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ARCHAEOLOGICAL INVESTIGATIONS IN THE THULE DISTRICT

BY

ERIK HOLTVED

I.
DESCRIPTIVE PART

WITH 110 FIGURES IN THE TEXT AND 49 PLATES

KØBENHAVN
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BIANCO LUNOS BOGTRYKKERI A/S
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PREFACE

Recognizing that it would be of great interest to institute a comprehensive and systematic archaeological investigation of the Thule District, whose archaeology was relatively little known when compared with that of the rest of Greenland, and having been prompted by the National Museum, I submitted in March 1934 to the Commission for the Direction of Scientific Investigation in Greenland a plan embracing a one-year expedition to the Thule District. As the details of the plan began to crystallize it became obvious that it would be of very great advantage to extend the investigations over a period of two years, with the result that a new plan for a two-year expedition was submitted in April 1935. In the new plan special weight was attached to the fact that the longer period would make it possible to extend the sphere of operations so as to include Inglefield Land, a region which it was anticipated would be particularly interesting—and that anticipation was in no way disappointed.

The necessary funds were procured through the goodwill of the Government and a number of private institutions: the Carlsberg Foundation, the Raben-Levetzau Fund, the Carlsen-Lange Bequest, the Julius Skrike Bequest, and the Knud Rasmussen Fund; the Thule Station offered the expedition a free voyage out and placed a house at its disposal for its stay in the district. I take this opportunity to express my thanks to all these institutions, whose contributions ensured the accomplishment of the expedition.

While I was in Greenland the interests of the expedition at home were looked after by the late THOMAS THOMSEN, keeper at the National Museum, whose constant helpfulness I can remember only with the warmest gratitude. I owe special thanks to my teacher in practical Eskimo archaeology, Dr. TH. MATHIASSEN for the energetic support he gave from the very first to the plans for the investigation in the Thule District, and for unfailing encouragement and guidance while I was employed later on working up the material brought home by the expedition.

I would also take this opportunity to express thanks to all those who have helped in the work in various ways. This includes Professor W. THALBITZER; Dr. POUL NØRLUND, director of the National Museum; and Dr. K. BIRKET-SMITH, leader of the Museum's Ethnographical Department. Further: Professor O. B. BØGGILD, who was kind enough to classify the stone samples; Dr. M. DEGERBØL and Conservator U. MØHL-HANSEN, who identified the animal bones, and Civil Engineer M. P. MOGENSEN, who undertook the analysis of samples of copper and iron. Miss MARGRETHE HALD at the National Museum has kindly examined textiles found in the Eskimo ruins, and Dr. A. STEENSBERG has assisted in identifying objects of Norse origin.

While in Greenland I received valuable assistance at the hands of Mr. HANS NIELSEN, then manager of the Thule Station, Dr. MOGENS HOLM the physician there, the Rev. JENS OLSEN, and in particular my Polar-Eskimo helpers, especially those who were with me in Inglefield Land: Moses, Qarqutsiaq and Patdloq, Maigssánguaq and Avôrtúngiaq, Angutdluk and Miteq.

The photographs of the archaeological specimens were taken by Mr. S. BENGTSSON, the official photographer of the National Museum; the other photographs, as well as maps and drawings, have been prepared by the writer. The translation of the Danish manuscript is the work of Mr. W. E. CALVERT.

The archaeological material, comprising about 12,000 objects, now forms part of the National Museum's Ethnographical Department, whereas human bones have been presented to the University Museum of Normal Anatomy and animal bones to the Zoological Museum.

Søborg, January 1943. *Erik Holtved.*

I. INTRODUCTION

Archaeological work under high-arctic conditions such as those prevailing in the Thule District is something of a lottery, unless one has serviceable reconnaissances as a guide. The excavation season is short, as one can only expect the soil layers to thaw at all in the months of June, July and August; indeed, in August night frosts are frequent, and in June the snow has not completely melted away everywhere. In addition there is the difficulty of travelling the district to any extent in the best time for archaeological exploration, as one can only expect to be able to get about everywhere by boat from towards the end of July. What is more, harbour conditions in the Thule District have been little explored, so that a long excursion in a boat in summer along the unprotected coast involves a good deal of risk and in any case will require a good deal of time at one's disposal. The other possibility is sledge journeying in spring; but then the snow is often an obstacle to satisfactory exploration. Work under such conditions is and ever will be a race with time.

Accordingly, independent preparatory investigations in the field were precluded in advance if there was also to be time for any real excavation, and my dispositions for the work had to be based solely on the information collected by Knud Rasmussen in "Grønland langs Polhavet" and in Meddelelser om Grønland Bd. LX (Grønland i 200 aaret). From these sources it appeared that the largest known ruin sites were situated at Thule itself and at Marshall Bay in Inglefield Land. There was this advantage about Thule, that work there could be commenced immediately after the arrival of the ship on August 11th, 1935, and it was also possible to work there throughout the whole of the second summer until the ship sailed on August 13th, 1937. Operations in Inglefield Land required spending a summer there, in 1936. The expedition travelled by sledge at the end of April and arrived at Inuarfigssuaq, Marshall Bay, on May 2nd. This became the expedition's summer quarters; but besides Marshall Bay (Inuarfigssuaq, Ruinøen, Cape Russell) there were excavations at C. Kent, four or five hours' sledge

journey northwards, and two localities in Rensselaer Bay, five or six hours journey to the south. The field of operations could not well be extended beyond these points, as the slow thaw in the early summer made it necessary to travel constantly from one place to the other, and excavations at the outer localities had to be completed before the ice broke up and made sledge travelling impossible. I succeeded in getting through the programme of work to the extent outlined above, and for the remainder of that summer there was plenty to do at Inuarfigssuaq itself. If the specimens from Inglefield Land number only about a fourth of those from Thule, the explanation is chiefly that the middens there were not so large as those at Thule, where Comer's Midden and the one in front of House 21 yielded such good results. From very early spring in May the work in Inglefield Land was favoured by continuous bright sunshine; but in August the night frost began to delay matters, so that it was difficult to get down to the bottom everywhere in the ruins last started on.

My Eskimo assistants established their winter house at Inuarfigssuaq and wintered there after having accompanied me over the ice cap down to Siorapaluk, where we arrived on October 1st. after five day's travelling. There I had to wait for the sea to freeze over and did not arrive at Thule until November 19th.

Settlements in the Thule District.

All known settlements, recent and prehistoric, are shown on the sketch-maps of the Thule District (figs. 1—3). The solid circles mark localities that were inhabited in the years 1923—35. Of the others, at any rate Agpat on Saunders Island, Narssarssuk on the south side of Wolstenholme Fjord out towards Cape Atholl, and Quinisut in Inglefield Gulf, are mentioned as frequently inhabited up towards the year 1900. These settlements were not all occupied at the same time, however, as the Polar Eskimos often move about. This is best illustrated by the following list, drawn up by the Rev. Jens Olsen, who was minister at Thule at the time, and showing the distribution of the families at the various settlements in the years 1923—35, though the details are incomplete for the winters of 1928—29 and 1932—33. The populations are also shown, with the exclusion of the families of the Danish or Greenland officials at Thule.

The settlements are listed from south to north. The first two, Tugtoligssuaq and Nugssuaq, lie in Melville Bay and are no longer in use. In this list the first figure below each year indicates the number of families, the second the total number of inhabitants. The number of families in 1935 is not shown.

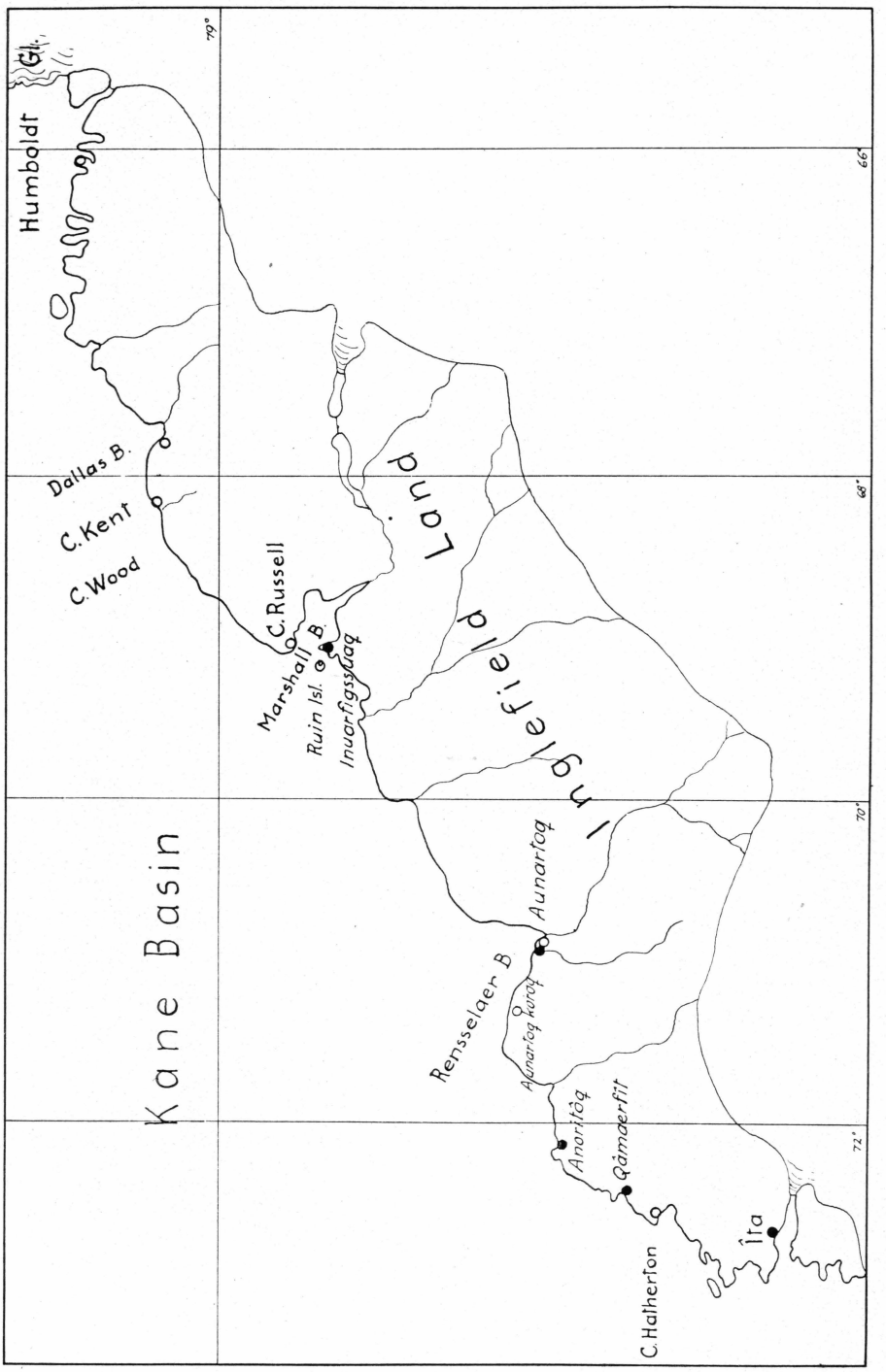


Fig. 1. Settlements in the Thule District, Inglefield Land.

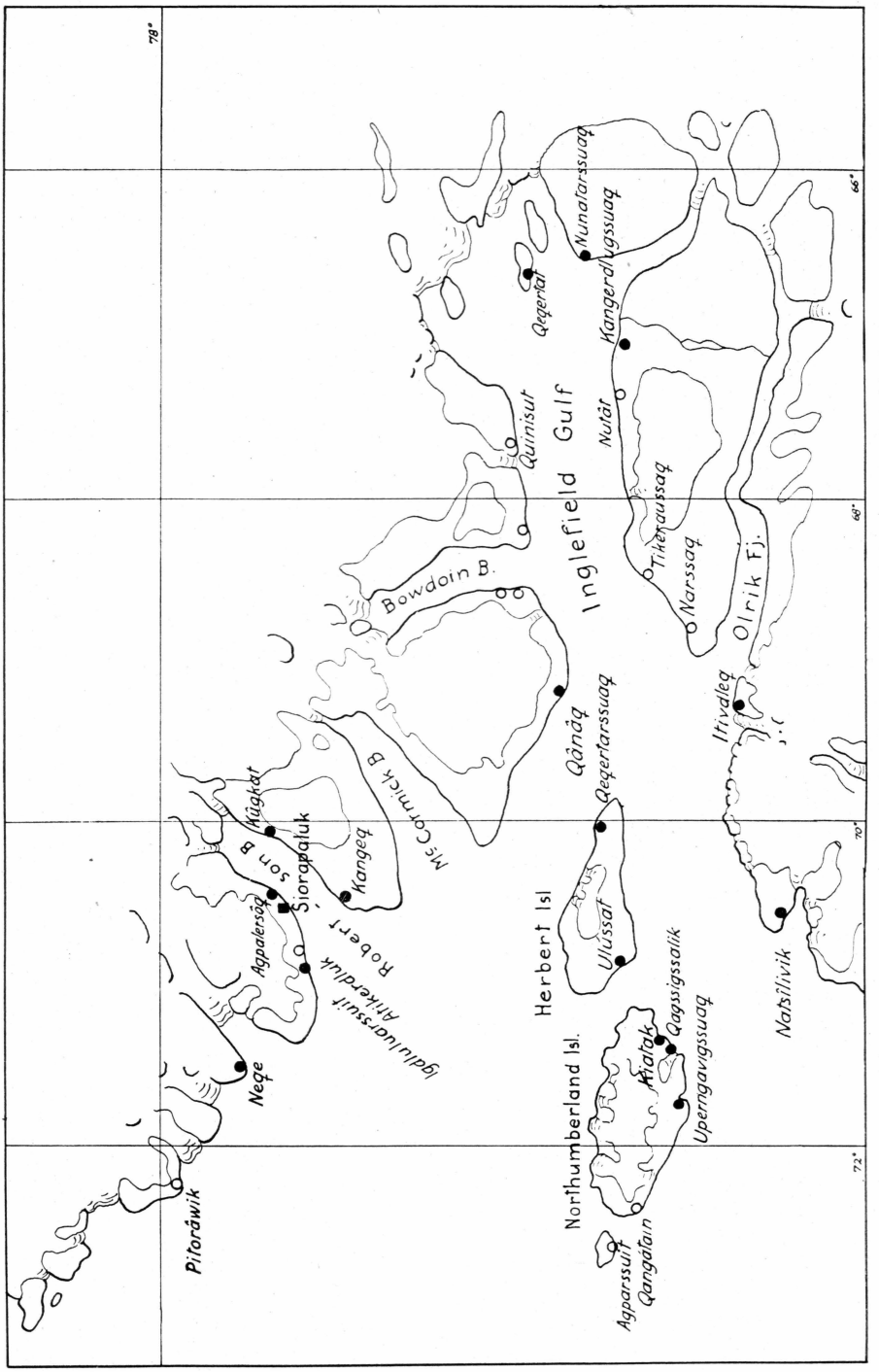


Fig. 2. Settlements in the Thule District, Siorapaluk and Inglefield Gulf area.

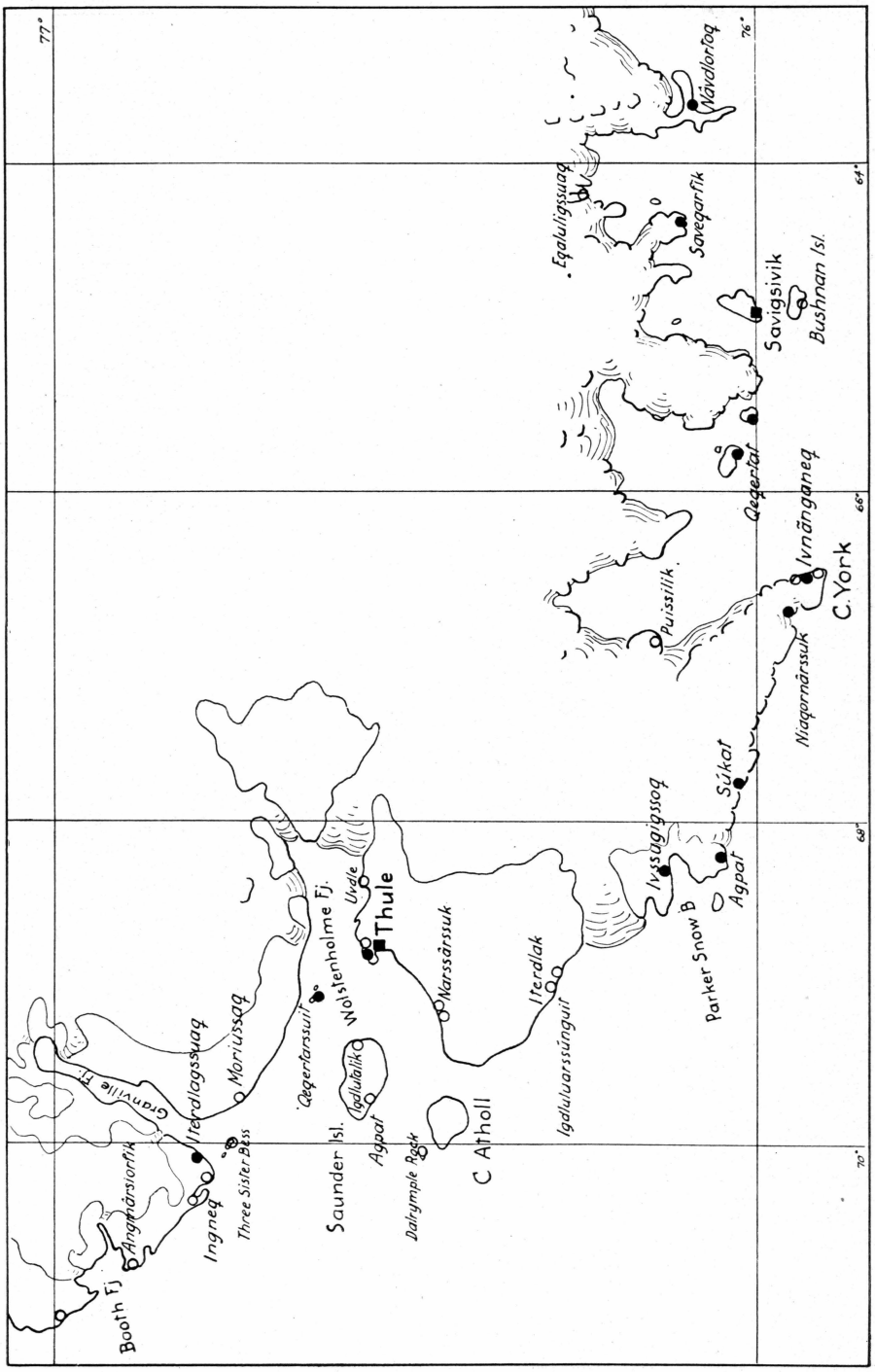


Fig. 3. Settlements in the Thule District. Thule and Cape York area.

Population Statistics.

On. 31. Dec.	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Tugtoligssuaq	5 20	4 19	.. ..	5 20	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Nugssuaq	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	2 8	.. ..	.. ..
Navdlortoq	.. ..	.. ..	.. ..	3 12	5 21	.. ..	4 23	5 19	4 17	.. ..	4 17	3 8	10
Saveqarfik (Savik)	3 14	.. ..	.. ..	.. ..	.. ..	.. ..	2 8	2 7	2 9	.. ..	.. ..	.. ..	.. ..
Savigssivik	.. ..	3 11	2 5	.. ..	4 11	.. ..	3 14	.. ..	.. ..	.. ..	.. ..	7 31	35
Qeqertaq u.	.. ..	3 17	2 8	.. ..	.. ..	.. ..	.. ..	2 4	.. ..	.. ..	.. ..	.. ..	.. ..
Qeqertaq t.	.. ..	1 5	2 11	3 17	2 8	.. ..	5 22	9 33	3 10	.. ..	4 15	8 25	15
Ivnãnganeq	5 22	.. ..	.. ..	6 22	.. ..	.. ..	5 18	6 20	3 12	.. ..	3 13	1 5	14
Niaqornârssuk	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	4 22	.. ..	4 23	.. ..	.. ..
Súkat	.. ..	.. ..	4 17	.. ..	4 20	.. ..	1 6	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Agpat	.. ..	1 5	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Ivssugigssoq	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 15
Ũmánaq (Thule)	6 33	3 19	11 43	12 54	12 64	.. ..	15 73	11 70	9 65	.. ..	15 69	15 78	(66)
Qeqertarssuit	.. ..	.. ..	.. ..	.. ..	2 10	.. ..	3 19	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Iterdlagssuaq	.. ..	.. ..	2 11	3 12	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Natsîlivik	5 29	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Uperngavigssuaq	.. ..	3 11	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Qagssigssalik	.. ..	5 35	8 26	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Kiatak	3 13	2 14	19	3 18	3 15	.. ..	5 21	4 14	.. ..	.. ..	3 15	6 28	12
Ulússat	5 32	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Qeqertarssuaq	10 51	7 32	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Itivdleq	2 9	3 15	.. ..	2 8	.. ..	.. ..	.. ..	2 9	.. ..	.. ..	.. ..	.. ..	.. ..
Kangerdlugssuaq	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	3 11	.. ..	6 21	.. ..	5 15	.. ..	15
Nunartarssuaq	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	2 8	.. ..	.. ..	.. ..	.. ..	21
Qeqertat	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 6	1 5	.. ..	.. ..	.. ..	2 10	.. ..
Qânâq	.. ..	9 47	9 52	11 58	6 37	.. ..	.. ..	2 8	7 25	.. ..	.. ..	6 16	13
Kangeq	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	2 6	.. ..	7
Kũgkat	.. ..	.. ..	.. ..	.. ..	1 6	.. ..	3 14	3 13	.. ..	.. ..	2 7	.. ..	.. ..
Siorapaluk	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	6 29	6 34	.. ..	11 51	9 48	29
Igdluluarssuit	1 2	1 4	6 28	5 24	5 21	.. ..	2 6	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Neqe	2 11	1 8	3 17	.. ..	3 17	.. ..	2 13	4 20	6 28	.. ..	3 14	.. ..	.. ..
Îta	2 8	2 7	2 7	4 13	4 12	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	2 4	8
Qamaerfît	3 12	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Anoritôq	.. ..	.. ..	3 11	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Aunartoq	.. ..	.. ..	.. ..	.. ..	5 19	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Ellesmere Isl.	.. ..	4	9	3 9	4 15	.. ..	3 7	4	2 8	.. ..	.. ..	.. ..	.. ..
5. Thule exp.	.. ..	7	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Individuals total	256	260	264	267	276	.. ..	261	263	251	252	253	253	(260)

The following gives some characteristic examples of how the various families change their domicile.

Inukitsupaluk.

Qeqertarssuaq (Herbert Is.) 1923—25
Qânâq 1925—29 (?)

Nâvdlortoq 1929—30
Thule 1930—(37).

Asarpánguaq.
Qeqertarssuaq 1923—25
Thule 1925—26
Nâvdlortoq 1926—29 (?)
Saveqarfik 1929—33 (?)
Thule 1933—(37).

Pualorssuaq.
Itivdleq 1923—25
Thule 1925—27
Qeqertaq 1927—34
Thule 1934—(37).

Navssâq.
Ivnânganeq 1923—24
Qeqertaq 1924—26
Ivnânganeq 1926—27
Îta 1927—29 (?)
Ivnânganeq 1929—34
(Savigssivik 1934—35).

Ûtâq.
Natsîlivik 1923—24
Qânâq 1924—26
Itivdleq 1926—27
Qeqertarssuit (Wolstenh. Fj.) 1927—29 (?)
Qeqertaq 1929—33
Nugssuaq (Melville B.) 1933—34
Qeqertaq 1934—35.

Qalaseq.
Ulússat 1923—24
Kiatak 1924—26
Iterdlagssuaq 1926—27
Igdluluarssuit 1927—29 (?)
Kangerdlugssuaq 1929—30
Qânâq 1930—32 (?)
Neqe 1932—33
Siorapaluk 1933—34
Qeqertat (Inglefield G.) 1934—35.

Kûtsikitsoq.

Natsîlivik 1923—24
Qânâq 1924—25
Anoritôq 1925—26
Itivdleq 1926—27
Neqe 1927—29 (?)
Savigsivik 1929—30
Qeqertaq 1930—32 (?)
Qânâq 1932—33
Nugssuaq (Melville B.) 1933—34
Qânâq 1934—35

It will be seen from these random samples that it is usual to live for two or three years within the same region (south-, Thule-, Inglefield Gulf-, or Siorapaluk-Îta), and then to make an excursion to another part of the district. The first few are elderly people who finally settled down for a number of years at Thule. The last two are younger, living a more roving life. Kûtsikitsoq is a son of Ûtâq, and the list shows how he comes back to his father's settlement at intervals. A complete list of all the families would show that very often it is blood or marriage relationship that determines the composition of the various settlements.

The reason for these constant moves is undoubtedly a craving for dietetic changes. In the south of the district (where there is a store at Savigssivik) the seal is the principal game, and from there the Eskimos go bear-hunting down in Melville Bay. But every spring people come down here from all parts of the Thule District for material for the indispensable bear-skin trousers. In the Thule area hunting is mainly for walrus and seal, and to the north, in Inglefield Gulf, for narwhal. In the most northerly region, with the trade-post Siorapaluk as the centre, hunting is divided more evenly between seal, walrus and narwhal. Now that the kayak is used for hunting in summer, fowling (Little Auk) is only of secondary importance. Comprehensibly enough the store at Thule has a particular attraction for some of the people, so that a number display an inclination to live there permanently; on the other hand it is rather limited how many people can live on the hunting there, and therefore, in order that the advantages of living near the store may be more equally divided the people's own council has framed rules for how long one may live at Thule at a time.

II. DESCRIPTION OF THE RUINED SETTLEMENTS AND THE EXCAVATED RUINS

Cape Kent.

The ruined settlement at Cape Kent lies in lat. 79°3′ N., long. 68°15′W. approximately. It is mentioned by Knud Rasmussen in "Grønt land langs Polhavet" p. 189, where he gives a description of "the sites a. Cape Wood", which "consisted of eight houses in a row, built in gravel" Shortly after our arrival at Inuarfigssuaq the ruins were reported by my Eskimo helpers, who had passed them on their way back from a bear hunt, and on May 11th I went up there myself to inspect them.

Between Cape Wood and Cape Kent a river flows out to the sea through a broad valley, and just north of its mouth, on a flat piece of ground, the ruins lie close up to the high slope of screes that forms the foot of the 200 m high Cape Kent. The promontory projects north of the settlement and shuts off the view from that side, whereas it is open out towards the Kane basin and for some distance westwards along the shore in the direction of Cape Wood. When we arrived the river bed was dry, and just opposite it the ice-foot had a width of almost 100 m, decreasing northwards to 10—15 m in front of the promontory itself. The plain on which the ruins lie bears witness of a constant struggle between river and sea, the material brought down by the river being thrown up again in the form of a series of beach mounds, laid out mainly in four waves, the uppermost one lying about 8 m above the ice foot; all the houses are dug down into this wave. On the south side, however, the river has broken through again and the beach-mound terrain terminates southwards in a slope down towards the present fluvial plain. The northern part of the area is full of precipitated stone blocks, some of them very large, and in among them are some meat caches which are still made use of now and then; one of the blocks seemed to have been used as a meat stone. Close to the stony area was the children's playground, for here were the remains of a "house" and a "tent-ring" of small stones, and a collection of seal bones showed that they had also played with "dogs".

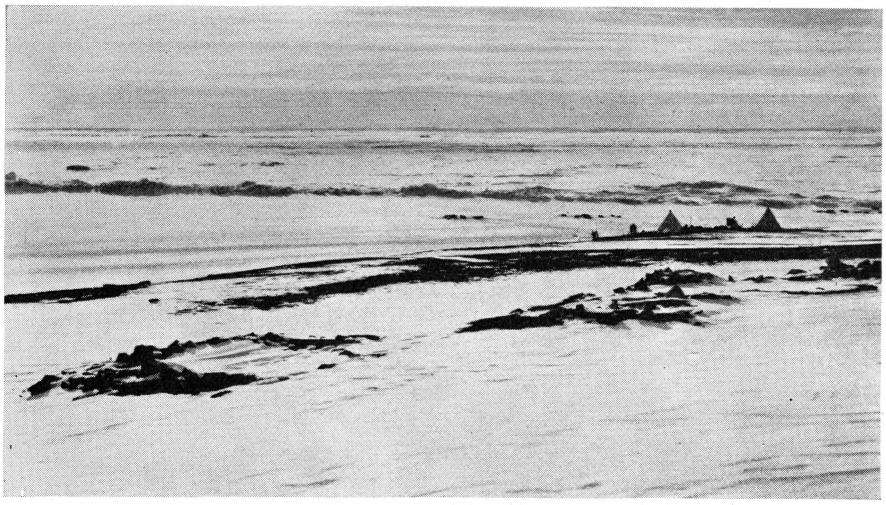


Fig. 4. Ruins at Cape Kent before excavation.

Nearer the beach are three tent-rings and two meat caches. There are also meat caches close by the houses, and two particularly well-built specimens lie in the slope behind; at first these two were taken for graves, but inspection showed that they were lined with stones on the bottom.

When we arrived the ground was only partly covered with snow; it was not deep, and the ruins projected like a row of large stone circles. At first glance there seemed to be no more than seven, but gradually as the snow melted the almost obliterated House 8 came into view. They were all excavated in the course of May and June, and we succeeded in getting to the bottom except in certain corners where the sun was unable to penetrate.

Conditions for preservation would a priori seem to be the worst possible owing to the stony ground, and indeed there was nothing in the nature of a culture deposit in front of the houses; nothing but a few bleached bones lay scattered here and there. The place also seemed to be bare of vegetation, but as spring advanced some cushions of saxifrage formed between the stones and soon were covered with reddish-violet flowers, contrasting sharply with the yellow limestone and at some places in front of the ruins merging into almost continuous carpets. In the ruins themselves the vegetation was rather more luxuriant, with moss, heather, a little grass and a dwarf willow in places. There was no turf in the vicinity, and an examination of the river bed a little distance inland gave the same negative result. In some of the ruins, however, there were culture deposits, and their character permits of the assumption that the walls nevertheless were of turf. Bones of caribou and seal

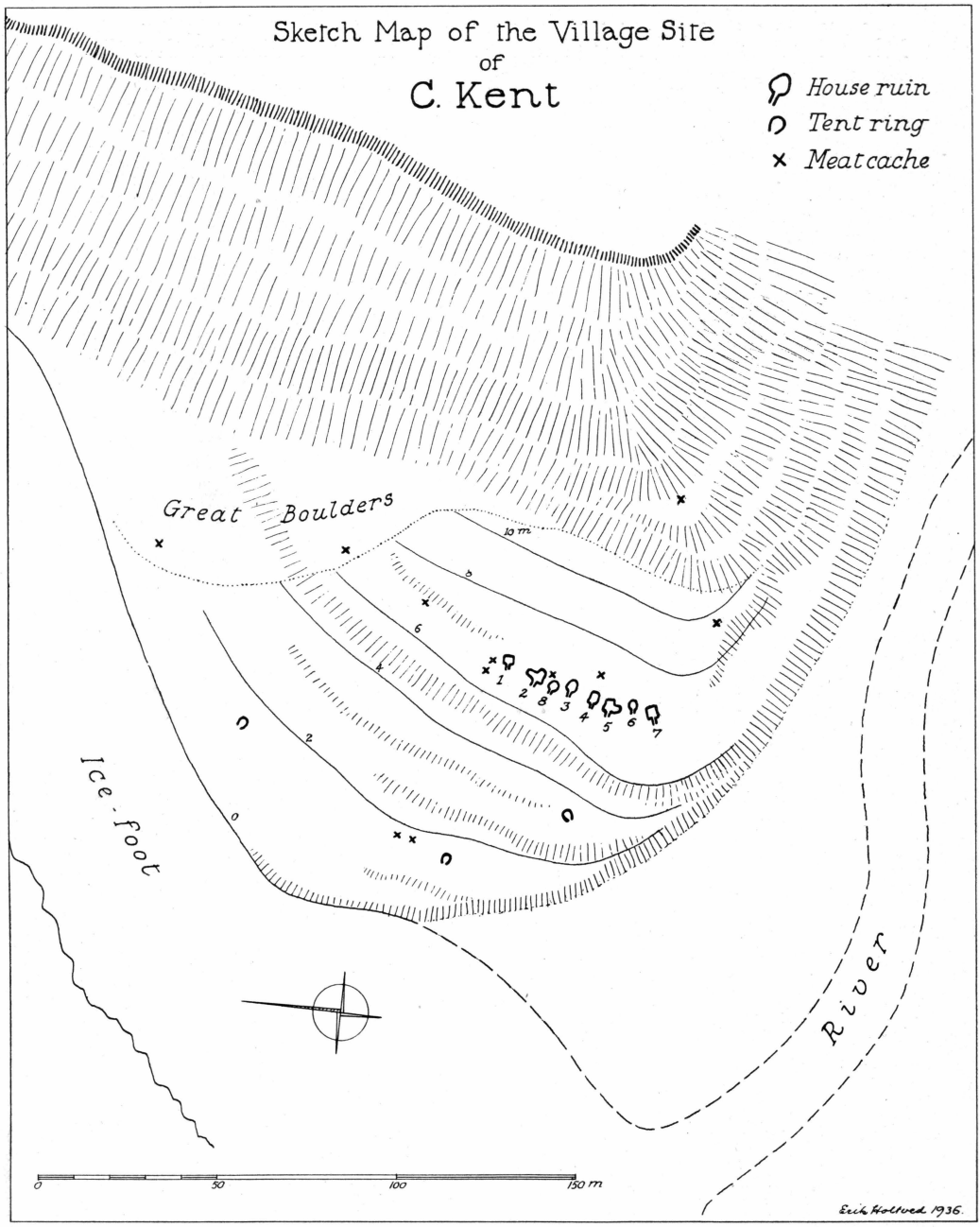


Fig. 5. Sketch-map of ruin settlement at Cape Kent.

predominated, but there were also musk-ox, bear, whale, hare and bird bones; outside one of the houses lay the skull of a musk-ox.

Nothing certain can be said of the nature of the roof construction of these houses; a few pieces of whale rib provide an indication that this was the material. The Eskimos held the opinion that over the bones

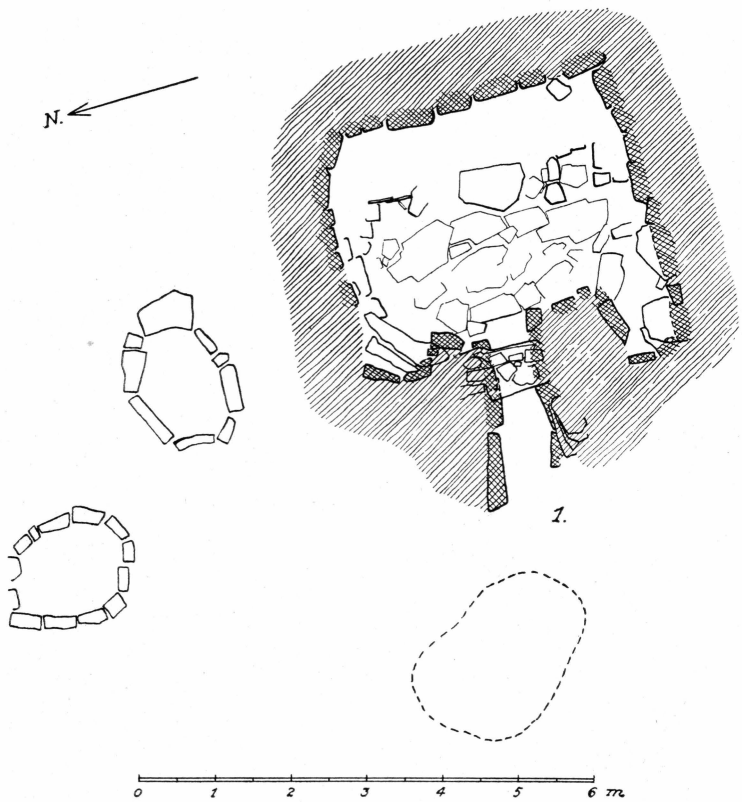


Fig. 6. Plan of House 1, Cape Kent.

there had been a double layer of skins with heather between. However, if turf was available in those days for the walls, it is more than likely that the roofs too were covered with it.

House 1.

(Plan fig. 6). House 1 is the northernmost of the group. The ground in front and behind the site has a difference of 1.10 m in height; the rearward mound rises only about 10 cm above the terrain, and the stones of the rear wall are level with the top of the mound. As the plan shows the outline is nearly rectangular, about 4×3 m with its longest

diameter at right angles to the direction of the entrance-passage. At each end of the front wall there is a small forward offshoot; in the northwestern one is a stone table, consisting of two long flat stones resting on stone supports so that they are raised a little above the floor; in the other offshoot there had apparently been a similar table.

Prior to excavation the inside of the house was full of fallen-in stones, among which grew moss and heather. When these were removed it was found that the floor was paved with flags; these, however, were in disorder, as the house had been washed through by meltwater which had formed a depression longitudinally through it and apparently had found an outlet through the north wall; as a consequence there were but few culture remains. Along the entire length of the back wall lies the main platform, most of which consists of shingle, the forward edge alone having been set with stones. In each end was a locker, edged with stones. The present surface of the platform is about 50 cm below the upper edge of the back wall. At the north and south ends of the house were some overturned stones, apparently supports for lamp platforms. The south wall is in the best state of preservation, for it still has four courses of carefully laid stones. The passage is only 2 m long and runs in almost at right angles to the front wall; the inner length of it especially is in good condition with the roofing stones still in position, and over them still lie two courses of flat stones. A long stone that had fallen across the inside opening of the passage had probably belonged to the window frame. As far as could be measured on account of ice the bottom of the passage is about 45 cm below and its ceiling only about 10 cm above the floor stones inside the house.

Just to the north of House 1 are two well-preserved meat caches, and right in front of the passage are the remains of a third.

Finds: L 3: 15—33.

House 2.

(Plan fig. 7). House 2 lies about two metres south of House 1. Here the difference in the height of the ground front and back is 1 m, but the rear mound rises about 40 cm above the terrain. This house was originally built as a twin-house with the two wings at right-angles; the maximum breadth is about 5 m and the depth 3.75 m, whereas the two wings have breadths of 2.5 and 1.75 m respectively. The ground-plan is somewhat awry, as the back wall in the main room is not parallel with the front one, which again forms an obtuse angle with the side room. The passage leads almost at right-angles into the middle of the front wall of the main room; it is about 2.5 m long, though the stones on the south side run a little further out. In the front wall are two small offshoots, one at the south end, the other at the commencement of the

side room; in both was a well-preserved stone table, consisting of a flat stone resting on two supports; the top lies about 17 cm higher than the floor stones. In the southern offshoot the front edge of the table is in line with the wall, in the other it projects a little in front of it.

The masonry was in best condition in the front wall and in the inner end of the passage, as well as in the north side of the main room;

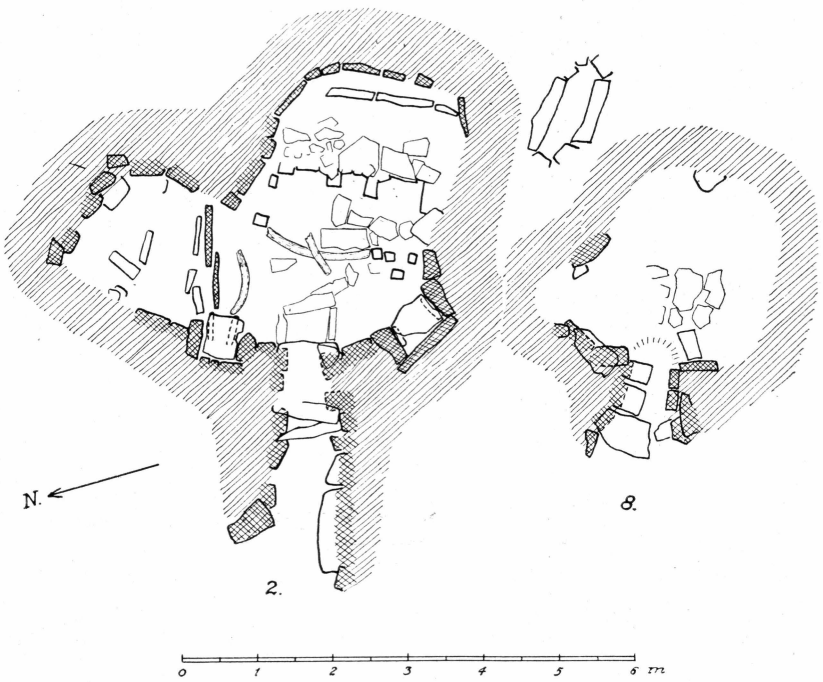


Fig. 7. Plan of Houses 2 and 8, Cape Kent.

three of the passage roofing stones were in position. The ceiling of the passage is only about 12 cm higher than the threshold stone. Behind the platform there was only a single row of stones set up on edge, and in part of the south wall there were no stones at all. The side room gave the impression of having been less carefully built, and it was closed off from the main room by large flat stones raised on edge.

The rear part of both platforms consists of shingle; in the side room there were only a few collapsed stones at the front, but in the main room the front edge was well built up with stones and with flags on top, and with two lockers. Out from the side walls stand some stones about 30 cm high, the supports of the lamp platforms.

At the back of the main room, on top of the platform, was a meat cache—built some years before by my assistant Moses for storing a



Fig. 8. Cape Kent. House 2 during excavation.

bear skin, he said. When it was removed, there remained a row of stones a little inside the original rear wall, evidently representing a secondary improvement of that wall.

The excavations soon made it clear that there had been at least three phases of habitation in the house, though presumably within a narrow space of time. Whereas the blocked-up side room had little of interest to tell, the main room proved to be a veritable midden, of which the principal contents were the bones of hares and caribou mixed with baleen etc. The space below the northern lamp platform and the northern platform locker was full of these bones, the openings having afterwards been closed with flat stones. In front of the barrier to the side room was a layer of soot and slag, and below it a large sealskin, "pickled" in soot and grease; close by was a piece of whale rib 1.10 m long, and two others, 1.40 and 0.5 m, lay on the middle of the floor.

The floor was well flagged. It turned out, however, that there were two layers of flags with culture deposit between them, and it was evident that the upper floor had been laid after the heaps of bones had been swept aside into the corners; a new threshold stone lay 18 cm above the old floor. Whereas the northern locker was closed up, as already mentioned, the southern one had been used by the last tenants; here again was a layer of refuse, but this was flagged over and at the front the locker was separated from the floor by a long stone 10 cm high laid directly on the floor stones. The closing off of the northern side room must have taken place at an early period, for the refuse heaps

extended up against the partition stones, whereas there was nothing on their other side. The second habitation period seems to have been longer, however, as most of the baleen objects and other things were found in the accumulations of refuse from that period.

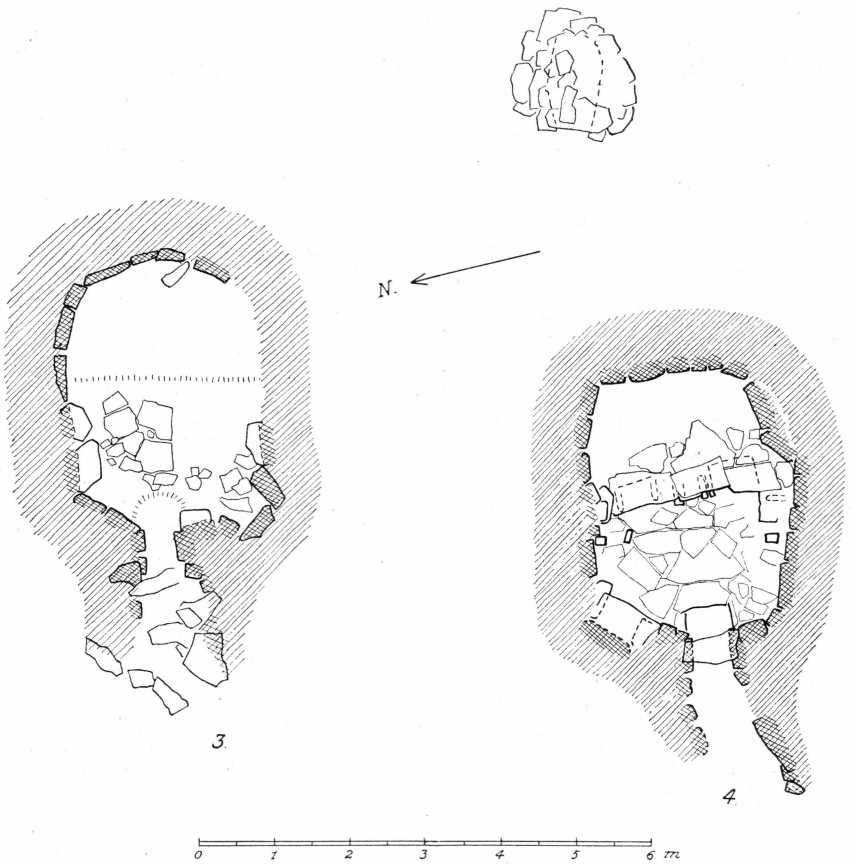


Fig. 9. Plan of Houses 3 and 4, Cape Kent.

In front of the house there was not a sign of culture deposit, just a thin and dry covering of moss immediately over the shingle. Quite close to the southeast corner of the house on the outside is a well-built meat cache, in which some seal bones were lying on the flagged bottom.

Finds: L 3. 34—182.

House 3.

(Plan fig. 9). This house is rounded in shape and measures about 2.5 m in breadth and 3.5 m in depth. In the southwest corner is a small offshoot measuring 0.5×0.4 m. The passage had been about 2 m long



Fig. 10. Cape Kent. House 4 after excavation.

and led into the middle of the front wall; it was completely destroyed, and the site contained only very few stones and no culture remains at all. There were no stones left in the south wall, but the north and east side had a handsome edging of stones placed on edge. Excavations revealed a small ledge across the house, indicating the platform; nothing was left of the platform structure itself, but there were some flooring flags in the northern half of the house. The difference in the height of the ground in front and behind the house is about 85 cm; the rear mound rises about 20 cm and the top of the stone edge 35 cm above the terrain. The stones reach 40 cm up over the surface of the platform, which again is about 15 cm above the flooring flags. There was scarcely any vegetation in front of this house.

Finds: L 3: 185—186.

House 4.

(Plan fig. 9). House 4, just south of House 3, even before excavation lay as a fairly well-preserved ruin, in which one could follow the masonry all the way round; the passage alone was badly collapsed along the greater part of its length. The width of this house is 2.5 and the depth 3.5 m. The walls are built of carefully bonded stones, which in the south wall lie in four courses. As to the shape it is hard to say whether the house was intended to be oval or foursided, as generally speaking it looks oval, but with long straight lengths of wall. The passage proper

seemed to be only about 1.5 m long, but as was the case with House 2 the masonry extends somewhat farther on the south side. In the northwest corner is a recess-like offshoot projecting 0.6 m and covered with a flat stone. During excavation a handsomely flagged floor was revealed; over the original floor, however, were other flags, and these were removed when culture deposits were found to be lying between. In the front part of the house the flags are tilted upwards to some extent, the gravel bottom in the middle of the house having subsided in the course of time.

The floor of the small offshoot lies about 15 cm below and the ceiling 40 cm above the level of the house floor. Two stones, the tops of which are 30 cm above the floor of the recess, show that there had been a stone table here too. The platform structure was in an unusually good state of preservation; as in the other houses the back of the platform is shingle, but at the front it is built up of stones with a locker at each end; in the bottom of the northern locker lay a piece of skin. Opposite the ends of the platform, at the north and south walls, are some tall stones, the supports of the lamp platforms. The height of the platform edging above the floor is about 25 cm, and it lies 40 cm below the top of the stones in the back wall, which again are 20 cm above the ground at the back. The difference in the height of the terrain back and front is about 1 m. In front of the passage was a thin carpet of moss.

Three metres behind this house is a small stone erection similar to the type still used among the Polar Eskimos for storing skins, especially coats of fox skin.

Finds: L 3: 187—247.

House 5.

(Plan fig. 11). House 5 lies immediately south of House 4; the inner part of the ruin was overgrown with moss and there were some fallen-in stones. It is a double house with the side building facing south and its arrangement is exactly the same as House 2. Evidently the main room is foursided, whereas the side room is rounded at the back. The passage leads towards the middle of the main room, not quite straight on to the front wall which, moreover, is not parallel with the back wall. In the northwest corner there is an offshoot projecting rather obliquely, about 0.5 m in width and 0.6 m in depth, and there is a smaller offshoot in the front wall where the side room begins. The house measures 5 m from north to south, i. e. at right-angles to the passage; its width, measured across the edge of the platform, is about 2.4 m and the depth from the front wall 3 m; the width of the side room is 1.7 m. In the walls the stone masonry remains almost all the way round, but merely as a single row of stones, most of which were standing on edge. The projecting

corner between the two rooms was not in such good condition, the stones having slipped out.

The passage is 2.5 m long and was still covered over along the innermost 1.5 m; in towards the house it was closed off with a large flat stone, and inside it was full of ice. A meat cache had been built over

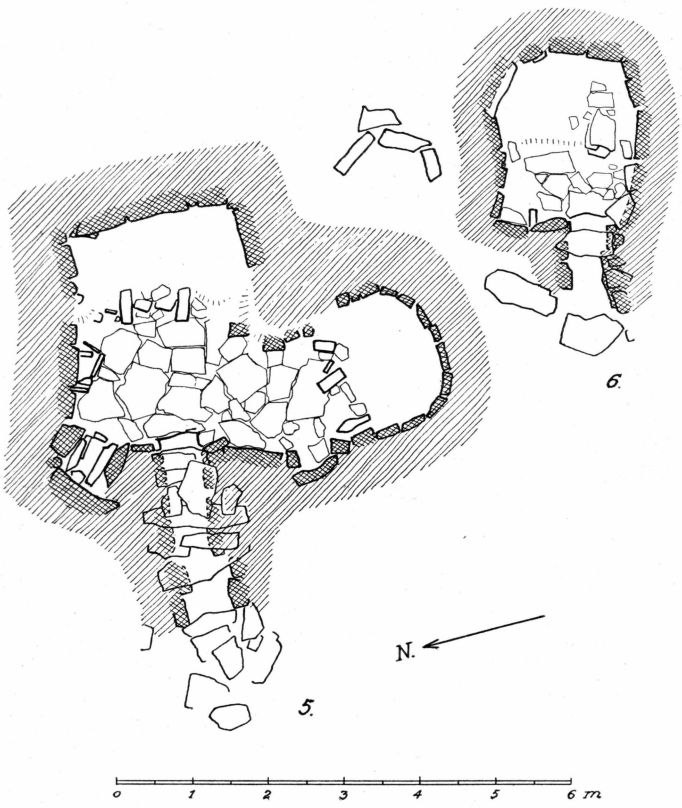


Fig. 11. Plan of Houses 5 and 6, Cape Kent.

the passage. Again the back of the platforms consisted of the shingle substratum. Of the forepart the flagging had been removed, but the stones on which it had rested were in position. In the north side were supports for a lamp table, and in the northern offshoot were some stones which may have borne a stone slab. The floor turned out to be covered with a layer of rubbish 10—15 cm thick, containing mostly caribou bones; below this was a fine stone flagging over the whole of the floor.

The difference in the height of the ground in front and behind the house is about 1.1 m. The highest stone in the rear wall is only 7 cm

above the terrain behind and 35 cm above the platform, which in turn is 35 cm above the floor; in the side room the wall stones are 30 cm above the platform. The ceiling of the passage is 20 cm above the level of the house floor; the bottom cannot be measured for ice. In front of the passage was a little mossy growth.

Behind the house, in the angle between the two wings, were some stones arranged in a semi-circle, as if there had been a cache or the like up against the house wall; in that case it would correspond to a wall thickness (turf wall!) of about 1.5 m.

Finds: L 3: 248—273.

House 6.

(Plan fig. 11). House 6, close to the south of House 5, measures no more than 1.75 m in width and a little over 2 m in depth—corresponding approximately to the dimensions of the side rooms in the foregoing double houses. At the front the shape is rectangular, at the rear rounded. The passage, which is only about 1 m long with a slightly longer projecting south wall, leads in at the south end of the front wall; a single cover stone was in position.

A number of large fallen-in stones lay inside the house and masonry was still in position in the walls all round, best in the south wall where the stones still lay in up to three courses; at the south end of the platform were also some of the flags that formed the foremost edging. The floor is paved except along the north wall, where the only lamp table must have been situated. My Eskimo assistants jestingly called it "a bachelor's house". There was no perceptible vegetation in front of it.

There is a difference of 0.6 m in the height of the ground behind and in front of the house. The top of the rear wall is about 20 cm above the ground behind and 33 cm above the platform, which is only 17 cm higher than the floor. The top of the lintel at the entrance is 26 cm above the threshold stone.

Finds: L 3: 277—280.

House 7.

(Plan fig. 12). House 7 is the most southerly of the group and at the same time the best preserved, the walls standing with carefully bonded stones to a height of 3 to 5 courses. In shape it is foursided, but the front wall is not parallel with the back wall, and the width of the house is greatest at the front. The 2.5 m passage runs obliquely into the front wall; its inner portion is in good condition with two roofing stones in position. At the end of one of these lies a stone, 24 cm high, which must have belonged to the window frame. The entire length between the passage and the south wall is occupied by an offshoot which

is 0.75 m wide and about 0.5 m deep, and has one side in direct continuation of the south wall of the house; in this offshoot are the supports of a stone table which has projected a little way into the house itself. In this corner of the house was a large heap of stones, and the offshoot seems to have been shut off at a later period and possibly used for storing

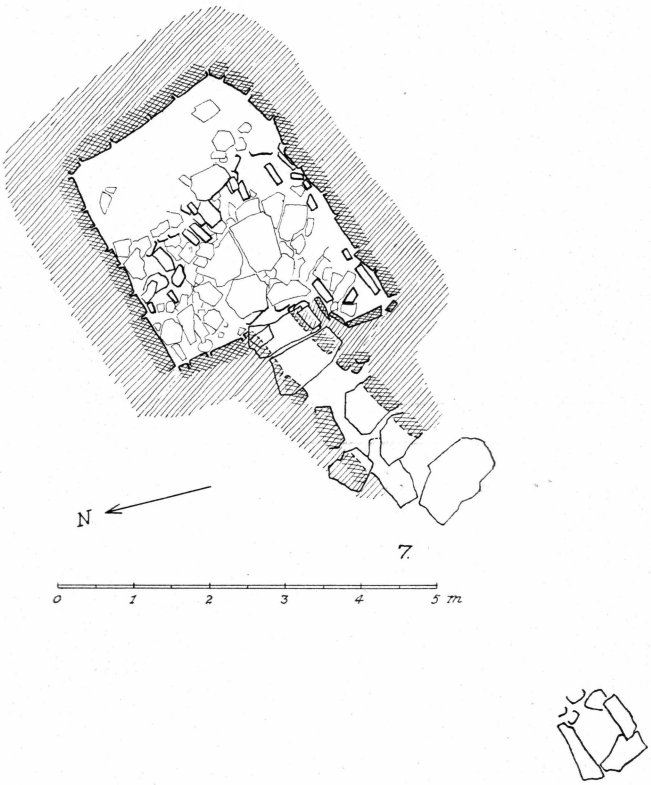


Fig. 12. Plan of House 7, Cape Kent.

meat. Disregarding the offshoot the depth of the house is 3.2—2 8 m, and the width 2.8—2.25 m.

Here again the back of the platform is of shingle and the forepart built up of stones. It would seem that there were three lockers, as the southern and largest one is divided into two; most of the platform flags are missing. Opposite the ends of the platform are supports for lamp tables. The floor is carefully flagged; there were two layers of flooring stones, small underneath and large flags on top. There was no culture deposit between them, however, so that the lower stones were possibly put there as fill, as a gravel channel runs down through the middle of the house.

The difference in height between the ground behind and in front of the house was about 1.25 m. The stones of the rear wall are about 30 cm above the terrain and 33 cm above the top of the platform, which in turn lies about 30 cm higher than the threshold stone and at the same level as the ceiling of the passage. The well-preserved south wall has a height of about 70 cm above the floor. There was only very little vegetation in front of the passage. A small meat cache lies 4 m from the passage entrance.

Finds: L 3: 281—300.

House 8.

(Plan fig. 7). House 8 lies between Houses 2 and 3. At first it seemed merely to be a disorderly heap of stones, but these turned out to be the remains of a front wall and a passage about 1 m long. Of the remainder of the house nothing was left except a few flooring flags, and only a faint elevation of the ground indicated the position of the platform. The house seems to have been rounded in shape, about 2.5 m deep and 2.25 m wide, with a small offshoot from the northern side wall where it meets the front wall.

Find: L 3: 303.

Cape Russell.

The ruin locality at Cape Russell, on the north side of Marshall Bay, lies on a flat area extending forward south of the promontory at the mouth of the fjord. The promontory consists of pre-Cambrian rock of a curiously deep red colour, heavy in effect on the background of the buff-coloured sedimentary hills above. Nearest the fjord the terrain consists of uneven rock with flat, stony stretches between; but in towards the fells it passes into a smooth plain of weathering detritus with shallow lakes. Despite the short distance from our headquarters on the south side of the fjord this locality was about the most difficult of access, and although we passed it many times that spring on the way to Cape Kent, the ruins were not discoverable until towards the close of June, as on this side of the fjord the snow lay metres high among the rocks on the promontory.

The three houses shown on the sketch map fig. 13 lie on a flat stretch between the beach and a lake behind, Houses 1 and 2 close together, House 3 about 35 m more to the east, close under a low cliff. Between them is an *oval stone ring* (fig. 14), about 2×4 m in extent and laid up against a low rock which forms its southern limit; the north side consists of a single row of not very large stones, and on the east the ring is closed by a larger stone, up against which are two

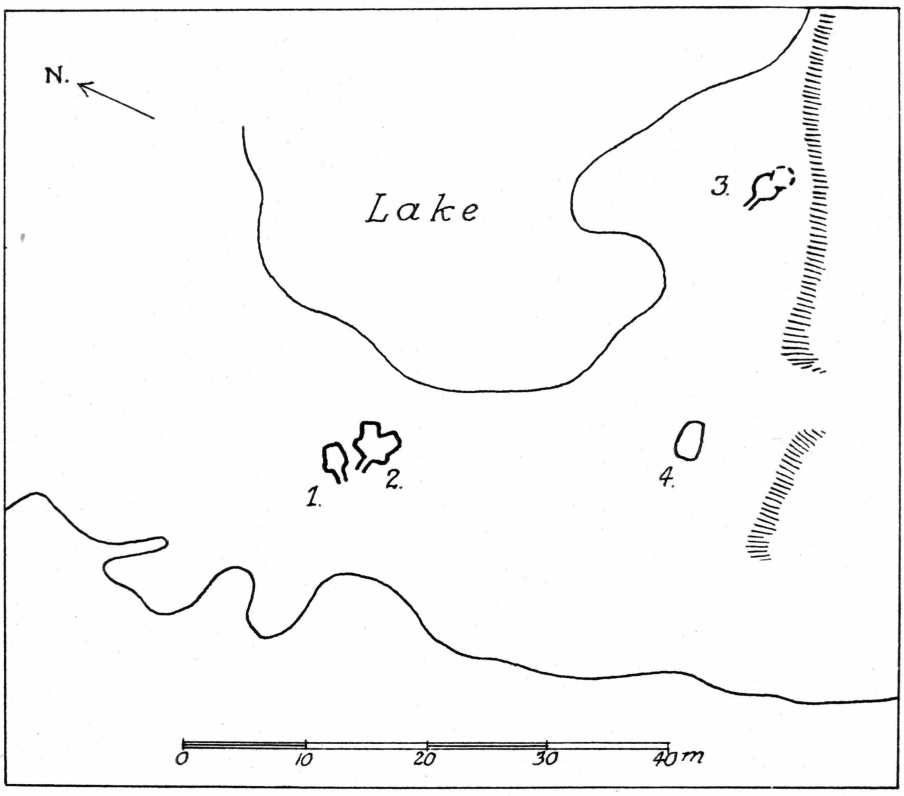


Fig. 13. Sketch-map of ruin settlement at Cape Russell.

hearths side by side. This cooking place can scarcely have been a shelter, rather a feasting or eating place for the whalers, similar to the one at

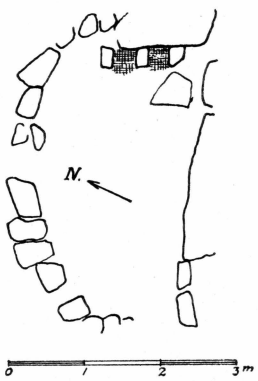


Fig. 14. Plan of stone ring and fireplace, Cape Russell.

Naujan described by Th. Mathiassen; in fact it bears a striking likeness to Mathiassen's fig. 4[1]). The inside of the ring was overgrown with

[1]) Th. Mathiassen: 1927 I, p. 9 f.

moss and heather, and the only culture remains were a little baleen and a caribou tooth.

About 50 m north of House 1 is a smaller stone ring, but this one would rather have been used as *a shelter*; like the one above it consists of a single row of stones but with a height of 50—80 cm, and the dimensions are about 1.5 × 3 m. In the terrain north of the houses are many large and small *meat caches* and a number of *tent-rings*; some of these were measured as well as could be done, with the following results:

Tent-ring	width m	depth m
nearest C. Russell	3.5	3.0
slightly to the south	2.0	2.3
— —	2.0	2.7
— —	2.7	2.5 (?)
50 m NE of House 1	2.2	3.0

These measurements must not be taken too exactly, however, as in most places the stones lay very irregularly, so that the original extent of the ring could not be determined with any certainty.

A pair of *kayak supports* were 0.7 m high and 1.3 m apart. Just to the north of House 2 is another pair of kayak supports; these have a height of 0.5 m and they are 1.8 m apart measured from their outer sides. One support is built up of several stones, and on top were two small stones which may have been used to wedge the kayak.

House 1.

(Plan fig. 15). House 1 is the northernmost of the three, about twenty metres from the beach and at a height of about 2 m above the ice foot. It is a very small house, about 2 m wide and 2.6 m deep; in shape it is foursided with rounded corners. At the front, however, it is extended by two offshoots to the sides, the western one being the larger, about 1 m wide and 0.6 m deep; the bottom is 10—15 cm higher than the floor of the house. The 3 m passage leads almost at right-angles into the middle of the front wall, but half way it has a bend of about 45° and runs out to the southwest; it is below ground throughout its length, so that at the mouth there is a step up to ground level. Most of the passage had fallen in, for only one cover stone, nearest the house, was in position, and above this three stones lay one over the other as a remnant of the window structure. The walls of the house remain to a height of 0.5—0.75 m, with the stones in from one to two courses. The platform is quite low and covered with flags—here and there in several

layers. At the side walls are remains of supports for lamp tables. The floor was only partly flagged.

Finds: L 3: 304—318.

House 2.

(Plan fig. 15). House 2 lies just east of House 1 with the passage opening close up to it, facing west. It is a double house but of unusual

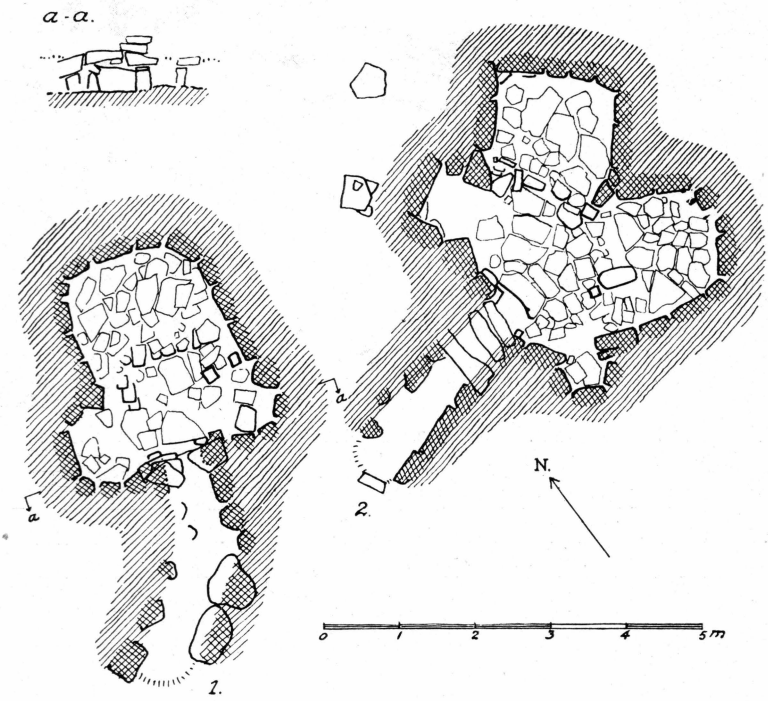


Fig. 15. Plan of Houses 1 and 2, Cape Russell.

shape, as the two rooms form an angle of about 60° with each other. The northern room has right-angled corners at the rear, the southern one seems slightly rounded. The width of the rooms is about 1.6 m measured across the edge of the platform, and the distance from the entrance (the threshold stone) to the rear wall is 3 and about 2.7 m; this arrangement means a relatively large floor space. The house is additionally extended at the front by two offshoots of the usual character; here again the northern one is the larger, about 0.7×0.7 m. The passage is 3 m long and leads almost at right-angles into the middle of the front wall and in such a fashion that the house lies symmetrically about the projected middle line of the passage. As in House 1 the passage is below ground throughout its length; part of the south side remains, and in the inner part were three partly collapsed cover stones

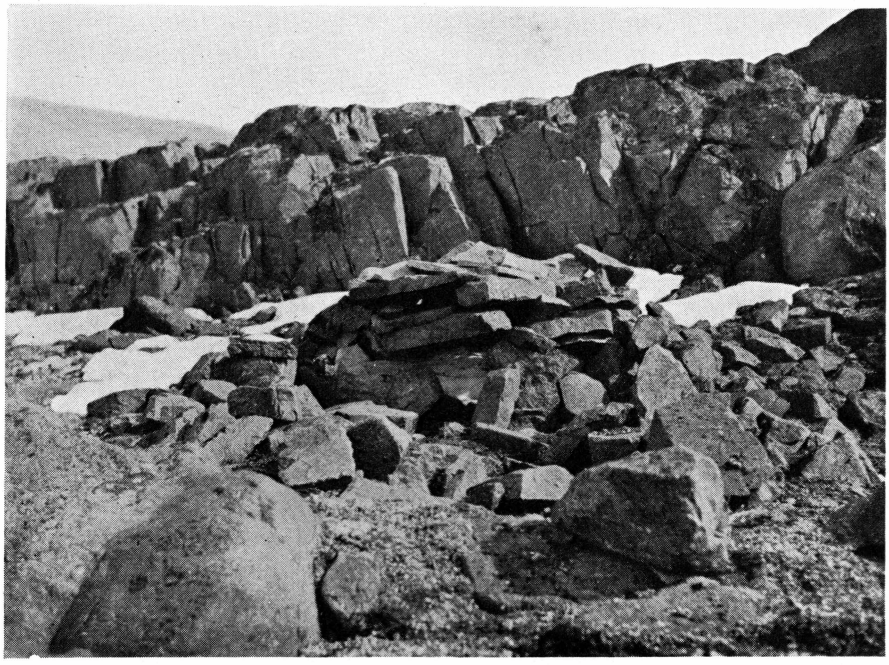


Fig. 16. Cape Russell. Structure of loose masonry inside House 3.

The walls of the house are in a fair state of preservation to a height of 0.5—0.75 m and with the stones in three courses. Both platforms and the floor are carefully flagged, though the edges of the platforms are not so well preserved; in the northern room there was only an irregular row of stones at the front, and in the southern room there was nothing but a single large stone at the middle.

Finds: L 3: 319—338.

House 3.

This house was not excavated it seemed to be a pear-shaped ruin, about 2×3 m and in very poor condition. Furthermore, in the rear part of it was a structure of loosely laid stones, measuring about 2×2 m at the bottom, presumably for storing meat (fig. 16).

Finds: L 3: 339—342.

Inuarfigssuaq.

Inuarfigssuaq is the largest of the old settlements on Inglefield Land, lying in lat. 78°53′ N., long. 69°5′ W. approximately, on a point which runs out northwards at the mouth, on the south side of Marshall Bay. The point consists of rounded areas of Pre-Cambrian rock, quite low out to the sea but increasing in height in towards the land. Among

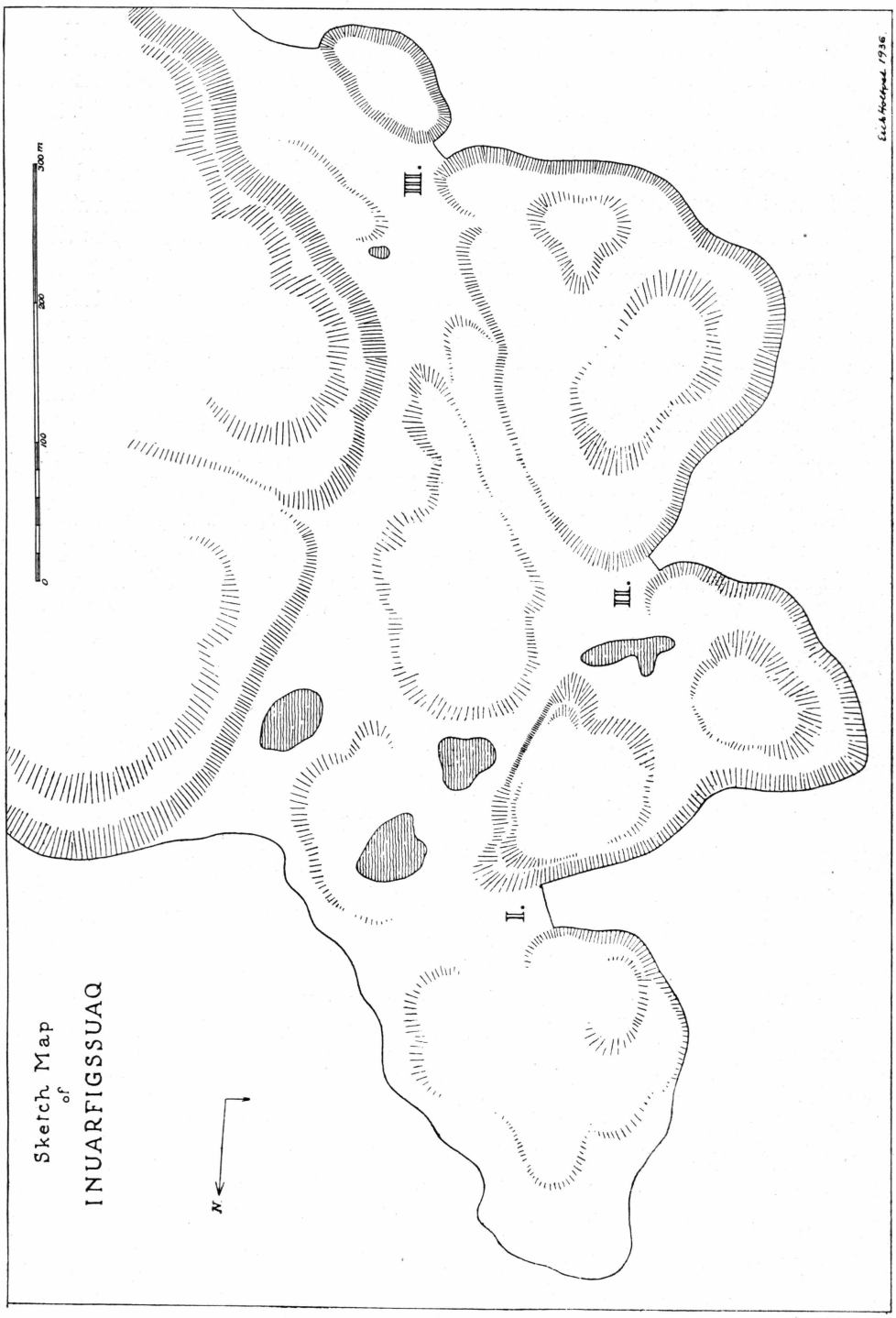


Fig. 17. Map of Inuarfigssuaq and the nearest surroundings.

the rock areas lie flat tracts with small lakes, or depressions with a vegetation of grass, moss, heather etc. Eastwards access to the interior is closed by a higher mountainous region, at the foot of which a narrow pass leads from the fjord out towards the sea side. As the map fig. 17 shows, three coves are cut into the west side of the point; they continue into the country between the rocks in the form of narrow depressions which slope evenly down to the sea; at these three places lie the ruins, called Group I, II and III. They were not all discovered at once, as the depressions were full of snow when work commenced, and to some extent their enumeration reflects the order in which they were taken in hand. Group I consists of Houses 11—21, Group II of 1—10 and 22, Group III of 24—30. There is convenient communication between the groups; from I to II a depression runs along a steep cliff, and another passage leads through a gully across the somewhat higher fell over to Group III. The distance between the groups is 200 and 300 m respectively.

On the low point north of Group I and on the stretch in towards the fjord lie some vestiges of tent-rings and kayak supports as well as numbers of meat caches, some of which are still in use; but *not a single grave* was discovered in the area; the only one we found was inside an entrance passage. A distance above Group I there is also a high stone used as a meat store, the top of which is levelled and made still higher with loose piled-up stones.

Group I. (Houses 11—21).

(Survey plan fig. 18). The 11 ruins lie on a smoothly falling declivity which extends in the form of a grassy belt about 20 m wide up between the surrounding rocks, which at the top rise only very little above the ground but down towards the beach increase in height and steepness in relation to the depression. The upper part of the ruin locality is very arid, and the ground everywhere consists of sand or fine gravel. In the course of time there has, it seems, been a considerable sand drift which almost covered some of the ruins. In some places there is a fill of fine, very hard grey clay, the presence of which is more difficult to explain. With one exception all the houses are orientated towards the beach, i. e. southwest; the uppermost house alone has its passage facing north, although the outer length forms a bend so that the opening itself looks west. The houses in the group will be described in numerical order without regard to typological considerations, which it will be better to leave for discussion later.

House 11.

(Plan fig. 19). This house lies about 2 m above the high-water mark; originally it was a double house with a main room about 2.25 m wide

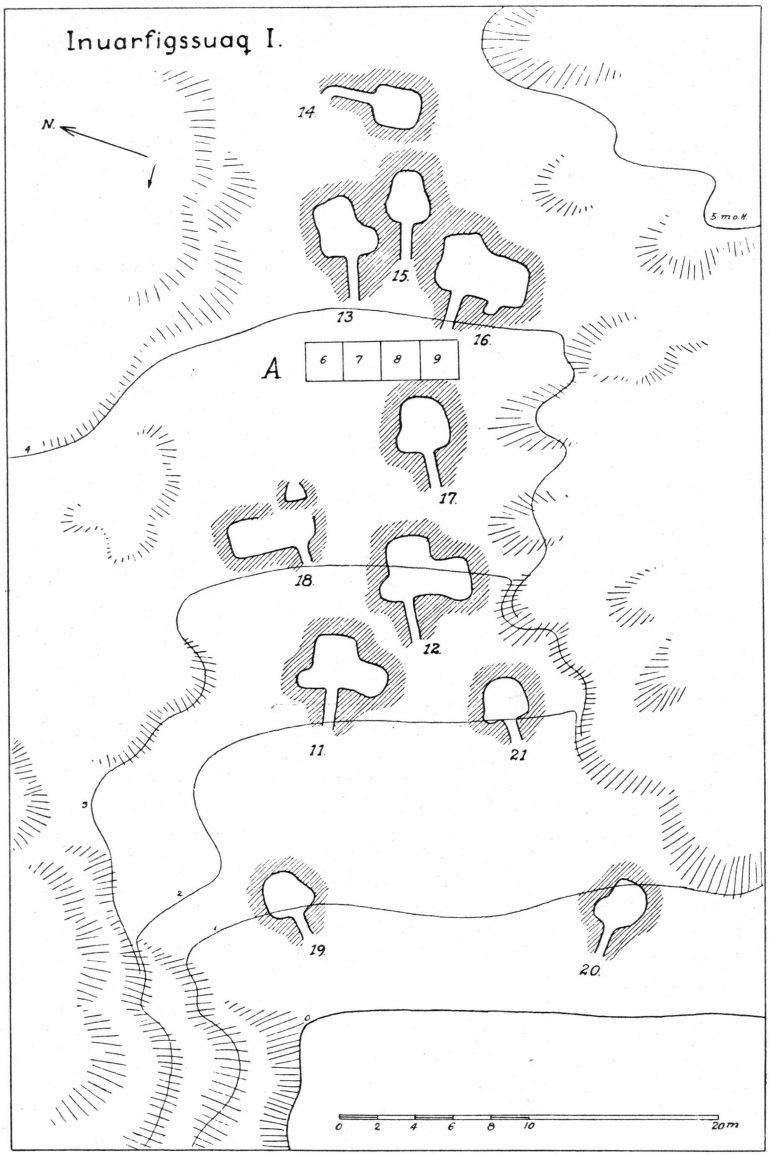


Fig. 18. Inuarfigssuaq. Survey map of Group I.

and 3 m deep, and a side room 1.7 m wide and about 2 m deep to the south, at right angles to the main room; the side room was subsequently cut off by a stone wall. In the north side in prolongation of the front wall are traces of a small offshoot. The passage, about 2.5 m long, leads almost at right angles in towards the middle of the main room. The house walls were obviously built of stones, some of them quite large, but most of them had fallen inside; the corner between the two rooms was formed

of a stone 0.7 m high. The inside was in very poor condition, as of the platform only a few stones remained about the northern locker, and on the floor lay a few scattered flags. Apparently the house had been washed through by meltwater, which found an egress through the passage, whence a channel ran down towards the beach. The locker already mentioned was full of sand, but under the sand was a bottom flag, some bones and the fragment of a harpoon head. The corner north of the passage was full of sand and clay, the latter especially being deposited in the small offshoot, where it had formed a stony mass that could only be broken up with much trouble; below the clay were traces of a dark culture deposit and bones.

It seemed as if the passage during the first habitation had extended a little more into the house than later, as its inner end was full of culture deposit. Judging from the threshold stones the last floor lay 10—15 cm above the first. The house contained a quantity of bear, hare and caribou hair and the passage a lot of baleen.

Finds: L 3: 1284—1389.

House 12.

(Plan fig. 19). House 12 lies directly east of House 11 and both in shape and condition is exactly like it. The main room is about 2.3 m wide and 3.25 m deep, with a small offshoot in the northwest corner, here too in prolongation of the front wall. The side room is about 2 m wide and 2.2 m deep; it looked as if the platform had been made somewhat wider at the rear, but this may have been due merely to the collapsing of the wall inwards. Inside the house was a large heap of stones which presumably had been used as a meat cache, but at any rate came from the wall masonry. The corner between the two rooms was formed of a stone 1.2 m high, now overturned; on the whole the interior of the house was simply chaotic, everything being choked in sand, and at the front there were only few flooring flags. Of the 2.5 m passage the inner part was in fair condition.

Finds: L 3: 1390—1428.

House 13.

(Plan fig. 22). House 13 lies a little higher up, 12 m behind house 12. This had also been a double house, with a side building towards the south, but the latter is entirely destroyed now, a more recent house (15) having been built over it. House 13 has not the usual offshoot at the front wall, but on the other hand the interior is widest at the front and narrows off rearwards; at the middle of the house the breadth is 2.5 m, the depth about 3 m. The passage is 3.5 m long and leads in towards the middle of the main room. The two parts into which the passage divides the front

wall are not in line, as the length south of the passage, nearest the side room, stands about 0.5 m further forward; as a consequence the passage is slightly curved. In the side walls, the front wall and the outer part of the passage some stones were still more or less in place, but the back

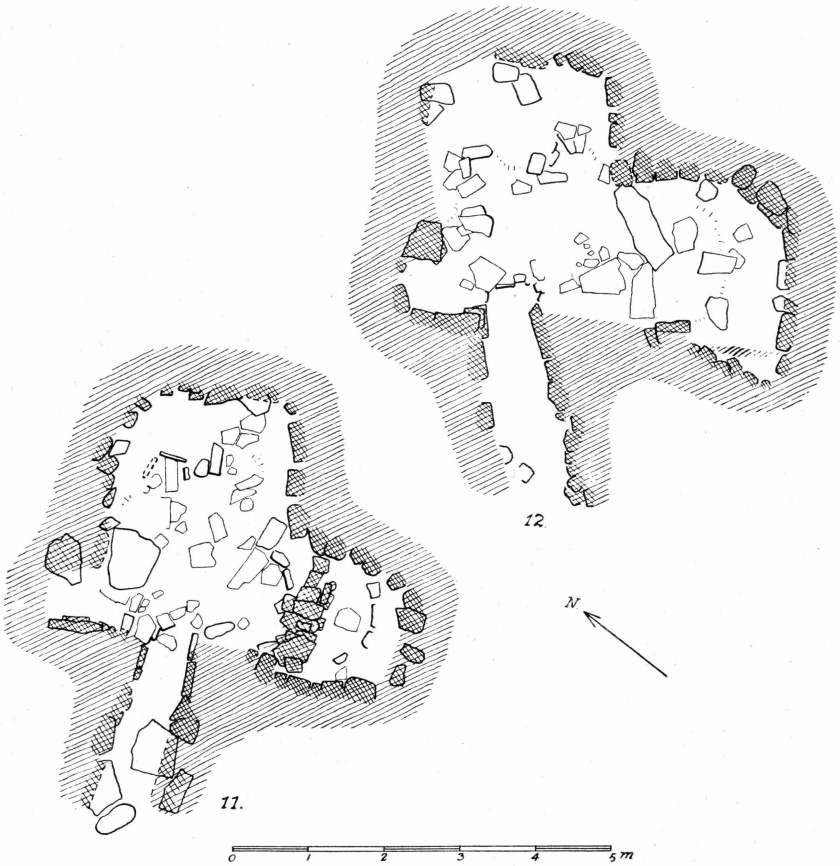


Fig. 19. Plan of Houses 11 and 12, Inuarfigssuaq.

wall had collapsed completely into the loose sand—if indeed there ever was much masonry at the back. Of the platform all that remained was the sand foundation and an occasional edge stone; in contrast, the flagging of the floor was rather well preserved. The top of the back mound rises only little above the terrain behind, and the surface of the platform is about 50 cm below the upper edge of this mound and 30 cm above the floor stones; the bottom of the passage is 30 cm lower than the floor; at the outside it runs straight out on to the ground.

Finds: L 3: 1429—1473 (a leg of a brass cooking pot was found in the passage).

House 14.

(Plan fig. 20). House 14 is the uppermost house of Group I, lying close behind House 13; it is a small foursided house with rounded rear corners, the breadth about 2.2 m and the depth 2.2 and 2.6 m, the two lengths of the front wall, like those of House 13, being out of line. There were no niches in the front wall. The house is in a poor state of preservation, only one or two stones being found in the walls and on the floor some small flags, whilst only a few small stones remained of the edge

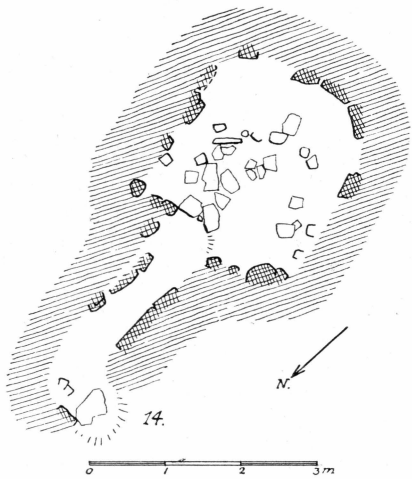


Fig. 20. Plan of House 14. Inuarfigssuaq.

of the platform. The passage runs mainly northwards, straight towards the rock lying opposite and shutting off the view; at the mouth, however, the passage forms a bend of 90°, so that the entrance itself faces west, down towards the beach. The ground on which this house lies is almost horizontal, so that it was necessary to dig the passage down for its entire length. The rear mound of the house is about 25 cm above the terrain, and the surface of the gravel platform is about 40 cm lower than the top of the mound; the threshold stone is about 20 cm lower than the platform. The inner part of the passage could not be measured with certainty, but at the outer end the bottom is about 55 cm lower than the surrounding terrain; a flat stone, now lying aslant at the mouth, was probably a sill-stone.

Finds: L 3: 1474—1496.

House 15.

(Section fig. 21). This house had been inhabited as recently as about 1925 by Panigpak (now dead), who drew some of the drawings in Knud Rasmussen's book "Grønland langs Polhavet". While we were there in

1936 it was again put in repair for use during the winter, and some of the whale ribs we had excavated from other ruins were used for the roof. The house has very thick turf walls and is built some way into House 13. The room inside, on the other hand, is very small, viz. 2.2 wide and 2.8 deep, with a passage 2 m long. It is of the "pear shape" characteristic of recent Cape York houses, with a stone platform at the back and lamp tables at the sides; only the latter were not intact, the house as a whole with its carefully bonded walls standing to its full height, which at the front was 1.3 m above the floor. In the top of the back wall at the middle was a whale skull—a reminiscence of Panigpak's

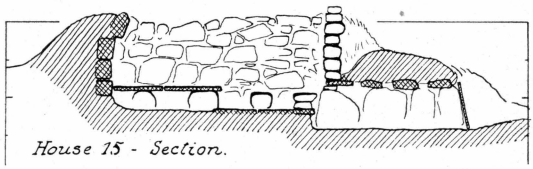


Fig. 21. Longitudinal section through House 15, Inuarfigssuaq.

sense of the decorative. Above the passage is a window in the front wall, and the outer end of the passage is closed by a wooden door.

Find: L 3: 1497.

House 16.

(Plan fig. 22). House 16 lies just south of House 15; it is a double house with the two rooms at right-angles and the passage almost towards the middle of the main room. This room narrows off slightly towards the rear, as was the case in House 13, and likewise there is no true off-shoot in the corner; but where the side room begins there is a small oblique recess in the front wall, like that in House 5 at Cape Kent. The total breadth at the front is 5 m, the depth of the main room is 3.2 m, and the breadth at the back of both rooms is 2 m. The passage is 2 m long.

In this site the aforesaid Panigpak had built a small store house (*serdluaq*) (fig. 23), a very carefully erected building of stones with a roof construction of caribou antlers. Over it all was a covering of turf, which in turn was laid with flat stones, so that it looked like a "pancake house". Only when this superstructure had been removed could we begin to excavate the site, which proved to be in a fair state of preservation, as the stone edging was complete except on the east side of the side room, which was nothing but sand. The front wall south of the passage was formed of a single stone, 1.1 m long and almost 1 m high, and in the adjoining side of the passage the stones were in place to a height of several courses. The floor-covering of large flags seemed to be

intact, and much of the edging round the platform lockers was in position. The platform edge in the main room lies 45 cm lower than the highest stone in the wall and 30 cm higher than the floor (the threshold stone). In the south room the platform is at the same level as that in the main room and 40 cm lower than the top of the south wall; but here

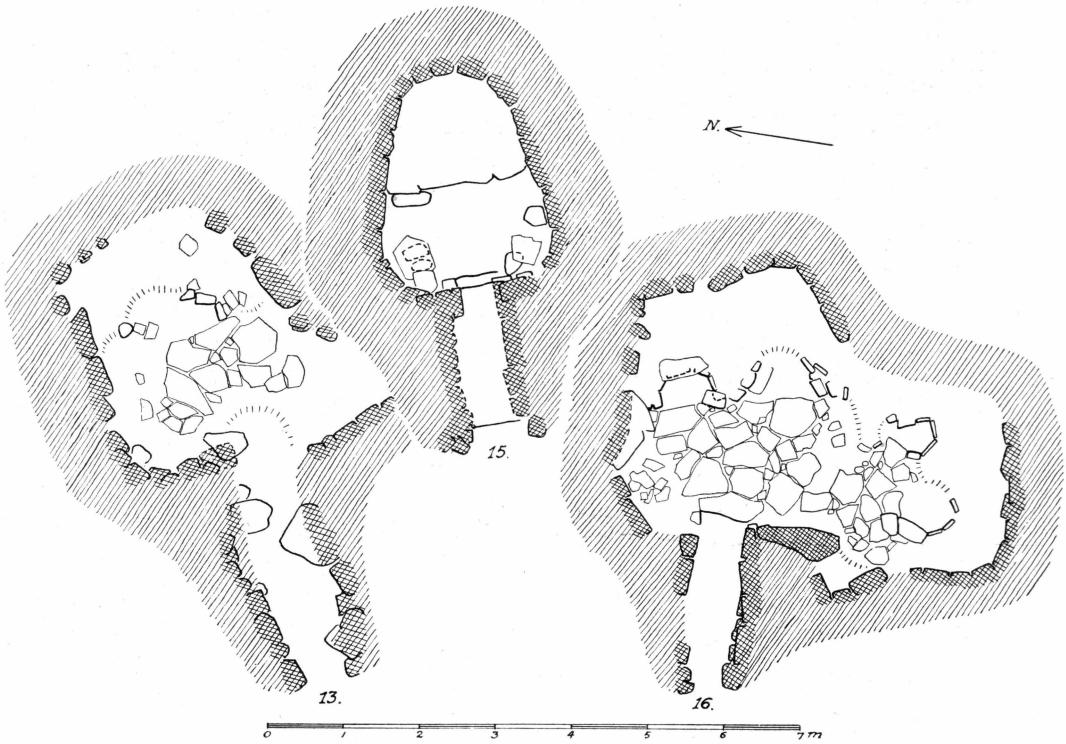


Fig. 22. Plan of Houses 13, 15 and 16, Inuarfigssuaq

the floor stones lie about 8 cm higher than in the main room; on the other hand the bottom of the platform lockers is 12 cm lower than the floor.

A sample excavation was made in front of Houses 13, 15 and 16, but only faint traces of a culture deposit were discovered—an indication that habitation here cannot have extended over any long period.

Finds: L 3: 1498—1571.

House 17.

(Plan fig. 24). This house, situated about 3 m in front of House 16, was a small and badly preserved ruin, full of collapsed stones. Nevertheless, excavation revealed a carefully laid flagged floor and a little of the edging of the south platform locker. The shape of the house had



Fig. 23. Small store-house in House 16, Inuarfigssuaq.

been rounded with an extension in the north side in prolongation of the front wall, and on this side there seemed to have been a gravel platform; the house measures about 3 m in depth and in breadth at the front.

