet made their appearance. Neither of these houses has a kitchen. In the Kangâmiut area the four-sided houses seem to have come simultaneously with the glass beads of the whalers, which even occur in some houses of the earliest type there, whereas here there are no glass beads in the earliest or the oldest of the four-sided houses. This of course may partly be explainable in the fact that the whalers have arrived earlier

[1]) Mathiassen, Geogr. Tidsskr. 1929, p. 11 seq.
[2]) Kangâmiut p. 56 seq.
[3]) Angmagssalik p. 11 seq.
[4]) See for instance Mathiassen 1927, II, p. 133 seqq.

in the Kangâmiut area than in Disko Bay; but the difference in time is hardly so great that it provides a satisfactory explanation. It seems necessary to assume that the four-sided type of house has been taken into use earlier in Disko Bay than in the Kangâmiut area; and with respect to another element (the harpoon heads) we have seen that Disko Bay was ahead of the southern west coast in developments.

The large common house. With the Fifth Period (about 1650—1734) the large common house comes into use; we have a typical example of it in house III at Igdlutalik; houses II—III at Igdlorssuit were more destroyed, whereas houses I and XI at Igdlorssuit belong to the smaller type that was in use at the same time, for a less numerous group of people.

Typical features of these houses are the solidly built stone wall, the paved floor, the stone or timbered, elevated platform, the window platform, the lamp tables of stone with a refuse pit under them, and the usual deep passage. At one of the houses, I at Igdlorssuit, a passage leads from the entrance passage out to a cache; at another, house XI at the same place, there are two large caches connected with and in prolongation of the house itself.

As to the latest of these houses, house I at Igdlorssuit, we know how many people it sheltered in 1793: four families with 22 members in all; judging from the number of lamp tables, house III at Igdlutalik must have had five families; house XI at Igdlorssuit has scarcely had more than two.

These large common houses are well known from the literature on West Greenland, where they were in use throughout the 18th century; in the Kangâmiut area we know of them from the middle of the 17th Century[1]), from Angmagssalik from about 1700 up to our day, where they still are the usual form of dwelling at all the small settlements[2]).

With the 19th Century a new form displaces the old one: the small turf house without a sunk passage which is still the prevailing form in the greater part of northern West Greenland, whereas in South Greenland it has had to yield to wooden houses in many places.

Stone Implements and Stone Technique.

We are here in regions where there is easy access to good material for stone implements: angmaq, chalcedony, jasper and other flinty rocks; the distance to the basalt deposits of Disko Bay and Nûgssuaq Peninsula is not great. We are furthermore in the regions whence large numbers

[1]) Kangâmiut p. 59 seq.
[2]) Angmagssalik p. 11.

of handsome stone implements have made their way into the museums, on which Solberg has built his theory of a very ancient Greenland Stone Age. I have discussed this Stone Age on another occasion[1]), having shown that a large number of these types of stone implements cannot be so old, as they are local West Greenland forms which must have arisen after the Eskimos of the Thule Culture had immigrated into the country. But is there not a possibility that this "Stone Age" was already flourishing when the Thule Eskimos came in, that the local development which brought it about is much older than the Thule Culture?

This cannot be the case. The stone implements upon which this supposed Stone Age has been built have mainly been collected on the beach at Sermermiut and Qeqertaq, where the sea is washing the middens away; they thus represent only a part of the finds made in these places, as the objects of wood and bone have either perished or have not been collected. Next, they are not contemporary, but presumably originate from various periods. For these reasons alone nothing definite can be built upon them. Next, the various types of implements on which this "Stone Age" has been based have gradually appeared in the large collective finds, so that we know more or less to which of the aforementioned culture periods they have belonged.

By means of a number of finds we have now obtained some idea of how the culture has developed in Disko Bay. We have seen that stone blades for weapons and implements have been in use right down from earliest times till into the seventeenth century. But they occupy no prominent place in the finds, and thus have not done so in the culture either. Only in certain of the houses at Igdlorssuit, where the conditions for preserving objects of bone and wood are very poor, do stone implements play any great part. But of course one cannot set up any "Stone Age" on this.

For the purpose of giving a clue as to how much stone implements have meant in the culture, a table will be given below of the number of stone objects in the various find groups in proportion to the whole find. First are the number of worked specimens shown in the lists previously given, i. e. not the many unfinished specimens, chips of stone or indeterminable objects. Next, the number of stone blades for weapons and implements, the number of soapstone things (principally cooking pot and lamp fragments) and then the numbers of other stone objects; whetstones and hammerstones, slate scrapers, pendants, all objects which actually cannot be said to be particularly associated with a stone age but are used in all stages of culture, often right up to our time. Finally, the number of specimens in which iron was found.

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[3]) Inugsuk p. 278 seq.

The first group is the finds from houses VI—X at Igdlutalik, i. e. the earliest find group from Disko Bay. The second is the finds from the lower part of Midden A at Igdlutalik, the third the finds from the upper part of A and from the houses I and V, and finally as a fourth group the houses at Igdlorssuit of the early group, in which, however, some bone implements were found, viz. houses VII, X, XIII and XV.

	Igdlutalik			Earliest group Igdlorssuit
	Earliest group	15th C.	16th C.	
Total objects found	152	503	875	153
Stone blades for weapons and implements	8	4	26	11
Soapstone objects	19	59	115	44
Other stone objects	22	52	71	30
Iron	1	4	19	1

It appears with sufficient clarity from this table how small a part these stone blades have played, even in the earliest culture periods. It will be observed that they are least prominent in the finds from the lower part of Field A; the reason is probably that conditions for preserving bone, wood and baleen objects were best there; accordingly, this find should present the most authentic picture of the situation there; in the earliest group and in the houses at Igdlorssuit conditions for preservation were much worse.

In reality it is surprising that these stone blades are so few in number; the cause is, however, that iron was known, even in the earliest periods. The first Eskimos to come in to Disko Bay have known the meteoric iron at Cape York, and probably, according to an old tradition, the indigenous copper of Arctic America. In the basalt region of Disko Bay they have in the telluric iron found a material that was capable of substituting meteoric iron and, like it, could be hammered out into small flakes that could be used as blades in weapons and tools. First and foremost, however, it has been bone — especially whale bone and baleen — that has been used for implements, and drift wood seems to have been available in sufficient quantities. Later on they secured other possibilities of getting iron through the Norsemen, until finally the whalers and the Danish colonists took European iron tools to the country.

Accordingly, there can be no further talk of a West Greenland Stone Age.

The finds also contain evidence that the making of stone implements has proceeded at the settlements examined. In all the house ruins and in the middens we found material for stone implements, or

chippings. For the purpose of investigating this we brought along all the stone refuse and material from the excavated localities.

As the lists show, however, the finds are not particularly rich in this material. In the earliest house group at Igdlutalik and their middens we found only 16 pieces, 11 of which were angmaq, 4 of chalcedony and one of jasper. In the lower layers of Field A at Igdlutalik were 29 pieces, in the upper layers of A and in houses I and V in all 48 pieces. In the old ruins at Igdlorssuit the number varied, from one to 38 pieces.

At only one place was stone refuse present in such abundance that there must have been a good deal of stone working. This was outside house XIII at Igdlorssuit. On an area of 12 sq.metres in front of the passage we found in all 360 pieces of stone chippings besides two worked pieces: 253 pieces of chalcedony, 16 of angmaq, 12 of brown jasper and one of rock crystal. Accordingly, in contrast to most other places, chalcedony predominates to a marked degree; they were mostly very small chips, but nine of them are so long (up to 3.7 cm) and so regular that they may be called flakes.

As to the technique employed in this stone work we know only little. For the hard rocks, chalcedony, jasper, flinty rocks, they have presumably used a flint flaker; what is probably a flint flaker is shown on Pl. 4.15. With this implement small flakes could be pressed off and the implement thereby formed. More rarely flakes were knocked off by percussion, always small and thin, and their use is uncertain; they are never found used as blades of knives or weapons. A flake of the common form and size is shown on P. 9.14; a core is shown in Pl. 8.13; from one end small regular flakes have been pressed, whereas the other end has served as a hand grip[1]); both specimens are of chalcedony.

Angmaq does not flake regularly; it is less hard and is not so easy to shape by means of percussion and pressure; on the other hand, in contrast to the harder rocks, it can be ground. The numerous whetstones, however, have certainly also been used for sharpening the bone implements.

Settlement and Occupations.

Is it possible to say anything about the extent and area of the settlement throughout the various periods in the region now examined?

Something can be said; even if only three of the ruined settlements have been subjected to a close investigation, most of the others have been visited, so that we have formed an idea of how many ruins there are in the entire region. An investigation of this kind must build mostly upon the occurrence of the various types of houses. Thus, the division

[1]) Cf. the "handle blocks" in the Early Stone Age in Denmark.

into periods cannot be so detailed as if we had finds of relics from all the settlements to go upon. In some cases, where the ruins tell us nothing, finds may give valuable information.