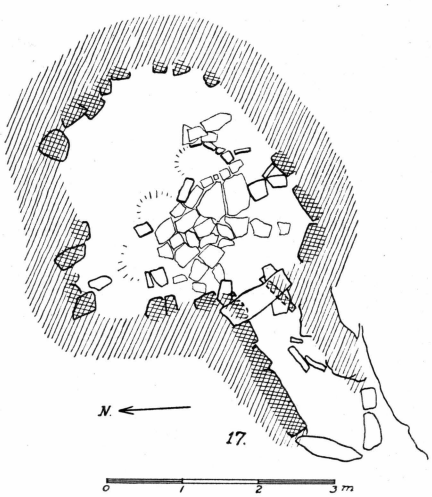


Fig. 24. Plan of House 17, Inuarfigssuaq.

The part of it in best condition is the narrow passage, 2 m long, running close alongside a low rock cliff, which however had been built up with stones in towards the passage; the innermost top-stone was in position.

A grave had been made in the passage, containing a few human bones—the only definitely recognizable grave on Inglefield Land (between Cape Ingersoll and Dallas Bay). In front of House 17 was a thin culture deposit which contained some artefacts; it extended in under the rear mound of House 12 in front, which accordingly must be of later date.

Finds: L 3: 1572—1653.

House 18.

(Plan fig. 25). House 18 lies about 5 m northwest of House 17. Prior to excavation there was practically nothing to suggest the presence

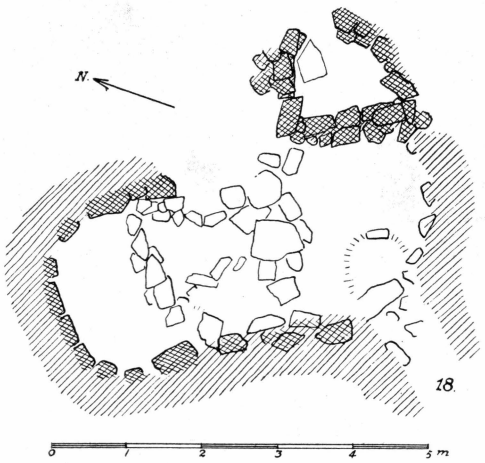


Fig. 25. Plan of House 18, Inuarfigssuaq.

of a ruin here, everything being covered with grass and moss, forming a flat surface. A row of stones seemed to be in such a regular line, however, that we uncovered the site to make sure, and under the vegetation then appeared a chaos of stones. The aforesaid row of stones was the front edge of a platform in the north room of a double house, the remainder of which was totally destroyed, apparently by sand-flow; not even the floor level could be ascertained with certainty. As the thawing of the ground proceeded we found in the southwest corner a moss-filled pit which continued outwards—undoubtedly the remains of the passage. Just north of its opening were deposits of clay which, as in the adjacent House 12, must have been precipitated by percolating water. It is rather a problem where this locally delimited clay can have come from; one is apt to assume that it came from the structural material of the house itself. The entire breadth of the house was about 5 m and the width of the north room 2 m; the dimensions of the main room could not be ascertained, but they must have corresponded to those of other houses of the same type.

On the probable site of the platform there was now a small store-room or the like, very carefully built with stone walls about 60 cm high; in shape it is almost triangular, with an opening to the east, as shown in the plan. The inside was full of moss, and prior to excavation the stones were invisible. To judge from the height of the north platform this small building must have been built at least 30 cm down into the sand before the lowest stones were laid; there is no doubt that it is very old, but of later date than the house itself. It may be a store-room of the kind mentioned by Mathiassen in House XXI at Kuk, "a tower-like store room", built at the side of the house[1]).

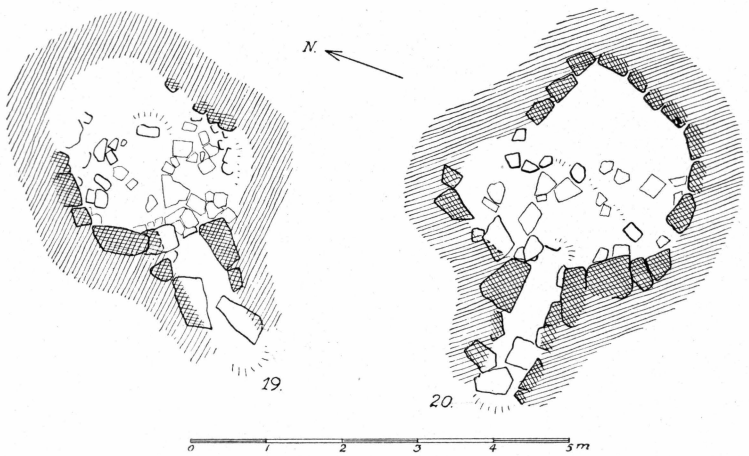


Fig. 26. Plan of Houses 19 and 20, Inuarfigssuaq.

House 19.

(Plan fig. 26), lies about 3 m from the beach at the northern corner of the little cove, and only 1 m above the high-water line. The site was almost invisible on the ground, but excavation revealed remains of relatively thick masonry at the passage and in the northwest side; except for these places, however, practically nothing of the walls remained. The house is dug down into the sand, and at the back passes insensibly into the terrain, so that no demarcation could be found at all. Some of the flat stones must have formed part of the floor paving, and one or two other stones suggested the position of the platform edge. As far as could be judged the house had been almost pear-shaped, with some extension in the south corner. The breadth at the front had been about 2 m, and the depth may be estimated at about 2.5 m. The passage, which points down towards the beach and is below ground along its whole length, is set with stones only for a length of 1.5 m, but the trench continues for another 0.75 m forward. The difference in the ground

[1]) Mathiassen 1927 I, p. 252.

levels behind and in front of the house is 50 cm. The floor-stones in the front part of the house lie at about the same level as the present terrain outside, and the inner part of the passage is about 25 cm lower. The top of a large stone in the west side is 56 cm above the floor and level with the ground behind the house.

Finds: L 3: 1698—1714.

House 20.

(Plan fig. 26) is still nearer the water and lower than House 19. Here too there was a suspicion of a stone circle in the grass and a faint

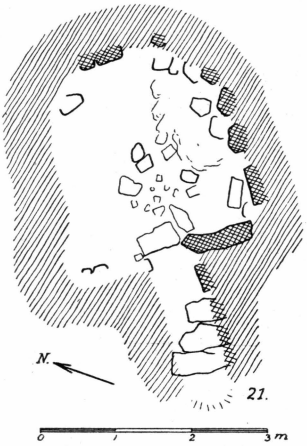


Fig. 27. Plan of House 21, Inuarfigssuaq.

depression in the middle. The stones proved to be continuous almost right round the house; on the north side, where there was a small extension, there was a short gap in them. As in House 19 large stones had been used for the front of the house, whereas at the back they are small and low and seem merely to form a border round the platform. The house is curiously awry in outline, one corner at the back being a right angle, the other rounded. The breadth across the middle is about 2 m, the depth about 2.7 m, and the passage is 2 m long; this passage is trenched along its whole length and at the inner end the bottom is 40 cm lower than the floor of the house. The large corner stone in the south side of the passage is 86 cm high. The inside of the house was completely destroyed, everything being mixed up in sand, and only some few flags indicated the height of the floor and platform; the difference between the two was only 14 cm, and the platform lay 40 cm lower than the ground behind. A few finds were made in a thin culture deposit in the southwest side of the house.

Finds: L 3: 1715—1728.

House 21.

(Plan fig. 27). This ruin, which appeared merely as a slight depression in the ground, lies about 10 m higher up than House 20, at a height of 2 m above the high-water line. The only place where any stones were left was in the south part, the best being in the corner at the front wall, where the entire south part was formed of one large stone, which had a height of 50 cm above the also well-preserved threshold stone. Nothing was left of the north side, so that one could only guess at the course of that wall. The house is built so close up to the rock area that an outcrop of it inside the house formed part of the platform, which otherwise is of sand. The part of the house that is left has a right-angled corner at the front, whereas at the back it is rounded; it is probable that there was a small extension in the corner in the north side. The breadth of this house may be estimated at 2.3 m, the depth is 2.5 m and the length of the passage about 2 m.

Finds: L 3: 1729—1763.

Group II. (Houses 1—10 and 22).

(Survey plan fig. 28). These 11 ruins lie on the grass and moss-grown slope running about 50 m inland from the small cove. Nearest the beach the rocks close in on both sides, but above the ground is flat and to the north forms a wet meadow with a lake, the surface of which is almost level with the terrain. The rocks are higher on the south side, where there are three meat caches built into clefts. On the north side the rocks are lower and more rounded, and here too are meat-caches or storerooms, one of them being under a large block. The uppermost houses lie on the flat ground; at about the middle of the group the fall is steepest, whereafter the ground slopes smoothly down towards a small bluff at the beach. The ground everywhere is covered with thick moss and was very wet throughout the summer, as the ruins prevented drainage after the snow melted.

House 1.

(Plan fig. 29) is nearest the water, with the passage entrance right out in the bluff on the beach. The ruin was quite impressive with its thick turf walls at the front, covered with luxuriant grass; the inside seemed to be in a poor state of preservation, however, being full of collapsed stones, and the ground round about the passage had collapsed somewhat, the water from the melting snow having found an outlet through it and caused it to slip. The first impression of the house was that it was the youngest of the group. Excavation showed that only few stones were in their original position in the wall, and the best

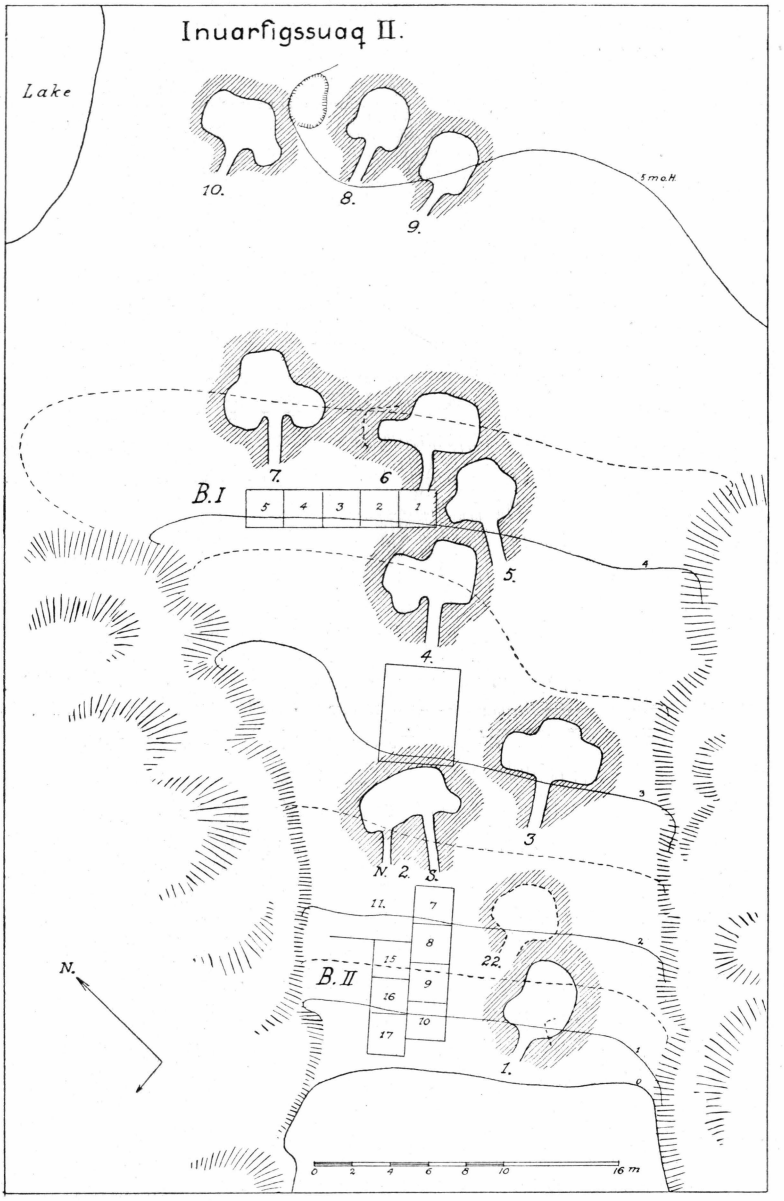


Fig. 28. Survey plan of Group II, Inuarfigssuaq.

preserved were the parts in front of the platform edge. Nevertheless it could be seen that the house had been rounded in shape with an extension of the northern front corner, where the stones indicated that there had also been a small platform. The breadth of the house across the middle is 3 m and the depth about 3.5 m; the passage, which runs in at the middle of the front wall, is 2.5 m long. The house was built on

rather falling ground, the difference in the height back and front being about 1.5 m, which explains the high mounds at the front, whereas the back is almost level with the ground. The back of the platform is of gravel, but at the front are remains of a structure of heavy stones which at the same time bordered two lockers, and behind these it is filled up

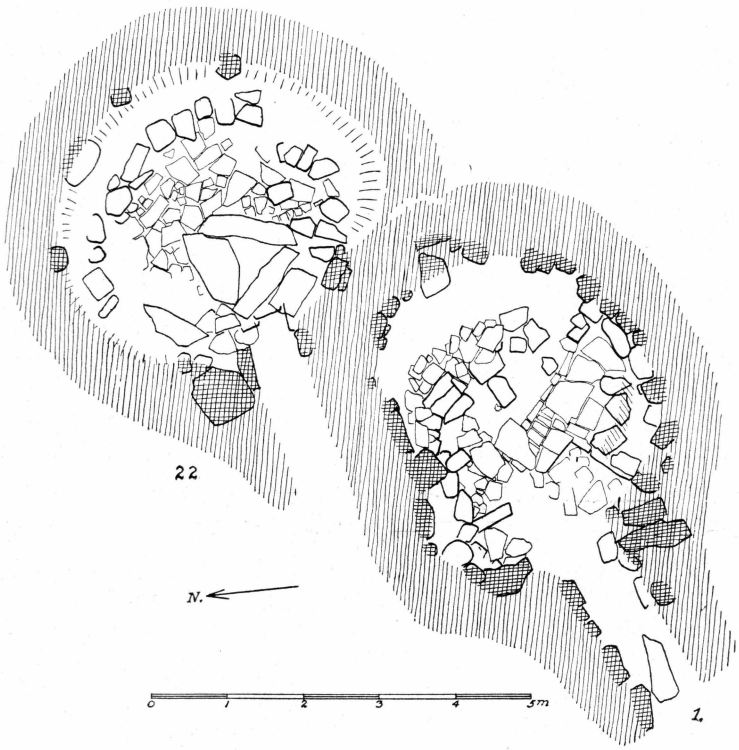


Fig. 29. Plan of Houses 1 and 22, Inuarfigssuaq.

with small stones and flags. Part of the floor in the middle of the house is in good condition and consists of a very carefully laid flagging; but nearest the passage it was destroyed.

The manner in which the floor-stones were laid made it presumable that originally they belonged to another house, the entrance of which reached in almost to the middle of the present one; and in fact an examination showed that some of the stones were placed downwards and made a framework around the inner end of this passage, while two stones at right angles to them formed the original threshold. The two passages lie at an angle of about 25°, and as the earlier one thus ran in under the thick turf wall, it was impossible at the time to excavate it completely.

There were other indications of an earlier habitation; for in the back wall we found a 10 cm culture deposit containing inter alia objects of Cape Dorset type (a Cape Dorset harpoon head (L 3: 389) was also found in the old passage). The culture deposit lay directly on the excavated gravel in the lower part of the mound, and over it lay again a covering of gravel of the same kind as the one underneath; then followed the turf layer. The upper layer of gravel apparently came from the erection of the present house, but the circumstances showed that the culture deposit could have nothing to do with the house lying immediately above, House 22; rather is it the remains of an old midden which had been turned over when House 22 was being built—or it came from the earlier House 1 and, when that house was being cleared out, was thrown up into the mound behind, which presumably was quite low. Whatever may be the explanation, the evidence is at any rate that people with Cape Dorset culture lived here at a relatively early date.

Finds: L 3: 347—391; under rear wall: L 3: 392—417.

House 22.

(Plan fig. 29) was not discovered until late summer, as the sample excavations between House 1 and House 3 above it gave no other result than mossy turf, which here formed a covering about 0.5 m thick but contained no trace of culture. When examining some stones just behind House 1, at first assumed to be a meat cache, some flags came to light and, with the progressing thaw, an entire flagged floor. The excavations were continued out to the sides, but we could find no stone wall; all that could be established was that the gravel bottom rose and once formed platforms on three sides; in the east and south side there were also some stones from the platform edges. In the west side of the house, nearest the passage, lay a heap of large stones, of which the largest are shown in the plan, and the inner end of the passage was flanked by two stones. The passage runs close alongside the north side of House 1 and could not be excavated. Thus the shape and size of the house cannot be determined with certainty, but it seems to have been round or cloverleaf shaped, about 4.5 m in breadth and 3.5 m in depth. Inside the house were a number of bone splinters, mostly caribou bones, but only few artefacts.

Finds: L 3: 1764—1782.

House 2.

(Plan fig. 30) lies on the north side of the depression, about 3 m from the rock and at a height of about 2.5 m above the high-water line; the distance from the beach is 10 m. The ruin, which was in a bad state of collapse, contains two houses, each with its own passage, called

N and S. In towards the house the north passage was found blocked with large stones, so that Passage S is apparently the later of the two; no partition wall could be discerned inside the house, however, so it would seem that during the last habitation it had a length of about 4.5 m and a depth of about 2.75 m. In the south corner is a small offshoot which, with its masonry 0.7 m high, belongs to the best preserved part of the house. It was difficult to determine the rearward limit of the

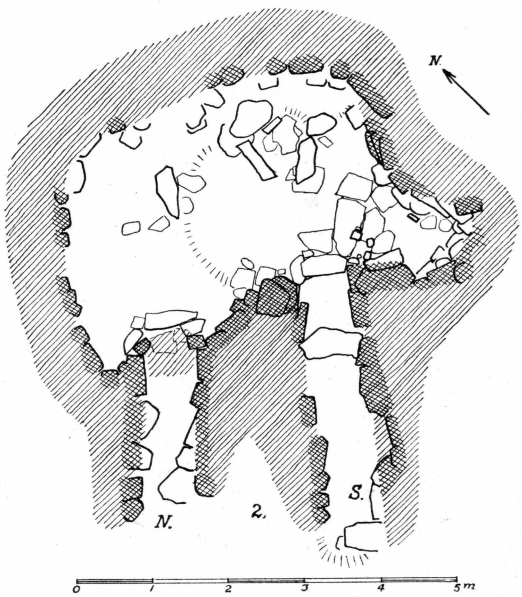


Fig. 30. Plan of House 2, Inuarfigssuaq.

house, especially on the northwest side; the probability is that it narrowed off somewhat like the usual angular double houses, and the plan rather indicates the boundary of the earlier, northwesterly house. In both passages the threshold stones were in position and it was possible to trace the extent of the last floor to be laid; it lies slightly lower than the earlier one in the west end of the ruin. Down towards the east wall at the back were the remains of a platform structure, whereas nothing of the kind could be seen in the west part of the house, and on the stretch between Passage S and the east wall, in front of the offshoot, lay the remains of a well-laid flagging.

Passage N has a length of 2.5 m, Passage S about 3.5 m; the latter is dug down into the ground along its entire length, and innermost the bottom is 50 cm lower than the threshold stone; in Passage N the depth at the same place is 35 cm. The top of the rear wall lies 30 cm higher than the ground behind and 1 m higher than the threshold stone.

In the east part of the rear wall, belonging to the later section of the house, a midden deposit containing Cape Dorset culture extended in under the turf wall in continuation of the midden behind the house from House 4, which consequently is earlier than House 2. S.

In front of House 2 under the covering of grass turf was a midden deposit, about 20 cm deep, of considerable extent, called Midden B. II (fig. 28, squares 7—11 and 15—17). The depth of the deposit decreased gradually towards the beach, but it could be followed right out to the bluff; to a great extent the contents of this midden were objects of Cape Dorset type. Just in front of Passage S a gravel bed intruded into the culture deposit, but about 2 m in front of the passage the gravel thinned off, and it was impossible to find any marked difference in the content of the deposit over and under the gravel. This gravel must have come from the excavation of Passage S, and most of the midden deposits must be earlier than this passage. Thus House 2 lies literally dug down into a Cape Dorset midden, as beyond doubt there is a connection between the middens in front of and behind the house; at any rate they must belong to the same period. However, Cape Dorset forms were also found inside House 2, but it could not be determined whether they had been used by the last inhabitants or they came from an earlier house; it seems probable that both House 2. N and House 2. S belong to a period with a distinctly Cape Dorset infiltration. Here as elsewhere it was impossible to distinguish quite between Cape Dorset and Thule cultures, but the overwhelming quantity of Cape Dorset artefacts in the midden shows very clearly that there was a separate phase here.

Finds: L 3: 418—520; Midden B. II: L 3: 521—549 and 2121—2279.

House 3.

(Plan fig. 31), just east of House 2, is a house with three rooms, each with its platform. The passage runs almost at right angles into the middle of the front wall, whereby the entire block becomes cruciform. The interior was full of a chaotic confusion of collapsed stones, but our excavation proved the house to be in a fair state of preservation after all; except for the corner stones, however, the back wall had all fallen in, and the platform structure in the middle room was in bad condition. In the side rooms all the stones that had borne the platform flags were in position, and quantities of objects were found in the spaces between them. The floor covering consisted of large carefully joined flags, and a large whale rib lay in the middle of the house. In the east side of the room on the north the rock juts out, and the rear of the platform consists of gravel filled up with flat stones; the same was the case in the middle room, whereas in the south room the entire platform was built up from the floor. In front, too, on the south side of

the passage, a rock in situ played an important part in the construction of the house, for it forms the wall half way along the passage and the adjoining part of the front wall. The house has rectangular corners.

The total breadth (or length) of the house is 5.2 m, the depth at the middle about 3 m, and the breadth measured along the platform edge in all three rooms is about 2 m; the passage is 3.5 m long. At the back the top of the wall is level with the ground, which there is 1 m

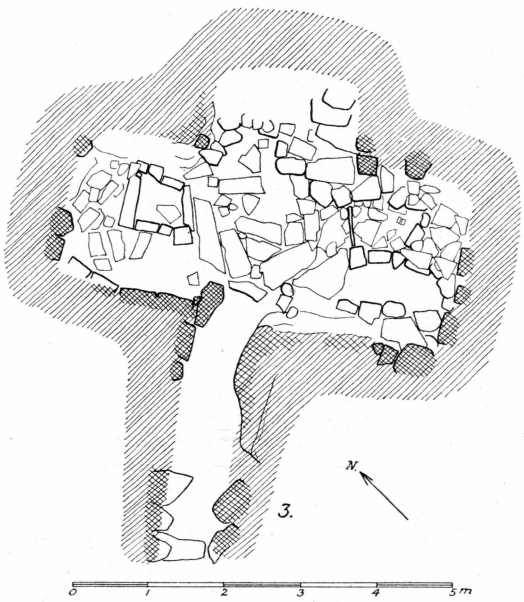


Fig. 31. Plan of House 3, Inuarfigssuaq.

higher than at the entrance to the passage, and the threshold stone is level with the ground in front, so that the passage is lower along its whole length. The top of the platform supports in the middle room are 30 cm higher than the floor, in the north and south rooms 21 and 23 cm respectively.

Finds: L 3: 548—638.

House 4.

(Plan fig. 33) lies about 22 m from the beach and 3.5 m above the high-water line. In front the ground is almost horizontal, but rises rapidly at the back, so that the rear, easterly, part of the house could be dug into the slope; when excavations commenced this part of the house proved to be full of collapsed stones in contrast to the west part, where conditions on the whole are very unclear and the line of the walls difficult to establish; the cross-hatched stones on the plan indicate what

may be regarded as "definite" building stones. It appears that in the main the house was of the double form with the two rooms lying at right angles, with a total breadth of 4.8 m and a depth in the main room of about 3 m; the breadths measured across the platforms are 2.2 and 2 m respectively. The passage is about 3 m long and runs in at right angles, so that its north wall is almost in line with the north wall of the main room.

The feature that gives the house its peculiar shape, however, is the construction of the front part. In the south side the front wall forms a forward curve, thereby giving the room an extension reminiscent of those in the Cape Kent houses. North of the passage there is also a forward offshoot, but it is so large that it must be regarded as an extra room, about 1.8 m wide and 1 m deep (possibly 1.5 m); it contained no flags, but some stones lying inside are presumably the remains of a platform; right inside the supposed front wall at the top there was also a flat stone, which may have formed the rearmost part of the same platform. In the north side of the offshoot was a distinctly rectangular corner, so the entire complex might actually be regarded as a combination of two rectangular double houses. The result is, however, that the passage projects far into the house and along a stretch of over a metre it is separated from the west room only by a wall of large stones laid singly.

Most of the platform in the main room remained, except for the greater part of the covering flags, and at the front it contained two commodious lockers; the height of the platform above the floor is about 40 cm, and its surface lies 1.25 m lower than the top of the back wall; the latter, however, was presumably lower at one time but was heightened by the building of House 5 behind. At the south side wall were remains of a lamp table. The small offshoot at the front is separated from the house floor by a flat stone placed on edge and no doubt was the larder.

In the north side room there was not much left of the platform, which rose in the form of a mound of gravel about 35 cm high, on top of which to the rear lay a single large flag; a small number of stones towards the front presumably formed part of the platform edging. The floor covering was preserved in its entirety and consists of large flags with the intervals filled with smaller stones. The passage is dug down all the way; at the innermost end the bottom is about 50 cm lower than the floor, and a stone-built cavity extends in under the threshold stone; at the other end the passage slopes upwards a little towards the ground in front. Inside the house we found a quantity of heather and bear hair, and all the platform lockers contained accumulations of bones etc; in the passage was a whale rib, around the middle of which were a few loose turns of baleen cord.

The excavations brought to light the fact that this house was built in old culture earth; it is true that the builders dug down to the gravel bottom, but the lower layers of the walls on the north, east and south sides consisted of culture earth with many bones, over which the turf wall was built up. The suggestion is that here lay a midden, which must have been formed in front of a house lying higher up; the contents of a number of squares (1—5) excavated behind House 4 were undoubtedly connected with it. The culture deposit in these squares was not particularly thick and it was mixed with gravel and shingle; but it increased

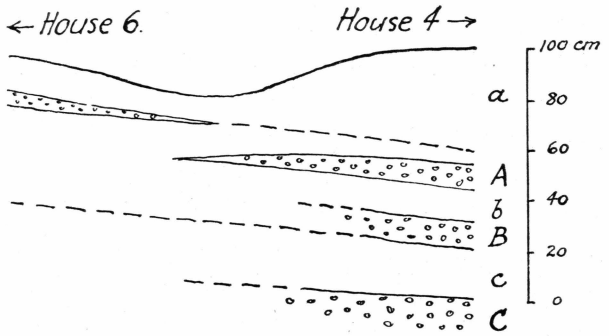


Fig. 32. Stratification in back wall of House 4, Inuarfigssuaq.

in thickness towards Houses 4 and 5—and inter alia contained Cape Dorset artefacts. For the purpose of throwing further light on conditions here the rear wall of House 4 was dug away at squares 1 and 2. The stratification found is to be seen fig. 32. Directly over the gravel bottom (C) lay a culture deposit (c) about 20 cm thick, then 10—15 cm of shingle (B), followed by a denser culture deposit (b) which, up against House 6, is mixed with shingle, and over this again shingle (A); it is here that the turf wall begins (a), the lower part also containing culture of a nature similar to (b), i. e. it is full of bear hair and contains many caribou bones as well as a number of fox skulls. Nearest the passage into House 6 is a thin layer of gravel lying over the bone deposit (b), presumably from the building of the youngest of the houses occupying the site of House 6, or House 5 which presumably is still younger, whereas the lower culture deposits must have come from an earlier habitation, of which actual traces were discovered during the excavation of House 6, as will be described below. Now seeing that the culture deposit under the rear wall of House 4 is interrupted no less than twice by layers of shingle, the most natural assumption is that the upper shingle layer came from the last House 4. In that case the culture deposit (b) with the bear hair etc. would extend over an earlier site, which is represented by shingle

layer (B), and this again must have been dug down into a still earlier midden (c) which, as already said, contains Cape Dorset culture.

The ground in front of House 4 was covered with thick moss and lay under water most of the summer. At a fairly late juncture it was found, however, that there was a midden deep under the moss-turf; when describing House 2 it was mentioned that the midden extended in under the back wall of this house. Owing to the slow rate of the thaw, however, I was unable myself to excavate the whole of this midden to the bottom, but the work was continued during the following summer under my directions by my assistant Maigssánguaq, with the expected result that the number of Cape Dorset relics increased with the depth. Thus there is every reason to believe that this period with its Cape Dorset character was the earliest in this locality.

Finds: L 3: 639—745; midden, upper layer: 746—792, lower layer: 793—800, and 11968—12018.

House 5.

(Plan fig. 33) is the best preserved house in Groupe II. It is built in between Houses 4 and 6 in such a manner that it is presumably later than both. In shape it is almost round, with an offshoot at the west side in prolongation of the front wall. Across the middle the breadth is about 3 m and at the front 3.8 m including the offshoot; the depth is about 3.5 m. The passage runs towards the middle of the house and along the wall of House 4. The walls of the house were in a fair state of preservation, especially in the west side, to a height of about 1 m above the floor. The floor had two layers of carefully jointed flags, but there was no actual culture layer between the two. Over the floor, however, was a deep deposit which also contained large quantities of bear hair, and in front of the platform lay a whale rib 1.3 m long; on floor and platform there was also a thin layer of heather. In the west side of the house especially a thick layer of blubber lay over the floor and down between the stones; indeed, everything in the house was thick of blubber.

The back part of the house, the part under the main platform, was dug deeper down into the gravel than the floor, and directly on this gravel bottom were some large stones which carried the platform flags, almost all of which were preserved (see the plan); the depth of the platform (from front edge to back wall) had been 1.75 m. The surface of the platform is about 50 cm higher than the floor stones. Thus it is an unusually high platform, and the two lockers under it were very commodious. At the rear the large platform flags rest on the ground, and directly under them there was a deposit containing bones and bear hair—just as in the midden deposit west of the house, as already described. This is

clear evidence that House 5 was also built down into the old midden. At the west end of the platform a small niche was made in the wall,

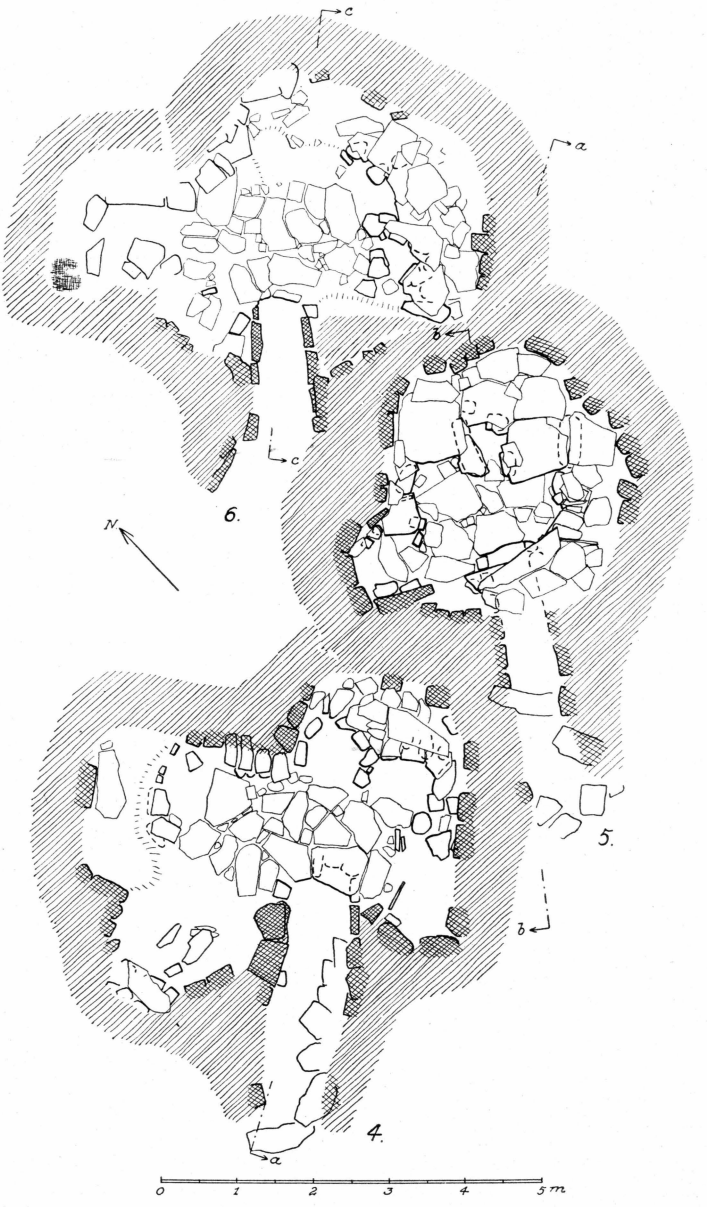


Fig. 33. Plan of Houses 4, 5 and 6, Inuarfigssuaq.

in which lay a small knife with an iron blade (L 3: 819) and two large fragments of a soapstone cooking-pot.

From the east end of the main platform a narrower one runs along the side wall and right along the front wall *above* the passage. This

platform is also covered with flat stones which mostly lie on the gravel, except across the passage where the long platform stones simultaneously act as roofing stones, and in towards the floor where an edging was made of stones piled one on top of the other. As the passage thus is made to reach about 1 m into the house, a small corner is made between it and the front wall, where the larder was; here was a thick layer of hard blubber.

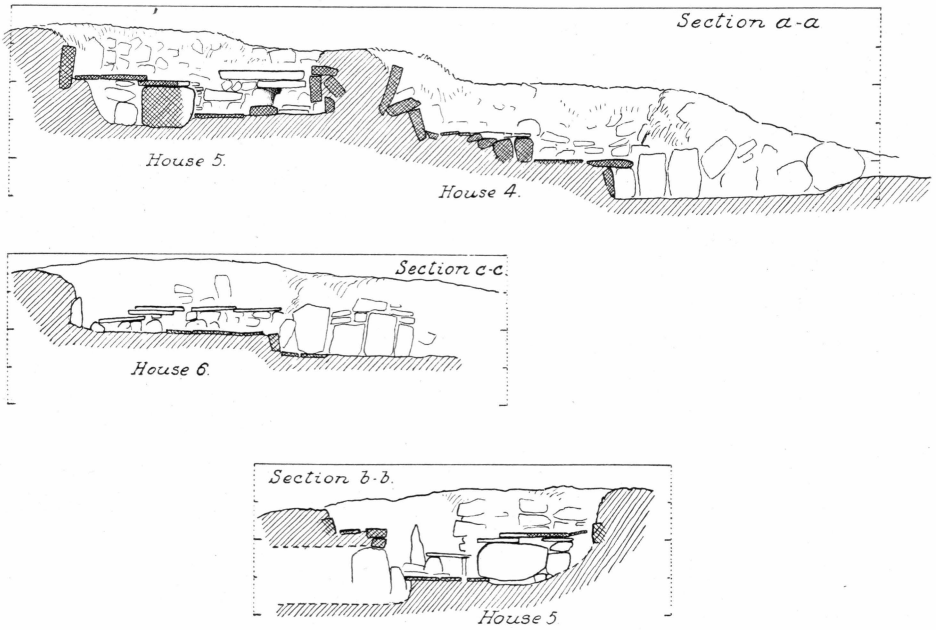


Fig. 34. Section through Houses 4, 5 and 6, Inuarfigssuaq.

From the west end of the main platform there is also another which must have served as a lamp table; it consists of flags resting on tall stones and has a width of up to 50 cm; at its foremost corner stood a pointed stone about 70 cm high. In the little offshoot, too, there seems to have been a flag table, somewhat lower than the lamp table, as in the houses at Cape Kent.

Owing to the depth of the house and its peculiar construction it was rather long before it was possible to ascertain where the passage was at all, and it was beyond our power to excavate it; its length is about 3 m from threshold to mouth. No midden could be found in front of it.

House 5 must have been of one form only, but the two layers of floor-stones suggest two different periods of habitation, and the thick culture piled together under the platform, especially in the west side of the house, must have come from the last "spring cleaning", after which



Fig. 35. Inuarfigssuaq. House 5 after excavation.

the upper flagged floor was laid. It is also very probable that the many flags in the house were taken from others round about, which further strengthens the supposition that House 5 is the latest.

Finds: L 3: 801—909.

House 6.

(Plan fig. 33) lies to the immediate north of House 5. The ruin had a very irregular appearance, due partly to the falling in or destruction of the walls, partly to the house having been washed through by water; here again it was difficult to see at first where the passage was. Excavation showed that only very few stones remained in the walls, which, especially on the north side, could not be traced with accuracy. As the plan shows, there had been a main room measuring about 4 m in width and about 3 m in depth and with an offshoot at the front on the north-west side; there is another offshoot on the north side of the passage, which is thus made to extend 1 m inside the house in the same manner as in Houses 4 and 5. What the position was on the south side of the passage is not quite clear; here the gravel bottom formed an elevation which may have been a platform, and more to the front was a row of stones which may have belonged to the inner wall. However, the building of House 5, which is dug a little way into the wall of House 6, has certainly helped to destroy this part of it. As will be seen later under the

description of the houses at Thule, it is not improbable that this extension south of the passage formed part of the house interior, nor is it entirely out of the question that the platform extended right across the passage as in House 5. The total length of the passage seems to have been only about 2 m, although some stones are lying in front in its projection; it is doubtful, however, whether it was covered over here.

The floor of the house proved to be well flagged, except that the water had displaced some of the stones. Along the whole of the east and south side was a platform, fairly well preserved on the south side with supporting stones and most of the covering flags; in the north side, up against the back wall, the platform had been dug into the gravel bottom. At the site of the platform lockers there was quite a pit in the floor, full of blubber, in which was found i. a. a large seal flipper. The lamp table was presumably at the north end of the platform, and it is possible that the gravel bench on the south side of the passage also served to hold a lamp.

The arrangement of the stones in the north offshoot indicates that this erection can only have been about 1.2×1 m in extent, and the one on the north side of the passage appears to have been something like the same size; here were some floor-flags right forward to the front wall. Right in under the turf wall of the house in the northwest side was a fireplace which cannot have had anything to do with the present house, but must date from an earlier settlement; however, conditions here were so chaotic that they defied clarification; but it is probable that the fireplace was more likely connected with the lower culture deposit mentioned under House 4. The back wall of House 6 rises about 40 cm above the terrain behind, and the south side wall is 60 cm higher than the ground outside, which again is on a level with the surface of the flagged platform; the latter is 33 cm higher than the floor-stones.

As was the case in Houses 4 and 5, the culture deposit here is full of bear hair, presumably from the earlier culture layer in which all three houses are built. Just in front of the projecting corner in the north side, at the entrance to the side room, there still lay a whole row of hares' feet; it is tempting to think that they were placed there as amulets, or for some cultic purpose.

Finds: L 3: 910—1051.

House 7.

(Plan fig. 36) was also a ruin in a bad state of collapse, with but few stones left in the walls; by following the old carpet of moss in the bottom the fact could, however, be established that the house had been of an almost regular clover-leaf shape, the stalk being represented by the passage, 3.5 m long. The greatest dimension of the house was the width,

5 m, and the distance from the innermost large stones in the passage to the back wall was 3.5 m. The situation of the two side rooms in relation to the passage again causes the latter to extend about 1 m into the house; one of its roofing stones is preserved. In the middle of the house was a well-laid flooring of flags, and a little of the floor was also in position in front of the built-up flagged platform in the south room, where the platform supports proved to be resting directly on the gravel bottom.

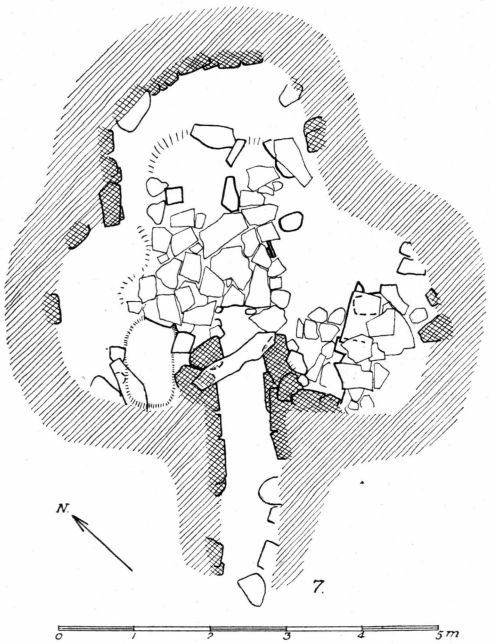


Fig. 36. Plan of House 7, Inuarfigssuaq.

Of the main platform all that remained was the gravel elevation, together with a few stones; under one of the flat stones lay a curious curved knife of musk-ox horn (pl. 18.2). In the north side too the gravel bottom was slightly higher than the floor, where it was permeated with blubber. In the corner between the projecting north wall of the passage and the front wall was a pit in the floor, over 1 m long and 0.6 m wide, full of blubber and greasy earth; in it was some baleen line and among other things a large mattock; the pit extended a little way in under the floor stones. In the passage lay a musk-ox skull. Here as in the three foregoing houses there were quantities of bear hair everywhere, some of it new in appearance. The culture deposit inside the house was very rank and contained a number of baleen and flint objects; in the north and east side especially it was distinctly limited to the house, but in places the turf wall had the character of upturned midden.

Finds: L 3: 1052—1168.

House 8.

(Plan fig. 37) is the middle one of three small houses lying uppermost in Group II, about 8 m higher up than House 7, on the almost horizontal ground just south of the small lake. The ruin was very dry and partly overgrown with dwarf willow, and its wall-mounds were only about 20 cm higher than the surrounding terrain. In shape it is a rounded rectangle with a breadth of 2.5 m and a depth of 2.8 m. The northern

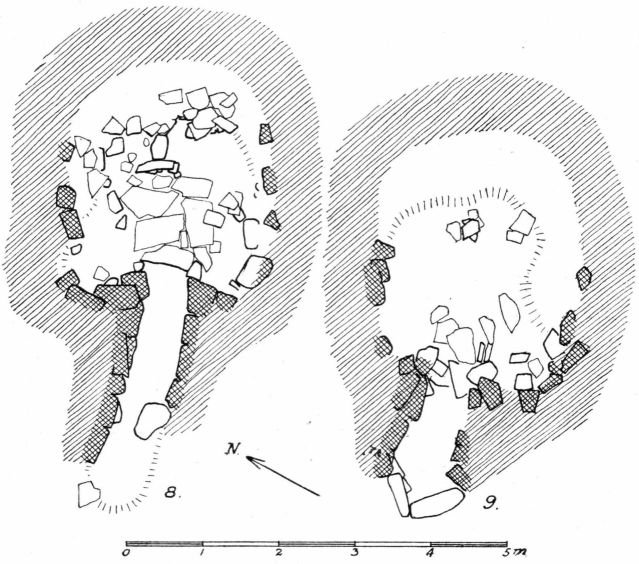


Fig. 37. Plan of Houses 8 and 9, Inuarfigssuaq.

front corner seems to have been widened a little; the southern one is almost a right angle. Very little was left of the masonry of the walls—at the back nothing at all; the front wall and the passage were in best condition. The passage leads in at the middle of the front wall and is sunk along its whole length—3 m. On the north side its stone wall is 2.5 m long, on the south side about 0.5 m shorter. The floor of the house, of large flags, was in good state; over these flags was a partial fill of smaller flags, under which were quantities of wood and whalebone shavings, and a large whale bone lay on the floor. The platform was built in the gravel with two excavated lockers, and a little of its front edging of stones remained. A number of objects were found in the lockers, including the fine quiver handle pl 12.12, a fragment of a Cape Dorset foreshaft (L 3: 1221) and a small lump of copper (L 3: 1220). The surface of the platform was about 50 cm lower than the top of the rear wall and 27 cm higher than the floor.

In front of the house were faint traces of culture deposit, and a whetstone as well as a knife blade of flint were found there (L 3: 1227);

but conditions were all against preservation, as the substratum, here consisting of soft gravel and stones, was covered with a thick layer of moss which was soaked with water all during the summer, the terrain here being almost at the same level as the surface of the lake.

Finds: L 3: 1169—1228.

House 9.

(Plan fig. 37) just south of House 8 was an almost obliterated ruin with only faint traces of a passage; nevertheless, the latter proved to

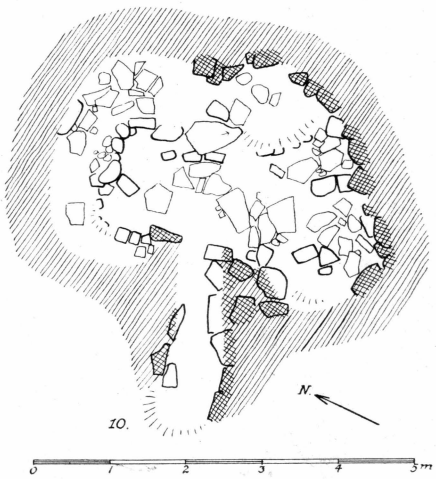


Fig. 38. Plan of House 10, Inuarfigssuaq.

be the best preserved detail of the house. In shape the house is almost rectangular, possibly with slightly rounded corners, the breadth being about 2.5 m and the depth about 3 m. Like House 8 it is dug down into the gravel, and no stones remained in the rear part except some small ones, piled on top of one another in front of the elevation in the gravel bottom that indicated the position of the platform; in the south side the gravel seems also to have formed a narrow side platform. Of the flooring there were merely a few flags near the passage; the latter is only 1.5 m long, and the entrance to it was flanked by two long stones.

Finds: L 3: 1229—1247.

House 10.

(Plan fig. 38) lies immediately north of House 8, separated from it merely by a rock jutting into the air. There was practically nothing to show that a ruin lay here, the walls being entirely flattened out, and only a few small stones appeared through the moss here and there. The situation close to and on a level with the lake made the site very wet,

and it quickly filled with water during excavation. The shape of the house seemed mainly to have been trapeziform with rounded corners, the breadth at the front about 4.5 m and depth about 2.5 m. The front wall however had been drawn forward a little on both sides of the passage, which here again projected some distance into the house—how far could not be determined exactly as the area of the inner end of the passage and the beginning of the floor was completely destroyed by water. With some justification this house might be called clover-leaf shaped—with two of the leaves merged into one. In the south side of the passage was a fairly well-preserved row of stones, indicating a length of 2.3 m; it was sunk along its whole length. In the south wall too, and in the nearest length of rear wall was a row of stones, but nothing remained in the north side, so that the limits of the house there can be estimated only from the presumed length of the platform. The latter consisted of a low elevation extending from the front wall to the back wall, bordered towards the floor with stones which edged round two lockers; over the gravel a number of rather small flat stones had been laid. The platform seems to have continued along the back wall as a gravel structure filled with stones; other stones also indicated that there had been a narrower platform along the south wall, where, however, the floor flagging reached right up to the wall. At the edge of the platform, at about the middle of the back wall, lay a large overturned stone, which may have formed part of a roof support.

Finds: L 3: 1248—1283.

Group III. (Houses 24—30).

(Survey plan fig. 39). This is the southernmost of the three groups of ruins. It lies on a grassy, somewhat wet slope that rises in several terraces and on east and west is flanked by rocks; at the same time it forms the southern slope of the depression which across a pass close behind House 30 leads over to the fjord on the north; the distance from here to the cove in front of the houses is 500 m. With the exception of House 26 all the houses are orientated to the south, down towards the little cove which is bordered on the sides by steep cliffs; the view over the water, however, is almost shut off by a large rocky area on the east side of the cove. Along the steep northeast side of this cove too there is easy access to the water: here the cliff leans forward, and under it are some store-rooms. In the rocky area west of the houses there are a number of meat caches, and in two clefts in the rock near Houses 26 and 30 a covered room had been built with a roof of caribou antlers and turf. Near the beach is a tall natural *meat stone* which, like the one above Group II, is furnished with a superstructure of loosely piled stones.

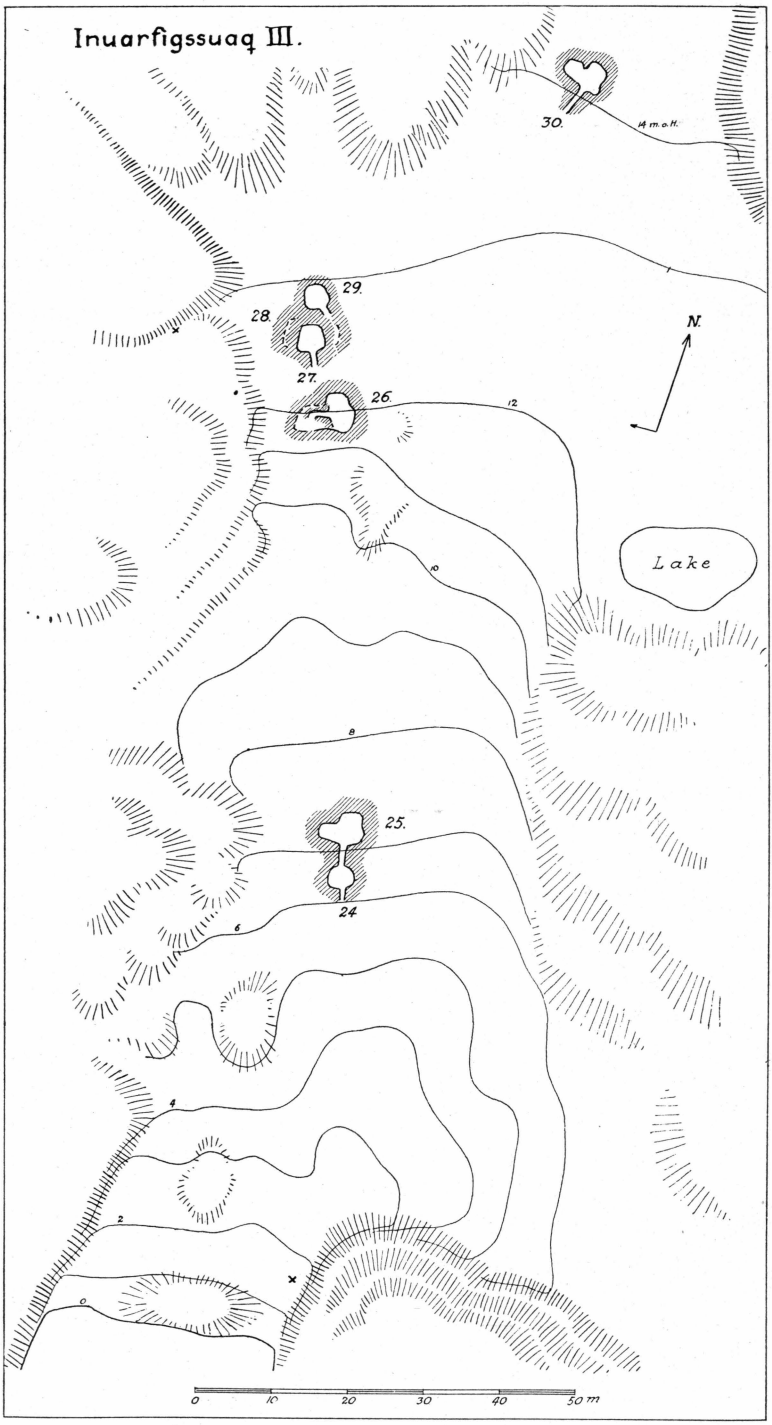


Fig. 39. Survey plan of Group III, Inuarfigssuaq.

Uppermost in the pass between Groups II and III is a row of stones for suspending hare snares; there are five stones with intervals of 0.75—2 m.

This place was inhabited about 1915, one of my assistants, Moses, then living in House 25, which was again repaired for habitation in 1936. Together with Moses another man, Avikínguaq, lived in House 27.

House 24.

(Plan fig. 40) is the lowest of the houses, lying about 60 m from the beach and over 6 m above the high-water line. It was a small grass-grown ruin with a number of collapsed stones inside and partly filled with refuse from House 25, whose passage ran straight through the back of the ruin. There remained only insignificant signs of the wall masonry and a little of the north side of the passage. As far as could be judged the house was round with a breadth of 3 m; the depth presumably was about the same. The passage is about 2 m long and runs obliquely into the middle of the front wall. There were remains of flagging in the middle of the house and at the front towards the east side. Behind the floor flags and in the west side of the house the gravel bottom formed an elevation indicating the position of the platforms; nothing remained of their covering. The ground in front of the house was very wet and covered with a thick growth of moss over the gravel; no culture deposit could be observed.

Finds: L 3: 1783—1814.

House 25.

(Plan fig. 40) as already stated is quite a new house, lying higher up than House 24, its passage running down into the latter. I have included the plan here in order to show the continuity in the architecture of the Polar Eskimos. It is a double house with a main room and a side room. The total breadth is 6 m and the depth of the main room 4 m; the passage has a length of 3.5 m. Just north of the passage the front wall is drawn forward a little in order to form a place to hang meat; above the passage there had been a window with a pane of gut. According to Moses the house was built upon an old ruin, where i. a. they found part of a boot, and when it was repaired in 1936 several other things were unearthed, though there was nothing of much interest. Although only twenty years old, this house was a striking example of how quickly these places reach the first phase of decay; large parts of the stone wall were still standing, it is true, but much had collapsed, and on the whole it looked to be much older.

Finds: L 3: 1815—1823.

House 26

(Plan fig. 41) is about 50 m higher up than House 25 and 12 m above the high-water line. The dimensions of the ruin were about 8 × 5 m, and it lies on the steepest part of the slope, the difference between the

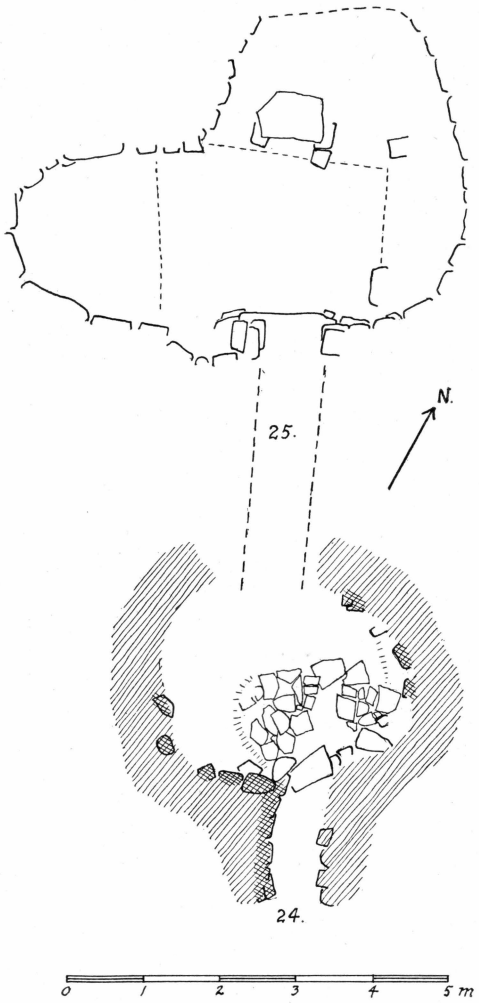


Fig. 40. Plan of Houses 24 and 25, Inuarfigssuaq.

heights in front and behind being about 1.7 m, and the wall-mound in front rises a good metre above the ground. At the back the ruin rests against a large stone block. At first it was impossible to form any idea of the shape and arrangement of this house, especially as we could not find a passage anywhere; the excavation, however, showed that there must have been at least two houses.

In the west part of the site, which is very boggy, there was quite a number of large stones which seemed to have formed a long straight wall. In the mound at the front (facing south) there were also some stones, and others formed a setting round a square hole which was assumed to be the remnant of an old but closed-up passage; and just inside it we found a well-laid flagged floor. It is probable that a house once stood

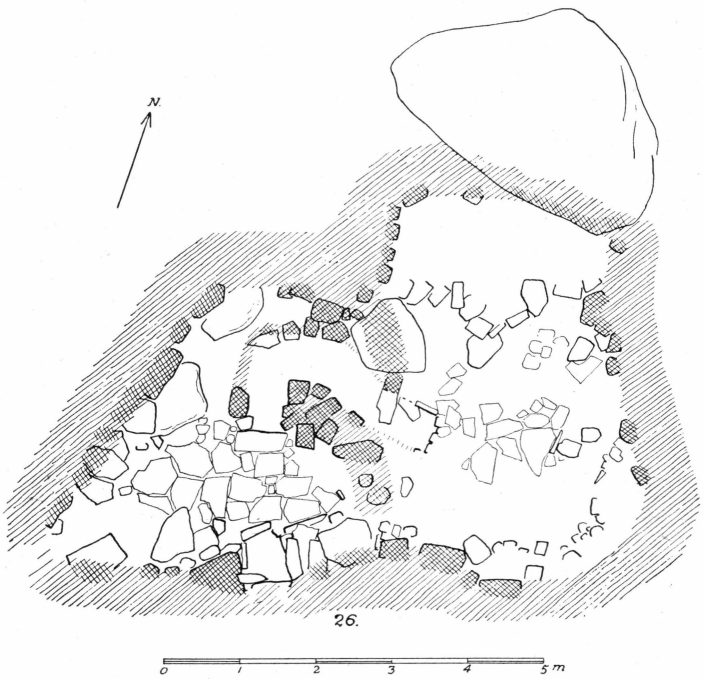


Fig. 41. Plan of House 26, Inuarfigssuaq.

there, but its easterly limits can no longer be established; according to the wall remains however it must have been almost trapeziform.

The east part of the site formed another and later house, one with its greatest dimension from north to south. On the whole the shape of the interior is rectangular with a length of 4.7—5 m and a depth of 2.5—3 m; apparently, however, the southeast corner was distinctly rounded. The passage lies on the west side, where it runs in obliquely along by a very large stone which formed part of its wall. Outside this stone the passage first describes a flat curve, and 2 m from the threshold it bends in a right angle to the south. At the entrance a step 25 cm high leads up to the stone floor in front, which forms a kind of terrace in front of the passage.

Contrasting with the west side of the site the bottom in the east part consists of dry gravel, and the floor here is 27 cm higher; here was

a small flagged area in front of the inner end of the passage. In the north side, up against the large stone block, there was a gravel platform with a stone edging and two lockers. In the southeast side too, where the wall seems to have curved a little, there had presumably been a platform, whereby the house acquires a certain likeness to House 10 in Group II. A sample excavation in front of the house gave a negative result.

Finds: Upper layer: L 3: 1824—1859. House N: L 3: 1865—1880. House S: L 3: 1860—1864 and 1881—1891.

House 27

was inhabited about 1915. Part of the front wall and the west side of the passage have fallen in, but the rest of the masonry is in good condition. In shape it is almost trapeziform; the front and back walls are not quite parallel, however, and the two front corners are slightly rounded. The breadth at the front is 4 m, at the back 2.7 m, and the depth is 2.7 to about 3 m; the passage is 2.5 m long.

House 28

is an old ruin inside which House 27 was built; it was not excavated. As far as can be judged from the mounds of earth this house too was almost trapeziform, with a length of about 7 m and a depth of about 4 m. It had the appearance of being related to House 26 N and S. In front of Houses 27 and 28 was a midden deposit; it was excavated but contained nothing of particular interest.

Finds in the midden: L 3: 1892—1907.

House 29

lies close behind House 28, whose back wall must in part have consisted of House 29's front wall. The ground here is very wet with luxuriant grass, and of the ruin itself only a very low ring-shaped mound with a few stones was visible. Nor did the excavation provide many clues for more than an approximate estimate of the shape of the house, as most of the masonry was destroyed; in the west side was a straight length of masonry, which suggests partially a trapeziform house. The breadth at the front may be put at about 4 m and the depth at 3 m. Of the passage only the inner end could be found; it ran southeast, but was afterwards covered by the back wall of House 28. The rear part of the house was a bog, whereas towards the front there were floor-stones, and their extent indicates that there were platforms on the north and west side and perhaps a smaller one on the east side; its similarity to the quite new House 27 is striking. The floor-stones were lying on a layer of mossy turf which covered the gravel bottom; this probably means that the house was built so late in the year that it was impossible to dig

down through the frozen turf—which also to some degree explains the obliterated character of the ruin.

Finds: L 3: 1908—1921.

House 30

(Plan fig. 42) is the uppermost house in Group III, lying about 170 m from the beach and 14 m above the high-water line, which means

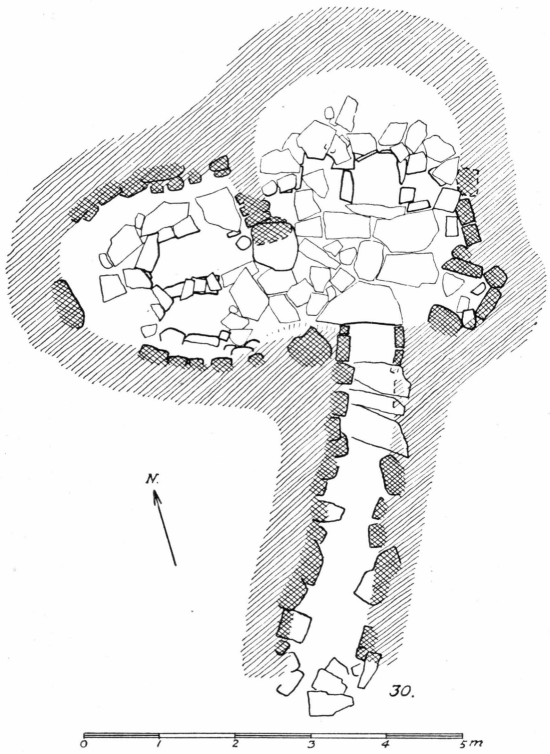


Fig. 42. Plan of House 30, Inuarfigssuaq.

only 2 m lower than the pass leading over to the fjord. It is a double house with a total breadth of about 5 m and a maximum depth of about 3.5 m. The two rooms are rounded at the back; in the west room is a remnant of a stone wall, whereas in the east room the only masonry runs from the edge of the platform to the front wall. In the front east corner is a small offshoot, 0.5×0.5 m. The passage, which runs into the middle of the east room (the main room) has the unusual length of 4.5 m and was relatively well preserved. The most curious feature of the construction of this house is the manner in which the two rooms are separated. In most of the double houses described above the transition is in the form of a right-angled, projecting corner; in the present

case a length of wall runs in so that it cuts off half of the side room and apparently also facilitated the construction of the roof. This wall ended at a large stone, which lay overturned on the floor. In both rooms there were well-preserved platforms with spacious, stone-set lockers. In the main room the platform at the back consists of gravel, the front part having been covered with flags. In the side room the back of the platform was built by means of a filling of earth and stones. Here the lamp table extended along by the partition wall, and one of its large

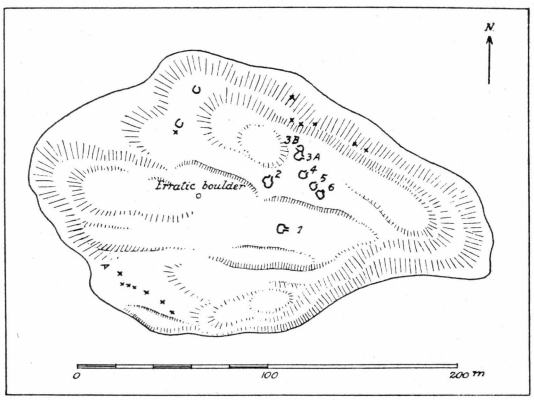


Fig. 43. Sketch-map of Ruin Island.

flags was still lying in position on the stone supports. The entire floor of the house was well laid with flags.

This house yielded a number of good finds, some of them implements of massive whale bone, and in the side room especially were quantities of wood chips; a piece of a barrel head with incised circles is undoubtedly of Norse origin. The condition of the house suggests that it is one of the latest in this group—apart from the two quite recent ones.

Finds: L 3: 1922—2045.

Ruin Island (Avôrtúngiaq's Island).

(Sketch map fig. 43). Ruin Island lies off Inuarfigssuaq, about 3 km from the shore, almost at the intersection of the lines from Cape Russel to the eastern termination of the high land between Inuarfigssuaq and Bancroft Bay, and from Inuarfigssuaq Group II to Cape Taney. The island is of gneiss, which rises in several terraces to a height of about 12 m above sea level. Almost at the top lies a large four-sided erratic boulder which can be seen a long way off. At first we had much difficulty in identifying this island, which Knud Rasmussen mentions and describes in "Grønland langs Polhavet" (p. 188)—and this even in spite

of the fact that the discoverer of the island, Avôrtúngiaq, whose name it bears, was with us in person; she had quite forgotten its situation and it was Maigssánguaq, her husband, who found it again. We found no ruins on any of the other small islands.

Ruin Island, as it will be called here for the sake of convenience, measures about 250 m from east to west and 150 m from north to south; it is steepest on the northeast and southeast sides; on the opposite side the rock at two places ascends smoothly along a higher central part. At these places the beach forms a veritable slipway up which even the largest marine mammals could be hauled at high water and flensed after ebb. Round about the south beach lay a whole row of meat caches and a fox-trap of the usual type, and out towards the northwest side were two tent rings. A number of meat caches were also built among the stones on the precipitous north side.

The house ruins, seven in all (Knud Rasmussen mentiones ten), lie on the top of the island, almost at the middle. House 1 is the highest up, the other six being on a flat, rather boggy stretch about 9 m above the sea; House 2 lies most to the west, close in under a vertical cliff, the others being in a row running almost NW—SE. Here the ground is covered with a thick layer of moss with grass and willow in between, growing in tussocks which were wet underneath and dry at the top, so that they could be broken into cakes. The vegetation in the ruins was the same, though on the wall mounds it was mostly tall grass. It seems to have been a difficult matter to procure good building stone on the island, and this has affected the ruins; at any rate the flagging material would have to be brought from elsewhere.

House 1

(Plan fig. 44) lies uppermost on the island, with its passage facing east. The ruin was covered with tall grass and lay full of a large number of stones, many of them large. After excavation it proved to consist of an almost trapeziform main room which is broadest at the back and from where entrance could be gained to a kitchen at the front in the north side, close up against the passage. The main room is about 3.5 m wide at the back and 2.3 m deep; the kitchen is rounded and about 1.5 m wide and 1 m deep, with a large fireplace full of slag vis-a-vis the entrance. The passage, which was built of big stones and in unusually good condition, leads in at the middle of the room; on the north side its stone wall has a length of 3.5 m, but on the south side only 2.5 m, so that the extreme piece of wall seems merely to have formed a wind-screen at the entrance. Of the construction of the house itself the north side was in a worse condition that the others; two large stones which had partitioned the kitchen off were overturned. On the whole the walls seem to have

been built of large stones alternating with small ones. In the northwest side of the house were the remains of a platform structure with a top of stone flags; the platform seems to have extended along the whole of the back wall. For floor covering we found only a few flags and stones which seemed to have been laid down in order to level the ground off.

Finds: L 3: 2280—2306.



Fig. 44. Plan of House 1, Ruin Island.

House 2

(Plan fig. 45) lies about 20 m north of House 1 with the passage running northeast; originally it was a double house with the two rooms at right angles and with a kitchen in the northwest side, up against the passage, which leads towards the middle of the main room; the house was made smaller at some later time. The maximum breadth must have been about 3.5 m and the depth in the main room 2.5 m; across the platform edge in both rooms the breadth was about 2 m. The kitchen measures 1×1 m. The passage is 2.8 m long and rather funnel-shaped, the width at the inner end being about 0.5 m and at the outer end 1 m; it was in very good condition, built of large stones, and two of the covering stones were still in position. On the east side and around the kitchen the lower part of the wall masonry was also in position, and a very massive stone separated the kitchen from the side room. Between this stone and the west wall of the passage there had been a doorway, 0.5 m wide, connecting the house with the kitchen; in the latter was a double

fireplace, filled with slag, in the north side up against the curved outer wall. Outside the east wall of the house, at the front, were the remains of some masonry which seemed to have bordered a small offshoot, possibly belonging to the house in its original state. The floor in the house was somewhat uneven, and the only floor stone was the sill at the step up from the passage. In both rooms there was a built-up platform with stone flags, some of them very large, resting upon stone supports; both platforms were also covered with a thick layer of heather.

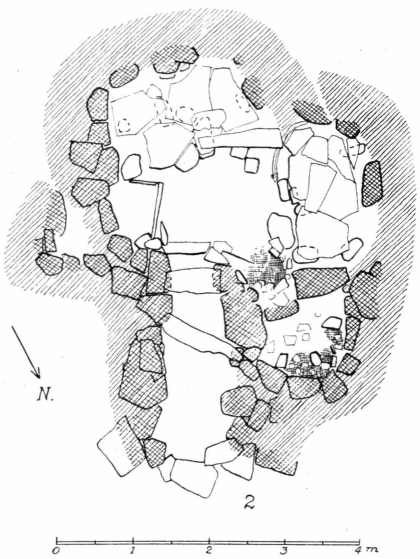


Fig. 45. Plan of House 2, Ruin Island.

In the second period of the house the side room on the west was filled up, presumably by a turf wall; the kitchen was closed off, and a small fireplace was built in the corner formed out of the original kitchen entrance, where we found a thick layer of slag. The front corner on the east side had also been arranged as a meat recess, partitioned off from the floor by two flat stones set up on edge at right angles; inside these the space was full of blubber, meat, mátaq, seal flippers etc. The house was generally occupied by a deep culture deposit, the lower part containing much bear hair. Up against the side room lay a large whale bone, of which one end was tied round with baleen line (fig. 104).

Finds: L 3: 2307—2394).

House 3. A and B

(Plan fig. 47) is the northernmost of the ruins, lying about 18 m northeast of House 2. At first it was difficult to recognize, and the only sure indication was a sunk passage 2 m long, running eastwards; inserted



Fig. 46. Ruin Island. House 2 during excavation.

between two stones in the north side was the curious scraper of walrus ivory with the carved human head shown in fig. 92. On the south side the passage was built up against a large stone which occupies half of

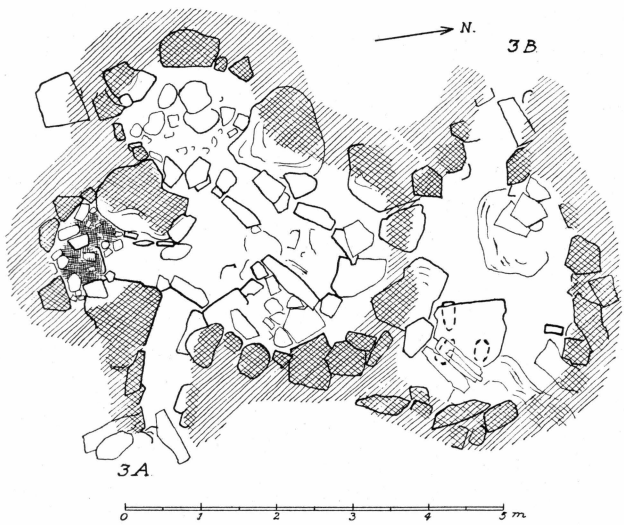


Fig. 47. Plan of House 3 A and 3 B, Ruin Island.

its length; 0.7 m west of it is another large stone, and between them was a kitchen, of which the south side was formed of a curved length of small-stone masonry. The remainder of the site was mostly full of a

compact layer of turf which westwards extended in between two large stones and mixed in with the surrounding terrain; we were unable to find any distinct limit of the ruin here. On the east and north sides, however, were remains of masonry, and at about the middle of the ruin two large stones lay in such a position that it was evident that the north and the south parts were quite unconnected.

House 3A, the south part of the ruin, seems to have a main room that was rectangular with rounded corners, about 2.5 × 2.5 m, and with an entrance to the kitchen and the passage at the southeast corner. Between the large stone in the west side of the kitchen and a corresponding one in the west side of the ruin there had, however, been an entrance to a rounded offshoot, about 1.5 m wide, its outer wall being represented by a few stones lying in a semi-circle; on the bottom were stones of various shapes and sizes, but the probability is that they were once covered with turf and formed a platform; no culture deposit was found here. The main platform was in the north side of the house, with the front edge parallel to the passage—in contrast to the usual custom. Here was a structure composed of a mixture of turf and culture earth with a locker at the middle, flanked by oblong stones; over the turf were flat stones, especially east of the locker. In the northwest corner was a fireplace on top of the platform turf—no doubt dating from a later period. On the floor just in front of the passage lay a culture deposit with several long whale bones, pieces of skin, musk-ox hair, etc., as well as a lump of copper (L 3: 2432). The peculiar shape of the house is undoubtedly due to the builder having adapted it to the large but inconvenient stones in situ which were made to form part of the construction.

Finds: L 3: 2395—2434.

House 3B is almost oval, about 2 m wide and 3 m deep. A passage not much more than 1 m long was found to run out to the northwest, i. e. in the opposite direction to the passage of House 3 A. At two places the rock projects into the house, viz. at the front just inside the entrance and in the east side, where it forms the back of the platform; of this platform there remained a large flag resting on three supporting stones, and behind lay two flat whale bones which evidently formed part of the platform too. The house contained i. a. the handsome quiver handle with carved animal heads Pl. 12 13.

Finds: L 3: 2435—2469.

House 4

(Plan fig. 48) lies about 5 m southeast of House 3 A. It lay completely obliterated, the only hint of a house being a few stony tussocks. It had consisted of a room about 4 m long, the middle of the back wall

being curved outwards; the depth at the middle was thus 2.4 m and at the ends about 1.5 m. The passage, 1.8 m long, runs northeast and leads rather obliquely in towards the middle of the house. South of the entrance to the passage from the inside there is a doorway into a kitchen measuring 0.75 m wide and 1.2 m deep, and the space between this and the passage is occupied by an oval store-room similar in size to the kitchen, but with its entrance direct from the passage just before it reaches the room. The whole thus forms a compact, rounded complex

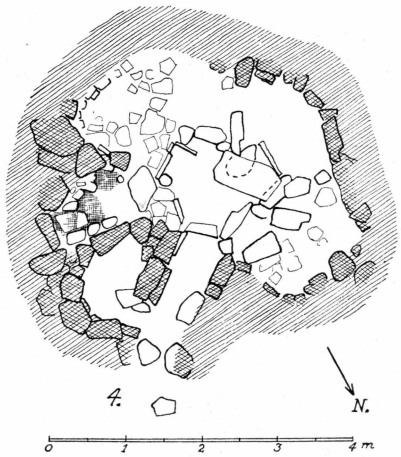


Fig. 48. Plan of House 4, Ruin Island.

with the floor of the house as the centre. The floor occupied no more than about 1 sq. metre, as there are platforms of turf on all three sides, so that in principle the house may be regarded as a clover-leaf or triple house. At the front the platforms are edged with stones, some of them flat standing on edge and at the same time framing the lockers. Over the lockers had been flags, one of which was still lying on the main platform, while at the back smaller flags lay here and there over the layer of turf. The east part of the masonry of this house was in the best condition, i. e. round the store-room and the kitchen. In the back and north wall there was merely a low row of stones, and to the south nothing at all capable of being described as masonry. On the floor and in the platform lockers was a culture deposit, containing i. a. two harpoon heads of Thule 2 type with vestigial barbs and spurs respectively, Cape Dorset objects and the Norse comb pl. 44 11.

Finds: L 3: 2470—2517.

House 5

(Plan fig. 49) lies about 8 m southeast of House 4, with the passage running east. In shape it is mainly oval, about 3.5×2.8 m, its greatest

dimension being the breadth. The sunk passage, about 2.5 m long, leads towards the middle of the room. Just to the north of the inside end of the passage a flagged doorway leads obliquely into a kitchen with two fireplaces at the outer wall; its depth is about 1.5 m and its breadth 0.8, though at the fireplaces it is widened to about 1.5 m. Close to the mouth of the passage is an entrance to a store-room, 1.1×0.8 m, with a flagged floor; the area just in front of the passage is also flagged.

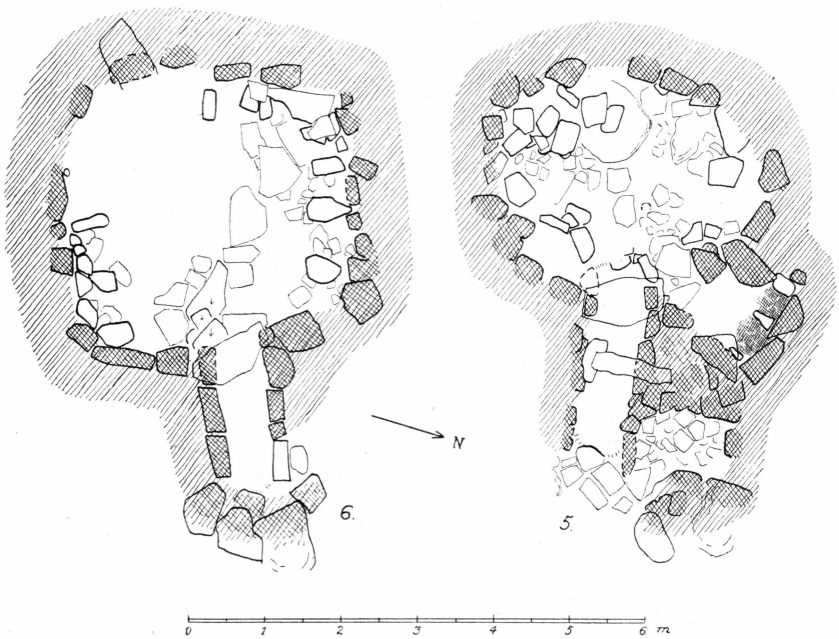


Fig. 49. Plan of Houses 5 and 6, Ruin Island.

The house is built of rather large stones, some of which had fallen in; here again the front part with kitchen and passage was in the best condition; in the passage two covering stones were in position. South of the passage two large stones protrude inside the house and form a corner, presumably for meat and blubber; towards the floor this space was delimited by a row of stones, and the area inside was full of culture, blubber, baleen etc. Otherwise the interior of the house was in very bad condition; there was no regular floor covering, but the uneven rocky ground seems to have been levelled off with stones and turf, and at two places there are rock outcrops. No platform system could be seen, but a disorderly group of stones suggested that the main platform had been situated between the meat-corner and the back wall—vis-a-vis the entrance to the kitchen. Close to the north end of the back wall lay a quantity of flint chips, as if a flint-worker had sat there—



Fig. 50. Ruin Island. House 6 with the floor covered with long baleen sledge-shoes.

presumably on the edge of the platform. Inside the house we found i. a. a Norse draughts piece, illustrated pl. 44 12. A number of baleen objects and unworked baleen lay deposited in the passage.

Finds: L 3: 2518—2578.

House 6

(Plan fig. 49) lies just southeast of House 5 and is the last one in the row. It is spacious, almost square, 3.5×3.5 m and having walls built of large, high stones alternating with smaller ones. The 2 m sunken passage leads in to the middle of the east side; at the outer end it is closed with large stones, the entrance being on the side of it, facing the north, where there lay an outside sill-stone. The southwest part of the house was occupied by a large heap of stones, very large in size, apparently from the walls. We succeeded in removing only the outer ones, so that we were unable to ascertain whether it was a grave or merely a meat cache or the like. The culture deposit of the house extended some way in under this heap.

No platform proper could be distinguished in this house which, apart from its size and shape, differs from the others in having no kitchen; along the side and back walls, however, were tall stones a little from the walls at regular intervals; these must have supported stone flags which formed platforms or benches, about 60 cm wide to judge from the stones. What was left of the flagged flooring in the north half of the house extend almost up to the back wall.

The house contained a considerable culture deposit, much of it consisting of baleen objects, including large quantities of baleen lines of various thicknesses and tied together in various ways; some are shown in fig. 109. Moreover, everything was thick with grease and mixed with baleen wool, bear hair, flint chips, etc. There was also a piece of coarse-woven cloth (fig. 110), undoubtedly of Norse origin. A large part of the culture deposit consisted of a veritable pavement of pieces of baleen upto 2 m in length, some unworked, others long sledge shoes piled cross-wise as shown in fig. 50. Above the baleen were a few flat stones as if to prevent the pieces from bending upwards. In the middle of the house the baleen lay almost directly on the stony ground; round about there were layers of turf under it. The painstaking way in which these large pieces of baleen were laid indicates that they were actually used as a floor covering—or they were stored there as timber-yards stack their timber to prevent it from warping while drying. There were in fact so many pieces of baleen that it was easy to choose the best as packing for the pieces that had been worked.

The entire arrangement of this house suggests that it was no ordinary dwelling house, but rather a qagsse, a working or club house for the men, where perhaps the unmarried slept, while cooking was done in another house.

Finds: L 3: 2579—2706.

Aunartoq.

Aunartoq is the Eskimo name for the ancient settlement at Rensselaer Bay in lat. 78°37′ N., long. 71° W. The place is rarely used nowadays as a winter settlement, but up to recent years was occupied in spring on account of its good ūtut hunting, i. e. the catching of seals which have crawled on to the ice to bask or sleep. Knud Rasmussen has it that there are three house ruins there, all very old[1]); none of my companions had any distinct notion of where these ruins were, however, and it was only after reconnoitring the whole bay that we succeeded in finding—not merely three, but at least eight more.

The ruins lie at two places on an inlet in the southeast side of Rensselaer Bay, not very far from the mouth of the great Aunartoq river. Off the settlements are two small islands, as shown on the sketch map fig. 51.

Group A

which consists of 8 ruins, called Houses 1 to 8, lies on the west side of the inlet, hidden behind a small rocky point. The ruins are on a

[1]) Knud Rasmussen: Grønland langs Polhavet p. 164.

stony slope about 40 m from the beach and are divided into two clusters about 50 m apart and separated by a low, flat ridge of rock. On the south are Houses 1 to 5, close together in a row and about 8 m above the high-water line; Houses 6 to 8 are also in a row, but only about 4 m above the sea.

In the rocky terrain in front of and behind the houses are numbers of well-built meat caches which gave the impression of being very old

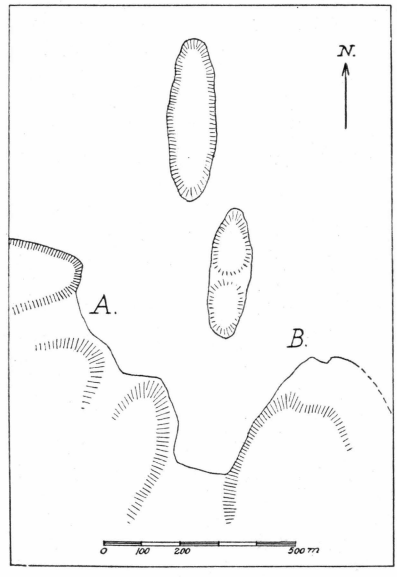


Fig. 51. Sketch-map of the ruin settlements at Aunartoq.

and at any rate had not been used in recent years, as this corner of the bay is rarely visited. In Houses 1 to 5 the interiors were overgrown with moss and willow; in every case the stone wall could be traced all round and the immediate impression was that they were in a fairly good state of preservation. It turned out, however, that there was little to find in them, as the ground had the character of road-metal, which provided the worst possible conditions for preservation. The row of houses lies SE—NW, commencing with House 1, and all with the passage running north-east, down towards the beach.

House 1

(Plan fig. 52) is almost quadratic with rounded front corners; the breadth is 2.8 m, the depth about 3 m. The passage is about 2.5 m long and leads almost at right angles to the front wall, which it divides in the proportions of 1:2, being nearest the northwest end; its width inside is only 40 cm, at the other end 65 cm. Two of the covering stones

were in position, and on these lay two stones one above the other, the remainder of the window. Of the platform, which once occupied most of the rear half of the house, a little of the front edge remained and some of the rearmost covering of flags, which rested directly on the ground.

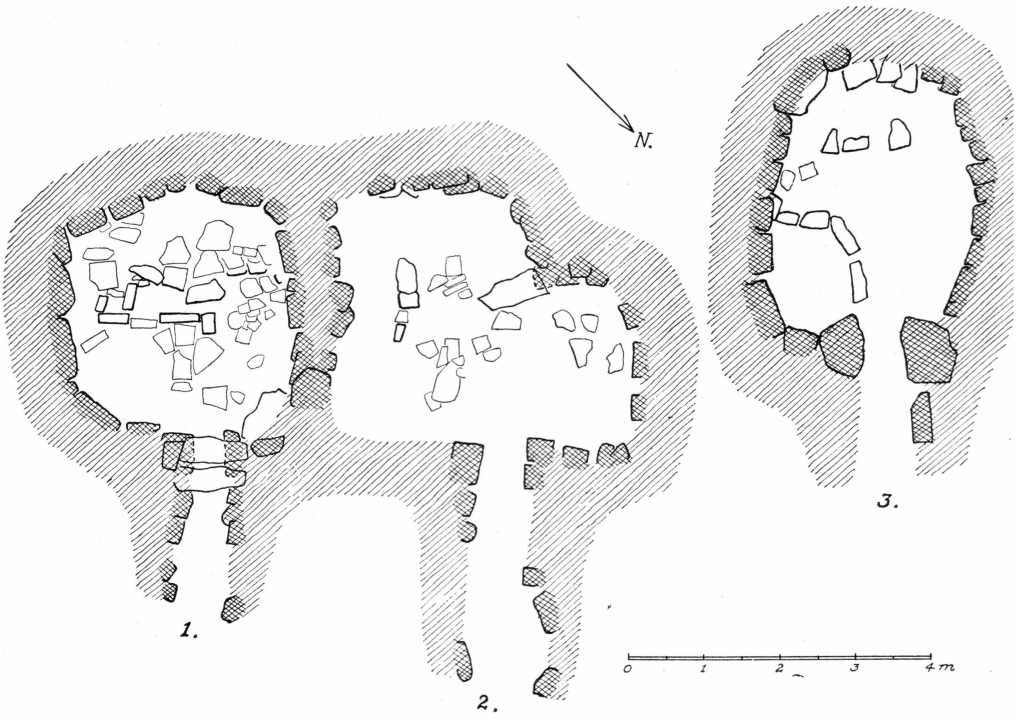


Fig. 52. Plan of Houses 1, 2 and 3, Aunartoq A.

One locker was partly bounded from the floor by an elongated stone. The floor had only few flags, in the middle of the house.

Finds: L 3: 2707—2712.

House 2

(Plan fig. 52) has its southeast side wall in common with House 1 and thus would seem to have been built at the same time. It is a double house with two almost rectangular rooms at right angles; the maximum breadth is 4 m, depth 3.3 m. The breadths of the main and side rooms are 2.5 and 2 m respectively. The passage is 3 m long, though the northwest side projects forward 0.7 m more; it runs in at right angles a little northwest of the middle and has a width of 60 cm at the inner end. This house was in very poor condition, and practically nothing was left of the interior.

House 3.

(Plan fig. 52) lies a little back from the line of the others. It is almost oval, with a breadth of 2.6 m and a depth of about 3.2 m. A continuous length of masonry of partly large stones remained. At the inner end the passage is flanked by two large stones 50 cm apart and projecting a little way into the room; but except for these the passage was completely destroyed; the inside of the house was quite barren, with the

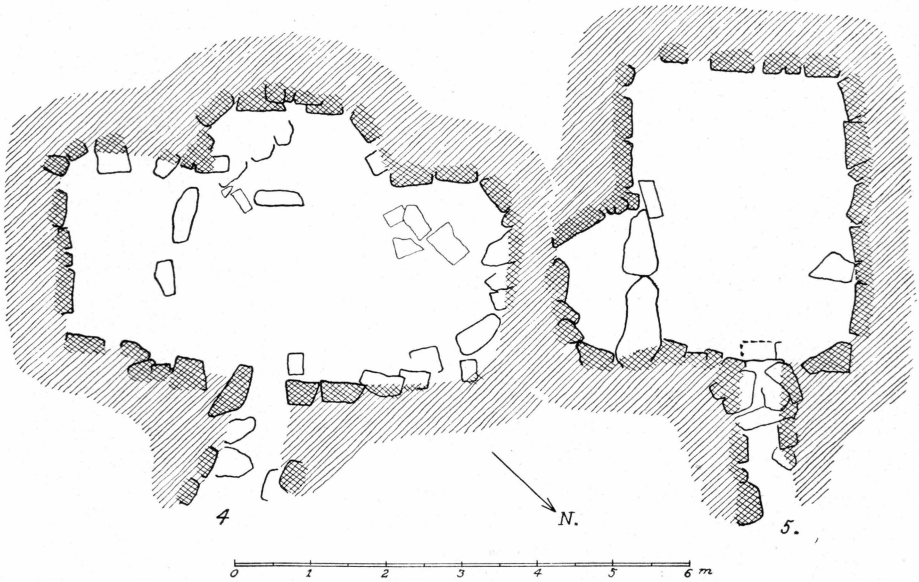


Fig. 53. Plan of Houses 4 and 5, Aunartoq A.

stone bottom raised slightly at the back. In the south front corner was a meat cache.

House 4.

(Plan fig. 53) is an oblong rectangular house with an extension about 2 m wide and 1 m deep in the middle of the back wall—i. e. in principle a triple house like Inuarfigssuaq House 3. The breadth of the house is 5.7 m, the depth at the middle 3.5 m and at the ends 2.5 m. The passage, which leads into the middle of the front wall, seems to have been only about 1.5 m long. Water had flowed through the house, which was in an extremely poor state of preservation; the interior was crowded with a jumble of stones.

Find: L 3: 2713.

House 5.

(Plan fig. 53) is a rectangular house with an extension 1.8 m wide and 1 m deep foremost in the southeast side; this extension was found

to be shut off with two large stones. Consequently the total breadth of the house at the front is 3.75 m, at the back 2.8 m, and the depth is 3.75 m. The passage is 2 m long and at right angles to the front wall, which it divides in the proportions of 1:2, being nearest the northwest side. The interior of the house was completely bare.

Finds: L 3: 2714—2718.

Houses 6, 7 and 8 were only partly excavated, as time did not allow of our waiting for them to thaw out, a process which was very slow here. In addition they were in a very poor state and quickly proved to be almost devoid of culture deposit.

House 6

seemed almost to be a distorted pear-shape with a breadth of about 2.5 m and a depth of about 3 m. We were able to get to the bottom at the back; there was no perceptible platform elevation.

Find: L 3: 2719.

House 7

was likewise so demolished that its limits could not be established with any certainty. It seemed to be a double house something like House 2, but with a more rounded form. The breadth is about 5 m and the depths about 3 and 2.5 m respectively.

House 8

is of similar shape, though one front corner is distinctly rectangular. The site was full of stones, and in its north part was a meat cache, in which were some caribou bones. The length of the ruin is about 5.5 m and the depths 3.5 and 2.5 m.

Group B

lies on the east side of the inlet on a rather flat point. Houses 9 and 10 lie close to the beach, facing north and about 4 m above the high-water line; House 11 lies about 40 m farther inland, about 9 m above sea level, and 50 m farther up is a large meat stone. House 12 is an ancient ruin just west of House 9, which is built partly into it; just behind Houses 9 and 10 there seem to be traces of two or three ancient ruins. On the east slope of the point are many meat caches and a cave, closed with stones. Houses 9 and 10 (fig. 55) are two well-preserved ruins, apparently of fairly recent date; the walls are still standing to their full height, and the large stone flags that covered the roof had been taken off and placed outside.

House 9.

(Plan fig. 54) is almost cruciform, built of large stones and of rectangular construction; at one or two places whale bones have also been used in the masonry. At the front the house is 3.2 m wide, at the rear 1.8 m, but along the front edge of the platform it is only 1.6 m, as a wall pillar there juts forward a little on both sides. On top of each of these projecting parts of the wall lies a long stone cantilever (Esk.:

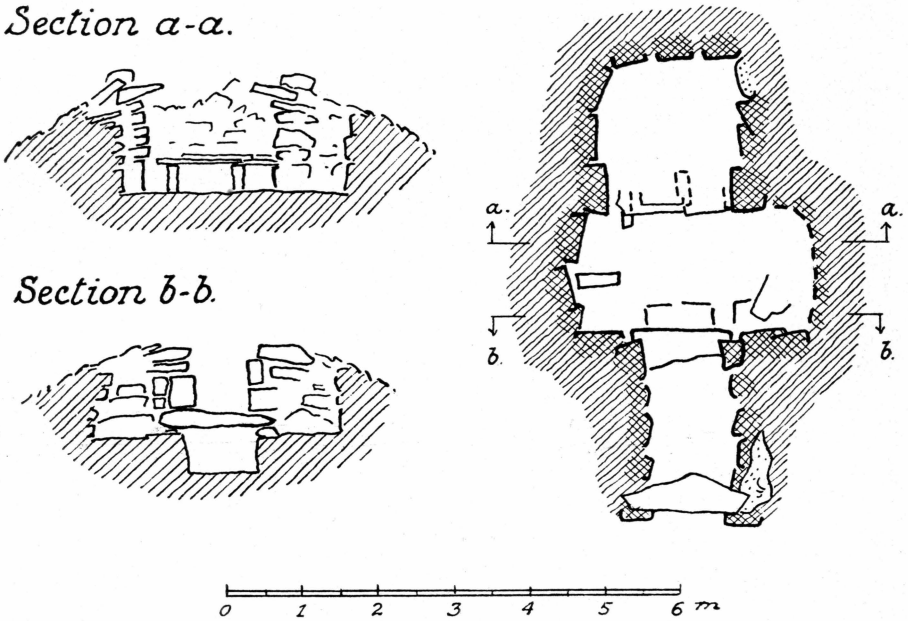


Fig. 54. Plan and section of House 9, Aunartoq B.

tikun) with its counterpoise, as shown in the section a-a. The entire depth of the house is 3.5 m, of which the platform at the back accounts for 2 m. The platform consists of large stone flags resting upon a stone structure. At the front on the east side there had been a lamp table about 0.5 m wide, of which only the stone supports remain. What had been on the opposite side could not be seen distinctly, as the wall there had slipped inwards. The passage, which runs straight in opposite the main platform, is 2.5 m long and 1 m wide; the outermost and innermost covering stones were in position. The inner end forms part of the front wall, as it bears the window construction as shown in section b-b.

Finds: L 3: 2720—2722.

House 10

is a house of exactly the same type and construction; one arm of the cross is right-angled, the other rounded. The main platform was



Fig. 55. Aunartoq. Houses 9 and 10, with the roofing tiles removed and placed outside.

slightly defective, whereas one of the flags of the lamp table was in position over its supports. The front breadth of the house is about 3 m, at the back 1.7 m; the depth is 3 m, of which the constricted platform region occupies 1.7 m. The passage is 2.3 m long.

Finds: L 3: 2723—2724.

House 11.

(Plan fig. 57) is a double house—or rather a "double double house", as from its appearance it is a combination of two rectangular houses with one common passage. This imposing structure was built of very large stones, most of which had now fallen in and choked the inside of the site. The foremost part is formed of a room, 7 m long and about 1.5 m deep, rectangular at the west end and rounded at the east. From this two rooms open with main platforms, separated by a thick stone wall; their width is 1.6 m and their depths about 2 and 2.3 m respectively, so that the maximum depth of the house is about 4 m. It could not be decided whether there had been a sleeping platform in the commodious west end—and perhaps also in the east side, as the house was not excavated. The passage, about 2.5 m long, leads in just opposite the main platform on the west; at its projecting west corner was a cantilever and counterpoise on top of the wall.

These three houses are an interesting example of how the Polar Eskimos modified their architecture for the purpose of securing the



Fig. 56. Aunartoq House 9. The wall projection with the cantilever at the top.

shortest possible roof-span, without doubt because they were no longer able to procure the long whale bones, and there was a dearth of drift-wood for big spans. Houses 9 and 10 thus seem more capable of being considered as a modification of the *early* round, oval or, if you will, "pear-shaped" house, in which the walls at the front edge of the platform are merely drawn so close together that the maximum span is about 1.5 m. Instead of regarding House 11 as two combined double houses one might also called it a clover-leaf shaped house, in which one "leaf" is divided by a partition wall. It is possible that a first essay at this construction, dictated by the necessity of having to reduce the length of the roof beams, is to be seen in the projecting piece of wall in the Inuarfigssuaq House 30, as described on page 69.

Evidently Steensby's fig. 15[1]) was intended to illustrate a house of this kind. He writes that Alekrasina the Eskimo woman of her own volition drew two houses of this kind in his sketchbook, and he regards it as two winter houses built together, his theory being that it was the prototype of the long Greenland communal house with its divisions into family stalls.

By its construction House 11 shows that it must be nearly related to Houses 9 and 10, that is to say undoubtedly 19th century, and this is made further probable by the fact that Alekrasina knew the type—one that seems to have been developed so late in the Thule District

[1]) Steensby 1910 (MoG. 34) p. 322 ff.

that there can have been no transmission to West Greenland. Another question is whether at a relatively early juncture there was a tendency to build several houses together after the row system (in contrast to the clover-leaf houses); Th. Mathiassen's excavations in Disko Bay 1933 suggest something of the kind; but then again it is another question whether the houses there have any connection with these houses in the

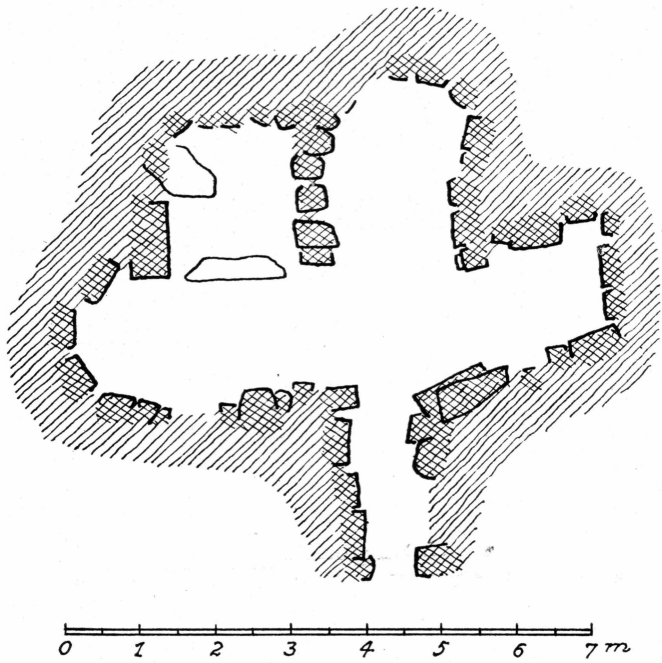


Fig. 57. Plan of House 11, Aunartoq B.

Thule District. It will be most advisable, however, to postpone the discussion of this question until later.

The large *spring settlement* at Aunartoq is to the west of the ruins described above, on the plain-like, stony terrain sloping evenly down towards the beach, where it ends in a high bluff. At two places the ground is cut through by gullies, a small one to the west and a larger one more to the east. Scattered about are a few old and several more recent tent rings as well as a quantity of meat caches, some of them very large; one tent ring of horse-shoe shape measured 2.75 m in width and 3 m in depth. On a small rocky point just west of the mouth of the easterly river is a *qarmaq*, i. e. a building with low walls which in autumn was closed in with an improvised roof. Close by, said one of the Polar Eskimos, there was also a house ruin, though at the time it was covered with snow. At two places there are some curious depressions in the naked shingle,



Fig. 58. Ruins at Aunartoq koroq.

one clover-leaf shaped, about 4 × 4 m, the other about 3 × 2 m; there is no direct indication of any house ruins ever having been there.

There is another spring settlement on the river-plain on the east side of Rensselaer Bay, with a number of apparently old tent rings and meat caches. Along a stretch between this settlement and the outer shore some shaly rocks run down to the beach, where the stone is easy to quarry; no doubt a large part of the flags in the ruins were taken from there.

Aunartoq koroq.

At the mouth of a small river almost midway between Aunartoq and Cape Ingersoll lie four ancient house ruins; the place is called Aunartoq koroq. The ruins lie some distance up the shore on the west side of the river, out towards the bluff, the river having eroded the ground away in front of the houses, of which the passages now have fallen down. Houses 1, 2 and 3 lie close together in a row from north to south; House 4 is about 15 m south of House 3. The situation is 3 m higher than the river-plain and 6 m above the high-water line. All the ruins were almost obliterated, so that they merged with the ground and were overgrown with willow and moss; stones projected only here and there, and the only ruin with a perceptible depression in the middle was House 3. Excavations revealed nothing of interest, the houses having been built in sand and afterwards having been totally destroyed, so much so that not even their limits could be picked out with certainty.

List of specimens found

Types	Plate	C. Kent House 1	2	3	4	5	6	7
Harpoon Heads.								
Barbed Harpoon, thin, open socket (Thule 2):								
A. Slots: I. No blade: a) Common type	3.1-4	..	1	..	..	..	..	..
Fragments		..	..	..	..	..	..	..
b) Vestigial barbs	3.7-8	..	..	..	..	..	..	..
c) — spur	3.6	..	..	..	..	..	..	..
d) Vestigial spur; more than two barbs	3.5	..	..	..	..	..	..	..
II. Blade ≠ line hole	3.9	..	..	..	..	..	..	..
B. Holes: I. No blade	3.15-16	..	..	..	..	..	..	..
II. Blade ≠ line hole, oblique spur	3.17-18	..	?	..	..	..	..	..
Toggle Harpoon, thin, open socket:								
A. Slots: Blade ≠ linehole, oblique spur	3.11-12	..	..	..	..	..	..	..
B. Holes: — — and sharp-cut socket (hexagonal type)	4.4-6	..	..	..	..	..	..	..
Toggle Harpoon, thin, closed socket:								
A. Rounded type. Blade ≠ linehole:								
a) Oblique spur	4.16	..	1	..	..	..	..	..
— and vestigial side blade grooves	4.12	..	..	..	..	..	..	..
b) Single dorsal spur	4.17-18	..	..	..	..	..	..	..
c) Cleft, or two dorsal spurs (Inugsuk type)	4.19-21	..	..	..	..	..	..	..
B. With lateral keels: I. Blade ≠ linehole	4.11	..	..	..	..	..	..	..
II. Blade ⊥ linehole	4.9-10	..	..	..	..	..	..	..
Toggle Harpoon, flat, open socket (holes):								
Two converging line holes with dorsal opening, blade, two (cleft) dorsal spurs	4.29	1	..	..	..	..	..	..
C. *Dorset Harpoons:*								
A. Open socket, no blade, one line hole	1.1-2	..	..	..	..	..	..	..
B. Closed socket: I. No blade, two line holes, cleft butt	1.3	..	..	..	..	..	..	..
II. Blade. a) One line hole, plain butt	1.4	..	..	..	..	..	..	..
b) Two line holes, cleft butt	1.5-6	..	..	..	..	..	..	..
c) Heavy type —	1.7	..	..	..	..	..	..	..
Leister harpoon	1.8-9	..	..	..	..	..	..	..
Other parts of the Harpoon.								
Harpoon blade, flint, concave butt	2.1-4	..	..	..	..	..	..	..
— — fragment		..	..	..	..	..	..	..
— iron	5.4	..	..	..	..	..	..	..

on Inglefield Land.

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List

Types	Plate	C. Kent House 1	2	3	4	5	6	7
Swivel, barrel-shaped		..	..	..	..	..	..	..
— spindle	5.9	..	..	..	..	..	..	..
Stopper for harpoon line, spike at one end	5.13	..	..	..	..	..	..	..
— — — in the middle	5.12	..	..	..	..	..	..	..
— — with lashing holes	5.11	..	..	..	..	..	..	..
Mouthpiece for harpoon bladder, flat, oval	5.16	..	..	..	..	..	..	..
— — oblong	5.17-18	..	..	..	1	..	..	1
Plug for mouthpiece	5.20	..	..	..	..	..	..	..
Heavy bone toggle for harpoon bladder	5 33	..	..	..	..	..	..	..
Fastening peg for bladder, wood	5.34	..	..	..	..	..	..	..
— — baleen	48.14	..	..	..	..	..	..	..
Mending disk with groove for bladder, ivory, small	5 21-22	..	..	..	..	..	..	..
Foreshaft for ice-hunting harpoon	6.11-14	..	1	..	..	..	..	..
— for C. Dorset harpoon	1.10-11	..	..	..	..	..	..	..
Movable foreshaft, conical butt, one hole	6.18-20	..	..	..	..	..	..	..
— — two holes	6.10	..	..	..	..	..	..	..
— — fragment		..	..	..	..	..	..	..
Socket piece, heavy with a scarf	6.1-4	..	..	..	..	..	..	..
— cleft butt, heavy	(6.7)	..	..	..	..	..	..	..
— triangular butt, small	6.6	..	1	..	1	..	..	..
— cylindrical, oblong	6.8	..	..	..	..	..	..	..
Finger rest, slender, one hole	5.24,27-28	..	1	..	..	..	..	..
— broad, curved sides	5.23	..	..	..	..	..	..	..
Ice pick, with scarf	7.7-8	1	..	..	2	..	..	..
— triangular butt	7.5-6	..	..	..	..	..	..	..
Wooden shaft with triangular groove for ice pick		..	..	..	..	..	..	..
Lance head, movable, with a seating for the blade	7.1-2	..	..	..	..	..	..	..
— fore end — — —		..	..	..	..	..	..	..
Stiletto handle, wood	7.10-11	..	..	..	..	..	..	..
Accessories for kayak- and ice-hunting.								
Harpoon rest, baleen	45.16-17	..	1	..	..	..	..	..
Wound pin	9.3-5	..	..	..	..	..	..	..
Wound plug, wood	9.7	..	..	..	..	..	..	..
Sealing stool, seat of antler (for one legged stool?)	8.14	..	..	..	..	..	..	..
— — wood	8.2	..	..	..	..	..	..	.
— leg of bone	8.3	..	1	..	..	..	..	.
— — wood, slender	8.5	..	..	..	3	..	..	.
Toggle of walrus molar	16.12	..	..	..	..	..	..	.
Drag line handle, wood	8.12-13,16-17	..	..	..	..	..	..	.

(continued).

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List

Types	Plate	C. Kent House 1	C. Kent 2	C. Kent 3	C. Kent 4	C. Kent 5	C. Kent 6	C. Kent 7
Drag line handle, ivory, W-shaped	9.2	..	1	..	..	..	..	..
— — — with carved figures	9.1	..	..	..	..	..	..	..
— — — carved bear head	38.5	..	..	..	..	..	..	..
Other hunting implements.								
Foot for bladder dart bladder (?)	(p. 208)	..	..	..	..	..	..	..
Mouthpiece — —	5.14,15,19	..	..	..	..	..	..	..
Bird dart head, butt	9.11-12	..	1	..	..	..	..	..
— side prong, barbs on both sides	10.1-5	..	..	..	..	..	..	..
— — inside barbs	10.6-10	..	1	..	..	..	..	..
Throwing stick	fig. 84	..	..	..	..	..	..	..
Weapon shafts of wood, fragments		..	..	..	3	..	..	..
Bow, wood	10.17-19	..	5	..	1	..	..	..
— baleen (incl. boys' bows)	47.6-8	..	2	..	..	..	..	..
Bow brace, wood	10.22	..	..	..	..	..	..	..
— antler	10.21,23	..	..	..	..	..	..	..
Arrow heads, conical tang with knobs:								
Round, blunt	11.2,4,6	..	..	..	1	..	..	..
— pointed	11.1	..	..	..	..	..	..	..
Fore end egg-shaped with slit for blade	11.16,18-21	..	1	..	..	1	..	..
Lanceolate, unsymmetrical, no blade	11.7-9	1	1	..	..	..	..	..
— symmetrical, —	11.10-11	..	4	..	..	1	..	..
Two unilateral barbs, —	12.1-2	..	..	..	..	..	..	..
Two bilateral barbs —	11.28	..	..	..	..	..	..	..
Seating for blade, no barbs	11.22	..	..	..	..	..	..	..
— one barb	11.23-24	..	..	..	..	..	..	..
Fragments, butts with knobs		..	..	..	2	..	..	..
Arrow head with scarf	11.26-27	..	..	..	..	..	..	1
Arrow shaft, complete	12.9-10	..	1	..	..	..	..	..
— fore end	12.6	..	2	..	..	..	..	..
— butt	12.7	1	4	..	..	..	..	..
— fragment		1	3	..	..	2	..	..
Arrow (or lance?)-blade, flint with tang	2.5	..	..	..	..	..	..	..
Quiver handle, vertical holes	12.14,18,21	..	..	..	..	..	..	..
— horizontal holes	12.15-17,20	..	..	..	1	..	..	..
— — — , with carved figures	12.12-13	..	..	..	..	..	..	..
— grooves at the ends	fig. 105. 7-8	..	..	..	..	..	..	..
Sling handle, wood	14.17-21	1	1	..	..	1	..	..

(continued).

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List

Types	Plate	C. Kent House 1	C. Kent 2	C. Kent 3	C. Kent 4	C. Kent 5	C. Kent 6	C. Kent 7
Sling handle, wood C. Dorset,	14.16	..	..	..	..	..	..	..
— baleen	45.19-20	..	..	..	..	..	..	..
Bola	10.15-16	..	..	..	..	..	..	..
Salmon spear, centre prong	13.5-6	..	1	..	..	..	..	1
— side prong, with scarf	13.1,4	..	..	..	..	..	..	..
— — — V-groove	13.3	..	..	..	..	..	..	..
— — — two holes	13.2	1	..	..	..	..	..	..
— barb, with scarf	13.7,9-13	1	4	..	1	..	..	..
— — round, or with keel	13.22-23	1	..	..	1	..	..	..
— — with holes	13.15-17	..	..	..	..	..	..	..
Leister prong	13.18-21,28-35	..	..	..	..	..	..	..
— , two-pronged	13.24,27	..	..	..	..	..	..	..
Fish decoy, fish figure	14.10-11	1	..	..	..	..	..	..
— bear tooth	14.12	..	..	..	..	..	..	..
Trout needle	14.3-6	..	..	..	..	..	..	..
Gull hook with oblique groove	14.1,7	..	1	..	..	..	..	1
Barb for gull hook		..	..	..	..	..	..	..
Ferrule, conical or cylindrical	9.15-19	..	..	..	..	..	..	..
— ovoid	9.21-22	..	..	..	..	..	..	..
— with end groove (for bird dart)	9.20	..	..	..	..	..	..	..
— tubular	9.18	..	..	..	..	..	..	..
Nail, bone with head	12.24,26	..	..	..	..	..	..	..
— —	12.25,27	..	..	..	1	..	..	..
— wood	12.28	..	..	..	..	..	..	..
Means of communication.								
Sledge runner, bone	15.1,4	..	..	..	..	..	..	..
— wood	15.5	..	..	..	..	..	..	..
— ivory		..	..	..	..	..	..	..
Sledge shoe, nail holes, narwhal ivory		..	..	..	..	..	..	..
— — bone		..	..	..	..	..	..	1
— — antler		..	..	..	..	..	..	..
— — baleen		..	..	..	..	..	..	..
— lashing holes walrus ivory		..	..	..	..	..	..	..
— — narwhal —	15.7	..	..	..	..	..	..	..
— — bone	15.6	..	..	..	..	..	..	..
— — baleen	fig. 86	..	..	..	..	..	..	..

(continued).

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List

Types	Plate	C. Kent House 1	2	3	4	5	6	7
Sledge cross slat, bone	15.2,10	..	..	..	..	..	..	..
— angle brace	15.3	..	..	..	..	..	..	..
— upstander, antler	fig. 103.10	..	..	..	..	..	..	..
Toggle for draught line, wood	16.15-16	..	..	..	..	..	..	..
Trace buckle, ovoid	16.26-30	..	..	..	..	..	..	1
— trapeziform	16.22-23	..	..	..	..	..	..	..
— ovoid, holes at right angles	16.25	..	..	..	..	1	..	..
— — oblique hole	16.24	..	..	..	..	..	..	..
Kayak, fragment of stem	17.4-5	..	..	..	..	..	..	..
— — gunwale	17.3-6	..	..	..	..	..	..	..
— — rib	17.9-11	..	..	..	..	..	..	..
— deck beam, bone	fig. 103.12-13	..	..	..	..	..	..	..
— — wood		..	..	..	..	..	..	..
— harpoon rest, with a tenon	18.22	..	..	..	..	1	..	..
Tools.								
Snow knife with two shoulders	18.4	..	..	..	..	..	..	..
— fragments		..	..	..	..	..	..	..
— with hole-handle, musk-ox horn	18.2	..	..	..	..	..	..	..
— with separate handle, handle	18.10	..	..	..	..	..	..	..
— — — blade	18.9	..	..	..	..	..	..	..
Snow probe, bone	17.15-19	..	..	1	..	..	..	..
— baleen		..	..	..	..	..	..	..
Snow shovel, bone	17.8	..	..	..	..	..	..	..
Bone knife, sharp	19.5-6	..	..	..	..	..	..	..
— blunt	19.1-3	..	..	..	..	..	..	..
Baleen knife	49.10-15	..	..	..	..	..	..	..
Knife with endblade, old type, suspension hole	19.11-14,16	..	1	..	..	..	..	..
— — — fore end		..	..	..	..	..	..	..
— — — unilat. end knob	19.18-26	..	..	..	..	..	..	.
— — whitling knife	20.5-9,17-20	..	..	..	..	..	..	.
— — handle of two halves	21.6-7	..	..	..	..	..	..	.
— — open blade slit, bone	20.1-4	..	..	..	1	..	..	.
— — — wood	20.13-14	..	..	..	..	..	..	.
— — seating for blade, wood	20.15	..	..	..	..	..	..	.
— — side groove open at fore end, wood	20.24	..	..	..	..	..	..	.
— — lateral seating for blade, wood (Dorset?)	20.16	..	..	..	..	..	..	.
C. Dorset knife, one blade	1.12	..	..	..	..	..	..	.
— two blades	1.13-14	..	..	..	..	..	..	.

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List

Types	Plate	C. Kent House 1	C. Kent 2	C. Kent 3	C. Kent 4	C. Kent 5	C. Kent 6	C. Kent 7
Knife with side blade, wide blade part and narrow handle, dot ornament	21.14							
Knife blade, flint	2.5-13							
— slate	21.23-27							
— iron								
Hand drill, bone	24.3-5							
— wood	24.15							
Drill bow	24.6-8	1						
Drill shank with four points, ivory	fig. 106.11							
— wood	24.12-14							
Drill fore shaft	24.22-23							
— mouthpiece, astragalus of reindeer	24.24-25							
— bit, flint	24.27-30							
Whetstone	29.29							1
— asbestos	29.28							
— with grooves	29.30-31							
Hammer stone	29.26-27		1					
Bone maul	28.1-2				1	1		
Adze head, no holes	28.6-9							
— — C. Dorset	1.19-20							
— horizontal holes	28.13,17							
— — and curved ventral hole	28.14-16							
Adze blade, flint	28.18							
— iron								
Adze handle, one hole	28.20							
Hand pick, antler	30.7							
— — with teeth	30.16							
— — with transverse handle	30.12							
— bone (rib)	30.13-14							
Moss spade	30.9							
Hatchet head, ivory	30.6							
Mattock blade, with hole for shaft	30.3							
— groove —	30.2							
— seating —	30.1,4-5							
— indeterminable fragment								
Mattock shaft	30.11							
Flint flaker, walrus penis bone	27.11							
— ivory	27.10,14							
— antler	27.13							
— with curved handle	27.9							
Wedge	29.19-25							

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Types	Plate	C. Kent House 1	2	3	4	5	6	7
Marline spike, flat	29.9,12	..	1	..	1	..	..	..
— - with hole	29.13	..	..	..	..	..	..	..
— - narrow fore end	29.14-16	..	..	..	..	..	..	..
— round, pointed	29.3-8,18	..	..	..	..	..	..	..
Tool of pointed seal fibula	29.10	..	..	..	..	..	..	..
— polar bear fibula	29.1	..	..	..	..	1	..	..
Cutting board, bone or antler	27.18	..	..	..	..	..	..	..
— wood	27.7, 31.3-5	..	..	..	..	..	..	..
— — with "head"	31.6-7	..	..	..	..	..	..	..
Arrow straightener	fig. 103.11	..	..	..	..	..	..	..
Pointed wooden stick		..	..	..	..	..	..	..
Gouged wooden box, small	34.17-18	..	..	..	..	..	..	..
Ulo handle, low and wide, wood	22.6-7	..	..	..	..	..	..	..
— even transition to broad back	22.13-14,16,20	..	..	..	..	..	..	..
— — — , hole	23.6,11	..	..	..	..	..	..	..
— broad back, thin blade part, hole	22.21-22,24	..	..	..	1	1	..	..
— end projections at blade side	22.10	..	..	..	..	..	..	..
Ulo blade, stone		..	..	..	..	..	..	..
— iron		..	..	..	..	..	..	..
End scraper, convex edge, flint	2.25-33	..	..	..	..	..	..	..
— — other stone	25.9	..	..	..	..	..	..	..
Side scraper, — flint	2.16-19	..	..	..	..	..	..	..
— concave edge —	2.20	..	..	..	..	..	..	..
Atypical flint scraper		..	..	..	1	..	..	..
Flint flake	2.22-24	1	..	..	..	..	..	..
Stone scraper, blunt	25.11,13-15,17-18	..	..	..	..	..	..	..
End scraper, narrow, bone	26.11,12,14,17-19	..	1	..	..	..	..	..
— broad, bone or antler	26 6,8-10	..	..	..	..	..	..	..
— — reindeer scapula	26.7	..	..	..	..	..	..	..
— — antler with projecting handle	26.1-5	..	..	..	1	..	..	..
Scraper handle, trapeziform	23.12-13	..	..	..	..	..	..	..
Side scraper, open at the end	27.15	..	..	..	..	..	..	..
— with carved human head, ivory	fig. 92	..	..	..	..	..	..	..
— two-handed, reindeer metacarpus	27.6	..	..	..	..	..	..	..
Cup-shaped scraper, ivory	24.2	..	..	..	..	..	..	..
Sewing needle, bone	36.1-2	..	..	..	..	..	..	..
Bodkin	36.3-6	..	..	..	..	..	..	1
— ornamental	36.11-13	..	..	..	..	..	..	..
Needle case, "winged"	36.18-19	..	..	..	..	..	..	..
Thimble	36.20	..	..	..	..	..	..	..
Thimble holder, hook-shaped	36.29	..	..	..	..	..	..	..

(continued).

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List

Types	Plate	C. Kent House 1	2	3	4	5	6	7
Thimble holder, anchor-shaped	36.21-25	..	..	..	..	..	..	..
Boot creaser	36.15-17	..	..	..	..	..	..	..
Spatula-shaped implement, heavy	1.15	..	..	..	..	..	..	..
— — C. Dorset	1.22-25	..	..	..	..	..	..	..
— — — no ornament	1.21	..	..	..	..	..	..	..
Household Utensils.								
Pyrites	31.18	..	..	..	1	..	..	..
— with handle of antler	31.20	..	..	..	..	..	..	..
Fire drill	31.17	..	..	..	..	..	..	..
Top piece for fire drill, wood	31.8	..	..	..	..	..	..	..
Wick moss	31.19	..	1	..	..	..	..	..
Lamp, unworked stone	32.11	..	1	..	2	..	..	..
— small, oval of sandstone	2.34-35	..	..	..	..	..	..	..
— soapstone, triangular-oval, small, no ledge	32.4	..	..	..	..	..	..	..
— — with knobs	32.1,3,8	..	..	..	..	..	..	..
— — with ledge with openings	32.2,6,7	..	..	..	..	..	..	..
Lamp trimmer, wood		..	5	..	1	1	..	2
Cooking pot, soapstone, oval, inside susp.-holes	33.2,5,7	..	..	..	..	..	..	..
— — rounded-foursided	33.15-16	..	..	..	..	..	..	..
Soapstone bowl	33.14	..	..	..	..	..	..	..
Cooking pot fragments		..	1	..	..	1	..	1
Drying rack, baleen	47.1	..	..	..	..	..	..	..
— — wood, foursided		..	..	..	..	..	..	..
Meat tray	fig. 95	..	1	..	1	..	..	..
Bowl, side of baleen		..	..	..	..	..	..	..
— bottom, oval, bone	34.2	..	..	..	..	..	..	..
— — — wood	34.1	..	1	..	..	..	..	..
— — — baleen	46.14	..	..	..	..	..	..	..
Cup bottom, wood	34.3-4	..	..	..	..	..	..	..
— baleen		..	..	..	..	..	..	..
Tub stave	34.21-23	..	..	..	..	..	..	..
Coiled basket	34.19	..	..	..	..	..	..	..
Ladle, hollow stone		1	1	..	?	?	..	..
— musk-ox horn	34.7-8	..	..	..	1	..	..	..
— wood	34.5-6,11,14	..	..	..	..	..	..	..
Spoon (?), ivory	35.26	..	..	..	..	..	..	..
Marrow extractor	35.18-19	..	..	..	..	..	..	..
Meat stick, bone (rib)	31.9,11,13	..	..	..	..	..	..	..
— antler	31.10,12	..	3	..	..	..	..	..
Blubber fork, barbed, of bone	31.26	..	..	..	1	..	..	..

(continued).

C. R.		Ruin Isl.							Inuarfigssuaq																																	
									I.												II.																			III.			
House 1	— 2	House 1	— 2	— 3 A	— 3 B	— 4	— 5	— 6	House 11	— 12	— 13	— 14	— 16	Midden A	House 17	— 18	— 19	— 20	— 21	House 1	— 2	Midden B II	House 3	— 4	M. upper part	M. lower part	House 5	— 6	Midden B I	House 7	— 8	— 9	— 10	— 22	House 24	— 26	— 29	— 30		
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List

Types	Plate	C. Kent House 1	2	3	4	5	6	7
Hook, of antler	30.18-21	..	1	..	..	..	..	..
— of bone, small	30.17	..	1	..	..	..	..	..
Baleen handle (p. 267)		..	..	..	..	..	..	..
Bone rim with row of holes (for skin vessel)	35.5	..	..	..	..	..	..	..
Rib for skin vessel (?) bone	35.21,23	..	1	..	1	..	..	..
— — (?) wood	35.22,24	..	..	..	..	..	..	..
Bone mountings, indeterminable	35.6,11-15	..	..	..	..	..	..	..
Gut skin pane (?)		..	..	..	..	..	..	..
Carrying stick (?) wood		..	..	..	..	..	..	..
Clothing and Ornaments.								
Bird skin jacket, fragment		..	..	..	..	..	..	..
Boot		..	1	..	..	..	..	..
Mitten	fig. 97	..	..	..	..	..	..	..
Baleen wool		..	1	..	1	..	..	..
Button of bone	37.24-26	..	..	..	..	..	..	..
— — "winged"	37.27	..	..	..	..	..	..	..
Line buckle	38.6-9	..	..	..	..	..	..	..
Tubular buckle, with "wings"	38.15-18	..	..	..	1	..	..	..
Snow beater, baleen, simple	45.14	..	..	..	..	..	..	..
— — narrow butt with hole	45.13	..	..	..	..	..	..	..
— — symmetrically extended butt	45.12	..	..	..	..	..	..	..
— — — — conc. butt	46.7	..	..	..	..	..	..	..
Baleen stick, long with hole (and line)	46.10-12	..	..	..	..	..	..	..
Comb, narrow handle	37.2-3	..	..	..	..	..	..	..
— trapeziform	37.8	..	..	..	..	..	..	..
— hexagonal	37.1	..	..	..	..	..	..	..
— "human"	37.9	..	..	..	..	..	..	..
— fragment		..	..	..	..	..	..	..
Mirror of mica, with skin frame	36.27	..	..	..	..	..	..	..
Mica with cut edges	38.33	..	..	..	..	..	..	..
Mica		..	..	..	..	..	..	..
Bead, of fish vertebra	37.20	..	1	..	..	..	..	..
Pendant, stone	37.14-17	..	..	..	..	..	..	..
— bone or ivory	37.32-33	..	..	..	..	..	..	..
Chain link	37.29	..	..	..	..	..	..	..
Tooth pendant	38.19-28	..	..	..	..	..	..	..
— bear tooth	38.29-30	..	..	..	1	..	..	..
Ornamental plate with human face	1.26	..	..	..	..	..	..	..
Indeterminable ornamented objects	36.30	..	..	..	..	..	..	..
— — — C. Dorset (wooden stick)	1.17	..	..	..	..	..	..	..

(continued).

| C. R. | | Ruin Isl. | | | | | | | Inuarfigssuaq | | | | | | |

List

Types	Plate	C. Kent House 1	C. Kent 2	C. Kent 3	C. Kent 4	C. Kent 5	C. Kent 6	C. Kent 7
Games and Toys.								
Ajagaq, seal humerus	39.1-2	..	1	..	..	..	..	..
— seal radius	39.3	..	..	..	..	..	..	..
— stick	39.5-7	..	..	..	..	..	..	..
Gambling bone	39.22-23	..	..	..	..	..	..	..
Top-disc, soapstone	42.8	..	..	..	..	..	..	..
— ivory, with "eyes"	42.9	..	..	..	..	..	..	..
— baleen	48.11	..	2	..	..	..	..	..
— pivot	42.5-7	1	..	..	..	1	..	..
Seal figure, ivory	38.41	..	..	..	..	..	..	..
— wood	38.40	..	..	..	..	..	..	..
— — Dorset	1.18	..	..	..	..	..	..	..
Bear figure	38.38	..	..	..	..	..	..	..
Dog figure, ivory	38.35	..	..	..	..	..	..	..
Doll, flat face, no feet, wood	40.1-4	..	..	..	1	1	..	..
— — — ivory	40.5-7	..	..	..	..	..	..	..
— — wood, slender type	40.12-14	..	..	..	..	..	..	..
— — toupé and feet	40.15	..	..	..	..	..	..	..
— — boots and feet	40.8-10	..	..	..	1	..	..	..
— — hood and jacket	40.18,19,27	..	1	..	..	..	..	..
Naturalistic human figure of ivory	40.20	..	..	..	..	..	..	..
Toy harpoon head		..	..	..	..	..	..	..
— bladder dart head (?) baleen	48.18	..	..	..	..	..	..	..
— bow, of wood	41.18-22	..	1	..	..	..	..	..
— arrow, wood, extended blunt fore end	41.26	..	1	..	..	..	..	..
— — head	41.36-40	..	..	..	..	..	..	..
— — shaft	41.27	..	3	..	1	..	..	1
— sling handle, wood	42.11-13,27-29	..	..	..	..	..	..	..
— sledge cross slat, bone	41.4,6	..	..	..	..	..	..	..
— — wood	41.5,7-10	..	..	..	..	..	..	..
— whip handle, wood	41.15-17	..	..	..	..	..	..	..
— umiaq	42.1	..	..	..	..	..	..	..
— kayak	42.15-16	..	..	..	..	..	..	..
— boat (?)	42.2-3	..	..	..	..	..	..	..
— kayak paddle, narrow type	42.24	..	..	..	..	..	..	..
— lamp with knobs	43.7	..	1	..	..	..	..	..
— — with partition-ledge	43.9-10	..	..	..	..	..	..	..
— — simple	43.1,5	..	1	..	..	..	..	..
— cooking pot, round	43.18	..	..	..	..	..	..	1
— — oval	43.17-20-21	..	1	..	..	..	..	..
Round stone		..	1	..	1	..	..	..

(continued).

| C. R. | | Ruin Isl. | | | | | | | Inuarfigssuaq | | | | | | |

List

Types	Plate	C. Kent House 1	2	3	4	5	6	7
Objects connected with intellectual culture.								
Drum, baleen	47.5	..	..	..	..	..	..	..
Amulet	39.15	..	..	..	..	..	..	..
Miniature baleen knives	39.10-11	..	..	..	..	..	..	..
Amulet box	39.18-21	..	..	..	..	..	..	..
— double	39.17	..	..	..	..	..	..	..
Sundries.								
Fragments of seal thong		..	9	..	1	..	..	..
— skin pieces		..	5	..	2	..	..	..
Plaited sinew thread		..	..	..	..	..	..	..
Bird quills		..	..	..	..	..	..	..
— , one put into another		..	..	..	..	..	..	..
Baleen quadrangular plaiting	49.20	..	..	..	..	..	..	..
— line with knots		..	7	..	2	..	..	..
— indeterminable fragments		..	12	..	1	..	..	..
Waste flint		..	2	..	..	..	..	..
— slate etc.		..	..	..	..	..	..	..
Indeterminable fragments of wooden objects		2	22	..	9	3	1	2
— — bone		..	6	..	3	9	3	5
Drilled pieces of bone		..	..	..	..	..	..	..
Objects of Norse origin.								
Chain mail fragment	44.7	..	..	..	..	..	..	..
Iron blade	44.8	..	..	..	..	..	..	..
Leg from metal cooking pot	44.4	..	..	..	..	..	..	..
Tub bottom with circles	44.6	..	..	..	..	..	..	..
Comb	44.11	..	..	..	..	..	..	..
Draught-man	44.12	..	..	..	..	..	..	..
Chess-man	44.9	..	..	..	..	..	..	..
Woollen cloth	fig. 110	..	..	..	..	..	..	..
Copper (*native)		..	..	..	..	..	..	..
Y-ornament		..	..	..	..	..	..	..
Spur line		..	..	..	1	..	..	..
Dot ornament		..	..	..	..	..	..	..
Plug ornament		..	..	..	..	..	..	..
Line ornament		..	..	..	..	..	..	..
Openwork		..	..	..	..	..	..	..

(continued).

| C. R. | | Ruin Isl. | | | | | | | Inuarfigssuaq | | | | | | |

House 1 is broadly pear-shaped, tending towards clover-leaf, about 4 m broad and 3 m deep.

House 2 is also about 4 m wide and 3 m deep, but the shape defies description.

House 3 is of same shape and dimensions as House 1.

House 4 is a ruin about 6 m broad and 3 m deep; no attempt was made to excavate it, and therefore nothing can be said as to its shape.

The excavated houses yielded bones of walrus, seal and caribou, but otherwise practically nothing of interest, the culture deposits being spoiled by percolating water.

A little higher up than the houses the ground rises steeply, but just behind them it has the character of a plain stretching westwards along the shore and sloping smoothly down to it. Nearest the beach is a broad stony belt in which lie a number of tent rings, some of them overgrown with willow and evidently very old; one of the most distinct specimens measured 2.5×3.3 m. There are also some meat caches, a few of them still in use. About 100 m west of the ruins there is a depression with very large stones, about 2×2 m. This may be a small house site. East of the river is a shelter, built of large flat stones placed on edge; it is built inside an old tent ring, of which the flagged floor is still to be seen.

Thule (Ũmánaq).

In lat. 76°34′ N., long. 68°50′ W. approximately, north of the present settlement, lies an old settlement with 26 ruins distributed about an area almost 120 m in width and stretching over 400 m inland. This "built-up" belt has a vegetation of grass and moss and on the south is flanked by a continuous border of low rocks, on the north by two rounded rocky areas. The lowest of the ruins lie right out on the metre-high bluff on the beach and have partly been washed away by the sea; the uppermost one lies at a height of about 20 m above the high-water line. As the survey map fig. 59 shows, most of the ruins are in two groups, viz. at the places where the ground rises most steeply. Between cotes 5 and 6 is a flat, boggy area with a very thick layer of mossy turf, where to this day the people cut peat for their houses. In the middle group, between Houses 21 and 16 is a smaller wet area which divides this group into two sub-groups; above here, however, the dryness of the ground increases quickly and the luxuriance of the vegetation decreases correspondingly.

The present settlement begins just to the south of the old one and extends about 400 m down towards the Thule mountain (Mount Dundas).

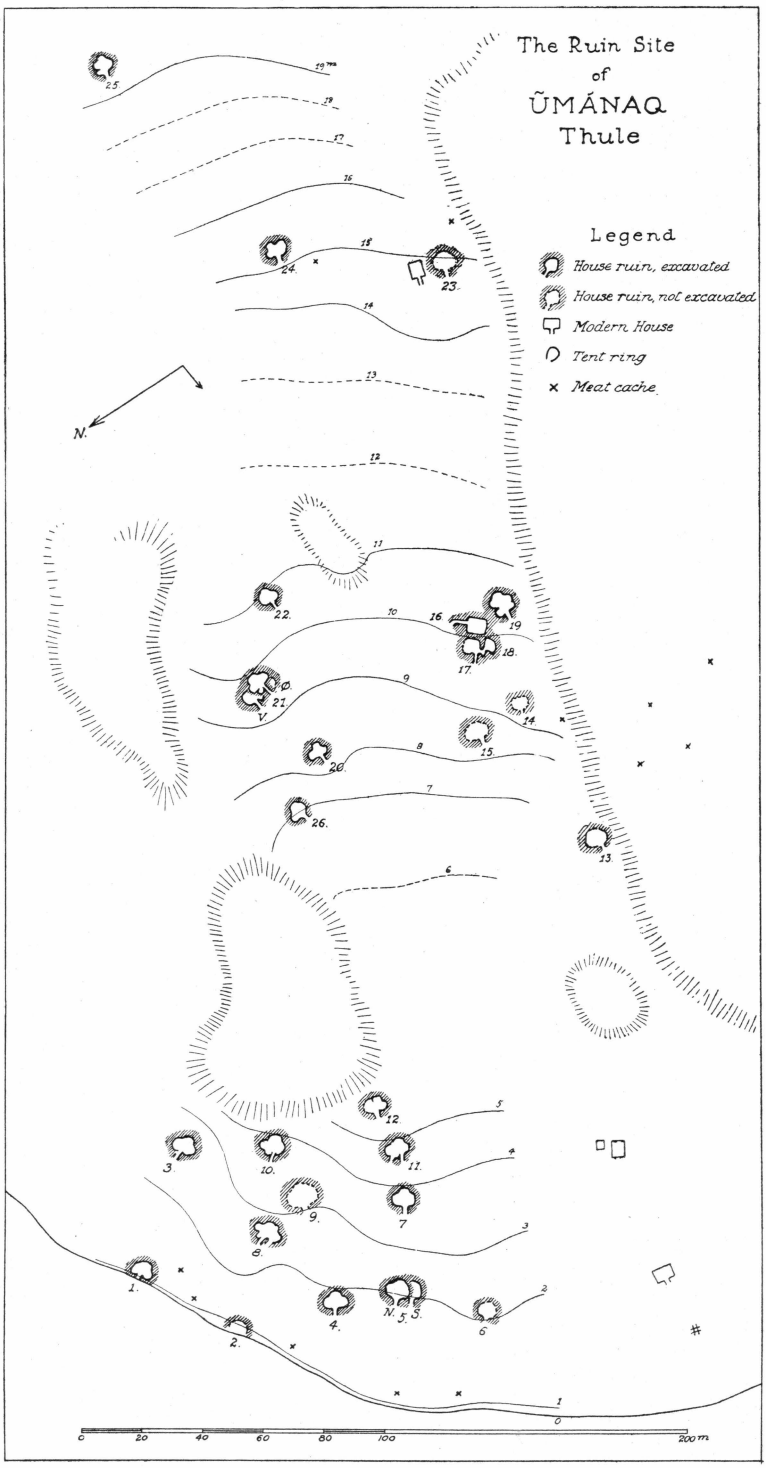


Fig. 59. Survey plan of ruin settlement at Thule.

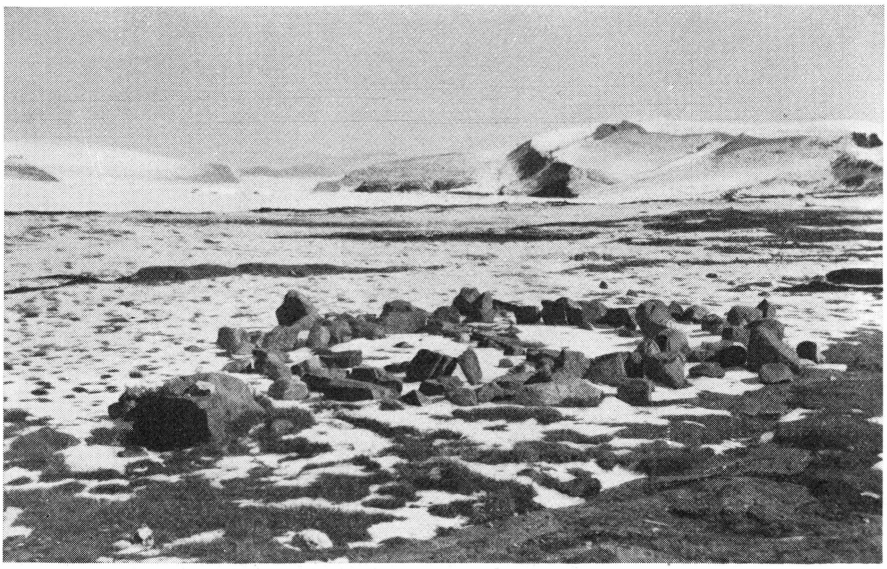


Fig. 60. Tent-ring at Thule.

At its south end lies Comer's Midden (Co. A), in which excavations were made, and on a stretch between it and the Thule mountain there is a smaller midden (here called Co. B) and a row of ruins most of which have been almost washed away by the sea. In among the present-day, somewhat scattered houses there are other old ruins, but they are in such a trampled state that no attempt was made to excavate them, having regard to the time at our disposal. In the flat, higher ground behind are a number of graves and meat caches of recent time, and some of the population in fact camp out there in summer.

On a small point about two kilometres up the fjord are two recent houses, but they were not excavated. There were also kayak supports and, in the terrain above, several meat caches and rows of stones for hare snares.

Farther up Wolstenholme Fjord, at Uvdle, a small ruin of simple, rounded form was excavated; it contained nothing of interest.

House 1.

(Plan fig. 62) is the northernmost house, quite close to the beach. Prior to excavation all that could be seen was a faint depression in the middle, the wall mounds not being perceptibly higher than the surrounding ground, and in addition a raised beach had been thrown up across the front part of it. The outer part of the passage proved to have been washed away, and the remainder, as well as most of the house itself, was full of shingle thrown up by storms. Grass was growing in the lower



Fig. 61. Rows of stones for hare snares, Thule.

part of the shingle, and under it was an old, thick layer of moss; the latter shows that some considerable time must have elapsed after the collapsing of the house before the submergence had advanced so far that the house came within range of the sea's mound-raising activities. As a matter of fact, while excavations were proceeding the house was again filled with shingle during a violent gale. Inside the ruin lay comparatively few collapsed wall stones, but there were several remains of large whale bones.

The shape of the house may be described as being irregular cloverleaf, with the passage running northwest; the breadth is about 6.7 m and the depth 4 m reckoned from the threshold stone to the back wall. The main platform is opposite the passage and has two spacious, partly flagged lockers; it is built of large stones set on edge and covered with flags, though only the innermost remain. On the platform was a thick layer of heather. In the west room there seems to have been a narrower platform, though the only remains of it worth mentioning were at the end nearest the main platform.

The north room is almost oval, 3×2 m, and seems to have had an opening inwards measuring 1.5 m. At the inturned corner were some large stones which had slipped inside but which undoubtedly once formed a solid corner pillar. Opposite them, at the side of the inner end of the passage, stand a couple of very high stones, clearly shown in fig. 63. Almost the whole of this room was occupied by a well-constructed flag-

platform, prolonged by a narrower table at right angles in towards the passage; the latter had evidently been a lamp table. Under it was a large, bowl-shaped lamp (fig. 94).

In the west side of the house, between the west room and the passage, is a kitchen with two fireplaces, where there were thick layers of slag. The fireplace to the south is 40 cm higher than the floor, the one to the north 10 cm higher; it is possible that they were not used simultane-

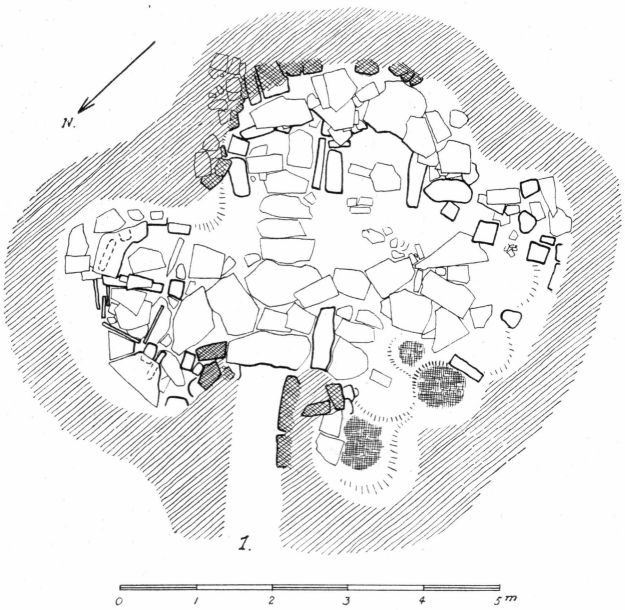


Fig. 62. Plan of House 1, Thule.

ously. In front of the south fireplace the floor is raised slightly, and here was a firmly stamped mass of slag and charred bones.

The platform is 37 cm higher than the floor, which at the west side lies about 90 cm, at the east side 70 cm below the ground surface outside. In the wall east of the main platform and just below the ground surface was a fireplace and a pavement of flat stones; these however were hardly connected with the present house. The greater part of the house floor is paved with large stone flags, of which some form a straight row from the passage towards the main platform. Almost in the middle of the room there is an empty space; here we removed some large collapsed stones which may have formed a roof support. The floor was covered with a thick culture layer containing among other things a quantity a baleen, as well as a human femur and two vertebrae.

Finds: L 3: 2739—2936, 2938—2966, 11938—11943, 11945—11949, 11951—11958 and 11963—11967.



Fig. 63. Thule. House 1 after excavation.

House 2

about 30 m west of House 1 was not excavated. The front half of it is washed away, and in the remainder a large meat cache, which is still in use, had been erected.

House 3.

(Plan fig. 64) is a large ruin, lying about 30 m behind House 1; it has very thick earth walls rising 50 to 70 cm above the ground and at the front especially of unusual thickness. Inside the site was covered with a very thick layer of moss, with grass and willow on the higher places. After the moss had been removed there seemed to be nothing but gravel in the bottom, but there proved to be a culture deposit under the gravel with baleen etc.; here too we found a human femur. Scarcely anything was left of the stone walls, but the shape of the house can be seen to have been a distorted clover-leaf, with two large rooms and a small extension in the northeast side. The breadth at the front is 6 m, the depth 4 m, and the passage is 3.5 m long. In the main room opposite the passage was the remainder of a gravel platform with lockers, separated from the gravel by flat stones set on edge. The house floor presented a chaotic picture on account of the wet bottom, which caused the stones to float in the gravel; nevertheless it could be seen that the floor had lain about 60 cm lower than the terrain behind the house and 1.1 m lower than the top of the rear wall. The height of the platform is about 40 cm above the floor.

Furthermore, at the east side of the passage were traces of two rooms whose connection with the house, however, is not quite clear. The outer one had an outer limit of stones and seems to have had an entrance just next to the passage, but no wall could be found in against the passage; some flooring flags lie about 45 cm higher than the floor

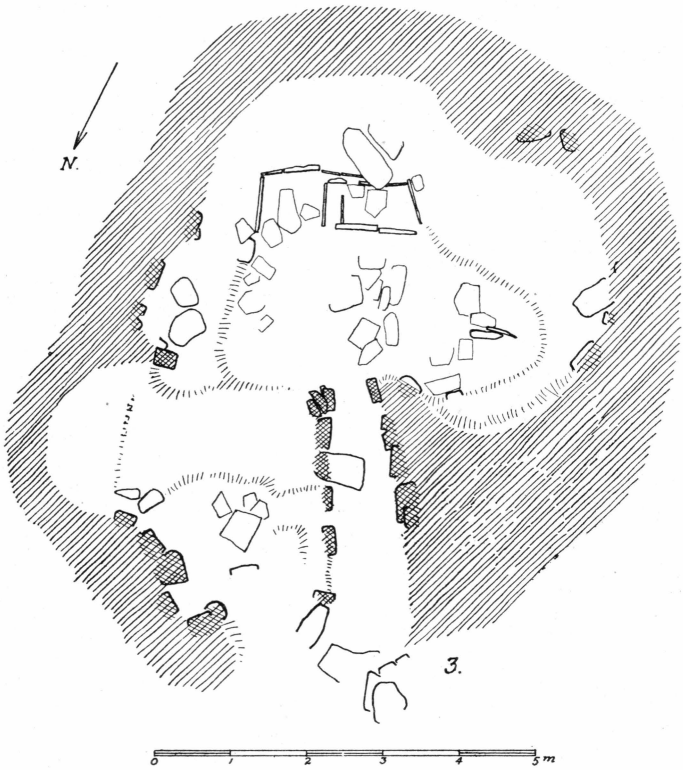


Fig. 64. Plan of House 3, Thule.

of the house, i. e. almost corresponding to the original ground surface. From the house itself this room was separated by a slightly higher area, about 1.2 m wide, which, to judge from the character of the gravel bottom, seemed to have formed a room in itself, narrow and about 3.5 m long; here again, however, we could find no sign of any actual mound or partition between it and the house.

Finds: L 3: 2967—3052.

House 4.

(Plan fig. 65) lies about 20 m almost south of House 2, at a distance of barely 20 m from the beach. It was a distinct ruin with walls which on the west side rose up to 50 cm above the ground; inside it was covered

with a thick layer of moss, and in the turf layer below this was a human skull and, somewhat lower down, a femur and three ribs. The house is an irregular clover-leaf in shape, 6.5 m broad and about 5 m deep, reckoned from the front wall; the passage, rather curved and about 3.8 m long, projects 0.8 m inside the house. The interior of the house

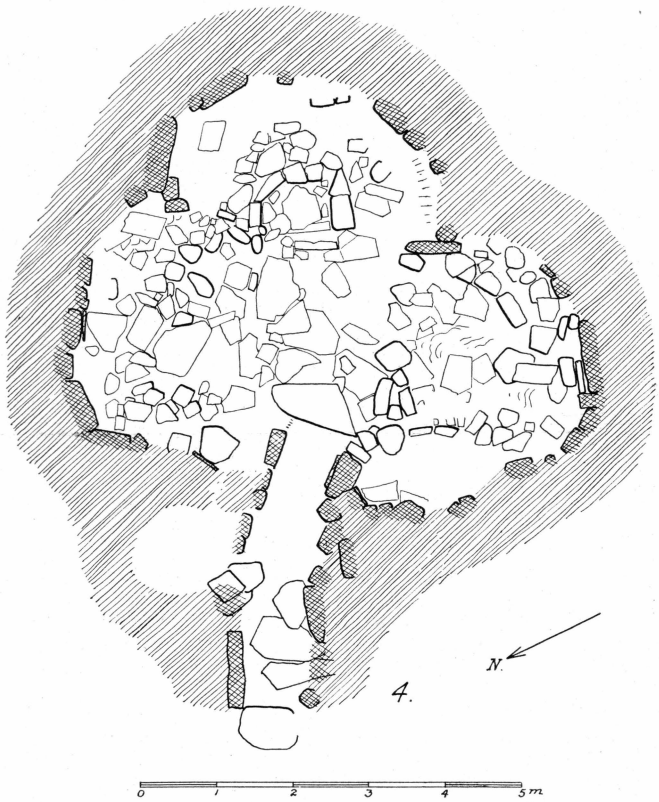


Fig. 65. Plan of House 4, Thule.

was in a disorderly state, as the floor turned into a muddy mass; apparently it had been in a somewhat similar state earlier, as in the middle of the house over the lower flagging there was a filling of stones of promiscuous shapes and sizes; the threshold stone for instance lies 24 cm higher than the nearest original flooring flags. Between these flags were layers of sticky grease, especially in the front part of the house.

There had been platforms in all three rooms, partly built up of stones packed with turf and heather. The north room does not curve outwards so much as the others, so that the platform extended some way in front of the main platform, which doubtless on that account had only one locker. All the lockers have a flagged bottom, and in the south

one the rock projects a little. By the side of the south platform, between it and the projecting part of the passage, is a separated area, presumably a meat recess. On the southwest side the floor of the house lies about 45 cm, on the north and east side 35 to 60 cm lower than the ground outside, and 0.75 to 1 m below the top of the wall. In the passage lay a ravelled mass of baleen waste. On the north side of the passage we found a depression in the site, but no floor could be discerned; there may have been a more loosely built room here; in the turf was a small arrow head and a bow-drill mouthpiece.

Finds: L 3: 3053—3266 and 3651—3653.

House 5 N

is an extensive ruin situated just to the south of House 4 and, as it turned out, containing the ruins of two houses. The northern one is remarkably like the above described House 3 in shape and size, except that here the long, problematic offshoot is on the south side of the passage, but here again with no perceptible wall in against the passage, and in the same manner there is a small room north of the passage. Just inside the projecting corner inside the house itself were a little ash and slag. This ruin was very dry and the gravel bottom was quickly reached, but no distinct culture deposit was found; still, some objects were discovered in culture remains in and under the gravel. In the main room and the north side room were remains of platforms, dug into the gravel bottom; in the latter were some flooring flags and one or two platform flags.

Finds: L 3: 3267—3331.

House 5 S

lies on the south side of House 5 N, which seems to have been built in over it a little; the wall mounds are also lower, but recognizable on the ground. The house seems to have been clover-leaf shaped; the present part of it measures about 4 m in breadth and 5 m in depth. The passage was closed in towards the house by a large stone placed on edge, and just south of this stone was a fireplace, though its connection with the house is doubtful. In the east and south sides were remains of gravel platforms, and a quantity of baleen under a thick layer of moss lay over the flagged floor.

In the back of the house, where the two rooms meet, was a flagged area measuring about 1×1 m at ground level and extending outwards, but its connection with the house could not be determined with certainty.

Finds: L 3: 3332—3374.

House 6

lying about 15 m south-west of House 5 S and 25 m from the beach is the most southerly house in the lower group. It was an almost obliterated ruin, and excavation was commenced so late that it could not be completed; for this reason the shape of the house could not be established. At about the middle of the ruin was a pit with culture re-

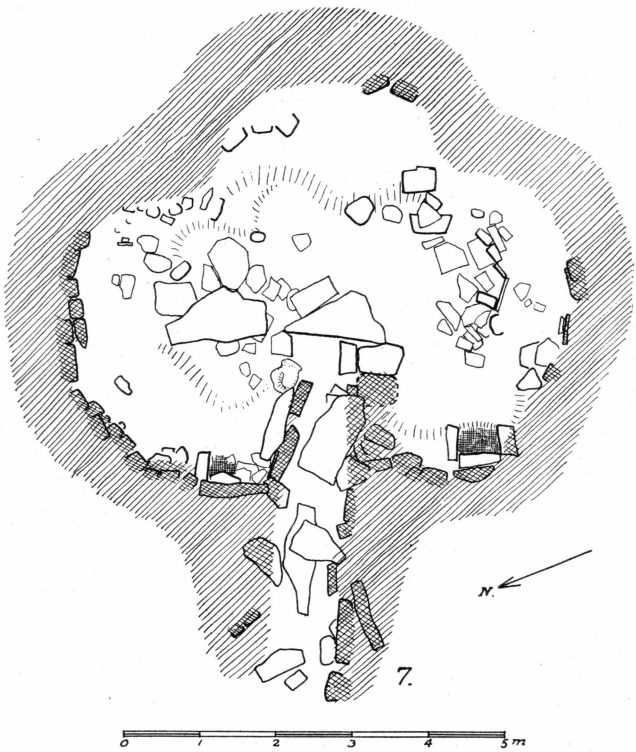


Fig. 66. Plan of House 7, Thule.

mains, extending towards the south side of the house; at first it gave the impression of being a platform locker, but it turned out to have a high and firm wall of gravel at the front too. At the middle of the west side near the front wall was a fireplace, and south of this a small offshoot with a flagged floor, where again were some culture remains, including baleen. We were unsuccessful in finding the passage, but in the north side was a hint of a gravel platform with two small flags, but at a higher level than the supposed platform in the east side.

Finds: L 3: 3375—3432.

House 7.

(Plan fig. 66) lies 20 m behind House 5 N. It was a distinct, almost oval site, covered inside by a thick layer of moss. Excavations showed

that the house was clover-leaf shaped with a breadth of 6.5 m and a maximum depth of 5 m from the front wall. Only little was left of the stone walls, mainly in the front, but inside the house were some fallen-in stones, some of them fairly large. The passage has a length of 4.5 m, of which 2 m lie within the front wall, the two side rooms being considerably expanded forwards so that their front part could serve as a kitchen; in each side is a small stone-built fireplace up against the front wall. These fireplaces are rather high above the floor, the southernmost one being about 12 cm higher than the platform. On the north side of the passage, just at the inner entrance, was a large whale bone. There was a gravel platform in each of the three rooms, but the stone edging had disappeared except at the south side where there had been a locker, framed with flat stones set on edge. In front of this a small part of the floor was paved with small flags; the remainder of the floor was muddy and greatly disordered.

It looked as if there has been a small offshoot at the side of the passage, on the north side, as there was a small depression in the earth wall here (not shown in the plan), where we found four trace buckles. At the front the earth wall rises 75 cm above the ground, at the back only about 20 cm, and at the sides between 40 and 50 cm. The platform in the south side is about 10 cm lower than the ground outside, whereas the fireplace apparently was at the height of the original ground surface. The floor is 30—35 cm lower than the platform, though the large, three-sided threshold stone is 10 cm higher than the floor. As far as could be judged the bottom of the passage at the inner end was only about 20 cm lower than the surface of the threshold stone.

Finds: L 3: 3433—3521.

House 8.

(Plan fig. 67) lies almost midway between House 4 and House 3; it is an elongated clover-leaf shaped house with offshoots at the front on both sides of the passage; the breadth is about 7.5 m and the maximum depth 5 m. The passage could be followed for a length of 3 m, but the outer part of it was completely destroyed. The entrance inside the house is almost on a line with the front walls of the two side rooms, but the excavation goes 1.5 m farther into the house, where it does not seem to have been covered over, the stone edging not rising much above the floor in the two adjoining offshoots, of which that on the east has the remains of a small fireplace at the front wall. Forward in the west end of the house was a faint depression which at first was taken to be a passage, but we were unable to confirm it; all the same, we could find no distinct wall in towards the house. On the whole very little of the walls remained; only at the front were there a few continuous rows of

stones, nevertheless the outline of the house was determinable fairly well from the earth mounds, which rose about 20 to 55 cm above the ground, and the platforms.

The main platform, right opposite the passage, was built into the gravel with two well-made lockers framed with stones set on edge and paved with flags; the one to the west was closed at the front by a long flag which was also on edge. These lockers contained quite a number

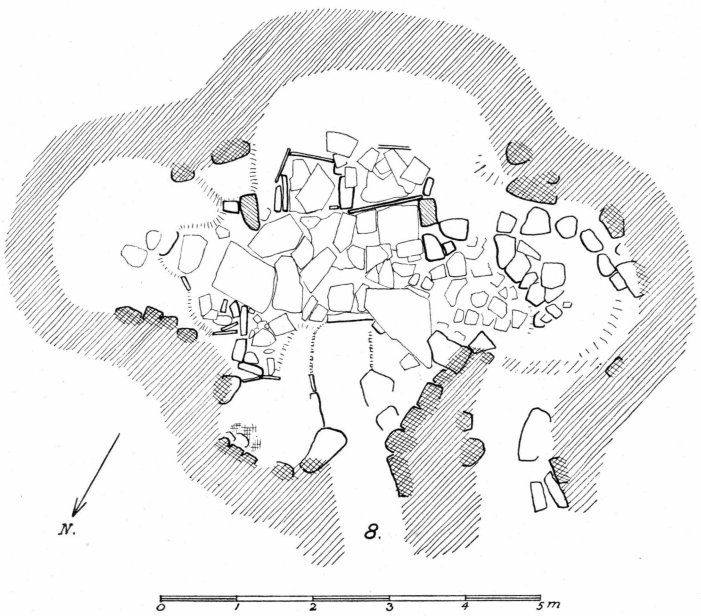


Fig. 67. Plan of House 8, Thule.

of finds. At the front at each end of the platform was a stone, 80 and 90 cm high respectively, which must have formed the base of a pair of roof supports. The elevation of the gravel bottom would also indicate that the wall, at any rate on the east side, extended right in to the stone pillar. In the side room on the east was a low gravel platform with a single locker with a large flag in the bottom. At the north end of this platform, in towards the kitchen, lay some stones which looked as if they had supported a lamp table; the outer three of these stones forms an angle at the side of the entrance to the kitchen, and the bottom here was paved with stones; presumably there was room here for meat and blubber. In the west room of the house conditions were less distinct; part of the platform consisted of a filling of stones, in front of which was a floor paving of small flags. The rest of the floor of the house was carefully flagged. From the west room the front wall runs obliquely out towards the passage, thus forming a peculiar triangular space at the front.



Fig. 68. Thule House 8 with the two roof supports at the fore edge of the platform.

The difference in the height of the ground from front to back is about 70 cm. The gravel floor of the kitchen lies at about the original ground level, whereas the house floor (the threshold stone) is 25 cm lower; the bottom of the passage, at the inner end formed of rock in situ, is 20 cm below the threshold stone. At the west end of the platform just below the upper layer of moss lay the most of a human skeleton; the skull was missing, but the head hairs lay where the head had been. The left arm could be seen to have been bent with the hand towards the chest, whereas the right arm was stretched out to the side. The legs were also missing, but some of the bones and a fragment of the cranium were found not far away, in the west end of the house. Under the skeleton lay the remains of a skin.

Finds: L 3: 3522—3650.

House 9

was not excavated. The ruin, which rises considerably above the ground, lies just behind House 8; its dimensions are about 9.5 m in breadth and 8 m in depth. It was overgrown with thick grass and it contained many stones; meat caches seemed to have been built in the east and south sides. Presumably this house was clover-leaf shaped with offshoots on both sides of the passage. In front of the site were faint indications of a midden with baleen.

House 10.

(Plan fig. 69) lies close behind House 9 and about 15 m south of House 3, near the margin of the low rocky area in front of which the entire lower group lies together. At the front the ruin was about 60, behind about 20 cm higher than the ground with the wall-mounds covered with grass and the centre with moss; the bottom was very wet, and in the middle of the ruin lay a heap of large fallen-in stones. This

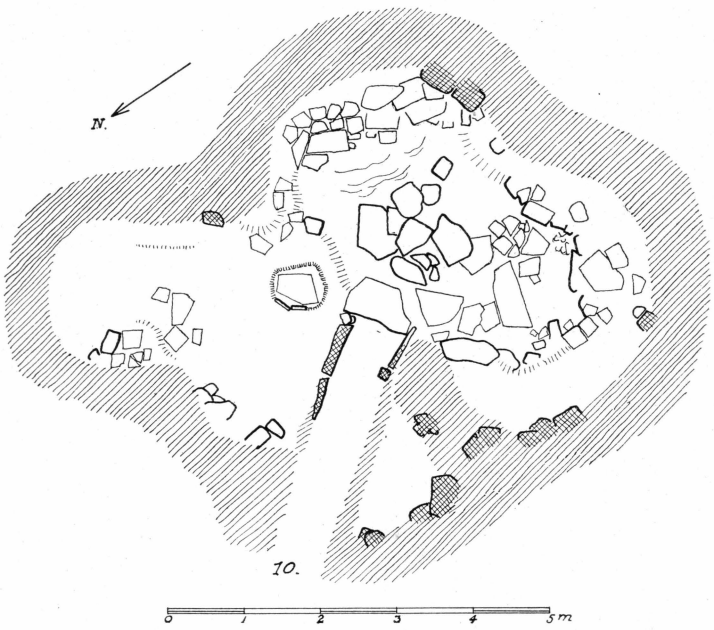


Fig. 69. Plan of House 10, Thule.

house if anything was clover-leaf shaped, but very irregular; it has characteristic points of resemblance with both House 8 and House 3. In the east and south sides are rooms with the usual platform arrangements, and in the north side is an elongated room with an extension in the front side towards the passage, which here too seems to have been open inside the room along the last 2 m. On the other side of the passage there had also been a smaller offshoot, separated from the interior of the house by a mound of gravel. The greatest dimension of the house in the breadth is about 8 m, the depth being about 5 m. The passage, which leads obliquely into the house, had been 3 to 3.5 m long but was in very poor condition; only towards the inner end was there some of the stone edging, consisting of flat stones set on edge. For the rest there were practically no stones left of the house walls, and as in House 3 there was a very thick wall mound at the front.

At the back the main platform was covered with flags, whereas the front edge was quite destroyed; here was a rock outcrop. The platform in the west room consisted partly of midden fill—apparently from an earlier habitation period, and the space at the front under the platform was also full of culture remains; here underneath was a large piece of a baleen platform mat; over the platform was a thick layer of moss and heather. The floor in front was flagged, whereas the remainder was mud and full of large stones. In the north part of the house, however, there was an even gravel floor, 20 cm higher than the flags in the southwest side and delimited inwards towards the house by a slight fall in the gravel bottom; no platform could be observed here, and only a few stone flags remained, some of them, extending close in to the front wall, lying slightly higher than the others; on them lay remains of a platform mat. Near the back wall, and parallel with it, we observed a long narrow depression in the gravel bottom, as if a row of stones had once stood there. In the centre of the opening in towards the house in the gravel bottom was a pit 33 cm deep and measuring about 50 × 60 cm at the top; its bottom consisted of a large flag and the wall at one side of two stones on edge. The pit was full of loose gravel mixed with grease and baleen fragments; under it all were a piece of caribou antler and a piece of worked bone. The floor round about was also permeated with grease.

The platforms in the main room and the west side room lay at the same level, 50 and 30 cm respectively below the ground outside and 70 and 65 cm below the top of the wall; the height of the platform is barely 30 cm. The threshold stone at the passage mouth lies about 12 cm higher than the floor (as in House 7) and is 35 cm above the bottom of the passage.

Finds: L 3: 3654—3863.

House 11.

(Plan fig. 70), lying just behind House 7, was an extensive site, its outline indicated by a distinct and not very wide remnant of a wall mound. Nothing remained of the masonry, and only faint traces of the interior of the house were left; most distinct was the passage, of which the bottom lay about 40 cm lower than the scattered remains of floor flagging; a number of finds were also made in it. Judging from the course of the wall mound the house had three rooms (clover-leaf shape), but of these that to the north is disproportionately large; we could find no demarcation between this room and the rest of the house. At the front this north room extends right forward along by the passage, at the outer extreme separated from it for about 2 m by a mound; the innermost 1.5 m of the passage on the other hand is of the same open character as

that in some of the houses described above. At the spot where the closed part of the passage began lay a large covering stone which had fallen in. The maximum breadth of this house is about 8 m and the depth about 6 m. The passage is 4 m long. The inner part of the passage was set with stones, some of them flat set up on edge, and in front of the innermost stones was some fill, as if the passage had once extended farther in—or

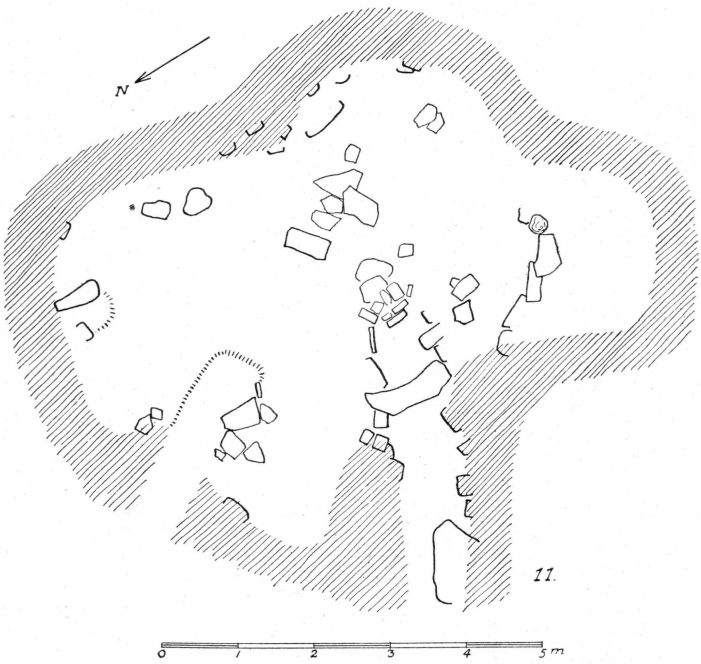


Fig. 70. Plan of House 11, Thule.

there may have been a cavity under the threshold stone. Inside the passage lay a quantity of baleen and bear hair.

The bottom of the house consists mainly of gravel and, especially in the north part, of finely levigated sand, in which there were baleen remains here and there. Excavations in the gravel bottom showed that about 1.5 m north of the passage there was a pit extending towards a depression in the earth wall at the front; it looked as if there had once been another passage there. The innermost part of the pit was full of sand, in which lay a few culture remains; but farther out, where the sand became very hard, it was impossible to trace the limits of the pit. As far as could be seen the bottom of the pit at the inner end lay about 20 cm higher than the bottom of the excavated passage. The difference in the ground levels front and back of the house is about 65 cm. At the front

the earth wall is 50 cm above the ground, at the north side 35 and at the back only 15 cm. The floor in the centre of the house is 15 cm lower than the present ground level on the north side and 40 cm lower than that on the south side.

Finds: L 3: 3864—4000.

House 12.

(Plan fig. 71) situated just behind House 11, was an almost entirely obliterated ruin, the wall mounds rising only 8 to 15 cm above the ground—except in the southwest part, where at one part it reached up to 40 cm. In breadth it measured about 8.5 m, in depth over 6 m, and it was overgrown with grass, moss and, on the wall mound, willow. The gravel bottom turned out to be close under the covering of turf, and only at the south end of the site was there a culture deposit, about 10 cm thick, mixed with gravel; here too lay some scattered flooring flags and an accumulation of large stones, presumably a later meat cache or a grave. In the east side we found a continuous stretch of stones, 20—25 cm high, fringing a platform area 2.3 m in breadth, on which the scattered stone flags lay only about 20 cm higher than the remnants of flooring flags lying in front. The line of stones ended at the south in a tall stone, and both opposite this stone and at the north end of the platform the gravel bottom was full of grease, presumably a result of lamps having been situated there. Opposite the platform lies the mouth of the passage, which extends westwards about 4 m and has remains of stone walling in the south side. The threshold stone was represented by a piece of a big whale bone, and the bottom at the inner end of the passage was 35 cm lower than the nearest floor flag.

The two rooms that could be determined in the south part of the ruin seem to form part of a clover-leaf shaped house, but the third room could not be placed with certainty, as the whole of the north half of the site consisted of an even stretch of gravel. In the northwest side was a faint depression in the low wall mound, but it could not be seen that any separate house had stood there; conditions in so far are very similar to those in House 11.

At the outer end of the passage it was possible to see that there had been a small room on each side, apparently with their entrance from the passage; the bottom of the one on the north side lay 10 cm higher than the bottom of the passage. On the south side the passage terminated in a large stone which at the same time formed a wall in the side room. Inwards the passage seemed to have extended 1.5 m inside the front wall of the house; nearest the south side of the passage this wall forms a small bulge, thus making a corner where the floor was permeated with grease—without doubt the meat recess.

Despite the poor state of this house it contained quite a number of finds, especially the south part and the passage. Among those inside the house were a human skull, two fragments of a mandible, and two femora, and in the passage was a child's mandible. In front of the house,

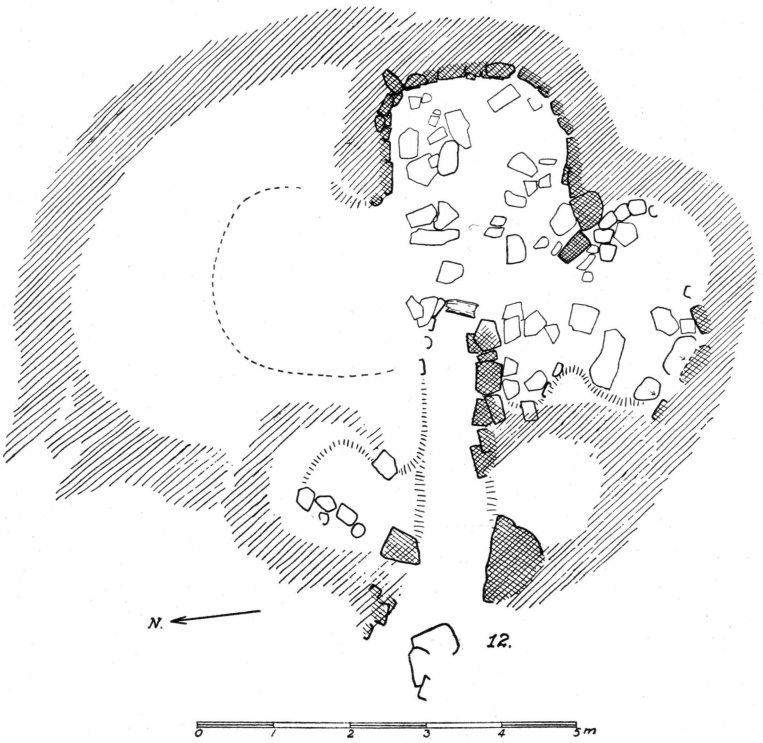


Fig. 71. Plan of House 12, Thule.

down towards House 11, were traces of a midden with baleen in an advanced state of decomposition.

Finds: L 3: 4001—4188.

Houses 13, 14 and 15

were not excavated. They are large, presumably fairly recent ruins with a luxuriant vegetation of grass, all lying on the south side of the plain 180—200 m from the beach.

Houses 16, 17, 18 and 19 lie together in a group, likewise on the south side of the plain and about 240 m from the beach—the first three close together, House 19 separated slightly from the others. In the depressions in the centre of the ruins were dense grass and moss, and on the wall mounds, which were very dry, willow.



Fig. 72. Thule. House 16 after excavation.

House 16.

(Plan fig. 73) lies in the middle of the cluster, with its passage running northeast, i. e. parallel with the beach; at its outer extremity, however, it bends northwest, so that the opening itself faces the beach. In the middle of the ruin up against the east wall was a large meat cache of big stones—presumably taken from the house—and flagged in the bottom; the bottom proved to be 40 cm higher than the original floor of the house. The lower layers in the cache were permeated with grease.

The house proved to be foursided with a breadth of 4.5 m and a depth of 6 m (in continuation of the passage). The passage, the entrance to which is only 1 m from the east side wall of the house, has a length of 5 m. The only stone walling found was in the passage and the east side of the house, where one stone almost at the middle was 70 cm high; after it in the direction of the back wall was a row of flat stones on edge. The same was the case on the west side and the nearest corner of the front wall, except that there the flags were higher. The house is dug down into the sandy bottom, and the wall mounds consisted chiefly of sand, which the flat stones thus prevented from slipping inside. Behind the flags on the west side were the remains of what looked like older stone walling, of more irregular stones; it seemed that here the wall had once slipped in and had been repaired by putting up these flags. A large flag, lying overturned in the southwest corner, had no doubt also stood on edge at one time. The space between the two lots of stone-

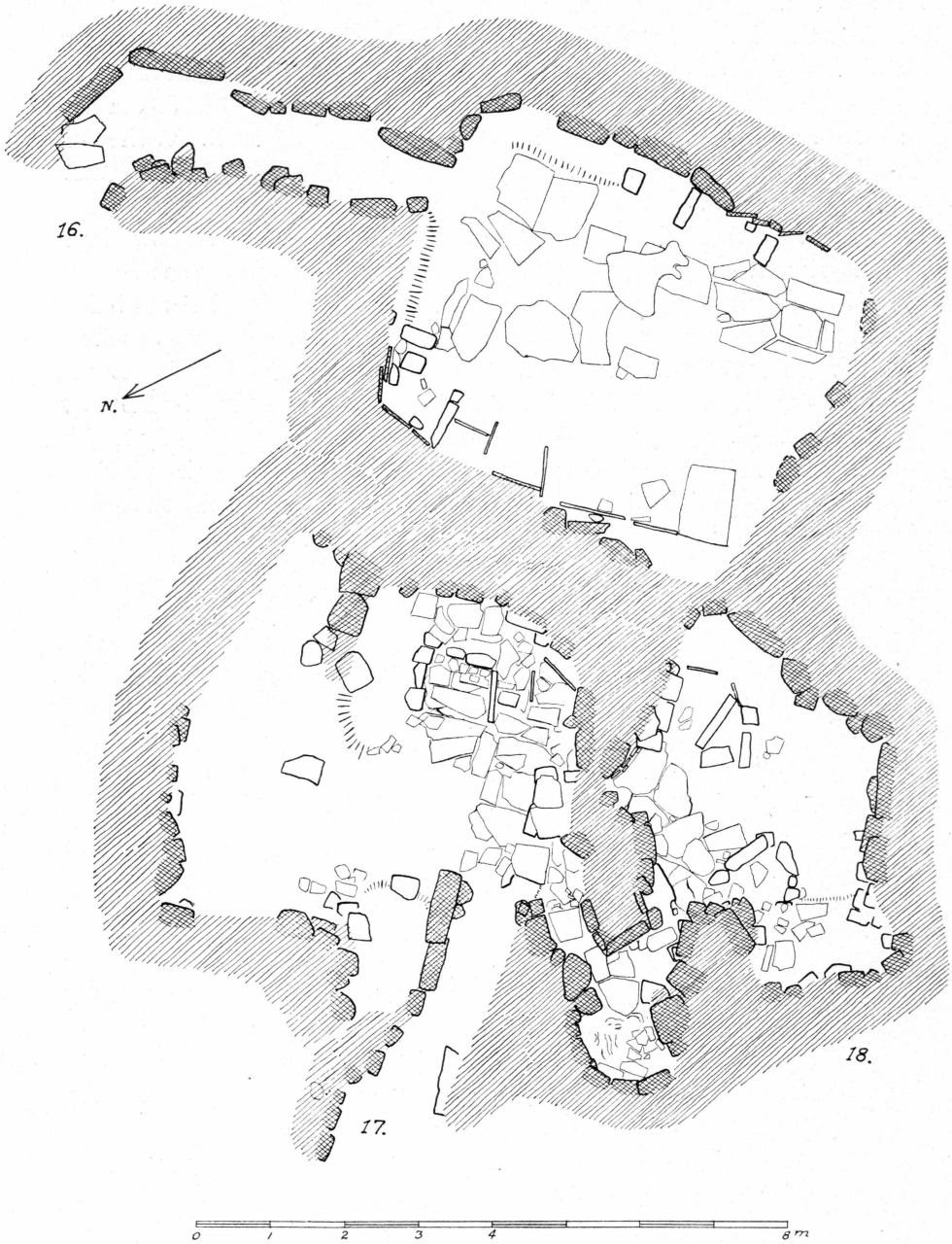


Fig. 73. Plan of Houses 16, 17 and 18, Thule.

work was full of sand, which had also spread in over the rear part of the house.

If the shape of the house was unusual, so was its internal arrangement. In the east and west sides there seem to have been narrow platforms along the walls, as there was a row of supports 40 to 50 cm high, some of them flat stones, 60 to 80 cm out from the wall. At the back wall, which was completely destroyed, it was impossible to find traces of any platform.

In the course of excavations it was found that there were two layers of flooring stones, one 15—20 cm above the other; the space between was full of culture deposit, including a quantity of large pieces of baleen. Part of the lower floor was paved with large flags, especially at the front and on the east side, where the flagging and the culture deposit extended right up to the back wall—which also suggests that there had been no platform there. The other—unpaved—part of the floor was firmly trodden down right in to the platform stones, so that the top of the platforms cannot have projected much in front of the supports. At the middle of the east wall lay a whale scapula. The bottom of the passage lay 30 cm lower than the floor, and the highest stone in its east side measured 93 cm from the bottom. The passage yielded two human skulls, and the inside of the house contained a skull and several human bones.

The unusual shape and arrangement of House 16 bear a striking resemblance to House 6 on Ruin Island, and the obvious conclusion to draw is that this too was a qagsse. Of the many finds in this house, some of which are very peculiar, mention shall here be made only of a spoon-shaped wood box of Norse origin (Pl. 44.13) and curious harpoon heads, which also give the house a certain connection with Ruin Island.

Finds: L 3: 4189—4494.

Houses 17 and 18.

(Plan fig. 73) form a continuous complex close up against the northwest side of House 16. The ruin seemed to be much disturbed, with many stones and with earth walls rising up to 1.2 m higher than the ground round about; the north part especially was very dry and overgrown with willows, the remainder with tough grass. In the course of excavations, however, the north part of the site turned into an almost bottomless quagmire and one could only guess what the house had been like there. The ruin proved to contain two houses separated by a thick, somewhat irregular wall, but with a common passage.

House 17 is the one on the north side; the south part of it alone was fairly well preserved. Here at the back was a platform built partly into the sand and partly of stones and earth piled together and furnished with a stone-edged locker in which the bottom was flagged; the width of the

platform is 3 m, its depth about 1.6 m. The south part of the house, close up to House 18's partition wall, has a carefully laid flagged floor extending to the passage. Along by the partition were the remains of a lamp table, about 50 cm wide, built up of flags. The breadth of the house at the front seems to have been about 5.5 m, it having had a side room to the north, of which the limits could not be determined with certainty. The passage, about 4 m long, is slightly curved and leads in close to the southwest corner of the house; its stone walling was only partly preserved in its north side, where the inner end consisted of two tall, broad stones which at the same time formed a partition from a small offshoot in the front of the house. The gravel bottom of this offshoot was full of grease and was 12 cm higher than the floor flags. The bottom of the passage at the inner end is 27 cm lower than the threshold stone. The maximum dimension of the house in depth—disregarding the small offshoot in the front, is 4.5 m, but it is only 3.5 m from the back wall to the inner end of the passage, which thus projects 1 m inside the house. From the southwest corner of the house, just at the side of the passage, a flagged path 1 m long runs out obliquely and forms a passage into House 18. At the inner end this passage is 0.5 m wide, but it narrows in to half that width.

Finds: L 3: 4495—4608.

House 18

is an unequally foursided room, 3—3.5 m broad and about 3 m deep, with a foursided extension in the west corner, where there was a partly flagged platform elevation, about 1.7 m wide and 1 m deep, built of turf. Between this and the east wall is a funnel-shaped opening in the front wall leading into a kind of ante-room which is about 2 m long and narrowed at the middle, giving it some resemblance to a figure 8; the narrow passage from House 17 emerges into this room. It was first taken for the entrance passage, but it is not sunk and is closed outwardly with a carefully laid circle of stones; in its outer part there is a rock outcrop in the bottom, and the unevennesses in the floor are filled with small flags. This ante-room seems to have been employed for storage purposes or the like, and there is nothing to indicate that House 18 ever had a passage of its own. Inside the house the floor is flagged only at the front part. At the back were some stones which may have been part of a platform, and in the front wall, at the west side of the paved path, was a small structure of turf bounded by stones in connection with the corner platform; presumably it served as a lamp table.

The curious distribution of the flooring flags in these two houses suggested that there had been a connection between them, and, when the dividing wall had been removed, it turned out in fact that the flags

were continuous—indeed the largest flags had been concealed under the wall. Apparently this had once been a single house with House 17's present passage; but nothing certain can be said of its shape and dimensions.

This peculiar complex as it stands today contained nothing that could be identified as a kitchen, but in the passage from House 18 was a depression which could be traced in under the partition wall and in which we found earth mixed with ash as well as e. g. an oval bowl bottom and some baleen. This indicates that the earlier house—or at any rate an earlier house on this site, had a fireplace. In the passage itself were several objects of baleen, and there were several human bones in both houses: in the passage a skull and in each house a mandible.

Finds: L 3: 4609—4655.

House 19.

(Plan fig. 74) is built against the south corner of House 16, but otherwise is detached with its passage running westwards. The ruin lay distinct in the terrain and like the others near it was overgrown with grass, moss and willow; the bottom was quickly reached in the middle, and here we found a culture deposit, not very thick but rather rich. The shape of the house may most easily be described as clover-leaf with a large offshoot at the front on each side of the passage; the one on the south had been a kitchen. However, the entire structure forms a rounded, enclosed complex comprising the passage in its entire length, the inner end of the passage being actually in the centre of the whole; the total breath is 6 m and the depth 7 m reckoned from the back wall to the outer entrance of the passage; of this total the length of the passage is about 4 m.

The rear part of the complex—the "main building" it might be called—has three rooms, and it is presumable that there were platforms at any rate in the rooms on the east and south. Nothing remained of the platform structure, it is true, but at both the inturned corners was a small area of the floor that was permeated with grease, which means that the lamps must have stood there—in front of the platform. In all three rooms the lower part of the walls was in a fair state of preservation; in the north room, which is somewhat smaller than the others, the stone walling consisted of flat stones on edge in the same manner as House 16. Of floor flagging we found nothing except two stones in the north room, and almost everywhere the gravel bottom seemed to have been stamped down hard, so that probably there was no flagged floor in the proper sense of the word. The south room had been separated from the kitchen by a wall of large stones which now lay in a collapsed heap. Between the end of this piece of wall and the

passage is an opening, 80 cm wide, into the kitchen; the kitchen is about 2 m wide and 1.3 m deep with the hearth at the front wall up against a big stone 1.1 m high; on the floor here was an area full of slag, but no built-up fireplace.