The first period must, then, be assumed to be the time when the old house type was in use, that is to say the period up to and including the fifteenth century.

The following settlements in the investigated area may be assumed to have been inhabited in that period:

In Sydostbugten we have Eqerqoq and Tûgssâq, each with two old house ruins; judging from the finds Ikamiut has also been inhabited in that period and probably Christianshaab too.

In the region round about Jakobshavn Icefjord there has undoubtedly been a dense settlement in this ancient period. Only at Rodebay is there a house site preserved; but old finds in the National Museum from Sermermiut, Jakobshavn, Claushavn district (no doubt mostly in the north district) and Tasiusaq (Nordenskiöld's find from Qajâ too) show with certainty that we also have mediaeval Eskimo settlement there. The old houses, however, have been rebuilt in recent times or buried by later refuse.

In Atâ Sound and on Arveprindsens Ejland we have Qilersiut with three sites and Klokkerhuk and Nûk with probably one each. In addition, however, Ritenbenk itself has in all probability already been inhabited then, judging from old finds.

Round about Torssukátak we again find a dense habitation. There we have the large settlements of Igdlutalik with 7 and Igdlorssuit with 13 old ruins and with large finds showing when they were inhabited. We have also Qeqertaq, where old layers were also found. At Pisigsarfik we saw one and at Ikorfat two old ruins, and places such as Nûgâq and Akúnâq have also been inhabited in this period, judging from the finds.

Farther north we have Igdluluarssuk with one old house site, while old finds from Sarqaq also indicate ancient settlement there.

All in all, at least 22 places must have been inhabited in this early period.

A total of 34 house ruins have been seen and placed to this time, but this cannot provide any criterion as to the size of the population; this can be seen alone from the fact that, despite the large settlement there must have been at Jakobshavn ice fjord according to the finds, not a single house site from that period has been preserved. The rebuilding of ancient houses, which is so common everywhere in Greenland, has undoubtedly blotted out the traces of the earliest settlement in many areas. There is scarcely any doubt that in the Middle Ages these areas in Disko Bay have been fairly thickly populated.

The next period, from about 1500 to the Danish colonization

(1734) is characterized by the four-sided houses, some small, others the large common dwellings. In many cases there are historic records of the populations of the various places before or after the colonization; in other cases local tradition or the state of preservation of the ruins will be a guide, even if often it will all depend upon opinion.

In this period the following places have presumably been inhabited:

In Sydostbugten: Puangiarssuk, Ikamiut, Ikerakitsorssuit, Sârdlat, Tûgssâq, Sâtut, Akugdlît, Igdlorssuatsiait and Nîsat; at these places there are in all 11 large, two small and two indeterminable house sites, which must be taken as belonging to this period.

In Christianshaab area: Savik, Rypeholm and presumably Nûk; nowadays, however, only one large and two indeterminable sites are to be seen.

In the area round about Jakobshavns ice fjord we have Igdlúnguaq, Igdlumiut, Nordre Huse, Upernivik, and probably Eqe and Qajâ, Sermermiut, Avdlorafingmiut, Jakobshavn, Qarqat, Rodebay and Kangârssuk; there are now 16 large and seven smaller houses to be seen, all no doubt of this period; but there is no question but that many of the ruins of that time have been built over with new houses, both at the places that are now inhabited and, for instance, at Sermermiut.

In the area around Atâ Sound and Arveprindsens Ejland we have Niaqornaq, Qilersiut, Qitermiut, Sagdliaruseq, Klokkerhuk, Nûk and Ritenbenk, with in all five large and six small, as well as six indeterminable houses.

In the Torssukátak area there are Igdluluarssuit, Talerua, Igdlutalik, Ilerfit, Ulugssat, Igdlúnguaq, Inugsuk, Qeqertarssuit, Nûgaq, Igdlorssuit, and probably also Qeqertaq, Ikorfat, Akúnaq; at those of these places that were visited were seen nine large, five small and five indeterminable house sites to be placed under this period; it should be remembered, however, that many of the places were not visited.

Finally, we have the Sarqaq area: Niaqornarssuk, Sarqaq itself, Igdluluarssuk and Ujaqajugat, with three large and three small house ruins.

In all throughout the whole region there are 48 settlements which presumably have been inhabited in this period, and there were seen 45 large, 23 small and 15 indeterminable ruins that have been placed to the same period, prior to the colonization. There is no doubt, however, that these figures would be considerably increased if we included the settlements that were not visited. And in addition, many of the houses of course have disappeared in order to provide room for new settlement.

Naturally, these 45 large houses and 38 others were capable of accommodating a much greater number of people than the 34 mostly small houses of the previous period, but for the reasons advanced above

a direct comparison would be misleading, as none of the figures represents all houses that were used, and as all these houses have not been in use simultaneously, but in periods stretching over a considerable time — several centuries as far as the first period is concerned. One should therefore be wary of attempting any calculation of the size of the population on a basis of this kind.

With the Danish colonization one passes from archaeology to history, where there is a much more solid footing for our calculations.

As regards occupations in early times, we are only in a position to say something regarding the places visited round about Torssukátak. In those days, too, sealing has been the principal occupation, as is natural round about the ice fjord with its large numbers of seals. In addition, however, the people have also gone in for whaling on a large scale, as everywhere in the ancient Greenland culture, before European whalers came on the scene. Next in order of importance has been caribou hunting; quantities of implements were made of antler, and caribou bones are common in the middens. Walruses, narwhals and white whales have been caught occasionally, but scarcely in any great numbers. Bird catching and fishing seem to have played only a very subordinate part; none of the settlements lie in the vicinity of salmon rivers. Mussels have been eaten in enormous numbers everywhere.

The lively intercourse with the Norsemen is surprising here, as it was at Inugsuk, in the late Middle Ages. The finding of the dragon carving, the dagger handle, the loom weight, the zigzag carving, the doll and the bronze cooking pot are definite evidence of it and provide new and important factors in those absolute datings that are among the most difficult of all problems in prehistoric archaeology.

This brings this survey of the archaeology of Disko Bay to an end. It could not be exhaustive, naturally; the work that can be got through in the course of one summer is limited. Nevertheless, I do not think the main results will be altered much by new investigations.

Apart from Sermermiut, there was not one of the non-examined settlements that seemed to hold out any great promise to the investigator; at none of them did we see any large number of very ancient houses or thick midden deposits in which the development of the culture could be studied. There is no doubt, however, that Sermermiut, about which Ostermann in "Grønland" says[1]): "The place has been inhabited several hundred years prior to the colonization and is probably the richest now

[1]) Grønland I p. 183.

known locality for the study of Eskimo relics and culture development in the whole of Greenland", is capable of revealing much that is new to supplement the material published here. It is to be hoped that the rich material in the possession of Mr. Porsild may soon be made available to the world, and that this interesting place may be subjected to renewed archaeological research before all the deposits have disappeared into the sea.

POSTSCRIPT

May I tender my heartfelt thanks to all who have helped me on this expedition and with the treatment of the material: to begin with, the Commission for the Scientific Investigation of Greenland, who entrusted the leadership of the expedition to me and accepted this paper for publication in *Meddelelser om Grønland*. Next, my helper Mr. Erik Holtved, who with great skill has made all the surveys and plans of the settlements, ruins and graves. As usual, Dr. M. Degerbøl has assisted in identifying the osseous material, while Mr. Chr. Axel Jensen and Dr. Poul Nørlund, both keepers at the National Museum, have given me the benefit of their guidance with regard to European relics of whalers and Norsemen. For historical data I have to thank the Rev. H. Ostermann, and for assistance with the map I am deeply indebted to Lieut. O. C. Jørgensen. The photographing of the specimens has been accomplished by Mr. S. Bengtsson with his customary skill; where nothing else is stated the pictures taken in the field are by the undersigned. Mr. W. E. Calvert has made the translation.

I have also to thank Mr. M. P. Porsild for the loan of his motor-boat, and the colony managers Mr. A. Knudsen, Jakobshavn, and H. Jacobi, Ritenbenk, as well as the outpost managers Niels Dorph, Qeqertaq and Pavia Jensen, Sarqaq, for kind assistance in many ways.

Copenhagen, 17th January 1934.

THERKEL MATHIASSEN.

LIST OF ARCHAEOLOGICAL OBJECTS ILLUSTRATED IN THIS WORK WITH THEIR MUSEUM NUMBER (ALL BEGINNING WITH L 6) AND FINDING PLACE

Plate 1.

(Igdlutalik; earliest culture).