On the north side of the passage the wall stops again, leaving a 60 cm broad corridor into the north front room, in which the gravel

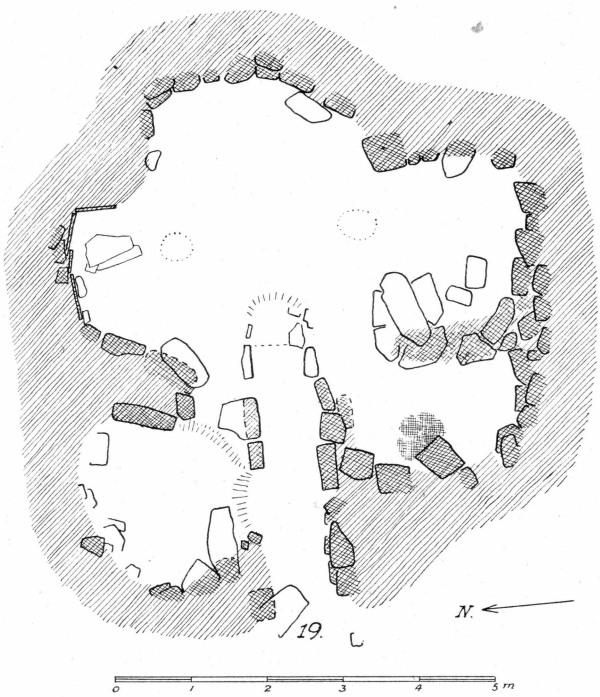


Fig. 74. Plan of House 19, Thule.

floor lies 20 cm higher than the house floor and forms a step down to the corridor. Here the outer wall was somewhat indistinct, but it may be judged that the room was rounded, about 2×2 m; most of it was occupied by a turf platform, on which was a large piece of a baleen mat. In addition, it looks as if there had been direct access to this room from the passage, as the latter's stone walling in towards the room stopped short right opposite it; on the south side of the passage the stones lay in a continuous row.

The passage, the bottom of which lies 40 cm lower than the floor, seems to have entered the house just opposite the corridors to the two ante-rooms, and apparently there had been an excavated cavity under the threshold stone. Both there and in the passage itself we made a number of finds, especially large baleen objects; there were also several pieces of big whale bone, one of a length of 1 m with a thin baleen cord

round one end, where a groove had been cut into it. At the inner entrance there was also a flat stone (L 3: 4746) with a baleen cord round one end. There was a small midden deposit in front of the outer passage entrance.

Finds: L 3: 4656—4780; the midden: L 3: 4781—4791.

House 20.

(Plan fig. 75) lies 50 m north of House 17, on the north side of the ruin ground. The ruin lay almost level with the ground, but in its middle were quite a number of large stones, and some pieces of large whale bone were also found. We seemed to get down to the gravel bottom very quickly, but closer examination revealed the presence of both moss and culture deposit under a thick layer of gravel; in actual fact the entire house was concealed under the gravel and unusually well preserved—with the sole exception of the walls, of which only a stone here and there remained.

The house had had two rooms lying at right angles; in the south corner at the front there is an offshoot with a fireplace. The house measures about 5 m in breadth and the maximum depth is 3.5 m. The passage, just over 2 m long, runs westwards and widens out a little at the outer end—or possibly formed a short bend. The threshold stone lies just inside the front wall of the house, and the depth of the inner part of the passage is about 20 cm lower than the floor. Just to the south of the outer entrance of the passage are the remains of a small flagged room with an entrance from the outside; and there seems to have been another small room on the north side of the outer passage end.

In the east room of the house, opposite the passage, the platform was built into the gravel with two stone-edged lockers; they are separated by a stone structure which at the same time bore the front part of the platform. At the back the surface of the platform is partly covered with small flags. From the south end of the platform and forward to the kitchen is a narrow lamp platform, also of gravel and edged with stones on the outer side. In the north room is a handsomely built up platform with all the stone supports and all the back part of the top preserved; only farthest into the northeast corner and at the extreme west side the platform flags lie on the gravel bottom, which at the latter place is bordered by a row of stones which continues right over to the passage. The house wall proper had stood a little farther out, but there was no visible trace of it left. The east side of the platform once was prolonged in towards the house, as here we found some stones which must have been supports for a lamp platform of this kind; the floor close to the stones was permeated with blubber. Between these stones and the central supports of the platform some long stones lay on the floor to separate the lockers from the floor space; the east locker was

much larger than the west one. The height of the platform above the floor is about 30 cm.

The kitchen was also dug into the gravel bottom, but it rises a little outwardly. The fireplace, which lies against the east side of the room, lies on top of the flooring flags, and in front of it was a thick layer of grease.

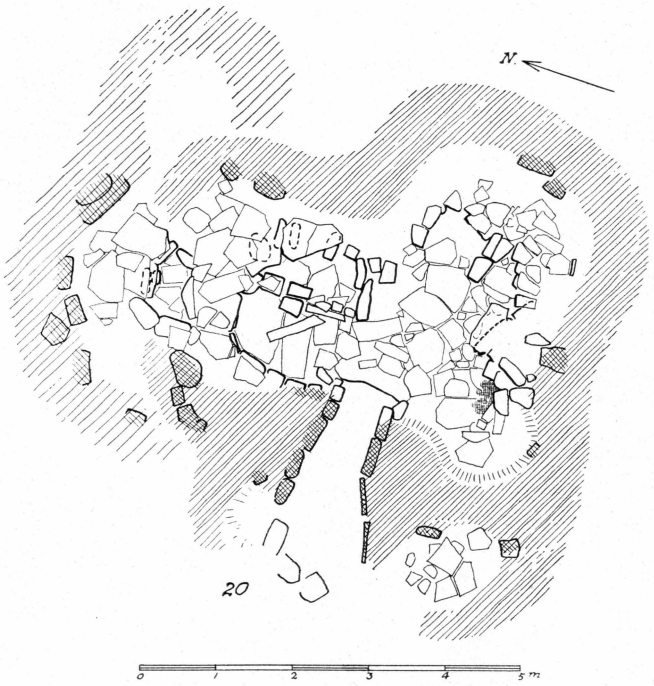


Fig. 75. Plan of House 20, Thule.

The entire floor of the house is carefully flagged, and these flags in fact extend right in under the platform in the north room; as it turned out, outside this room were the remains of another stone platform, and behind this again some traces of a wall. At some earlier time the house evidently extended more to the north, with the wall the depth of a platform outside the present one. East of this older platform we found traces of a room, but were unable to trace its exact connection with the complex. The upper layers of the house produced two fragments of a human skull, and in the passage especially lay a quantity of baleen objects.

Finds: L 3: 4792—4942.

House 21. E and W. (Ø and V).

(Plan fig. 76.) These houses formed what according to ordinary standards was an imposingly large rounded ruin, over 12 m wide and

rising up to 1 m above the ground; it lies about 20 m east of House 20 and 170 m from the beach. Excavations were begun in the autumn of 1935 with the removal of the upper dry and very hard layer of turf, but without providing us with any aggregate idea of what the site

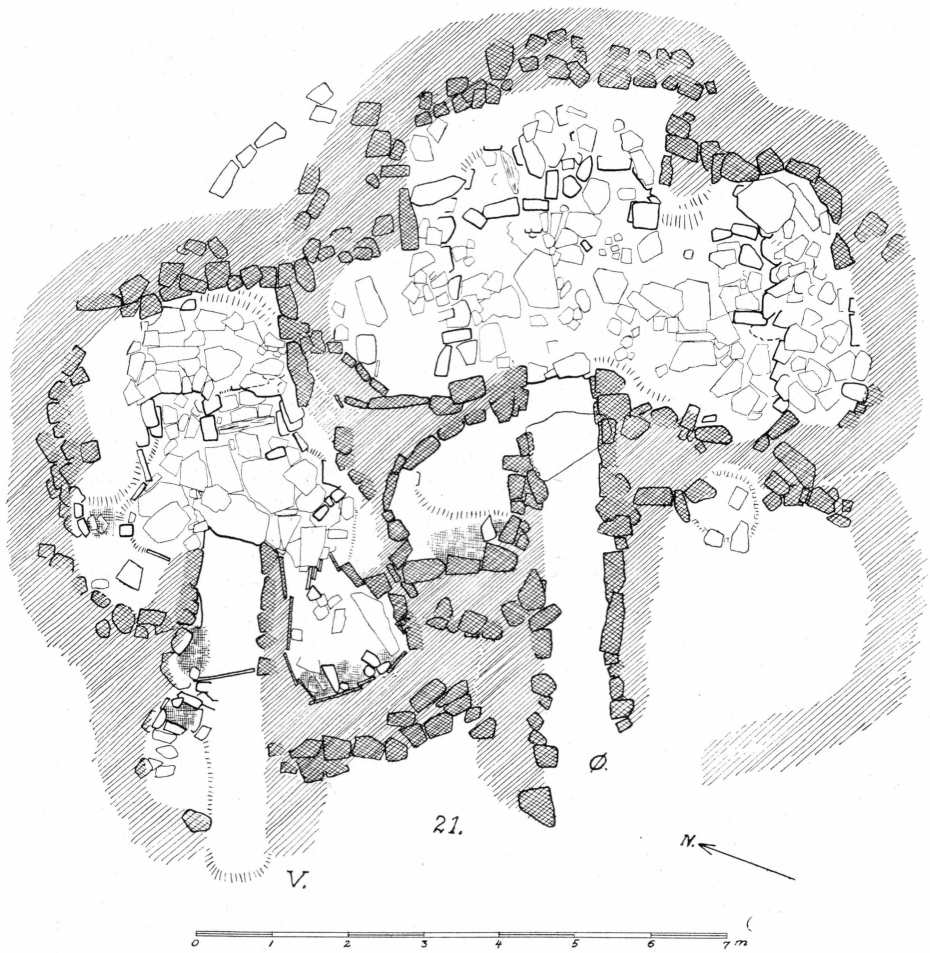


Fig. 76. Plan of House 21. Ø (E) and V (W), Thule.

contained. When excavations were continued in the spring of 1937 the first month or so passed with nothing but a chaotic picture of turf, gravel, stones and culture deposits with no apparent meaning; it was evident that the site had been the scene of many changes, and it was only by means of a systematic division into squares that we gradually succeeded in determining the course of sterile gravel layers in among areas with turf, turf with culture remains, and culture deposits proper. At the same time we excavated about 100 square metres of midden



Fig. 77. Thule. House 21. V (W) after excavation.

outside the site (fig. 78). It was late before operations had proceeded so far that definite wall lines could be determined, forming a continuous picture; it then turned out that the site contained two sharply separated dwelling houses, called 21 W, and 21 E, both with their passages running westwards. The orientation was obviously determined by the direction of the fall of the ground at the spot, as will be seen from the contours on fig. 59.

House 21 W (V)

is the smaller, northwest part of the site. It is a single house with offshoots at the front on both sides of the passage; the maximum breadth is 4 m and the maximum depth 5.5 m, though the distance from the back wall to the inner opening of the passage is only just over 3 m. The passage, which is sunk along its entire length, is 4.5 m long. The house was dug down into the gravel bottom, deepest at the east and south side, where the stone walling was built up against a solid and, as far as can be judged, original gravel mound, over which lay grass turf. In the back wall is a continuous row of stones, but on the north and west sides the position is more vague. Up against the northwest corner seemed to be the remains of two wall lines, between which were culture remains in the bottom under a thick layer of turf; here lay *inter alia* an Inugsuk harpoon head, a loose snow-knife blade and a piece of worked iron,

evidently not of Eskimo origin (L 3: 5780). Higher up in the layers were fireplaces and many seal bones, whereas inside the house the bones were mostly caribou; these fireplaces must belong to a later period, presumably subsequent to the collapse of the house. The foremost part of the house and the passage were covered with midden deposits, which shows clearly that this belongs to the early part of the site.

At the back the platform was built mainly of turf covered with flags; at the front it has two lockers, the edge stones of which supported the foremost flags of the platform. The lockers are flagged on the bottom, and one of them had a long piece of whale bone across the front. The extreme northwest part of the platform consists of gravel and is prolonged some distance forward, presumably for the lamp. The platform is 40 cm high. The entire floor is closely paved with large flags; in the offshoots north of the passage, however, the floor is of gravel, lying about 20 cm higher than the flooring flags. Up against the end of the supposed lamp table of gravel was a small fireplace, something like that in House 20. Some stones in the southeast side of the house suggest that there was also a narrow platform along the wall forward to the entrance to the kitchen south of the passage.

The kitchen is pear-shaped, with the broad end outermost, 1.5 m wide and 2 m deep. The opening into the house is 0.6 m wide, and it seems to have been made still narrower by placing three flat stones on edge up against one another. In the east side the room is bordered by a row of stones placed against the gravel wall, and in the west side a row of flags was placed on edge to hold the gravel wáll, only 40 cm thick, separating the room from the passage. There is a similar flag wall to the south, where the lower part of the wall also consists of pure gravel. About 1 m outside this row of flags is a length of masonry of big stones, apparently to support the outer side of the turf wall, which had been built up over the gravel bottom. The entire south end of the kitchen is occupied by three fireplaces, separated by two stone structures out from the wall. The floor of the kitchen is about 15 cm lower than the house floor.

The passage is rather deep, the bottom at the inner end being 45 cm below the threshold stone. The inner 1.8 m was blocked by a large flat stone across the passage and employed as a meat cache—apparently after the collapse of the house; it was full of blubber, bones, baleen, etc. At the north side of the passage were two fireplaces, a little higher than the bottom of the passage; the outer one is built of stones and placed at the inner end of an offshoot 1.5 m long and 0.8 m deep. It seems improbable that so many fireplaces were in use at the same time in a house so relatively small, but their chronological relationship could not be determined. As already mentioned, an earlier house of rather different

shape once stood here, and as the kitchen is an organic part of the last one to be built, it may be that the fireplaces at the passage belonged to an earlier construction.

Finds: L 3: 5578—6000.

House 21. E (Ø)

occupies the greater part of the site; it was possible to establish the fact that the house had been inhabited in at least two periods and that the ground plan had been altered to some extent. The plan fig. 76 is what seems to be the latest form, i. e. the form that first took definite shape during the excavations; it is almost of the clover-leaf type, though the rooms have a tendency to be rectangular. The maximum dimension across the breadth is 6.5 m and the maximum depth about 3.5 m. The middle room with the main platform (marked n on fig. 78) is 3.5 m wide with a depth of over 1.5 m. The north room (marked v) is 2 m wide and 1.5 m deep, whereas the south room (s) widens out a little towards the front so that it has a breadth of about 3.2 m (parallel with the direction of the passage).

At the back the main platform is of gravel and turf covered with small flags; at the front we found a structure of stones which originally formed two lockers; the one to the north had apparently been closed with stones at the front, but inside lay a piece of whale bone and some culture-earth fill. In the north—and smaller—room was a platform of fill, mainly of turf, and without a locker. The long platform in the south room consisted of an accumulation of stones mixed with culture earth and had almost the character of a midden filled with stones, covered over with flat stones. Some stones projecting forward from this elevation suggest that there had been a locker at the front. The floor of the house had a somewhat sporadic covering of flags, and the threshold was made of several small flags.

The length of the passage is almost 6 m, though its south wall is about 1 m shorter. In the innermost, solidly built part of the passage a grave had been laid; in it was the fragment of a human skull. In the north side of the passage, close to its entrance into the house, is a doorway into a kitchen; this too is almost pear-shaped, with a breadth of 1.5 m and a depth of about 2 m; here the gravel floor is 30 cm higher than the passage outside, and the inner part is higher still in the form of a gravel bench, on top of which was the fireplace; a thick layer of slag was found on it.

Our further search made it clear that the passage originally had stretched 1 m further into the house, and we found an earlier floor about 15 cm under the upper one. The inner end of the old passage was in the form of a pit, filled with greasy culture remains, a condition that

may also be applied to the layer between the two floors. In the north side room especially everything was coated with grease; here the lower flooring flags extend in under the later platform, and in the west corner was a veritable pit in the floor, full of a greasy mass and covered with flat stones. In the rearmost, east part of the room one could discern the remains of an old platform structure covered with heather, extending

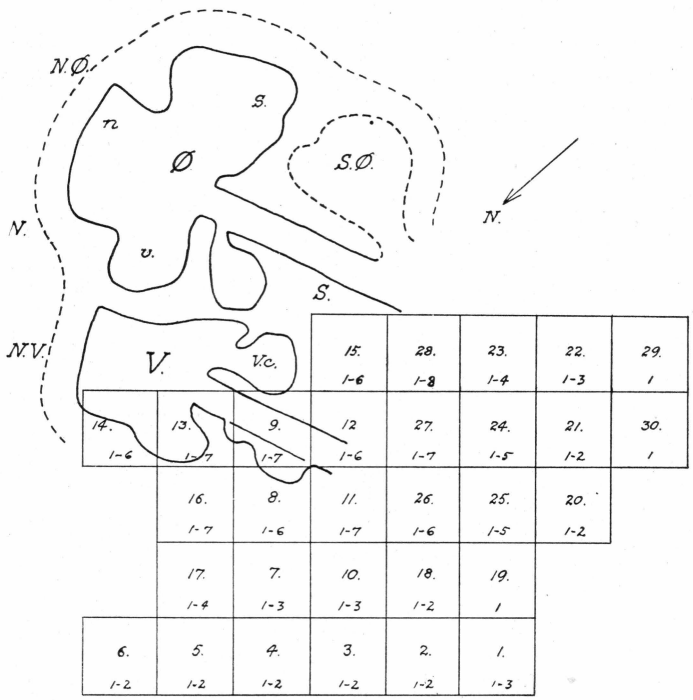


Fig. 78. The excavated midden squares in front of House 21. Ø (E) and V (W), Thule.

beyond the limits of the present room. It is possible that there is some connection between this and a wall line north of the house, so that the earlier house extended rather more to this side. This part of the site also contained very extensive layers of turf.

On the south side of the passage is an area marked SØ on the plan, but what its relation is to the rest of the site is not quite clear. One thing is certain, however: that this was once an inhabited room, as in the south side we found the remains of a platform structure under a layer of heather, and in the north side was a fireplace. Farthest east, partly in under the front wall of House 21, we found a pit in the floor, 15 cm deep, in which lay a large oval dish bottom of wood (L 3: 5569). This room was excavated down to the gravel bottom, which lay up to 18 cm lower than in the nearest part of the next house; we found numbers of culture remains, but no real floor layer; and out towards the

passage opening, where there seemed to have been an entrance, lay a quantity of long pieces of baleen. Thus it looks as if this room had been used for storage or the like in connection with House 21 E; but the assumption is that earlier this was the site of a separate house—possibly the earliest one on the site—with its front more towards the north or northwest. In the southwest side of the room time did not permit of carrying the excavation as far out as was desirable, and outside there is still a remnant of an unexcavated midden.

Finds: L 3: 4943—5577.

Midden: L 3: 6001—8099.

House 22

situated about 18 m higher up than House 21 E, the front looking west, was easily perceptible, overgrown with grass and willow. On the inside were piles of stones, but scarcely anything was left of the house walls; the inner stretch of the passage was in the best state of preservation. The house had been clover-leaf shaped, though the north side room was somewhat smaller than the others; the breadth is about 7 m, the maximum depth about 5 m. The sunken passage, 3 m long, extended about 0.7 m in front of the north part of the front wall. Just south of the passage is a small offshoot in the front wall, with two flags; its floor was permeated with grease, and there was a small pit in the gravel floor. The middle of the house floor is paved with flags. The platforms consist chiefly of gravel with a front edge built up of stones; in the side rooms the front edges of the platforms seem to run rather obliquely, so that the floor space is almost trapeziform. In the north side of the passage was a small triangular offshoot, 0.5 m deep, but we could find no fireplace in it. The inner part of the passage had a flagged bottom.

Finds: L 3: 8100—8215 and 11944, 11950, 11962.

House 23.

Was not excavated. The ruin, lying on the south side of the plain about 100 m higher than House 19, suggests that it had been a large clover-leaf shaped house. Close by is the ruin of quite a new house that had had wooden walls.

House 24.

(Plan fig. 79) lies in the middle of the upper and dry part of the plain, a good 300 m from the beach and 15 m above the high-water line; the ruin was quite distinct, overgrown with grass and willow. In the south side and in the passage were some deep holes, presumably from an earlier attempt at excavation which, however, did not get down to the culture level. This house is a rather compressed double house with its two rounded rooms partly separated by a stone wall standing out for

some distance from the rear of the house, and the platforms of the two rooms form an acute angle; Cape Russell House 2 had something of the same thing, but the two houses cannot be said to be much alike. There is a third room in the northwest side, with its gravel floor 35 cm higher than the house floor; it contained no platform, but there was a small depression in the floor containing heather and bones. A large flat stone,

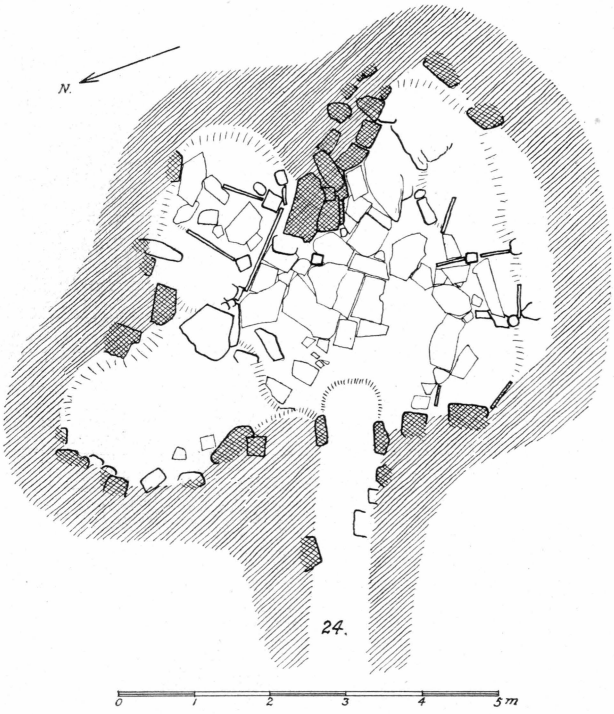


Fig. 79. Plan of House 24, Thule.

which we found overturned, had presumably separated this room from the one on the northeast. The maximum dimension of the house across the breadth is about 6.5 m and the maximum depth from the front wall 4.5 m. The passage, which runs almost west, is over 3 m long.

The two main rooms of the house were both dug into the gravel, leaving narrow gravel benches to form the rear of the platforms. Most of the top of the platforms rested on flat stones set on edge and simultaneously edging the commodious lockers. In the south room the rock crops out at the rear up against the partition wall and seems to have formed part of the platform there. At the front the northeast room is divided from the floor by a narrow, flat stone 1.2 m long, placed on edge up against the flooring flags. The floor of the house is flagged except for a small patch in front of the passage. At the end of the partition wall

there must have been a lamp table, as a tall stone lay there and the ground was permeated with grease. Outside the house, on both the north and the south sides, were some low remnants of wall mounds, presumably of small built-on store rooms or the like.

Finds: L 3: 8216—8310.

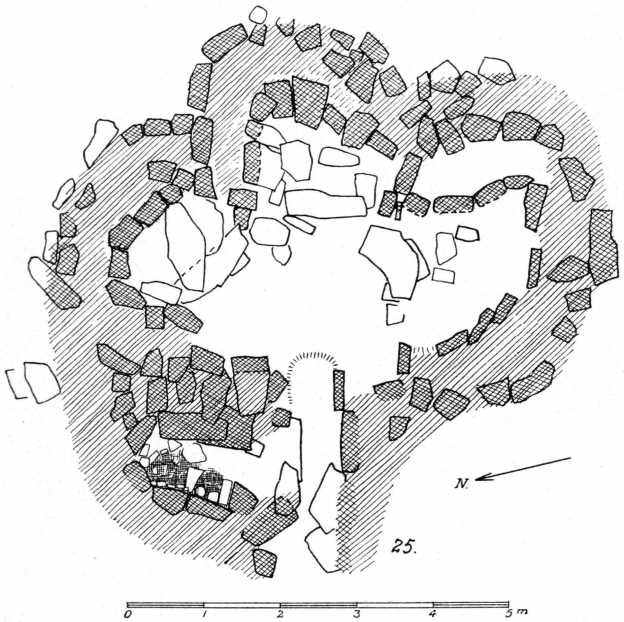


Fig. 80. Plan of House 25, Thule.

House 25.

(Plan fig. 80) is the uppermost of all these houses, situated on very dry ground about 350 m from the beach and 19 m above the high-water line. Excavations seem to have been made in it earlier in the south part and the passage. Apparently it was clover-leaf shape with a breadth of about 5.5 m and a depth of about 3.5 m; the dimensions could not be taken exactly, however, as there were graves—now much disturbed —in all three rooms, apparently built of stone material from the house. The walls, from which the turf has been washed out in the course of time so that they are almost level with the ground, seem to have had an outer footing of stones, large numbers of which remain. The best preserved and the only quite clear part of the house is at the front with its passage, more than 2.5 m long. At the north side of the passage is a kitchen, 2 m deep and 0.7 m wide, the floor somewhat higher than the bottom of the passage, and built of large stones, especially in towards the house, from which it is separated by a stone wall 1.2 m thick.

In the west side of the kitchen is a long fireplace divided into two. There was no trace of any culture deposit inside the house.

Finds: L 3: 8311—8327.

House 26

lies 10 m northwest of House 20, about 150 m from the beach. The presence of this house was discovered very late, as the ruin was quite indistinguishable from the surrounding terrain; it was betrayed by a few stones sticking out of the grass. It seemed to have been in the form of an irregular clover-leaf, about 7 m wide and 4.5 m deep. There were remains of gravel platforms in the two north rooms and a few flags on the floor; otherwise it was completely destroyed.

Finds: L 3: 8328—8341.

Comer's Midden (Co. A).

As has already been stated, the midden lies on the shore at the south end of the inhabited Eskimo settlement Ũmánaq. In 1916 excavations were made in it by Capt. Comer and by Knud Rasmussen's 2nd Thule Expedition; the material then recovered was published by Clark Wissler[1]) and Th. Matthiassen[2]) respectively. The Danish part of the material comprises 259 objects, 200 of which were from the lower layers, which are characterized as containing much baleen, 6 are from upper layers, and 53 of more uncertain origin[3]); the American part is larger, but was not systematically excavated. The situation and appearance of the midden were described by Dr. E. O. Hovey, who says that it lay in front of three Eskimo houses in the lee of some low columnar basalt or diabase rocks; "in cross-section it was inclined lenticular in shape, its base being the steep shingly beach, and, toward the eastern end of the deposit, the ledge of rock which rises one to three feet above it. The lay of the ground caused most of the material thrown on to it to slide or roll down to the bottom of the slope, where much of it would be washed away by the sea or carried off with the ice foot. The vertically lowest part of the heap, therefore, would not contain the oldest material, but the oldest articles would be those which stuck to the inclined bank and the successive layers, or were held in place there by snow or freezing water until they were covered. The bottom of the deposit, that is its lowest portion vertically, seemed to me to be a mixture in respect to probable antiquity . . ." On the following page Wissler says that "according to his (Capt. Comer's) notes, a considerable space

[1]) Clark Wissler: Arch. of the Polar Esk. 1918.

[2]) Th. Mathiassen: 1927 pp. 293—304.

[3]) Th. Mathiassen: l. c., p. 294.

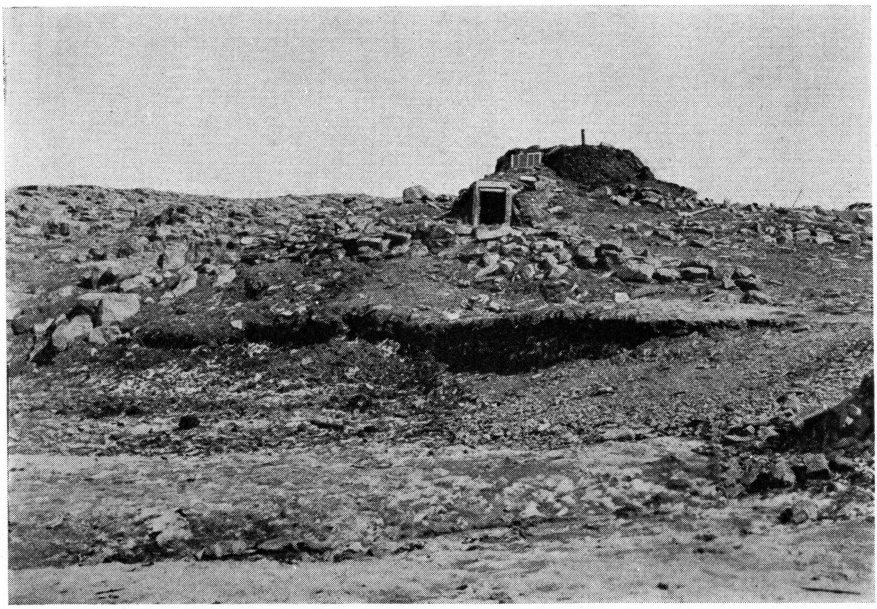
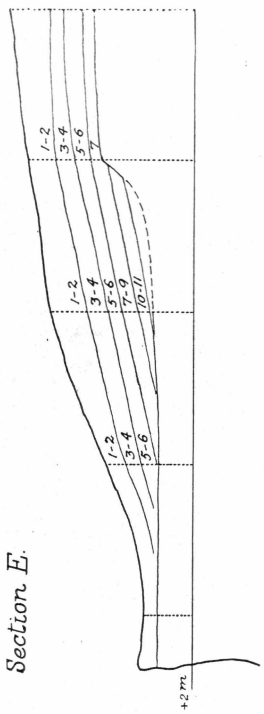


Fig. 81. Comer's Midden at Thule.

at the foot of the ledge was filled with fallen rock and sand. This mass of débris presents a triangular cross-section with a base of about ten feet. Built up on its irregular surface was a layer of camp refuse to the average depth of above five feet . . ." Of this layer about two feet were removed in order to get down to the frozen layers from which the objects described were taken[1]).

I quote this at such length because to some extent it explains the difficulty there has been of forming a clear picture of the stratigraphic conditions in Comer's Midden; furthermore, the fact has not been disclosed that above all the midden contains Inugsuk culture in the innermost layers. When I commenced excavations in 1937 conditions at the outset presented a very disconsolate picture; the ground then lay as an even slope down to the gravel cliff, about 2 m high, which drops steeply to the beach, as will be seen from fig. 82, section E; and people on the spot told me that the sea had already taken the most of what had been left in 1916. This, however, can only mean that everything lying below the cliff has been washed away, and I understand the above description to mean that a large part of the midden did actually lie at the foot of the cliff, which accordingly must have been buried in the midden until it was excavated. It would seem, however, that a part was also excavated some way behind the edge of the cliff; on the flat stretch nearest the edge lay a low mound containing baleen remnants and, to

[1]) Clark Wissler: l. c., p. 113 f.



judge from its nature, could scarcely be other than fill left by an earlier excavation[1]). Inside this mound, however, we found pieces of baleen sticking up from the ground, and as they evidently had not been touched, it was clear that part of the midden must lie a good way behind the cliff. The squares we excavated are shown on the plan fig. 82; each square measures 2 × 2 m. The cross-sections show that the midden falls smoothly both to the west, out towards the beach, and to the south, where it passes insensibly into the surrounding terrain; squares 7, 17 and 21 represent its extreme limit here. On the north side the midden is bounded by the rocks referred to above; excavations were not taken right in here, so that there may still be undiscovered objects there, but it is difficult to judge how high the rocks lie in the bottom. On the east, in towards the land, the midden passes into the ancient house ruins; no attempt was made to excavate these, as up to quite recent times one house has been built inside or on top of the other; and there was still an inhabited house at the north end of the block of ruins. In the top layers of the upper squares were a number of heavy stones; these we got rid of, as evidently they had no direct connection with any house construction.

In order to carry the excavations down to a reasonable depth it was necessary to remove layers as soon as merely a few centimetres were thawed; as a consequence, the layers indicated on the drawings of the various cross-sections do not correspond to the layers removed daily, but have been reconstructed on the basis of the daily levels of the squares and correspond to the list of the finds made in each layer.

Due to practical causes the stratification it not quite regular, as not all the squares were taken in hand at once; the enumeration reflects the order of succession, and in the uppermost and especially the outer squares on the south thawing had proceeded so far down, and the contents were so relatively poor, that it could but be expedient to apply a coarser standard of measurement immediately. On account of the downward slope of the midden it had also to be assumed that the outer squares contained relatively later material than the depth of the layers actually

[1]) Dr. Lauge Koch, who took part in the 2nd. Thule Expedition's excavations, has informed me verbally that the Danish excavations were made solely above the cliff.

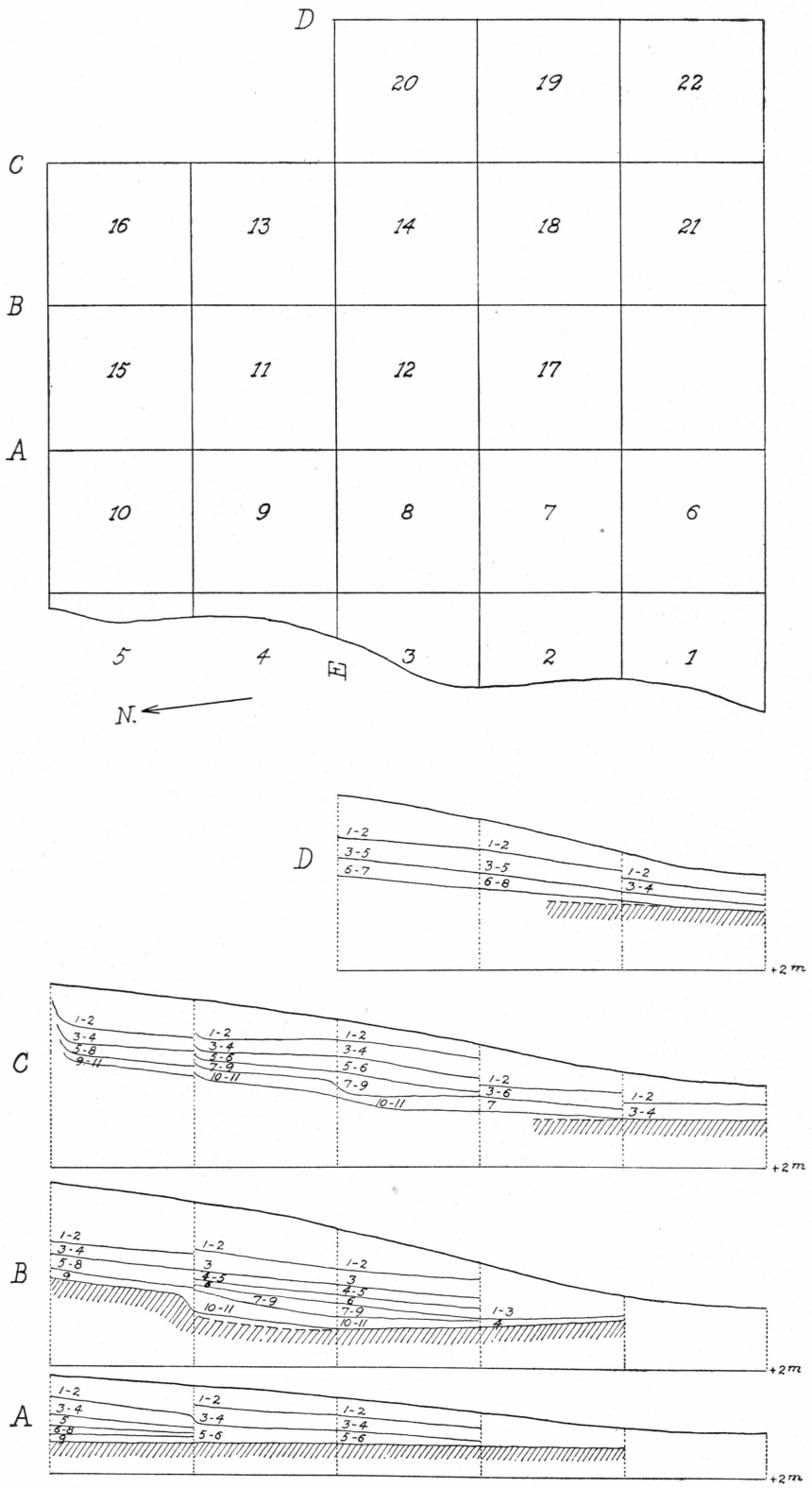


Fig. 82. Plan and section of Comer's Midden, Thule.

justified—a point already mentioned by Hovey in the above quotation; and as far as the investigation aims at the chronological determination of the layers, we thus come nearest to the correct picture by at once working with relatively thicker "layers" at the top; but a broad margin must be reckoned with at all events. A further reason for caution in the present case is that the central part of the midden may have differed with different periods, as we cannot know whether or not the passages of the houses opened out in different directions; add to this the further fact that a water channel once cut its way down into the midden, as will be seen from the sudden fall in layers 7—9, square 14 (Section C). Taking all these circumstances into consideration, I believe nevertheless that within reasonable limits the division employed answers to the true chronological order.

The total number of finds is 3299 (L 3: 8342—11640); the following table shows how they were distributed over the various layers and squares, which at the same time provides a picture of the extent, thickness and "density" of the midden, a picture that may be compared with the drawings fig. 82.

Layer:	I		II		III				IV				
	1	2	3	4	5	6	7	8	9	10	11	12	
Excavated square													
13	18	12	45	24	19	41	20	32	17	34	18	19	
14	18	23	38	44	28	27	41	41	31	36	20	15	
11	19	32	56	87	62	77	41	59	38	40	8	9	
15	5	5	48	43	52	36	56	35	37	19	22	—	
16	5	5	20	33	24	14	38	20	15	3	9	—	
12	18	30	67	110	62	45	24	19	3	—	—	—	
19	14	28	43	37	22	42	19	20	—	—	—	—	
18	34	56	52	79	59	12	15	—	—	—	—	—	
20	26	20	24	25	16	10	13	—	—	—	—	—	
22	6	11	49	17	48	11	—	—	—	—	—	—	
8	—	4	9	36	—	—	—	—	—	—	—	—	
17	9	42	53	22	—	—	—	—	—	—	—	—	
21	5	25	54	10	—	—	—	—	—	—	—	—	
7	—	13	11	—	—	—	—	—	—	—	—	—	
10	36	—	—	—	—	—	—	—	—	—	—	—	
2—5	51	—	—	—	—	—	—	—	—	—	—	—	
	274	296	569	567	392	315	267	226	141	132	77	43	: 3299

The last squares, 2—5 and 10, contain mainly new material, whereas in the border area 7—8—17—21 we excavated up to four layers and in 18—19—20—22 up to eight layers. The remaining squares 11—12—13—14—15—16 apparently cover the heart of the midden, and layers 9—12 represent its oldest part; here we were unable to get to the bottom everywhere; but, as Section E shows, there cannot be much left as the lowest layers merely fill up the space just in front of a small depression in the original ground surface. In the following, where a more summary division of the layers will be employed, layers 9—12 will be called Co.A IV, for, as the list of finds (p. 150 ff.) also shows, it will be natural to treat them as a separate period—in which, however, layer 9 represents a transitional period as regards certain forms. Layers 5—8 are so clearly differentiated from those above by their extent, and the finds made in them are so homogeneous, that it is natural to treat them together too, under the name of Co.A III. The four upper layers, altogether comprising more than half of the aggregate quantity of finds, may reasonably be divided into two groups, layers 1—2 and 3—4, called Co.A I and II respectively. It will be seen that the "density" is markedly great in layers 3—4 in contrast to 1—2; it must represent a culmination of some kind—in the cultural development or merely in the density of population in the houses above, in contrast to the subsequent, perceptibly "poorer" period which extends up to the present day.

With this widened knowledge of the state of the inside of the midden it is now easier to understand the results of the earlier excavations, and it can be seen that conditions in the terrain in themselves were a great obstacle to a stratigraphical investigation, in fact would make such an investigation illusory, except perhaps on the small strip just above the cliff; on the other hand it can be seen that the material previously excavated from there in all probability originated from a relatively late period in the history of the midden—at any rate as far as most of that material is concerned. If the very oldest part of the midden had been capable of accumulating below the cliff, house ruins must have been situated nearer it than is actually the case; and the latest excavations revealed not the slightest trace of any such ruins.

Midden Co. B.

lies a little to the south of Co.A, similarly out to the cliff which at this point is not so high. The thickness of the midden was only 10—30 cm, and the contents span over such a short period that it is unnecessary to indicate any stratification.

Finds: L 3: 11641—11936.

List of specimens

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Harpon Heads.									
Barbed Harpoon, thin, open socket (Thule 2):									
A. Slots: I. No blade: a) Common type	3.1-4	..	..	..	..	..	..	..	..
Fragment		..	..	..	..	..	..	..	..
c) Vestigial spur	3.6	..	..	..	..	..	..	..	..
B. Holes: I. No blade	3.15-16	..	..	..	..	..	..	..	..
Vestigial barbs		..	..	..	..	1	..	..	..
II. Blade ≠ linehole a) oblique spur	3.17-18	..	..	..	..	..	..	..	..
b) two unilateral spurs	3.19	..	..	..	..	1	..	..	..
III. Blade ⊥ linehole	3.20	..	..	..	..	1	..	1	..
Toggle Harpoon, thin, open socket:									
A. Slots: Blade ≠ linehole 1) oblique spur	3.11-12	..	..	1	..	..	..	..	..
2) — and vest. spur	3.14	..	..	..	..	..	..	..	..
3) — — and vestigial side blade grooves	3.13	..	..	..	..	..	..	..	..
B. Holes: I. No blade (Thule 1)	4.1-3	3	1	5	3	3	1	1	..
II. Blade ≠ linehole:									
a) 1. obl. spur, square-cut socket (hexag. type)	4.4-6	..	..	..	..	..	..	..	..
2. — rounded socket (short type)		..	1	..	2	1	..	1	2
b) evenly slanting spur, arched socket	4.7	..	2	3	5	4	..	1	1
c) 1. like (b) but fore end extended ≠ blade slit	4.14	2	3	5	1	..	..	..	1
2. with well-formed line grooves		1	..	..	..	..	..	1	..
III. Blade ⊥ linehole	4.15	..	..	..	..	..	..	..	..
Toggle Harpoon, thin, closed socket:									
A. Rounded type, I. No blade	4.8	..	1	..	..	..	..	..	..
II. Blade ≠ linehole:									
a) Oblique spur	4.16	..	..	..	..	..	1	..	1
b) single dorsal spur	4.17-18	..	1	..	..	1	..	..	..
c) cleft, or two dorsal spurs (Inugsuk)	4.19-21	..	..	3	5	1	..	..	2
d) single spur, modern type	4.22	2	1	..	..	..	..	..	..
B. With lateral keels I. Blade ≠ linehole	4.11	..	..	..	..	..	..	..	..
II. Blade ⊥ linehole	4.9-10	..	..	..	..	..	..	..	..
C. Whaling Harpoon		..	..	..	..	..	..	..	..
Toggle Harpoon, flat, open socket (Holes):									
A. Horisontal linehole, blade	4.28	..	..	..	..	..	..	..	..

found at Thule.

(Co. A)							Midden																																
IV																																								
— 9	— 10	— 11	— 12	Co. B	House 21. W	— 21. E	Layer 1	— 2	— 3	— 4	— 5	— 6	— 7	House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26						
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1	2	..	..	3	..	1	..	3	1	2	..	..	..	..	1	..	..	1	..	1	..	1	..	..	..	1	..	..	..	2	..	..						
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
B. Two converging lineholes with dorsal opening:									
I. No blade	4.27	..	..	..	..	..	..	..	..
II. Blade ≠ spur plan, two (cleft) dorsal spurs	4.29	..	..	2	..	..	..	..	..
— — three dorsal spurs	4.31	..	..	..	..	..	..	..	..
C. Two vertical lineholes, blade	4.30	..	..	..	..	..	..	..	..
Toggle Harpoon, flat, closed socket:									
With curved linehole, a) single dorsal spur		1	..	..	..	..	..	..	..
b) two dorsal spurs	4.23-24	..	..	..	1	..	2	..	..
c) two bilateral spurs	4.25	1	..	..	..	..	..	..	..
C. *Dorset Harpoons:*									
Closed socket, blade, two lineholes, cleft butt	1.5-6	..	..	..	..	..	..	..	..
— — heavy type	1.7	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..
Leister harpoon with two bilateral barbs	4.32								
Other parts of the Harpoon.—Lance.									
Harpoon blade, slate	5.1	..	..	..	..	..	..	..	..
— bone or ivory	5.2-3	..	..	..	1	..	..	..	..
— baleen	5.5	..	..	..	..	..	..	..	..
— iron		..	..	..	..	..	1	..	..
Tension piece for harpoon line	5.6-7	..	..	1	2	1	1	..	..
Swivel, barrel-shaped		..	..	..	..	..	..	..	..
— — open rear end	5.8	..	..	..	..	..	..	..	..
— spindle	5.9	..	..	..	..	..	..	..	..
Stopper for harpoon line, spike at one end	5.13	..	..	..	..	..	..	..	..
— — - in the middle	5.12	..	..	..	..	..	..	..	..
Mouthpiece for harpoon bladder, flat, oval	5.16	..	..	..	..	..	..	..	..
— — — oblong	5.17-18	..	..	1	..	..	..	..	..
Plug for mouthpiece	5.20	..	..	..	..	..	..	1	1
Heavy bone toggle for harpoon bladder	5.33	..	..	..	..	..	..	..	..
Fastening peg for bladder, wood	5.34	..	..	..	1	..	..	..	..
— — — baleen	48.14	..	..	..	1	..	..	..	..
Mending disk with groove for bladder, large, oval, wood	5.31-32	..	..	..	1	..	..	..	..
— — — — baleen	49.2-3	..	..	..	1	..	..	..	1
— wood, no groove		..	..	..	..	..	..	..	..
Foreshaft for ice-hunting harpoon	6.11-14,16-17	2	4	12	6	8	6	4	4
— whaling harpoon	6.21	..	..	..	..	..	..	..	..
— ituartit harpoon	6.15	..	..	..	1	..	..	..	..
Movable foreshaft, conical butt, one hole	6.18-20	..	..	2	1	2	1	..	..
— — two holes	6.10	..	..	..	..	..	1	..	..

(continued).

(Co. A)				Co. B	House 21. W	21. E	Midden							House 1																				
IV							Layer 1																												
— 9	— 10	— 11	— 12					— 2	— 3	— 4	— 5	— 6	— 7		— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
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1	2	1	1	..	..	3	8	3	3	4	1	..	..	..	..	..	2	..	1	1	..	..	..	5	2	1	1	..	5	1	..	..	..	..
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Movable foreshaft, conical butt, three holes		..	..	..	..	..	..	..	..
— — fragment		..	1	..	..	1	..	..	..
— with tenon	fig. 105.9	1	..	..	..	..	..	..	..
Socket piece, heavy, with scarf	6.1-4	..	..	..	..	..	..	..	..
— cleft butt, small	6.7	..	..	..	..	..	..	..	..
— triangular butt, heavy	6.5	..	..	..	..	..	..	..	..
— conical, small	(p. 201)	..	..	..	..	..	..	..	..
— cylindrical, short with circular socket	6.9	..	..	..	1	..	..	..	..
— — — oval socket		..	..	..	..	..	..	..	..
Wooden shaft for cylindrical socket piece	7.9	..	..	2	..	..	1	..	..
Finger rest, slender, one hole	5.24,27-28	..	..	..	1	..	..	..	..
— — two holes	5.29	..	..	..	..	..	..	..	..
— — three holes	5.25,30	..	..	..	..	..	..	..	1
— (?) — with tang	5.26	..	..	..	..	..	..	..	..
— broad, curved sides	5.23	..	..	..	..	..	..	..	..
Ice pick, with scarf	7.7-8	2	2	..	..	..	2	..	1
— triangular butt	7.5-6	..	..	..	..	..	1	..	..
Wooden shaft with triangular socket for ice pick		..	1	..	..	1	..	..	..
Ice pick, indeterminable fragment		..	1	2	2	1	4	..	..
Lance head, no separate blade	fig. 105.2	..	..	..	..	..	..	..	..
— scarf, blade slit	7.3-4	..	..	..	..	1	..	?	..
— movable, with a seating for the blade	7.1-2	..	..	..	..	..	..	..	..
— or knife, fore end with blade slit	7.12-13	..	1	..	..	..	1	..	..
Lance blade, slate	25.1-2	..	..	..	1	1	1	..	..
Reserve lance head	7.14-15	..	..	..	..	..	..	1	..
Stiletto handle (?) antler	fig. 105.5	..	..	..	..	..	..	..	..
Accessories for kayak- and ice-hunting.									
Harpoon rest, baleen	45.16-17	..	..	..	..	..	..	..	..
Harpoon sledge runner	8.11	1	..	..	..	..	..	..	..
Wound pin, antler, bone, or ivory	9.3-5	..	..	1	..	..	2	..	..
— baleen	9.6	..	..	..	..	..	..	..	..
Wound plug, wood	9.7	..	..	..	..	..	..	..	..
Sealing stool, seat of bone	8.1	..	..	..	..	..	..	..	..
— — wood	8.2,15	..	..	..	..	1	1	..	..
— leg of bone	8.4	..	..	..	..	..	..	..	..
— — wood	8.6	1	1	4	2	2	2	1	1
— — slender form	8.5	..	..	..	..	1	2	1	..
Seal scratcher	8.7	..	..	..	..	1	..	..	..
Toggle, bone	16.11,13	..	..	..	..	..	..	..	..
— bear tooth	16.14	..	..	..	1	..	..	..	..

(continued).

(Co. A)				Co. B	House 21. W	21. E	Midden							House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
IV																																	
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7																				
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..	..	..	..	2	5	3	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Toggle, small with oblong hole	16.8	1	..	..	1	..	..	..	..
— for drag line, two or three holes	16.3-7	..	1	1	1	..	1	..	..
Drag line handle, with groove	8.8	..	..	2	..	..	..	..	..
— — curved linehole	8.9	..	..	..	..	..	..	..	..
— of wood	8.12-13,16-17	..	..	2	..	..	..	..	..
Other hunting implements.									
Bladder dart head	9.8-10	..	..	..	2	..	..	..	..
Mouthpiece for bladder dart bladder	5.14,15,19	..	..	..	..	..	..	1	..
Bird dart head, butt	9.11-12	..	..	..	1	..	..	..	..
— side prong, barbs on both sides	10.1-5	..	..	..	..	..	..	..	..
— — inside barbs	10.6-10	..	2	..	1	1	..	..	..
— — no barbs	10.11	..	..	..	1	..	..	..	..
— — indeterminable fragment		1	..	..	..	..	..	..	..
Throwing board	fig. 84	..	..	..	1	1	..	..	..
Weapon shafts of wood, fragments		5	3	7	4	3	10	1	3
Bow, wood	10.17-19	..	..	2	..	..	1	1	..
— antler	10.20	1	..	..	..	..	..	..	..
— baleen (incl. boy's bows)	47.6-8	2	..	..	1	1	2	..	2
Bow brace, wood	10.22	..	..	..	..	..	..	..	..
— antler	10.21,23	1	..	..	..	..	..	..	..
Sinew twister, wood	10.12	..	..	..	..	..	..	..	..
Arrow heads, conical tang with knobs:									
Round, blunt	11.2,4,6	..	..	..	1	..	1	..	..
— pointed	11.3	..	..	..	..	..	..	..	..
Fore end egg-shaped with slit for blade	11.16,18-21	..	..	..	..	..	1	..	..
Lanceolate, unsymmetrical, no blade	11.7-9	..	..	..	..	1	..	..	..
— symmetrical —	11.10-11	..	..	..	1	4	1	1	1
One barb, no blade	11.5,17,25, 12.3-5	..	..	..	..	..	1	..	..
Two bilateral barbs, no blade	11.28	..	..	..	1	..	..	..	..
— slender barbs	11.29	..	..	..	..	..	..	..	..
Seating for blade, no barbs	11.22	..	..	..	..	..	..	..	..
Fragments of butts with knobs		..	1	..	..	2	..	..	1
— — screw	11.30	..	..	1	..	..	..	..	..
Arrow head with scarf	11.26-27	..	..	..	..	..	..	..	..
Arrow shaft, complete	12.9-10	..	..	..	..	..	..	..	..
— fore end	12.6	1	..	1	2	3	..	..	1
— butt	12.7	..	..	4	5	..	4	3	1
— other fragments		..	..	..	..	..	2	..	2
Arrow (or lance?) blade, flint with tang	2.6	..	..	..	..	..	..	..	..

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(Co. A) IV — 9	(Co. A) IV — 10	(Co. A) IV — 11	(Co. A) IV — 12	Co. B	House 21. W	21. E	Midden Layer 1	Midden — 2	Midden — 3	Midden — 4	Midden — 5	Midden — 6	Midden — 7	House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
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..	1	..	1	3	6	4	..	1	1	1	..	1	1	1	..	1	..	..	1	..	3	1	1	3	2	1	1	2	..	1	..	..	..
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
		—	—	—	—	—	—	—	—
Quiver handle, vertical holes	12.14,18,21	..	..	1	..	..	..	..	..
— holes at right angles	12.19	..	..	..	..	..	1	..	..
— horisontal holes	12.15-17,20	..	..	..	..	..	..	..	..
— grooves at the ends	fig. 105.7-8	..	..	1	..	..	..	..	..
— with longitudinal grooves	12.11	..	..	..	..	..	..	..	..
Sling handle, wood	14.17-21	..	1	..	..	..	..	..	1
— baleen	45.19-20	..	..	..	..	..	..	..	1
Bola	10.15-16	..	..	..	..	..	..	..	..
Salmon spear, centre prong	13.5-6	..	1	..	1	..	..	..	..
— side prong, with scarf	13.1,4	..	..	..	..	..	..	..	..
— — two holes	13.2	..	..	..	..	..	..	..	..
— barb, with scarf	13.7,9-13	3	..	..	..	..	..	..	1
— — round, or with keel	13.22-23	..	..	..	..	..	..	..	..
— — with holes	13.15-17	..	..	..	..	..	..	..	..
— — — and projecting neck	13.14	..	..	..	..	..	1	..	..
Leister prong, antler or bone	13.18-21,28-35	1	1	1	..	2	1	..	..
— baleen	fig. 108.1	..	..	..	..	..	..	..	..
Leister, two-pronged	13.24,27	..	..	..	..	..	..	..	..
Fish hook, bone	14.13	..	..	..	..	..	..	..	..
— baleen		..	..	..	1	..	..	..	..
Stone sinker, with a hole	14.14	..	..	..	..	..	..	..	..
— with groove	14.15	..	..	..	..	..	..	..	..
Sinker of bone		..	..	..	..	..	..	..	..
Fish decoy, fish figure	14.10-11	..	..	..	..	..	..	..	..
Trout needle bone	14.3-6	..	..	1	1	..	..	..	..
— baleen	49.4	..	..	..	..	..	..	..	..
Baleen ice scoop, cone-shaped	48.3	..	..	..	..	1	..	..	..
— racket-shaped	47.2	..	..	..	..	..	..	1	..
Gull hook with oblique groove	14.1,7	1	1	1	2	2	2	2	..
Barb for gull hook		..	..	1	..	..	..	..	..
Gull hook with inserted barb of bird bone	14.2	..	..	..	..	1	..	1	..
Gorge	14.8-9	..	..	..	..	..	..	..	..
Ferrule, conical or cylindrical	9.15-19	..	..	..	1	2	..	..	..
— pointed egg-shaped	9.21-22	..	..	..	..	..	..	..	..
— flat, heart-shaped	9.13-14	..	..	..	..	..	..	..	..
Bone "bolt"	9.23	..	..	..	..	..	..	..	..
Nail, bone with head	12.24,26	..	..	..	..	..	..	..	..
— —	12.25,27	..	..	1	..	..	..	..	..
— wood	12.28	..	..	2	1	1	1	..	2

(continued).

(Co. A)				Co. B	House 21. W	— 21. E	Midden							House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
IV																																	
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7																				
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Means of Communication.									
Sledge runner, bone	15.1,4	1	..	..	..	..	..	..	..
— — compound	15.8,11	7	3	1	..	1	..	..	..
— wood	15.5	..	..	..	..	..	1	..	..
Sledge shoe, nail holes, walrus ivory		..	1	1	..	1	..	..	..
— — narwhal ivory		..	1	1	3	..	..	1	..
— — bone		4	8	23	16	11	17	9	6
— — antler		1	..	..	..	..	..	..	..
— — baleen		..	1	..	1	..	2	1	..
— lashing holes, walrus ivory		3	8	3	..	..	..	..	..
— — narwhal ivory	15.7	16	11	7	6	3	1	1	1
— — bone	15.6	27	24	18	10	8	1	..	1
— — antler	15.9	2	..	..	..	..	..	..	..
— — baleen	fig. 86	..	..	..	..	..	..	..	..
Sledge cross slat, bone	15.2,10	1	1	4	..	2	1	..	1
— — wood		..	..	..	..	..	..	..	1
Sledge upstander, bone	15.12	..	..	..	..	..	..	..	..
Toggle for draught line	16.15-16	..	..	1	..	..	..	..	..
Trace buckle, ovoid	16.26-30	2	1	1	2	1	5	1	1
— — baleen	46.13	..	..	..	..	..	1	..	..
— trapeziform	16.22-23	..	..	..	..	..	..	..	..
— holes at right angles	16.25	..	..	..	..	..	..	..	..
— oblique hole	16.24	..	..	..	..	..	..	..	..
Swivel, baleen, heavy	46.20	..	..	..	..	..	..	..	..
Dog harness		..	..	..	..	..	..	..	..
Dog-boots	fig. 88	..	..	..	..	..	..	..	..
Whip shank, bone	16.20-21	..	..	..	..	..	..	..	..
— wood	16.17-19	..	..	1	1	1	..	..	..
— baleen	46.15,17-18	1	..	..	..	1	..	..	..
Umiaq fragment, bone	17.1	..	..	..	..	..	..	..	..
— wood	17.2	..	..	..	..	..	..	..	..
Umiaq oar blade (?) scapula	17.7	..	..	..	..	..	..	..	..
Kayak, fragment of stem	17.4-5	..	..	..	..	..	..	..	..
— — gunwale	17.3-6	..	..	..	..	..	..	..	..
— — rib	17.9-11	..	..	1	1	..	1	..	..
— deck beam, bone	fig. 103.12-13	..	..	..	..	..	..	..	..
— — wood		..	..	..	..	..	..	..	..
Kayak paddle, fragment	17.14	..	..	..	..	..	..	1	..
— end mounting	16.31-32	..	..	1	..	..	..	..	..
Harpoon rest, low, bone	18.17-19,24	..	..	..	1	..	..	1	..
— — wood	18.14-16	..	..	..	..	1	..	..	..

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(Co. A)							Midden																																
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— 9	— 10	— 11	— 12	Co. B	House 21. W	— 21. E	Layer 1	— 2	— 3	— 4	— 5	— 6	— 7	House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26						
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Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Harpoon rest, low, baleen	48.4	..	..	..	..	..	..	..	..
— with foot, bone	18.20-21	..	1	1	2	..	..	..	..
— — wood		..	..	..	..	..	..	..	..
Stud for kayak thong	18.23	..	..	..	..	..	..	..	..
Leg for kayak rack	17.12-13	..	..	..	1	..	..	..	..
Harpoon rest (?) for kayak rack	fig. 106.6	..	..	..	..	..	..	..	..
Tools.									
Snow knife with abrupt bent back	18.3	..	..	..	..	..	..	..	1
— with two shoulders	18.4	..	..	2	2	..	2	1	..
— with a knob on the back	18.6	..	1	..	..	..	..	..	..
— one shoulder, evenly curved back	18.5,7	..	..	..	..	1	..	..	..
— indeterminable fragments		1	1	2	3	3	..	3	2
— with separate handle, handle of bone, with seating	18.13	..	..	..	..	..	..	..	..
— — — with slit	18.8,11-12	..	..	..	..	..	..	..	..
— — handle of wood	18.10	..	..	..	..	..	..	..	..
— — blade	18.9	..	..	1	1	..	..	..	..
— — blade with row of lashing holes	(p. 235)	..	..	..	..	..	..	..	..
Snow probe, bone	17.15-19	..	..	..	..	..	1	1	2
— baleen		..	..	..	..	..	..	..	..
Bone knife, sharp	19.5-6	..	..	1	1	1	1	..	..
— — separate blade	19.4	..	..	..	1	..	..	..	..
— blunt	19.1-3	..	1	..	2	..	..	..	..
Knife of baleen	49.10-15	..	..	1	..	..	..	..	..
— slate	21.22	..	..	..	1	..	..	..	..
Knife with endblade, old type, no suspension hole	19.10,15	..	..	..	1	1	..	..	..
— — with —	19.11-14,16	..	..	..	1	..	..	..	..
— — with ornamental nails	19.7-8	..	..	..	..	..	..	..	..
— — fragments of fore ends		..	..	2	..	..	2	..	1
— — unilateral endknob	19.18-26	..	1	2	..	2	..	..	..
— whittling knife	20.5-9,17-20	..	..	..	..	1	..	2	..
— — wood		..	..	..	..	1	..	..	..
— — fragments		..	..	..	3	..	..	..	..
— open blade slit, bone	20.1-4,11	1	..	1	..	..	1	..	..
— — wood	20.13-14	..	..	..	..	..	..	..	..
— seating for the blade, wood	20.15	..	..	..	..	..	..	..	..
— open blade slit, fragments of fore ends		..	..	2	3	2	..	1	..
— fragments of butts with bilateral knobs		..	1	2	..	..	..	..	..
— side groove open at fore end, bone	20.21-23,29	..	1	..	..	1	..	..	..
Knife with sideblade, on one side	20.25-28,30-31	2	2	9	2	4	..	1	1
— row of side blades	20.32	..	1	..	1	..	..	..	..

(continued).

| (Co. A) | | | | | | | Midden | | | | | | |

List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Knife with sideblade, blade on two sides	21.2	1	1	6	..	1	..	..	..
— on one side, and end blade	21.4	..	..	4	..	2	..	2	..
— row of side blades, and end blade		..	..	..	..	..	1	..	..
— blade on two sides, and end blade	21.1	..	..	..	1	..	..	..	..
— butt part with scarf	21.8-9	1	1	..	..	..	..	..	..
— indeterminable fragments		..	..	3	2	3	1	..	..
— C. Dorset type, one blade	1.12	..	..	..	..	..	..	..	..
— — two blades	1.13-14	..	..	..	..	..	..	..	..
— broad blade part and narrow handle	21.10-15	..	..	..	2	..	..	..	..
— — — — wood	21.16	..	..	..	..	..	..	..	..
Baleen shave	21.18-21	..	..	2	..	1	..	..	1
Knife blade, flint	2.5-13	..	..	..	..	..	..	..	..
— slate	21.23-27	..	..	..	1	..	..	..	..
— iron		..	..	1	1	..	..	..	..
Hand drill, bone	24.3-5,17	..	1	1	..	..	..	..	..
— wood	24.15	..	..	..	..	1	..	..	..
Drill bow	24.6-8	..	..	..	..	..	..	..	..
Bow drill shank, bone	24.9-11,18-20	1	..	3	3	1	..	..	..
— — wood	24.12-14	1	..	..	1	..	..	..	..
— — foreshaft	24.22-23	..	..	..	..	1	1	..	..
— — mouthpiece, caribou astragalus	24.24-25	1	1	1	..	..	..	..	..
— — — worked of bone	24.26	..	..	..	..	..	..	..	..
Baleen saw	49.5-9	..	..	..	1	..	2	..	..
Whetstone	29.29	6	5	10	6	6	7	2	3
— asbestos	29.28	..	..	..	..	..	..	..	..
— with grooves	29.30-31	..	..	..	..	..	..	..	..
Hammer stone	29.26-27	1	1	1	1	..	..	3	1
Stone maul with baleen shaft	28.5	..	..	..	..	..	..	..	..
— head of stone		..	..	..	..	..	..	..	..
Adze head, no separate blade, bone or ivory	28.3	..	..	..	..	..	..	..	..
— no holes for lashings	28.6-9	..	..	1	1	..	..	2	..
— vertical holes	28.10-12	..	..	1	..	..	..	..	..
— horisontal holes	28.13,17	..	..	..	..	..	..	..	..
— — and curved ventral hole	28.14-16	..	..	..	..	..	1	..	..
— indeterminable fragments		..	..	..	..	..	..	..	..
Adze handle, one hole	28.20	..	..	..	..	..	..	..	..
— 3 or 4 holes	28.19-21	..	..	..	..	..	..	..	1
Hand pick, rib	30.8,13-14	..	..	..	1	..	1	..	..
Moss spade	30.9	..	..	..		1	..	..	..
Mattock blade, with hole	30.3	..	..	..	..	..	..	..	..
— with a seating for the handle	30.1,4-5	..	..	..	1	..	..	1	..
— indeterminable fragments		..	..	..	1	..	1	..	..

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(Co. A)				Co. B	House 21. W	21. E	Midden							House 1																								
IV																																							
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7		— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26						
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
		—	—	—	—	—	—	—	—
Pick-axe head	30.10	..	..	..	..	..	..	..	..
Flint flaker, walrus penis bone	27.11	..	..	..	..	..	..	..	..
— — rib	27.12	..	..	..	..	..	..	..	..
— antler		..	..	..	..	..	..	..	..
Wedge	29.19-25	1	8	15	6	1	2	2	4
Marline spike, flat	29.9-12	..	..	1	..	1	..	..	..
— - with hole	29.13	..	..	..	..	..	..	..	..
— - narrow fore end	29.14-16	..	..	..	..	..	..	..	..
— round, pointed	29.3-8,18	1	1	1	5	1	..	..	2
Tool of pointed seal fibula	29.10	..	..	..	..	..	..	..	..
— polar bear fibula	29.1	..	..	..	..	..	..	..	..
— caribou ulna	29.2	..	..	..	1	..	..	..	..
Cutting board, bone	27.18	..	..	..	..	..	..	..	..
— wood	27.7, 31.3-5	..	..	..	2	..	?	..	..
— — with "head"	31.6-7	..	..	..	..	..	..	..	..
— baleen		..	..	..	..	..	..	..	..
Arrow straightener	27.16	..	..	..	..	..	..	..	..
Pointed wooden stick		..	..	1	1	..	..	..	..
Gouged wooden box, boat form (tool box)	fig. 90	..	..	..	..	..	..	..	..
— small	34.17-18	..	..	?	..	..	..	..	..
Four-sided wooden box	34.20	..	..	..	..	1	..	..	..
Stone knife, atypical, ground edge	25.5-6	..	1	..	..	..	1	..	..
— — not ground		..	..	..	2	..	1	..	..
Ulo of stone	22.1-2	..	..	..	..	..	..	..	..
— baleen	49.1	..	..	..	..	..	..	..	..
Ulo handle, low and wide, bone	22.5, 8-9, 11	1	..	..	..	..	1	1	..
— — ivory with dot ornament	22.3-4	..	..	..	..	..	..	..	..
— — wood	22.6-7	..	..	..	..	..	..	..	..
— even transition to broad back	22.13-14, 16, 20	..	..	..	..	..	..	1	..
— — — wood	22.12	..	..	..	..	..	..	1	..
— — — with hole	23.6, 11	..	..	..	..	..	..	..	..
— broad back, thin blade part (trapeziform)	22.19, 21-22, 24	..	..	1	1	..	..	..	1
— — — with hole	23.2-3	..	..	1	..	..	..	..	..
— with end projections at blade side	22.10	..	..	..	..	..	..	..	..
Ulo with separate blade part, handle, bone	23.4	..	..	..	..	..	..	..	..
— — — wood	23.7-8	..	..	1	..	..	..	..	..
— — blade part	23.7, 9-10	1	1	3	1	1	..	..	..
Ulo blade, slate		..	..	..	..	..	..	..	..
— iron		..	..	..	..	..	..	1	..
End scraper, convex edge, flint	2.25-33	..	..	..	..	..	..	..	..
Side scraper, concave edge, flint	2.20	..	..	..	..	..	..	..	..
— — other stone	25.10, 12	..	..	..	..	..	..	..	..

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(Co. A)							Midden							House 1																					
IV				Co. B	House 21. W	21. E	Layer 1	2	3	4	5	6	7		3	4	5. N	5. S	6	7	8	10	11	12	16	17	18	19	20	22	24	25	26
— 9	— 10	— 11	— 12																															
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Handle for flint scraper	23.14	..	..	..	..	..	..	..	..
Stone scraper, blunt	25.11,13-15,17-18	2	1	6	1	4	4	1	1
— — dolomite	25.16,19	3	7	6	2	2	..	1	3
End scraper, narrow, bone	26.11-12,14,17,18-19	..	..	..	..	2	..	1	..
— — wood	26.15-16	..	..	..	..	..	..	..	..
— broad, bone or antler	26.6,8-10	..	..	1	..	..	1	..	..
— — caribou scapula	26.7	..	..	..	..	..	..	..	..
— — antler, with projecting handle	26.1-5	..	..	..	1	..	..	..	..
— — with hoop-shaped handle	26.13	..	..	..	..	..	..	..	..
Scraper handle, trapeziform	23.12-13	..	..	..	..	..	..	..	..
Scraper with curved iron blade (modern type)	23.17	1	..	..	..	..	..	..	..
Two-handed scraper, caribou tibia, one edge		..	..	..	..	..	..	..	..
— musk ox (?) tibia		..	..	..	..	..	..	..	..
— bearded seal tibia	27.2	..	..	..	2	1	2	..	..
— walrus rib		..	..	..	..	..	..	..	..
— — penis-bone	27.1	..	..	..	..	..	..	..	..
— bear femur		..	..	..	..	..	..	..	..
— — ulna	27.3-4	..	..	..	..	..	..	..	..
— — radius	27.5	..	..	..	..	..	..	..	..
Cup-shaped scraper, ivory	24.2	..	..	..	..	..	..	..	..
— walrus palatal bone	24.1	..	..	..	..	..	..	..	..
Bodkin	36.3-6	..	..	..	..	..	2	..	..
— ornamental	36.11-13	..	..	..	1	..	..	..	..
— — of wood	36.10	..	..	..	..	..	..	..	..
— — "human"	36.7-9	..	1	1	..	..	..	..	1
Needle case, "winged"	36.18-19	..	..	..	..	..	..	..	..
Thimble holder, two unilateral hooks	36.26	..	..	..	..	..	..	..	..
— anchor-shaped	36.21-25	..	..	..	1	..	..	..	1
Boot creaser	36.15-17	..	..	..	2	..	..	..	..
Spatula-shaped implement, heavy	1.15	..	..	..	..	..	..	..	..
Household Utensils.									
Pyrite	31.18	..	..	..	..	..	..	1	..
Fire-hearth	31.16,21	..	..	..	..	..	..	1	..
Wick moss	31.19	..	..	..	..	..	..	..	..
Lamp, small oval, of soapstone		..	..	..	..	..	..	..	..
— deep, triangular-oval, (heavy), no ledge	fig. 94	..	..	..	..	..	..	..	..
— with knobs	32.1,3,8	..	..	..	2	..	..	..	..
— with ledge with openings	32.2,6,7	..	..	..	..	..	..	..	..
— —		..	..	..	..	..	..	..	1
— vestigial ledge	32.9	..	..	..	1	..	..	..	..

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(Co. A)				Co. B	House 21. W	21. E	Midden							House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
IV																																
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7																			
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Lamp, made of clay-like substance	32.10	..	..	..	..	..	..	..	..
Lamp stool		..	..	..	..	..	..	..	..
Lamp trimmer, stone		..	..	..	..	..	..	..	..
— asbestos		..	..	..	..	..	..	..	..
— wood		8	13	34	32	30	20	24	13
— — with groove	31.23-25	3	1	5	10	..	4	..	..
Shaft for lamp trimmer	31.22	..	..	..	..	..	..	..	..
Cooking pot, oval, holes from side to side	33.1	1	..	1	1	..	..	..	..
— — inside suspension holes	33.2,5,7	1	..	1	1	2	2	1	..
— — fragments		..	1	..	..	1	..	..	1
— — inside projecting rim	33.6,8	..	..	..	..	..	..	..	..
— — outside ornament line	33.10	..	..	..	..	..	..	..	..
— rounded-foursided with outside rim	33.11-12	..	..	..	..	..	..	..	..
— foursided with rounded corners	33.15-16	3	1	2	1	..	..	2	..
— fragment with inside handle	33.4	..	..	..	..	..	..	..	..
— indeterminable fragments		8	11	22	9	8	6	14	9
Soapstone bowl	33.14	..	1	..	..	..	..	..	..
Drying rack, wood, foursided	fig. 107.2	..	..	..	..	..	..	..	..
Drying rack, baleen	47.1	..	..	..	1	..	..	..	..
Meat tray	fig. 95	..	5	6	20	11	10	4	1
Bowl, side of baleen		..	1	..	..	..	..	..	..
Cup, — —	48.1-2	..	..	..	..	..	..	..	..
Bowl bottom, oval, bone	34.2	..	..	1	..	..	..	..	..
— — — wood	34.1	..	..	1	2	4	1	1	1
— — — baleen	46.14	..	..	..	1	..	..	..	..
Cup bottom, wood	34.3-4	..	..	2	..	..	..	1	..
— baleen		..	1	..	..	1	2	..	1
Tub stave	34.21-23	..	1	3	4	3	1	..	..
— groove at both ends	34.24-25	..	..	..	..	..	..	..	..
Ladle of wood	34.5-6,11,14	..	..	1	..	..	..	..	..
— small	34.12-13	..	..	..	..	..	..	..	..
Ladle of soapstone	34.9-10	..	..	..	..	..	..	..	..
Spoon of antler	35.16	..	..	..	..	2	..	..	..
— small	35.17	..	..	..	..	..	..	..	..
— decorated slender handle	35.20,25	..	..	..	..	..	..	1	..
Marrow extractor (?)	35.18-19	..	..	..	..	..	..	..	..
Sucking tube	34.16	..	..	..	..	..	..	..	..
Meat stick, bone (rib)	31.9,11,13	2	1	3	3	1	1	2	1
— antler	31.10,12	..	..	..	..	..	..	..	..
Blubber fork with barbs, bone or antler	31.26	..	..	..	..	..	..	..	..
— — wood	31.14-15	..	..	..	..	1	..	..	..
Blubber fork, baleen	47.9-10	..	..	1	1	..	..	..	..

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(Co. A)				Co. B	House 21. W	21. E	Midden							House 1	3	4	5. N	5. S	6	7	8	10	11	12	16	17	18	19	20	22	24	25	26
IV																																	
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7																				
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10	9	10	4	10	27	40	33	72	45	42	29	14	2	11	9	11	5	2	4	7	6	15	7	7	13	2	3	7	8	5	4	1	..
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Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Hook of antler	30.18-21	..	1	..	..	..	..	..	..
Carrying stick (?) wood		..	..	..	..	1	..	..	..
Carrying stick (?) baleen	48.13,15,16, 46.24	..	..	1	..	..	..	1	..
Baleen handle	(p. 267)	..	..	1	..	..	..	..	..
Handle? of wood		..	..	..	..	..	..	..	..
Bone rim with row of holes (for skin vessel)	35.5	9	10	7	3	..	3	1	..
Rib for skin vessel (?) bone	35.21,23	..	..	..	2	..	1	..	..
— — (?) wood	35.22,24	..	3	..	..	..	..	2	..
Edge mounting, bone or antler	35.1,4	..	..	1	1	1	1	1	..
Bone mountings, indeterminable	35.6,11-15	1	3	4	3	3	2	1	..
Gut-skin pane (?)		..	..	..	..	..	..	..	..
Baleen platform mat	fig. 96	..	..	2	4	4	1	2	1
Clothing and Ornaments.									
Boot		..	..	..	..	..	..	..	..
Baleen wool		..	..	..	..	..	..	..	..
Button of bone	37.24-26	..	..	..	..	..	..	..	..
Line buckle	38.6-9	1	..	..	..	..	..	..	..
— with bust	38.10-12	..	..	1	..	..	..	..	..
Tube-shaped bead (?) with ornamental lines	38.13	..	..	..	..	..	..	..	..
— button	38.14	..	..	..	..	..	..	..	..
— buckle, with "wings"	38.15-18	..	..	..	..	..	..	..	..
Snow goggles	38.1-2	..	..	..	..	1	..	..	..
Snow beater, bone	31.1-2	..	..	..	..	2	..	..	..
— baleen, simple	45.14	..	..	1	3	..	2	1	1
— — unilateral end knob	45.1-4	..	..	3	4	1	1	5	1
— — asymmetrical, curved butt	45.5-10	1	..	1	1	1	..	..	..
— — narrow butt with hole	45.13	..	..	..	..	..	..	..	1
— — symmetrically extended butt	45.12	..	..	1	1	2	..	..	2
— — — — with hole	46.1-5	..	..	1	2	..	..	2	..
— — — concave butt	46.7	..	..	..	..	..	..	..	..
— — — — w. hole	46.6	..	..	..	..	..	..	..	..
Baleen stick, narrow, unilateral end knob	46.23	..	..	..	1	..	1	..	..
— — — finger-grooves	49.9	..	..	..	..	..	..	..	1
— long, with hole (and line)	46.10-12	..	..	1	1	2	3	..	..
Comb, narrow handle	37.2-3	..	..	..	..	..	..	..	..
— rounded rear end	37.4	..	..	..	1	..	..	..	..
— trapeziform	37.8	..	..	..	..	..	..	..	..
— hexagonal handle	37.1,5	..	1	..	..	1	..	..	..
— concave, or double-convex sides	37.6,10,13	..	..	1	..	..	..	..	..
— fragment	37.7	..	..	..	..	1	..	..	..

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(Co. A)				Co. B	House 21. W	21. E	Midden							House 1																				
IV																																		
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7		— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
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Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Mica		..	..	..	..	..	..	..	..
Brow band, antler	38.3	..	..	..	..	..	..	..	..
— brass	38.4	..	..	..	..	..	..	..	..
Bead, soapstone	37.21	..	..	..	..	..	..	..	..
— amber	37.28	..	..	..	..	..	..	..	..
Pendant, stone	37.14-17	..	..	1	..	..	..	..	..
— bone or ivory	37.32-33	..	..	..	..	..	..	..	..
— "winged"	37.30-31	..	..	..	..	..	..	..	..
Chain ornament	37.18-19	..	..	..	..	..	..	..	..
Tooth pendant	38.19-28	..	..	..	..	..	1	..	1
— bear tooth	38.29-30	..	..	..	1	..	..	1	..
Ornamental plate	37.22	..	..	1	..	..	..	..	..
Indeterminable ornamented objects	36.28,31	..	..	1	..	..	..	..	1
Ivory with etched figures	36.33	..	..	..	..	..	..	..	..
Games and Toys.									
Ajagaq, seal humerus	39.1-2	..	..	..	..	..	..	..	..
— seal radius	39.3	..	1	4	..	1	..	..	..
— seal penis bone	39.4	..	..	..	..	..	..	..	..
— stick	39.5-7	..	..	1	..	..	..	..	1
Gambling bone	39.22-23	1	..	2	2	1	3	1	..
— carved of ivory	39.24-25	..	..	..	..	..	..	..	..
String of plaited sinews, for string figures		..	..	..	..	..	..	..	..
Top-disk, bone	42.4	..	..	..	..	..	..	..	..
— baleen	48.11	..	..	1	2	..	..	..	..
— — with indented edge	48.10	..	..	..	1	..	..	..	..
Top pivot	42.5-7	..	..	..	..	2	..	..	2
Propeller, baleen	48.12	..	..	..	..	..	..	..	..
Whale figure	38.32	..	..	..	..	..	..	..	..
Seal figure, ivory	38.36,41	..	..	1	..	..	..	..	..
— wood	38.40,42	..	..	..	..	..	..	..	..
Bear figure, ivory	38.38	..	..	..	..	..	..	..	..
— baleen	49.21	..	..	..	..	..	..	..	..
Dog figure, wood	38.39	..	..	..	..	..	..	..	..
Fox (?) figure, wood	38.37	..	..	..	..	1	..	..	..
Bird figure, ivory	38.31	..	..	..	..	..	..	..	..
Doll, flat face, wood, no feet	40.1-4	1	..	2	1	1	2	1	1
— — bone or ivory	40.5-7	..	..	1	..	..	2	..	..
— — wood, slender type	40.12-14	..	..	1	..	..	..	..	..
— — — with toupé, no feet	40.16,22,23	..	..	..	1	..	..	1	..
— — — — with feet	40.15	..	..	..	..	..	..	..	..

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(Co. A)				Co. B	House 21. W	21. E	Midden							House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
IV																																	
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7																				
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List

Types	Plate	Comer's Midden I Layer 1	I 2	II 3	II 4	III 5	III 9	III 7	III 8
Doll, flat face, ivory — —	40.21	..	..	..	..	..	..	..	..
— — wood, with boots and feet	40.8-10	..	1	..	1	..	3	1	1
— — — with hood and jacket	40.18,19,27	1	..	..	..	..	..	..	..
— — — with arms	40.17	..	..	..	..	..	..	..	..
— soapstone	40.29	..	..	..	..	..	..	..	..
— baleen	49.16	..	..	..	..	..	..	..	..
— representing Norseman	40.26	..	..	..	..	..	..	..	1
Toy harpoon foreshaft	41.23	..	..	..	1	..	..	..	..
— — with tenon at butt-end	41.24	..	..	..	1	..	..	..	..
— harpoon, wood	41.34-35	..	..	1	1	..	..	..	..
— — baleen	48.7-9	..	..	1	1	..	..	..	..
— bladder dart head, baleen	48.18	..	..	1	..	..	..	..	..
— — (?) — many barbs on both sides	48.19-21	..	..	..	1	..	..	..	..
— lance, baleen	48.5-6	..	..	..	..	..	..	..	..
— side prong for bird dart, wood		..	1	..	..	..	..	..	..
— — baleen	49.18-19	..	..	..	..	2	..	..	..
— bow, wood	41.18-22	..	..	..	1	..	..	..	1
— arrow, wood, extended blunt fore-end	41.26	..	..	1	1	1	1	2	1
— — — pointed	41.30-31	..	..	..	..	..	..	..	..
— — baleen		..	..	..	..	..	..	..	..
— — head	41.36-40	..	..	2	1	3	1	1	..
— — shaft	41.27	..	..	2	..	..	1	2	2
— sling handle, wood	42.11-13,27-29	..	..	..	..	..	..	..	1
— — baleen		..	..	..	..	..	..	..	..
— sledge runner, wood	41.1-3	..	..	2	1	..	..	..	1
— — cross bar, bone	41.4,6	..	..	..	2	..	..	..	..
— — — wood	41.5,7-10	..	2	..	4	..	..	3	2
— — — baleen	49.28	..	..	..	..	..	..	..	1
— — upstander, wood	41.11-13	..	..	..	..	..	..	..	1
— — — — modern type	41.14	1	..	..	..	..	..	..	..
— whip handle, wood	41.15-17	..	..	..	..	..	..	..	..
— — baleen		..	?	..	..	..	..	..	..
— umiaq, wood	42.14	..	..	..	..	..	..	..	..
— — baleen	49.22-24	..	..	..	..	..	..	..	..
— kayak	42.15-16	..	..	1	..	..	..	1	..
— — gouged	42.17-18	..	..	..	..	..	..	..	..
— — baleen	49.25	..	..	..	..	..	..	..	..
— boat (?) wood	42.2-3	..	..	..	..	..	..	..	..
— kayak paddle	42.22-23,25-26	..	..	..	1	..	1	..	1
— — narrow type	42.24	..	..	..	..	..	..	..	..
— ulo handle	42.10	..	..	..	..	..	..	..	.
— snow beater, wood		..	..	1	..	..	..	..	.

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(Co. A)				Co. B	House 21. W	21. E	Midden							House 1	3	4	5. N	5. S	6	7	8	10	11	12	16	17	18	19	20	22	24	25	26
IV																																
9	10	11	12				Layer 1	2	3	4	5	6	7																			
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Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
		—	—	—	—	—	—	—	—
Toy snow beater, baleen	49.32	..	..	1	..	1	..	..	..
— snow knife (?) baleen	49.17	..	..	..	..	..	..	..	..
— lamp, no ledge	43.2-4	1	..	..	..	2	..	..	..
— — knobs	43.7	..	..	..	..	..	..	..	..
— — ledge open at the ends	43.8,11	..	..	..	..	..	..	..	..
— — vestigial ledge		..	..	..	..	..	..	..	..
— — partition ledge	43.9-10	..	..	..	1	..	..	1	..
— — — near back side	43.12	..	..	..	..	..	..	..	..
— — no ledge, modern type	43.13	1	..	..	1	..	..	..	..
— — simple	43.1,5	..	..	..	1	..	..	..	..
— cooking pot, round	43.18	..	..	1	..	..	..	..	..
— — oval	43.17,20-21	..	..	..	1	..	..	..	..
— — four-sided	43.15-16,19	..	1	..	1	..	..	..	2
— — simple	43.14	..	..	..	..	..	..	..	..
Round stone		..	..	..	..	..	..	..	..
Objects connected with Intellectual Culture.									
Drum, bone (fragment)	35.2-3,8-9	2	2	4	5	1	1	1	..
— baleen	47.5	..	..	1	..	1	..	..	..
— handle, wood	39.13-14	..	..	..	?	1	1	?	..
— stick, bone	39.12	..	..	..	1	..	..	..	..
— — baleen	47.3-4	..	..	..	..	1	1	1	..
Amulet stone	39.9	..	..	..	..	..	..	..	..
Miniature baleen knives	39.10-11	..	..	..	..	..	..	1	..
Split bear mandible	39.8	..	..	..	..	..	..	..	..
Amulet box	39.18-21	..	..	1	1	1	..	..	..
— kayak-shaped	39.16	..	..	..	..	..	..	..	..
Cap, made of skin	fig. 98	..	..	..	..	..	..	..	..
Sundries.									
Fragments of seal thong		..	..	..	..	..	..	..	..
— skin		..	..	..	..	..	..	..	..
Plaited sinew thread		..	..	..	..	..	..	..	1
Bird quills		..	..	..	..	..	..	..	..
Baleen quadrangular plaiting	49.20	..	..	..	1	..	..	..	..
— line with knots		3	1	5	6	12	10	7	7
— indeterminable fragments		1	10	16	26	16	8	15	13
Waste flint		..	..	..	1	1	..	..	..
— slate etc.		..	..	..	1	..	..	..	..
Amber, unworked		..	..	..	..	..	..	..	..

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(Co. A)				Co. B	House 21. W	21. E	Midden							House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
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— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7																			
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10	6	4	6	19	26	20	13	20	20	15	6	3	1	15	5	22	1	4	1	4	4	12	11	8	21	5	4	4	11	6	2	..	..
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List

Types	Plate	Comer's Midden							
		I		II		III			
		Layer 1	2	3	4	5	6	7	8
Indeterminable fragments of wooden objects		64	29	68	109	70	54	48	44
— — bone, antler, or ivory		24	47	68	55	31	23	19	26
Drilled pieces of bone		9	18	18	17	8	4	2	2
Objects of Norse Origin.									
Rectangular wooden box, ornamented	44.1-3	..	..	..	..	..	1	..	1
Spoon case	44.13	..	..	..	..	..	..	..	..
Milk sieve	44.5	..	..	..	..	..	..	..	..
Chess-man	44.10	..	..	..	..	..	..	..	..
Copper (*brass)		..	..	..	..	..	..	..	..
Lead		..	..	..	..	..	..	..	..
Y-ornament		..	..	..	..	..	..	..	..
Spur line		..	..	..	..	..	..	..	..
Dot ornament		..	..	1	..	..	..	..	..
Dot and circle		..	..	..	..	..	..	..	1
Plug ornament		..	..	..	..	..	..	..	..
Line ornament		..	..	..	..	..	..	..	..
Openwork		..	..	..	1	..	..	..	..
Seal tail (?)		..	..	..	..	..	..	..	..
Etching		..	..	..	1	..	..	..	..

(continued).

(Co. A)				Co. B	House 21. W	21. E	Midden							House 1	— 3	— 4	— 5. N	— 5. S	— 6	— 7	— 8	— 10	— 11	— 12	— 16	— 17	— 18	— 19	— 20	— 22	— 24	— 25	— 26
IV																																	
— 9	— 10	— 11	— 12				Layer 1	— 2	— 3	— 4	— 5	— 6	— 7																				
25	26	13	4	56	62	103	92	104	112	108	59	29	5	40	17	38	7	3	11	11	12	31	23	32	33	14	5	21	19	15	10	..	4
11	9	3	..	27	40	62	28	41	29	20	17	10	4	34	8	14	7	3	5	6	13	14	13	17	67	12	2	13	14	14	6	2	2
1	..	1	..	..	1	4	1	2	1	1	2	..	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2	..
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..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

III. DESCRIPTION OF THE OBJECTS FOUND

The following contains a brief description of the objects found, arranged according to types. Their occurrence within more or less definitely limited periods will be discussed later. For the specimens illustrated on the plates the finding places are indicated opposite each plate together with the corresponding museum numbers. Other specimens will be referred to by their museum number, and, if the locality is not mentioned directly in the same context, it will be found by consulting the consecutive museum numbers given in the foregoing after each locality.

I consider a purely typological arrangement of the material to be the most practical in the present case. No doubt it would be possible to set up various delimited periods of time, as will be shown in the following, but it is not possible a priori to set up different, sharply demarcated "cultures"; and moreover, several types are represented by only one specimen or by so few that for this reason alone the question of their placing would remain uncertain.

Harpoon heads.

Of these we found a total of 284 intact or defect but identifiable specimens, in addition to 24 small heads for the leister harpoon or harpoon-arrow. Of the former, 48 are barbed heads, the majority of which come under the main group which Th. Mathiassen has called "Thule 2", i. e., they are thin, with an open socket and two powerful opposed barbs.

The other 236 specimens are of the toggle variety[1]); the various forms are divided as follows:

thin, with open socket	98
— — closed —	89
flat — open —	9
— — closed —	10
Dorset type	30

[1]) For the sake of convenience the term toggle harpoon head is employed here solely in respect of unbarbed heads in contrast to barbed heads, even though the Thule 2 heads strictly speaking in principle are, or can be used as, toggle heads.

It should be added in connection with the division into types that particular weight has been attached to two secondary features, viz. as regards heads with an open socket: whether they have slots or drilled holes for the lashing, and whether the spur is clean cut or it curves smoothly outwards from the butt end; these features seem to have a certain relation to the relative ages of the types in question.

Barbed harpoon heads (Thule-2 type).

A. Slots I. No blade a) common type
b) vestigial barbs
c) — spurs.
c. 1) more than two barbs
II. Blade parallel to line-hole

B. Holes I. No blade
II. Blade parallel to line-hole
a) oblique spur
b) two unilateral spurs
III. Blade at right angles to line-hole.

The slotted forms all have a clean-cut, oblique spur, and the bottom of the open socket is formed by a sharp cut. The specimens vary somewhat in both style and workmanship.

(A. I. a) *The simple Thule-2 type with no blade.* Fourteen specimens were found, having lengths from 17.4 to 11 cm, as well as 6 defect and 2 unfinished specimens; two are of bone (Inf. Houses 21 and 24), 7 of walrus ivory (Inf. Houses 4 and 6, Ruin Island House 6, Thule House 21, midden), the other 13 of caribou antler; on 9 the spur is on the right (looking at the specimen from the butt with the socket upwards), on 5 it is on the left (Inf. Houses 3, 4, 6, 18). Pl. 3. 1-2-3-4 and 10 show various examples of this type.