1.	Harpoon head	2531.	Field B	
2.	—	1170.	House	VII
3.	—	1135.	—	VII
4.	Harpoon blade	1235.	—	VIII
5.	Scraper blade	1282.	—	IX
6.	Knife blade	1157.	—	VII
7.	Gouge	1158.	—	VII
8.	Wound needle	1221.	—	VIII
9.	—	1222.	—	VIII
10.	Kayak harpoon rest	1188.	—	VII
11.	—	1204.	—	VIII
12.	Trace buckle	1207.	—	VIII
13.	Whetstone	1303.	—	IX
14.	Sling handle(?)	1163.	—	VII
15.	Ornamental bodkin	1160.	—	VII
16.	—	1199.	—	VIII
17.	Drum handle	1316.	—	X
18.	Comb	1333.	—	X
19.	Doll	1099.	—	VI
20.	—	1225.	—	VIII
21.	—	1295.	—	IX

Plate 2.

(Igdlutalik; earliest culture).

1.	Foreshaft for ice hunting harpoon	1246.	House	VIII
2.	— - kayak harpoon	1286.	—	IX
3.	Bladder dart head	1236.	—	VIII
4.	Arrow head	1301.	—	IX
5.	Leister prong	1285.	—	IX
6.	Drill bow	1254.	—	VIII
7.	Two handed scraper	1145.	—	VII
8.	Baleen implement	1175.	—	VII
9.	Harpoon shaft-mounting	1154.	—	VII
10.	Harpoon wing	1090.	—	VI
11.	Bone scraper	1209.	—	VIII
12.	Leg for sealing foot-stool	1288.	—	IX

13.	Adze head	1165a.	House VII
14.	Snow goggle	1171.	— VII
15.	Ulo handle	1210.	— VIII

Plate 3.

(Igdlutalik; 15th—16th centuries).

1.	Harpoon head	2435.	Field A 38^{5}
2.	—	652.	House V A, above floor
3.	—	1723.	Field A 19^{10}
4.	—	218.	House I, in partition
5.	—	1778.	Field A 20^{7}
6.	—	1745.	— A 20^{2}
7.	—	2453.	— A 38^{8}
8.	—	2022.	— A 26^{4}
9.	Harpoon blade	1789.	— A 20^{8}
10.	Harpoon head with blade	2190.	— A 33^{2}
11.	Harpoon blade	2341.	— A 36^{9}
12.	—	745.	House V A, below floor
13.	—	665.	— V A, below floor
14.	—	779.	— V A, below floor
15.	Arrow head	1049.	— V B, below floor
16.	—	2125.	Field A 28^{9}
17.	—	1642.	— A 18^{5}
18.	Knife	1752.	— A 20^{3}
19.	—	2201.	— A 33^{3}
20.	—	1645.	— A 18^{5}
21.	Shark teeth knife	180.	House I, below floor
22.	Ulo	919.	— V B, above floor
23.	Bladder mouthpiece	100.	— I, above floor
24.	Drill point	998.	— V B, below floor
25.	Boot creaser	988.	— V B, below floor
26.	—	1684.	Field A 19^{2}
27.	Knife blade	842.	House V A, below floor
28.	Gull hook	2319.	Field A 36^{5}

Plate 4.

(Igdlutalik; 15th—16th centuries).

1.	Foreshaft for ice hunting harpoon	93.	House I, above floor
2.	— - kayak harpoon	248.	— II, upper layers
3.	Lance head	1902.	Field A 23^{6}
4.	Bladder dart head	2153.	— A 31^{2}
5.	Arrow head	876.	House V B, above floor
6.	Knife handle	1632.	Field A 17^{10}
7.	Knife	1614.	— A 16^{10}
8.	—	1541.	— A 9^{6}
9.	—	195.	House I, doorway
10.	—	2422.	Field A 38^{3}
11.	Harpoon shaft mounting	996.	House V B, below shelf
12.	—	896.	— V B, above floor
13.	Adze head	1415.	Field A 5^{6}
14.	Sledge shoe	917.	House V B, above floor

15.	Flint flaker(?)	1563.	Field A 10^{6}
16.	Harpoon wing	1707.	— A 19^{7}
17.	Drill	1021.	House V B, below floor
18.	Wound plug	867.	— V B, above floor
19.	Rest for kayak harpoon	364.	— II, upper layers

Plate 5.

(Igdlutalik; 15th—16th century).

1.	Baleen bow	1524.	Field A 8^{6}
2.	Seat of one-legged sealing-stool	1680.	— A 18^{11}
3.	Leg of sealing foot-stool	1704	— A 19^{6}
4.	Unknown implement	1688.	— A 19^{5}
5.	Piece of drying-rack	136.	House I, below floor
6.	Pot hook	1573.	Field A 11, upper part
7.	Shaman's grinding stone	1781.	— A 20^{7}
8.	Drilled antler	224.	House I, in partition
9.	Baleen implement	1785.	Field A 20^{7}
10.	Snow beater	1431.	Field A 5^{6}
11.	Lamp	935.	House V B, above floor
12.	—	997.	— V B, below shelf
13.	Meat tray	778.	— V A, below floor

Plate 6.

(Igdlutalik; 15th—16th century).

1.	Ulo handle	35.	House I, above floor
2.	Ulo	2014.	Field A 25^{9}
3.	—	2401.	— A 37^{8}
4.	—	1682.	— A 19^{2}
5.	Stone scraper	920.	House V B, above floor
6.	—	1407.	Field A 4^{4}
7.	Needle case	987.	House V B, below floor
8.	Ladle bowl(?)	1628.	Field A 17^{7}
9.	Sling handle(?)	1847.	— A 21^{12}
10.	Spoon	1661.	— A 18^{7}
11.	Norse dagger handle	1741.	— A 19^{10}
12.	Unknown implement	898.	House V B, above floor
13.	Spoon	2395.	Field A 37^{8}
14.	Blubber carrier	254.	House II, upper layers
15.	—	2424.	Field A 38^{4}
16.	—	866.	House V A, below floor
17.	Toy harpoon	2118.	Field A 28^{6}

Plate 7.

(Igdlutalik; 15th—16th century).

1.	Doll	1634.	Field A 17^{10}
2.	—	1635.	— A 17^{10}
3.	—	849.	House V A, below floor
4.	—	1800.	Field A 20^{9}
5.	Ornamental bodkin	217.	House I, doorway
6.	—	2366.	Field A 37^{4}
7.	—	1763.	— A 20^{4}

8.	Mica ball	1598.	Field A 15[4]
9.	Stone pendant	1915.	— A 23[7]
10.	Bone —	1883.	— A 23[3]
11.	Bone head	2309.	— A 36[3]
12.	Comb	1951.	— A 24[6]
13.	Bone pendant	2208.	— A 33[4]
14.	—	327.	House II, upper layers
15.	—	945.	— V B, above floor
16.	Bone needle	230.	— I, below partition
17.	Notched wood	756.	— V A, below floor
18.	Unknown implement	1756.	Field A 20[3]
19.	—	76.	House I, below floor
20.	—	768.	— V A, below floor
21.	Norse doll	840.	House V A, below floor
22.	Norse ivory carving	1740.	Field A 19[10]
23.	Norse loom weight	2498.	— A 40[3]
24.	Toy umiak steering oar	2071.	Field A 27[7]
25.	Norse wooden carving	1464.	— A 6[5]

Plate 8.

(Igdlutalik).

1.	Harpoon head	2581.	Field D, bottom layer
2.	—	394.	House II, lower layers
3.	—	420.	— II, passage
4.	Boot creaser	386.	— II, lower layers
5.	Bone pendant	612.	— IV, lower layers
6.	Arrow head	599.	— IV, lower layers
7.	Harpoon head	536.	— III
8.	—	564.	— III
9.	Harpoon shaft mounting	461.	— III
10.	Swivel	529.	— III
11.	Towing gear neck piece	494.	— III
12.	Knife handle	465.	— III
13.	Chalcedony core	1352.	Grave plateau
14.	Ivory pendant	2708.	Grave 34
15.	End button for needle case	2707b.	— 34
16.	Oval bottom	2709.	— 34
17.	Needle case	2707a.	— 34
18.	Ornamental bodkin	2706.	— 33
19.	—	2705.	— 33
20.	—	2704.	— 33
21.	Comb	2703.	— 33

Plate 9.

(Igdlorssuit; early culture).

1.	Harpoon blade	3082.	House VI
2.	Arrow head	3073.	— V
3.	Knife blade	2994.	— III, bottom
4.	Harpoon blade	3467.	— XVIII
5.	—	3355.	— XIII, lower part
6.	Harpoon foreshaft	3190.	— X

7.	Adze blade	3336.	House	XIII
8.	Knife blade	3097.	—	VII, below floor
9.	—	3390.	—	XIII, in front of passage
10.	—	3088.	—	VI, in front of passage
11.	Knife handle	3220.	—	X
12.	Scraper blade	3392a.	—	XIII, in front of passage
13.	—	3332.	—	XII
14.	Flake	3150.	—	VIII
15.	Scraper blade	3092.	—	VII

Plate 10.

(Igdlorssuit; Qeqertaq).

1.	Harpoon head	3024.	Igdlorssuit, House	III
2.	—	3023.	— , —	III
3.	Knife handle	2948.	— , —	III
4.	Boot creaser	3001.	— , —	III
5.	Spoon	2863.	— , —	II
6.	Ajagaq	2867.	— , —	II
7.	Glass bead	3384.	— , —	XIII, upper part
8.	— used as top	2746.	— , —	I
9.	European doll	2751.	— , —	I
10.	Harpoon head	3607.	Qeqertaq, Field	A 4, upper part
11.	—	3739.	— , —	A, upper part
12.	Stone blade	3665.	— , —	A 5, upper part
13.	—	3716.	— , —	A, lower part
14.	Doll	3531.	— , —	A 2, upper part
15.	Sling handle(?)	3538.	— , —	A 2, upper part

TEXT FIGURES

Fig. 37.	Whetting and hammer stone	1314.	Igdlutalik, House	X
— 38.	Hammer stone	1125.	— , —	VI
— 39.	Mattock blade	1113.	— , —	VI
— 40.	Lamp fragment	1192.	— , —	VII
— 41.	Blubber pounder	1315.	— , —	X
— 42.	Dipper	1212.	— , —	VIII
— 43.	Sealing foot-stool	670.	— , —	V A, outside wall
— 44.	Baleen sealing net	1788.	— , Field	A 20^{7-8}
— 45.	Baleen ice scoop	181.	— , House	I, below floor
— 46.	Umiak oar blade	2001.	— , Field	A 25^{5}
— 47.	Scraping bench	955.	— , House	V B, below floor
— 48.	Cooking pot	1472.	— , Field	A 6^{6}
— 49.	Coopered tub	1564.	— , —	A 10^{6}
— 69.	Snow shovel	3188.	Igdlorssuit, House	X
— 70.	Lamp	3154.	— , —	VIII
— 71.	Two snow beaters 1.	3130.	— , —	VII, below floor
	2.	3389.	— , —	XIII, lower part
— 72.	Baleen implement	3371.	— , —	VIII, lower part
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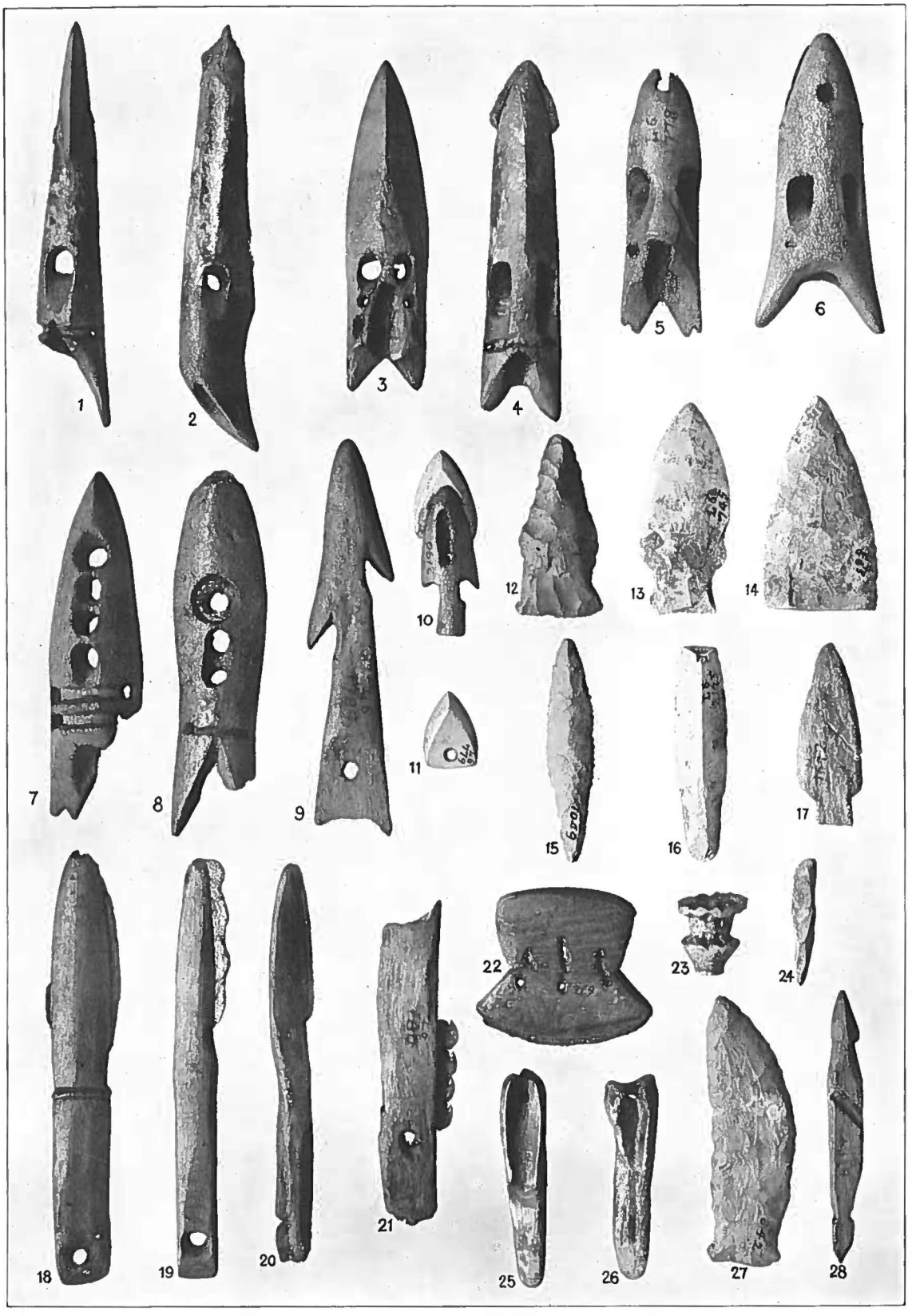

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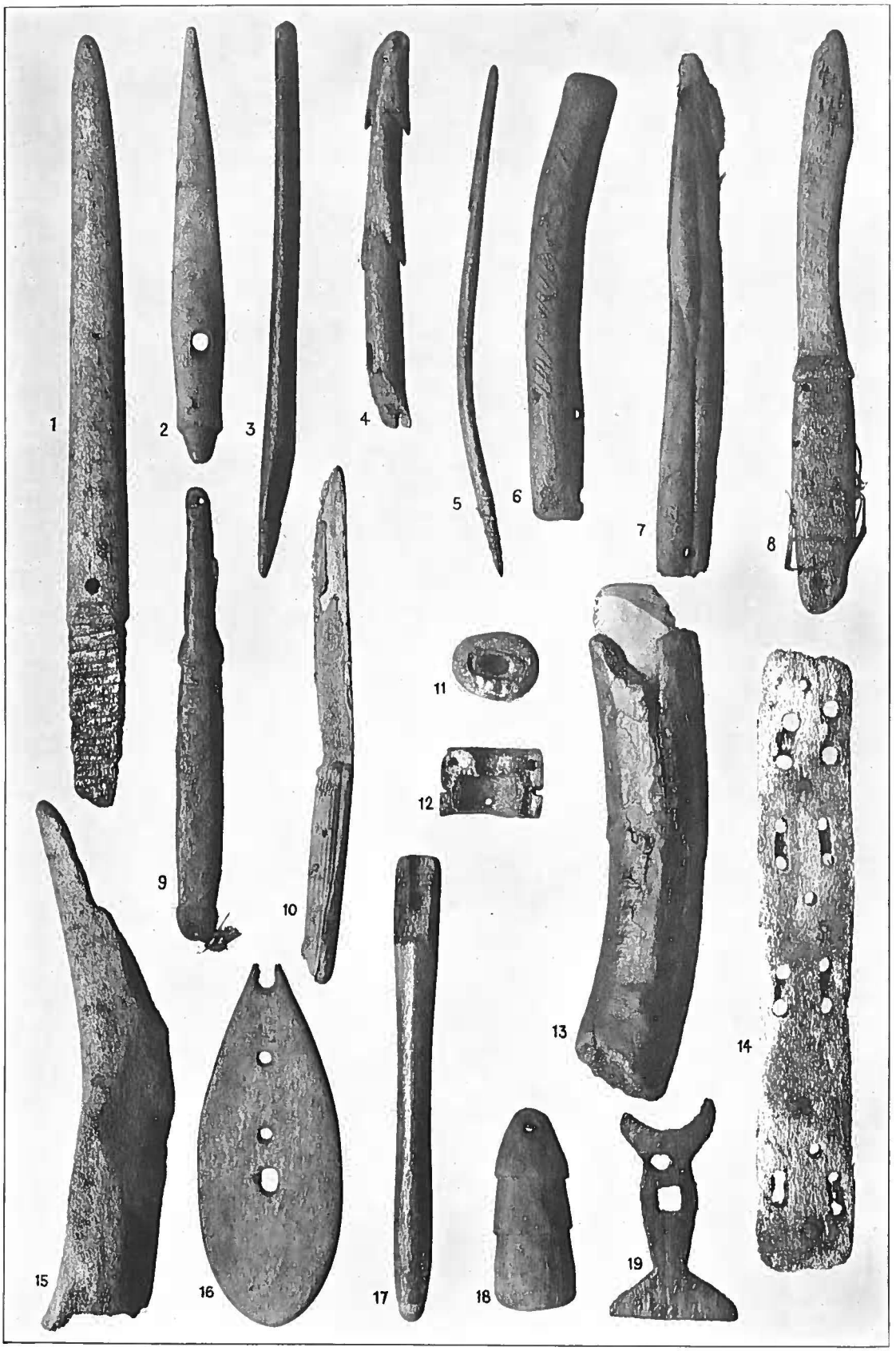