In three cases there is an ornament incised anterior to the line-hole. Pl. 3. 2 has the commonly employed Y-ornament; on Pl. 3. 10 on the side opposite the socket is a long, triangular field filled with transversal lines and prolonged anteriorly into a Y. There is also a triangular field on L 3: 11968 (Inf. House 4, midden, lower layer), which on its other side has an incised field with longitudinal stripes. The latter specimen is furthermore curious in that the upper sides of the barbs meet in a sharp keel. L 3: 1735 is of bone; instead of slots it has two crudely incised, broad grooves for the lashing, apparently because the material would not permit of the cutting of the usual slots.

Pl. 3.4, which is of walrus ivory, has an almost triangular line-hole, and there are remains of the baleen lashing. On two others the lashing of plaited sinew thread is preserved. L 3: 2601 (Ruin Island House 6), of walrus ivory, has a very narrow line-hole cut obliquely in from both sides, thereby forming a canal with a forward bend.

(A.I.b) *With vestigial barbs level with the line-hole*; two specimens, both of walrus ivory (Inf. House 2 and Ruin Isl. House 4). Pl. 3.8 has a narrow, forward-bending line-hole like L 3: 2601. Pl. 3.7 is a fragment of a similar harpoon head; on this the vestigial barbs have a purely ornamental appearance, and on both sides of the body is an incised ornament anterior to the line-hole.

(A.I.c and c.1) With a *knob-like projection on the inner side of the spur* (*vestigial spur*). Of this type we found three rather defective specimens, all of walrus ivory (Ruin Isl. Houses 2 and 4, Thule House 19). Pl. 3.5 from Ruin Isl. House 4 has slender barbs, and it is evident that it had another pair of barbs anterior to the existing pair, as in the case of those from Qilalukan, Ponds Inlet, described by Th. Mathiassen[1]). The well-preserved lashing about the socket is of plaited sinew thread and is reinforced, the rearmost windings being provided with close transversal windings. Pl. 3.6 has a triangular line-hole.

(A.II) *With the blade parallel to the line-hole.* Pl. 3.9 is the only barbed and slotted harpoon head that has had a blade. It was found in Inf. House 1, in or near the back wall, where Dorset types were also found. The two barbs are broken off, and the point is carefully rounded; undoubtedly it had a stone blade. Anterior to the line-hole is an elongated triangular field, terminating forwards in a Y. The material is caribou antler.

(B.I) *With holes, no blade.* Of these there are 7 specimens, all defective; four are of caribou antler (Inf. House 7, Thule House 8, 24, and Co.A sq. 18.5) and three of walrus ivory (Inf. Houses 4 and 7 Thule House 5 N.); it can be seen that two had the spur on the right and two on the left. Pl. 3.16 had been damaged and had its socket prolonged anteriorly, whereafter a new line-hole was drilled in front of the original one. Pl. 3.15 has a triangular field ending forwards in a Y on both sides; L 3: 1138 from Inf. House 7 has the same.

L 3: 10966 (Co.A sq. 18.5) is of caribou antler and has ornamental vestigial barbs level with the anterior edge of the line-hole, as on Pl. 3.7.

(B.II.a) *with holes, the blade parallel with the line-hole, and oblique spur.* Five specimens, one of them unfinished and three defective; four are of caribou antler and one is of bone (Thule House 5.S). The intact

[1]) Th. Mathiassen 1927, I p. 147, Pl. 39.3-4.

specimens measure 16.5—12.5 cm. Three of them have the spur on the right, one on the left (Inf. House 11); three have a blade rivet hole. Pl. 3.18 is of antler, Pl. 3.17 of bone; the barbs of the latter are broken. L 3: 3247 (Thule House 4) differs from the others in that the socket is greatly undercut and lacks the characteristic sharp cut at the bottom; furthermore it has 2 × 3 lashing holes; the point now is wedge-shaped, but the bottom of the blade slit can be seen as a small notch.— L 3: 8072 (Thule House 21, midden) presumably belongs to this group too; it is merely the butt end of a harpoon head of antler, wedge-shaped anteriorly with a face for scarfing the forepart on to it and with a hole from which a lashing groove runs forwards. Harpoon heads made in two parts were found by Mathiassen in graves at Qilalukan, but there the joint was made in a somewhat different manner[1]).

(B.II.b) *with holes, the blade parallel with the line-hole and two unilateral spurs in the plane of the barbs.* Only two specimens of this type were found, one of them, of antler, being shown in Pl. 3.19. The socket is square-cut at the bottom and the spurs are cut clean against the butt end; the baleen lashing is preserved. L 3: 10965, of bone and found in Co.A square 18.5, differs in that the socket bottom is rounded, and the two cleft spurs continue the concave butt of the harpoon head; this too has a lashing of baleen.

(B.III) *with holes and the blade at right-angles to the linehole, and a single oblique spur.* Seven specimens, one of them a surface find, all of antler; five have the spur on the right, one on the left (Co.A square 15.7). In four of the specimens the bottom of the socket is square-cut (Thule House 21, W, midden and Co.A 15.7) whereas on the other three it is rounded (Thule House 20, Co.A 12.5). The length is about 14—9 cm, only one specimen, Pl. 3.20, being almost uninjured. With the exception of L 3: 10295 (Co.A 15.7), all have their smallest cross-section a little way posterior to the blade slit.

Toggle Harpoon Heads.

Thin, with open socket.

A. Slots, and blade parallel with line-hole, oblique spur.
   1) Ordinary type
   2) with vestigial spur

B. Holes. I. No blade (Thule 1).
   II. Blade parallel with line-hole.
      a) Clean cut oblique spur
         1. Socket square-cut (hexagonal type)
         2. Socket rounded (stubby type)

[1]) Mathiassen 1927 I, Pl. 63.1 and 64.3.

b) Spur curving smoothly from butt end, socket rounded and undercut.
c) Similar, but the point widened parallel to the blade slit.

III. Blade at right-angles to the line-hole.

(A. 1) *With slots, blade parallel with line-hole, oblique spur.* Of this rather slender type we found eight, one of them unfinished; seven are of antler and one is of walrus ivory (L 3: 11093, Co. A 19. 3); lengths 12—8.6 cm. The bottom of the socket is formed by a sharp cut, and in most cases the spur is sharp cut against the plane butt end. In four cases the spur turns right, in four left (Inf. House 2, 26 and Thule House 1). Pl. 3. 12 is a fine specimen of antler. Pl. 3. 11 has an iron blade held in place by an iron rivet; except on this the only rivet hole is on L 3: 889 (Inf. House 5), on which, however, the blade slit 2.5 cm long seems intended for a blade of stone or bone.

(A. 2) *With vestigial spur.* In all three specimens, all of walrus ivory, lengths 9.3—7.95 cm. Two of them (one shown in Pl. 3. 14) were found in Thule House 16 and are almost replicas; the part anterior to the line-hole widens out at right-angles to the hole and is hexagonal in cross-section, while the sides are partly concave—features that bring these two specimens in close association with certain Punuk harpoon heads (e. g. Collins 1937, Pl. 28. 9 and 70. 10-12). The rudimentary spur consists of a small rounded knob at the root of the spur. On Pl. 3. 14 the socket lashing of baleen is preserved.

Pl. 3. 13 besides vestigial spurs also has a vestigial side-blade groove on the dorsal and ventral sides level with the line-hole. It differs in form from the other two just mentioned, as the cross-section decreases evenly anteriorly and is oval. On all three the bottom of the socket is formed by a square cut.

(B. I) *With holes, no blade (Thule 1).* These are very thin in form and the socket is slightly undercut; the bottom of the socket is carefully rounded. The spur is not distinctly oblique and continues the sloping butt end of the harpoon; on eight out of eleven specimens it is on the left, on three on the right. There are 2×2 holes for the lashing. In all we found 22 identifiable specimens, six of them intact with lengths from 10.7 to 7.7 cm; the others are defective or are small fragments. Eighteen are of antler, one of bone and three of walrus ivory. Eighteen of the specimens were found mainly in the upper half of Comer's Midden and three in Thule House 21 with its midden. Pl. 4. 2 is a characteristic specimen of antler, Pl. 4. 3 is of walrus ivory; on this one the butt end is

damaged and a new line hole has been drilled through in front of the original one. Pl. 4.1 is one of three, all of antler, which differ from the main type in being more slender and widening out in lanceolate fashion anterior to the line-hole (Thule House 12, House 21 midden square 28.4, Co.A 13.6).

(B.II) *With holes, and the blade parallel to the line-hole.* This type is the commonest within the main type which Th. Mathiassen calls Thule 3. But it occurs in so many variants, apparently influenced by time, that it is practical to make a sub-division such as that given above.

(B.II.a.1) *Sharp-cut spur; socket bottom formed by a vertical cut; slender type of almost hexagonal cross-section.* Pl. 4.4-5-6 belong to this type, of which a total of five were found with lengths from 10.75 to 7.6 cm, and one defective specimen, all of antler; three of them have a rivet hole for the blade. Of the five intact specimens three have the spur on the right, two on the left (Thule Houses 1 and 8). Pl. 4.6 has only one pair of lashing holes, and a fractured portion was lashed on with sinew thread. Pl. 4.4 differs slightly from the others in being rounder in form and slightly waisted at the line-hole; it has remnants of the lashing of plaited sinew thread.

(B.II.a.2) *Sharp cut, oblique spur, socket bottom rounded.* Eleven specimens, three of them of bone and eight of antler, 11.3 to 5.9 cm long; six have the spur on the right, five to the left. Nine have a rivet hole for the blade; on the others the fore end is damaged. These harpoon heads seem to form a transition between the foregoing and the following (Pl. 4.7), from which it differs merely in having a sharpcut spur.

(B.II.b) *Spur continuing the sloping butt end of the harpoon; socket rounded and undercut.* Of this form, the one most numerously represented, we found 30 specimens, two of them unfinished; lengths from 8.8 to 6.2 cm, 27 of antler, two of bone and one of walrus ivory; eleven have the spur on the right, eighteen on the left. Only one specimen may be said to have had no rivet hole for the blade; in six cases, however, the fore end is so much damaged that this feature could not be decided. Pl. 4.7 shows the typical form, except that it has 2×3 lashing holes, whereas 2×2 is the rule; in three cases, however, there are three holes on the spur side. L 3: 10783 (Co.A sq. 18.2) has two holes, one behind the other, connected by grooves for lashing the blade in position, and L 3: 4925 (Thule House 20) has a small cleft in the end of the spur. Two specimens still have remnants of baleen lashing.

Besides these there are thirteen fragments from which the character of the butt end and the spur cannot be determined; they are all of antler,

six have the spur on the right, seven on the left, and eleven certainly had a rivet hole for the blade. In L 3: 7670 (Thule House 21, midden 27.4) a small iron plate was sunk across the bottom of the socket. One fragment has remains of sinew-thread lashing.

(B.II.c.1) *Fore end widened along the plane of the blade slit and the line hole.* Otherwise closely resembling the foregoing type. Fifteen specimens of lengths between 8.3 and 5.6 cm, twelve of antler, three of bone, four have the spur on the right, ten on the left, and fourteen have a rivet hole; one specimen is unfinished. In seven specimens there is a tendency to make the line-hole angular. Pl. 4.14 is a fragment of this type, seen from below; in contrast to all the others, however, it has a cleft spur.

(B.II.c.2) Like the foregoing, but *the part around the line-hole of bold form with grooves for the line.* Only two specimens of this type found, both antler, with the spur on the left and with a rivet hole, one with an iron rivet; the lengths are 8.6 and 6.9 cm. The design is exactly like that of the corresponding type used today, but the socket is closed (Pl. 4.22) and the material is walrus ivory.

(B.III) *With holes, and the blade at right-angles to the line hole.* Only one specimen found, Pl. 4.15. It is of walrus ivory, 8.1 cm long and slightly constricted anterior to the line-hole, so that the cross-section there is almost circular; the fore end is defective.

Thin toggle-harpoon heads with closed socket.

A. Oval cross-section anteriorly.
   I. No blade
   II. Blade parallel to line-hole
      a) oblique spur
      b) single dorsal spur
      c) cleft dorsal spur (two spurs — Inugsuk type)
      d) modern type with single spur.

B. Angular cross-section anteriorly (lateral keels)
   I. Blade parallel to line-hole
   II. Blade at right-angles to line-hole.

C. Whaling harpoon head.

D. Ituartit harpoon head.

(A.I) *Of thin toggle harpoon heads with closed socket and no separate blade* only one specimen was found, shown in Pl. 4.8. It came from Comer's Midden sq. 18.2 and here is thus a fairly late type. It is of antler and defective anteriorly, but the very thin form with sharp dorsal and ventral edges shows that it must have ended at the fore end in a point, not

a blade. The spur is single, dorsal, and continuing the oblique, slightly concave butt end.

(A.II.a) *Blade parallel with the line-hole, oblique spur.* In all sixteen specimens (three defective and nine unfinished); thirteen are of antler, two of bone and one of walrus ivory. Two of the specimens are very small; one of these, shown on Pl. 4.16, is 4.4 cm long including the blade, which is of iron; the other is unfinished (L 3: 3808, Thule House 10). It is probable that these small harpoon heads belonged to arrows; in shape they strongly recall the one figured by Th. Mathiassen, Pl. 37.12 from Grave 51 at Naujan[1]). The others have lengths from 10.8 to 6.6 cm. Pl. 4.13 has an iron blade partly preserved; L 3: 3083 (Thule House 4) has a blade of baleen. Five of the specimens have a rivet hole for the blade.

Pl. 4.12 is of antler and anteriorly has a sharply-oval cross section with its greatest height just forward of the line-hole; its length is 8.76, height 2 cm. On both dorsal and ventral sides just posterior to the line-hole is an incised longitudinal groove barely 1 cm in length, apparently an ornamental vestige of a side-blade groove. The closed socket had broken and a broad, shallow groove was cut round for a lashing.

(A.II.b) *With a single, dorsal spur.* Of this type we found nineteen specimens, twelve of them antler, three bone and four walrus ivory; lengths 11.2—6.2 cm. In all cases the cross-section is very rounded (in contrast to the corresponding type with the blade at right-angles to the line-hole), and in most cases the spur has a characteristic curve. Pl. 4.18 is a powerful specimen of walrus ivory; Pl. 4.17 is a slender and fragile head of antler, the spur having two small holes to hold a thong to facilitate withdrawing the harpoon from the wound. Two others (L 3: 8750 and 10789) are similarly slim in shape, one having a length of 6.2 cm. On the whole this type varies a good deal in design and does not seem to be particularly "stable". Pl. 4.26, which is of bone, has at the middle of the upper side of the spur a narrow roll which continues in the small knob which terminates the stubby spur.

(A.II.c) *With two symmetrical dorsal spurs* (Inugsuk type). A total of thirty-four specimens, to which may presumably be added four small fragments; sixteen are of antler, thirteen of bone, seven of walrus ivory and two of narwhal ivory; the lengths run from 10 to 5.8 cm. As here tabulated this type is thus the most numerously represented. Like the foregoing it varies in form and design as well as in material; those of antler are in the minority to bone and tusk, but it is impossible to establish

[1]) Th. Mathiassen 1927 I, p. 95.

any chronological sequence in the use of the respective materials. Pl. 4.19 is the fully developed type with two symmetrical, sharply separated spurs. In four cases the butt end narrows distinctly so that here it is more a matter of a single bifurcated spur (L 3: 1719, 8422, 9657 and 11784), and in three others the characteristic division of the spur is not carried through entirely. Pl. 4.20 is a slender specimen of antler; three others are of similar shape. Pl. 4.21 has its fore end widened out into a curious head. In all cases where the condition of the specimen makes it possible to determine, there is a rivet hole for the blade.

(A.II.d) *Modern type with single dorsal spur, the part round blade slit wide, and vigorously designed line-hole.* Only three of these were found, two of them being of antler and one of walrus ivory, all from the two upper layers of Comer's Midden. Pl. 4.22 is one of them, corresponding exactly to the *sako* of today, which is now always made of walrus ivory.

(B) *Thin toggle harpoon head with closed socket and more or less angular cross section anteriorly.* These harpoon heads have a powerful dorsal spur which looks unusually long because it lies in a direct line with the very oblique and most frequently plane posterior surface of the harpoon. On the dorsal side there is a sharp edge, and on most specimens the same is the case on both sides anterior to the line-hole; sometimes a rounded roll here leads forward from the line-hole; the ventral side is usually evenly rounded.

(B.I) *Blade parallel with line-hole.* Pl. 4.11 is the sole specimen of this type, one that may possibly be a variation of the following; it is of walrus ivory, 11.5 cm long. Another (L 3: 3656, Thule House 10) is defective at the fore end, but the remains of the characteristic lateral rolls can be seen. There is a similar harpoon head in Mathiassen, from Qilalukan, but it is of whalebone[1]).

(B.II). *Blade at right-angles to the line-hole.* Of this characteristic type there are thirteen specimens, of lengths from 14.7 to 7.7 cm, nine of walrus ivory, two of antler and two of bone. Pl. 4.9 is the longest, of walrus ivory; Pl. 4.10 is the smallest and is of bone. One specimen (L 3: 5898, Thule House 21.W) is oval in cross section anteriorly and has the remnant of a baleen blade; on three others the sharp lateral keels are less pronounced. It is possible that to these should be added two slightly defective specimens, both with the characteristic pointed fore part and powerful butt end. L 3: 3375 (Thule House 6) is of antler and L 3: 5390 (Thule House 21.E) of bone; on the latter the underside of the spur describes an obtuse angle with the posterior surface. In only one case is there a rivet hole for the blade.

[1]) Th. Mathiassen 1927, I p. 216, Pl. 64.11.

The largest forms of this type must have been used for whaling; from the Thule district we have a specimen almost 17 cm long[1]). More moderate sizes, more like Mathiassen's Naujan type 4, are used by the Iglulik Eskimos for walruses, and the type ranges from Siberia to Greenland[2]).

(C) *Whaling harpoon head.* Of the special, heavy type of harpoon head only a single fragment was found (L 3: 4781 midden in front of House 19, Thule); it is the severed butt of a whale-bone head with a closed socket and oblique posterior surface which continues directly into the cleft dorsal spur. The bifurcation of the spur continues some distance forward in the dorsal side in the form of a V-shaped groove. The height of the fragment is 3.35 cm, the breadth across the butt 2.45 cm. The shape of this fragment agrees very closely with one figured by Mathiassen from Naujan[3]).

(D) *Ituartit harpoon head.* Pl. 4. 33 is possibly an unfinished harpoon head of this type, made of antler; the length is 8.5, the thickness at the middle 0.8 cm. A corresponding foreshaft will be found Pl. 6. 15.

Flat toggle harpoon heads with open socket, all with lashing holes and dorsal spurs.

A. Line-hole from side to side, blade parallel to line-hole.

B. Two converging line-holes with dorsal opening,
   I. no blade
   II. blade parallel to plane of spurs.

C. Two vertical line-holes one behind the other.

On all the specimens found the socket is distinctly undercut and has a rounded bottom; they have 2×2 holes for the lashing. The oblique concave posterior surface runs directly into the symmetrical and most often cleft spurs. All of antler.

(A) *With horizontal line-hole and the blade parallel to the line-hole and the plane of the spurs.* Of this type, which forms a transition between the thin and the flat harpoon heads, only one was found, Pl. 4. 28.

(B) *With two converging line-holes with dorsal opening.* The line holes run transversally and meet at the dorsal side in a deep groove, thus making a curved line-hole open at the top.

(B. I) *No blade.* Pl. 4. 27 is the only specimen found; it has two cleft spurs, and remnants of sinew-thread lashing.

[1]) Th. Mathiassen 1927 II, fig. 10. 5.
[2]) Th. Mathiassen 1927 II p. 21.
[3]) Th. Mathiassen 1927 I, Pl. 4. 8.

(B. II) *Blade parallel to the plane of the spurs.* Six specimens, three of them unfinished; the lengths are from 9.1 to 5.8 cm. Pl. 4.29 has a blade of iron held in place by an antler peg. Pl. 4. 31 quite exceptionally has three spurs. An unfinished specimen (L 3: 11445) has the oblique holes for the line-hole drilled and two drilled holes as a commencement of the socket. Two other unfinished specimens, L 3: 196, of antler, and L 3: 94, of bone, seem to be of this type.

(C) *Two line-holes one behind the other from ventral to dorsal side, the blade parallel to the plane of the spurs.* Pl. 4. 30 is the only one found of this type. The two line-holes join on the dorsal side in a groove, and on the ventral side the anterior hole is funnel-shaped to take the knot on the end of the single harpoon line. The material is antler, with the spongy side uppermost. Length 7.45 cm.

Flat toggle harpoon heads with closed socket.

All these have a curved, closed, transversal line-hole with the openings on the ventral side, from which on most specimens deep rounded grooves for the line run posteriorly. The blade is parallel with the line-hole. This type is less markedly flat than the corresponding, open-socketed type; both forms occur in both upper and lower layers of Comer's Midden.

(a) *With two dorsal, sometimes cleft spurs.* Of these we have eight specimens, four of antler, two of bone and two of walrus ivory; lengths 8.7—6.1 cm. One of the specimens is unfinished. Pl. 4. 23 and 24 are the least pronounced of this type, as on these the line-hole lacks the deep cutting of the rearward grooves; the first-mentioned has an iron blade. An unfinished specimen, of antler, (L 3: 8556, upper layer of Comer's Midden), length 9 cm, has only a single, centrally situated dorsal spur.

(b) *With two opposed, lateral spurs.* Pl. 4. 25 is the only one of this type, antler, 5.4 cm long. The rather slender spurs are symmetrical both in height and in width. The socket has broken and has been repaired with lashings through two holes; anteriorly it has two holes for lashing the blade. This too is from the upper layer of Comer's Midden.

Dorset harpoon heads.

(A) *With open socket, no blade.* In all three specimens were found, all of antler; Pl. 1. 2 is the largest of them, being 5.3 cm long. On the dorsal side it has a sunken belt for the lashing, and on the same side there is a crudely carved line groove running posteriorly from the line-hole. Two other specimens (L 3: 966 and 12002) are very small, only 4.15 and 4.9 cm long. Pl. 1. 1 is one of them; like the one described above it has a line groove running right back to the posterior edge; to hold the

lashing there are only 2 × 2 rounded notches in the edges. The line-hole is elongated. These small and simple harpoon heads were presumably used for catching salmon.

B. I) *Closed socket, no blade.* Pl. 1. 3 shows this characteristic type, which is very flat and anteriorly pointed, whereas the posterior end is deeply cleft, thus making two symmetrical lateral spurs. On the dorsal side the two transversally placed line-holes open out in a circular pit (as on Pl. 1.5), and on the ventral side deep-cut channels lead posteriorly. A total of six of these was found, four of them of antler and two of walrus ivory, lengths from 8.7 to 5.2 cm.

(B. II. a) *Closed socket, a blade, single line-hole, plain butt.* Of this simple type, shown on Pl. 1.4, we found three specimens, two of walrus ivory and one of antler, length from 4 to 3.45 cm. The line-hole is funnel-shaped at one side, and at the other a groove runs out to the posterior edge. The blade slit seems intended for a wedged-in stone blade.

(B. II. b). *Closed socket, a blade, two line-holes and cleft butt.* On the whole this differs from B. I only in being wider anteriorly to permit of the placing of the blade. Pl. 1.5 is a specimen seen from above, 1.6 another seen from below. In all we found nine specimens, all of antler, lengths 7.35 to 5.3 cm. Six have a rivet hole for the blade; on two of these the hole is elongated as on Pl. 1.6, on the others it is almost oval. Two of the specimens have a lashing groove around the fore end a little way forward of the base of the blade slit. Only one specimen has no rivet hole or lashing groove. The blade slit is of the characteristic Cape Dorset form, acute-angled longitudinal section and forward-curving bottom, corresponding to a wedged-in flint blade with a concave butt. The forms with a rivet hole make it presumable, however, in these cases the blade was not of flint, but rather of iron, possibly of bone or slate. Nevertheless, one of the specimens with an elongated rivet hole (L 3: 11969) has a remnant of a flint blade fast in the blade groove; the explanation may, of course, be that an earlier blade was substituted by this one. All the rivet holes are relatively large, and this, in conjunction with their shape, would seem to suggest that as a rule the rivet was of antler, bone or baleen.

(B. II. c). *Closed socket, a blade, wide arched line-hole and cleft butt.* This is a powerful type of harpoon head with the line-hole from side to side, but with bold grooves running posteriorly on the ventral side, apparently intended for a broad harpoon line; the dorsal side on the other hand is quite flat. We found in all seven intact or defective specimens as well as two unfinished ones; only one (L 3: 2174) is of antler, the others being of walrus ivory, lengths 9.6 to 7.7 cm; there is no rivet

hole for the blade on any of them. Pl. 1.7 is the most handsome of the specimens, seen from the underside; along the middle of this side is a long incised line and on one side of the latter two shorter lines. These cannot be accidentally scratched lines, as another specimen (L 3: 2157) has a corresponding ornament at the same place, i. e. two dots on one side of the median line and one on the other. On a third harpoon head (L 3: 935) is incised a curved line with a dot below it on one side, just in front of the dorsal edge of the line-hole, and on the antler specimen mentioned there are a number cursorily incised lines, some longitudinally along the dorsal surface, others along the edge of the line-hole; behind the latter two shorter, parallel lines run obliquely downwards, and the "line and dot" ornament is also observed anteriorly on one side. This is undoubtedly deliberate ornamentation, but with its fleeting character it seems to harmonize but poorly with the sure and elegant workmanship of the harpoon head itself; it has not attained to any organic connection with the object itself, as for instance the Y-ornament on Thule-2 harpoon heads, and should perhaps rather be regarded as a kind of magic formula, scratched in for the purpose of "improving" the harpoon head. In this connection one turns naturally to the East Greenlanders, who decorate their hunting implements with carved animal figures.

As regards the shallow socket that is characteristic of the Cape Dorset harpoon head, as a rule it goes no deeper than the cleft in the butt end; actually it lies in the two spur-like branches, and no doubt the cleft was formed in order to facilitate the cutting of this shallow socket. The shape of the butt end indeed shows that the two branches can scarcely have originated as spurs, which always are oblique or wedge-shaped in such a manner that they are capable of turning the harpoon head transversally in the wounded animal; this is not the case here. Presumably the prototype of the forms with the closed socket was the simple form with the square-cut butt (Pl. 1.4), which is clearly intended for thrusting through the animal in order to hold it securely—or, in other words, the various forms have presumably been evolved out of a fish harpoon.

(C) *Leister or arrow-harpoon head.* Thin, slender weapon heads, mostly with eight barbs placed in opposite pairs or slightly alternating; behind them is a small elongated cut-out line-hole, from where the butt tapers off smoothly. It is questionable if this is a Dorset type proper; but it is a fact that all these were found in the middens at Inuarfigssuaq with their Dorset impress.

The total found was 22, of which 15 are of antler and 7 of walrus ivory; only four are intact, however, having lengths from 11.5 to 10.2 cm; Pl. 1.8 is one of these. On this and one other specimen there is a small notch in the edge at each side of the line-hole; on another the notches

are slightly more posterior. One specimen (L 3: 11981) has the line-hole out at the edge. The others are defective or broken-off anterior or posterior ends (Pl. 1.9).

In addition to those mentioned there are two small defective heads with a wedge-shaped butt, but with no hole or notch. A third specimen (L 3: 2276) has two opposite notches and only two barbs, which are not quite opposite; possibly this is merely a toy. The same applies to L 3: 7982, which is of antler and 6.55 cm long, with three almost knob-shaped barbs on one side, two on the other; posteriorly it terminates in a blunt point, and it has a drilled line-hole.

Arrow harpoon head with two opposite, rectangular barbs. Two of these were found, one shown in Pl. 4. 32; both are of antler with lengths of 11.5 and 11.2 cm. The figured specimen has two line-holes connected by a groove; the other (L 3: 7562) has only one hole, a drilled one. On both the butt end is rounded and pointed.

Other Parts of the Harpoon. — Lance.

Harpoon blade. Of flint there are 10 intact or only slightly defective specimens, 8 of them having a concave butt; all these are from the Cape Dorset settlement at Inuarfigssuaq; some of them are shown in Pl. 2.1-4. L 3: 352 and 2165 have almost convex butts. Furthermore, 5 defective or unfinished specimens were found.

Of slate the only one found is that shown in Pl. 5.1.

Three harpoon blades are of bone, all with a hole, lengths 5.3—2.95 cm; one is shown in Pl. 5.3. Pl. 5.2 is of walrus ivory.

There are two specimens of baleen, one shown in Pl. 5.5.

Pl. 5.4 shows the only harpoon blade of iron found separately, but several of the harpoon heads are fitted with an iron blade, as already stated.

Tension-piece for harpoon line. Six specimens, one defect, lengths 6.7—4.1 cm, four of antler and two of walrus ivory. Two of the specimens are as shown in Pl. 5.7 with an extra lashing hole at the posterior end; two are rounded posteriorly like Pl. 5.6. The number of lashing holes varies from three to eight.

Swivel. Four in all, of walrus ivory, lengths 3.8—2.35 cm; they are more or less ovoid; L 3: 861 (Inf. House 5) and 9639 (Co. A sq. 13.9) have an oval hole on the side and are cut square posteriorly, where there is a circular hole. Pl. 5.8 and L 3: 7834, both from Thule House 21. E and midden, have a larger orifice posteriorly and a smaller hole in the side for the line, which accordingly was made fast about the rear end,

whereas in the former case it must have been secured by an end knot inside the swivel box. In Pl. 5.8 there is also a triangular hole at about the middle of the convex side; it does not seem to have served any technical purpose and is perhaps a reminiscence of the opening in the side of the presumably earlier, closed type. The method of manufacturing the two types is obviously quite different, one being hollowed out through the side hole, the other from the rear end, which must have been much easier. Of loose spindles we found two, both of walrus ivory, lengths 5.07 and 3.65 cm; one is shown in Pl. 5.9.

Stopper for harpoon line. Three types found, though the first two were found together and may be regarded as variations of the same type.

(a) *With end-spike and no hole*; instead is a grooved area for the lashing, as shown in Pl. 5.13.—Four specimens in all, one of antler and three of walrus ivory, lengths 7.75—4.4 cm. Instead of a single sunken belt L 3: 8271 has a narrow transversal elevation at about the middle of the flat upper surface; it is obvious from the same specimen (from Thule House 24) that in its entirety it was regarded as a seal figure, for the end-spike has faintly incised eyes and whiskers. L 3: 9207 (Co. A 12.4) is a small, crudely made stopper of antler, in shape recalling that figured by Mathiassen from Naujan Pl. 5.9, but without the transversal hole[1]).

(b) *The spike on the upper side*, leaving room for lashing front and back. Pl. 5.12 is one of three specimens found in Ruin Island House 6 and Thule House 16, all of walrus ivory, lengths 8—6.23 cm. The other two have not the sunken belts at the ends.

(c) *With triangular cross-section, end-spike and sharp dorsal keel*, three wide holes for lashing. Two specimens as Pl. 5.11, lengths 4.8 and 4 cm, both of walrus ivory.

Mouthpiece for bladder.

(a) *Large oval, flat.*—Of this type with a deep groove in the edge we found seven specimens, one of them unfinished. Pl. 5.16 is one of them; all are of walrus ivory. The length (parallel to the hole) is 3.05—1.3 cm, the width 4—2 cm; the length-breadth ratio varies however from about 1:3 to 1:1.

(b) *Oval, oblong.*—Six specimens are of this type. two of antler (C. Kent House 7 and Inf. House 11) and four of walrus ivory. Here the lashing groove is widened out into a broad, sunken and crudely hacked belt which sometimes is narrower at the ends. Pl. 5.18 is one with the plug in position, Pl. 5.17 another, quite small, of antler. The

[1]) Th. Mathiassen 1927 I, p. 30.

lengths vary from 4.8 to 1.65 cm and the length-breadth ratio from about 1:1 to 9:4.

Of *bladder-mouthpiece plugs* of wood (Pl. 5.20) we found thirteen, lenths 5.2—3 cm.

Heavy toggle for bladder. Five of these were found, of the form shown in Pl. 5.33, lengths from 13.4 to 8.1 cm.

Fastening peg for bladder (*pâguaq*). Pl. 5.34 is a wooden peg, carefully shaped with a smooth surface and one side rather flat, length 16 cm. Presumably it is a fastening peg for a harpoon or towing bladder, intended for inserting under the kayak deck thong. Fig. 107.3 may possibly have had the same function; it is a curved piece of wood, 10.5 cm long, with one end rounded, the other sharpened. Around the thick end is a cut groove, and a little way within this groove, on the convex side, is an elongated channel with a deep notch cut across it. Possibly L 3: 7616 (Thule House 21 midden, layer 26.5) is a similar implement—a flattened piece of wood, 16 cm long, with two wide opposite notches at the thicker end. Beyond the notches the end is slightly waisted. Pl. 48.14 seems to be a similar implement of baleen, and possibly the same also applies to fig. 108.13-14 (L 3: 10951 and 172).

Mending disk for bladder. Pl. 5.22 is a small mending disk of walrus ivory, shaped like a bladder mouthpiece but having no hole through it. Pl. 5.21 and a similar one, found together, have one end prolonged into a conical point; they are of walrus ivory too.

Flat, oval mending disks of wood with a deep groove in the edge were found to the number of nine, lengths 5.5—4.4 cm. On Pl. 5.31 there is a baleen cord in the groove. Pl. 5.32 is more rhombic in shape. Four specimens are of baleen like Pl. 49.2-3. One specimen (L 3: 11796, Co. B 2.1) with no groove is presumably a rounded rhombic mending disk of wood, 2.7 × 3.5 cm; one side is slightly convex, the other more so.

Foreshaft for ice-hunting harpoon. The total found is 97, most of them defective or fragmentary, 87 of the usual type of narwhal tusk, one of walrus ivory and 9 of bone. Pl. 6.11 is the most complete narwhal tusk specimen, a clumsy and crudely made foreshaft. Pl. 6.12 has a well-polished surface like most of these implements; it has been broken and presumably employed as an icepick. From the hole in the posterior end of the scarf face a small channel on the outer side runs out to the posterior edge, so that apparently the hole was intended for a line. On L 3: 6845 there is a large hole which widens out to the outer side, as if intended to take a knot on the end of a line running through; on certain other specimens there are also holes for a line or peg. On Pl. 6.17 there is a longitudinal, curved channel some distance along one side, and on

Pl. 6.16 a line-hole of this kind is taken through a projecting knob. It is possible that some of the fragments are of whole narwhal tusks which in themselves formed the entire harpoon shaft.

L 3: 3320 is a rather slender foreshaft of walrus ivory, oval in cross section.

Pl. 6.13 is of bone, rather flat with a sub-angular rhombic cross section. L 3: 8815 has a hole near the edge just in front of the stepped scarf face. Pl. 6.14 is peculiar in shape with a broad, flat posterior part and an abruptly narrowed fore end oval in cross section; where the fore end begins there are two opposite projections or shoulders, and a pair of similar shoulders, but smaller, can be seen posteriorly; the scarf face has a step and on the outer side, close to the projections, a broad transversal groove is cut into each end.

Foreshaft for whaling harpoon. Pl. 6.21 is a very heavy foreshaft of bone with a rounded point narrowing in obliquely; the cross section is sub-angular foursided with one acute and three obtuse angles. The butt end has been cut off; the length of the specimen is 38.8 cm.

Foreshaft for ituartit harpoon. Pl. 6.15 is a defective specimen of antler; at the fore end it is broken at the tenon hole across the groove for the harpoon head. Farther back there is a transversal hole, and the butt is broken at a similar hole; this specimen is of very crude workman-ship.

Dorset foreshaft. Four specimens must be considered as foreshafts for Dorset harpoon heads, in addition to which there are two fragments, one of antler, the other of walrus ivory. Pl. 1.10 is of antler, flat with rounded edges and the fore end rounded obliquely; at the butt end it has a long scarf face, the end of which is broken. Two other specimens of antler have square-cut fore ends; on one the fore end is slightly narrowed; the lengths are 9.6 and 7.8 cm. Pl. 1.11 is of walrus ivory and slightly thicker in proportion to the width than the others; the characteristic oblong line hole in the edge is unfinished on this specimen, the outer part having apparently been flaked off in the process; the fore end fits exactly into some of the harpoon heads found at the same place. On one side of a fragment of walrus ivory (L 3: 1221, Inf. House 8) are some casually incised longitudinal lines and to one side a row of irregular transversal lines.

Movable foreshafts.

With conical, rounded butt and one hole: Seven intact and twelve defective but identifiable specimens, eleven of them of bone, three of antler, three of walrus ivory and two of narwhal ivory; the intact speci-

mens measure 28—19.7 cm in length. In addition there are twelve fragments with a conical butt, but broken at the hole, so that we cannot decide with certainty whether or not there were other holes in front; of these nine are of bone, one is of antler and two are of walrus ivory. Furthermore, we found six fragments of fore ends, all of bone. Pl. 6.18 is a rather heavy form with a flat oval cross section at the butt end; two others are of similar type, whereas most of them are more slender with less pronounced tapering. On three specimens (L 3: 1861, 3328 and 3859) the butt is unusually pointed as on Pl. 6.20; it widens out slightly opposite the hole, a feature to be seen on three of the defective specimens. Some of the foreshafts have a more or less abrupt narrowing off at the butt end, as on Pl. 6.19. This applies to some of the specimens from Thule House 10, House 21.W and midden, and Co. A, layers 3—6. Finally, one specimen (L 3: 11447, Co. A 21.3) has a heavy conical butt and a waisted, round area between it and the line hole.

Of similar foreshafts, but with *more than one hole*, we have only four defective specimens. Pl. 6.10 is the butt of one of these, of narwhal ivory, fractured at the second hole. Two others are of bone and slimmer, and also have two holes. L 3: 7037 (from Thule House 21, midden) has three holes; on one side two, on the other all three are connected by a deep groove for the line; the specimen has been cut over at the third hole. It is possible that these foreshafts were intended for bladder darts with a loose harpoon head, such as is still known in Baffin Island.

Composite foreshaft.—Fig. 105.9 (L 3: 10749, Co. A 18.1) is the fore part of a foreshaft which at the butt was furnished with an extra tenon piece; it is made of walrus penis bone. The butt is heavy and cut off square, making a broad, plane posterior surface. In the middle of the posterior surface is a deep transversal groove, the ends of which are connected by grooves with a transversal hole just above. In front of this transversal hole are two holes at different levels and drilled obliquely, with line-grooves leading posteriorly, almost as on modern foreshafts. Close to the butt end is another transversal hole placed well out, and from each side a plugged hole leads obliquely down towards the posterior surface. These many extra holes must have been intended for securing the tenon piece.

Foreshafts of this kind were in use in the 19th century. Boas illustrates one of similar design from Baffin Island, with the label "agdliaq point" (= bladder dart head)[1]), and similar ones from the Thule District are in the National Museum.

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[1]) F. Boas: The Central Esk. p. 494, fig. 429, d.

Socket-piece for harpoon.

(a) *Heavy, with scarf face.*—Of this type we found sixteen specimens, thirteen of antler, two of bone and one of narwhal ivory. Five of them are of the slender form shown on Pl. 6. 1; lengths 27.5—19.5, whereas the remainder are relatively short, heavy and crude of workmanship with lengths between 19.5 and 10.5 cm. The outer side is roughened as far as the scarf face reaches, and in several cases a layer is cut away, the butt thus being sharply delimited against the fore part, as will be seen in Pl. 6. 2. In ten cases the scarf face has a peg-hole, and on Pl. 6. 2 and several others there is another hole, which does not go right through and must have been made by a peg knocked in through the wooden shaft and some distance into the spongious part of the socket-piece. Pl. 6. 4 is one of the short type; it has a stepped scarf face. On three specimens of this type there is a hole through the fore part at right angles to the scarf face. Pl. 6. 3 has a roughened area around the fore end, and the same is to be seen on two others, likewise damaged. Presumably five fragments may be added to these, four of them of antler and one of walrus ivory; three of them were slender.

(b) *With cleft butt.*—Only two of these were found. One of them (L 3: 570, Inf. House 3) is a thick piece of narwhal tusk, split and its surface at the fore end roughened; just anterior to the bottom of the cleft is a transversal hole; from the fore end to the transversal hole the length is 9.5 cm. The other is quite a small socket-piece of antler, shown in Pl. 6.7, length 7.8 cm. Bored through the cleft part are two transversal holes, the larger one foremost. The tenon hole in the fore end is slightly angular, 0.6 cm in diameter and runs right through the specimen longitudinally; round about the orifice are marks of the butt of the foreshaft, about 1 cm wide. It was found in Thule House 16.

(c) *With triangular butt.*—Pl. 6.5 is a heavy socket-piece of walrus ivory, with the butt formed almost like an oblique, three-sided pyramid with the sides well roughened, intended for insertion into the fore end of the harpoon shaft. This specimen, which also came from Thule House 16, is the only one of this kind.—On the other hand, three specimens of the *small* socket-piece with a three-sided butt were found, two at Cape Kent and one in the Cape Dorset midden B. II at Inuarfigssuaq. Pl. 6.6 is from Cape Kent; it is of bone and one side has retained the original roundness of the bone from which it was made. The tenon hole at the fore end is almost quadratic with sharp-cut edges, 0.5 cm wide and 2.6 cm deep. L 3: 198 is of antler, 11.8 cm long, in every respect similar to the foregoing; on it the tenon hole is 2 cm deep. The third specimen (L 3: 2230, Inf. B. II) is of walrus ivory and only 4.6 cm long, but seems to have been shortened; it has a circular tenon hole, 1.3 cm deep.

L 3: 6681 (Thule House 21, midden) is also a small socket-piece of walrus ivory, but conical in shape with several constrictions, 3.4 cm long and 1.4 cm wide at the fore end; the tenon hole is 1.8 cm deep and about 0.5 cm in diameter, widening out a little anteriorly.

These small socket-pieces apparently were used on a light throwing weapon of some kind, perhaps a bird or bladder dart; but no heads corresponding to them have been found.

(d) *Cylindrical socket-piece.* In all were found five intact specimens, two fragments and an unfinished one; three were of antler, two of walrus ivory and three of narwhal ivory. Pl. 6.8, which is of antler, comes closest to the foregoing in character and shape; in addition to the two large transversal holes there are four smaller, slightly irregularly placed peg-holes near the posterior edge. L 3: 1394 (Inf. House 12) is a smaller and rather coarsely made socket-piece of antler, with the natural oval cross-section of the tine retained; the length is 7.8 cm and the maximum width 2.7 cm. It has an oval tenon hole about 3 cm deep, 0.9 × 0.6 cm in cross section. In the hollowed-out socket at the posterior end is a remnant of the wooden shaft, secured by a peg. The other specimens are all of a very short form like Pl. 6.9 (turned upside down by mistake) with lengths from 4.6 to 2.6 cm. On L 3: 5140 the natural cavity of the narwhal tusk is plugged with a fragment of a harpoon head which forms the bottom of the tenon hole at the fore end. L 3: 11740 (Co. B top) is of antler and very short and wide, 2.5 × 3.7 cm, with the tenon hole in the form of an elongated, rounded pit; the shaft socket is of similar shape but larger, and on a level with the bottom there is a drilled transversal hole with grooves running posteriorly. This specimen is scarcely old and bears traces of having been worked with a saw. All the socket-pieces found in Comer's Midden are of the short, cylindrical type, the same as those reported by Wissler[1]).

Of the fragments of wooden shafts found, eight are furnished with a tenon for fitting into a cylindrical socket-piece.

Finger rest.

(a) *Slender or flat.* In all twelve specimens, seven of them of antler, two of bone, two of walrus ivory and one of musk-ox horn. Pl. 5.24-30 shows various forms. Pl. 5.28 is of musk-ox horn; six of this thorn-shaped type with a flat or slightly concave underside have one hole, two have two (Pl. 5.29) and three have three holes (Pl. 5.25 and 30); the latter has a remnant of baleen lashing. The lengths vary from 4.3 to 2.8 cm. One specimen, Pl. 5.26, ends in a tenon which seems to have been inserted in the wooden shaft and secured by a peg. As regards this

[1]) Wissler 1918 p. 151.

latter specimen, however, one cannot rule out the possibility that it is the barb of a salmon spear, of a type found both at Angmagssalik and Julianehaab District[1]). Our specimen comes from Comer's Midden layer 9.

(b) of *the broad type with waisted sides and oblong hole* (Pl. 5. 23) we found three, two of them of walrus ivory and one of wood. L 3: 1195 (Inf. House 8) is relatively slender, whereas the other two are broad below and have a flat, rounded back. Pl. 5 23. has a concave underside with a deep longitudinal groove at the middle; L 3: 5782, which is of wood and was found in Thule House 21.W, has a convex underside.

Harpoon wing. Only one specimen was found, and it is undoubtedly a toy harpoon wing, shown in fig. 83. The shape agrees with Wissler

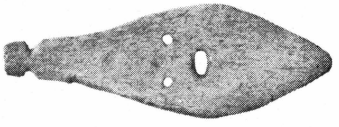


Fig. 83. Toy harpoon wing. Surface find.

fig. 30. Its age, however, is quite uncertain, as it was handed to me by Eskimos as a loose find, with no other particulars.

Ice pick.

(a) *With scarf face.* Forty-one ice picks have an obliquely formed butt with a scarf face notched transversally; the entire specimens vary in length from 26 to 12.5 cm; twenty are of antler, twelve of bone, five of walrus ivory and four of narwhal ivory; Pl. 7.7-8 shows two examples of this type. On six of the specimens there is a peg hole in the scarf face, whereas seven have a hole for a line just below the scarf face, as on Pl. 7.8.

(b) *With three-sided butt.* Pl. 7.5-6 shows this type, with its pointed butt almost triangular in cross-section, intended for insertion into a corresponding socket in the wooden shaft. In all we found thirty-one specimens from 29 to 9 cm in length; only nine of them are of antler and five of them bone, whereas the remaining seventeen are of walrus ivory; of the latter, however, nine are merely broken ends. We found twelve corresponding ends of wooden shafts.

In addition there are twenty-five fragments of ice picks that defy exact identification; eleven of them are of antler, five of bone, four of walrus ivory and five of narwhal ivory.

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[1]) Th. Mathiassen 1936 p. 94, fig. 47.6.

At Cape Kent the only ice picks found had a scarf face, whereas no ice picks at all were found on Ruin Island; elsewhere the two types cannot be distinguished, as they often occur together. Consequently it is most probable that each type had its own purpose, and it is natural to think that the one with the three-sided butt, which in most cases is of walrus ivory, was used in conjunction with the lance for catching walrus on the ice, where the harpooned animal is tethered by means of the ice pick, whereas the other was used as an ice-hunting harpoon such as is now employed by the Central Eskimos, but not by the Polar Eskimos, who now use the iron foreshaft of the harpoon as an ice pick.

Lance.

(a) *Lance head without separate blade.* Fig. 105. 2 (L 3: 3535, Thule House 8) is presumably a lance head of this kind, made from a walrus penis bone. The blade part is rhombic in cross section, the other part rounded; near the butt is a transversal hole close to the edge. Both ends are defective, and in its present form the specimen seems to have been used as a hand pick or the like. The length is 20 cm.

(b) *Lance head with blade slit and scarf face.* Pl. 7. 3-4 shows the only two almost complete specimens; in addition there is a fractured fore end; they are all of bone with a rounded rhombic cross section and with a remnant of a rather narrow blade slit at the fore end. Possibly a fractured butt end is also one of these (L 3: 10271, Co. A. 15.7); the fore part is very flat and offset against the thicker butt with the scarf face; the specimen is fractured at a hole drilled through just anterior to the scarf face.

(c) *Movable lance head with lashed-on blade.* Four of these were found, all almost intact and all of narwhal ivory. They are flat, sub-angular in cross section, with one or two line holes posteriorly and a conical butt; on one of the specimens (L 3: 2518) the butt end with the holes is broken off. At the fore end one side is shaped as a seating for the blade, which was lashed on to the side; on the opposite side is a sunken area to take the lashing, as shown on Pl. 7. 1. The three specimens also have a deep longitudinal groove anteriorly through the blade seating and on posteriorly as shown in Pl. 7. 2; on L 3: 2518 it can be seen that this groove reaches only to about the middle of the blade seating, so that if it was intended for a line, the latter must have passed through a hole in the blade—possibly as a further means of securing it. Besides these specimens we found three fractured fore ends of the same characteristic type, but of walrus ivory; two of these, however, lack the longitudinal groove. One specimen of bone (L 3: 11821) has a conical butt but a subangular, rhombic cross section similar to the above-described fixed lance heads; and L 3: 1802, made from a flaked-off piece of antler, has a seating for the

blade but is defective posteriorly; in all probability, however, it once had a scarf face.

(d) Five fragments of *a heavier type of lance*. One is shown in Pl. 7. 13; it is of walrus ivory and split in prolongation of the blade slit, but it can be seen to have had an almost ovoid fore-end, the outer side being very convex. The two holes have a sharp edge and must consequently have been intended for pegs to secure the blade. The other two, of which one is shown on Pl. 7. 12, is of bone and has had a lashed-on blade.

With regard to four defective specimens it cannot be decided whether they are fore ends of lance heads or large flensing knives. One of them (L 3: 303, the only find in Cape Kent House 8) is 11.5 cm long and at the butt end has a scarf face and a hole.

(e) *Reserve lance heads*. Two of these were found, both of bone but of different types; they are both slightly defective. Pl. 7. 14 is broad with an open, rather narrow blade slit at the fore end and a blade slit 3.4 cm long at each side; there is no socket, and the butt end does not seem to have been finished off. Pl. 7. 15 is slender with grooves 2.3 cm long for side blades just anterior to the unsymmetrically placed line-hole; in the butt is a trace of a socket.

Lance blade of slate. Pl. 25. 1-4 are the only ones found that can be identified as lance blades; they are all of slate. Pl. 25. 1 is unfinished, as is Pl. 25. 2, but on the latter the surface is polished; both specimens are very heavy, with a thickness of 1.5 and 1.2 cm respectively.

Stiletto. Pl. 7. 10 and 11 are two wooden handles for stiletto-like weapons. Pl. 7. 11 is painstakingly made with a cross section almost oval; anteriorly at one side is a long hollowed-out groove to hold the point, in the same manner as present-day ice-hunting harpoons, which have an iron bar for the foreshaft. The lashing about the fore end is thong, whereas that round the middle of the handle is plaited sinew thread. Another specimen (L 3: 1969, Inf. House 30) resembles this one; it is 14.8 cm long, and the forward groove is only 3.4 cm long.

Pl. 7. 10 is made from a barked willow branch with a projecting edge at the fore end to support the lashing. In the fore end is a hole containing a stump of a point of antler.

Fig. 105. 5 (L 3: 3554, Thule House 8) is rather like the latter specimen; it is a handle 15 cm long made from a roughly cut off piece of antler, in one end having a three-sided (now broken) point made of bone. On the other hand it is very like an implement from Point Barrow which Murdoch calls a "snow pick" and which is said to be for digging or picking in the snow[1]).

[1]) Murdoch 1892 p. 307, fig. 308.

Accessories for kayak and ice-hunting.

Harpoon rest, of baleen. Pl. 45.16 is presumably a harpoon rest; it has a deep cleft in the top, and one edge has been sharpened, as if the implement was also used as a knife (snow knife?) L 3: 7495 (Thule House 21, midden, sq. 25.4) is evenly tapered downwards and widens out at the top, where it has been given a concave shape. Near the upper edge is a hole. The length is 22 cm.

Harpoon sledge runner. Pl. 8.11 is the wooden runner of a small sledge, presumably used for holding the harpoon in ūtoq-hunting in spring. It is made of two pieces lashed together and in the top at the back has a notch to receive a cross-piece which connected it with the other runner. L 3: 8568 from the upper layer of Comer's Midden is a similar runner, except that it is in one piece; the length is 16.3, the height 4.4 cm. From a hole almost at the middle of the posterior half grooves run upwards and obliquely rearwards, and, as on the illustrated specimen, there is also a hole at the foreend with grooves running forwards. On both specimens the under edge is fairly sharp, but the latter one is provided with a deep, narrow longitudinal groove as if a narrow shoe had been inserted. A third defective specimen also seems to be a fragment of one of these sledges (L 3: 6994, Thule House 21, midden sq. 23.3). It is 3.4 cm high with a rounded under edge. A row of pegs has been hammered into the under side and there is another row on one side near the under edge. In the upper side is a remnant of a fairly wide tenon hole.

The shape of these sledges is very like the one now used in West Greenland for the stalking sail, which seems to have this as its prototype, whereas the harpoon sledge of the East Greenlanders is of another form, with runners that are pointed at both ends[1]). The harpoon sledge was known in West Greenland[2]), and the stalking sail dates as far back as to the beginning of the 19th century[3]), so the probability is that the shape of the little sledge is a matter of a continued tradition.

Wound pin. A total of thirty-seven, of which twenty-one are of antler, three of bone, eleven of walrus ivory and two of baleen; lengths 14.2—8.4 cm; Pl. 9.3-6 shows four of them. Some of them have a constricted neck like 3 and 5; this feature is particularly observable on the walrus-ivory specimens. In almost every case the cross section of the stem is rhombic. Pl. 9.6 is of baleen.

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[1]) W. Thalbitzer: The Am. Esk. I (1914) p. 423, fig. 126.
[2]) Porsild: Mat. Cult. (1915) p. 134.
[3]) Birket-Smith: Egedesm. (1924) p. 327.

Wound plug. Pl. 9.7 is a large wound plug of wood, pointed-oval in cross section. Apart from this the only one found was a split specimen of similar size, but with a dentate edge.

Sealing stool. Pl. 8.1 is a seat of whale bone; on the underside the three holes for the legs are surrounded by thicker areas. Pl. 8.14 may also be a seat; it is of antler and has a carved elongated groove as well as a number of small holes, apparently for lashings; the position of the groove suggests that this seat was for a one-legged sealing stool. Seven fragments are of wood seats, of which Pl. 8.2 is a piece of the commonest form with thicker areas around the conical holes for the legs. Pl. 8.15, however, is fashioned out of a curved branch; almost at the middle is the remainder of a hole for a leg; the specimen is now badly charred. L 3: 3327 (Thule House 5. N) is a fragment of a rather thick seat-like piece of wood, thickest—about 5.7 cm—at the middle; here are two holes, 1.6 cm wide, placed a little obliquely mutually and forming an angle of about 90°; on the upper side the holes are connected by a crude groove. A little way from one hole is a smaller one, at right angles to the almost plane upper surface, and on the underside there seems to have been a groove between the two large holes; there, however, the specimen is damaged, evidently having been used as a cutting board.

Of *legs for sealing stools* we found thirty-six, all of wood, 17—8.5 cm long. They occur in two rather different types, sixteen of them being relatively slender, double-conical in form like Pl. 8.5, whereas twenty are like Pl. 8.6 and are coarser and provided with a neck, sometimes strongly constricted, at the top. Pl. 8.4 is of bone and has a wide hole bored down into the upper end. Pl. 8.3 is also of bone, with three lashing holes through the wider part at the top; the thinner end is oblique and evidently worn.

Seal scratcher. Pl. 8.7 is the only seal scratcher found; it is of wood and charred at the back. On the underside towards the back is a hollow with a projecting piece with an undercut edge for fastening the seal claws as described by Th. Mathiassen from a specimen from Inugsuk[1]).

Toggles and toggle-shaped drag handles. Fourteen *toggles of bone* or similar material were found, some of them shown on Pl. 16. Pl. 16.13 is a small toggle of narwhal tusk; L 3: 5455 is a similar one but with a roughened belt at the middle instead of a hole. Pl. 16.11 is of antler, and 12 is made out of a walrus molar. Three are of bear teeth, one of them being shown on Pl. 16.14. L 3: 9504 is of a split bear tooth, length 10.6 cm, with a large central hole and a smaller one near the root end, which also has a concave depression.

[1]) Th. Mathiassen Inugsuk p. 193.

Pl. 16.8 and four others are rather flat, segment-shaped toggles of antler with an elongated hole; the length is 5.4—3.8 cm. Pl. 16.9 and 10 are more slender and both of walrus ivory.

Toggle-shaped handle or the like, with two or three holes. Two specimens of bone and two of antler have two holes; one of the latter is shown on Pl. 16.4; the lengths are 12.2—9.7 cm. Seven intact or defective specimens have or presumably had three holes and may be *neck pieces for towing gear*; they occur almost exclusively in Comer's Midden and in the midden in front of House 21 at Thule. Pl. 16.6 is of antler with the holes connected pair-wise by grooves on the opposite side; L 3: 9145 is a similar specimen of bone, but crudely made, length 9 cm. On Pl. 16.5 the holes are rather far apart and the end is conical. Pl. 16.7 is a fragment with the intact end cleft.

Drag-line handle. In all eight specimens of bone or similar material are distinctly drag-line handles, apparently used for dragging seals over the ice. Pl. 8.8 is very thick and in form recalls the toggle of a harpoon bladder, but it has a groove at the middle; a specimen of antler (L 3: 10852) resembles this one but is slightly curved, length 13.5 cm. Pl. 16.3 is of bone and has two transversal holes with remains of a baleen line. A coarsely made handle of walrus ivory (L 3: 8203), length 7.7 cm, at the middle has a hole which at one side is widened out to take a knot. Pl. 8.9 is of antler, almost oval in cross section and cut square at both ends; at the middle of one side is a shallow and curved channel; a dark ring of wood is laid in at each end, and this again is filled by a plug of antler, 0.4 cm wide; this specimen came from Thule House 16. Pl. 8.10 is more problematic; it is a piece of antler, of which one side is flattened, and two broad grooves are cut into the curved part.

Pl. 9.2 is the sole *W-shaped drag-line handle found*; it is of walrus ivory and one side is broken off; a hole 0.75 cm in diameter is bored through the middle.

Pl. 9.1 is a drag-line handle of walrus ivory of unusually fine workmanship, *ornamented with two carved walrus figures* facing opposite directions; nose and eyes are carefully reproduced, and the claws are indicated by incised lines; in the middle is an oblong transversal hole. It was found in Ruin Island House 1.

In addition, fourteen drag-line handles of wood of various forms were found; some are shown on Pl. 16.1-2 and Pl. 8.12, 13, 16, 17.

Other hunting implements.

Bladder dart.

Bladder dart head. No intact specimen was found, but Pl. 9 shows some fragments of what presumably are bladder dart heads; they are

all of bone. Pl. 9.8 is fractured at two powerful barbs placed not quite opposite; the fore end is cut off and rounded. Pl. 9.9 has a rectangular barb on one side and a row of slender barbs on the other. Pl. 9.10 is broken at an almost rectangular barb which forms a sharp keel right along to the point; the two sides are also edged. Finally L 3: 11134 (Co. A 19.4) is a piece of a slender head, of walrus ivory, with traces of three slender barbs at intervals of about 2.2 cm on one side.

Oblong mouthpiece for bladder-dart bladder, with flat underside. These are evidently intended for tying to the shaft of a bladder dart or a similar weapon, and they vary more in form than the corresponding mouthpieces for the harpoon bladder. In all we found five, one of them being a surface find. Pl. 5.15 of walrus ivory is four-sided with rounded corners and at the front has an elongated mouthpiece. Pl. 5.19, shown lying on the flat side, is also of walrus ivory and has one end shaped obliquely. Two specimens, one of them of walrus ivory, the other of antler, are like Pl. 5.14. The surface find is of similar form but with a more oblique end.

L 3: 1062 (Inf. House 7) is possible a *foot* for the bladder of a bladder dart. It is a piece of wood 11.5 cm long, decreasing in thickness towards one end. One side is rounded, the other flat with a wide groove cut through almost the entire length, corresponding to the rounded surface of the shaft. It was fastened by two pegs and a lashing along almost its entire length; there are marks of thongs about $^1/_2$ cm wide. At the thick end there is an oblique, plane surface as if for the mouthpiece and the bladder.

Bird dart.

Bird dart head. Pl. 9.11-12 are butt ends of round, rather heavy bone heads with a tang; the one on Pl. 9.11 has 2×2 knobs placed obliquely. L 3: 3279 (Thule House 5. N) is a broken-off tang of a form similar to that on Pl. 9.12. L 3: 4954 (Thule House 21) has a scarf face at the butt end, and L 3: 40 (C. Kent House 2) is a piece of a slender, round head of bone pointed at the butt with a triangular cross section and roughened sides.

Side prong for bird dart.

(a) *With outside and inside barbs.* Nine specimens in all, but in two somewhat different types, a small and curved one as on Pl. 10.1-2, and a longer, coarser, almost straight one like Pl. 10.4-5. The former includes six, all of walrus ivory, lengths about 12—10 cm with two inside barbs, except Pl. 10.1 which has three. A defective specimen (L 3: 5451, Thule House 21. E) seems to have had two outside barbs; all the others have

one. Pl. 10.1 is of more elegant workmanship than the others and is also distinguishable from them in having a sharp keel on each side. Pl. 10.3 is curious on account of its curved barbs. On the inner side of all intact specimens the butt has a sharp edge which had been wedged into a slot in the shaft. The three specimens of the heavier type are all of antler, 16.5—14 cm. Most peculiar are Pl. 10.5 and a similar specimen (L 3: 8273), found together, as the one plus three barbs are repeated in smaller size nearest the point. In addition we found two broken-off butt ends of walrus ivory, both finely made, L 3: 4265 (Thule House 16) with sharp and bold edges, L 3: 9659 (Co. A 13.10) more rounded in shape.

(b) *With inside barbs.* Fifteen of these were found, ten being of antler, four of bone and only one of walrus ivory, lengths 15—10 cm. To these must presumably be added two fragments, both of antler. Six of the specimens have three barbs like Pl. 10.6-7, six have two like Pl. 10.8, and three have only one like Pl. 10.9-10. Only the three specimens Pl. 10.6,8 and 10 and L 3: 1921 (Inf. House 29) have a sharp-edged butt; on the other five intact specimens the butt has two shallow steps like Pl. 10.7. Pl. 10.10 has the barb placed obliquely to the side. Pl. 10.11 is peculiar in having *no barb* at all; it is of antler, flatly oval in cross section and with the anterior part separated sharply from the somewhat thicker posterior part.

Throwing board. Three intact throwing boards and five fragments were found, one of the latter being a fore end. They all seem to be of the same type, with a hole for the index finger and an oblong groove for the last three fingers. The fore end is characteristic in that the hollowed-out channel is closed by a vertical wall, in front of which the point of the implement is flattened and slightly curved downwards as on fig. 84.3. On fig. 84.2 (L 3: 3250, Thule House 4) at the fore end there is a socket apparently for a tenon-piece; on fig. 84.3 (L 3: 2817 Thule House 1) there is no sign of this, and the same applies to fig. 84.5 (L 3: 617, Inf. House 3), where the end is whipped with sinew thread; on this specimen the handle is only slightly shaped, and instead of the finger-hole there is a notch in the edge. These three specimens are all so small and slender that they must have been intended for children. Fig. 84.1 (L 3: 4067, Thule House 12) is the only quite entire throwing board seemingly intended for an adult; its total length is about 46.5 cm and the width towards the handle is 5.7 cm. It was found in several pieces, the handle end (a) being formed of one piece of wood wedge-shaped anteriorly; the fore end of the implement was of another piece, which is now split into two (b—c) with a corresponding V-cut. It is not quite clear how the two pieces were held together, as there are no peg holes; but possibly this specimen was not quite finished. In the fore end there is an oblong

socket matching a piece of walrus ivory 3.2 cm long (d) that terminates in a rounded tenon. This tenon has notches in two sides so that it would

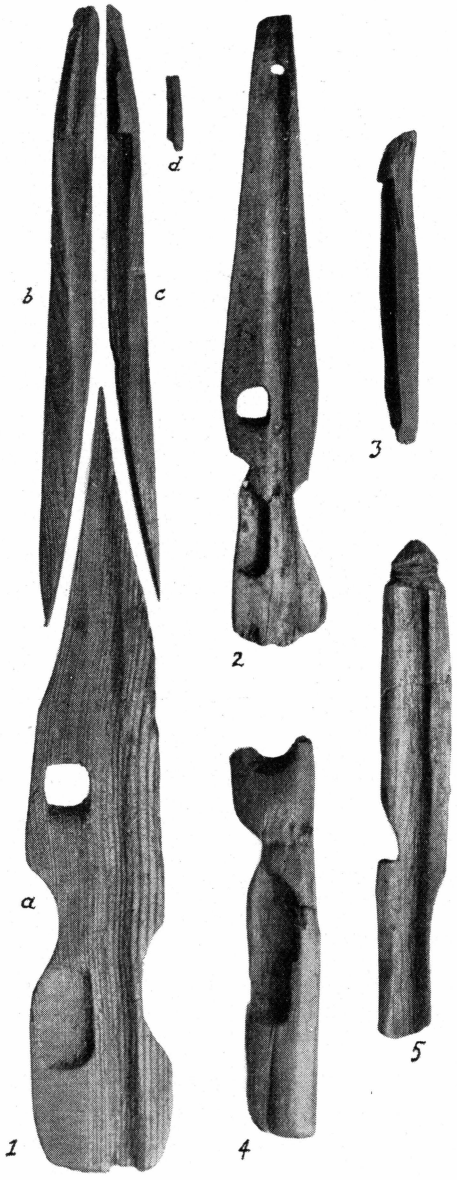


Fig. 84. Throwing boards.

remain firmly in place simply by being wedged into the corresponding socket. Right forward on this throwing board is a transversal groove for a lashing. As on the other specimens the fore end of this throwing board bends downwards slightly.

Weapon shafts. At least 143 fragments of wooden shafts were found. Most of them have a scarf face, either for lengthening or for assembling with a socket piece or ice pick; in some cases the scarf is stepped. These shafts may be placed into two groups: 1) heavy shafts, more or less oval in cross section, diameter about 3.5—2.5 cm, and 2) lighter shafts, oval or circular in cross section, diameter about 2—1.7 cm, often of very careful workmanship. The latter were doubtless used mainly for bird darts and were found both in the early houses and up to the upper layers of Comer's Midden. Eight fragments are of fore ends with a tenon for a cylindrical socket piece (Pl. 7.9), and twelve are butt ends with a socket for an ice pick with a three-sided butt. L 3: 1553 (Inf. House 16) is a fore end with a hole in the end, as if for a bladder-dart with no separate socket piece; the fore end was reinforced with a lashing. L 3: 3249 (Thule House 4) is the fore end of a light shaft; it is 16.2 cm long and at the posterior end has a stepped scarf face, 10.7 cm long; anterior diameter 2.2 cm, tapering slightly posteriorly. In the fore end is a rounded hole 2.5 cm deep, about 1.3 cm wide at the top but narrowing downwards. A powerful lashing of baleen cord was laid around the fore end.

Bows.

(a) Of *bows of wood* there are in all 32 fragments, one of them from Aunartoq House 5. Pl. 10.17-19 are some of these, the first two being ends, the latter a middle piece. Several of the fragments have traces of a cleft, corresponding to the wedge-shaped end pieces. On L 3: 10432 a longitudinal groove is cut into the convex side, apparently to support the sinew backing.

(b) Of *antler* there are two end pieces; one is shown in Pl. 10.20. Both are rather slender, 0.5 cm, and broadest at the end.

(c) *Baleen bows* or fragments were found to the number of 42, of which twenty are complete, from 66 to 13.5 cm long. The smallest ones can be nothing but toys, and the majority, their lengths lying between 46 and 36 cm, may be regarded as children's bows for ptarmigan shooting etc. Of heavier baleen bows we have four end pieces of 4—3.5 cm width. In L 3: 786, from Inf. House 4, midden, upper layer, is a row of holes at regular intervals (about 3 cm) in the median line of the bow, while in both edges are carved small transversal notches close together. The end of the bow is bent back (reflex). Most of the bows are widest at the middle and taper off gradually towards the ends; only four have a narrower central part. Some have the ends bent upwards as on Pl. 47.6-7-8; on 8 is a trace of a whipping of baleen cord; 7 is backed with a piece of baleen at the middle, secured by sinew thread. Two specimens have retained a piece of the bow-string, which on one is of sinew thread, on

the other of baleen. L 3: 8298 (Thule House 24) still has the entire string, of plaited sinew thread; one end is fastened on, the other is formed into a loop.

L 3: 4144 (Thule House 12) is possibly part of *the backing of a compound bow* of baleen of a kind like the one illustrated by Birket-Smith in "The Greenland Bow" fig. 30, from the Ũmánaq District[1]). It is 42 cm long and 3.5 cm wide; one end is defective. It is bent over 8.5 cm from the undamaged end, and at each side of the bend are two transversal holes with remains of baleen cord. About 20 cm from the end are two opposite notches, and about 20 cm from these two similar notches.

Bow brace. Pl. 10.22 is a bow brace of wood, flattened towards the ends, where there is a projection to support the lashing. Two others are somewhat thicker and lack the projections at the ends. Pl. 10.23 is a similar brace, of antler; convex and concave sides are both covered with notches. Four of these were found, one of them unfinished. Pl. 10.21 is also of antler, but of a slightly different form, arched in cross section, intended for placing on the belly of the bow. The same seems to apply to fig. 106.20 (L 3: 12007 Inf. House 4, midden layer 6), a flat piece of antler 7 cm long and 2 cm wide, having a longitudinal depression with a cross-hatched bottom. Another, 2.7 cm wide (L 3: 668 Inf. House 4) is of similar shape. These specimens indicate that the early Thule culture also included bows of antler.

Sinew twister. Pl. 10.12 is the only specimen found; it is of wood, but otherwise of the usual form with the ends bent in opposite directions; the length is 5.3 cm.

Arrow heads.

(a. 1) *Round, blunt.* In all seven specimens, lengths 15.5 to 7.5 cm, all of antler. The tang has either one or two rudimentary knobs, or none at all. Three are shown on Pl. 11.2,4 and 6; on 4 and 6 the tip is widened out into a head, whereas all the others taper off anteriorly. 6 has a very well made tang with the knobs in the form of small sharp forward-turned barbs.

(a. 2) *Round, sharp.* Four specimens, all of antler and like the above, but with a pointed tip; lengths from 10.5 to 9 cm; Pl. 11.3 is the smallest of them. Pl. 11.1 is possibly a similar arrow head of bone, but much larger. The original tip has been reshaped into a tang with a roughened surface, whilst the original tang (turned downwards on the figure) seems to have been used as a tip; the end is bruised. We also found four defective specimens which must be placed among these round forms.

[1]) Birket-Smith 1918 p. 22.

One of them, of walrus ivory (L 3: 6233, Thule House 21, midden 8.5) has the tang widened out instead of having knobs, a type known especially in Alaska.

(b) *Round, egg-shaped tip with blade.* Pl. 11.16-18-19-20-21 are some of these, of which nine were found, of lengths between 23.5 and 10.5 cm. Eight are of antler and one of bone (L 3: 4521, Thule House 17); the latter differs from the others in having a flattened tang and no knobs. Pl. 11.16 has a blade of iron, secured by an iron rivet; four others have a rivet hole. Pl. 11.18 is peculiar in that the head is flattened and has sharp edges.

(c. 1) *Lanceolate, unsymmetrical*; the tang mostly has two knobs at different heights. In all twenty specimens, all of antler, some of them shown on Pl. 11.7-8-9. The lengths are 27.5 to 12 cm. Moreover the lengths of the leaf-shaped area and the stem vary considerably, as the illustrated specimens show. Only four, however, have a markedly short blade part and on two of these it forms an obtuse angle with the stem. The same applies to the unfinished specimen Pl. 11.15. On three specimens (L 3: 18, 5418 and 11585) the straight side is rounded, whereas on all the others both sides of the blade are sharp. Pl. 11.7 has only one knob on the tang and in form it approaches the following sub-type.

(c. 2) *Lanceolate, symmetrical.* Of this form, the commonest, we found 38, all of antler, lengths 24.5—8 cm; like those above the proportions vary a good deal. Some are shown on Pl. 11.10-14; on 13 the blade part is square-cut posteriorly. On L 3: 81 the stem is whipped with four windings of plaited sinew thread, and L 3: 3201 has two notches in one side, at the fore end a wide, deep notch and posterior to this a shallower one; the tang has no knobs.

(d. 1) *One barb.* Twelve arrow heads, all of antler, have a barb on one side, the blade part being widest posteriorly forming an acute angle with the stem; the length is 17.5—7 cm. Pl. 11.25 shows one of the two specimens with a long, lanceolate blade part; on six others the anterior part is almost as on Pl. 12.4-5, two of these having a notch in the stem just behind the barb as on Pl. 12.4. Three arrow heads have the barb right forward at the tip as on Pl. 11.17 and 12.3; the latter has two quite small barbs cut in front of the large one. On these three specimens the tip is rounded. Pl. 11.5 is almost round, but with a sharp edge on one side, and opposite this is the remainder of a small, slender barb; the extreme tip is broken off.

(d. 2) *Two unilateral barbs.* Two specimens, both of antler, lengths 15.5 and 13 cm. Pl. 12.2 has both barbs cut in the flat blade area, whereas

Pl. 12.1 has the posterior barb isolated on the stem some distance behind the other.

(d. 3) *Two bilateral barbs.* Three specimens, all of antler; Pl. 11.28 is the best preserved. On L 3: 4946 the barbs form a more acute angle with the stem. Pl. 11.29 has slender barbs, which are made to stand out more by means of grooves cut forwards from the root. The fore end is broken off, but there seems to have been another pair of barbs anterior to those remaining. The tang is round without barbs, but with a thicker part at the middle. This specimen too is of antler.

(e) *Blade lashed on to one side.* Pl. 11.22 is one of these arrow heads, of antler; on the farther side is a flat seating for the blade, obliquely delimited posteriorly; the tang has only one knob. We also found three broken tips, likewise of antler, they, however, have parallel sides which taper slightly towards the point; the rear of the blade seating is cut at a right angle, and anteriorly there is a wide sunken area for the lashing.

Pl. 11.23-24 have a similar blade seating but in addition are furnished with a barb which on 23 forms an acute angle, on 24 an obtuse angle with the stem. The former has rounded edges anterior to the barb, whereas on the latter they are sharp.

In addition to the arrow heads described above we found 25 butt ends with tangs; 23 of them are of antler, one is of bone and one of walrus ivory. In most cases the tang has two knobs placed at different heights, in a few cases none at all. L 3: 6413 is the butt end, 9.5 cm long, of an arrow head made of two pieces joined together by a stepped scarf.

Arrow-head tang with screw. Pl. 11.30 is the sole specimen of a tang with a screw; it is a left-hand screw and has two continuous "threads".

Arrow head with scarf. Four arrow heads have a scarf face at the butt end; this, however, may mean merely that they were lengthened by means of a part that may very well have been furnished with a tang. Pl. 11.27, antler, has one barb and a stepped scarf face. Pl. 11.26, with the blade part fashioned like barbs posteriorly, is of bone. The other two are of antler, L 3: 1440 (Inf. House 13), length 15 cm, with a lanceolate tip; L 3: 6611 (Thule House 21, midden) is 9.5 cm long and round, only slightly widened and flattened anteriorly and with the tip rounded.

Of the *stone blades* found not one can be said definitely to be intended for arrows. It is possible, however, that some of the small triangular flint blades mentioned under harpoon blades were for arrows, but they might just as well have fitted the small Dorset harpoon heads. Pl. 2.5 and 6, which have a powerful tang, are presumably flint blades for arrows or small lances. On 6 the tang is distinctly flattened on one side to fit a seating on the shaft.

Arrow shafts. Of intact arrow shafts of wood only five were found, lengths 45—30 cm. Three of them are in one piece like Pl. 12.9 and 10, one is scarfed together of two pieces, which were found together, and Pl. 12.6-7-8 are fore end, butt and middle of one arrow shaft. The first three mentioned above all have the fore end whipped with sinew thread. Pl. 12.9 still has both feathers, one on each of the flat sides of the crest. The feathers are 11.5 cm long; the thick part of the quills is split and anteriorly they are whipped on with sinew thread. Posteriorly the ends are drawn through a split in the shaft and then whipped closely with sinew thread. On Pl. 12.10 one can see the remains of the nipped-in ends of the feathers and marks of the whipping. Only one of these arrow shafts is not split at the crest, and with the exception of Pl. 12.10 the width of the shaft is greatest at the crest.

Of loose fore ends we have 40, of which twenty-one have a scarf-face posteriorly; the lengths are between 28 and 7.5 cm. L 3: 1060 is an example of how far the Eskimos might go as regards building up an arrow shaft of small pieces; it was found together with the following piece of shaft, which is only 9.5 cm long; the scarf faces, however, occupy 5 cm at each end, so that the specimen has not the full circular cross-section anywhere. All these fore ends have a hole for the tang of the arrow head, and on four of them the sinew-thread whipping remains.

Of loose butt ends we found 88; on two of them the feathers remain and are fastened as already described. The lengths of the feathers are 11 and 14 cm respectively. On a third the length of the feathers was 16 cm judging from the ends that still remain secured by their whipping, and on six others a remnant of the feather is to be seen nipped in the cleft in the butt end. Five of these have a whipping of sinew thread, one (L 3: 8451) of baleen cord. On the fore end of eighteen of the butts is a scarf face for prolonging them; one of them is stepped.

L 3: 5442 and 7114 have the posterior, flat part extended somewhat in width so that the greatest width is to be found 1—1.5 cm anterior to the bottom of the nock; they are not split for feathering. There is a similar tendency to have the greatest width a little forward on one or two other specimens, whereas the rule is that the width is greatest, 1—1.7 cm, level with the bottom of the nock and tapering off gradually forwards, where the shaft becomes oval or sometimes almost circular in cross section.

In addition, 81 fragments of arrow shafts were found, many of them with a scarf face.

Quiver handle.

Pl. 12.12-21 are handles, most of which may be assumed to have been used as quiver handles. The method of placing the holes varies a little.

(a) *Holes from the upper to the underside.* Pl. 12.21 is the largest and strongest; it is of walrus ivory, slightly curved and with two transversally placed holes at each end, each pair of holes on the upper side being connected by a groove, which has been deepened by wear. Another walrus ivory specimen (L 3: 2494, Ruin Island House 4) is 14.7 cm long; it is only slightly waisted at the middle and has only one hole at each end. Two flat, crudely fashioned handles of bone, 11.2 and 8.6 cm long, are of uniform width. Further, two defective specimens, of antler (L 3: 3150

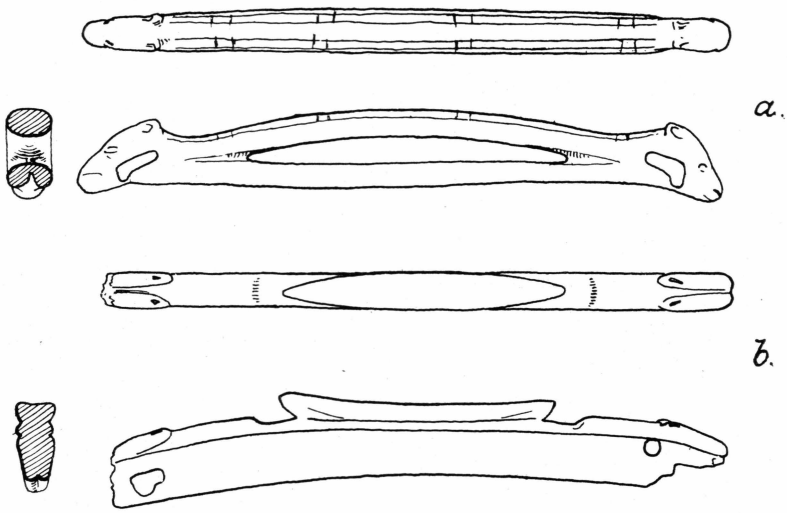


Fig. 85. Quiver handles with carved animal heads.

and 4090) have the holes placed in the same manner. Pl. 12.18 is of walrus ivory; in contrast to the others it is widest at the middle and has larger holes.—Pl. 12.14 is a fragment of a longer carrying handle (or possibly a bow drill) of walrus ivory with wavy edges and a row of holes at the middle; at one end are traces of two holes close together, placed longitudinally, for a thong or carrying strap.

(b) *With the holes at right angles* there is only one specimen, of antler, shown Pl. 12.19.

(c) *Holes from side to side.* Pl. 12.20 is an almost round handle, of bone. Pl. 12.15 and 17 are of narwhal tusk, oval in cross section at the middle and flatter at the ends. Pl. 12.16 is of walrus ivory; the ends are defective, but a hole is seen to have passed from side to side, and inside the holes a deep transversal groove is cut around the upper side.

Pl. 12.12 and 13 are two artistically carved quiver handles of walrus ivory; on both the ends are carved in the form of caribou heads, but the style differs. The drawing fig. 85 is of the two handles, seen from above,

and in cross section. Pl. 12.13 on the underside has a deep longitudinal groove and on the upper side two ornamental pairs of lines, connected at four places by transversal lines; the holes at the ends show signs of much wear. Pl. 12.12 also has a longitudinal groove on the underside, but not so deep; the kayak-shaped part at the top is flat on the upper side. The caribou heads are peculiarly conventionalized with a median groove and oblique eyes placed far back. One strap hole is greatly worn, the other had been broken or worn right through, and a new, smaller hole was then drilled inside the original one.

(d) *With a groove at each end.* Fig. 105.7 (L 3: 3027, Thule House 3) is one of these, very curved and coarsely made out of antler, length 16.5 cm; one end is defective. Another, more flatly made specimen, also of antler, is 12.8 cm long and 2.6 cm wide at the middle. Fig. 105.8 (L 3: 10105 Co. A 15.3) is of whale bone, flat and slightly curved, with broad transversal grooves at the ends, length 18.5 cm; the four holes in this specimen are presumably from some previous use, perhaps as sledge shoeing.

Sling.

Sling handle. Pl. 14.17-21 are five sling handles, of wood, of a broad and powerful form; the first three are so small that they must have been intended for children; 17 is defective at the butt, and 20 lacks the fore end. 21 was found in four pieces, one of which has a narrow strip of baleen drawn through a hole. Pl. 14.16 is doubtless the butt end of a sling handle, but of a different type with the posterior end pointed; the finger groove is also cut down more sharply and narrows off towards the butt end, and on the other side are some incised ornamental transversal lines which betray some connection with the Dorset culture; indeed, this specimen was found in the lower part of the midden in front of House 4, Inf. In all we found twenty-four fragments of wooden sling handles, eight of them fore ends and ten butt ends. The number of lashing notches varies from one to five in each side.

Of baleen there are three intact sling handles, two of them shown on Pl. 45.19-20; the third is massive and of a shape similar to 19, length 27 and width 5 cm. Two fore ends, also of thick baleen, have widths of 3 and 1.4 cm; a cut-off butt end was also found (L 3: 1192).

Bola. Pl. 10.15-16 are two bola balls, one of whale bone, the other of antler. Eleven in all were found, nine of bone and two of antler, lengths 4.5—2.8 cm; all are of very crude workmanship.

Salmon spear.

(a) *Centre prong.* Pl. 13.5 is probably one of these for a three-pronged salmon spear; it is a round stick of antler with a rather worn point and

a wedge-shaped butt. L 3: 5637 is a similar prong of bone, 8 cm long, whilst L 3: 2307, which is of walrus ivory and 14.5 cm long, has a round pointed and much roughened butt. Fig. 105.4 (L 3: 283 Cape Kent House 7) is formed out of a 20 cm arrow head with the original tang turned forwards; at the back are two notches in one side of the blade part.

(b) *Side prong.* Pl. 13.1 and 2 are two side prongs of antler with a slanting, plane surface where the barb was secured. 1 has a single oblong cut-out hole; 2 has two drilled holes. Pl. 13.4 is of similar shape but of bone and had been converted into a drill shank. L 3: 1272 (Inf. House 10) seems to be an unfinished prong, antler, length 24.5 cm.

Pl. 13.3 is the fore end of a side prong of bone; the projecting part on this one has a v-shaped groove curving forward over the fore end.

In addition, we found two pieces of bone (L 3: 15 and 7917) which may also be assumed to be side prongs for a salmon spear; like Pl. 13.2 they have a seating for the barb at the fore end, but the barb has been secured by lashing through two holes one behind the other through the seating and on the outer side connected by a groove.

(c) *Barbs.*

1. *With scarf face.* Of these we found thirty-two, of which twenty-four are of antler, five of bone and three of walrus ivory, lengths 16.5—5 cm. They are round-pointed and at the butt have a scarf face and a roughened outer side; some of them are shown on Pl. 13.7 and 9-13; on five of them there is on the butt a small projection to support the lashing.

2. *Round or keeled butt.* Pl. 13.22, which is of ivory, is posteriorly formed into a sharp keel, and on the outer side are two crude lashing notches. Pl. 13.23 is of antler but is almost round at the base, with the outer side slightly roughened. L 3: 490 (Inf. House 2) of walrus ivory, length 9.3 cm, is rather flat with a sharp upper and lower edge; the base is cut obliquely and the outer side is roughened. L 3: 3321 (Thule House 5. N) is very like this one, but is of bone and of coarser workmanship; on the back are two lashing notches.

3. *With holes.* Only four salmon-spear barbs have lashing holes from side to side. Pl. 13.15 is of antler and has only one hole, but also a small notch a little farther back. Pl. 13.17 is of walrus ivory with two holes; both have a flat base.

Pl. 13.14 and 16 are the only ones with a prominent neck; the former is rather thin in form with a sharp inner side, whereas the latter has a plane surface limited by the neck.

Leister prongs. Twenty-seven of these were found, varying considerably in form and workmanship; some are shown on Pl. 13.18-21, 25, 26

and 28-35. Most of them have a scarf face at the butt, but 21 is furnished with a tang with two knobs, and 32 has a projecting sharp edge almost as on the side prong of a bird dart. On 31 a hole 0.7 cm deep is bored up into the butt. 25 bears the stamp of the Dorset culture with the oblong curved hole in the edge. 28 and 29 were found together, and the holes match exactly; Pl. 13.6 and 8 also seem to have come from one leister.

Pl. 10.13 and 14 by their form recall side-prongs for bird darts, but they are cruder and presumably leister prongs. Possibly the same applies to fig. 106.10, a carefully made prong of walrus ivory, 10 cm long, with two small barbs on one side; the fore end has a sharp edge behind the barbs, whereas the opposite side is rounded, and the butt end is rectangular.

Fig. 108.1 (L 3: 6902) is apparently a leister prong of *baleen*; it has a very powerful barb and two lashing notches on the outer side. Another specimen is of similar shape, but lacks the lashing notches, length 21.7 cm; both are from Thule House 21, midden.

Two-pronged leister. In all three were found, two of them of antler being shown on Pl. 13.24 and 27. The third (L 3: 5636, Thule House 21.W) is of walrus ivory, length 10.8 cm; both prongs are without barbs.

Fish hook. Only two fish hooks of bone were found, carved from a pelvis; one is shown on Pl. 14.13; the other is like it, but broken; they are from Thule House 21 and its midden.

Fig. 108.9 (L 3: 3317) is a small hook of baleen with a notch in the back; L 3: 10950 is like it in shape and size. Possibly these are fish hooks[1]).

Stone sinker. Three sinkers of soapstone are on the whole like Pl. 14.14, with a hole through the narrow end, lengths 9—5.8 cm. An almost trapeziform piece of soapstone, found at Cape Kent, has a hole almost at the middle and may also have been used as a sinker. Pl. 14.15 is the only one with a groove in the edge, crudely made out of a potsherd of soapstone.

L 3: 5160 Thule House 21. E) is a pear-shaped sinker of bone, roughly hewn to shape and with a small hole at the top; its size is 7.5 × 6 cm; in the hole is a remnant of baleen line. It is also possible that Pl. 37.14 and 15 are sinkers for fishing lines or snares; they seem rather crude for pendants.

Fish decoy. In all eleven specimens, seven of them of antler, one of bone and two of walrus ivory. One (Pl. 14.12) consists merely of a bear tooth with line holes top and bottom, whereas all the others are carved

[1]) Cp. Th. Mathiassen 1930 p. 202, pl. 21.20.

in the shape of fishes. Pl. 14.11 of antler has holes through the back and belly and incised gills and side lines; the eyes are formed of a transversal hole which is plugged with a piece of baleen. Two others of antler have elongated carved line holes on back and belly, whereas four others have a hole only in the back. Pl. 14.10 is of walrus ivory with a long hole, drilled holes for the eyes and incised mouth, gills, pectoral and dorsal fins and anus. On L 3: 750 the line hole is drilled from side to side almost at the middle, and L 3: 1332 instead of a hole has a groove around the middle of the body.

Trout needle. Twelve specimens, of which four are of bone, two of antler, four of walrus ivory and two of baleen; the lengths are from 12 to 5.5 cm. Some are shown on Pl. 14.3-6. On most the eye is drilled and furnished with grooves running posteriorly on both sides; the head end is concave in most cases. Pl. 14.5 and L 3: 1256 (Inf. House 10) alone have a long cut-out eye; on the former it is narrow, trapeziform with sharp corners. Three specimens have the point end widened out like a spear-head as seen on Pl. 14.4. Pl. 49.4 is one of the baleen needles, shaped exactly like the others.

Ice scoop. Pl. 48.3 is a *conical* scoop of baleen; L 3: 8803 (Co. A 11.5) was once of similar form, but now defective. Pl. 47.2 are the remains of a *racket-shaped* scoop of baleen; the long strop once formed a ring at the top, around which the other strips were bent and fastened by baleen cords.

Gull hook.

(a) *With oblique barb of bone.* Pl. 14.1 is this common type with *the barb lashed into an oblique groove* in the shank, which is of wood. The baleen line, which ends in a knot, is whipped on to the shank by means of a thinner baleen cord which at the top is bent round the line in a half-hitch. On another specimen (L 3: 8225, Thule House 24) the line itself is bent round the wood shank in a half-hitch. Of this type we found in all sixty-two intact or defective specimens, five of them having the barb whipped on with baleen cord; three of these have the barb made from a bird bone. One has two oblique grooves placed close together (L 3: 10233).

Four gull hooks are like Pl. 14.2, with *the barb pushed through an oblique hole* in the shank; the lengths are 13.7—10.5 cm. In addition we found ten barbs, three of them of walrus ivory, the rest of bone.

(b) *Toggle-shaped (Gorge).* Pl. 14.8 is a toggle-shaped gull hook of bone; the same applies to L 3: 3715, whereas L 3: 3126 is of walrus ivory. The latter is only 6 cm long and has part of the baleen line preserved. Pl. 14.9, which is broken, is of wood.

Ferrules. Nineteen ferrules of various forms and materials—and doubtless for different purposes—were found. Pl. 9.15 is made from the hollow root end of a walrus tusk; near the thin upper margin are two opposite holes for pegs; the edge below is rounded. The surface is decorated with ornaments, there being a double line above and below with alternating spurs inside. At six places the double lines are connected by pairs of vertical lines, also with alternating spurs, which divide the surface into six panels, but not of equal width; inside the panels an inverted Y hangs from the lower of the two upper lines. L 3: 3312 (Thule House 5. N) is of antler with a flat-oval cross section 2.4 × 1.2 cm and 3.4 cm long; in the fore end is a socket with the broken end of a wooden shaft, and in the rear end a hole is drilled obliquely from the side towards the end. Another specimen of antler (L 3: 4046), 2.25 cm long, has a rounded end and a socket 1.2 cm deep in the top. L 3: 3440 (Thule House 7), likewise of antler, is now split but once formed a tube 2.8 cm long, one end having a sharp inner edge and a rounded outer edge, whereas at the other end the opposite is the case.

Four ferrules are longer in form and except one all narrow off towards the end, which is rounded. Pl. 9.16, which is of bone, is the longest of these. L 3: 3968 (Thule House 11) is also of bone whereas Pl. 9.17 is of antler. In these three the socket is so wide that the fore end forms merely a thin-walled tube. On Pl. 9.19, which is of antler, the hole is only about 0.6 cm in diameter and 4.4 cm deep, whereas on the foregoing specimens it is 2—2.5 cm; at one side at the top there is also a projection, in which is cut an oblong hole.

Three ferrules of walrus ivory were presumably used for the ends of snow-probes, although no snow-probe has been found to show that a ferrule belongs to it; two of them are shown on Pl. 9.21-22. A third (L 3: 1835 Inf. House 26) is also pointed, but the form is almost that of a double cone.

Pl. 9.13-14 are two *flat, heart-shaped* ferrules of bone, recalling more than anything the end mounting of a kayak paddle; the former still contains a remnant of wood. The socket in these ferrules is so narrow, however, that it is difficult to understand how the point of the paddle blade could be sufficiently strong. A similar heart-shaped ferrule may possibly have been placed on the end of a snow-beater of wood, from Southeast Greenland[1]). L 3: 7859 (Thule House 21, midden) is of similar shape, but is of antler and is only 2.45 cm long.

Pl. 9.20 presumably belonged to a bird dart or similar weapon propelled by a throwing board; it is of walrus ivory and is narrowest at the top; in the base is a small round socket. It is possible that Pl. 9.18

[1]) Nat. Mus. No. L 16: 7104.

is another one of these; it is of antler and is still fixed on the cut-off end of the wooden shaft; in the base is a shallow, almost foursided socket, about 1 × 0.4 cm, one side of which is broken.

In addition we found three almost cylindrical tubes of antler, lengths 2.2—3.2 cm and widths 3.1—3.9 cm.

Bone "bolt". Pl. 9.23 is a bolt-like contrivance of bone, quadratic in cross section and with a rounded head; at the end is a sloping projection across the whole width of the surface, but cut through longitudinally by a V-groove; the end bears the marks of blows. L 3: 9712 (Co. A 13.12) is also of bone with a quadratic cross section about 1 × 1 cm, tapering slightly towards the end, which has been cut off by a drill and the edges trimmed; but at the thicker end there is a short projection at one side, again across the entire width of the side, and the adjoining surface is roughened by means of deep transversal notches. The length is 4.7 cm. Two fragments with the fore end missing have a crudely carved head (L 3: 4851 and 8008), and a third similar one is of antler (L 3: 7500), cross section 0.6 × 1 cm. "Hook bolts" of this kind have also been found elsewhere, but their exact use has not been cleared up[1]).

Peg. Pl. 12.24 and 26 are two slender pegs with a head, the latter with the surface much roughened. Two others have a rounded head and slightly constricted neck, lengths 5.9 and 3 cm all of antler.

Pl. 12.25 is a small peg or tenon of antler with a rounded head; the fore end is furnished with small barb-like notches; it seems to be a tenon for a tension piece for a harpoon line. L 3: 961 is a similar one, 3.8 cm long. Pl. 12.27, which is also of antler, has its upper end cut obliquely; in cross section it is circular, thickest at the middle, and the point is wider and pyramid shaped.

There are also ten ordinary pegs of antler or bone and one of walrus ivory, in most cases cut rather obliquely at the head and doubtless used for sledge shoes, lengths 4.6—2.7 cm. Forty pegs of similar form (Pl. 12.28) are of wood, besides several fixed in sledge shoes.

Means of Conveyance.

Sledge.

Sledge runner. A total of twenty-three specimens are presumably fragments of sledge runners of *whale bone.* Pl. 15.1 seems to be of a fore end; the under edge is worked to make a "tread", somewhat uneven, about 1.5 cm wide, apparently not worn by use; on the whole the "tread" forms a right angle with the vertical. The rear part of the upper edge is also cut flat but forms a slightly acute angle with the side visible on the

[1]) E. g. Mathiassen 1927 I, Pl. 34.6 (Naujan).

illustration which, according to the present custom, should be the inner-side, as the runners usually splay outwards a little. On the opposite side, however, at the top right at the fore end is a groove about 9 cm long, and behind the third large hole as well as obliquely under it there are bowl-shaped holes as if for something to rest against them. On the underside, almost under the foremost of the three large holes, there is also a long shallow depression, about 4.5 cm long, at right angles to the edge.

Fig. 103.9 (L 3: 1248, Inf. House 10) is a coarsely hewn piece of whale bone 86 cm long with the natural curve on the outer side and slightly hollowed out on the inner side; the upper edge is shaped with shallow concave areas, especially above the two middle holes where cross-slats were fastened by lashing. Near one end the height is 13 cm, at the other end about 8 cm. At both ends the runner is shaped obliquely upwards, at the high end with a smooth rounding, at the other end in an obtuse angle, though its point is rounded and apparently worn—presumably this is the rear end. Four oblong holes are distributed along the entire length; at the foremost hole the upper part of the runner is broken off, but it has apparently been used in this condition as the resulting point and the fracture edges are rounded, whereas the underside, consisting of the natural, curved edge of the bone, is worn bright. There is no doubt that the specimen as it is once formed a complete sledge runner.

Three other specimens must be assumed to be fragments of solid whale-bone runners. Of these L 3: 8485 (Co. A 10.1) is a fore end which shows that a part—perhaps a cross-slat or a stay—was once lashed on right forward at the nose. L 3: 1658 (Inf. House 18) seems to have been a fore end too; in the upper edge near the nose the bone is cut away, leaving a knobby elevation about 3 cm long, through which runs a hole longitudinally, possibly intended for one end of the draught line. L 3: 11749 (Co. B layer 1) is the upper part of a rear end, with two large oblong holes and two smaller ones below them, evidence that an upstander was lashed there; the specimen seems to be part of a compound runner, a description which also applies to L 3: 10636 (Co. A 17.2).

Pl. 15.4 is evidently the most of a very short and low runner, intended to be shoed with a pegged-on shoe, as the holes to be seen in the picture are bored obliquely towards one another. Both top and bottom edges are curved, the height at the middle is 4.2 cm and at the ends about 2 cm; one end is broken off at a peg hole. Almost in the median line of the runner are three pairs of transversal holes, viz. one pair near the ends with a mutual interval of about 2 cm and a pair at the middle with a 4 cm interval. It is possible that this is part of a small sledge something like the one used by the Alaskan Eskimos for transporting the umiak, except that in their case the sledge is of walrus ivory.

L 3: 1660 (Inf. House 18) is also a piece of a very low runner of bone, but with no separate shoe. The upper edge is shaped flat, whereas the lower edges are rounded. The undamaged end is rounded, and the specimen has three rather large oval transversal holes.

Pl. 15.11 is a piece of a *compound runner*; the cut on the right is apparently intended for securing an upstander. L 3: 8514 (Co. A layer 1) is a similar specimen, 9 cm high; it has a rectangular cut in the corner, 5 cm high and 3.5 cm long. L 3: 5578 (Thule House 21.W) is a fragment of similar character, height 8 cm.

Pl. 15.8 is a wedge-shaped piece of a sledge runner; five others are of similar form and have oblong holes. Five smaller fragments were also found, presumably of sledge runners.

Pl. 15.5 is a piece of a sledge runner *of wood* with a large number of wooden pegs knocked in obliquely and now projecting from 0.5 to 0.8 cm; the cross section is almost irregularly trapeziform, the upper and lower edges not being parallel. Two lashings passed round it in sunken transversal grooves. The width of the under edge is about 3 cm. Besides this we found eight smaller fragments, two of which are cut off almost square at one end and evidently are pieces of rear ends. L 3: 1915 is the under part of a fore end, split at two parallel transversal holes. Two of these specimens have a lower-edge width of about 3.8 and 2.8 cm.

L 3: 2598 (Ruin Island House 6) is undoubtedly an entire sledge runner *of walrus tusk*, only a little of the thick end of the tusk having been cut away on the upper side to make the height more uniform—averaging about 2.7 cm. The cross-slats were secured by thongs through three transversal holes. Both ends are now broken off so that the length is 22.5 cm, the width 3.4—2.4 cm. L 3: 2599, also from Ruin Island House 6, is a 6.5 cm fragment of similar character. In the worked upper edge is a crudely cut longitudinal groove, and in towards it are holes drilled obliquely from each side; there are two sets of holes 2.2 cm apart. The groove was no doubt made to facilitate drilling through this tusk, which is about 4 cm thick. The height of the specimen is about 2 cm.

Sledge shoes. Sixty-four fragments of sledge shoes are of *narwhal ivory*; Pl. 15.7 is the longest of them, 49 × 4 cm. The width of the others varies between 4.5 and 2.5 cm. Nineteen specimens are of *walrus ivory* having widths of about 4—2.2 cm.

Of all these eighty-three specimens only 13 of narwhal tusk and four of walrus tusk were secured to the runners by pegs; the other 66 have longitudinal pairs of holes countersunk on the underside for lashings.

Of *bone* we found a total of 353 large and small fragments of sledge shoeing. Pl. 15.6 is one of the widest, 6.2 cm; here the pointed end is

rounded and worn. At the same time it is the only one of the 30 specimens found on Inglefield Land that has been lashed on—except for one specimen of undoubtedly recent date. On the whole 111 were evidently intended for lashing, though many of them also have peg holes, so that it is obvious that with the bone shoeing both kinds were used together. On several of them the sunken groove for the lashing is not very carefully cut and the lashing gives the impression of being mainly an emergency device. L3: 582 had been used for carrying purposes or the like, as a baleen cord is fastened in one of the holes; over the cord is hung a large piece of mátaq (: whale skin). Another specimen (L 3: 2893) has one end cut in the form of a handle and may have been used as a snow-beater, length 41.7, width 6 cm.

Only seven specimens are of *antler*; Pl. 15.9 is the largest of them. Two of them are for lashing on —one is only 5.5 cm long and 3 cm wide.

Sixty-eight large and small lengths of *baleen sledge shoeing* are up to 180 cm long and up to 7 cm wide. For most the width lies between 4.5 and 7 cm, only a few are only 3.5 cm wide. Most of the baleen shoes were fastened on with wood pegs, but eleven specimens, mostly from Ruin Island House 6, were lashed on. Fig. 86 is one of these, a shoe 180 cm long and 7 cm wide, of which so much of the front and rear ends is preserved that it is evident that the 180 cm represent its full length, which no doubt corresponds to the length of the entire sledge. The pairs of holes are arranged in staggered formation and as usual provided with sunken grooves for the lashings. On only a few of the shoes are these grooves at right angles to the longitudinal direction; others have a considerable interval between the pairs of holes and have no grooves—though it may be that these are unfinished.

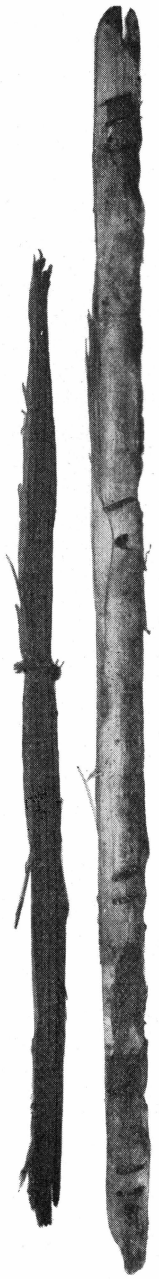


Fig. 86.
Baleen sledge shoe and a lashed bundle of baleen strips.

Sledge cross-slats. Pl. 15.2 is of *whale bone*; one end is defective, but the length may be judged to have been about 58 cm, corresponding to a sledge width of about 50 cm; the same holds good of two other specimens. Two cross-slats have a length of about 62 cm; Pl. 15.10 is a piece

of one that is broken but lashed together again. Inside the two notches on the upper side is a longitudinal groove, such as is still in use to enable the lashing line to be drawn under the already tightened lashing; from this it appears that the entire end with the two notches projected beyond the runner. On the other fragment are two pairs of notches of which the inner pair are placed obliquely; the usual thing is only two opposite notches, whereas we find the longitudinal groove on several of the specimens. Besides the five already mentioned we found 29 fragments, all of whale bone and not differing much from those described above.

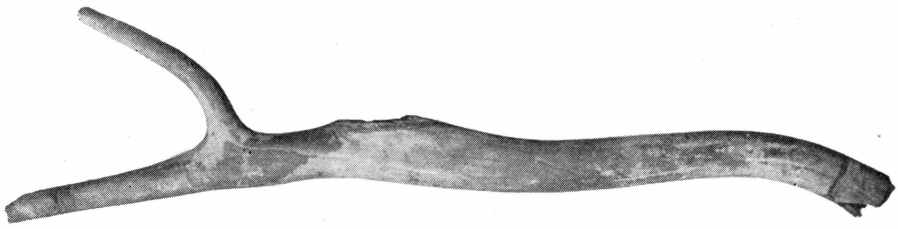


Fig. 87. Sledge cross-slat of antler.

Of sledge cross-slats of *wood* we found only four broken ends (but see toy cross-slats p. 284), all with two opposite, sharply cut notches; on L 3: 10371 the two notches are also connected on the upper side by a transversal groove. Fig. 87 is a sledge cross-slat of *antler* (L 3: 1116, Inf. House 7). The distance between the lashing notches is about 52 cm.

Sledge angle brace. Pl. 15.3 is presumably an angle brace for placing between the fore end of the sledge and the leading cross-slat; it is made out of a flat-cut piece of whale bone, about 1.8 cm thick. On the far side of this specimen is a groove running from the notch in the edge to the middle one of the three holes. L 3: 2597 (Ruin Island House 6) is formed out of a rib; at both ends is an oblong hole, and 8.5 cm from one hole is a third, at the side of which is a single round drilled hole; through the oblong hole is a baleen cord terminating in a slip-knot. One end of this brace is broken at the hole, so that the present length is 29 cm.

Upstander. Pl. 15.12 is a sledge upstander of whale bone, on the whole with the natural curve of the bone retained but shaped front and back. The lower end is shaped to fit the two rearmost cross-slats, over which the upstander was lashed—anteriorly by a transversal groove, posteriorly through an oblong transversal hole. At the top the upstander is slightly constricted so that the end forms a head, below which on the anterior side there is a seating for a cross-bar. Fig. 103.10 (L 3: 1008, Inf. House 6) is a piece of antler 66 cm long, of which the projecting tines

have been cut away except a small piece at the lower end, which is shaped with an angular seating, as if the specimen had been lashed as an upstander to a sledge cross-slat; a baleen cord is tied round this end.

L 3: 8865 (Co. A 11.6) is possibly a piece of a *cross-bar* for sledge upstanders; it is the cut-off end of a worked piece of bone, 11 cm long and with a cross section of 2 × 1.6 cm, one side being cut flat; on the other side close to the end are two lashing grooves 1 cm wide and 2.2 cm apart.

Wood toggle for draught line. Relatively short, thick toggles with one side flat or flattened; six of these were found, two of them shown on Pl. 16.15 and 16.

Trace buckle. Forty-nine intact or defective specimens are of the usual rounded, almost *ovoid type* with two parallel holes, the posterior one being the larger; the length varies between 8.2 and 3.3 cm; eleven are of bone, eighteen of narwhal ivory, eighteen of walrus ivory, one of antler and one (Pl. 16.29) is made from a bear's tooth. Pl. 16.26 is smoothly rounded anteriorly; the same holds good of five other, mostly less well made specimens, whereas most of them have on both sides a groove running forward from the anterior hole like Pl. 16.28 and 30; in many cases the groove continues right round the fore end, which thus presents a concave depression. Pl. 16.27 is the only one having an oblong carved hole anteriorly; at the other end it is slightly pointed, a feature that recurs on two others (L 3: 8931 and 10439). Pl. 41.25 is a very small trace buckle or the like, of narwhal ivory.

Pl. 16.22 and 23 are two oblong *trapeziform* trace buckles, both of walrus ivory; the former is 1.5 cm thick posteriorly, but flattened anteriorly; the other is also wedge-shaped, but only 0.7 cm thick posteriorly. L 3: 2791 (Thule House 1) is the anterior end of a similar slender trace buckle of walrus ivory, and two others (L 3: 4894 and 8267) have partly straight sides.

Three trace buckles are of *baleen*, main like Pl. 46.13, 6—4.5 cm long.

Five trace buckles, two of bone and three of narwhal ivory, have *the holes placed at right angles*; the lengths are 6.15—4.2 cm. Pl. 16.25, which is of bone, is the longest, with the anterior hole drilled from side to side. On L 3: 265, of narwhal ivory, deep grooves run forward from the hole leaving a bridge only 0.5 cm wide, round which the trace was secured. The three specimens of narwhal ivory are unusually thick in proportion to the length—a natural consequence of placing the holes in this manner; the two of bone are thinner posteriorly and increase in thickness anteriorly.

Pl. 16.24 is a trace buckle of bone in which the anterior hole has the form of a duct running obliquely from the side to the fore end. A similar specimen (L 3: 1661, Inf. House 18) is of narwhal ivory, 5.1 × 2.2 cm.

Swivel, baleen. Pl. 46.20 is the only one found of its kind; it is made out of a thick strip of baleen about 4.2 cm wide, retained in the bent position by a baleen line through two longitudinally placed holes in the long end and one in the bent-over end. The posteriorly end is rounded and has a single hole 0.8 cm in diameter. Anteriorly, in the middle of the bend, is a hole for the 7 cm spindle, which is also of baleen; the latter at the back has a head and at the fore end a hole with a groove running forward.

Dog harness. Two loops about 26 cm long (L 3: 5180, Thule House 21. E) formed out of a thick strip of sealskin about 3 cm wide folded over lengthwise with the edges sewn together, are apparently parts of a dog harness.

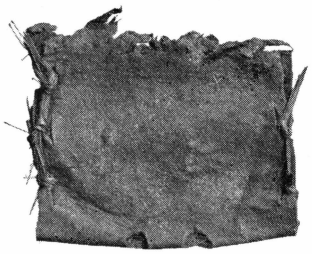


Fig. 88. Dog's boot.

Dog boot. Fig. 88 is one of two dog boots of sealskin (L 3: 4509 and 4518, both from Thule House 17) of the four-sided, pouch form still in use, with two holes for the claws; they are laced together at the sides by baleen cords; one is 13 cm wide and 8 cm long, the other 10.5 × 9 cm. Both are defective (gnawed?) at the upper edge.

Whip shank. Pl. 16.20 is apparently a heavy whip shank *of bone* with a slightly thinned handle; the fore end is roughened on both sides and has a hole placed not quite in the middle. Pl. 16.21 may also be a whip shank, made out of a piece of whale bone cut flat, about 1.6 cm thick at each end, somewhat thinner at the middle; the handle ends in a knob emerging from the two converging sides, but lying flush with the handle on the other two. The fore end is broken off at a transversal hole which was not drilled right through; behind this is the commencement of still another transversal hole. L 3: 5344 is a broken-off handle of bone, 4.2 cm wide at the fore end and a bilateral extension at the other.

Eight specimens are presumably fragments of whip shanks of *wood.* Pl. 16.18 is the fore end of a rather heavy shank, cut wedge-shaped at the fore end; one side is smooth, on the other are two transversal grooves; the same applies to L 3: 6935. L 3: 7193 is of similar form but is still more wedge-shaped and smooth on both sides. L 3: 3477 is a fragment 26 cm long, flattened like the others at the fore end and oval

in cross section; near the fore end are traces of notches irregularly placed in the edge, and at the fractured end it has a whipping of baleen line. Pl. 16.17 is the fore end of a slender, round whip shank of wood; at the fore end it is flattened on one side and on the other there are two transversal grooves; at the other end is a scarf face. L 3: 11186 is cruder at the fore end, which is cut square; instead of a flat side it has a shallow, coarsely cut groove towards the fore end, 3.5 cm long, and on the opposite side are three transversal grooves. Pl. 16.19 is presumably the butt end of a slender whip shank with a knot shaped into a unilateral end knob. L 3: 9248 is of similar character with a knob-like extension to three sides. L 3: 3172 is a butt end almost like that of a sling handle; it is 3 cm wide posteriorly, where there is a groove apparently intended for a transversally fixed ring.

Pl. 46.15, 17 and 18 are probably whip shanks of *baleen*, in shape recalling those of bone, 17 with two pairs of opposite notches at the fore end, 18 with six holes almost in the median line; 15 is more slender, and the butt is bent slightly to support the hand. L 3: 3649 is a strip of baleen 3 cm wide with a faintly shaped handle; the fore end is rounded and has two almost opposite notches; the length is 41 cm. L 3: 11008 is 40 cm long and a width of only 1.2 cm except for the posterior 13 cm, where it widens gradually into a handle with a maximum width of 3.5 cm and rounded on the end. Pl. 46.16 is a strip of baleen 52 cm long with a constriction at the fore end—possibly a very slender whip shank. L 3: 1040 (Inf. House 6) is 50.5 cm long and 1.7 cm wide at the butt, decreasing gradually to 0.9 cm at the fore end, where there are two opposite notches. The thickness at the butt is about 2 cm but only about 0.9 cm at the other end, the shank being made up of several strips of different lengths held together apparently by lashings through a row of transversal holes; the butt is rounded.

Umiaq.

Pl. 17.1 is a piece of an *umiaq rib*; it is a piece of whale bone hewn with four sides and rounded edges, cross section about 3.7 × 3.1 cm and one end slightly concave; about 3 cm from the end is a hole drilled from side to side. Pl. 17.2 is a very similar piece of wood except that the end is more concave, and from the transversal hole grooves lead to the end. Four smaller fragments have the characteristic concave end surface, and the remains of the transversal hole can be seen on two of them; one of the latter (L 3: 6857) was thickest at the end. Pl. 31.16 seems to be part of an umiaq too; it has broken at a well-executed foursided hollow of which the faces are convex in the direction of the hole; the thickness at the hole is 3.5 cm; it has been used as a fire-drill hearth. Fig. 103.5 is possibly an entire umiaq rib of bone (see p. 288).

L 3: 5166 is a 22 cm fragment of a foursided plank with the remains of two transversal holes about 15 cm apart and marks of lashings; above the holes the side is hollowed out as if by wear; possibly this is a piece of an umiaq *keel*.

Pl. 17.7 seems to be half of the blade of an umiaq paddle, made out of a scapula and with a cut-out channel for the end of the shaft, which was secured by lashings through two pairs of holes. This specimen, however, is very like a similar one from Kuk, Southampton Island, which Mathiassen describes as part of the blade of a snow shovel[1]).

Kayak.

In all we found five fragments of *kayak stems* of wood, Pl. 17.4 being the largest; in cross section it is almost an equilateral triangle with a much rounded apex. Two smaller fragments, however, have almost parallel sides; in one there is one transversal hole, in the other two; in a small wedge-shaped fragment there is also a transversal hole with remains of baleen lashing. Pl. 17.5 must also be part of a kayak stem; at part of the upper and lower side it has plane seatings for joining on other pieces; a piece is shown on the picture lashed on with baleen cord; along the remainder of this specimen the edges are rounded. These parts of the upper and lower sides are parallel, and, considering that this piece was lengthened to both sides, it looks as if the kayak had a snout-like stem, almost like that favoured by the present-day Caribou Eskimos; this probability is increased by the fact that a toy kayak was found of similar type (Pl. 42.15).

Pl. 17.3 is a piece of a *kayak gunwale*, cross section about 5.5 × 1.8 cm. In one of the narrow sides, which is at right angles to the wide ones, there is an oblong hole—mortice—to receive the tenon of a rib; the other narrow side forms an angle of about 60°. The specimen is broken at two other holes, so it can be seen that the interval between the ribs was 9 cm. What is more, this piece of gunwale gives an idea of how the deck beams were placed: a little way from the upper edge is a shallow, segment-shaped cut 0.1 cm deep at the top; from the upper side of the gunwale a hole runs obliquely and comes out on the inner side a little below the segment-cut. Apparently one end of a deck beam rested in this, secured in position by a lashing through the hole in the gunwale; the lashing hole is midway between the mortices in the underside. Pl. 17.6 is a similar but shorter fragment with a cross section of 5 × 1.5 cm, likewise with an oblong mortice in the rectangular underside; 1 cm from here the fragment is broken at a much wider hole. As on the above specimen the upper side is slanting and has slightly rounded edges. On the broadest

[1]) Mathiassen 1927 I, fig. 80 p. 250.

side—which presumably is the outer side—is a flat and rather tapering piece of bone held on by a peg and a lashing of baleen, of which remains are to be seen in the two holes in the wood; the piece of bone is broken off at the lashing but seems to be similar to Pl. 35.10. On the opposite side of the gunwale (the inner side) near the edge is a small oblong mortice 1.5 cm long, 0.2 wide and 0.1 deep, and above it is a bright patch as if something had pressed against it; there is no lashing hole here, however, but the placing is as before midway between two ribs. It is not quite clear what was the purpose of the piece of bone on the outer side; but there is also a peg hole on the opposite side as if for a mounting—to repair a break? Four other specimens, three of which may possibly belong together (L 3: 1507—1508—1509) are also of a kayak gunwale. On L 3: 6604 the distance between the rib holes is 4.5—5 cm.

Kayak ribs and deck beams. Six pieces of bone and four of wood must be supposed to be *deck beams.* Fig. 103.13 (L 3: 2357) is 37.5 cm long, slightly curved and tapered towards the ends, where on the upper side is a deep transversal groove; one end is broken at the groove so that the entire length originally was about 40 cm. In cross section it is almost oval but somewhat flattened at the middle of the upper side; here are four holes placed as the points in an oblong trapeze, possibly intended for lashing the deck girders. Two fragments (L 3: 2358 and 2581) are of the same character with holes similarly placed, but the entire upper side is shaped flat, so that the cross section is segment shaped. Fig. 103.12 (L 3: 2531) has a greater curve (1:7) and its three upper sides are shaped, so that the width is 2.5 cm and the thickness 1.5—1.7 cm; the length is 36 cm, but one end is defective. Close to the end in the underside is a groove 1.5 cm wide and just inside it a hole from side to side. All four specimens referred to are from Ruin Island. A fifth (L 3: 8228, Thule House 24) is exactly like them in shape; the length is 32 cm, but one end is broken off and, judging from the position of the holes, the original length must have been about 40 cm like the first-named specimen. Finally there is a similar specimen from Thule House 21, midden 11.6. These beams being assumed to have had their place just forward of the cockpit, the width of the kayak must have been about 40 cm, i. e. it was narrower than present-day West Greenland kayaks[1]). On modern Polar Eskimo kayaks I have measuring widths of from 52 to 55 cm. The type most closely approaching our specimens is undoubtedly that of the Caribou Eskimos with breadths of 39—44 cm[2]). Here again we thus have

[1]) Birket-Smith from Egedesminde D. gives a breadth of 60 to 66 cm, but this must be an error (B-S: 1924 p. 268). Fr. Nansen records 45 cm as the usual at Godthaab (Fr. Nansen: Eskimoliv p. 38).

[2]) Birket-Smith 1929 I, p. 187.

an indication that a slender kayak type like this was used in the Thule District at a certain period.

L 3: 6807 (Thule House 21, midden) seems to be a fragmentary deck beam of wood, somewhat curved, oval in cross section and with square-cut ends. In the intact end is a sharp-edged, horizontal groove near the underside, and 1.5 cm from the end is a hole at right angles to the groove. Thus this end would match a gunwale with a narrow mortice as described above under Pl. 17.6. The other specimens, all of which are defective, have the common feature that they have a vertical hole near the end. On two (L 3: 1805, Inf. House 24; 8250, Thule House 24) the end is cut away below to allow it to lie against the upper and inner side of the gunwale. On L 3: 26 (Cape Kent House 1) the end is abruptly narrowed symmetrically from the sides to form a tenon, which must have fitted a corresponding mortice in the inner side of the gunwale. However I am not quite certain that the latter specimen is a deck beam.

Pl. 17.9,10,11 are fragments of *ribs*, of wood. In addition there are fourteen fragments, all with an oval cross section, widths from 2.9 to 1.5 cm.

Kayak coaming. L 3: 6118 (Thule House 21, midden 6.2) is a strip of wood 2.8 cm wide with rounded edges. At the middle of the strip is a row of holes, on one side connected in pairs by grooves for a lashing. This is possibly part of a kayak coaming.

Kayak paddle. Pl. 17.14 is a fragment, on which one sees the place where the oval shaft passes into the blade, the edges of which are cut off. The cross section measures 3.5 × 2.8 cm. L 3: 11401 (Co. A sq. 20.7) is undoubtedly the end of a rather pointed paddle blade. At 10 cm from the point it is about 5 cm wide and about 1.3 cm thick at the middle.

Pl. 16.31-32 are two *bone ferrules* for the end of a kayak paddle which has evidently been rather pointed; 31 is short and rounded, whereas 32 is of an unusual length; the inner part is damaged, so that the width cannot be stated with certainty. The shallow socket was 4.4 cm deep, and near the edge are two holes, one containing the remains of a peg. It is possible that the flat, heart-shaped ferrules on Pl. 9.13-14 were for pointed kayak paddles (p. 221).

Kayak fittings.

Harpoon rest. Sixteen of these were found, of different types which more or less aproach one of the two extreme forms, the very low one Pl. 18.15 and the high one Pl. 18.20 with a broad foot and waisted stem. In the central hole in all cases there must have been a stick which was inserted in under the deck thong. Of those without a distinct foot two are of bone (Pl. 18.18,24), three of antler (Pl. 18.17,19,22), two of wood

(Pl. 18.14,15) and one of baleen (Pl. 48.4); of the others two are of bone, three of narwhal ivory, two of antler and one of wood; two of them are shown in Pl. 18.20,21. Pl. 18.22 from Cape Kent House 5 is peculiar in that it ends in a solid, foursided tenon, like a specimen from Disko Bay[1]).

Fig. 106.6 (L 3: 8218, Thule House 24) is a curved point or hook of antler, 5.7 cm long, with a hole at the broad end. It seems to be a harpoon rest for placing on a leg of the kayak rack.

Pl. 18.23 is a piece of narwhal ivory intended for fixing on one of the deck thongs.

Leg for kayak rack. Pl. 17.12 and 13 are two of these (both are upside down on the picture), the former of bone and the latter of antler. A third specimen is of bone (L 3: 11864, Co. B) and broken at the hole; the length from there is 12.3 cm.

L 3: 7475 (Thule House 21, midden 25.4) is a broken piece, about 12 cm long, of a powerful, slightly curving piece of wood, 3.3 cm wide with flat ends. On the convex side are three deep, rounded transversal grooves as if the implement had been intended for being secured by one of the deck thongs of a kayak. It might possibly be *the foot of a kayak rack*, or of a support for the paddle (*agiaq*), which has its place right in front of the cockpit, as used recently by the Polar Eskimos.

Tools.

Snow knife.

With bent back. Twelve specimens of snow knives of bone have a distinct bend where the back meets the handle as on Pl. 18.3 (which is the only intact one); but only on four of these is it possible to discern a real shoulder, as shown on Pl. 18.4, which is the most pronounced example. On one of these four (L 3: 10274, Co. A 15.7) the blade, which is 0.55 cm thick, is cut down sharply from the handle, which is 1.3 cm thick.

Pl. 18.6 is a severed handle which has a small knob where it joined the blade. On three other specimens (L 3: 8312, 10793 and 11844) the handle is almost in line with the back, but the transition is marked by a knob or a small projection. On L 3: 9471 instead of a knob there is a right-angled step outwards from the back of the blade.—The widths of the blades vary from 10.5 to 6 cm; on twelve of them there is a thong hole near the handle or a little way out towards the under edge (as on Pl. 18.4).

With smooth transition from back to handle. Only three of these were found, of bone, one of which is to be seen on Pl. 18.5. L 3: 3127 (Thule

[1]) Th. Mathiassen 1934 Pl. 1.10.

House 4) similarly has a faint end-knob, which in this case has a thong hole. Pl. 18.7 is of antler with a sharp edge on both sides; it was found on the ground at Cape Kent and is presumably a snow knife too. In addition we found forty-three fragments of snow-knife blades of bone and the end of a handle.

With hole-handle. Pl. 18.2, which was discovered in Inf. House 7, is a peculiar snow knife of musk-ox horn with a segment-shaped hole for a handle. Pl. 18.1 too must be a snow knife; it is of baleen and was found at Cape Kent.

With separate blade. Pl. 18.8 has the blade, of walrus ivory, inserted into a slot in the handle, which is of antler; in the back of the blade is a notch and in the other side are two, so that the lashings have passed right round the edges of the blade. Three handles of antler also have a slot for the blade; on L 3: 5682 there are four holes in a row in the median line, and Pl. 18.12 also has a single row of holes; on the back the latter has a long spike. Pl. 18.11 has only one hole, and the slot for the blade is closed on the back, whereas on the others it is open to both sides. Instead of a slot three handles have a wedge-shaped end with a slightly convex seating shaped to fit the hollow in the rear end of the blade, which is of walrus ivory; two of these handles are of bone and have a thong hole in the butt end; one is shown on Pl. 18.13; the third is of antler (L 3: 6475) and at the butt end has a unilateral knob and on the back a sharp-cut shoulder. Pl. 18.10 is a similar handle of wood with two transversal grooves on the far side for the lashing. L 3: 5503 is a similar one, but with only one broad groove. L 3: 3547 is a fragment with the end of the blade lashed on; the baleen lashing passes through two transversal holes and around the edges.

Of loose snow-knife blades, all of walrus ivory, we found two entire ones 28.5 and 18.2 cm long, and seventeen fragments; the first of the whole ones (L 3: 2492) is 6 cm wide at the handle end but narrowed down to a tang with two rounded shoulders 4 cm wide. The widest of the fragments measures 6.5 cm at the handle end.

A single piece of a snow-knife blade of bone (L 3: 2776, Thule House 1) has on the back towards the butt end an oblique, flat cut edge with two lashing holes below it. The handle would be lashed on against the oblique edge.

Snow probe. A total of thirty-three large and small fragments were found, four being of antler, the remainder of bone; fifteen are fore ends with the characteristic ovoid tip, but none of these has a separate ferrule; Pl. 17.19 is the longest of the specimens. Pl. 17.17 is of antler and 18 of bone; the latter is curious in that it is quadratic in cross section and has

an unusually large and pointed head. In a few cases the head is so crudely shaped that it is doubtful whether they are fore or butt ends. One specimen of antler (L 3: 621) has a scarf face at the butt end, showing that another piece was joined on to it. Pl. 17.15 and 16 are doubtless butt ends thickened out to form a handle; six of these were found. The thickness of these snow probes varies from 1.3 to 0.7 cm and the diameter of the heads from 2 to 0.9 cm.

L 3: 6899 (Thule House 21, midden) is a 32 cm piece of a split rod of *baleen*, the width tapering gradually from 1.5 to 1.1 cm and at the narrow end having an oval expansion 1.6 cm wide; presumably it is part of a snow probe. A similar description applies to L 3: 2663 from Ruin Island House 6.

Snow shovel. Pl. 17.8 is the blade of a snow shovel, made from a scapula; on one side at the narrow end is a foursided cut for the handle, at the broad end is a group of three drilled holes at each side, apparently for securing a hand-strap or loop. Pl. 17.7 (see page 230) may also be a snow-shovel blade.

Knives.

Knife entirely of bone or antler.

With blunt edge. Pl. 19.1 is a fragment of a bone knife with a rounded point and rounded edges; the back is thickest. L 3: 9223 is the broken end of a similar, but broader knife, 17.5 cm long; owing to the shape of the bone one side is slightly concave, the other convex. Pl. 19.3 is of antler, likewise with rounded edges; the point is broken off and the knife seems then to have been used as a scraper. Pl. 19.2 is a piece of a similar blunt knife of antler. Fig. 106.7 (L 3: 616, Inf. House 3) is a broken point, of walrus ivory.

With sharp edge. Pl. 19.6 is the blade end of a curiously shaped knife of antler; the back, which terminates in a small knob, is blunt, whereas the other side is sharp; at the fore end is an elongated transversal hole. Three fragments of coarsely made knives of antler also have an edge on one side; on one of these (L 3: 7970) the blade is narrower and joins the handle at two sharp shoulders; the handle has a unilateral end knob and two small holes near the back. Pl. 19.5, which is of bone and of careful workmanship, has a blade 0.7 cm thick with a rounded back passing through a definite step into the handle, which is 1.2 cm thick and has a long, stepped scarf face and at the fore end a hole. Pl. 19.4 is a loose blade of antler, also with a rounded back; the tang is broken; on one side are many fine incisions, the blade having also been used as a cutting board. Two very small fragments of antler seem to be of similar knives; a piece of bone (L 3: 869) is two-edged. Some of these knives

have apparently been used for pressing the water out of wet caribou skins. Th. Mathiassen, however, also mentions that sharp knives of bone or antler are used by the Iglulik Eskimos for removing the fat from caribou sinews[1]).

Knives of baleen. Nine knives are entirely of baleen; some of them are shown on Pl. 49.10-15. 15 has a very coarse edge on the convex side. L 3: 5427, which is 21 cm long and 3 cm wide, is continuous along the back, whereas the convex edge-side stands out abruptly from the handle. 12 has a powerful, obliquely shaped edge and in form recalls a European sheath-knife. 13 is a thin, flaked-off piece; another (L 3: 6866) is of similar shape, length 18 cm, and two broken-off handles with end knob, one with a thong-hole, are apparently from similar knives. Pl. 49.14 has its blade widened out in rather peculiar fashion at the fore end but does not seem to have any real edge. On 11 the blade at the handle end is wider than the handle, against which it has two small shoulders; the blade is defective. Pl. 49.10 has a broad, rounded fore end and seems if anything to have been used as a scraper. Some very small knives of baleen are dealt with under amulets p. 287.

Knife of slate.

Pl. 21.22 is the only specimen coming under this description; the fore end is broken off, but the remainder of the polished edge can still be seen; the back is flat, and the butt end forms a handle without much shaping.

Knife with end blade.

Thule type. Pl. 19.9-16 are a number of variations of this type, of which thirty-six were found; they are all of antler except one, and broadest at the fore end, where to judge from its size the blade socket is intended for a stone blade in the end. Nearly all are very painstakingly made with the surface smoothed; in most cases the butt end is cut off square with rounded edges. The only ones with a roughened surface are L 3: 7759 (Thule House 21, midden) and 4360 (Thule House 16), and Pl. 19.9 (which is not especially typical) is somewhat angular in cross section and has rows of notches in the edges. On Pl. 19.16 there are marks showing that the handle was lashed round with cord, and L 3: 9708 has two bindings of baleen 2 cm apart. The lengths of the handles vary from 18 to 8.3 cm and the widths at the fore end from 4.7 to 2 cm.

Pl. 19.13 at the fore end has a lashing groove, and at the middle of each side there is also a cut groove running across, possibly for a thong which passed through a hole in the blade, which was thus additionally

[1]) Th. Mathiassen 1928 p. 111.

secured. A similar arrangement occurs on L 3: 2280 and Pl. 19.9. On one specimen (L 3: 1334) there are three holes at the fore end, arranged in a triangle, and on L 3: 347 near the fore end is a hole running obliquely through and seemingly occupied by a wooden peg.

Twenty-two of these specimens have a thong-hole at the butt end, in most cases drilled through from side to side; Pl. 19.13 also has a groove from the hole towards the butt on one side, Pl. 19.11 on both sides. On L 3: 707 and 897 the thong-hole is elongated; L 3: 4724 has a socket in the butt end, and on one side the thong-hole is round, on the other elongated. On three other specimens the hole passes obliquely from the side towards the butt end. Pl. 19.12 has at the end a circular hole occupied by a wooden peg; on one side this hole is 0.8, on the other only 0.4 cm wide; a groove in the butt end is also occupied by wood.

L 3: 4413 (Thule House 16) had an 8 cm piece split off towards the fore end; the flake was thereafter held in place by a peg, one end of which projects like a knob; there had also been a lashing at the fore end. It looks as if the flake had been split off deliberately, as a longitudinal groove had first been cut in from the end, so that in principle this is a "knife composed of two halves", but differing from the usual type (Pl. 21.6). Nine cut off, and one drilled off fore ends, all of antler, must be added to the foregoing. On a knife handle of this type (L 3: 348, Inf. House 1) a short deep groove is cut near the butt end, as if the handle had once been used with a side blade. In that case it is the sole example of a knife with side blade from Inglefield Land (apart from the Dorset knives).

Pl. 19.7 is also of antler, of a type similar to the above; the blade socket is broken but has been lashed, as the roughened area shows. Through the shaft are three drilled holes, two large at the fore end and a smaller one farther back, all with a wooden peg in them; a long, narrow hole is also cut through the handle, and in the butt end there is a deep and wide socket.

Pl. 19.8 is of walrus ivory; the fore end is broken off at the base of the blade socket. In cross section it is oval, tapering towards the butt, where there is a suspension hole. In one side are three longitudinal rows, each of nine small drilled holes which are filled with lead (at the fractured end is a trace of a tenth).

Whittling knife. Pl. 20.5-9 and 17-20 are specimens of more simple forms of knives with a blade socket in the end, used presumably as whittling knives. On most the blade socket is fairly short in proportion to the width of the handle, and on some it is so narrow that it must have been intended for an iron blade. In all we found thirty-nine knives that fit best into this group, twenty-seven of antler, eleven of bone and only one of walrus ivory. Pl. 20.17-20 and three others have iron blades or

the remains of one. The lengths of the handles vary between 16 and 6.5 cm; the cross section is mostly oval or rounded, though in three cases it is rectangular as on Pl. 20.6. L 3: 1016 and Pl. 20.9 are wedge-shaped at the butt, and on the latter the surface is roughened. Eight have a suspension hole in the butt. On L 3: 10272 towards the fore end there is a transversal groove in each of the narrow sides, and at the middle of the broad sides is a groove running towards the end as on Pl. 19.13. Three of the handles have a blade socket in both ends, and L 3: 9 at the butt end has a narrow socket, presumably for a drill bit or the like. Pl. 20.10 is a fore end of antler with a scarf face at the butt end; L 3: 11232 has a stepped scarf; the length of this specimen is 10 cm.

Four knife handles of wood are of similar simple form with a blade socket in the end, lengths 10.3 to 8.4 cm. On two of them there is a lashing groove at the fore end, and a third (L 3: 2491) with a very narrow blade socket has a lashing of plaited sinew thread, 1.5 cm wide, at the fore end.

Knife with unilateral end knob. Pl. 19.18-26 and Pl. 20.12 are knife handles with blade sockets in the fore end, a unilateral knob at the butt end and in most cases provided with a suspension hole. Of this type, which varies greatly in detail, we found twenty-six specimens, eleven of them of bone and fifteen of antler, lengths 17 to 8 cm. Only one of them (L 3: 4137, Thule House 12) seems to have had an iron blade, and in the blade socket of Pl. 20.12, which is of antler, is a wedged-in stump of bone, presumably of the blade. Pl. 19.18,19,20 have a row of knobs on one side of the handle, and on 21 on each side there is a transversal projection divided into two knobs by a groove running longitudinally. Pl. 19.21 and 22 and L 3: 3987 have a lashing groove at the blade end, and on 22 this groove is in the middle of a torus-like expansion. Pl. 19.20 has on one side seven ornamental chevrons close together, on the opposite side only three. Pl. 19.17 is a fragment of bone, likewise with line ornamentation. Of sixteen specimens with a suspension hole eleven have the hole drilled straight through, in four it runs longitudinally through the knob, and in one it is drilled obliquely through from the side to the butt end. To these may possibly be added nine cut-off or broken-off fore ends, two of which are of antler, the rest of bone.

Knife handle of two halves. Five of these were found, but four of them were represented by only one half. Pl. 21.6 is of narwhal ivory with a blade groove in each end, though one end is filled with wood. L 3: 2005 (Inf. midden B. II) is also of narwhal ivory and 10.5 cm long; the butt end has the full width of the handle, 2.6 cm, the other part having been separated by cutting a longitudinal groove from the fore end down to about the middle and forcing one side off, leaving an oblique fracture

surface; the outer edge at the fore end is roughened and foremost has a small projection as on Pl. 21.7. The latter is of walrus ivory and of careful workmanship; its blade groove is only 0.8 mm wide and must have been intended for a blade of metal. Towards the other end there is an area with crude cross-hatching. L 3: 782 is also of walrus ivory. L 3: 2442 (Ruin Island House 3. B) is half of a similar handle, but of antler, 9.5 cm long, and the blade groove is open to one side, where the blade must consequently have been held solely by the lashing, which apparently was 1.5 cm wide and fitted into a corresponding sunk belt in the handle.

Flensing knife. Eight knife handles have the blade groove in the end open to both sides; six are of bone, one of walrus ivory (Pl. 20.4) and one of narwhal ivory (Pl. 20.11). The lengths are 26 to 15.5 cm, apart from the last-named, which is only 7.3 cm. Pl. 20.1-4 are four of the best preserved. The blade was secured by pegs or lashings, and the placing of the suspension hole also varies somewhat. Pl. 20.4 has only a shallow hole through the butt end, on 2 a hole runs lengthwise through each of the two end knobs; the other two illustrated specimens have one or two drilled holes through the butt end and 3 has another through the middle of the handle. In the middle of one side of the handle of 4 is a roughened belt 3 cm wide, and the two fore ends (L 3: 224 and 6092) have a scarf face for lengthening the handle. Apart from the open blade groove the most characteristic feature of these knives is the symmetrical form of the handle; at any rate the largest of them must have been flensing knives. Besides these we found eighteen fragmentary fore ends with a similar blade groove, one of antler, four of walrus ivory and the remainder of bone; it is possible, however, that some of them are the fore ends of lances. In addition there are six broken-off butt ends of symmetrical shape, all of bone.

Two knife handles of wood had the blade in a similarly open blade slit; one is shown on Pl. 20.13. Three others of wood, two of them shown on Pl. 20.15 and 16, had the blade lashed on at one side, where a piece is cut away to form a convenient seating; these latter seem to be connected with the Cape Dorset culture.

Knife with side blade at fore end. Pl. 20.21,22,23 and 29 are knife handles with a short groove in the side open at the fore end, as is common on more recent whittling knives. 21 is of antler with an almost quadratic cross section at the butt; the blade groove is very narrow and must have been intended for an iron blade. 22 is also of antler, with the blade groove in the concave side. 23 is of bone with a blade groove in both ends on the same side; at the ends are small projections to support the lashings

which secured the blades. 29 is made of a flat piece of bone with its greatest thickness along the back.

Pl. 20.24 is of wood and in one side has a rather wide blade groove, 5 cm long, open towards the fore end, where there is a lashing groove; this too is apparently a Dorset type. On Pl. 20.14 the blade must have been very small and likewise secured by lashing; the groove contains traces of rust. On L 3: 1074 (Inf. House 7), which is of wood too, the blade was similarly placed but was lashed on to the side of the handle.

Knife with side blade.

Knives with a side blade *on one side* were found to a number of forty-five, though twenty-three are merely fragments of the blade end; twelve of them are of antler, thirty of bone, one of narwhal ivory (Pl. 20.27) and two of walrus ivory; some of them are shown on Pl. 20.25-28, 30, 31 and 33. Fourteen of the specimens have a distinct part for the blade, and Pl. 20.31 is composed of two pieces, the blade part being inserted by means of a tang into a socket in the end of the handle; the latter has a unilateral end knob and four small notches in one side and is moreover bound round with baleen cord. L 3: 11053 is a loose blade part with a tang. Pl. 20.25, which is of antler, has a small knob where the handle joins the blade part. Pl. 20.30 owes its peculiar form to the fact that it is made out of a snow knife. On the others with a distinct blade part the latter is somewhat narrower than the handle; Pl. 20.33 is an unusually powerful specimen of this type; it is of bone and has three finger pits on one side of the handle.

Four knives have *a row of separate blade grooves* in one side. Pl. 20.32 is the best preserved; it is of bone and has four blade grooves, the two in the middle with the iron blade in position. The other three are crudely made with straight sides and a smooth transition from handle to blade part; two of them are of bone and one of antler, the latter being 14.5 cm long.

With blade grooves in both sides. Fourteen intact or identifiable specimens were found, ten of them of bone, two of antler and two of walrus ivory. On Pl. 21.2 the groove on one side is 6.5 cm long, on the other only 1.5 cm and near the fore end. L 3: 7410, a poorly made knife of antler, 12.8 cm long, likewise has a longer groove on one side than on the other. L 3: 10441 is a blade part of bone with a scarf face and a row of holes. Seven of the specimens are only small fragments of blade parts. Wissler figures a curious knife (?) fig. 8, with a stone blade on one side and a groove for a corresponding blade on the opposite side[1]).

[1]) Wissler 1918 p. 125.

With end and side blade. Pl. 21.4 is a knife of bone with an end blade and a blade on one side; at the fore end are two lashing holes for the end blade; the butt end is defective. Pl. 21.5 is of antler and at the butt end has a scarf face for lengthening the handle; in the middle of the side groove is an iron blade; apparently the side edge has consisted of three such iron blades placed end to end. In addition to these two we found seventeen broken-off or severed fore ends; thirteen of all these specimens are of bone and six of antler.

Two broken fore ends, one of bone and the other of narwhal ivory, have grooves for an end blade and *a row of grooves along one side.*

Pl. 21.1 is a long blade part of bone with grooves for an *end blade and side blade on both sides*; at the butt end it has a stepped scarf face. In addition we found four broken-off fore ends of similar knives.



Fig. 89. Knife handle with incised design.

With regard to seventeen broken-off handles or fragments of butt ends, of which six are of antler and the remainder of bone, nothing definite can be said as to the placing of the blade. Fourteen of the specimens have a suspension hole, eight have a unilateral end knob. Pl. 21.3 is symmetrically expanded at the butt end and along the middle of one side has an incised longitudinal line with towards the fore end seven close transversal lines out to one side. L 3: 9556 is a flat handle of antler with a small unilateral end knob and two small suspension holes; length 7 cm; in one side are three deep incised longitudinal grooves, crossed by many transversal lines. On L 3: 11536 are five crudely incised longitudinal lines and some transversal lines near the butt end; this ornamented area is enclosed at both ends by a deeper transversal line.

Pl. 36.34 (and fig. 89) is a fragment of a knife handle of antler 9.5 cm long, broken at the fore end and split longitudinally; at the fore end it has a roll divided on one flat side of the handle into small knobs, and on one rounded side there are two transversal projections and five small knobs; on the flat side there are also two cursorily incised figures, presumably representing caribou.

Four butt ends of bone and one of wood (Pl. 21.9) have a scarf face at the fore end. Pl. 21.8, which is of bone, has in each side of the scarf face a row of seven holes drilled obliquely out towards the side.

Knife with side blade, Dorset type. Eleven in all, and all of antler. Pl. 1.12 is a small knife with a flat handle almost rectangular in cross

section and with a blade of iron. L 3: 2255 and 2267 are similar crude knives, but the blade is missing. On the latter a notch is cut in the back near the rear end of the blade groove, and on one side of the butt end is a five-sided, sharply sunk area, open to two sides and with an angular point running forwards; the length of the handle is 6.8 cm. L 3: 2790 is 8.5 cm long with a blade groove 5 cm long in one side; opposite the posterior end of the groove are two notches in the back; the butt end is tapered as if for use as a tang.

Pl. 1.13 and 14 are two well-made knives with blade grooves at both ends at opposite sides; the former has also a curious shallow cut at one end. L 3: 2266 and 11972 are two similar knives, 12 cm long; three small fragments were also found.

Baleen shave. Twelve of these were found, 14.8 to 7.2 cm long; eight are of antler, three of bone and one of narwhal ivory. On most of them the handle is rather curved, and the blade (blade groove) is in one side and mostly nearer one end than the other. Pl. 21.18 is of bone; the blade groove occupies the entire length between the tapering ends. Pl. 21.19 is of antler with an iron blade; the blade is curved, following the natural curvature of the tine. Pl. 21.20 is also of antler and has splayed ends to provide a better grip for the fingers; the blade groove is in the convex side and is 5.2 cm long. L 3: 7969 is 9.5 cm. long with a blade groove 4 cm long, and the handle at the widest end is concave. L 3: 10335 is of similar description. The other specimens on the whole are cruder and have a blade only 2 to 3 cm towards one end like Pl. 21.21 and 10, both of which have an iron blade. L 3: 9294 has the unusual length of 14.8 cm and consists of a somewhat bent piece of antler cut flat with the breadth narrowing from 1.5 to 1 cm; the blade groove, 2 cm long, is 2.5 cm from the broader, square-cut end. Pl. 21.17 apparently is a knife of similar kind; it is made out of a piece of bone cut flat, one end cut obliquely and terminating in a knob with a hole. On the back is a curiously fashioned piece of wood, secured by two baleen lashings, between which is a blade groove, 3 cm long, which however is occupied by a piece of wood cut off flush with the edge.

Sewing knife (?). Eleven knives are of the characteristic form that is shown on Pl. 21.11-16, with a flat and broad blade part and slender handle; five are of narwhal ivory, one of walrus ivory, two of bone, one of antler and two of wood. The lengths vary from 10.5 to about 5 cm. The use of the term "sewing knife" is merely supposition on my part. Presumably this is a special form of ulo. As far as I know this characteristic type is unknown outside of Greenland. The National Museum has similar specimens from the West Coast: Upernivik District (Kûk,

L: 9928; Inugsuk, L 4: 3239 and L 4: 3381) and Disko Bugt (Igdlutalik, L 6: 703 and L 6: 2232).

Pl. 21.11 is of narwhal ivory with an iron blade. There is also an iron blade in 13, which is of antler, and on 16, a very small specimen of wood. 15, of bone, has a blade of a thinly hammered piece of brass. 12 is of walrus ivory and has a piece of wood lashed to the back with two baleen lashings, which suggests that it is really a kind of ulo. On Pl. 21.14, narwhal ivory, one side of the blade socket is broken away; here the socket was cut right through to the back. The blade part is ornamented with two lines of dots and a dot-rosette, and there seems to have been a similar decoration on the opposite side; there is a dotted line on the back too.

Knife blade.

Pl. 2.7-13 are knife blades of *flint*. We found in all sixteen, though five are small fragments and two atypical. In length they vary from 6.5 to 2.8 cm. Pl. 2.8 is the handsomest, with the entire surface treated by an elegant technique, only partly attained on 7 and not at all on the others, some of which are rather crudely fashioned; it is rounded anteriorly and has a sharp edge on both sides, a form apparently aimed at on some of the others except 9 and 10 and two coarsely made specimens; the unsymmetrical shape nevertheless seems to indicate a difference between the edge and the back. Pl. 2.12 and 13 are of a rather different type with two symmetrical, straight or partly concave edges.

Pl. 21.23 is a handsome, lanceolate knife blade of *slate* with a "hollow-ground" edge on both sides; 24 has two coarsely ground edges, and 27 too has two edges but was made with flint technique; it is possible, however, that this specimen is unfinished. 25 and 26 are fragments of slate blades with an edge on one side. L 3: 2193 is shaped almost like 26 out of a thin, flaked-off piece of slate, of which the sharp edges required very little improvement. Pl. 25.7 is possibly a large unfinished knife blade of slate; the thickness is only about 0.6 cm and thus seems too fragile for a lance blade of this size. Having regard to all the knife handles found it is remarkable that so few blades of stone were recovered. No doubt the explanation lies in the easy access to meteoric iron in the Thule District.

In the foregoing mention was made of several finds of knives with an *iron blade*; only three loose blades were found.

Drills.

Hand drill.

A total of fifteen shanks were found, seven of them of antler, three of bone, two of narwhal ivory and three of wood, lengths from 15 to 6 cm.

Pl. 24.3,4 and 5 are of antler; L 3: 8394 is like 3 but has a suspension hole at the butt end. L 3: 7638 is made out of the back end of an embryo narwhal tusk, and Pl. 24.31 is of a piece of sledge shoeing. Fig. 105.13 and 14 (L 3: 3819, Thule House 10 and 1490, Inf. House 14) are two peculiar hand-drill shanks of antler with an angular or curved butt, and fig. 106.2 (L 3: 1335, Inf. House 11) has a narrow and wedge-shaped butt; in the expanded fore end there are two holes, one central and a smaller one nearer the edge, as if the implement had been intended for marking circles. Pl. 24.15 is of wood; the same applies to L 3: 1007, which has a very narrow, four-sided socket for the bit. As a matter of fact the socket is four-sided on most of the specimens except L 3: 11765, which is of narwhal tusk and has a round, drilled hole. A piece of flint (L 3: 11999, Inf. House 4, midden, lower stratum) is possibly a *reamer*. It is of a flat, somewhat irregular form and about 4.3 cm long and 4 cm wide at the butt. The fore end is wedge-shaped with rounded edges and bears marks of wear.

Bow drill.

Pl. 24.6,7 and 8 are pieces of *drill bows*. The first is a slender piece of walrus ivory with a flat back and tapering towards the ends; along the middle of the back runs an incised line with six slightly irregularly distributed transversal lines out towards the edges. The other two are of bone, rounded or oval in cross section, and a fourth specimen (L 3: 2723, Aunartoq House 10) is roughly made from a rib.

Of thirty *bow-drill shanks* fifteen are of bone, four of narwhal ivory, two of walrus ivory and nine of wood; the lengths are from 18 to 8 cm, though some of wood, which have had a lashed-on foreshaft, were longer. The shape of most is like Pl. 24.9 or 10; only three of bone are slightly expanded top and bottom as on Pl. 24.11 and 20 and with a narrowed, tenon-shaped butt. Pl. 24.19, of narwhal tusk, has a long scarf face at the fore end, and 18, which is of ivory, decreases abruptly in diameter for 3.3 cm at the fore end; at the tip it has a small seating for the bit, which was tied on to the side.

Fig. 106.11 (L 3: 2350, Ruin Island House 2) is a peculiar, round implement of walrus ivory, 9. 5 cm long and with a diameter of 0.6 cm at the middle. One end is slightly narrowed and bears traces of having been turned round like a drill shank; the other end widens out into four sides, 0.8×0.7 cm and is shaped with four points, between which a bit may possibly have been clamped. The specimen is ornamented with two pairs of lines, the lower pair having short spurs turning upwards.

Of the wooden shanks only three had the bit fixed in the shank itself. Pl. 24.12 and 14 have a long, V-shaped cut to receive a foreshaft,

and L 3: 1519 a has a hollowed-out groove; three have a stepped scarf face at the fore end like Pl. 24.13. Corresponding *foreshafts* were found to the number of seven, five of them of antler, two of bone; three of them have a stepped scarf face like Pl. 24.22, the others a single one like 23; the lengths are 8.7 to 3.6 cm. L 3: 1792, which is of bone, has a three-sided butt with a rounded and roughened outer side; in the inner side is a groove for the bit, which was thus clamped between the foreshaft and the shank.

Drill bits are very poorly represented, as only seven small worked pieces of flint seem to have been used for the purpose; Pl. 24.27-30 are four of these. 27 has a three-sided pyramid-shaped point, two of the sides being formed of the cleavage planes, the third shaped by small transversal percussions. 28 is a coarse bit with a badly worn point; the others are more casual in character. Pl. 24.16 is a thin rod of iron; but whether or not it was used as a drill bit can hardly be said with certainty; its length almost seems to suggest that it was not.

Drill mouthpiece. Thirteen mouthpieces are of caribou astragalus like Pl. 24.24 and 25; the latter and two others have a suspension hole in the edge; and on a fourth the hole is drilled right through the bone. Pl. 24.26 is made out of a piece of walrus ivory with curved grooves in the sides for the teeth to grip; it has a socket in both sides and a suspension hole. Pl. 24.21 and L 3: 9662 are two coarsely made mouthpieces of bone.

Saw of baleen.

Pl. 49.5-9 are five fine-toothed saws of baleen. Of the first only the blade remains. 6,7 and 9 are shaped like small tenon saws, and 8 is very like a meat saw. In addition we found two fragments; the smaller seems to have been merely a toy.

Whetstone.

In all we found 195. Pl. 29.29 is of a red sandstone with large pale grains. 28 and L 3: 3503 is of asbestos. Three oblong whetstones have a longitudinal groove in both sides and a notch at the ends as on Pl. 29.30; on 31 the whipping of baleen cord is preserved.

L 3: 1037 (Inf. House 6) is a flint nodule, about 5 cm wide and a good centimetre thick, almost lenticular in shape, of which part has been ground off to make a flat, smoothly-polished surface. The convex edges also seem to be more or less polished. This specimen is apparently a *polishing stone* of the kind mentioned by Jenness from Cape Dorset[1]).

[1]) Jenness 1925 p. 432.

Hammer stone.

Seventy-eight in all, two of them shown on Pl. 29.26 and 27.

Flint flaker.

Pl. 27.8, 9-14 are various forms of flint flakers. 11 is of a walrus penis bone; seven of these were found, lengths 41 to 23 cm, all with the fore end roughly shaped, a piece having been cut off, leaving a powerful, most frequently slightly flat, rounded point. On two of the specimens the butt end is flattened slightly on one side. 12 is made from a rib, and 10 is of narwhal ivory; the latter has a well-polished surface and towards the butt end a roughened belt. 14 is of walrus ivory and seems to have been an angle brace for a sledge originally. 13 is of antler and at the fore end has a knobby, rounded point. A total of ten specimens of antler were found which must be assumed to be flint flakers.

Flint flaker with separate handle. Pl. 27.9 is a short flint flaker of walrus ivory, secured in a groove in a curved handle of wood flattened at the butt—such as is common among the Western Eskimos. The point and the handle were found separately, but in the same house (Ruin Island House 2), and they fit exactly.

Maul.

Pl. 28.5 is a pointed *stone maul with a baleen handle* formed of a thick strip of baleen laid around the stone and lashed together by transversal lashings. Five of these were found as well as a loose handle and four loose stone heads.

Pl. 28.1 is a maul (possibly a blubber pounder) of *whale bone*, of which only the butt end of the handle is broken off; the head has a flat-shaped seating which fits the end of the handle. Both specimens have three lashing holes; the anterior hole in the head is in the prismatically shaped underside, drilled in obliquely from both sides. Pl. 28.2 is a small, powerfull maul head made from a piece of *walrus skull* with the two posterior, cut-off molars still in their alveoli. This too has a seating, two transversal holes and on the underside a curved canal. Wissler fig. 20 a figures a curious axe-shaped maul head of bone from Comer's Midden; it seems to have been hafted like a European axe and can scarcely be very old[1]).

Adze.

Without separate blade. Pl. 28.3 is an adze or mattock head of walrus ivory; the hollow base of the tusk is roughly hewn into the shape of a transversal edge. In the middle of the underside is a deep longitudinal

[1]) Wissler 1918 p. 143.

groove, from which a hole runs out to each side where it ends in a large notch. This central groove in turn widens out at the square-cut butt end, where there is also a hole at each side, placed somewhat unsymmetrically; one was cut through when the butt was cut. Thus it would seem that originally the head was longer and possibly consisted of the entire tusk like the "root picks" of the Alaska Eskimos[1]); if that is so, however, it is strange that the root of the tusk was not shaped more. In its present form the specimen may also have been used merely as a wedge—a suggestion that is supported by numbers of longitudinal scratches on both sides. However, we found another specimen (L 3: 5609, Thule House 21.W) which also has a transversal edge and has not been converted in any way; it is of whale bone with a flat, wedge-shaped fore end; at the butt end on the underside it has a sunk seating for the handle and two transversal holes, and in addition three holes are drilled from the upper to the lower side, in part intersecting the transversal holes; a little farther forward are two more transversal holes, connected on the upper side by a groove.

Adze head without lashing holes. Seven of these were found. Pl. 28.6,7 and L 3: 10298 are crudely made specimens of antler, 10 to 6.5 cm in length. On 6 the surface is only coarsely roughened, L 3: 10298 has a shallow socket in the underside, and 7 has a shallow, broad groove across back and sides for a lashing. The other four specimens are of bone and are better made, with at the front a sharply delimited seating for the handle on the underside. Two of these have a broad, shallow notch across the back, opposite the handle seating, Pl. 28.8 has a narrowed neck with three transversal grooves, and Pl. 28.9 has cuts in the two sides; the latter has an iron blade 1.9 cm wide.

Pl. 1.19 and 20 and L 3: 2125 are three adze heads of *Dorset type*, likewise without lashing holes and all of antler, lengths 12—8 cm. They are rather flat with the fore end well widened out; they have two rough lashing notches in the sides, and Pl. 1.20 alone has a number of transversal grooves, some deep, across the back; L 3: 2125 has a sunk seating for the handle.

With holes from top to underside. Four adze heads have lashing holes of this description. Pl. 28.10 is of antler with elongated holes, formed by drilling two side by side, two on one and three on the other side of the handle seating. The other three specimens are of bone; Pl. 28.11 has four holes on each side, drilled obliquely in towards the middle of the top, where they are connected in pairs by transversal grooves. 12 has a pointed butt; almost at the middle of the underside is a shallow

[1]) Nelson 1899 Pl. XXXIII.

socket for the handle with three holes on each side, likewise connected by transversal grooves on the top. L 3: 10668 (Co. A 17.3) has a constricted butt.

With transversal holes. Six adze heads, all of bone, have nothing but transversal holes for the lashing; Pl. 28.13 has three, the must usual number, L 3: 638 has four, and L 3: 6639 only two. Pl. 28.17 differs from the other in that the butt tapers off; it is lashed to a handle of antler by baleen cord; the head has three, the handle only two holes.

Five adze heads in addition to transversal holes have *a curved transversal hole in the underside* in front of the seating for the handle; four of them are of bone and one of antler, lengths 15—11.5 cm. Pl. 28.14 is flat on the underside but with a hatched area posteriorly and only two transversal holes. L 3: 8823 (Co. A 11.6) has a transversal hole right at the back, and farther forward two holes close together are drilled obliquely in on each side towards the underside. Pl. 28.15,16 and L 3: 3959 (Thule House 11) have a roof-shaped underside.

Of *adze blades* only two were found, of flint, and a small fragment; one of the specimens is shown on Pl. 28.18.

Adze handle. Pl. 28.20 is an adze handle of bone cut off square anteriorly and with a large elongated hole for the lashing; at the butt end it has a unilateral knob and a whipping of thong. L 3: 3592 is a piece of walrus penis bone, 25.5 cm long with an elongated hole near one end, which is shaped flat. Pl. 28.4 is the upper end of a wooden handle with an elongated, three-sided hole. Pl. 28.19 is of antler with three holes arranged in a triangle, and L 3: 8938, of bone, has three holes near the upper end, which is 5.3 cm wide; the length of the handle is 19.5 cm and it is damaged at the upper end, while the butt end is flattened so that it could be used as a wedge. Pl. 28.21 is made of a very flat, thin piece of bone only 0.8—1.2 cm thick; it has had four holes, but has been slightly damaged and then rounded off at the upper end; here again the butt is wedge-shaped.

Hand pick (moss spade).

Six rather crudely shaped pieces of antler, one end flattened and the other rounded forming a more or less handy handle, were presumably used for cutting moss or turf (nowadays the Polar Eskimos sometimes use a broad-bladed knife for the purpose); the fore ends of all are rounded, evidently by wear. Pl. 30.7 is a crude, broken-off piece of tine; L 3: 1937 is of a curved piece, cut through lengthwise with a length of 32.5 and a width of 4 cm, and on Pl. 30.12 a tine has been allowed to remain as a cross-piece. On Pl. 30.16 the flattened end is shaped with four teeth,

and L 3: 309 (Cape Russell House 1), which is 22.5 cm long, has three such teeth. Fig. 103.6 (L 3: 1048, Inf. House 6) is cut to form a wider blade anteriorly and a small cross-piece at the butt. It is possible that this was not a moss spade originally, as the wide, rounded cleft in the blade part has the inner sides trimmed flat towards the end. The middle of the implement is worn smooth, especially at the sides, and the cross-piece at the butt is carefully rounded. A corner at the fore end is broken off, but the edges are worn, and on the whole the wear marks suggest that the implement was used as a hand pick or moss spade.

Twelve similar implements are of bone, most of whale or walrus rib. Pl. 30.8 is the longest, about 44 cm; 13 and 14 are fragmentary fore ends; 9 is the shape of a spade and made from a flat piece of whalebone. 15 is of the tibia of a harp seal (*Phoca groenlandica*), on which the articulation surface forms a convenient rest for the thumb; somewhat similar particulars apply to L 3: 4610, which is 18.7 cm long.

Pick-axe of walrus ivory.

Pl. 30.6 is a fragment of a pick-axe head made from a walrus tusk which has been cut flat anteriorly and posteriorly and fashioned with a thick, flatly rounded point. At a distance of 6.5 cm from the fore end is an elongated transversal hole with grooves down towards the underside, where a handle must have been lashed on. The rear end is broken off. This specimen seems to be more directly related to the aforementioned "root picks" (see p. 247).

Mattock of whale bone.

Twenty-six *mattock heads* were found, 49—25.5 cm long; they all have a broad, rounded fore end except Pl. 30.10, which is pointed; the handle was placed on the convex side. Three of the specimens have a hole for the end of the handle as on Pl. 30.3; 2 has a deep socket, whereas fourteen have seatings like 1 and 5, in some cases slightly sunk as on Pl. 30.4. On eight fragments it is difficult to see how the head was hafted. Most of these mattock heads have up to four deep notches in each side for the lashing.

Pl. 30.11 is the only specimen that is definitely identifiable as a *mattock handle*; it is of whale bone, 49 cm long, with a step at the middle of the inner side, elongated lashing hole and a flat, obliquely cut fore end.

Of *bone wedges* we found 137, the lengths being up to 36 cm; some are shown on Pl. 29.19-25. 23 is of walrus ivory and is curious in that it has an elongated, slightly triangular hole, on both sides running out rearwards in sharp grooves. 19 is a wedge-shaped piece of walrus ivory with a transversal hole near the butt, which is 1.4 cm thick; in the hole is a remnant of baleen cord.

Marline spike.

Pl. 29.1-18 are various forms of marline spikes or similar implements, pointed or with a flat, rounded tip. Twenty with a *flat tip* were found, five of them with a suspension hole; nine are of antler, ten of bone and one of walrus ivory, lengths 16.5—6.3 cm. Pl. 29.9 is a plain specimen of antler, 12 and 13 are of bone with a constricted butt, the latter having a small elongated hole. 14 and 16 are of antler, with a constricted, slender fore end, and 15, which is of bone, has a thin tip.

Twenty-four are *pointed*; sixteen are of antler, five of bone, two of walrus ivory and one of narwhal ivory, the lengths being 15.8—7.5 cm. In most cases they are crudely made implements of more or less casual appearance; Pl. 29.3 is made of a rudimentary narwhal tusk; 4 and 8 are of antler. 5 is a carefully made specimen of walrus ivory, as also is 18, which has a unilateral end knob and a suspension hole. 6, 7 and 17 are of bone; the latter is slender at both ends and has three holes, though it cannot be seen that these have anything to do with the present function of the implement.

Pl. 29.10 and L 3: 3900 are two implements with a flat, rounded tip, made of the fibula of a ringed seal (*Phoca hispida*). L 3: 2081 is of the same bone, but has a powerful point, almost like that of a burin.

Pl. 29.1 is a pointed implement formed of the fibula of a bear. The same applies to L 3: 1073 and 4977, though the former has a somewhat more slender, worn point. Pl. 29.11 is of a piece cut from a caribou metatarsus or metacarpus; the butt end is slightly constricted anterior to the joint head almost as on a wound needle.

Pl. 29.2 and L 3: 9511 are two pointed pieces of caribou ulna.

Cutting board.

Pl. 27.18 is a flat-cut piece of whale bone used as a chopping or cutting board; it has two holes in the narrow end. Another specimen (L 3: 1571, Inf. House 16, the store house) is heavier, 24.5 cm long and 16 cm wide at one end, 9 cm at the other, where there are also two holes and an oblique cut. In the underside is a saucer-shaped hollow to fit the knee, on which the board no doubt was placed for working. A third specimen of whale bone and two broad pieces of antler also have many cuts in them.

Nineteen flat pieces of wood were used as cutting boards; Pl. 27.7 is the largest. L 3: 5923 is a crudely shaped piece of wood, about $16 \times 7 \times 2.8$ cm; the others are of lengths from 15 to 5.8 cm and display careful workmanship, in most cases being trapeziform like Pl. 31.3, 4 and 5; the latter however is unusually thick and furnished with a baleen cord at one end. Five thin pieces of wood similarly long trapeziform have no marks of cuts but seem to be intended for cutting boards.

Pl. 31.6,7 and L 3: 4953 are a narrow trapeziform with a "head" at one end. Some of these boards no doubt were used for cutting feathers for arrows.

One cutting board of baleen was found (L 3: 9064, Co. A 11.10). It is rectangular, 11.8 × 3 cm and both ends are bevelled off from the underside; on the upper side are numerous marks of cuts.

Arrow straightener.

Pl. 27.16 is apparently the severed end of an arrow straightener made from a walrus penis bone; the edges of the elongated hole are rounded, apparently by wear, and the end has a rounded edge, so that it is improbable that the specimen is an adze handle (cf. L 3: 3592, p. 248). Fig. 103.11 (L 3: 1701, Inf. House 19) seems to be an arrow straightener

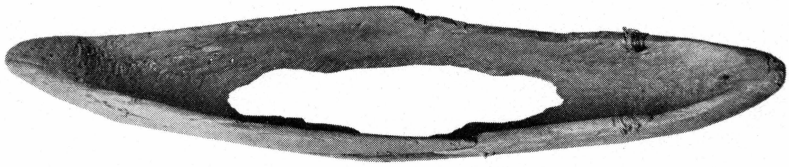


Fig. 90. Tool-box or the like, hollowed out of wood.

too; it is a piece of antler, 34.5 cm long, with an oval, roughly cut hole at the wide end; only two of the diagonally opposite edges of the hole are rounded; the butt end has smoothly rounded edges.

Thong smoother.

Pl. 27.17 is a bone with the middle much worn, presumably from being used for softening thongs.

Skin-curing pegs.

Twelve pointed wooden pegs, 25—12 cm long, were presumably used for stretching skins.

Boxes.

Tool box. Fig. 90 (L 3: 2956, Thule House 1) is a boat-shaped piece of wood hollowed out like a basin with thin sides, but thick at the ends, which are now rounded. The length is 76 cm, the width at the top 15 and the height at the middle 8.5 cm. At one side part of the edge is missing, a part that once was tied on with baleen cord, of which one turn still remains. The other side has also been repaired, partly with one of the original pieces, partly with a new piece made to fit the others and tied on with baleen cord. In the bottom is a large hole which for the most part seems to have been caused *by wear*; a single small hole suggests

that the box was also mended there. At each end towards the top is a hole, 6 and 7 cm respectively from the end, and in one is a remnant of a broken bone tenon or the like. This peculiar box is doubtless a tool box of a kind similar to those illustrated by Murdoch from Point Barrow[1]).

Box (for harpoon or arrow blades?). Pl. 34.17 and 18 is a smaller boat-shaped gouged-out box of wood with its likewise gouged-out lid. At one end of the box is a vertical hole for a peg on which the lid could be swung out. The corresponding hole in the lid is counter-sunk at the top as if for the head of a pin. The hollowed-out cavity inside the box has vertical sides and a flat bottom, whereas one end is slightly rounded, the other very much so. L 3: 600 (Inf. House 3) seems to be a similar box, but it is almost four-sided and very roughly made: length about 10 cm, breadth 4 and height 3.3 cm. The peg hole at one end is drilled right through to the underside, and the inside of the box has a flat bottom and sides and ends sloping outwards.

L 3: 11335 (Co. A sq. 20.3) seems to be a side of a similar gouged-out box, length 10.3, height 2.3 cm.—Boxes of this kind are in common use among the Western Eskimos for keeping weapon blades, but in most cases they are artistically carved in the form of seals, as shown by Murdoch[2]) and Nelson[3]). On these, however, the lid seems always to be secured by a cord and it does not turn on a peg. On the other hand this latter design was used among the Norsemen in Greenland. Could this be a loan from them?

Rectangular wooden box. Pl. 34.20 is an end-piece of a rectangular box, which has been jointed with pegs. There are peg holes on three sides.

Ulos.

Atypical slate knife. Pl. 25.5 and 6 are two pieces of slate with a ground edge; four others, apparently accidental, smaller pieces of slate also have a ground edge along part of the side. Fig. 91 (L 3: 3333, Thule House 5. S) is a flat stone about 26 × 17 cm with a rather uneven edge, on which the projecting parts are here and there ground sharp from both sides; it is possible, however, that this unusually large specimen was used as a skin scraper. Eleven other pieces of slate of various shapes and sizes have a distinct edge but unground; they too were presumably used as knives or scrapers.

Pl. 22.1 is an *ulo entirely of slate*, with a lashing of baleen cord as a handle. 2 is a fragment of a large slate ulo with an only slightly convex

[1]) Murdoch 1892 fig. 165, b, p. 186.
[2]) Murdoch 1892 p. 249, fig. 251.
[3]) Nelson 1899 Pl. LXII.

edge; it may however have had a handle of wood or bone. L 3: 5639 is of similar form, width 12 cm and height 9 cm, but at one end the edge side is rather irregular on account of the natural form of the stone, and only the convex length, 8 cm, is carefully sharpened.

Pl. 49.1 is the sole specimen of an *ulo entirely of baleen*; the handle is pierced by an oval hole at the middle.

Ulo handle.

Low and thick. Fourteen of this type were found, intact or split, seven of them of bone, one of antler, three of walrus ivory and three

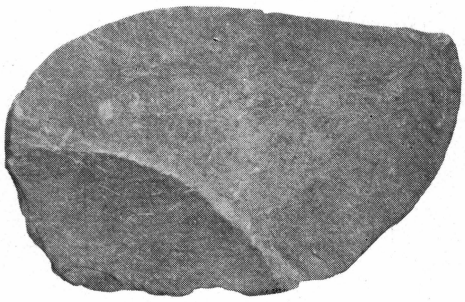


Fig. 91. Flat stone with sharpened edge.

of narwhal ivory; the lengths are from 11.2 to 5.2 cm. In all cases the blade groove seems to be intended for a stone blade. Pl. 22.5 is one of these ulo handles seen from the side; 9 is longer and split, so that the blade groove is visible. 11 is a similar handle seen from below; here the groove extends right through to the back. The same is the case with 8, which is of narwhal ivory; it is the largest of the specimens and has an unusually wide blade groove. Pl. 22.3-4 are two corresponding pieces of narwhal ivory; there are engraved figures on both sides, made up entirely of dots; on one side a sausage-like figure with a wavy line through it lengthwise, on the other a more complicated design difficult to comprehend. Both pieces were lashed together after they had split apart.

Six simple ulo handles of wood are of a similar low form, but are thinner and more slender; to of them are shown on Pl. 22.6 and 7. On the former the ends are whipped with baleen cord, and the other has grooves for a similar whipping.

Eight ulo handles *merge imperceptibly into the thicker back*, two of antler, three of bone, one of walrus ivory, one of narwhal ivory and one of wood; three have an iron blade. Pl. 22.13 is of narwhal ivory, rather flat and has a large iron blade. 16 is a roughly made handle of antler; 14 is of similar shape but smaller and of walrus ivory; it has an iron blade, and through the middle of the back is a suspension hole

drilled obliquely out to the side. 20 is of bone; L 3: 11927 resembles it, but is slightly concave at the ends. L 3: 10362 is of the same irregular form as 14, but has an unusually broad back, and on one side near the blade groove is a segment-shaped cut. 12 is a small ulo of wood with an iron blade.

Five ulo handles are almost hoop-shaped, with a rounded back and a large oval hole as on Pl. 23.6 and 11; they are all of bone with lengths from 15 to 7 cm. 6 is made from a flat piece of bone, presumably a scapula; the others are thickest at the back.

With thick back and thinner blade part. Eleven of these were found, ten of them of bone and one of walrus ivory; with the exception of Pl. 22.22 and 24 they are all trapeziform. Pl. 22.19 is unusually short, and the back is not so sharply delimited from the blade part; on the others the blade part is thinned off abruptly from the back, as shown on Pl. 22.21 and 24. On Pl. 23.1 the blade part is also constricted at the ends. Four of these specimens also have a shallow groove on both sides of the blade part. Pl. 22.22 is of walrus ivory and has a small elongated hole near the blade part, presumably for tying the blade.

With thick back and a hole. Six specimens may be placed to this type, five of them of bone and one of antler. Pl. 23.2 is the largest; on it the blade part is of even thickness, 1.1 cm, whereas the back is 2.5 cm; the back projects a little at the ends, a feature that recurs on L 3: 217 and Pl. 23.15. The latter is of antler and roughly made—it is perhaps more a scraper handle. Pl. 23.3 has a triangular hole and a very low but broad back. L 3: 5983 too has an almost triangular hole; on one side the back is sharply delimited from the blade part, on the other the transition is smooth. Pl. 22.23 has two smaller holes and a slightly concave under-edge.

Compound ulo. Pl. 22.10 is presumably an ulo handle, intended for a thick blade or a separate, tied-on blade part; it is of antler and has a broad groove between the two projections; at each end is a transversal hole, from which grooves lead down over the projection. L 3: 1514 (Inf. House 16) is a similar handle, but the two projections are drilled through in the direction of the blade groove; the length is 7 cm, the height at the middle 2 cm.

Pl. 23.7 is a handle of wood with a blade part of antler: the latter has a rounded back fitting into a corresponding groove in the handle, and lashings have passed through the two holes in the blade part and along two corresponding shallow grooves in the handle. Pl. 23.8, which is also of wood, has two lashing holes and a similar groove for the blade part. Pl. 23.4 is a handle of bone with two elongated lashing holes; the concave underside is shaped flat as a seating for the blade part.

Of loose blade parts we found ten, of which six are of bone, one of walrus ivory and three of antler. Pl. 23.5 is a thick blade part of bone with a rounded back; the others are smaller, 5.5—2.5 cm long; with the exception of Pl. 23.10 they are all trapeziform like Pl. 23.9. Six of the specimens have a flat back, whereas three are so narrow there that they must have been fitted into a groove in the handle. Pl. 23.10, which is of antler, has an unusually curved blade edge and a concave back. All these loose specimens have a narrow blade groove, presumably for a blade of iron.

Some few flat but less typical specimens are presumably blade parts for compound ulos too. Pl. 22.18 is of narwhal ivory, deeply trapeziform and with a small iron blade in the shortest side. Pl. 22.15 has a curved back with square edges. Pl. 22.17 is of a flat piece of bone, presumably from a snow-knife blade, and has a blade groove in both parallel edges. L 3: 9973 is defective, but seems to have been trapeziform; it has a central hole and remains of blade grooves in three of its sides.

Scrapers.

Convex scraper of flint. In all we found 32, some of which are shown on Pl. 2.25-33; shape, size and workmanship vary a good deal. Pl. 2.30 is an uncommonly handsome specimen with a sharp, evenly shaped edge —in technique quite the equal of the knife blade Pl. 2.8. It is possible that Pl. 2.14 should also be included among these scrapers, though the edge is more like that of a knife. Of the thirty-two specimens thirty-one were found in Inglefield Land and only one at Thule. Two scrapers of similar shape are of angmaq (silicious slate), shown on Pl. 25.8 and 9. Pl. 23.14 and L 3: 6295 are apparently *handles* for such scrapers.

Side scrapers of flint. Six oblong flint scrapers have a convex scraping edge on both sides and a rounded point; Pl. 2.16 and 17 are the most typical with a narrowed tang. 18 has only a rough edge on one side, and 19 has a sharp edge, almost like that of a knife.

Five flint scrapers have a concave edge, but only Pl. 2.20 is of the common form, and moreover it is very roughly made. 21 is well made with a rounded point and a scraping edge on both sides; L 3: 2239 is a piece of flint 5.9 cm long and 1.1 cm wide, with a small concave gap a little way from the end; L 3: 4285 has a flat side, one edge of which is formed at the middle as a concave scraping edge. Pl. 2.15 is a peculiar little scraper with the entire surface worked on both sides; a small piece is broken off. It has winding edges and thus may be regarded as a combined convex and concave scraper. In addition to the above we found about sixty atypical flint scrapers with distinct edges and two of angmaq (Pl. 25.10 and 12).

Pl. 2.22-24 are three samples of flint flakes, of which several were found in Inglefield Land; the longest measure about 4.5 cm.

Blunt scraper of stone. Fifty-two natural or more or less coarsely worked, mostly flat stones must have been used as scrapers, presumably in curing skins. Pl. 25.11,13,14,15 and 17 are some of the most characteristic; 11,14 and 15 are of pieces of slate with an accurately shaped edge, 17 and 18 are of soapstone; nine are made from soapstone sherds.

Pl. 25.16 and 19 are rounded scrapers or rubbing stones of dolomite; their thickness is from 3.2 to 1 cm, and the sizes vary from about 7.5 × 5.5 to 1.6 × 1.4 cm. Forty-one of these were found, all at Thule.

Narrow scraper. Pl. 26.11,12,14,17,18 and 19 are various forms of narrow skin scrapers out of thirty-two found, most of them very crudely made; seventeen are of bone, seven of antler, one of narwhal ivory, five of walrus ivory and two of walrus molars; lengths between 24 and 5.5 cm, with the exception of a piece of whale bone 44 cm long, which presumably served as a boot stretcher or the like. Pl. 26.19 is of walrus molar, flattened slightly at both sides. Six are made from fragments of snow knives, L 3: 8752 from a handle and the upper part of the blade thus having an angular handle; L 3: 4515 is made out of a long harpoon socket piece of antler.

Six scrapers of similar character are of *wood* with the scraping end obliquely rounded; Pl. 26.15 and 16 are two of these, the latter made from the end of a wooden bow.

Broad scraper. Pl. 26.6 and 8 are two broad scrapers of antler, the former with an obtuse-angled notch in the butt; 10 is of walrus ivory, is of similar shape and presumably was made out of a snow-knife blade. 9 is made from the articulation end of a bear jaw, and the same applies to L 3: 11654 (Co. B). L 3: 6000 (Thule House 21. E) is a sector-shaped piece of a whale epiphysis. A number are of more casual pieces of bone formed as scrapers. In all we found seventeen, of which twelve are of bone, two of antler and three of walrus ivory; the lengths vary from about 16 to 10 cm, the widths from 8 to 4 cm.

Two scrapers are made from *caribou scapulae*; one is shown on Pl. 26.7; the other (L 3: 2899, Thule House 1) is 14 cm long.

Six scrapers of antler have *a projecting handle* out to one side; Pl. 26.1-5 are some of these. 4 has an oval hole near the scraping edge and a small hole in one corner at the butt.

Pl. 26.13 is a fragment of a large scraper of bone with the butt end defective; the handle seems to have formed a large *hoop*.

Scraper with separate blade. Pl. 23.13 is an almost triangular handle of antler with a wide blade groove in one side, presumably designed for a

scraper blade of stone; in each of the corners nearest the blade groove is a lashing hole. L 3: 4237 (Thule House 16) is a similar handle but without lashing holes; but it has a suspension hole near the back end.

Pl. 23.12 is a scraper of antler with a blade of iron. On one side of the handle is a long, incised trapeziform figure, inside which is another and shorter trapezium.

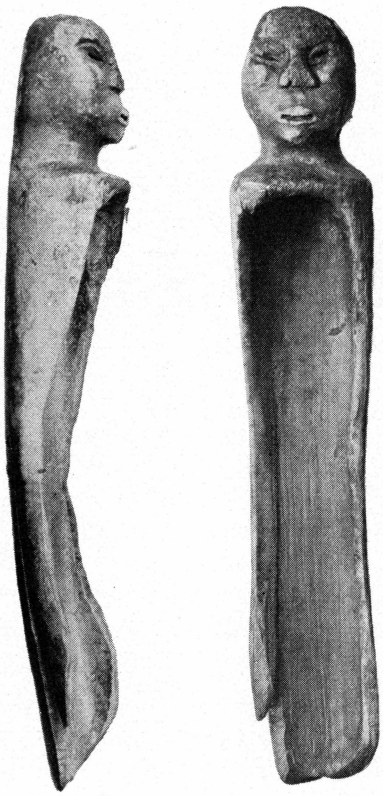


Fig. 92. Two-handed scraper of walrus ivory with a carved head (Ruin Island House 3 A).

Pl. 23.17 is quite a modern type with a curved iron blade and a wooden handle; it was found uppermost in Comer's Midden.

Two-handed scrapers.

Pl. 27.15 is a fragment of a long scraper *with a side edge, of antler*; in cross section it forms a V of almost 90°, though the outer side has retained the natural curve of the tine. At the almost uninjured end this scraper is cut off obliquely with a slightly rounded edge.

Fig. 92 is a peculiar scraper, formed of a whole *walrust usk* which has been carefully hollowed out and furnished with two concave scraping

edges like a two-handed scraper. At the root end is carved *a naturalistic human head* with slanting eyes, broad nose and powerful jaws with a very prominent mouth, but no ears. The other end of the implement is broken off, so it is impossible to say what form it had. The length is now 20.5 cm, the width 3.7 cm. It was found on Ruin Island in the passage to House 3. A, where it was inserted between the stones of the wall.—In the midden Inf. B. II we found a small fragment of a partly hollowed out piece of walrus tusk (L 3: 2168), as if it were an unfinished two-handed scraper.

Two-handed scrapers of walrus ivory are rather scarce, and therefore it is interesting that the National Museum has another specimen of this

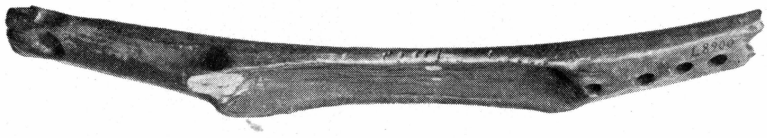


Fig. 93. Two-handed scraper of walrus ivory from the Thule District (Mus. No. L: 8900).

material (L 8900) from Thule, unfortunately without details of its finding, so that nothing can be said as to its age. It is shown here on fig. 93. The ends forming the handles are slightly flattened. At one end is a rather large hole, at the other a row of five holes; it is broken at the outer one. The length is 22 cm.

Seven two-handed scrapers are of *caribou metacarpus* like Pl. 27.6; the lengths are 19—15 cm. Pl. 27.2 is of *bearded-seal tibia*; five of these were found intact, 31—21 cm long, and eight fragments. One specimen L 3: 4991, from Thule House 21, is of the *tibia of a caribou*, and L 3: 11719 from Co. B seems to be of the *tibia of a musk ox*.