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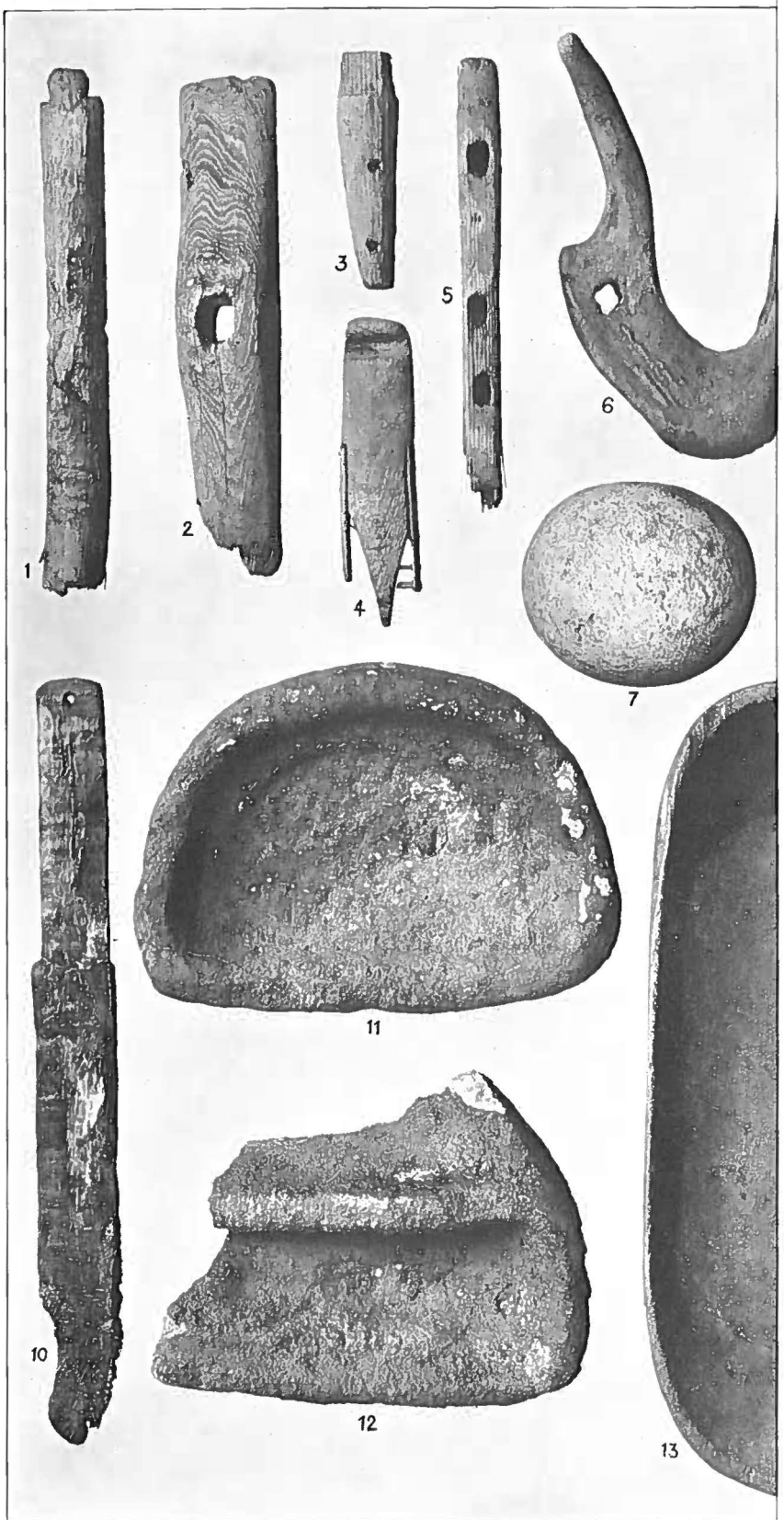

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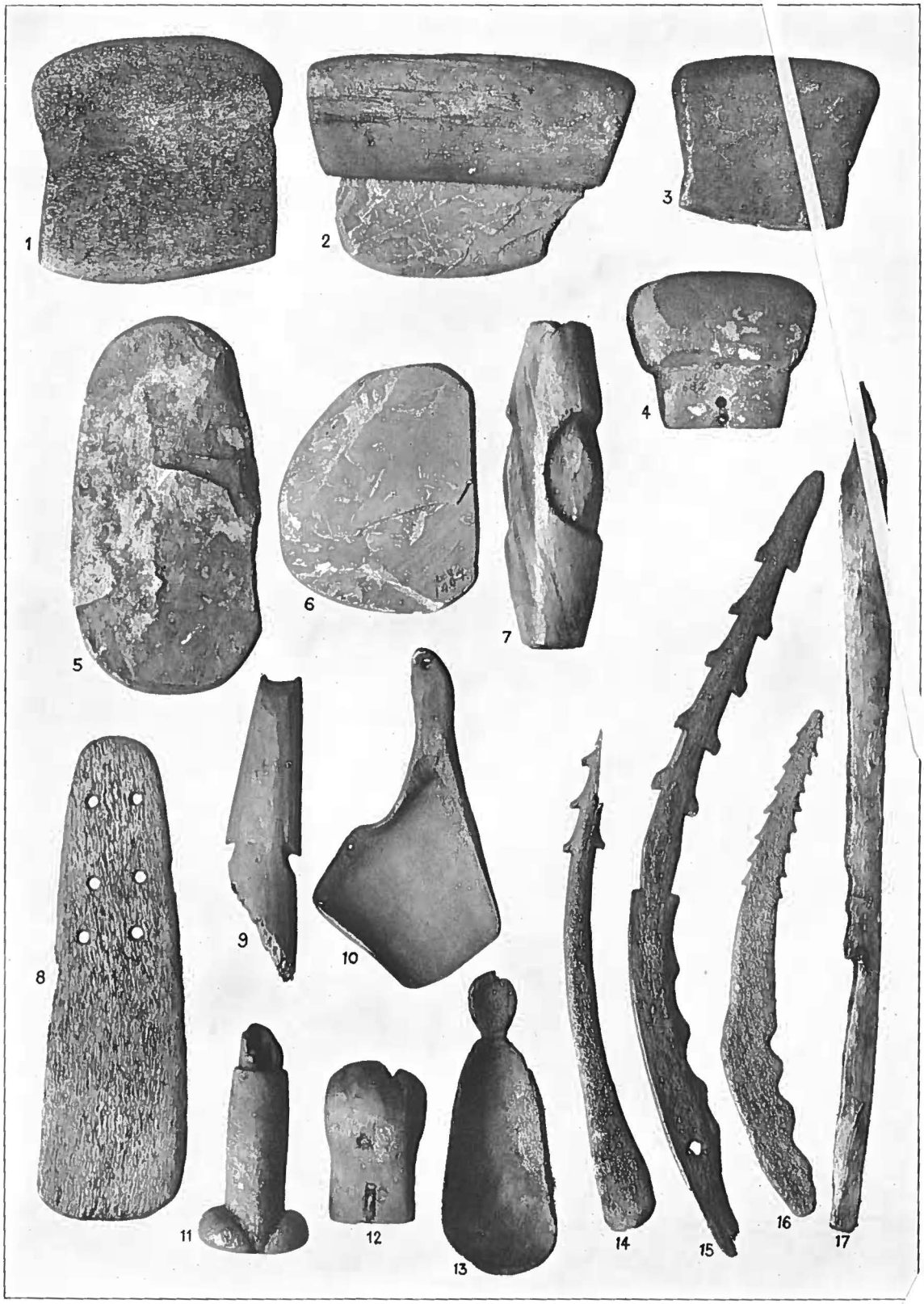