Of *bear ulnae* there are two specimens, shown on Pl. 27.3-4. Pl. 27.5 and L 3: 5826 are of *bear radii*, and L 3: 7366 of *bear femur*. Pl. 27.1 is made out of a *walrus penis bone*, as is L 3: 6184, which is peculiar in that it has a sharp-edged longitudinal groove in both sides. Finally, L 3: 5013 is a fragment of a side scraper of *walrus rib*; owing to the flat shape of the bone it seems to have only one scraping edge.

Cup-shaped scraper.

Three of these are of walrus ivory; one is shown on Pl. 24.2, seen from below, where in the middle of the base it has a curved, undercut groove for fastening a cord. A fourth (Pl. 24.1) is made from a piece of walrus skull; it is more oval in shape and flatter than the others.

Sewing requisites.

Needle. Three coarse needles may have been used for sewing. Pl. 36.1 is a flat specimen, made from a piece of a tubular bone (presumably of a bird) and having a long cut-out eye. Pl. 36.2 is of antler and round, with a drilled eye. L 3: 491 is also of antler, 7.5 cm long; it is oval in cross section and has a long eye in the widest part, about 2 cm from the now slightly defective, pointed head.

Bodkin. Pl. 36.3 is a pointed bird bone, 4 is made from a bird's bill; 5 and 6 and two others are of bone.

Of *ornamental bodkins* we found eight, of lengths between 10.2 and 5.7 cm; Pl. 36.13 is the largest, made from the point of a narwhal tusk and furnished with three very pronounced rolls, each with a flute; the head is defective. L 3: 4083 of bone, length 6.1 cm, is of similar shape; a hole is drilled into the head, which is also defective; the same applies to Pl. 36.11, which is of antler. Pl. 36.12, of narwhal ivory, has at the head a belt of seven small grooves, a thin neck and a rounded head. L 3: 8455 is a flaked-off piece of an ornamental bodkin with traces of twelve small rolls, the sixth being slightly broader than the others, which are thus divided into two groups. Pl. 36.10 is of wood with remains of seven small rolls.

Pl. 36.7-8-9 are "human bodkins", terminating at the head in a bust or small head, which on two is broken off. 8, which is of walrus ivory, has a long groove in each side, and 9, of narwhal ivory, has a hole beyond the middle and opposite it two knobs on each side. L 3: 11308 (Co. A 20.2) has a small notch in each side at the middle.

Boot creaser. Pl. 36.14-17 are four boot creasers, characterized by having one end obliquely rounded with a sharp edge. Nine of these were found, all rather crudely made; the lengths are from 18.8 to 4.7 cm; five are of antler, four of walrus ivory. Pl. 36.17 seems to be made out of a side prong for a bird dart, and L 3: 5465 from a salmon-spear barb. L 3: 5595 (Thule House 21.W) is a fragment of an implement of walrus ivory and with a thin, rounded, spatula-shaped blade which is sharpened at the end and at one side; possibly it is part of a boot creaser.

Winged needle case. Pl. 36.18 and 19 are the only needle cases found, both "winged", though the latter is unfinished. 18 is well made but without a trace of ornamentation; in the broad end the cavity widens out funnel-shaped.

Pl. 36.20 is a *thimble* of skin.

Thimble holder. Nine of these, whole or fragments, were found, eight of them shown on Pl. 36. Pl. 36.29 has only one *hook* and is made from a piece of the root end of a walrus tusk, so that it is very thin at the

suspension hole; on both sides are two parallel ornamental lines with alternating, triangular-cut spurs. 26 is of antler with two bow-shaped hooks on one side; the top is broken off. All the others are of the *anchor-shaped* type. 22 is almost trapeziform with a thin shank and a broader eye at the top; 21 is decorated with five small knobs. Pl. 36.24,25 and L 3: 11569 are three more coarsely made specimens, 25 of bone, the others of walrus ivory. Pl. 36.23 and 32 are also fragments of anchor-shaped thimble holders, both ornamented. 23 has on both sides marginal lines with alternating inturned pairs of spurs, and below is a double line with spurs on both pointing upwards. 32 is a flaked-off piece having on one side remains of ornamentation consisting of double lines with alternating spurs turned towards one another.

Spatula-shaped implement (*Dorset type*).

Nine of these were found, very painstakingly worked of walrus ivory or antler. Some of them are shown Pl. 1.21-24. 21 is of antler with a long, cut-out hole at the butt end; L 3: 2233 (Inf. Midden B. II) is a similar one of walrus ivory. Pl. 1.24 is of antler ending in a carved head, which seems intended to represent a dog's head. Four specimens, all of walrus ivory, are decorated on both sides with characteristic Dorset ornaments: a long stroke with several straight or slanting transversal strokes and ending in a lanceolate blade, as shown on Pl. 1.22. On the blade part are a few slanting strokes and dots—or as on 23, two small crosses. The edges of the shank have groups of two, three or four transversal strokes, and the shanks are pierced by a long hole parallel with the blade. Two fragments (L 3: 2162 and 2163) have small opposite knobs on the edge of the shank. Pl. 1.25 is a flaked-off piece, presumably from a similar implement; but it is more pointed at the butt and terminates in a very small animal's head. On the far side is a small notch, evidently the remainder of what originally was a transversal hole; the blade, however, has been sharpened and the implement seems to have been used in its present form.

Pl. 1.15 is also an implement of spatula form and a sharp blade, made out of walrus ivory but much heavier than those already described; the shaft moreover is crudely roughened over its entire surface. The use of these implements has not definitely been established, but the shape suggests that they are boot creasers or the like.

Household utensils.

Firelighter.

Eighteen pieces of *pyrites* were found, one shown on Pl. 31.18. Pl. 31.20 is a piece of pyrites let into a handle of antler.

Of implements for fire-boring we found a *fire drill* (Pl. 31.17) and three pieces of wood (*hearths*) with charred marks from fire boring; two

of them are shown on Pl. 31.16 and 21. 16 is presumably a piece of an umiaq, and 21 possibly of a kayak gunwale. Pl. 31.8 seems to have been made from a throwing board; it has three deep boring pits in one side and is probably a *pressure handle* for pressing the fire drill against the hearth.

Pl. 31.19 is a lump of *wick moss*. Two similar but smaller lumps were also found.

Lamps.

Simple stone lamp. Pl. 32.11 is a bowl-shaped piece of limestone used as a lamp; adhering to the edge are remains of rather coarse wick moss. At Cape Kent we found a number of smaller, bowl-shaped pieces of a red marly concretion, some of which bear traces of having been used as lamps.

Oval lamp of sandstone. Pl. 2.34 and 35 are two small oval lamps of sandstone which may possibly be included among the Dorset types. 34 is smoothly rounded on the bottom inside and bears signs of having had the wick at one narrow end; the height of the lamp is about 2 cm. A flake has been knocked off the underside, whereby the lamp stands more steadily. Of 35 one end is broken off; it is 3 cm high with the middle part of the underside made flat. The inside walls are ground out so that the two sides meet in a sharp edge in the bottom.

L 3: 5100 is an 11 cm fragment of a small, crudely made, oval bowl-shaped lamp of *soapstone*; the width is about 9 cm and the height 3 cm; the length may be estimated to have been about 14 cm. L 3: 2523 from Ruin Island House 5 seems to be a fragment of a similar lamp of soapstone.

Deep triangular-oval soapstone lamp without ledge. Only one fairly well preserved specimen of this type was found (see fig. 94); the original front edge is broken off and it can be seen that thereafter the wick was placed on the originally rear edge. The length is now 34.5 cm, the width 27 cm. In addition, we found ten larger and smaller fragments of similar lamps, some unfinished.

Seven fragments are lamps which seem to have been of a similar form but smaller and rather thin in the wall, combined with very careful workmanship in most cases; Pl. 32.4 is a front corner of one of these.

Soapstone lamp with knobs or ledge. Eight fragments, which can be identified with certainty, have a row of knobs at the front; they seem to have been fairly deep lamps that were relatively wide in proportion to the length (almost like the toy lamp Pl. 43.7); Pl. 32.1 is the largest of these fragments; 3 is from a smaller lamp of similar shape. 8 is of a large lamp, on which the outer knob extends as far as the edge. 6 has a

long, narrow knob—which perhaps should rather be called the half of a divided ledge. On L 3: 823 (Inf. House 5) is a pair of long and very low knobs close together and quite near to the front edge of the lamp.

Eight fragments of soapstone lamps have a very pronounced ledge at the front. In some cases the ledge goes right out to the side edge as on Pl. 32.5, in others the ledge is open at the ends as on Pl. 32.2. Presumably the shape was that of the toy lamps Pl. 43.8 and 11. Pl. 32.7 is a



Fig. 94. Soapstone lamp.

piece of a large and well-made lamp; on this the ledge is very high and narrow (2.3 × 1 cm) but is pierced by a hole at the under edge to permit of the oil running through.

Two fragments, Pl. 32.9 and L 3: 10423 (Co. A 15.11) have a very low ledge, or rather a step near the front edge. On two others (L 3: 3130, Thule House 4 and L 3: 7886, Thule House 21, midden) this step is still less pronounced.

As regards eight fragments it is impossible to determine whether there were knobs or a continuous ledge. The largest of these is shown on Pl. 32.12; here the knob—or ledge—seems to have been knocked off. L 3: 625 (Inf. House 3) has a notch in the upper edge of the ledge; the lamp was once repaired with a strip of copper and a baleen lashing.

Lamp of clay-like substance. Pl. 32.10 is a piece of a lamp which on the surface gives the impression of being made from a plastic material. The result of an analysis made by the Mineralogical Museum of the Copenhagen University was that to a great extent the body consists of

organic matter (which disappeared on being baked) mixed with fragments of talcum, and thus cannot be a natural soapstone. This then must be regarded as the most easterly occurrence of primitive Eskimo pottery, explained, however, by Th. Mathiassen's find of potsherds at Naujan[1]). A smaller piece was found at the same place (in Thule House 16), and another sherd of similar kind in Thule House 21.E.

Lamp stool. A fragment of wood, 19 cm long and 5.5 cm wide, mostly recalling a hollowed-out, shallow wooden bowl, but with a wide and flat out-turned rim is possibly a piece of a lamp stool (L 3: 9077, Co. A 11.12). A problematic lamp stool of baleen with three legs of wood is referred to on page 296; it is from Cape Kent House 2. In the same house was a wooden stick 13.5 cm long with a wide, sunk part near one end, as if intended to fit a similar baleen ring.

Lamp trimmer. Two sticks of *asbestos*, one 19.4 cm long, the other a 6.5 cm fragment with a rounded end, were presumably used as lamp trimmers. The same applies to two worked sticks of soapstone, oval in cross section, and a thin stick of slate 11.2 cm long.

Lamp trimmers of *wood* were found to a total of 866, forty-eight of them with an oblique groove as on Pl. 31.23, or a flat surface like Pl. 31.24 and 25, which have a groove or notch in the edge for tying to a handle (as used nowadays by the Polar Eskimos). Wissler's fig. 22, "wooden barb for a fish spear", is very like these lamp trimmers with an oblique groove. He mentions that "similar specimens were picked up at various places on the shore of North Star Bay and others from old house sites near Etah. Average 6 cm in length."[2]) This too seems to suggest that they are lamp trimmers, though no mention is made of their being charred. Only one handle with an oblique groove was found, shown on Pl. 31.22. L 3: 10251 (Co. A sq. 15.6) is a lamp trimmer with the end carved into a crude bust, and L 3: 7962 (Thule House 21, midden 28.5) ends in a head wearing a pointed hood.

Blubber pounders of antler, collected without particulars of the find combinations. None were found in the course of excavation, which suggests that it is a relatively late type in the Thule District. Comer's experience points in the same direction[3]).

Cooking pots.

Oval or much rounded soapstone. No intact specimen was found, but a quantity of fragments are of these cooking pots. In eleven fragments there are suspension holes drilled from side to side near the rim; Pl. 33.1

[1]) Th. Mathiassen 1927 I, p. 66 f.
[2]) Wissler 1918 p. 147.
[3]) Wissler 1918 p. 142.

is the largest of these, from a large and fairly thin-walled pot. On Pl. 33.2 two holes close together are drilled obliquely upwards towards the outer side and at the same time away from each other, so that there is a greater distance between the orifices on the outer side. Twenty-one fragments have one or two holes in an inside projection and drilled obliquely from the inside towards the upper edge, as will be seen on Pl. 33.5 and 7; the same applies to 9, of which the upper edge has a roll-like expansion on the outer side. From other twenty-one fragments of rounded pots it cannot be seen where the holes were or whether they had suspension holes at all. Three of these fragments, two of them shown on Pl. 33.6 and 8, have an inturned rim, and on 3 there is a fine line incised on the inner side 1.5 cm from the upper edge. 10, which is of an unfinished pot, has a deep groove cut in the outside, parallel with the rim; possibly this is an initial stage of a roll as on 9.

Pl. 33.14 is about half of an *oval bowl* of soapstone which apparently was never placed over the fire; it is quite rounded at the bottom and has a height of about 4 cm. In addition we found nine other fragments of small, thin-walled soapstone bowls, of which only two are blackened by soot.

Pl. 33.11 and 12, together with nine other fragments, are presumably parts of the same cooking pot, one that was oblong in form with rounded corners and outward-sloping sides. On the outer side a narrow, projecting moulding runs all the way round a little way from the upper edge, and in the corners are inside projections with two holes running obliquely towards the upper edge; in one of the fragments there is also a transversal hole, apparently made after the projection was damaged.

Foursided cooking pot. Thirty-one fragments are of soapstone cooking pots almost foursided in shape with plane or slightly convex sides and more or less rounded corners; the size varies greatly. Some of the specimens are shown on Pl. 33.13, 15 and 16. 15 has an incised line outside along the edge. Three fragments have exterior projections with holes running from the outside obliquely towards the upper edge; L 3: 7306 has projections on the inner side.

Pl. 33.4 is a fragment, from its appearance of a cooking pot which has a projecting, rounded ear on the inside. Ears of similar form occur on lamps from East Greenland. Dr. P. Nørlund, however, illustrates a piece of a cooking pot of soapstone from Brattahlid, on which the edge at the end is turned in and forms an inside handle—in contrast to the knob-shaped, outside handles on Norse cooking pots[1]). It is doubtful, however, if this has any connection with Eskimo forms of cooking pots. L 3: 295 (Cape Kent House 7) seems to be a piece of a flat, hoop-shaped

[1]) P. Nørlund and M. Stenberger: Brattahlid p. 122, fig. 82.

handle of a soapstone cooking pot. On the underside, in towards the opening of the hoop, are soot and crusts of food.

Several specimens are of repaired cooking pots. On L 3: 4029 are remains of a lashing with thin osier. L 3: 4726 (Thule House 19) and 7692 (Thule House 21. Midden sq. 27.4) had been jointed with narrow strips of copper.

In addition to all these pieces of soapstone cooking pots we found 297 unidentifiable pieces.

Meat tray.

Of oblong meat trays, hollowed out of one piece of wood, we found 172 fragments large and small. The largest (L 3: 614, Inf. House 3) is

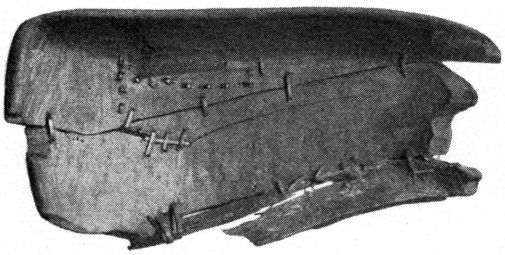


Fig. 95. Meat-tray of wood.

illustrated on fig. 95; the length is 33.5, the width about 15 cm. In several places it is lashed together with narrow strips of baleen, and a hole is repaired with a patch of skin on the outside, sewn on with strips of baleen too.

Bowl with baleen side.

Eleven bowl or cup sides of baleen were found, most of them fragmentary. L 3: 4491 (Thule House 16) is the largest; it had formed an oval tray, about 65 cm long, 40 wide and with a height of 12 cm; it is made out of a thick strip of baleen with the ends overlapping 21 cm and secured by two stitchings with baleen cord. At the lower edge the ends are also held together by a "stitching" with a length of thick thong drawn in and out through eight holes. At the upper edge there is only a single binding with baleen cord drawn through one hole and tied over the edge. At the undamaged end of the tray near the top is a hand-strap of baleen.

Pl. 48.2 is a small baleen cup, joined by two parallel seams; along the under edge is a row of small holes about 0.8 cm apart for pegging the bottom on. Pl. 48.1 is a tall cup; on this the overlap is about 3 cm but there is only one very coarse seam with large stitches which on the outside lie at right angles to the direction of the seam.

Six oval *bowl bottoms* or fragments are of bone. Pl. 34.2 is the best preserved. The largest has a length of 30.5 cm. A total of sixty-three are of wood, fourteen being so small that they must be called cup bottoms. The largest measures 29 × 20.5 cm, the smallest is 5.2 cm long; three of them are shown on Pl. 34.1,3 and 4. Pl. 46.14 is an oval bowl bottom of baleen. Four of these were found of sizes from 15.5 × 9.3 to 10.5 ×6 cm, besides eight small cup bottoms, 5.8 × 5.4 to 4.8 × 2.8 cm.

Tub stave.

In all we found seventy tub staves, from 19.7 to 5.5 cm long; the widths vary from 7 to 1.5 cm; some of them are shown on Pl. 34.21-25. 22 is very convex, and 24 and 25 have a groove at each end.

Coiled basket.

Pl. 34.19 is a small wicker basket, built up in a spiral with an almost imperceptible splicing of the ends. The coils are stitched together with flat osiers, the stitches constantly running in the direction of the spiral and in many cases pushed through the osiers, especially where a coil is a little thicker than the next one. The bindings are so arranged that they look as if they radiated from the middle of the bottom, though every other one begins only at the sixth coil; where the bottom ends other bindings are inserted, somewhat irregular in distribution but all continuing up to the upper edge of the basket. This is the first find of "coiled basketry" of prehistoric times in Greenland and came from Inf. House 12.

Bone rim for skin vessels.

Thirty-five fragments of smooth strips of bone have a row of holes like that on Pl. 35.5; one piece, 40 cm long and 1.7 cm wide, has pairs of holes at 4—5 cm intervals near one edge.

Six round bone rods of lengths from 29.5 to 12.4 cm with one end constricted are possibly *ribs* for skin barrels. On the intact specimens the other end is cut off obliquely as on Pl. 35.21. 23 has a sharp-cut cyindrical tenon. Pl. 35.22 and 24 are similar rods of wood; seventeen of these were found, their lengths being from 19.5 to 6.7 cm.

Edge mountings.

Twenty-four bone strips with a row of holes can be seen to have been edge mountings; the widths vary from 1.2 to 0.45 cm. In cross section the upper side is convex and the under side more or less concave, several of the strips having a deep longitudinal groove in the under side. Pl. 35.1 is the longest specimen found; this and L 3: 7458 are the only ones of antler, all the others being of bone. In 4 the groove in the under side has a sharp bottom; 7 is a very narrow mounting. Some of these may have been used for kayak paddles, or for wood tubs.

Of thirty-two flat strips with holes it is impossible to say much more than that they are mountings of some kind; of these twenty-three are of antler, eight of bone and one of walrus ivory. The most outstanding are shown on Pl. 35.10-15 and 27-28. 10 has already been referred to in connection with "kayak gunwale" (page 231), 13 seems to be a knife handle, and 27 and 28 bear some resemblance to backings for bows on back and belly respectively.

Carrying stick or similar.

Pl. 48.13 is possibly a carrying stick of baleen for a long skin bag or the like; the same applies to ten others, though most of them are longer (the longest measures about 67 cm). At each end of these sticks are two opposite notches of characteristic shape, and on some the ends are bent as on Pl. 48.16 and 46.24; at the middle the latter has a width of only 0.9 cm, increasing gradually to about 1.8 at the ends. Pl. 48.15 besides 2×2 notches has a small knob at the end.

Pl. 12.11 is a slender, slightly curved stick of walrus ivory with defective ends; the cross section is square with rounded corners and in each side is a deep longitudinal groove which occupies almost the entire width; possibly this was a carrying stick too. The same may perhaps be said of Pl. 12.22 and 23, which are of wood and apparently were scarfed end to end. From Thule House 1 there is also a handle or hoop of wood about 17 cm long (L 3: 2818) with a flat-oval cross section and slightly concave on the underside, so that it is thinnest at the middle. At the intact end on the underside there is a shallow, rounded transversal groove. L 3: 2842 from the same place is a fragment of a similar handle.

L 3: 5391 from Thule House 21. E is a *baleen handle* about 26 cm long, made out of a strip of baleen bent over and whipped except at the ends, thus leaving a loop. One end is defective. Pieces of similarly whipped baleen handles were found in Inf. House 1 (L 3: 409), Inf. House 16 (L 3: 1528) and Co. A 17.3 (L 3: 10716).

Ladle.

Some of the small bowl-shaped marly concretions mentioned under „Lamps" found in Inglefield Land may have been used as ladles or the like.

Ladle of musk-ox horn. Pl. 34.8 is a ladle of this kind with a small, crudely shaped handle. 7 is a fragment of a ladle of more rounded shape and with a careful surface treatment, so that the thickness is only about 0.2 cm, increasing a little rearwards where the handle is placed; a fracture has been repaired with a whipping of sinew thread. L 3: 2421 (Ruin Island House 3. A) is about half of a short but broad ladle; the length (without the handle) is about 6.5 cm whereas the width seems to have

been about 16 cm. Finally, L 3: 1610 (Inf. House 17) is a fragment 9 × 3 cm in size.

Ladle of wood. In all we found fifteen, most of them fragmentary. Pl. 34.5 is in the best state of preservation; it is a long, oval ladle with a short handle. Pl. 34.6 is a part of a flat-bottomed ladle with a broad, pierced handle. L 3: 3654 is a fragment with a foursided handle 5 cm long which terminates in a rounded head almost like Pl. 34.11; on 15 the head has a bowl-shaped depression, and on 14 the underside of the handle forms a step. Pl. 34.13 is a very small and very roughly made ladle of wood, possibly for cultic purposes; 12 is a fragment of a small thin-walled ladle.

Pl. 34.9 and 10 are two fragments of *soapstone* ladles with a short, lumpy handle divided from the bowl by a groove.

Spoon. Pl. 35.16 is a flat spoon of antler with the handle emerging abruptly from the bowl. On Pl. 35.25 the bowl merges smoothly into the handle which consists of two rounded, parallel stems with a basin-shaped head; 20 must also be of a spoon with a pierced handle. On L 3: 4218 (Thule House 16) the blade merges smoothly with a short handle 2.5 cm wide and with a large round hole in the middle. Pl. 35.17 is a very small, elongated spoon of antler. In addition, we found a small fragment of a spoon bowl and a crudely made spoon-shaped piece of antler 16.5 cm long and about 7 cm wide. From Comer's Midden Mathiassen illustrates a piece of a spoon of musk-ox horn[1]).

Pl. 35.26 is a flat spoon or *spoon-shaped implement* of walrus ivory with the bowl only slightly hollowed out; it is something like the spatula-shaped implement Pl. 1.15 (page 260), but unlike it has a faint curve.

Pl. 35.18 and 19 and L 3: 2636 (Ruin Island House 6) are wooden sticks with one end thinned off flat and rounded; presumably these are *marrow extractors*; they are very slender, however. L 3: 5664 and 5973, both from Thule House 21.W, are two wooden sticks 7.2 and 5.2 cm long, with one end shaped like a small flat spatula or spoon bowl with a faint hollow in one side.

Sucking tube.

Pl. 34.16 is the only specimen found, fragmentary; it is of narwhal ivory, carefully smoothed and furnished with a rolled rim at the end; the tube widens out slightly like a funnel at the mouth.

Meat stick.

Forty curved meat sticks are made of ribs; some of them are shown on Pl. 31.9,11 and 13. Sixteen other meat sticks or blubber forks are of

[1]) Mathiassen 1927 I, Pl. 78.11.

antler—or in one case of the core of a musk-ox horn; two are shown on Pl. 31.10 and 12. Pl. 31.26 seems to be a blubber fork of antler with two small barbs on one side, one on the other. L 3: 5470 (Thule House 21. E) is a curved stick, 15 cm long, made of a musk-ox horn core and with a small barb on the convex side. Fig. 103.7 (L 3: 844, Inf. House 5) is of antler with a long point at an angle and also seems to have been used as a blubber fork.

Pl. 31.14 and 15 are two *blubber forks of wood* with barbs, the latter with a collar-like expansion a little way from the butt end. L 3: 2779 has

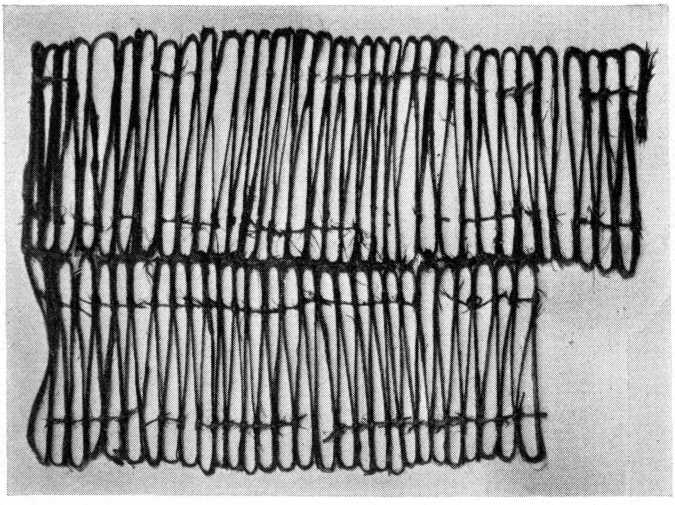


Fig. 96. Baleen platform mat.

similar barbs at the fore end, but the shank is plain. L 3: 11658 is a broken fore end with two staggered barbs.

Pl. 47.9,10 and fig. 108.15 (L 3: 11504) are presumably meat sticks of *baleen*, and Pl. 47.11 and fig. 108.16 (L 3: 3483) blubber forks; the former of these forks has a sharply delimited handle and a wide point, the latter has two notches in each side.

Hooks.

Pl. 30.18-21 are various hooks of antler, the largest no doubt having been used as meat hooks. Eight in all were found, of lengths from 30 to 9 cm. On Pl. 30.20 the shank end is roughened on all sides; 19 is a curious hook-shaped implement. Pl. 30.17 is a small hook of bone; it is well made and has an elongated suspension hole; it is presumably a pot hook.

Drying rack.

Pl. 47.1 is an *oval* drying rack, 53 × 33 cm, made out of a strip of baleen 3.5 cm wide with a loose network of baleen cords. Another like

it (L 3: 2566, Ruin Island House 5) is about 70 × 45, and L 3: 4745 (Thule House 19) is 120 × 70 cm. Seven smaller pieces were also found. Fig. 107.2 (L 3: 7595 and 7945, Thule House 21. Midden) are two related fragments, doubtless from the end of a *four-sided* wooden drying rack. Six fragments have similar elongated holes; one of them (L 3: 2639) is from Ruin Island House 6, the others from Thule House 21. E, W and midden.

Platform mats of baleen.

Thirty-seven large and small remnants of these mats were found; the largest is shown on fig. 96 and measures about 75 × 54 cm; it is composed of two belts of bent-over strips of baleen 1.3 to 1.5 cm wide.

Clothing, toilet articles, etc.

On Ruin Island we found some pieces of seamed *gut skin*, some of which are presumably of a gut-skin jacket, others possibly of window panes; similar pieces were also found in Thule House 21. E. In Ruin Island House 3. A were also pieces of a *bird-skin coat* or shirt, and something that looks like a piece of a kayak-jacket; but it has been impossible to make any more definite identification of these fragments.

Boot. In Cape Kent House 2 was a boot sole (L 3: 129), crimped and with toe and heel bent well over; size about 19.5 × 10.5 cm. It is patched with two additional soles, the inner one covering only the forward half, whereas the outer one is laid over the entire underside; both are worn through. Inside, especially at toe and heel, is a layer of matted fur—seemingly of hare, and over this a layer of sealskin which apparently belongs to the upper part of the boot. The whole thing is very fragile and was found pressed together, so that the various layers are difficult to separate. Another boot sole (L 3: 5149, Thule House 21. E) of thick sole skin is well bent over and crimped at the toe, but less so towards the heel. Along the upper edge is a remnant of the upper, which seems to have been of unhaired sealskin and cut off close along the seam; at the heel, however, is a remnant of a sewn-on piece of hairy sealskin with the hairs inside; a seam can be seen at the heel. In each side of the sole almost at the middle is a small slit for the lace. The size of the sole is about 21 × 11 cm. L 3: 8255 (Thule House 24) is a small piece of a boot foot with an upper of sealskin, on which the hairs are outside—and turning from the toe upwards, to judge from a strip of the sole attached. At the instep is a wedge-shaped piece sewn in, the point about 6.5 cm from the toe so that one seam is obviously medial, whereas the other runs obliquely backwards at an angle of about 60°

with the medial seam. All the seams, including those in the sole, are of overcast stitches— i. e. they are not watertight seams. L 3: 8328 (Thule House 26) is a piece, about 16 cm long, of the upper part of a boot upper of watertight skin with a hem through which is drawn a cord of thick, plaited sinew thread. Here a seam runs down the back, somewhat unsymmetrically in relation to the two lace holes. The hem is formed of an extra strip turned over and sewn on to the upper edge of the boot.



Fig. 97. Mitten.

Mitten. Fig. 97 (L 3: 986, Inf. House 6) is a mitten of caribou skin with the hair inside; the length is about 18 cm, the width towards the wrist about 11 cm. The outer side consists of one piece of skin which at the finger end is crimped and lapped around the finger tip with an overlap of about 3 cm. The palm is made from two longitudinal pieces 2.2 and 7.5 cm wide, sewn together; the latter piece continues in a broad tongue forming the inner side of the thumb. The wrist part of the inner side of the mitten and the outer side of the thumb are formed of two other pieces with a seam joining them along the outerside of the thumb; the outer piece is lengthened rearwards by a strip 2 cm wide. At the back the outer side of the mitten is crimped somewhat together, and here there is a sewn-on border 3 cm wide and turned over so that the hairs are outside. The outer part of this border consists of a sewn-on strip 0.7 cm wide which at the outerside of the hand is gored in from both sides, and here a piece about 6 cm long is missing. L 3: 2033 (Inf. House 30) is a severed finger-stall of unhaired skin; it is sewn out of one piece with a seam along one side and the hairy side turned inwards. At the end of the seam is a small sewn-on piece with the hair side outwards.

Cap. Fig. 98 (L 3: 8238, Thule House 24) is possibly a remnant of a skin cap of a similar, almost truncated cone-shape as that used nowadays among the Netsilik Eskimos. The side piece is a piece of skin about 55 cm long with fine, slightly curly hair (musk-ox calf?); the long edges are curved outwards, so that the greatest breadth, about 17 cm, is at the middle, whereas the width at the ends is about 8 cm. On the outer 10 cm of one end the hair is worn off, apparently by wear. At the worn end and one long side except the outer 8—10 cm at each end there is a

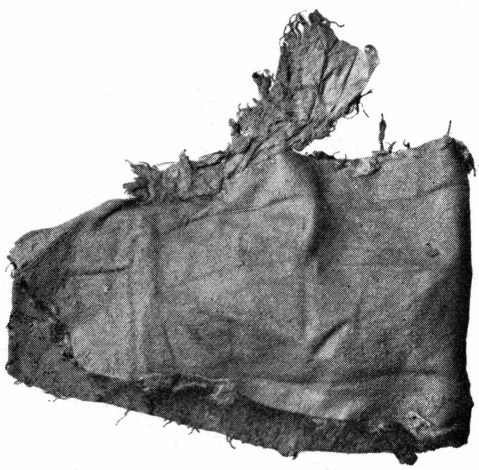


Fig. 98. Skin cap (?).

distinct trace of a seam with sinew thread, and to the same side a piece of hare skin was sewn on — though little is left of it now; thus its original shape cannot be determined, but its position suggests that it was the crown of the cap. On the opposite long side, i. e. presumably along the under edge, there is also a seam with traces of sinew thread for a length of about 16 cm nearest the worn end, as if a piece had been stitched on there.

Baleen wool. Was found in twelve different places.

Snow goggles. Pl. 38. 1 is the half of a pair of snow goggles of bone, 2 is a fragment, of wood.

Buttons, buckles etc. Pl. 37. 26 is a *bone button* consisting of a small bone furnished with two oblique holes. 23 is a slightly convex button of walrus ivory with a curved, cut-out thread hole in the underside; L 3: 2420 is a similar one, but with a drilled hole. 24 and 25 are similar buttons, but unfinished; on the former the two uppermost on the figure are almost finished but not yet separated; on the latter the buttons are marked off by deep incisions; one is drilled through and broken off and afterwards

tied to the piece with sinew thread. 27 is a "winged" button with a central hole and pointed ends.

Pl. 38.6-12 are various *buckles* or the like, all of walrus ivory with the exception of 9, which is of bone. 10 and 12 end in a bust, whereas 11 is made in the shape of a whole human figure.

Pl. 38.5 has most probably been used in conjunction with a towing line (cp. Nelson 1899, fig. 46, p. 172 and Pl. LXVI); it is a well-made specimen, carved in the form of a *bear's head.* From the underside a large round hole runs out towards the oblique and broad end, and separated from the latter by a thin, partly pierced wall is another cut-out hole just as wide but shallow. From each of the bear's ears a spur-line runs rearwards, where they meet another spur-line that follows the curved rear edge of the specimen.

Pl. 38.14 is a *tubular button* or something similar, of walrus ivory. 13 is also of walrus ivory, cylindrical with a double-concave profile on the outside and decorated with three double lines.

Pl. 38. 15-18 are four different forms of the so-called "*winged buckle*", all of walrus ivory. On all of them the cylindrical part is pierced by a wide drilled hole. On 16 and 17 there is at the middle a round transversal hole not bored quite diametrically and debouching just above the "wings". In the same manner 15 has three shallow cut-out holes; one half of the originally symmetrically bipartite "wing" is broken off. On the outer side of the wing are two small ornamental knobs, and it can be seen that there was a similar arrangement at the now defective end. The cylindrical part of the buckle is adorned with four transversal, now almost erased double lines with opposite, alternating spurs; the two inner pairs of lines seem to have continued down over the wings. 18 has no transversal holes and on one side of the cylinder has two projections, on the other side two crudely carved and only partly separated human figures.

Snow beaters.

Of bone. Pl. 31.1-2 are two snow beaters of bone; the latter one is broken and was afterwards used as a scraper. Three broken handle ends with a unilateral end knob are presumably from similar snow beaters.

Of baleen. Baleen snow beaters were found to a number of 123, of lengths between 90 and 30 cm, in addition to fifty-one fragments on which the shape of the handle cannot be determined. A number of different types are shown on Pl. 45 and 46.

Nine are crudely fashioned with a slightly narrowed handle like Pl. 45.14. Eleven have a faintly shaped asymmetrical handle with a rudimentary unilateral end knob as on Pl. 45.1, and nineteen have a

distinct unilateral end knob like Pl. 45.2 and 3. On three the inner side of the knob is concave, and two of these also have a suspension hole like Pl. 45.4.

Twenty-three baleen snow beaters have an asymmetrical, curved handle, in most cases vigorously shaped and widened out at the butt; Pl. 45.5-10 are the most characteristic shapes. Three have a narrow handle without an end knob but with one or two suspension holes like Pl. 45.13, and on a large number the butt is symmetrically widened; of these twenty-three are shaped like Pl. 45.11,12,15 and 18.

Pl. 46.1,2 and 3 have a symmetrically widened, obtuse-angled or rounded butt, but in addition have a large round suspension hole; twelve of these were found. On three others the suspension hole is triangular as on Pl. 46.4 and 8, and on Pl. 46.5 it is a long oval with a triangular cut anteriorly. Three specimens have a concave butt end as on Pl. 46.7, and Pl. 46.6 and a similar specimen also have a suspension hole.

Whereas the above snow beaters are mostly broad, sword-shaped, there are some baleen sticks which decrease evenly in width towards the tip. Pl. 46.22 is of the most simple form possible, while four others have a unilateral end knob like Pl. 46.23. Pl. 46.21 has a single, rounded finger notch, and five other sticks of this kind have a whole row of finger notches, as shown on Pl. 46.9.

Baleen stick.

Finally, we found thirteen long, slender baleen sticks which along the part near the handle increase evenly in width towards the butt. At a distance of 4 to 8 cm from the butt end is a hole, in which several of these sticks still have a thick hand loop of baleen cord. On seven of these the hole is round, on Pl. 46.10 and 12 it is oval, and on Pl. 46.11 it is sub-triangular. In a baleen stick 49 cm long from Inf. House 16 (L 3: 1526) there is only a small round hole, and the butt end is narrowed slightly; this may possibly have had a different purpose.

Comb.

Of the fourteen combs and six fragments found no two are alike; most of them are shown on Pl. 37. Eight of the combs and three fragments are of walrus ivory, the remainder of bone.

Pl. 37.2 and 3 are the only ones with a narrow handle; 4 is made from a snow-knife blade. A single crude comb of bone (L 3: 2985) has a trapeziform handle, and Pl. 37.8 is almost trapeziform, but with concave sides and end; it has a large triangular opening and is ornamented on both sides with lines of spurs; the spurs are placed in pairs, but their arrangement is slightly different on the two sides of the comb. Pl. 37.11 is rounded at the top and the handle is pierced by numbers of narrow

slots forming a curious pattern. Pl. 37.1 is the only one with a distinctly hexagonal handle, whereas 5 has the rear end strongly constricted and ends in an almost square plate. 10 has concave sides and an obtuse-angled rear end with a large, almost circular hole. 6 and 13 have double-convex sides, the former with a large round hole, the latter with a narrow one and a knob level with the hole on both sides; the rear end too once ended in a similar knob. L 3: 10836 has some resemblance to these but is defective and has a small hole in the lower part of the handle, while two

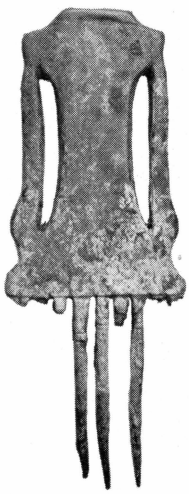


Fig. 99. Comb, walrus ivory, from the Thule District.

unfinished combs (L 3: 1357 and 11174) have cuts in the side, suggesting a similar shape. Pl. 37.7 is a small fragment with double spur lines.

Pl. 37.9 has a sharply oval handle with five openings forming a "human-like" figure, and right out at the tip is a small elongated hole. On the side shown in the picture a double spur line runs right round at the edge, and in the anterior triangular area are two short incised lines. On the other side the spur lines halt at the opening but continue at one edge in a single line with some faint transversal lines; in the anterior field there is a small, irregular, enclosed figure, consisting of an outline with five spurs pointing obliquely inwards.

Fig. 99 is a comb of walrus ivory, previously brought to Denmark from the Thule District but without particulars. On this too the handle seems intended to represent a human figure, though the head is missing; the almost separated arms are strongly suggestive of this interpretation.

Mirror.

Pl. 36.27 is an oval piece of dark mica framed in a strip of skin, of which the edges on both sides are drawn in over the edge of the mica

and gathered with a sinew thread; there can scarcely be any doubt but that this was used as a mirror.

In addition we found forty-two large and small pieces of mica, fourteen of them shaped, in several cases distinctly in the form of a heart like Pl. 38. 33. With the exception of two they were all found in Inglefield Land.[1]).

Ornaments etc.

Brow band. Pl. 38. 3 is a brow band of antler, made out of a strip which at the middle is about 0.3 cm thick and 0.75 cm wide, with rounded edges; towards the ends it is slightly narrowed and flattened to about half the thickness. At one end is a small hole, the other end being defective.

Pl. 38. 4 is a strip of brass 0.03—0.05 cm thick; the width at the middle is 0.5 cm, at the ends slightly less. A cord of plaited sinew thread is secured through a hole at each end.

Beads. Pl. 37. 21 is a small flat bead of *soapstone*, 28 is of *amber*, and 20 is of four *fish vertebrae* drawn on to a thin baleen cord.

Of *pendants* we found eleven of various shapes, some of them being shown on Pl. 37. 32 is of walrus ivory, almost oblong trapeziform; 12 is of antler, round, with a small projecting edge below. 33 is spherical with a long thin stem, and 17, which is of clorite, is similar in shape. Pl. 37. 30 and 31 are two curious "winged" pendants, both of walrus ivory; below the latter is ornamented with a serrated line, and in the end is a long-oval pit with a sharp bottom. 16 is a flat pendant of yellow calcite; in thickness it is 0.7 cm. A flat rounded disk of soapstone (L 3: 6272) with a hole in the centre is presumably a pendant too; it once had a narrow stem, but this is now broken off.

Pl. 37. 18 is a *chain pendant* of walrus ivory, consisting of four links, from which hangs a larger, forked piece with a foursided pendant linked into the end of each branch. 19 is an unfinished specimen with incisions for two chain links and a longer, cylindrical piece ending in a "head". 29 is a single, handsomely profiled chain link, also of walrus ivory.

Bear tooth pendant. Twenty-four bear canines have a hole drilled through the root end; in two cases only the hole is drilled obliquely from

[1]) The mirror as a culture element has not previously been observed in Eskimo archaeology, but a mica mirror was found in Northeast Greenland by the Danmark Expedition—regarded, however, as a pendant by Th. Thomsen (Th. Thomsen 1917 p. 456). This mirror (L: 4078 from Rypefjeld, Tent-ring 549) consists of an almost oval plate of black mica, measuring about 4.7×3.8 cm resting on a piece of skin, of which there is now only a small remnant. On the back of the skin, sewn on in a spiral, is a thick cord of caribou hair held together by the sinew thread with which the cord is sewn on. Unfortunately the tent ring produced nothing to assist in dating the find.

the side to the end. Pl. 38.29 has a well-polished surface. On 30 the tooth lies in a piece of the jaw bone, which is smoothly rounded. L 3: 3215 is the anterior broken-off half of a bear tooth which once had a hole at about the middle, nearest the convex side. On L 3: 3348, which is a broken-off point, a hole is drilled through the fracture surface; the edge of the hole shows that it was drilled after the tooth was broken.

Twenty-eight other teeth have a suspension hole; some of them are shown on Pl. 38.19-28. Of these 26 is an incisor, 27 and 28 are molars of the bladder-nose seal (*Cystophora cristata*), which very rarely occurs in the Thule District. 19, 20, 22 are of white whale (*Beluga leucas*) and 23 is the canine of a fox (*Alopex lagopus*). 21 is a bear incisor, and 24 that of a dog.

Sundry ornamented objects.

Pl. 37.22 is an ornamental plate or the like of walrus ivory, sharp-oval in shape and with slightly convex sides; in each end is a small notch and at one end a hole besides. The more convex side is decorated with numbers of drilled-in dots, all forming an ornament consisting mainly of three longitudinal stripes along the middle, a transversal stripe across the middle and a denser field at each end.

Pl. 1.26 is another ornamental plate of walrus ivory, made from a thin piece of the root end; it has long slits in it, altogether representing a human face. The eyebrows, moustache and hair are rendered by means of small dots in "chip carving". At the top is also a long hole, and traces of others can be seen at the sides, where the outermost edge is apparently flaked off. The technique suggests that this plate too has some connection with the Dorset culture.

Pl. 36.30 is a peculiar carved piece of walrus ivory with a cross section that is narrow, rounded trapeziform; the broad end is cut off square, the other with three rough cuts. Below are two small transversally placed knobs and above one, and at the middle of each side runs an incised line with opposite, alternating spurs.

Pl. 36.31 is also of walrus ivory, 1.2 cm in thickness. One side is flat, the other convex with a broad, divided knob at one end; the other end has a fracture surface as if the specimen had been broken off a larger object.

Pl. 36.28 is also of walrus ivory and of almost uniform thickness, 0.95 cm. Near the broken end is an opening like a key-hole, and cut into each of the peculiar extensions on the sides is a broad groove with a sharp bottom. Three coarsely incised "dot and circle" ornaments are placed on the side shown in the picture.

Pl. 36.33 is a flat piece of walrus ivory about 0.7 cm thick, four-sided in cross section; it is broken at the ends and severely weathered, especially

especially on one side. On the side shown in the figure is *an incised hunting scene* (fig. 100): in an umiaq, of which the side is filled up with a longitudinal line and close transversal lines, sit four people; a fifth stands in the bows with raised weapon, presumably a whaling harpoon, which he holds in both hands. In front of the umiaq is something apparently intended to represent a harpoon bladder, and behind are some lines that suggest that the scene was continued there. Above and below the space is delimited by a line along the edge, the upper one with depending, inverted Y-figures. There is a similar row of Y's along a short distance on the opposite side, the remainder of which is entirely weathered. The narrow side above has marginal lines with inturned, alternating spurs.

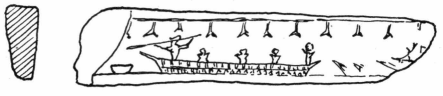


Fig. 100. Piece of walrus ivory with incised drawing of umiaq.

This is the only object of its kind ever found in Greenland, but Th. Mathiassen found a similar one at Kuk on Southampton Island[1]).

Pl. 1.17 is a small, kayak-shaped wooden stick with typical Dorset ornamentation on the upper side and groups of transversal lines on the two side edges. At the middle of the underside a small hole is cut obliquely out to each side.

Games and toys.

Games.

Ajagaq. Five ajagaqs are of *seal humerus*, of which part of the ridge is cut away. The largest of them is shown on Pl. 39.1; around the middle the sinew thread is tied, by which the stick has been attached. On a defective specimen (L 3: 2027, Inf. House 30) there is also a sinew thread, and on the others there is a roughened belt at the middle. In Pl. 39.1 there is a drilled hole intended for catching on the stick, but foramen supracondylare must have served the same purpose, as Porsild has already pointed out[2]). This is now confirmed by Pl. 39.2, on which this hole is fractured but replaced by a solid eye formed of a strip of baleen, and on L 3: 3292 (Thule House 5 N) two holes are drilled in for the attachment of an eye of this kind after the natural cavity had been destroyed. The obvious conclusion to be drawn is that it was the natural hole in the bone that originally made it suitable for the game of ajagaq.

Eight ajagaqs are of *seal radius*, like Pl. 39.3. In two of the specimens there are several holes instead of one large one; these two have no hole for securing the cord.

[1]) Mathiassen 1927 I, p. 251, Pl. 72.5.

[2]) M. Porsild 1915 p. 229.

Pl. 39.4 is apparently an ajagaq of *seal penis bone*; the ends are broken off.

Ten pointed sticks, 11.5 to 7.7 cm long, are *ajagaq sticks*; three are of wood, three of antler, three of bone and one of narwhal ivory. Pl. 39.7 is of wood with a remnant of the sinew-thread cord, 6 is of antler, made out of an arrow head, and 5 is of bone with a groove nearest the pointed end. The latter and the three of antler have a thin point compared with the others.

Several *scapulae* were found with a hole in the thinnest part; in some at any rate the hole seems to have been knocked in. In this connection it should be mentioned that it is still known among the Polar Eskimos as a trial of strength to knock a hole in a scapula with a blow from a knuckle.

Gambling bones of seal phalanges like Pl. 39.22-23 were found to a number of 131. Pl. 39.24 and 25 are two imitations, carved out of walrus ivory.

A thin thong forming a loop (L 3: 3760, Thule House 10) with a length of 50 cm, was doubtless used for making *string figures*. No *game men* have been identified positively, but some flat, foursided pieces may perhaps have been used as such. L 3: 516 from Ing. House 2 is of baleen, L 3: 4705 from Thule House 19 of walrus ivory, and L 3: 9433 from Co. A sq. 12.8 of wood.

Carved animal figures.

Fifteen were found, and some are shown on Pl. 38. 32 is a roughly carved *whale* of walrus ivory. 36 and 41 are two *seals*, also of walrus ivory, the former with a small suspension hole in the rear end, presumably for hanging on a needle case. 40 and 42 are two seals of wood, the latter with the belly flat. On 40 a very narrow, long hole is cut from belly to back. Pl. 1.18 is possibly intended to represent a seal too; it is of wood and adorned with Dorset ornamentation. Pl. 1.16 is a carefully carved *bear* of walrus ivory. Pl. 38. 35 and 38 also represent bears; the former has a well-shaped head, bent-up tail and anus; the hind legs are separated, whereas the fore legs embrace a round hole for a cord. The same seems to have been intended with an unfinished figure (L 3: 4244) and possibly with Pl. 38.38. Pl. 49.21 is a bear figure of baleen. Pl. 38.34, of walrus ivory, presumably represents a *dog*; the legs are not separated. Pl. 38.39 is a dog figure of wood, and 37 apparently a *fox*, likewise of wood. Pl. 38.31 is a peculiar *bird figure* of walrus ivory with a prominent, sharp breast bone; on the back just below the neck is an irregular depression.

Dolls.

Of wooden dolls we found 96 plus 17 whose special features defy classification. There are also seven dolls of walrus ivory, one of bone,

one of soapstone and one of baleen. With two exceptions they all have a flat face and no arms, or only short stumps. Several have a natit incised. A number of different types are shown on Pl. 40.

Pl. 40.1-4 are wooden dolls of simple form without feet; forty-two of these were found, of lengths 11 to 3.5 cm. On 4 the lower part of the abdomen is sharply prominent and whipped with sinew thread placed in a deep groove, and in the back is a shallow longitudinal groove. 5 and 6 are of walrus ivory and 7 is of bone. 28 represents a sitting person and is carved out of a walrus molar. 11 is distinguished from the others in having incised facial features.

Ten wooden dolls, all without feet, are of the curious long type; Pl. 40.12,13 and 14 are the most characteristic.

Six dolls of wood of the simple type without feet have a toupee as on 16,22 and 23; the hair is arranged in a double curl on the top of the head (as among the West and East Greenlanders, but contrasting with the modern Polar Eskimos who have the curls at the nape of the neck). On two similar dolls feet are indicated, on a third the upper edge of boots, and on Pl. 40.15 both feet and boots; the same applies to 21, which is of walrus ivory.

Twenty-four wood dolls, three of which are shown on Pl. 40.8,9 and 10, have feet or boot edges, the latter in most cases indicated only at the back. 8 has an amulet strap of sinew thread, and on 9 one arm stump is fastened on separately. On this latter specimen alone the boots seem to reach much above the knees, as at the back they are indicated by an edge at about the middle of the thighs.

Seven dolls of wood have coat and hood—or only the latter. On L 3: 6448 (Thule House 21, Midden) the coat is cut square below; on Pl. 40.19 it is almost straight in the front but somewhat lengthened at the back; this doll also has a sinew thread tied round close under the arms. On Pl. 40.18 the coat is equally lengthened back and front; this figure seems also to be wearing short, wide trousers like those of the present-day Pond Inlet Eskimos. The other four are distinctly female with high hoods. Pl. 40.27 is the only carefully made one of these, but it can be seen that the coat at the front has an almost rectangular, rounded flap reaching down to about the middle of the thighs; at the back the flap reaches down to the heels, and above the lower part of the hood forms a small pouch on the back; apparently this is intended to represent the amaut drawn up over the head. Pl. 40.24 is a small, crudely carved figure with a high, pointed hood, and 25 represents a female with a loose hood and a child in the amaut. L 3: 7962 is a lamp trimmer, 10.5 cm long, carved at one end into a head with a pointed hood; the facial opening is suggested by a slight depression.

Pl. 40.17 and L 3: 3865 (Thule House 11) are two wooden dolls with the arms close to the body.

Pl. 40.20 is a human figure of walrus ivory, *carved naturalistically* with an extraordinary sense of the plastic. To all appearances it represents a female—an elderly woman, judging from the facial features, though the stature on the whole is masculine. It is "in the nude", with carefully modelled details and kept within a certain monumental whole; but around the head there is a peculiar collar or hood, open at the top,

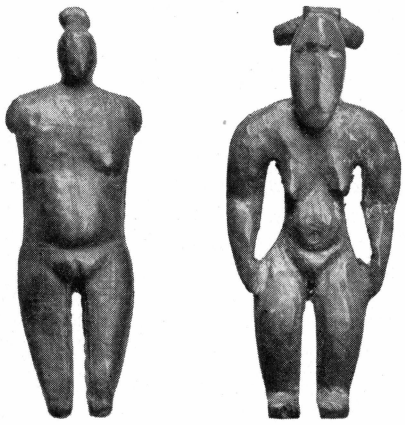


Fig. 101. Two figures, walrus ivory, from the Thule District.

inside which the head is carved with the features of the face. The hair is indicated by lines which show that it was drawn tightly upwards, but without giving the figure a suggestion of a toupee; the eyes are aslant, the nose flat and the mouth large and prominent, wide open as if to shout (or perhaps the mouth is supposed to be toothless?). The arms are partly separated from the body, and the thumbs are indicated on the hands; breast nipples and navel are represented by dots. Below each elbow on the arms is a transversal line as if to suggest a bracelet, and at about the middle of the thighs at the back there is another transversal line, by which the top of the boot is often indicated. The soles of the feet are flat so that the figure can stand. A figure of walrus ivory from Thule, similarly naturalistic in style but of much coarser workmanship is in the National Museum (L 3: 12031). It is shown here on fig. 101 by the side of a figure of the more traditional form without arms.

Pl. 40.29 is a crudely carved human figure of soapstone, and Pl. 49.16 is a doll of baleen.

Pl. 40.26 is the split-off half of a small doll of wood, evidently representing *a Norseman*; the head is missing, but the edge of the hood

is quite distinct, falling over back and chest. The lower part of this doll is made up of an enormous pair of boots.

Of the unidentifiable specimens L 3: 9684 has an oblique groove as on a gull hook, and L 3: 6620 is a lamp trimmer of partly human shape.

Tops.

Pl. 42.4 is the only *top disk* of bone. Pl. 42.9 is of walrus ivory with a flat underside and convex upper; it is decorated with four "eyes", placed rather irregularly about the central hole. One is drilled right through and filled with a bone plug; the other three, which are at equal distance apart, are not drilled through and each contains a wooden plug, in the middle of which again is a bone plug. In the centre hole is a remnant of the pivot, which seems to be of oak.

Pl. 42.8 is an oval disk of soapstone, 2 cm thick, with a rounded edge; a circular line is incised at one side between the hole and the edge.

Twelve oval top disks are of baleen; Pl. 48.11 is one of them with the pivot in place. The largest of the disks measures 12×9, the smallest 4.5×3.6 cm; the latter has an 8 cm pivot which just above the disk is wrapped with a belt of sinew thread 1 cm wide. Pl. 48.10 is a piece of a top disk of baleen with a serrated edge.

Ten loose *top pivots* of wood are between 13.3 and 5.1 cm long; three of them are shown on Pl. 42.5,6 and 7.

Pl. 48.12 is possibly a *propeller-shaped buzz* of baleen; it has no holes, however, but two opposite notches in the edge at the middle.—A buzz of walrus ivory is figured in Wissler, fig. 31 b.

Sundry toys or miniature objects.

A *toy harpoon head* of wood (L 3: 1079), 5.4 cm long, is of the type Thule 2. Pl. 41.23 and 24 are two small *foreshafts* of bone, the latter of a more recent type with a sharply offset tenon. Pl. 41.34 and 35 are small *toy harpoons* of wood, both with a thinly flattened butt; the former has a foursided point and about midway a small offset as a "finger rest", the latter has a barb, in front of which the point is broken. Three small toy weapon heads of *baleen* are like Pl. 48.18, except that two of them have a hole instead of a notch; the lengths are 8—5.7 cm. Pl. 48.19 is a longer form with 2×2 barbs, and on 20,21 and L 3: 2426 there is a long row of small barbs on each side. Possibly these are intended to represent heads for bladder darts. Pl. 48.7,8,9 and 17 are made from a single strip of baleen with a shaped point and two or more barbs. Of this type we found nine, from 71 to 21.5 cm long; on seven of them there is a finger notch or an offset as on 7 and 8, and on 8 the butt end is bent over with the point inserted through a hole, forming an eye. Three of the largest specimens are only crudely made and have a finger notch, but with no

proper head. To Pl. 48.17 is tied a thin baleen cord at the butt end to represent a line. Pl. 48.5 and 6 are no doubt intended to represent *toy lances* or the like; the latter has a handle at the butt end. A side prong for a *toy bird dart* is of wood (L 3: 11319) with a powerful inside barb; the length is 6.3 cm. Two similar prongs are of baleen as on Pl. 49.19; a third, Pl. 49.18, has two inside barbs; it is possible, however, that the latter is supposed to be a leister prong.

Pl. 41.18-22 are small *toy bows* of wood. Eleven of these were found, though three only are complete; the lengths of these are from 16 to 10.5 cm. On the whole they are very carefully made and are detailed miniatures of a "grown-up" bow. 18 is constricted at the middle with a corresponding thickening of the middle section, and the end is narrowed off as on 19; at the end is a remnant of the string, made of sinew thread. 20 still has the entire sinew-thread string in position, and 21 has a close whipping of baleen cord a little way from the end. For bows of baleen, see p. 211.

Twenty-two *toy arrows* of wood have a distended fore end with a rounded or blunt, conical point as on Pl. 41.26,28 and 29; only two are whole, however, the others being broken-off fore ends. Three small arrows have their fore end shaped like a lanceolate blade as on Pl. 41.30 and 31. A number of small arrows were probably used by children for shooting ptarmigan and the like; of loose bone heads for these arrows we found twelve, from 11.5 to 6 cm long; some of them are shown on Pl. 41.36-40. They are either round or have a tip widened out into a lanceolate head; at the butt they have a pointed tang, in some cases with two small knobs; 37 and 39 alone are barbed. Only two entire arrow shafts were found, one of them being shown on Pl. 41.27, but there are four broken-off fore ends, twenty-two rear ends and ten other fragments; some of the butt ends, however, would be of toy arrows without a separate head, as on Pl. 41.32 and 33. The former of these has a triangular piece of skin placed in the split shaft to act as a "feather", behind which the shaft is whipped with sinew thread. L 3: 9082 from Co. A sq. 11.12 is doubtless a toy arrow of baleen. It is about 20 cm long and has a small cleft in the butt; the fore end is lanceolate.

Of *toy sling handles* of wood we found twelve, whole and defective, of which some are shown on Pl. 42.11,12,13,27,28 and 29; the last three have a well-made handle. One small sling handle (L 3: 5184) is of baleen, 9.5 cm long, with a narrowed handle and two notches at the fore end.

Eight *toy sledge runners* were found, four intact ones having lengths from 19.6 to 12 cm. Pl. 41.2 is curious in that it has "dovetail" mortises for the cross slats; all the others have lashing holes—on Pl. 41.1 and 3 with remnants of baleen cord. Pl. 41.3 and L 3: 4177 had been provided with shoeing, fastened on with small pegs. L 3: 7145 (Thule House 21.

Midden) is alone in having an extra pair of holes at the back, showing that the sledge must have had upstanders. Of *sledge cross slats* there are five of bone; two are shown on Pl. 41.4 and 6. Twenty-three are of wood, the whole ones being 12—6.5 cm long; some are shown on Pl. 41.5 and 7-10. Pl. 49.28 is a cross slat of baleen; at the narrower end are two drilled holes, at the other 2 + 2 holes; here the end has been shortened by drilling. Another specimen (L 3: 9993), which is also drill-cut at the ends, is 10.2 cm long and 3 cm wide. Pl. 41.11-14 are four toy *upstanders* of wood; the first three have the curved shape of West Greenland upstanders, the last one is like those now in use among the Polar Eskimos. Pl. 41.15-17 are apparently three butt ends of *toy whip handles* of wood, a fourth is like 15. Two specimens (L 3: 3228 and 4487), one of which is about 23 cm long, are much thicker and presumably were once actually children's whips. A slender stick of baleen, slightly pointed and with traces of notches at the end, 22 cm long, is possibly a whip shank too. The same applies possibly to L 3: 11440 from Co. A sq. 21.2. It is 17.5 cm long and broadest at the butt end, where on one side there is a notch for the thumb; at the fore end are two opposite lashing notches.

Pl. 42.1 is a *toy umiaq* of wood, carefully hollowed out; two holes in the wood are closed with wooden plugs, and at one end is a whipping with sinew thread which passes through a small hole at the middle and in a groove round about one half of the end. Pl. 42.14 is a very small, coarsely fashioned model of an umiaq with long "horns"; at about the middle of the upper side is a transversal groove. Pl. 49.22-24 seem to be three partly defective umiaqs cut in profile in baleen; the oblique points represent the women rowers.

Pl. 42.15-19 and 21 are various forms of *toy kayaks* of wood; ten of them were found, six of them solid, four hollowed out. Most are of a rather short and broad form. Pl. 42.19 is unusually flat, 1.9×0.8 cm at the middle, where on the upper side it has a transversal groove; on four others the corresponding ratio is about 8:5. 15 and 21 differ from the others in having a high stem (?); 15 is the more remarkable; with its curved deck and long beak it recalls the kayak of the Caribou or Netsilik Eskimos; at the same time it is very narrow, the greatest breadth—which is at the high end—being 1.2 cm as against a height of 0.9; the length is 13.7 cm. At the widest part, 5 cm from the end, is a small hollow scratched in the wood, no doubt to represent the cockpit. 18 is about the half of a hollowed-out kayak; at the middle close under the gunwale are four small incised depressions as if to receive deck beams. Pl. 49.25 represents a kayak of baleen.

Pl. 42.2 and 3 are two hollowed-out *boats* of wood. They seem too clumsy and tall in structure to represent kayaks, and on the other hand they lack the features that characterize an umiaq. 2 is the more like

a kayak, and at the middle of the bottom has a hole as if for a mast; the other is a deeper craft (breadth 3.6, height 2.5 cm) and flat bottomed.

Of *toy paddles* we found fifteen fragments, presumably all of kayak paddles. Twelve are rounded at the middle and have a broad, pointed blade like Pl. 42.22,23,25 and 26, whereas three, Pl. 42.24, L 3: 649 and 5157, have a narrow blade which passes smoothly into a foursided middle.

Pl. 42.10 is a miniature *ulo handle* of narwhal ivory. A small *snow beater* of baleen is 28 cm long with a narrowed handle, and two smaller ones are like Pl. 49.32 with a unilateral end knob. It is possible that 17 and 31 are also snow beaters. One toy snow beater is of wood, sword-shaped with a bilateral end knob and 13 cm long.

Toy lamps were found to a total of 38, five of them being atypical hollowed-out pieces of soapstone; the most regular specimen is Pl. 43.5. Pl. 43.1 is a stone with a natural depression (marly concretion), and lines of blubber and remnants of wick tell that it was actually used as a lamp. Pl. 43.2,3 and 4 are lamps of a short, broad type without a ledge. Of these we found thirteen, of lengths between 7.1 and 2.8 cm; the well-made ones have a deep bowl-shaped cavity like 2. Pl. 43.7 is a deep basin-shape but with a divided ledge; another (L 3: 5801) is like it but not of such good workmanship. Three lamps of distinctly short form have at the front a ledge that is open at both ends like Pl. 43.8 and 11. Seven others, longer on the whole and of a more shallow form, have the ledge running right out to the sides and placed farther back from the front edge, as on Pl. 43.9 and 10, whilst on 12 the ledge is right at the rear. On one specimen (L 3: 4731, Thule House 19) there is at the front a step to support the wick, and Pl. 43.13 is like the more recent Polar Eskimo lamps. Pl. 43.6 is a small piece of soapstone shaped like a basin, but flat on the top and no cavity; possibly it represents a lamp or a bowl.

Of twenty-six *toy cooking pots* of soapstone three are merely crude representations. Pl. 43.18 is a low, almost circular pot, and 14 is a similar one, but of coarser make; L 3: 5326 is of the same character. Six specimens are distinctly oval, such as 20 and 21; the former is the only one of this type with suspension holes; the lengths are from 6.8 to 2.85 cm. A small oval cooking pot (L 3: 52, Cape Kent House 2) has a crudely incised line on the outside. Fourteen are whole, defective or unfinished four-sided pots like 15,16 and 19, with lengths from 10 to 3.1 cm. In four of them there are suspension holes in the corners; L 3: 4975 and 11086 have at each corner a small groove on the outside, from which the hole is drilled obliquely in towards the rim. 17 is a fragment of a rounded pot with a suspension hole at the middle of the end.

Finally, thirteen round or oval *pebbles* 5.7—2.1 cm were possibly used as playthings; some of them, however, bear barks of wear on the surface and may have been employed for softening skins.

Objects associated with intellectual culture.

Drums.

Nineteen fragments of profiled strips of bone are undoubtedly from *drum frames*, four of which are shown on Pl. 35. 2, 3, 8, 9. The profiles, in some cases vigorous in form, are shown in fig. 102. Particularly noteworthy are the first four with the sharp ledge, which one assumes was turned upwards against the drum skin. The widths are from 3 to 1.2 cm. It is difficult to explain the purpose of the sharp ledge uppermost on the inner side (the concave side). It looks as if an extra, thinner ring had been laid in there—perhaps in order to provide special tension or a different note? L 3: 6022 (Thule House 21. Midden) is a fragment of a

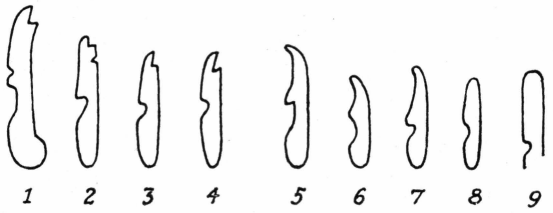


Fig. 102. Profiles of drum frames.

wooden ring 1.8 cm wide, oval in cross section, with a longitudinal groove in the convex side, perhaps a part of a drum too.

Of five oval drum frames of baleen four are almost all of the same size, about 27 × 23 cm; the width of the ring is 2.5—2.7 cm. Pl. 47. 5 is one of these with the wooden handle partly preserved. The fifth is a little larger, about 35 × 30 cm and with a wood handle 11.5 cm long, lashed on with baleen cord. All these have a deep groove along the middle of the outer side. L 3: 734 (Inf. House 4) is a strip of baleen only 1.3 cm wide with a longitudinal groove in one side and two notches in one edge. Possibly this is from a drum too, and if so it is the only one found in Inglefield Land except Ruin Island. Apart from these we found two fragments of baleen frames and five loose wood *handles*, 8.5—5.5 cm long; two of them are shown on Pl. 39. 13, 14. Pl. 39. 12 is a *drum stick* of bone, Pl. 47. 3-4 two of baleen.

It is possible that L 3: 7703 (Thule House 21. Midden) is also a drum handle, but it differs from the others in being tapered towards the butt end; its length is 9 cm. The same applies to L 3: 9567, 9602 and 10470, from Comer's Midden layers 6, 7 and 4. Moreover, L 3: 7352, 7427 and 7478 bear a certain likeness to the last-named; they are from Thule House 21. Midden; but at the fore end, opposite the transversal groove, they have a shallow, concave cut and no lashing groove; the lengths are 10—13 cm. It is credible, however, that they were employed for some other, unknown purpose.

Amulets.

Of the twelve *small baleen knives*, of lengths from 14.2 to 6.3 cm, seven are like Pl. 39.10-11, with a sharply offset, unsymmetrical blade; three of them are tied together with sinew thread. Two others have a similar handle, but a symmetrical, lanceolate blade. Pl. 49.27,29,30 are three other small knives of baleen.

Pl. 39.9 is a piece of white, granular *quartz* around which is tied the end of a baleen cord; on one side the cord forms a loop, to which the other end of the cord can be tied. Until recent times the Polar Eskimos used to tie a stone of this kind round the necks of dogs; the stone must have come down with a landslide, as often happens in spring, they say. Among the Iglulik Eskimos the women were supposed to wear a white quartz stone on a cord around their foreheads in whaling time[1]).

Pl. 39.15 is a strip of sealskin, partly bent over and sewn together lengthwise, with the hairs inside (possibly a piece from a set of dog harness); to it are tied two small bags of bladder skin with contents that are indeterminable, as well as a large bead of antler and a tuft of animal sinews. This can scarcely be anything but an amulet. The same holds good of L 3: 11026, a small flat stone and some stone splinters in a case of sealskin, 6.5 cm long and 2 cm wide, with the hairs inside.

It is possible that two split-off pieces of *bear maxillae* served as amulets. Pl. 39.8 is one of them, with a canine tooth and four incisors and a diminutive tooth immediately behind the canine. The other piece (L 3: 2999, Thule House 3) is exactly similar.

Amulet box. Pl. 39.18 and 21 are two amulet boxes, of wood, and 20 and 19 are a box with its lid. Six boxes of this kind with one compartment were found, 7.15—3 cm in length. 17 is a similar box but with two compartments, one larger than the other. 16 is in the form of a kayak, but is divided into three compartments by two partitions, one of which is broken; just forward of this one there is a deep cut in each edge; presumably it is an amulet box. Pl. 42.20 seems to be a fragment of a similar box, but with only one partition.

Sundry materials and unidentified objects.

Thirty-eight pieces of *skin thong* are of various thicknesses and lengths; three have a baleen line fastened to the end, and one is tied in a knot around two folded pieces of baleen line. A thick piece of thong (L 3: 904) forms a loop about 33 cm long which in turn ends in a smaller one, about 5 cm long; close to the latter loop the thong bears marks of severe wear or pressure.

Fourteen different pieces of *plaited sinew thread* were found.

[1]) Knud Rasmussen 1929 p. 188.

L 3: 1137 a and b are two series of *quill ends*, the one inserted into the other; the former is 6 cm long and consists of six pieces, the other 5.2 cm with only four. We also found four stripped quills and one with only one side stripped. A black feather has a piece of the shaft split off on one side and the outermost part of the vanes are cut off. Finally we found a bundle of twenty-two whole, white feathers.

Pl. 49.20 is a piece of *four-strand plaited baleen*; two other pieces are similar.

Of 177 large and small *soapstone sherds* the greater part are fragments of lamps or cooking pots, with some unfinished specimens among them, whereas the others are formed in various ways; some are ground and have apparently been used as scrapers. Two oval disks, slightly tapering towards one end (L 3: 5933 and 468) have a groove in the edge like patching plugs; they measure 3.8×3.4 and 4.2×3.3 cm. A small piece (L 3: 5082), 2.8×1.3 cm, has been given a deep cleft in the end like the nock of an arrow shaft.

Objects of bone etc. Several hundreds of indeterminable bone objects were found, the great majority being fragments, unfinished objects, or partly worked raw materials. Among them are many pieces of large whale bones which one supposes were used for sledges, tents etc., possibly in the construction of houses too; only the more characteristic specimens will be described here.

Fig. 103.8 (L 3: 5371) is formed out of a flat piece of thick whale bone and is 66 cm long and 21 cm wide; at the ends are hewn opposite, coarse notches, and at each end there is also a large, elongated hole. Possibly this is the "lintel" of a tent doorway. Fig. 103.5 (L 3: 1990) is of a whale rib and so worked that it is 59 cm long and 4—5 cm wide; the thickness is mostly about 3 cm except at the somewhat thicker ends. About 5 cm from each end is a transversal hole, and near the middle of the specimen are two more holes about 4 cm apart. It is possible that this is a rib from an umiaq. A somewhat thicker fragment, 33 cm long (L 3: 3451) is similarly but more crudely shaped and has a large elongated hole 8 cm from the thick end.

L 3: 2942 is 54 cm long and semi-circular in cross section, 5.5 cm wide. At one end on the curved side is a ledge to support a lashing; at the other end is inserted a bone peg with a rounded, pyramid-shaped head projecting about 0.6 cm on the same side as the lashing ledge. Along one side there are five obliquely placed pairs of holes, some with remains of pegs, and signs of similar holes can be seen at the ends; originally this object would seem to have been used as a sledge runner.

Fig. 103.3 (L 3: 1397) is a rounded piece of bone 23 cm long, with one side flattened and four broad, sunken belts across the curved part.

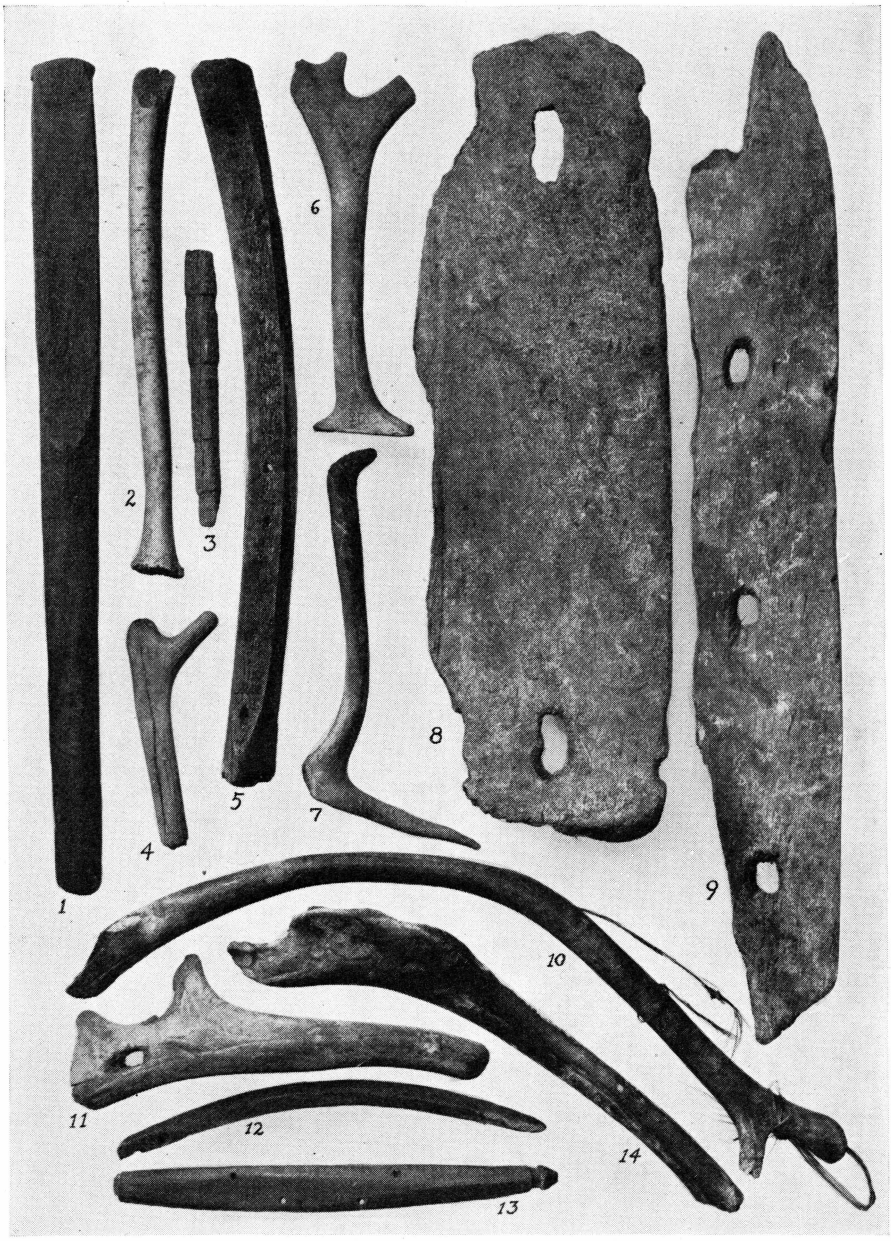


Fig. 103. Objects of bone, some unidentified.

Fig. 103.1 (L 3: 2962) is a slightly curved piece of whale bone 69 cm long and 5.5 cm wide at one end, which terminates in two small projections; the width decreases to about 4 cm at the other end, which is rounded. The cross section of the greater part of this object is flatly oval, about 2 cm thick, but towards the broad end the bone is cut flat,

making a scarf face 32 cm long. Fig. 104 (L 3: 2367) is a whale rib, 110 cm long, with a powerful baleen lashing at one end; possibly it is part of a roof construction. Two other pieces of whale bone (L 3: 1570 and 3564) have looser bindings of baleen.

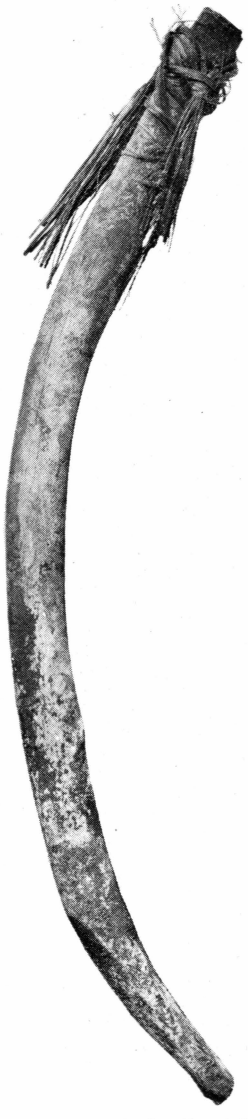


Fig. 104. Whale rib with baleen lashing.

Fig. 103.14 (L 3: 909) is a cut-off piece of antler 47 cm long, with the tines removed from the broad end and the severed edges rounded; it seems to have been a club or the like. In one side is a small depression as well as incisions showing that the object had been used as a cutting board, though this was scarcely its original purpose. Fig. 103.4 (L 3: 903) is also a piece of antler, 19 cm long; the two branches at the top are rounded—seemingly by severe wear.

Fig. 103.2 (L 3: 2954) is a piece of a walrus penis bone, 42.5 cm long, the thick end cut off obliquely and furnished with a narrow notch about 1 cm deep. In the surface are small, scattered transversal notches. It looks like a flint flaker or the like; the notch may have been used as a kind of pincer for trimming tiles of flint or slate. Something of the same kind may apply to the next two objects. Fig. 105.1 (L 3: 3555) is of a piece of antler cut through longitudinally and cut into wedge-shape at one end, where there is also a deep, narrow notch, Fig. 106.8 (L 3: 1707) is a flat piece of walrus ivory 5.5 cm long, with a groove 1.1 cm deep in the broader and thicker end.

A tube of narwhal ivory 27.2 cm long (L 3: 3601) with an outside diameter of about 2 cm has a carefully smoothed surface and one end cut square with a rounded edge; the other end is broken off. A rather curved piece of antler 13 cm long (L 3: 8340) has the upper part of the convex side cut off and the spongious part removed, leaving a deep and wide channel that curves downwards towards the ends.

Fig. 105.10 (L 3: 2422) is a piece of a bent strip of musk-ox horn about 2 cm wide; it has the form and size of one of a kayak's ribs nearest the stem.

Fig. 106.1 (L 3: 4686) is a round bone stick with a thick, four-sided pyramidal point; at the other end it has a scarf face and a roughened

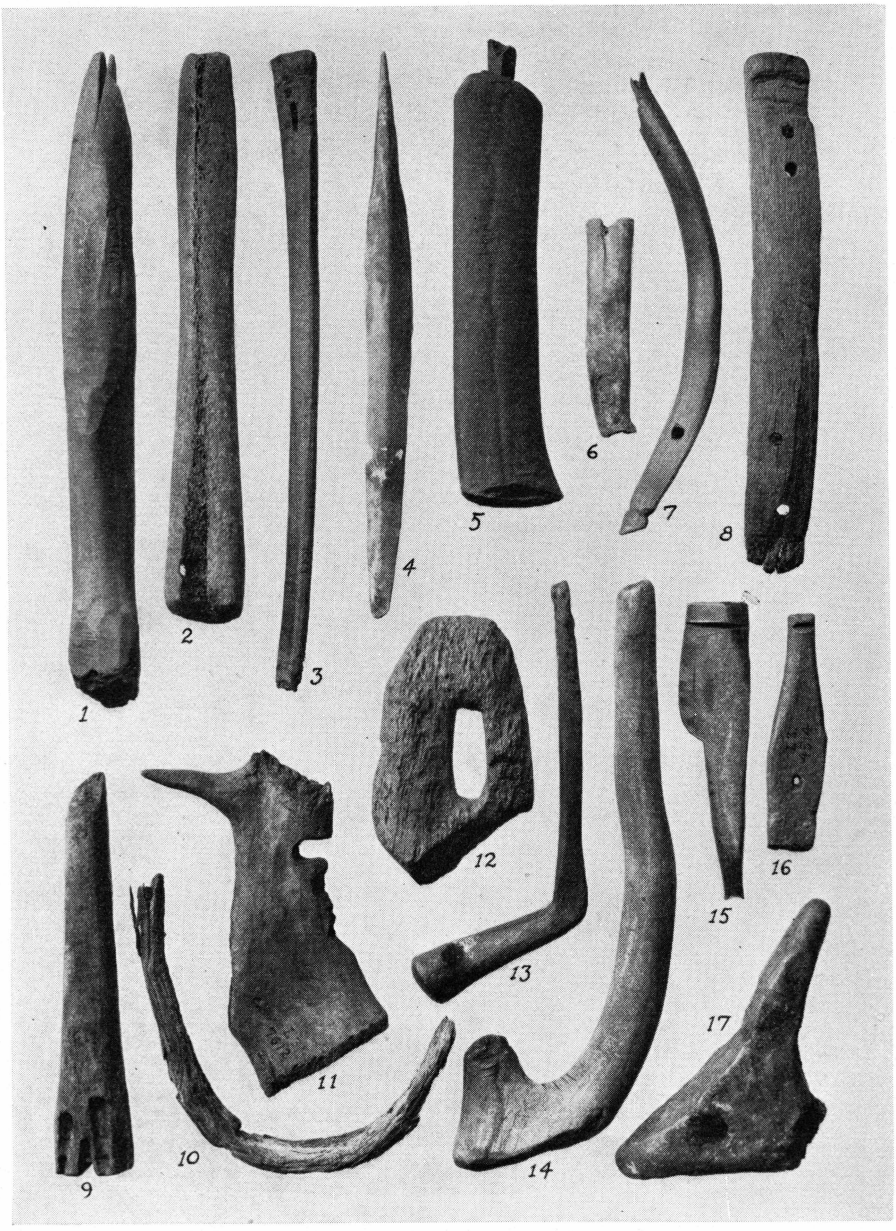


Fig. 105. Objects of bone etc.

surface. Fig. 106.3 (L 3: 821) is of antler, 11.5 cm long, oval in cross section and with a narrowed, flattened point; at the other end is a short scarf face and coarse roughening. Fig. 106.21 (L 3: 2128) is a piece of antler worked flat, 7 cm long, but broken at the butt; the fore end is flattened, and in the edge are small notches close together.

Fig. 106.9 (L 3: 794) is a 15 cm slender point of walrus ivory, flatly oval in cross section, though the butt end is three-sided with a narrow side and opposite this a sharp edge; at the butt end are small notches in the sharp side, as if the object had been lashed to a shaft. It is noteworthy, however, that the scarf face (on the right of the figure) is in line with the edge. The fore end has a small projection at the tip and a flat seating for a lashed-on blade.

Pl. 106.4 (L 3: 482) is a piece of walrus ivory shaped cylindrically with a slightly curved, tang-like point; in the top of the square-cut end is a drilled hole 0.7 cm in diameter, in which is a remnant of a wooden stick. Fig. 105.3 (L 3: 1043) is a stick of antler 22.5 cm long with a small elongated hole near the broad end; the other end is defective. L 3: 364 is a similar object, but thinner and more curved. Fig. 105.11 (L 3: 7612) is a curiously worked piece of antler, 12 cm long, with a projecting point at one end; in the opposite end is a notch 1 cm deep and 0.7 cm wide, as well as two round notches which seem to be finger grips; this may possibly be a combined thong smoother and marline spike. Fig. 105.15 (L 3: 2794) is another curiously shaped piece of antler, 10.5 cm long. The broad flat part has sharp edges, and a little way from the end is a sharp-edged transversal groove, the bottom of which runs in a straight line from edge to edge. The narrower part of the object is rounded and at the end has a concave notch.

Fig. 105.16 (L 3: 4514) is of bone, 8.3 cm long and 0.8 cm thick; out at the rounded end is a transversal notch, and in the broad part is a drilled hole; nearer the broad end are some faint notches, showing that the object was lashed on to something. Fig. 105.6 (L 3: 8396) is a piece of very crudely shaped antler 7.7 cm long. One end has a cleft, the other a shallower, concave notch and a small knob on the side.

Fig. 105.12 (L 3: 8943) is a thick piece of whale bone with a large, elongated hole with rounded edges; below this is an oblique fracture surface. Fig. 105.17 (L 3: 8239) is the most of a heavy hook or similar object of bone with a hole drilled through; one end is broken off. The object seems to have been lashed on to something, possibly a pole, and is rather reminiscent of the boat-hooks of the Western Eskimos. Fig. 106.15 (L 3: 7374) is also of antler and resembles a finger rest; the under side is flat and oblique, and at each end the object has a small hole, one containing a remnant of baleen cord. Fig. 106.5 (L 3: 4044) is a piece of a cut-through walrus tusk 6.4 cm long, rather wedge-shaped and with a hole at the thin end; at the other end it is cut away to form a half, sharp pointed funnel.

Fig. 106.16 (L 3: 10083) is of walrus ivory, 5.1 cm long and resembling a small foreshaft, with two staggered transversal holes; in the square-cut butt end, however, is a drilled hole and at right angles to it

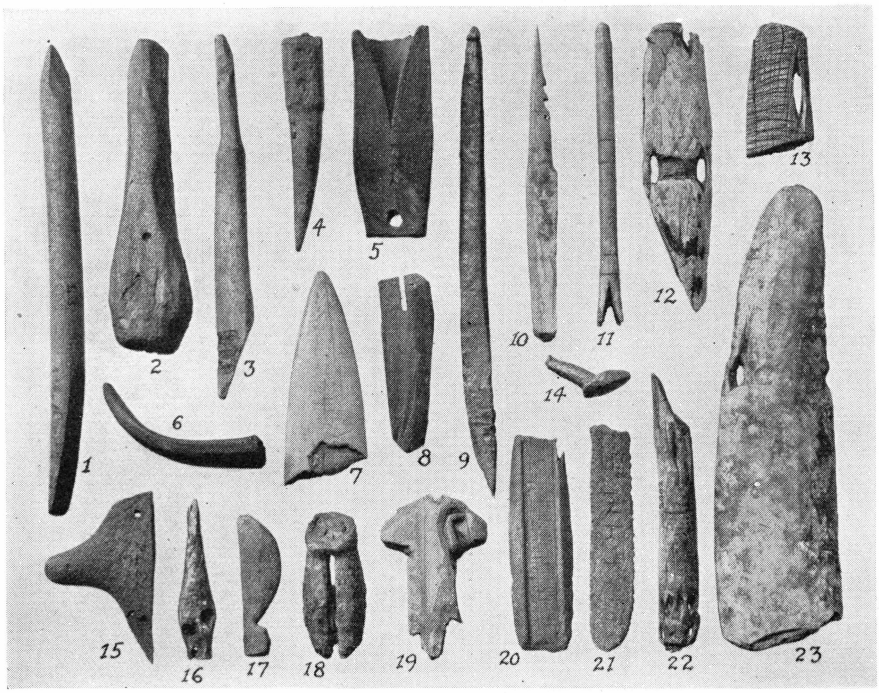


Fig. 106. Objects of bone, etc.

a small transversal hole, as if the object had been used as a ferrule on the end of something. Fig. 106.18 (L 3: 6269) is a peculiarly shaped walrus molar with an elongated hole which continues in a deep groove out towards the cleft root end. Fig. 106.19 (L 3: 2132) is a remarkably shaped piece of walrus ivory, 5.2 cm long, but the lower end is broken off. At the other end is a pair of "wings", one of which has a relief-like carving. On the side not shown in the picture the "winged" part is somewhat concave, whereas the other part is convex. Fig. 106.14 (L 3: 3781) has the shape of a tenon with a broad, slanting foot; this too is of walrus ivory. L 3: 10632 (Co. A 17.2) is a flat piece of bone about 11 cm long and 1.9 cm wide, with two notches in one end, thus producing three coarse teeth; the outer one is broken off.

Fig. 106.17 (L 3: 8632) is of antler, flat, with a rounded edge on the convex side; length 4.5 cm. Fig. 106.12, 13 and 23 are three flat pieces of walrus ivory with elongated, cut-out holes. 12 (L 3: 2050) is 9.2 cm long and has two transversal holes connected on one side by a shallow groove; at the upper, broken end are traces of similar holes; the other end is cut off obliquely. Possibly this is part of a sledge shoe; the object has a Dorset stamp about it. 13 (L 3: 394) is a fragment with an elongated hole at one edge and one side covered with cross hatching. 23 (L 3: 5424) is a fragment 14.5 cm long, presumably of a snow-knife blade.

Fig. 106.22 (L 3: 2082) is a stick of walrus ivory 8.7 cm long, shaped with a thin point at one end; near this end is a shallow gouged canal. At the other end is a small, elongated hole at each side, and behind them is an entire belt of curved, gouged canals which all converge, forming something like an inside gallery with nine outward "windows"; they seem to have been carved more as a proof of dexterity than anything else.

A caribou mandible (L 3: 3638) was found with a baleen cord tied to the anterior end, and a vertebra (L 3: 4826) has a baleen cord tied with a knot through one of the orifices. In Thule House 19 was a flat stone, 54 × 19 cm, with a baleen cord tied round one end.

Of bone and other objects cut by drilling a row of holes close together we found only a hundred or more—a very small number compared with the extent of the whole material. Most of them came from Comer's Midden and Thule House 21 with its midden. The cause must lie in the relatively easy access to iron, which made it possible to make good knives.

Objects of wood. Large numbers of pieces of worked wood are without much systematic interest beyond the fact that they show that wood was very widely employed in the making of implements. The more characteristic are shown on fig. 107. 9 (L 3: 371) has the shape of a bow brace, but has a transversal groove and an elongated pit in the upper side. 1 (L 3: 87) is a stick 31.2 cm long with a small barb-like projection at one end, which is slightly frayed by wear; the other end is a little flattened. 7 (L 3: 8487) is a round stick with one end pointed; near this end is a small knob-shaped projection; possibly this is a blubber stick. 4 (L 3: 4298) is a flat stick with one end in the shape of a sharp spatula. 14 (L 3: 91) is a flat piece of wood with three transversal projections, between which the thickness of the object is only about 0.5 cm. 10 (L 3: 8796) is also flat and has a four-sided pit in one side; level with this pit there is a notch in each side, connected by a groove with the opposite side; it looks almost like a kind of amulet box. 5 (L 3: 2024) is a spade-shaped piece of wood 1 cm thick with two pairs of transversal grooves in each side. 13 (L 3: 11387) is a powerful hook or the like, and 12 (L 3: 5035) is rather like a side prong for a toy bird dart. 8 (L 3: 7031) is the broken end of a round wooden stick 1.7 cm thick with the end widened out, where there are deep notches close together. Three small crudely shaped sticks of wood, 12.5—6 cm have remnants of sinew thread tied round one end as on 6 (L 3: 2511); these may be small toy whips.