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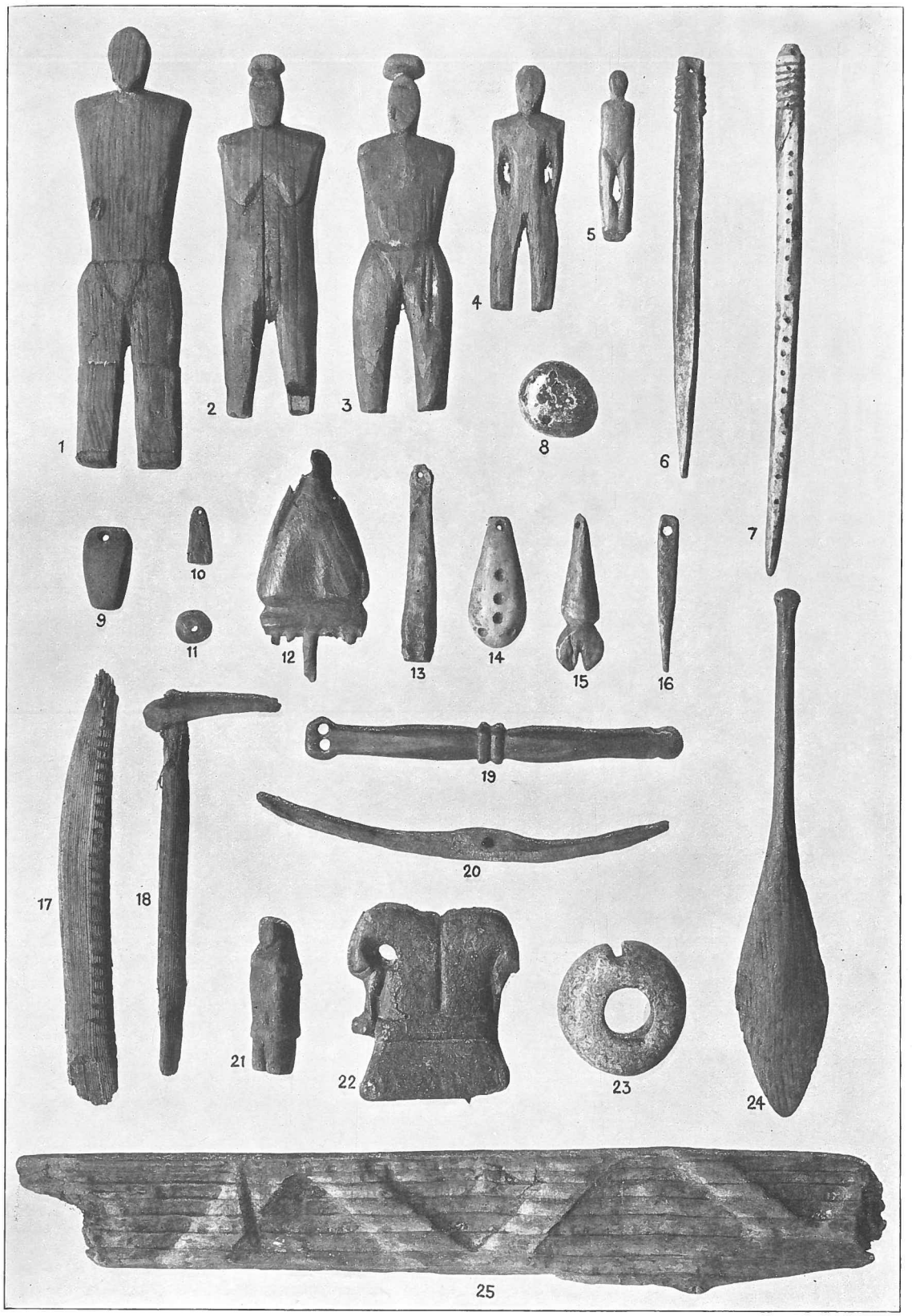

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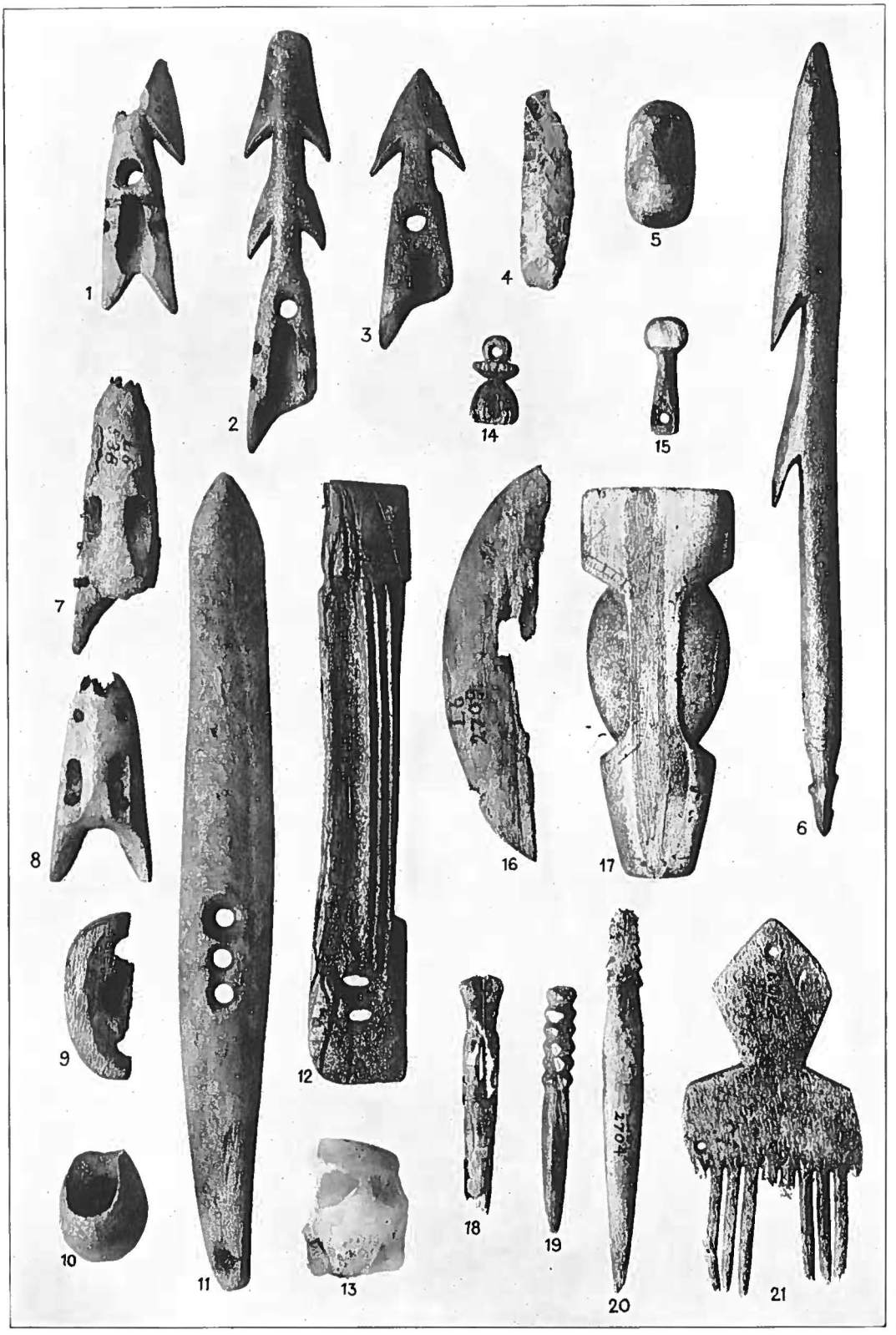

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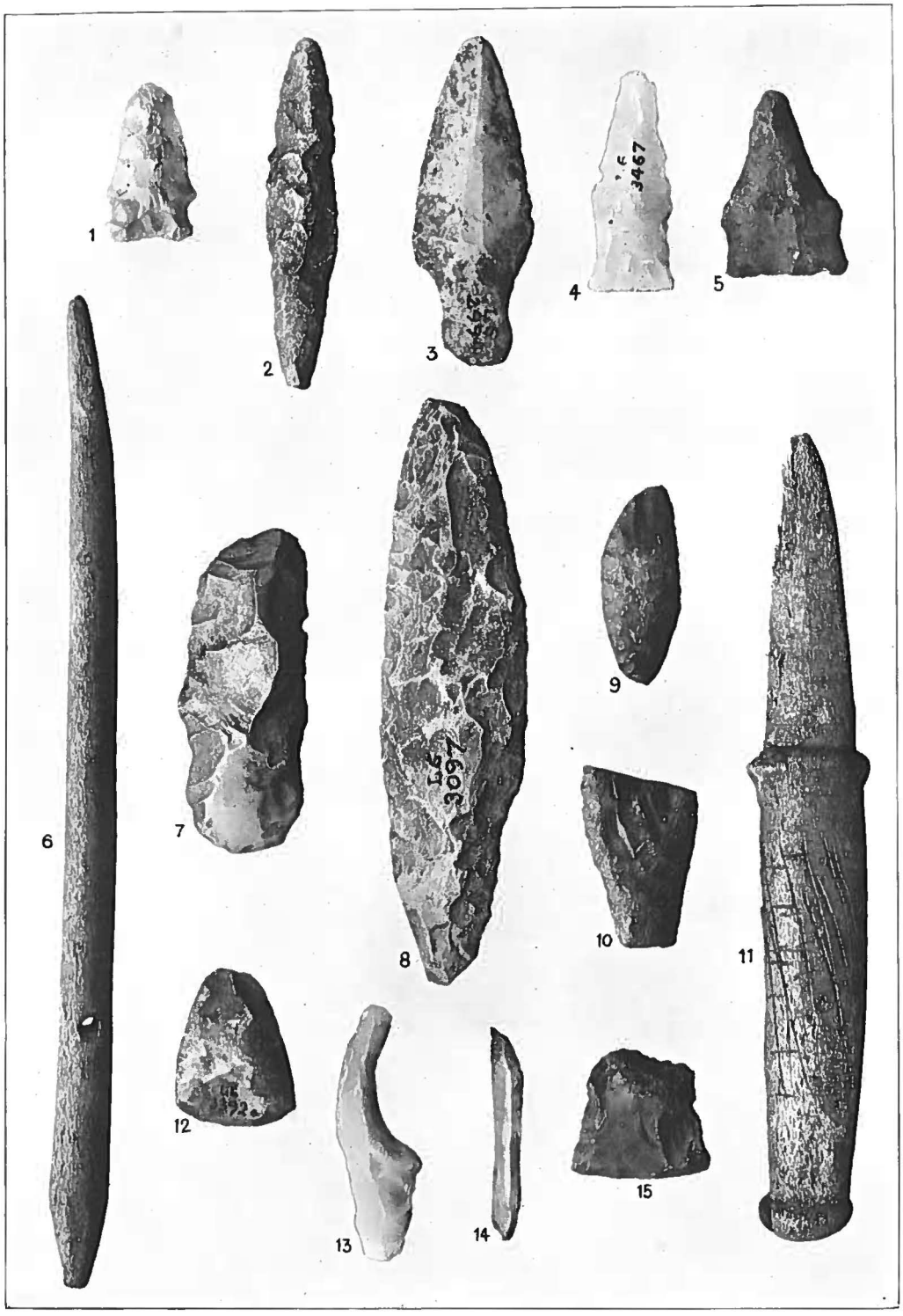

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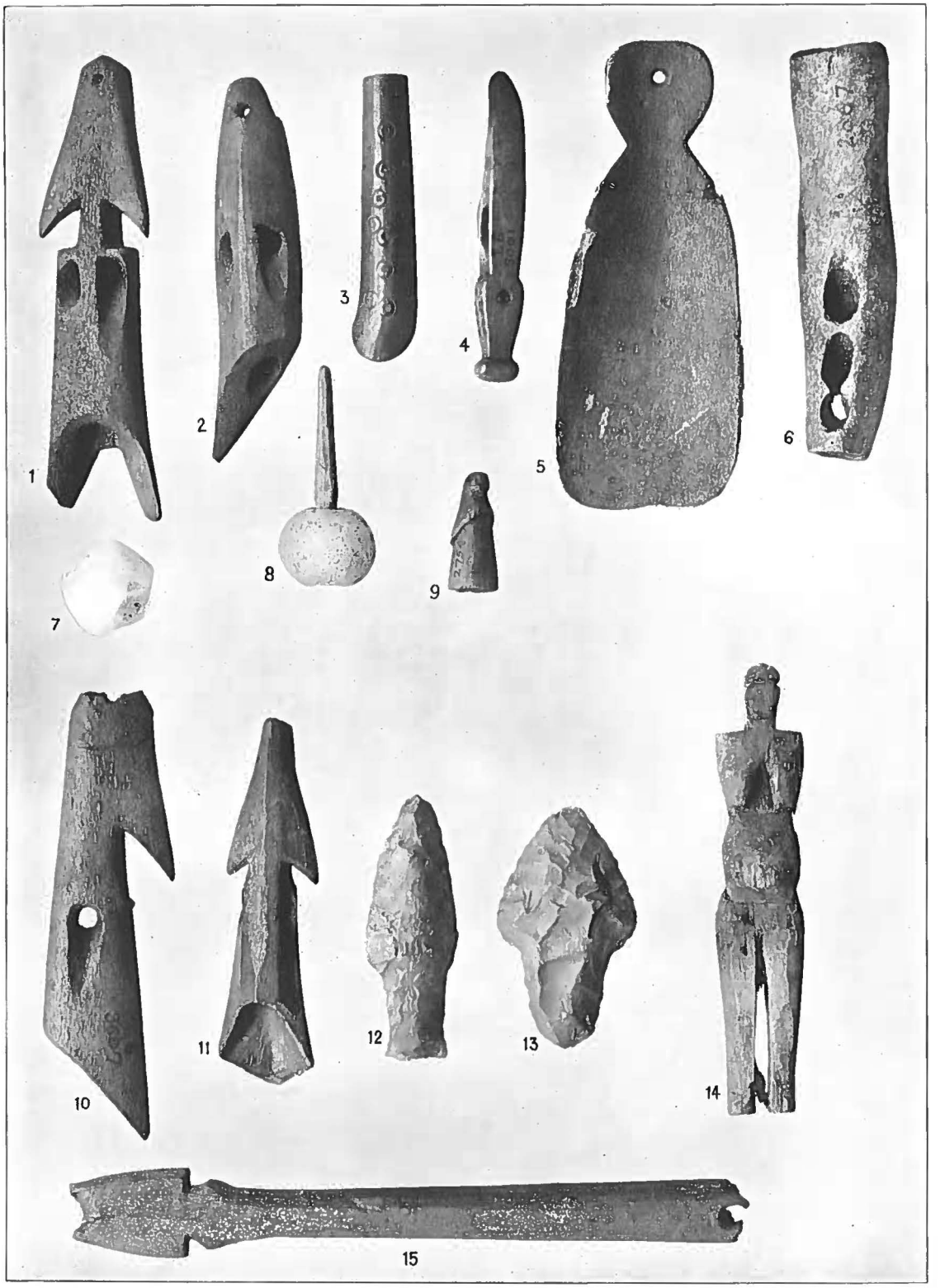

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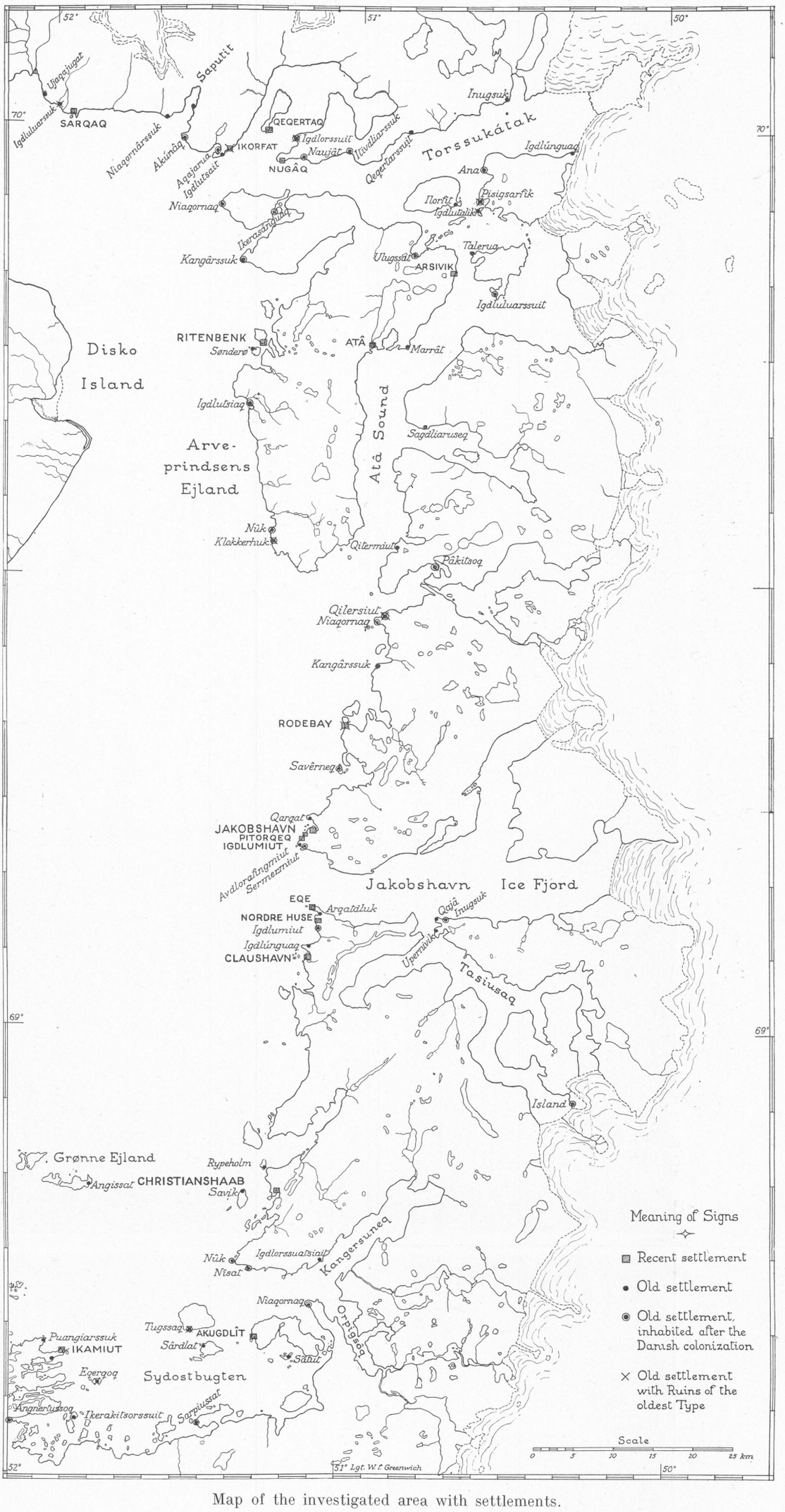
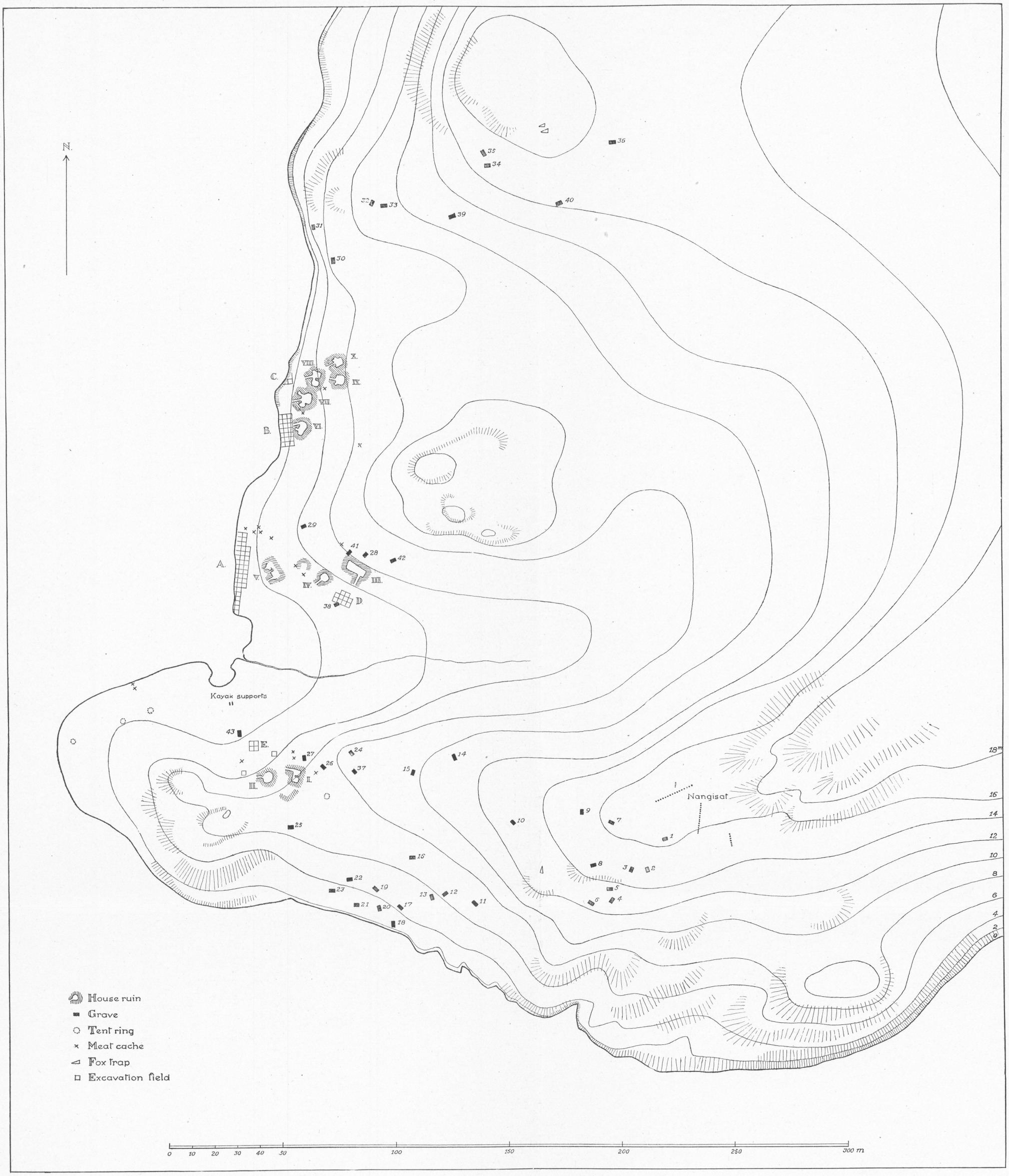
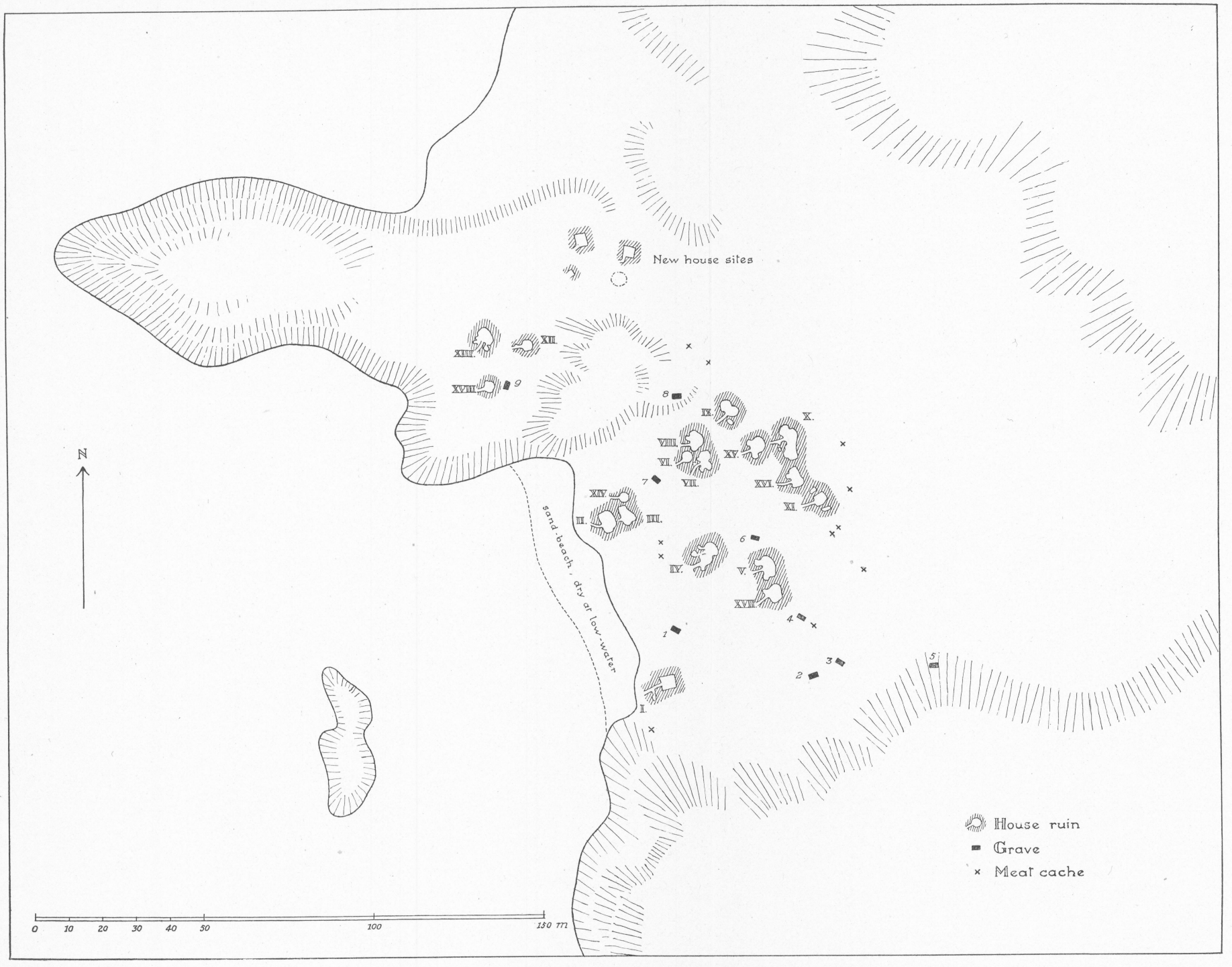


Map of the investigated area with settlements.



Plan of the Village Site of Igdlutalik.



Plan of the Village Site of Igdlorssuit.