Fig. 107.15,16,17 and 18 (L 3: 545 and 2274) are thin wooden sticks bent in the shape of kayak ribs, with the appearance of having been used as ribs in a small tray or the like (of skin?); several more of the same character were found, all in the Midden B. II at Inuarfigssuaq, which

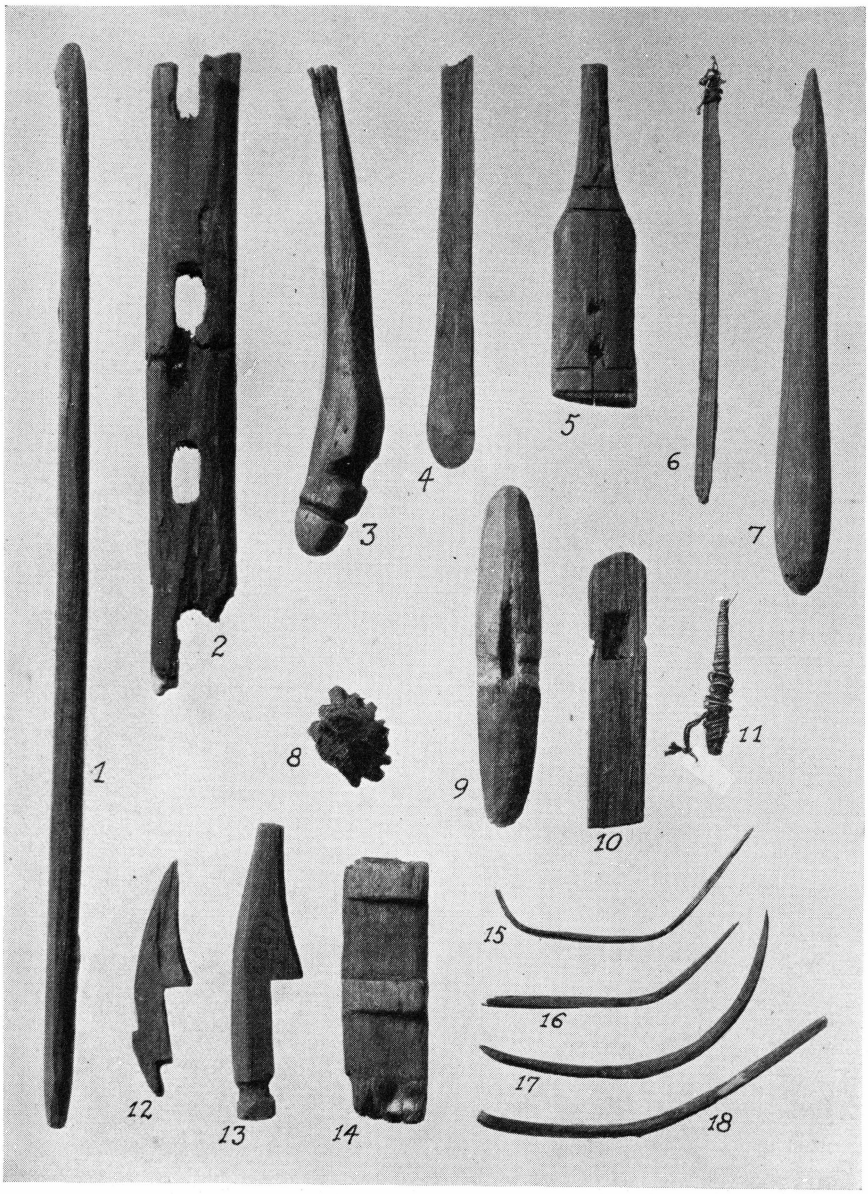


Fig. 107. Objects of wood, some unidentified.

bears the stamp of Dorset culture. 11 (L 3: 2325) is the end of a pointed willow branch closely wound with thin osiers.

Some fragments of wooden sticks over 2 cm wide, flatly oval in cross section (L 3: 9717, 11377) have a broad, oblique groove at one end and opposite it a lashing groove; L 3: 9677 has two oblique grooves close together. L 3: 5142 is intact, 29.5 cm long, with an oblique groove

at each end, so arranged that the grooves run towards each other. These may have been carrying sticks for some particular purpose. L 3: 4839 (Thule House 20) is a 19.5 cm length of wooden stick 2 cm wide and quadratic in cross section. In one side is a deep V-shaped longitudinal groove. L 3: 3456 (Thule House 7) is the broken end of a wood chip 3.2 cm wide; three transversal rows of small holes with remnants of sinew thread suggest that is is part of a wooden ring, perhaps for a meat tray, etc.

Objects of baleen. Unidentified objects of baleen also run into considerable figures, and of these only the more characteristic will be mentioned; some of them are shown on fig. 108.

A piece of baleen 90 cm long and 14 cm wide (L 3: 2645) has at one end a hole through which runs a very thick length of baleen line; the other end is defective. L 3: 2433 (fig. 86) is a bundle 139 cm long, consisting of four strips of baleen about 2 cm wide and altogether has a thickness of 3.2 cm; they are held together by a baleen lashing, and certain marks show that there were at least three more lashings, two of them near the ends.

Three rings of baleen strip, 5—2.5 cm wide, have a diameter of 28—15 cm. A similar ring (L 3: 170), 4.5 cm wide and about 15 cm in diameter, has two legs of wood 10 cm long lashed on to it, and it can be seen that there was a third; this may possibly have been a lamp stool. A thinner and more loosely tied ring is also 15 cm in diameter but only 1 cm wide. Finally, fig. 108.10 (L 3: 2373) is a small wreath of baleen whipped with a narrow strip of baleen. A 24 cm fragment of a 3 cm strip of baleen has holes near one edge, and for a distance of 6 cm one end is cut down to half the thickness for overlapping, and here are two rows of fine holes placed transversally for stitching the ends together.

Fig. 108.19 and 20 (L 3: 11955 and 11246) are two corners, each made with two strips of baleen lashed together. On 19 one piece is bent round the other; on 20 there are two lashing holes in one and two opposite notches in the other piece; here the narrower of the strips is preserved to almost its full length, 17.5 cm, and the two cord ends from the lashing are carried cross-wise along the strip and continue in the lashing at the other end. Several pieces of baleen of this description were found, tied together into a right angle; L 3: 4942 is made of strips 4.5 cm wide and has remnants of tied-on netting, as if the object were a drying rack.

Pl. 108.8 (L 3: 715) is a strip 3.8 cm wide which is bent over and held together with strong lashings. 7 (L 3: 11839) has the narrow end bent over and an elongated hole at the wide end. 4 (L 3: 3112) is a strong baleen stick, 28.5 cm long and about 1.5 cm wide, with one end pointed; close to the other, cleft end is a hole. Another, 26 cm long (L 3: 5924) is like it, but the point is lanceolate with a breadth up to 2.6 cm. Pl. 46.19

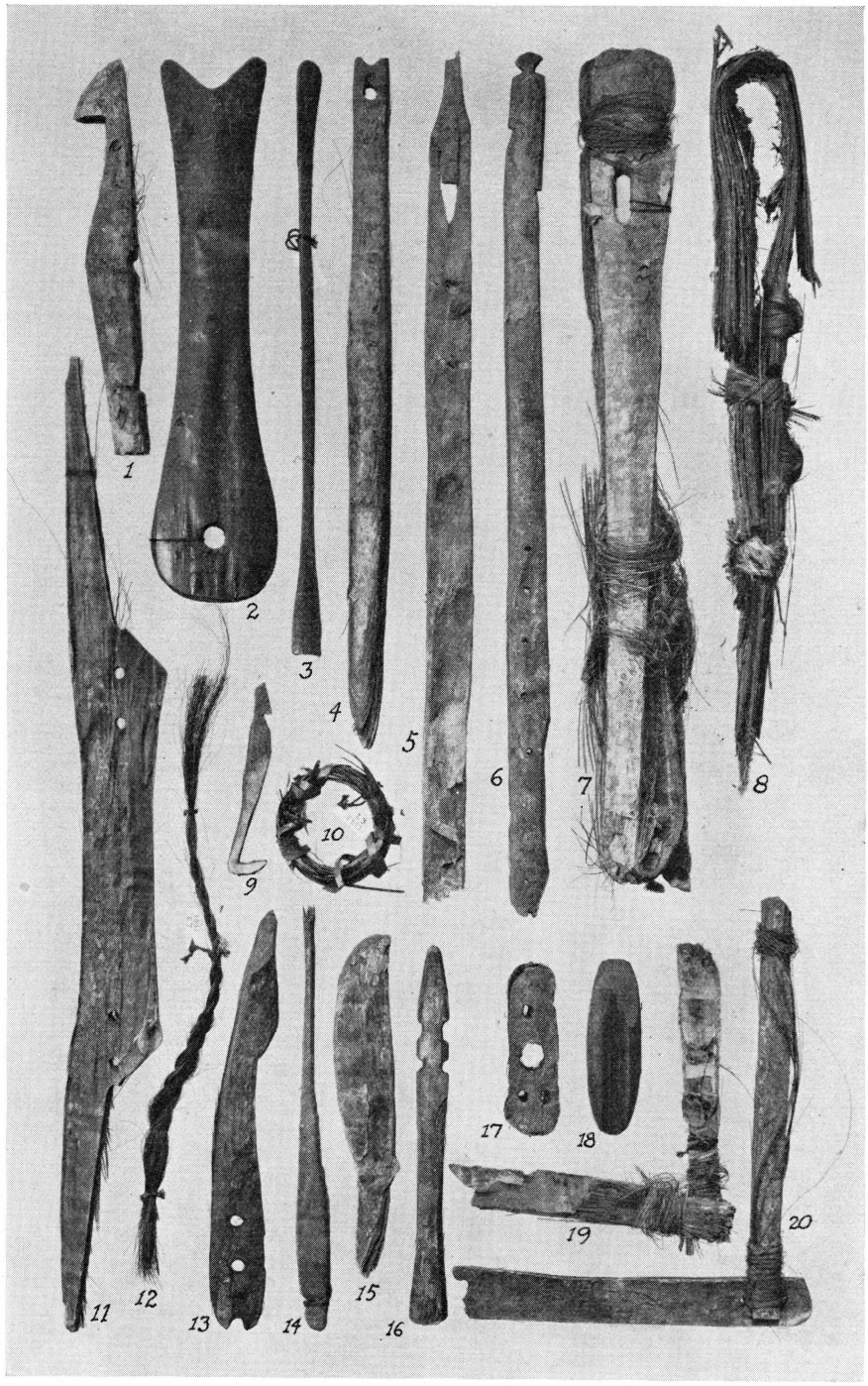


Fig. 108. Objects of baleen.

is a round, thin stick of baleen, 49 cm long, tapering gradually towards the pointed end. At the thick end is a groove as if for holding a cord. Fig. 108. 6 (L 3: 5381) is a 35 cm length of baleen strip with two opposite notches at the uninjured end; a little farther along are two other notches, but these are placed obliquely, and at about 19 cm from the end begins a row of small holes. 5 (L 3: 10349) has one end constricted, and a little way behind the constriction is a triangular hole, of which two sides are produced into two forward slits about 1.5 cm long, thus forming a kind of elastic tongue; farther back are two small holes.

Fig. 108. 11 (L 3: 1696) is an object of peculiar shape, 40.5 cm long; at each end it once had a branch symmetrical with the preserved one, so that each end had a deep cleft. Presumably it is a winder for a line of some kind. 2 (L 3: 2927) is another curious object with a shallow cleft in one end, the other end rounded with a central hole; the object is carefully made with rounded edges. 3 (L 3: 3262) is a spatula-shaped implement 24. 5 cm long; the blade part is quite thin and its end is concave. 17 (L 3: 3484) is a small piece of baleen with a large central and three smaller holes, possibly for a swivel. 18 (L 3: 8256) has a flat and a convex side, the latter with a broad longitudinal groove; it bears some resemblance to fig. 106. 20. Both may be braces for bows. 12 (L 3: 1561) is a piece of plaited baleen cord. A thick piece of baleen, 44 cm long and 12.5 cm wide, is perhaps from a baleen door or the like. It has five pairs of holes, four of them close pairs, as if transversal pieces had been lashed on.

Baleen lines. Several hundreds of pieces of baleen line with knots were found. The most interesting are from Ruin Island House 6, shown on fig. 109; they are thick, with powerful bindings. On 1 (L 3: 2592) there seem to be a main line with other pieces hanging on, and these again divide into more parts. On 2 (L 3: 2677) two pieces are coupled together by loops which link with one another. On 5 (L 3: 2673) the line is bent into a loop secured by a strong lashing, and below this the line divides into several parts, some with pieces tied on. 3 (L 3: 2695) is a piece of line bent over and held in place by a loop lying loosely around one arm, and 4 (L 3: 2675) is a piece of line with many branches. The specimens are all too small to provide any entire impression of their use, but they look as if they were parts of heavy netting of some kind.

Norse objects.

As was mentioned on several occasions in the course of the description of the excavated houses, the Thule District produced several objects which undoubtedly have the Norsemen in Greenland as their origin. Most of these objects are shown on Pl. 44. 1,2 and 3 are three

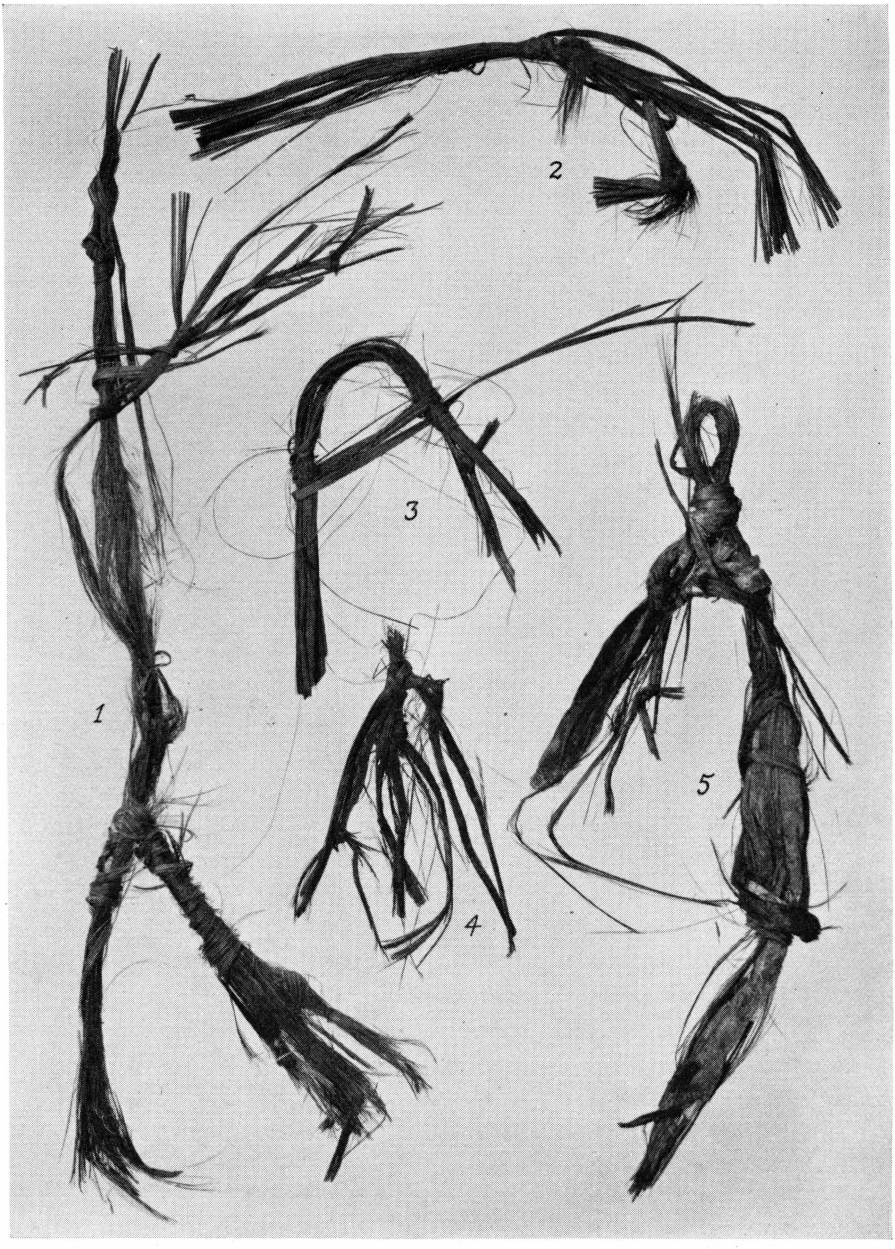


Fig. 109. Pieces of thick baleen lines with complicated knots.

sides of the same *wooden box*, the long side being ornamented with chip-carving. The two upper rows are unfinished, but it can be seen that the small angles are marked off with fine incisions. Pl. 44.4 is the *leg of a cooking pot* of bronze, with longitudinal grooves.

Pl. 44. 5 is a piece of a rounded *funnel of wood*, presumably a small milk sieve. The following opinion of it is given by Dr. A. Steensberg, keeper at the Danish Folk Museum:

"This object seems to be a small funnel. Its lower opening is surrounded by a thick, rolled edge recalling the shape of the lower opening of some Danish and Faeroese milk sieves of wood. These milk sieves, however, are much larger, so that the lower opening is wider too. Over the latter was tied a linen sieve cloth, and the wooden roll is so shaped in order that a string may lie round the opening and hold the cloth in position. The Faeroese sieves are bowl-shaped with two wooden lugs, one opposite the other. The Danish specimen (from Lolland) has no lugs. Whether or not the present object served the same purpose as these sieves cannot be decided; but the shape of the bottom roll suggests the tying on of a sieve cloth, whatever the sieved liquid may have been.

(signed) *Steensberg*,
Folk Museum."

Pl. 44.6 is part of a barrel or *tub bottom* of oak, with incised concentric double circles. In the middle is a hole filled up with a plug. Receptacle bottoms of this kind are not uncommon at the Norse Settlements; a very similar one is illustrated by Roussell: Farms and Churches in the Mediaeval Settlements of Greenland, fig. 173.

Pl. 44.7 is a rusty conglomeration of flat interlinked iron rings. It can scarcely be other than a piece of *chain mail*. The diameter of the rings is about 1.2 cm. No chain mail has previously been found in Greenland.

Pl. 44.8 is a broken piece of an iron *spear head*. After being treated in the National Museum laboratory it proved to be lanceolate with an edge on both sides, though one has been beaten flat. One side of the blade is flat, on the other is a rounded median rib. Spear heads of this form have been found in Greenland on other occasions, for example during the excavations at Brattahlid in the Julianehaab District[1]) and Austmannadal in the West Settlement[2]).

Pl. 44.9 and 10 are two turned *chess-men*, one of bone, the other of walrus ivory, the one a rook, the other no doubt a pawn. The former was found in Inglefield Land (Inf. House 3), the other in House 21, Thule. In the underside 10 has a conical hole 1.3 cm deep and at most 0.9 cm wide. Chess pieces of this kind were found i. a. at Gardar[3]). Pl. 44. 12 is a *draughts-man* of bone.

---

[1]) P. Nørlund & M. Stenberger: Brattahlid, fig. 99, p. 132.

[2]) Aa. Roussell 1941, fig. 169, p. 273.

[3]) P. Nørlund: Norse Ruins at Gardar, fig. 102, p. 163. And see Roussell 1936, fig. 112, p. 127.

Pl. 44.11 is a *comb* of bone with fine teeth at both sides. The ends are profiled, and on each side is an attached strip of bone. Each of these plates has four ornamental longitudinal grooves and is fastened on with a row of fine copper pins. Similar combs have been found in rather considerable numbers in the Norse settlements[1]).

Pl. 44.13 is a *spoon-shaped box* carved out of one piece of wood; on the picture it is shown from the underside. On the upper side the edges lie in one plane. At the transition from "handle" to "bowl" there



Fig. 110. Piece of Norse cloth.

is a profiled roll. The cavity, which in the handle has plane sides and bottom, is 2.1 cm deep here, in the bowl somewhat more; the bowl end is somewhat damaged on the edge. At the end of the cavity, near the rear end of the handle, is a vertical hole which is foursided below and in which is a pivot secured by a wedge knocked in from below. Presumably this was the pivot of the lid, which could be turned aside. Spoon boxes, but of cruder workmanship, were found at Sandnes in the West Settlement[2]).

Fig. 110 is a piece of coarsely woven *cloth*, found in House 6 on Ruin Island. It has been examined by the National Museum's textile expert, Miss M. Hald, who writes:

"L 3: 2591, pieces of woollen cloth, found in Greenland.

One large piece and several smaller pieces of cloth, the latter of no significance to the analysis.

The large piece has been torn into an irregular rectangle and measures about 56×40 cm.

---

[1]) See Roussell 1936, fig. 103, p. 121 and 1941, fig. 163, p. 263.

[2]) Roussell 1936, fig. 143, p. 149.

The colour is fairly pale brownish and a little impure; apparently the wool is not from black sheep, but in order to obtain a definite result in this respect an examination should be made by a zoologist. The yarn is z-spun in one direction of the weave and s-spun in the other, and a count made of a square 10×10 cm gives 73 z-spun and 68 s-spun. The weaving is very uneven; the analysis shows it to be three-thread twill, a form of weaving common in the Danish Middle Ages, but it occurs as early as in the Viking Age, for example in the Mammen grave and the Birka find.

$^{25}/_{3}$-42. (signed) *Margrethe Hald.*"

IV. ANALYSIS OF METAL OBJECTS

Two pieces of copper were previously examined by Dr. Poul Bergsøe[1]), whose findings were that L 3: 850, a small piece of hammered copper from Inf. House 5, is natural copper, and L 3: 2432, from Ruin Island House 3. A is industrial copper.

Mr. M. P. Mogensen, of Messrs Poul Bergsøe & Son, kindly undertook the analysis of some of the other copper and iron objects found (ulo and knife blades, etc) and his results are given in the following report.

"*Re iron objects.* Apart from Samples 9918 and 528, which contain Ni and thereby recall meteoric iron, all the iron objects are of very pure iron and practically identical in composition, very similar to the iron used in the making of screws and nails. It should be stated, however, that S and C cannot be determined spectrographically.

The objects, which are much and deeply rusted, have been handled as carefully as possible and filed no more than was obsolutely necessary; this, however, does not entirely preclude the possibility of superficial contamination, for which reason Si is not shown. Thus the spectral analysis provides no satisfactory answer to the question of whether the iron is old or recent. That question is best settled by an examination of the structure, which may elucidate the kind of heat treatments to which the iron was subjected.

Re copper objects. No. 625 is natural copper. It is a very pure copper and contains only the impurities usual to natural copper. 8308 is brass.

The other samples are all industrial copper of old date. The nature and quantity of the impurities are such as do not occur in recent industrial copper.

The copper samples were spectrographed with electrolytic copper as the other electrode, whereas the iron samples were spectrographed with ordinary iron as the other electrode and compared with the spectrum of meteoric iron, which contains Ni. The inlay 8275 was spectrographed on carbon.

$^1/_6$-42. (signed) *H. H.*"

[1]) P. Bergsøe 1941 p. 111.

	Spectral No.	Museum Nr.	Cu	Bi	Ag	Pb	Sn	Zn	Sb	As	Fe	Ni
			Copper									
	2295	625	V	Sp	Sp	—	—	..	..	..	Sp	..
	2297	5773	V	+	Sp	+	+	..	Sp	+	Sp	+
	2298	6323	V	Sp	Sp	+	+	..	Sp	+	Sp	+
	2299	8308	V	+	Sp	+	+	+	Sp	+	Sp	+
	3000	8327	V	+	Sp	+	+	..	Sp	+	Sp	+
Norse	3291	183	V	Sp	Sp	+	+	Sp	Sp	+	Sp	+
Norse	3292	no No.	V	Sp	Sp	+	+	Sp	Sp	+	Sp	Sp
			Iron									
	3009	5780	..	..	..	..	..	..	..	..	V	..
	3010	9918	..	..	..	..	..	..	..	..	V	+
	3008	5435	..	..	..	..	..	..	..	..	V	..
	3007	5192	..	..	..	..	..	..	..	..	V	..
	3004	970	..	..	..	..	..	..	..	..	V	..
	3006	4202	..	..	..	..	..	..	..	..	V	..
	3002	528	..	..	..	..	..	..	..	..	V	+
	3003	773	..	..	..	..	..	..	..	..	V	..
Norse	3289	218	..	..	..	..	..	..	..	..	V	..
Norse	3290	328	..	..	..	..	..	..	..	..	V	..
			Lead									
	3001	8275	Sp	..	..	V	..	..	Sp	..	..	..

V = a main component.
\+ = a considerable quantity from about 1 ‰ to some per cent.
Sp = from about 1 ‰ to 0.008 ‰.

Undoubtedly the most outstanding feature of the results of these analyses is the relatively small quantity of natural copper and especially of meteoric iron. L 3: 625 (Inf. House 3) is a strip of hammered-out natural copper, used for repairing a soapstone lamp. Similar copper strips were found in other lamps or cooking pots, but they have proved to be industrial copper, presumably originating from the Norsemen (L 3: 4726, Thule House 19; L 3: 6323, Thule House 21. Midden 10. 3). L 3: 5773 (Thule House 21.V) and L 3: 8327 (Thule House 25) are pieces of thin sheet copper—also industrial copper—found in houses of the early Inugsuk period (houses with kitchens). L 3: 8308 is a brow band of hammered-out brass (Pl. 38. 4).

Of the two pieces of meteoric iron L 3: 528 is the blade of the small Dorset knife Pl. 1. 12, and L 3: 9918 is a raw lump found in Comer's

Midden layer 7. The other iron objects analysed must presumably have come from the Norsemen, as no other possibility seems plausible. It is most interesting to find that this also applies to a thin iron rod (L 3: 970, Pl. 24.16) from Inf. House 6, which ranks uppermost in the early Thule culture. Accordingly we must take it that this group of houses (Inf. b) is also of a time when Norse objects little by little began to reach the Thule District. This may already have taken place in the 12th century, but it is also possible that these houses extend into the 13th century.

L 3: 5780 is a thick piece of iron like an axe blade; it came from Thule House 21.W. L 3: 4204 (Pl. 23.16) from Thule House 16 recalls in shape a much worn ulo blade of modern type with an iron tang; this, however, is out of the question; more likely it is a mounting of some kind of Norse origin; it was found together with the spoon case Pl. 44.13. L 3: 5192 is the blade of a baleen shave (Pl. 21.19).

The last two objects in each group of the analysis table (183, no No., 218 and 328) are respectively copper and iron from Norse houses in Greenland, placed at my disposal by the National Museum for purposes of comparison.

A surprising and quite unexpected problem is raised by the small pieces of lead inlay in the knife handle L 3: 8275 from Thule House 24. The analysis shows that it is lead of such purity that even the finest lead works today cannot produce anything purer. Comparative analyses have been made with mediaeval lead, partly from an ancient reliquary, partly from a piece found at the bottom of the well at Brattahlid in Greenland; but neither of these bears any resemblance to those from Thule. Unfortunately, owing to present circumstances it has been impossible to procure samples of European lead.

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Færdig fra Trykkeriet den 20. Juni 1944.

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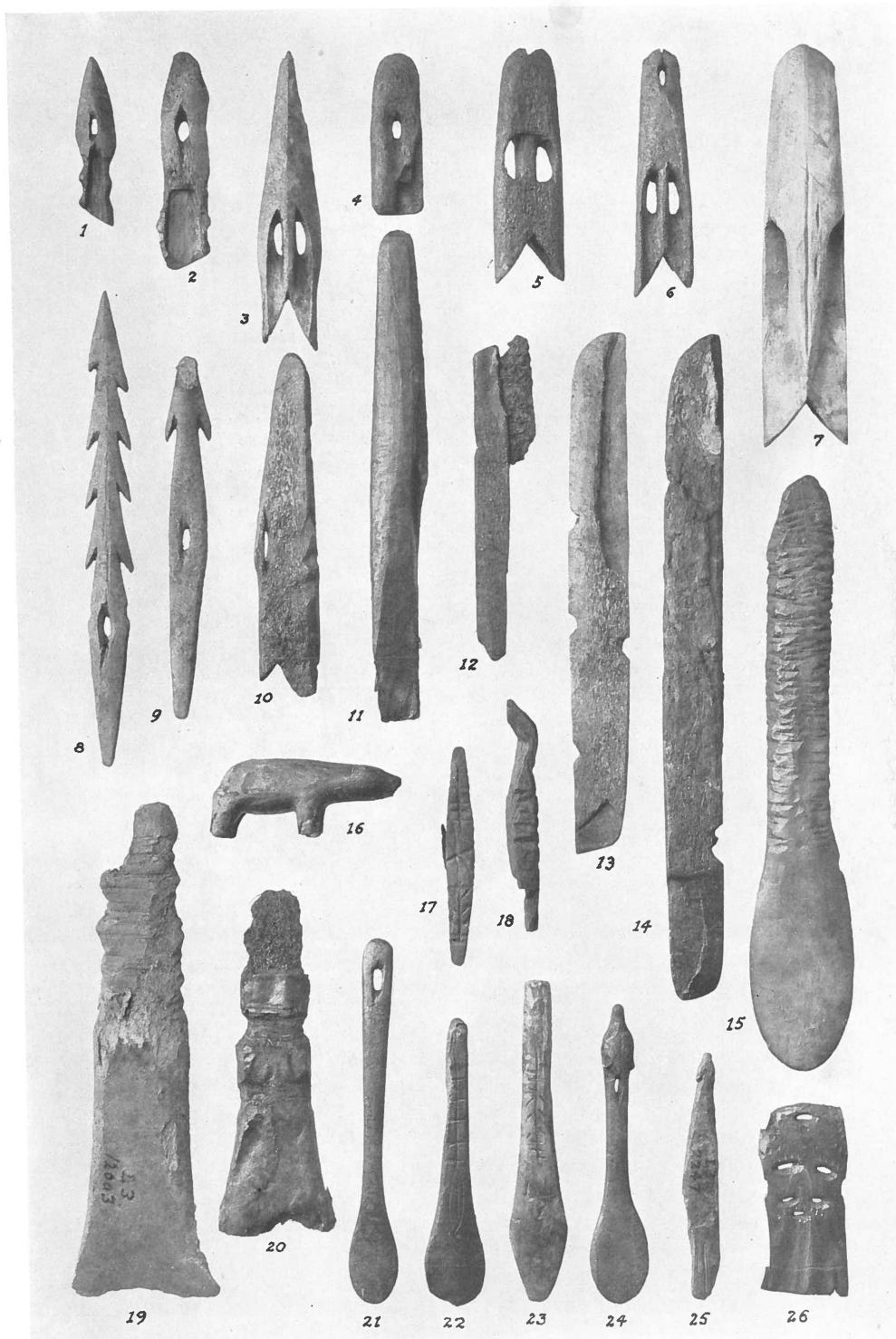
OBJECTS WITH THEIR MUSEUM NUMBERS AND PLACE OF FINDING

(APPROXIMATE SCALES INDICATED ON EACH PLATE)

Plate 1.

2:3

C. Dorset types	Ref. p.	L 3:	
1. Harpoon head	192	966	Inf. House 6
2. —	192	1053	— — 7
3. —	193	770	— — 4, Midden
4. —	193	2212	— Mid. I 15.2
5. —	193	479	— House 2
6. —	193	2158	— Mid. B II. 9.2
7. —	193	389	— House 1
8. Leister harpoon head	194	11979	— — 4, Mid. layer 4
9. —	195	798	— — 4, — — 3
10. Harpoon foreshaft	198	2214	— Mid. B. II 15.2
11. —	198	2096	— — B. I 3.1
12. Knife	241	528	— House 2, Mid. S. (B. II)
13. Knife handle	242	1149	— — 7
14. —	242	5195	Thule House 21. Øv
15. Spatula-formed implement	260	4904	— — 20
16. Bear figure, ivory	279	534	Inf. House 2, Mid. S. (B. II)
17. Wooden stick with ornament	278	2227	— Mid. B. II 15.2
18. — seal figure	279	535	— House 2, Mid. S. (B. II)
19. Adze head	247	12003	— — 4, Mid. layer 6
20. —	247	2254	— Mid. B. II 18.2
21. "Spatula"	260	2510	Ruin Isl. House 4
22. —	260	2268	Inf. Mid. B. II 18.3
23. —	260	476	— House 2
24. —	260	740	— — 4
25. Stick with carved head, ivory	260	2247	— Mid. B. II 15.3
26. Ornamental plate	277	2479	Ruin Isl. House 4

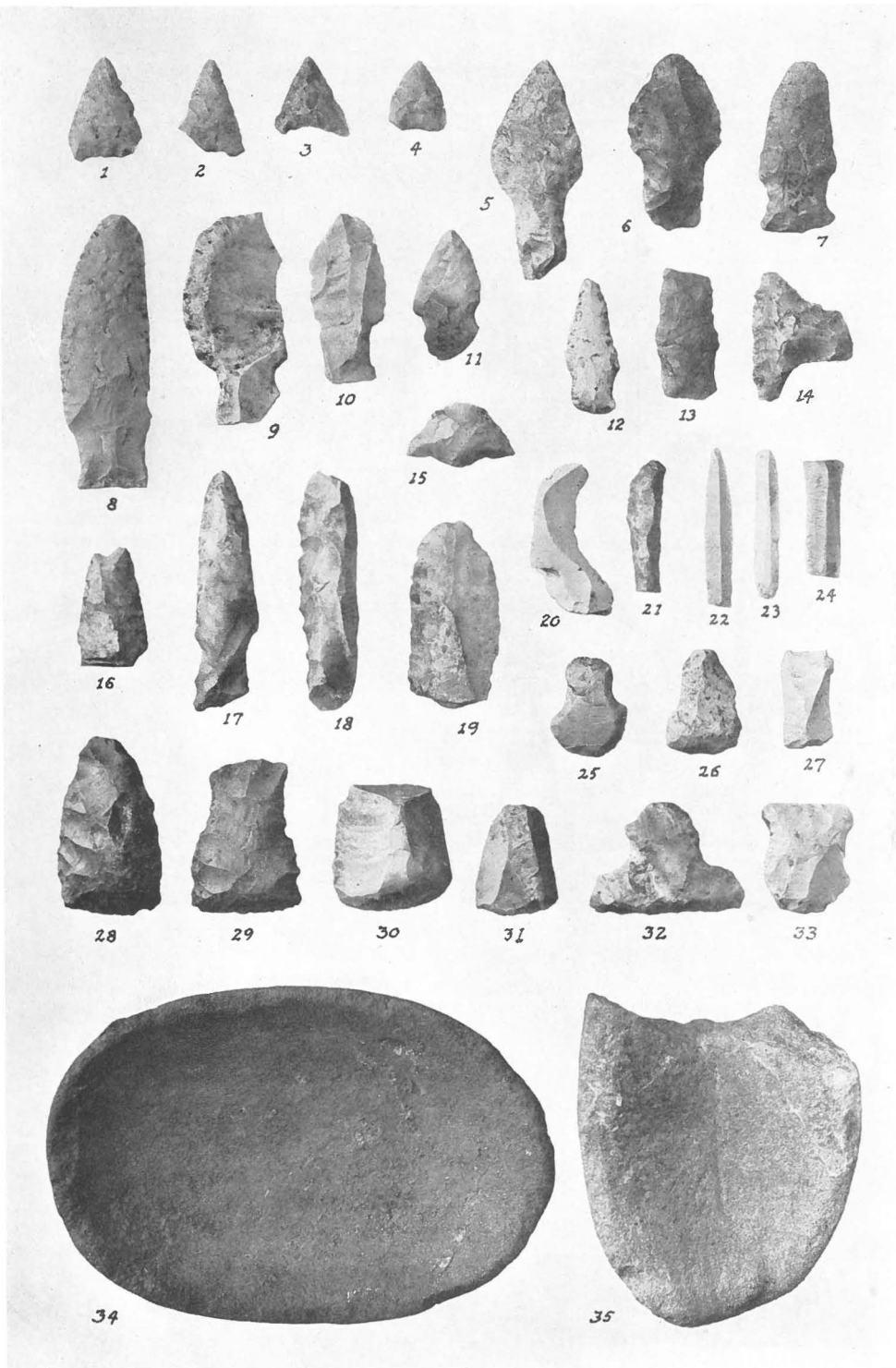


2 : 3

Plate 2.

2:3

C. Dorset types:	Ref. p.	L 3:	
1. Harpoon blade	195	2164	Inf. Mid. B. II 9.2
2. —	195	2258	— — B. II 18.2
3. —	195	2219	— — B. II 15.2
4. —	195	2270	— — B. II 18.3
5. Arrow or lance blade	214	1867	— House 26
6. — —	214	5719	Thule House 21.V
7. Knife blade	243	1227	Inf. House 8. Midden
8. —	243	2119	— Mid. B. I 5.3
9. —	243	1152	— House 7
10. —	243	2113	— Mid. B. I 4.2
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12. —	243	2522	Ruin Isl. House 5
13. —	243	3469	Thule House 7
14. — (?)	255	2087	Inf. Mid. B. I 1—2.4
15. Scraper	255	2272	— — B. II 18.3
16. —	255	2238	— — B. II 15.3
17. —	255	354	— House 1
18. —	255	2185	— Mid. B. II 11.2
19. —	255	1163	— House 7
20. — concave	255	2094	— Mid. B. I 3.1
21. —	255	4741	Thule House 19
22. Flint flake	256	1821	Inf. — 25
23. —	256	21	C. Kent — 1
24. —	256	1795a	Inf. — 24
25. Scraper, convex	255	355	— — 1
26. — —	255	530	— — 2. Mid. S. (B.II)
27. — —	255	2222	— Mid. B. II 15.2
28. — —	255	2406	Ruin Isl. House 3. A
29. — —	255	1181	Inf. House 8
30. — —	255	2221	— Mid. B. II 15.2
31. — —	255	2198	— — B. II 11.3
32. — —	255	11983	— House 4, Mid. layer 4
33. — —	255	737	— — 4
34. Lamp, sandstone	261	2282	Ruin Isl. House 1
35. — —	261	2208	Inf. Mid. B. II 15.2


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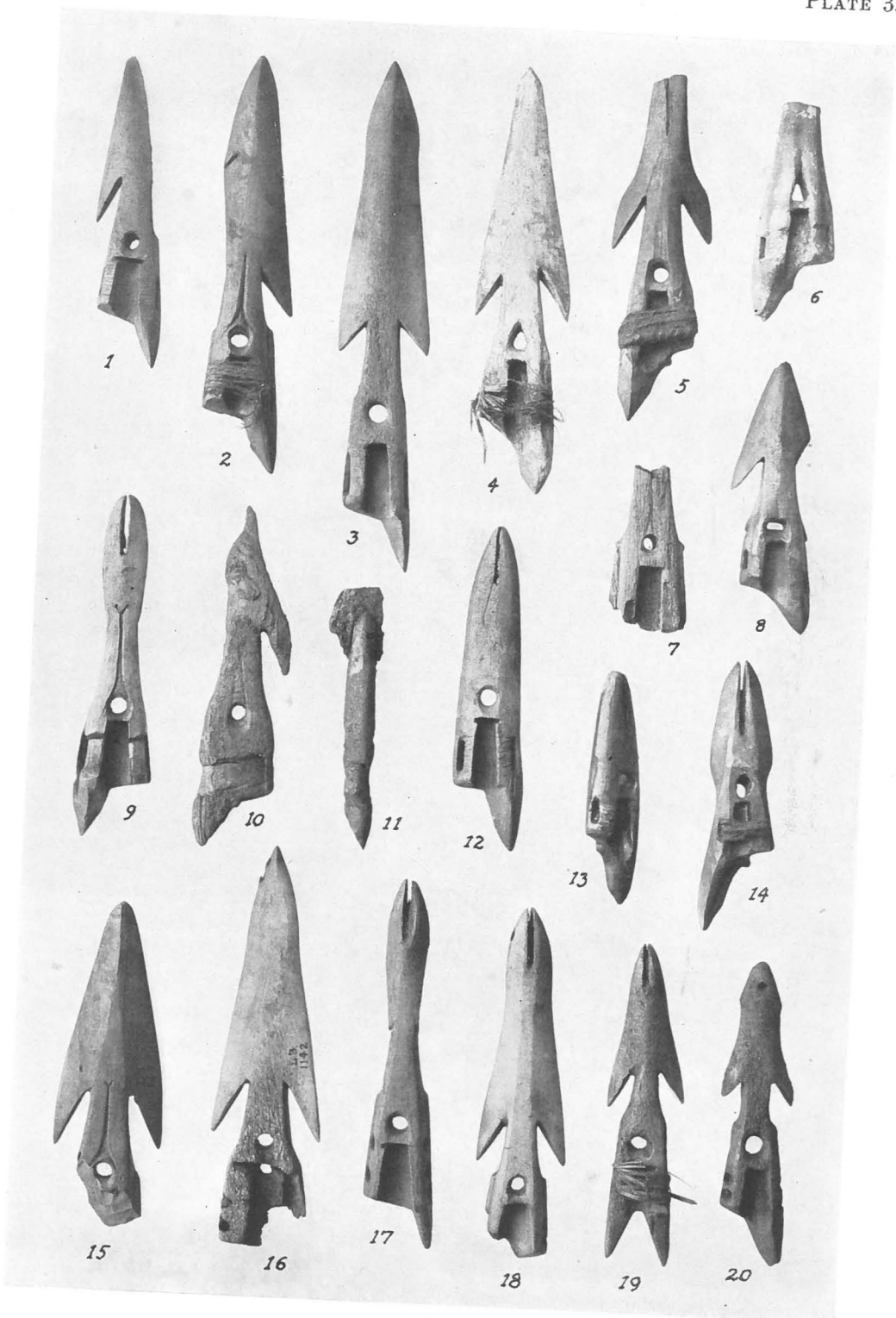
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Plate 3.

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		Ref. p.	L 3:	
1.	Harpoon head	183	1238	Inf. House 9
2.	—	183	1160	— — 7
3.	—	183	154	C. Kent House 2
4.	—	183	2600	Ruin Isl. House 6
5.	—	184	2508	— — 4
6.	— (fragment)	184	2329	— — 2
7.	— —	184	435	Inf. House 2
8.	—	184	2475	Ruin Isl. House 4
9.	—	184	392	Inf. House 1
10.	—	183	7211	Thule — 21. Mid. 24.4
11.	— , iron blade	186	1827	Inf. — 26
12.	—	186	478	— — 2
13.	—	186	4723	Thule — 19
14.	—	186	4263	— — 16
15.	—	184	645	Inf. — 4
16.	—	184	1142	— — 7
17.	—	185	3350	Thule — 5. S.
18.	—	185	1370	Inf. — 11
19.	—	185	5191	Thule — 21. Ø.
20.	—	185	7668	— — 21. Mid. 27.4

Plate 3.

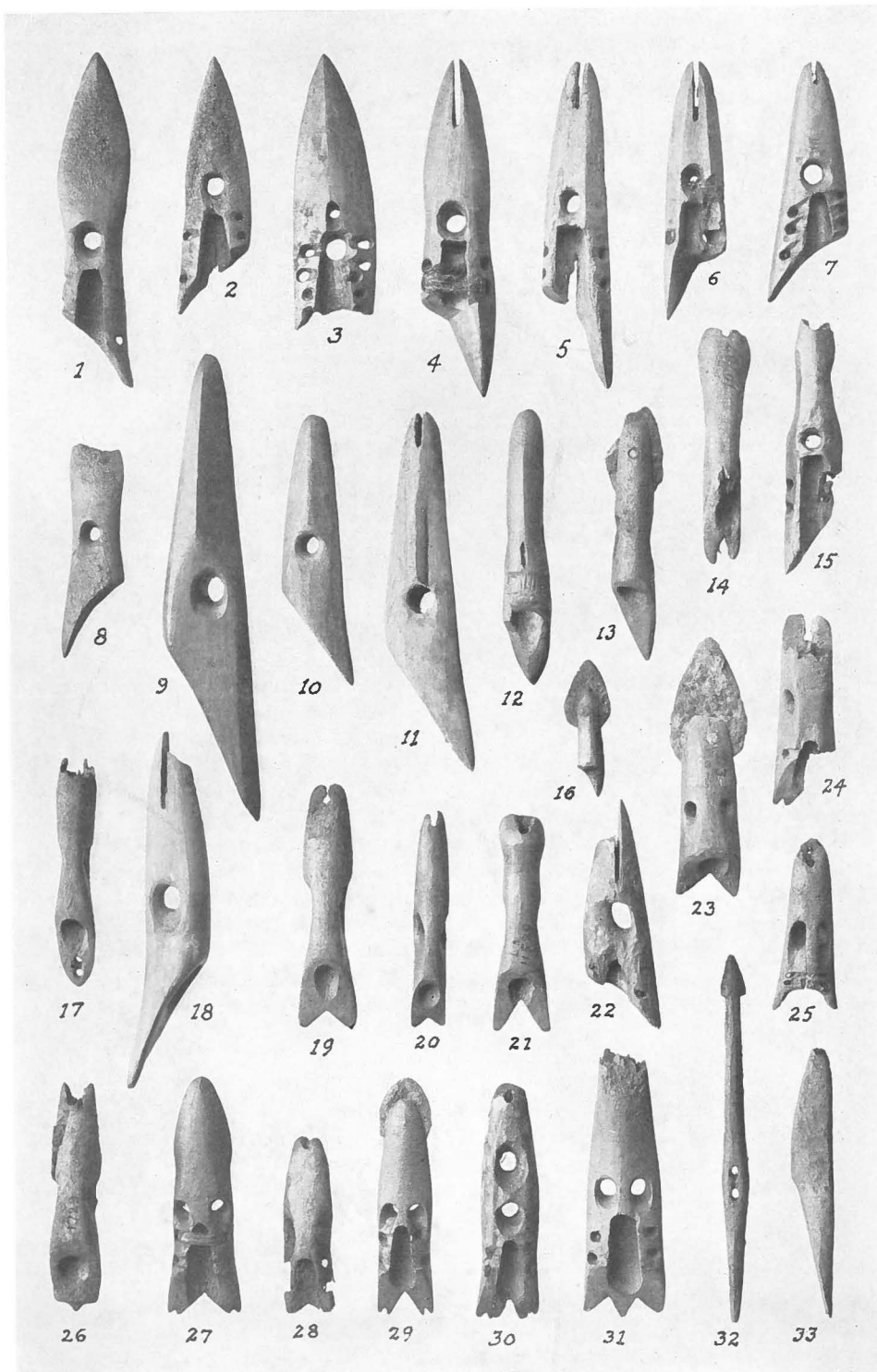


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Plate 4.

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		Ref. p.	L 3:	
1.	Harpoon head	187	7866	Thule House 21 Mid 28.4
2.	—	186	11051	— Co. A 19.1
3.	—	186	8553	— — 11—14.1
4.	—	187	8269	— House 24
5.	—	187	7444	— — 21. Mid. 25.4
6.	—	187	3603	— — 8
7.	—	187	6791	— — 21. Mid. 21.2
8.	—	188	10788	— Co. A. 18.2
9.	—	190	2396	Ruin Isl. House 3. A
10.	—	190	679	Inf. House 4
11.	—	190	1824	— — 26
12.	—	189	1252	— — 10
13.	— , iron blade.....	189	3604	Thule House 8
14.	—	188	10787	— Co. A 18.2
15.	—	188	3522	— House 8
16.	— , iron blade.....	189	4683	— — 19
17.	—	189	5996	— — 21.V.
18.	—	189	3983	— — 11
19.	—	190	10333	— Co. A 15.8
20.	—	190	6876	— House 21. Mid. 22.2
21.	—	190	11520	— Co. A 22.3
22.	—	190	8342	— — 2.1
23.	— , iron blade	192	9859	— — 14.6
24.	—	192	11193	— — 19.6
25.	—	192	8555	— — 11—14.1
26.	—	189	1729	Inf. House 21
27.	—	191	3124	Thule House 4
28.	—	191	6259	— — 21. Mid. 9.2
29.	— , iron blade.....	192	10416	— Co. A 15.11
30.	—	192	6915	— House 21. Mid. 23.2
31.	—	192	10417	— Co. A 15.11
32.	Harpoon-arrow head.....	195	3398	— House 6
33.	ituartit harpoon head (?) unfinished	191	8706	— Co. A 11.4

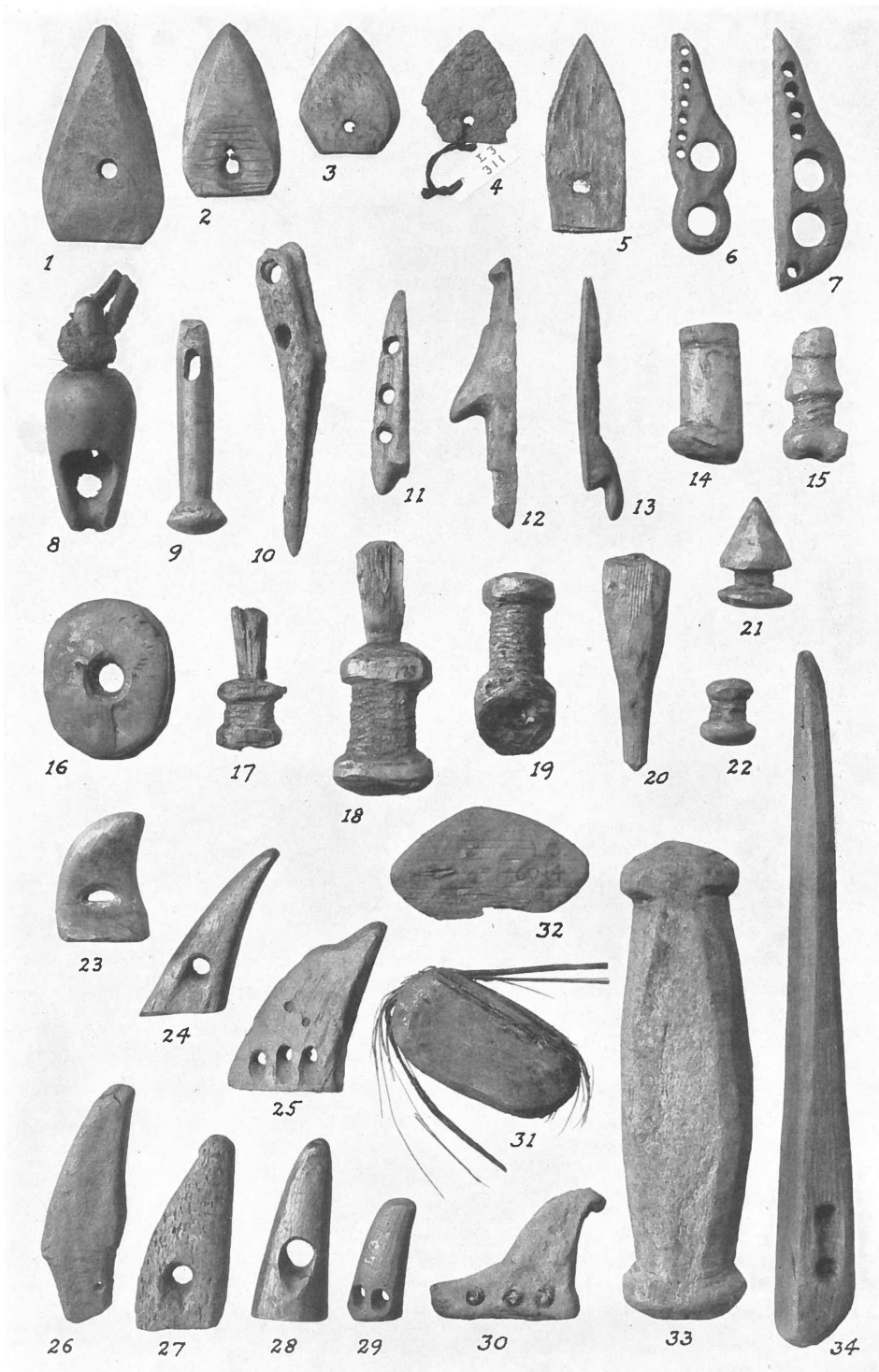

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Plate 5.

2:3

		Ref. p.	L 3:	
1.	Harpoon blade, slate	195	4945	Thule House 21
2.	— ivory	195	11133	— Co. A 19.4
2.	— bone	195	8989	— — 11.9
4.	— iron	195	311	C. Russell House 1
5.	— baleen	195	5135	Thule House 21. Øv
6.	Tension piece for harpoon line .	195	10098	— Co. A 15.3
7.	— — — .	195	8776	— — 11.5
8.	Swivel	195	5159	— House 21. Øv
9.	— spindle	196	1431	Inf. House 13
10.	Supporting piece of handle for stone knife (?)	196	422	— — 2
11.	Stopper for harpoon line	196	1720	— — 20
12.	— —	196	2605	Ruin Isl. House 6
13.	— —	196	421	Inf. House 2
14.	Bladder mouth piece	208	438	— — 2
15.	—	208	8891	Thule Co. A 11.7
16.	—	196	2322	Ruin Isl. House 2
17.	—	196	1298	Inf. House 11
18.	—	196	2773	Thule — 1
19.	—	208	5564	— — 21. Ø
20.	Plug for mouth piece	197	838	Inf. — 5
21.	Mending disk for bladder	197	1722	— — 20
22.	— —	197	443	— — 2
23.	Finger rest	202	2330	Ruin Isl. House 2
24.	—	201	7920	Thule House 21. Mid. 28.5
25.	—	201	9927	— Co. A 14.8
26.	—	201	10364	— — 15.9
27.	—	201	9970	— — 14.9
28.	—	201	156	C. Kent House 2
29.	—	201	4662	Thule House 19
30.	—	201	11644	— Co. B 1.1
31.	Mending disk for bladder	197	4688	— House 19
32.	— —	197	6014	— — 21. Mid. 2.1
33.	Toggle for harpoon bladder	197	1638	Inf. — 17. Mid.
34.	Fastening peg for bladder	197	7257	Thule — 21. Mid. 24.4

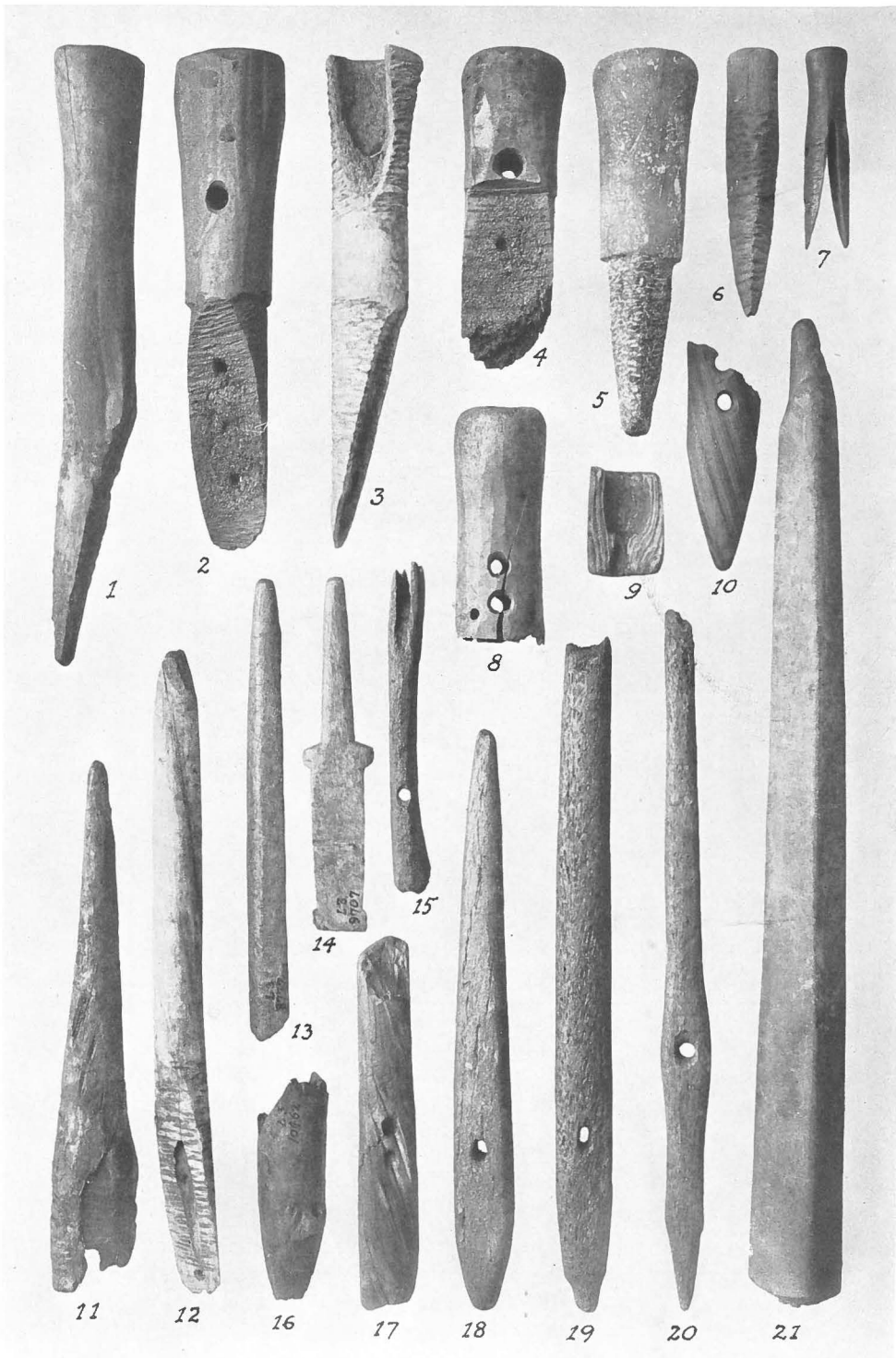

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Plate 6.

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		Ref.	3.	L 3:			
1.	Harpoon socket-piece.....	200	8302	Thule	House	24	
2.	— —	200	1072	Inf.	—	7	
3.	— —	200	885	—	—	5	
4.	— —	200	1365	—	—	11	
5.	— —	200	4281	Thule	—	16	
6.	— —	200	35	C. Kent	—	2	
7	— —	200	4409	Thule	—	16	
8.	— —	201	1474	Inf.	—	14	
9.	— — (fragm.)...	201	5351	Thule	—	21. Ø	
10.	Harpoon foreshaft, rear end....	199	771	Inf.	—	4. Mid. layer 1	
11.	Foreshaft for ice-hunting harpoon	197	8559	Thule	Co. A	11—14.1	
12.	— —	197	319	C. Russell	House	2	
13.	— —	198	8777	Thule	Co. A	11.5	
14.	— — (?)	198	9707	—	—	13.12	
15.	Foreshaft for ituartit-harpoon ..	198	9513	—	—	13.4	
16.	— ice-hunting harpoon rear end.....	198	10462	—	—	16.4	
17.	— —	197	7777	—	House	21. Mid. 28.2	
18.	Harpoon foreshaft.....	199	1243	Inf.	—	9	
19.	—	199	7731	Thule	—	21. Mid. 27.5	
20.	—	199	3328	—	—	5. N.	
21.	Foreshaft for whaling-harpoon..	198	3985	—	—	11	



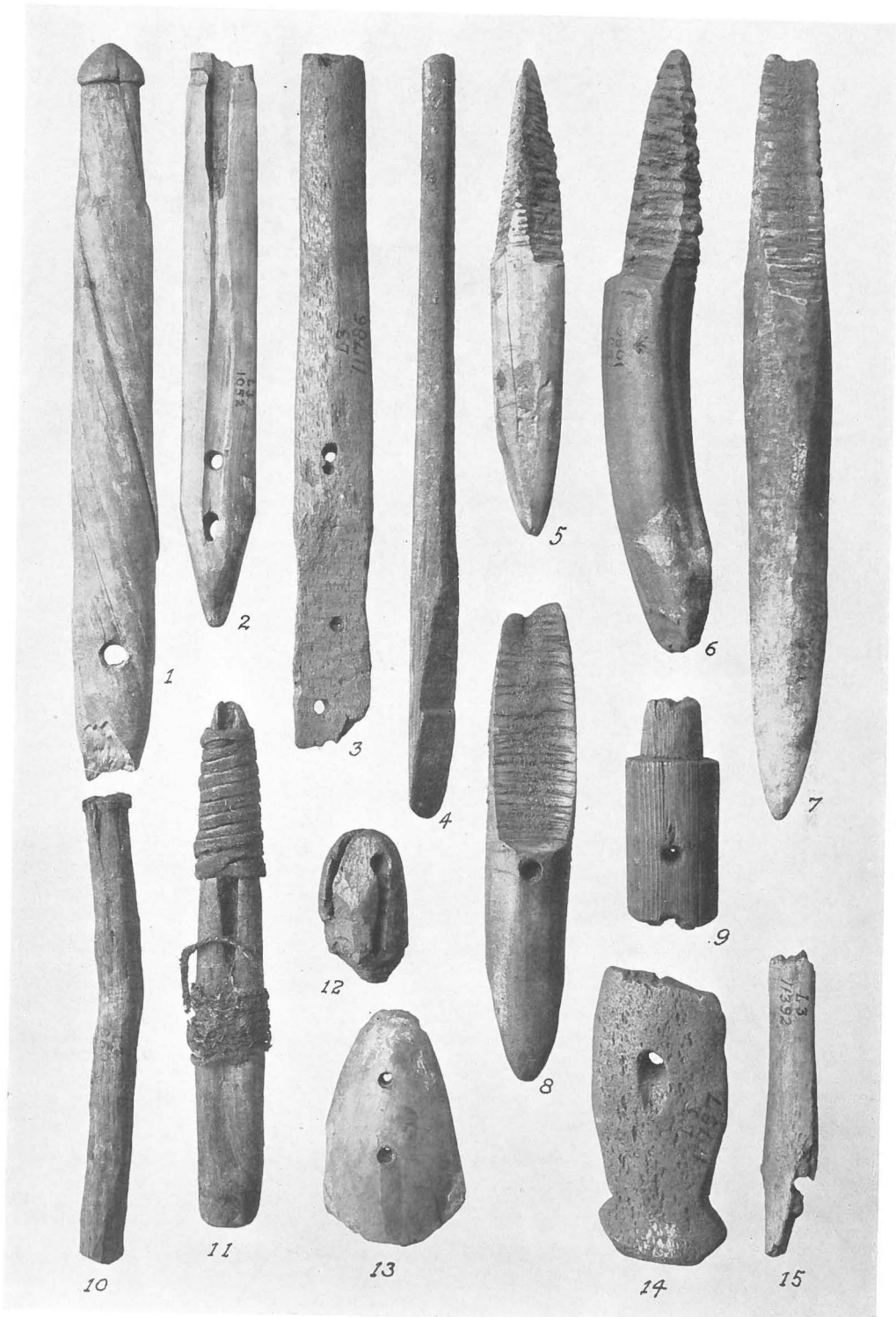
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Plate 7.

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		Ref. p.	L 3:		
1.	Lance head	203	2554	Ruin Isl.	House 5
2.	—	203	1052	Inf.	House 7
3.	—	203	11786	Thule	Co. B 2.2
4.	—	203	3248	—	House 4
5.	Ice pick	202	571	Inf.	— 3
6.	—	202	1086	—	— 7
7.	—	202	1943	—	— 30
8.	—	202	1327	—	— 11
9.	Fore end of harpoon shaft	211	4661	Thule	— 19
10.	Stiletto handle	204	860	Inf.	— 5
11.	—	204	1542	—	— 16
12.	Lance fore end	204	8042	Thule	— 21. Mid. 30.3
13.	— , fragm.	204	4921	—	— 20
14.	Reserve lance head	204	11757	—	Co. B 2.1
15.	— —	204	11392	—	Co. A 20.7

PLATE 7.



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Plate 8.

1:3

		Ref. p.	L 3:	
1.	Seat of sealing stool, bone	206	4286	Thule House 16
2.	— — wood, fragm.	206	8779	— Co. A 11.5
3.	Leg for — bone	206	34	C. Kent House 2
4.	— — —	206	3616	Thule House 8
5.	— — wood	206	216	C. Kent House 4
6.	— — —	206	10667	Thule Co. A. 17.3
7.	Sealing scratcher	206	10202	— — 15.5
8.	Toggle (drag-line handle), bone .	207	11451	— — 21.3
9.	— — antler	207	4359	— House 16
10.	— — —	207	9668	— Co. A 13.10
11.	Runner for harpoon sledge	205	2816	— House 1
12.	Toggle, wood	207	1379	Inf. — 11
13.	— —	207	4831	Thule — 20
14.	Seat of sealing stool, antler	206	1564	Inf. — 16
15.	— — wood, fragm.	206	5348	Thule — 21. Ø
16.	Toggle, wood	207	5204	— — 21. Ø
17.	— —	207	1117	Inf. — 7



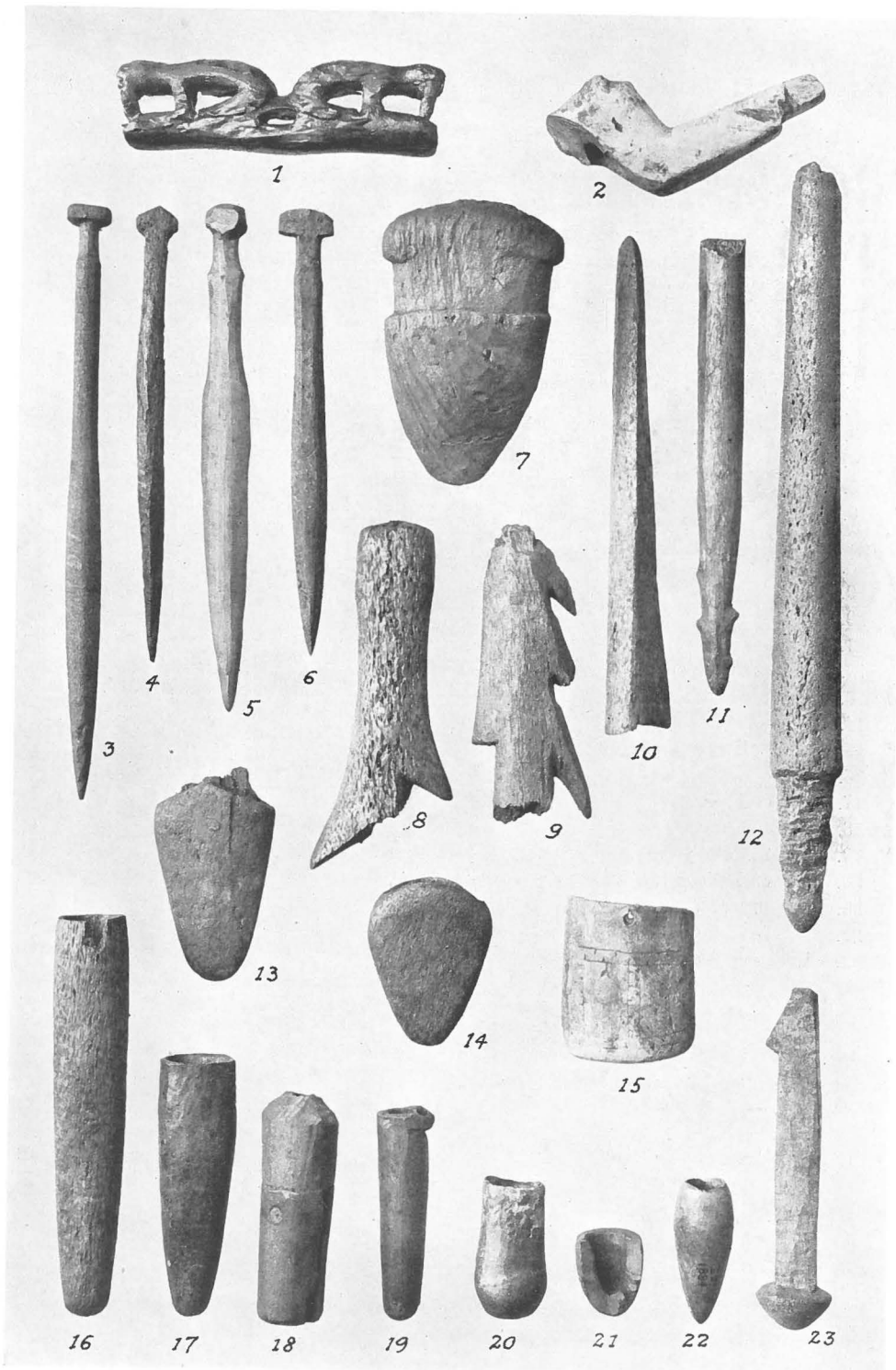
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Plate 9.

2:3

		Ref. p.	L 3:	
1.	Drag line handle	207	2295	Ruin Isl. House 1
2.	—	207	49	C. Kent House 2
3.	Wound pin	205	11631	Thule Co. A 22.6
4.	—	205	4663	— House 19
5.	—	205	2896	— — 1
6.	— baleen	205	5274	— — 21. Ø
7.	Wound plug	206	497	Inf. House 2
8.	Bladder dart head, fragm.	208	10906	Thule Co. A 18.4
9.	— —	208	7510	— House 21. Mid. 26.2
10.	— —	208	5698	— — 21.V.
11.	Bird dart head, fragm.	208	11895	— Co. B 3.3
12.	— —	208	10719	— Co. A 17.4
13.	End mounting for kayak paddle	221	9669	— — 13.10
14.	— — —	221	7986	— House 21. Mid. 28.7
15.	Ferrule	221	1311	Inf. House 11
16.	—	221	11620	Thule Co. A 22.5
17.	—	221	9846	— — 14.5
18.	—	221	11567	— — 22.4
19.	—	221	1264	Inf. House 10
20.	— for bird dart shaft	221	757	— — 4. Mid. layer 1
21.	—	221	3722	Thule House 10
22.	—	221	1884	Inf. House 26 (S.)
23.	Bone "bolt"	222	8007	Thule House 21. Mid. 30.1

Plate 9.



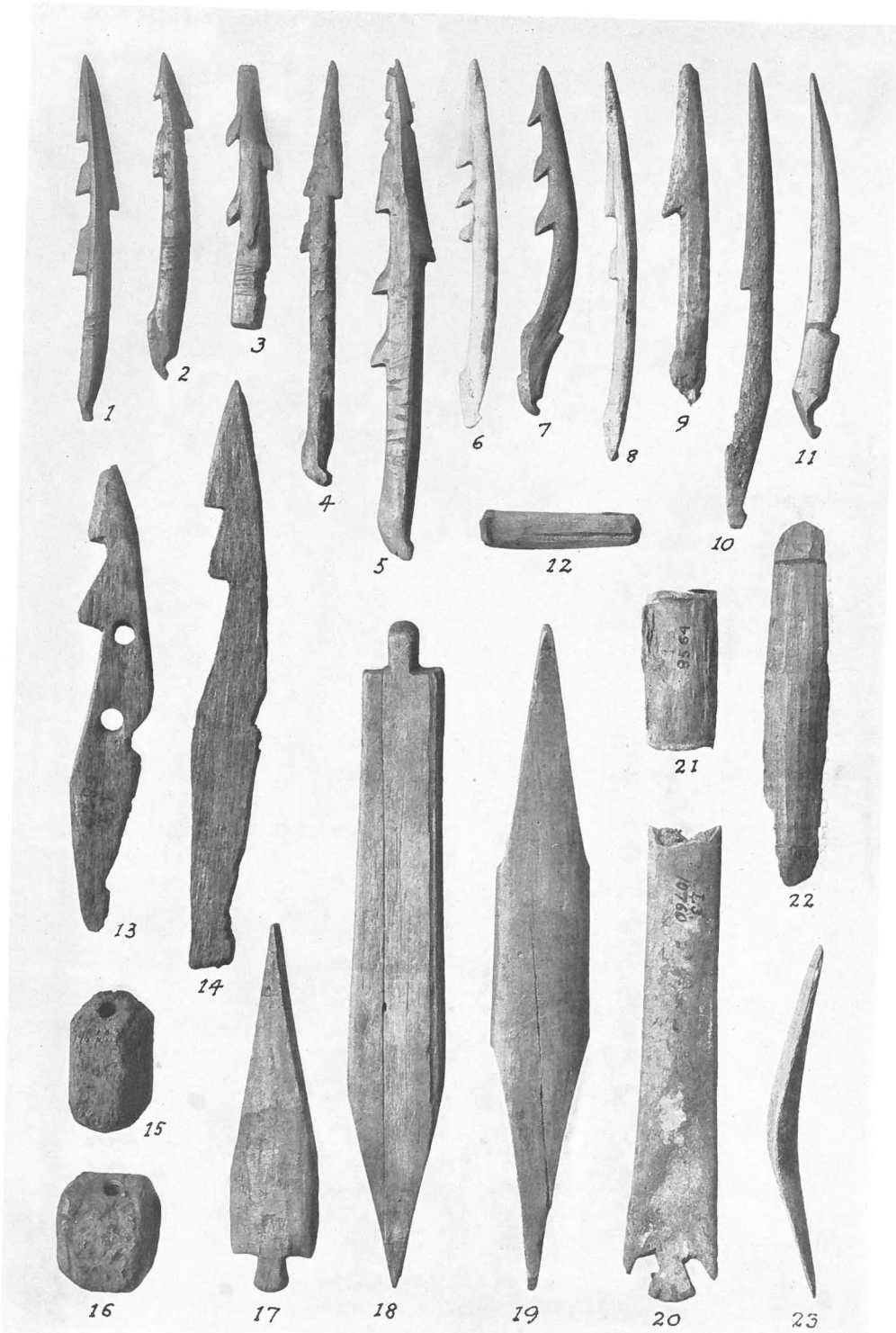
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Plate 10.

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		Ref. p.	L 3:	
1.	Bird dart sideprong	208	787	Inf. House 4 Mid. layer 1
2.	—	208	3536	Thule House 8
3.	—	209	4358	— — 16
4.	—	208	3275	— — 5 N.
5.	—	208	8272	— — 24
6.	—	209	1921	Inf. House 29
7	—	209	11421	Thule Co. A 21.2
8.	—	209	651	Inf. House 4
9.	—	209	5299	Thule House 21. Ø
10.	—	209	78	C. Kent House 2
11.	—	209	9807	Thule Co. A 14.4
12.	Sinew twister, wood	212	5207	— House 21. Ø
13.	Leister prong (?)	219	6827	— — 21. Mid. 21.3
14.	—	219	7217	— — 21. — 24.4
15.	Bola ball	217	1486	Inf. House 14
16.	—	217	1627	— — 17. Mid.
17.	Bow end piece	211	1736	— — 21
18.	—	211	2714	Aunartoq House 5
19.	Bow middle piece	211	3544	Thule House 8
20.	Bow end piece, antler	211	10760	— Co. A 18.1
21.	Bow brace, antler	212	8564	— — 11—14.1
22.	— wood	212	742	Inf. House 4
23.	— antler	212	1178	— — 8

Plate 10.

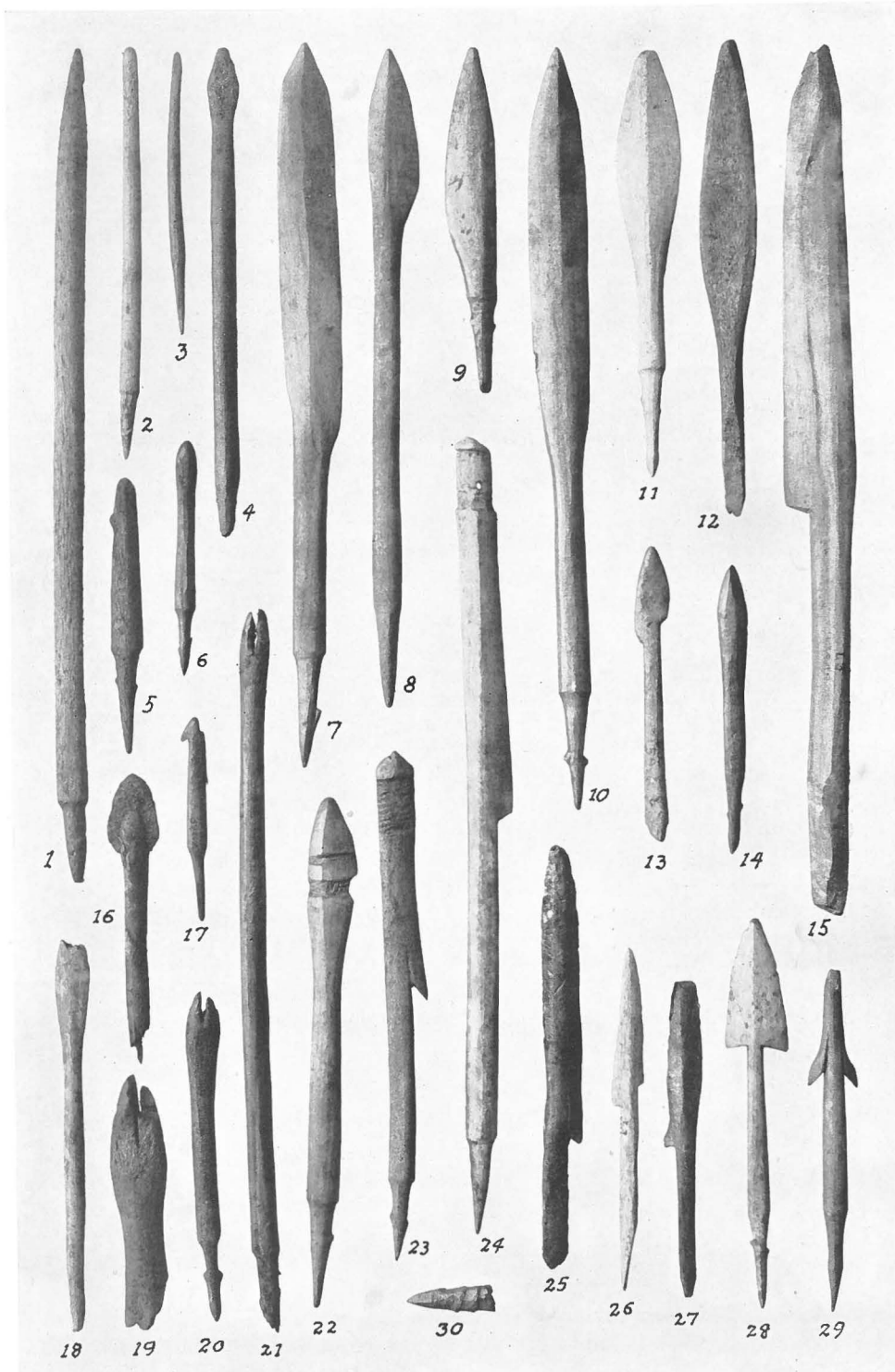


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Plate 11.

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		Ref. p.	L 3:	
1.	Arrow head.....	212	619	Inf. House 3
2.	—	212	247	C. Kent House 4
3.	—	212	6332	Thule House 21. Mid. 11.2
4.	—	212	3252	— — 4
5.	—	213	3202	— — 4
6.	—	212	11019	— Co. A 18.6
7.	—	213	3609	— House 8
8.	—	213	158	C. Kent House 2
9.	—	213	5783	Thule House 21. V
10.	—	213	3647	— — 8
11.	—	213	269	C. Kent House 5
12.	— with scarf.....	214	1440	Inf. House 13
13.	—	213	7159	Thule House 21. Mid. 24.3
14.	—	213	3684	— — 10
15.	—	213	3608	— — 8
16.	— with iron blade.....	213	1310	Inf. House 11
17.	—	213	3203	Thule House 4
18.	— with blade groove ..	213	48	C. Kent House 2
19.	— — ..	213	11785	Thule Co. B 2.2
20.	— — ..	213	9573	— Co. A 13.6
21.	— — ..	213	3545	— House 8
22.	— for lashed-on blade .	214	1035	Inf. House 6
23.	— — .	214	1830	— — 26
24.	— — .	214	618	— — 3
25.	—	213	6136	Thule House 26. Mid. 7.2
26.	— with scarf.....	214	281	C. Kent House 7
27.	— —	214	3986	Thule House 11
28.	—	214	1485	Inf. House 14
29.	—	214	4410	Thule House 16
30.	— tang with screw....	214	9143	— Co. A 12.3


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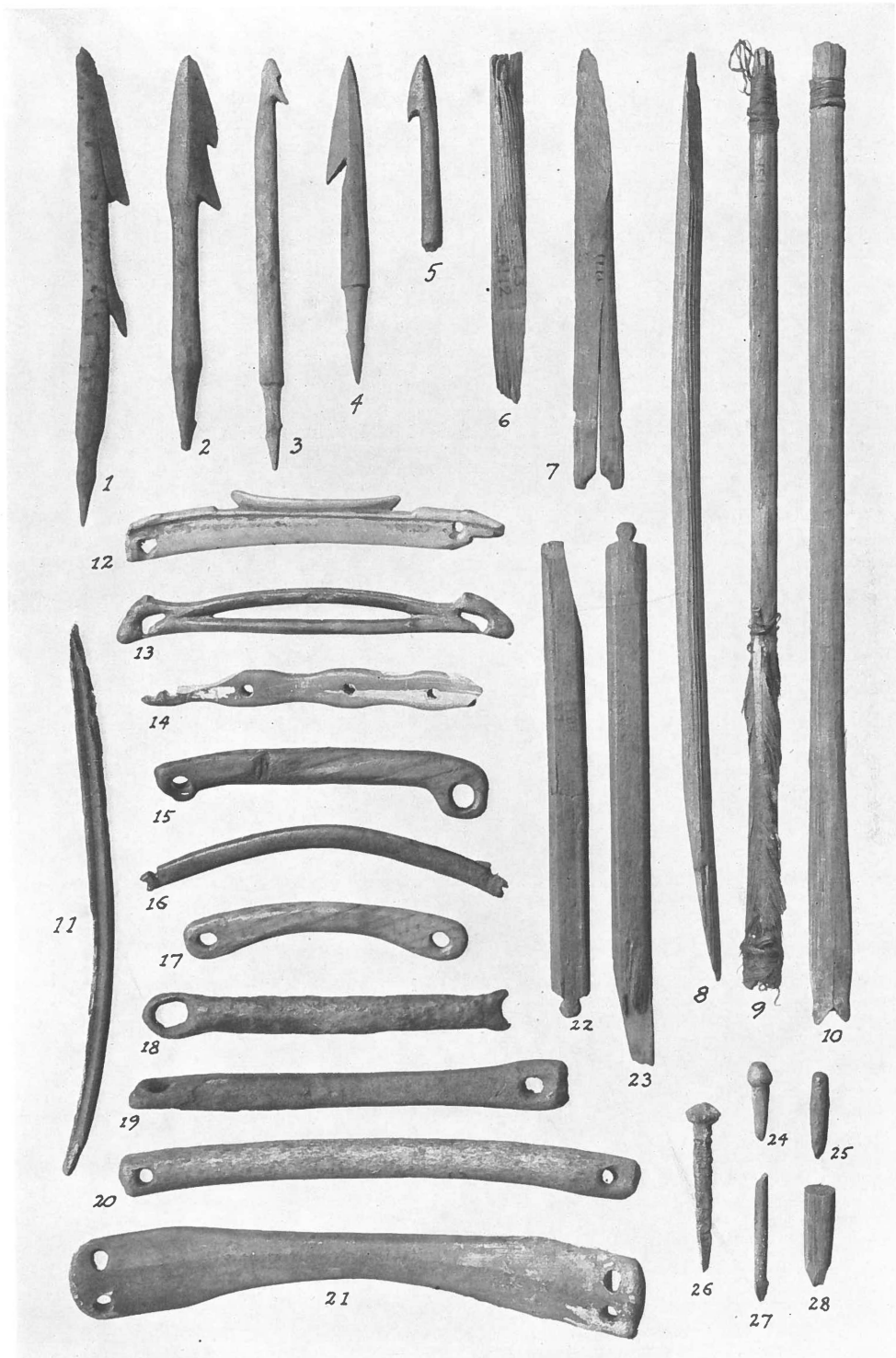
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Plate 12.

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		Ref. p.	L 3:	
1.	Arrow head	214	2070	Inf. Midden B. I
2.	—	213	1295	— House 11
3.	—	213	3612	Thule House 8
4.	—	213	3613	— — 8
5.	—	213	8216	— — 24
6.	Arrow shaft fore end	215	4112	— — 12
7.	— butt end	215	4111	— — 12
8.	— , scarf at both ends	215	4114	— — 12
9.	—	215	131	C. Kent House 2
10.	—	215	3811	Thule House 10
11.	Bag handle (?)	267	8316	— — 25
12.	Quiver handle	216	1200	Inf. House 8
13.	—	216	2443	Ruin Isl. House 3. B
14.	—	216	1617	Inf. House 17
15.	—	216	4689	Thule House 19
16.	—	216	2521	Ruin Isl. House 5
17.	—	216	219	C. Kent House 4
18.	—	216	10448	Thule Co. A 16.3
19.	—	216	9361	— — 12.6
20.	—	216	5141	— House 21. Ø
21.	—	216	2405	Ruin Isl. House 3. A
22.	Bag handle (?) wood	267	2812	Thule House 1
23.	— —	267	—	— — 1
24.	Peg of antler	222	462	Inf. House 2
25.	—	222	9142	Thule Co. A 12.3
26.	—	222	1374	Inf. House 11
27.	—	222	7304	Thule House 21. Mid. 24.5
28.	Peg of wood	222	4707	— — 19

Plate 12.



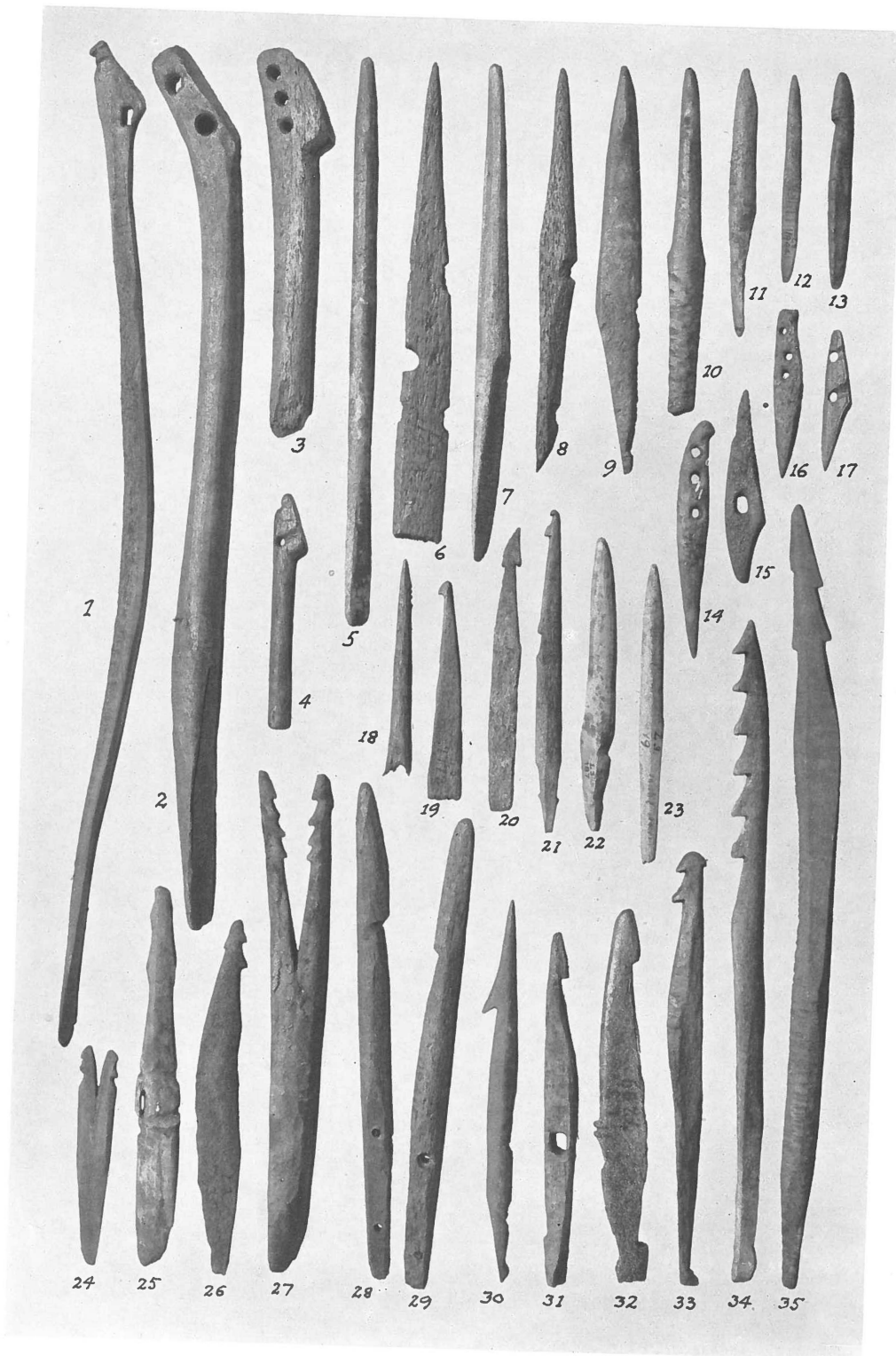
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Plate 13.

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		Ref. p.	L 3:	
1.	Salmon spear side prong.....	218	1161	Inf. House 7
2.	— —	218	395	— — 1
3.	— —	218	1461	— — 13
4.	— —	218	6093	Thule House 21. Mid. 5.2
5.	— centre prong.....	217	85	C. Kent House 2
6.	— — (?)..	219	11423	Thule Co. A 21.2
7.	— barb.....	218	182	C. Kent House 2
8.	— —	219	11424	Thule Co. A 21.2
9.	— —	218	4334	— House 16
10.	— —	218	9423	— Co. A 12.8
11.	— —	218	8360	— — 3.1
12.	— —	218	1944	Inf. House 30
13.	— —	218	1331	— — 11
14.	— —	218	7876	Thule House 21. Mid. 28.4
15.	— —	218	4076	— — 12
16.	— —	218	11020	— Co. A 18.6
17.	— —	218	2056	Inf. Midden A
18.	Leister prong.....	218	11372	Thule Co. A 20.5
19.	—	218	7773	— House 21. Mid. 28.1
20.	—	218	749	Inf. House 4 Mid. layer 1
21.	— (?).....	218	1105	— — 7
22.	Salmon spear barb.....	218	187	C. Kent House 4
23.	— —	218	19	— — 1
24.	Leister.....	219	1964	Inf. House 30
25.	Leister prong.....	219	2509	Ruin Isl. House 4
26.	—	219	7635	Thule House 21. Mid. 27.2
27.	Leister.....	219	806	Inf. House 5
28.	Leister prong.....	219	11759	Thule Co. B 2.1
29.	—	219	11760	— —
30.	—	219	3810	— House 10
31.	—	219	6414	— — 21. Mid. 12.1
32.	—	219	7299	— — — 24.5
33.	—	219	10245	— Co. A 15.6
34.	—	219	896	Inf. House 5
35.	—	219	3546	Thule House 8

Plate 13.

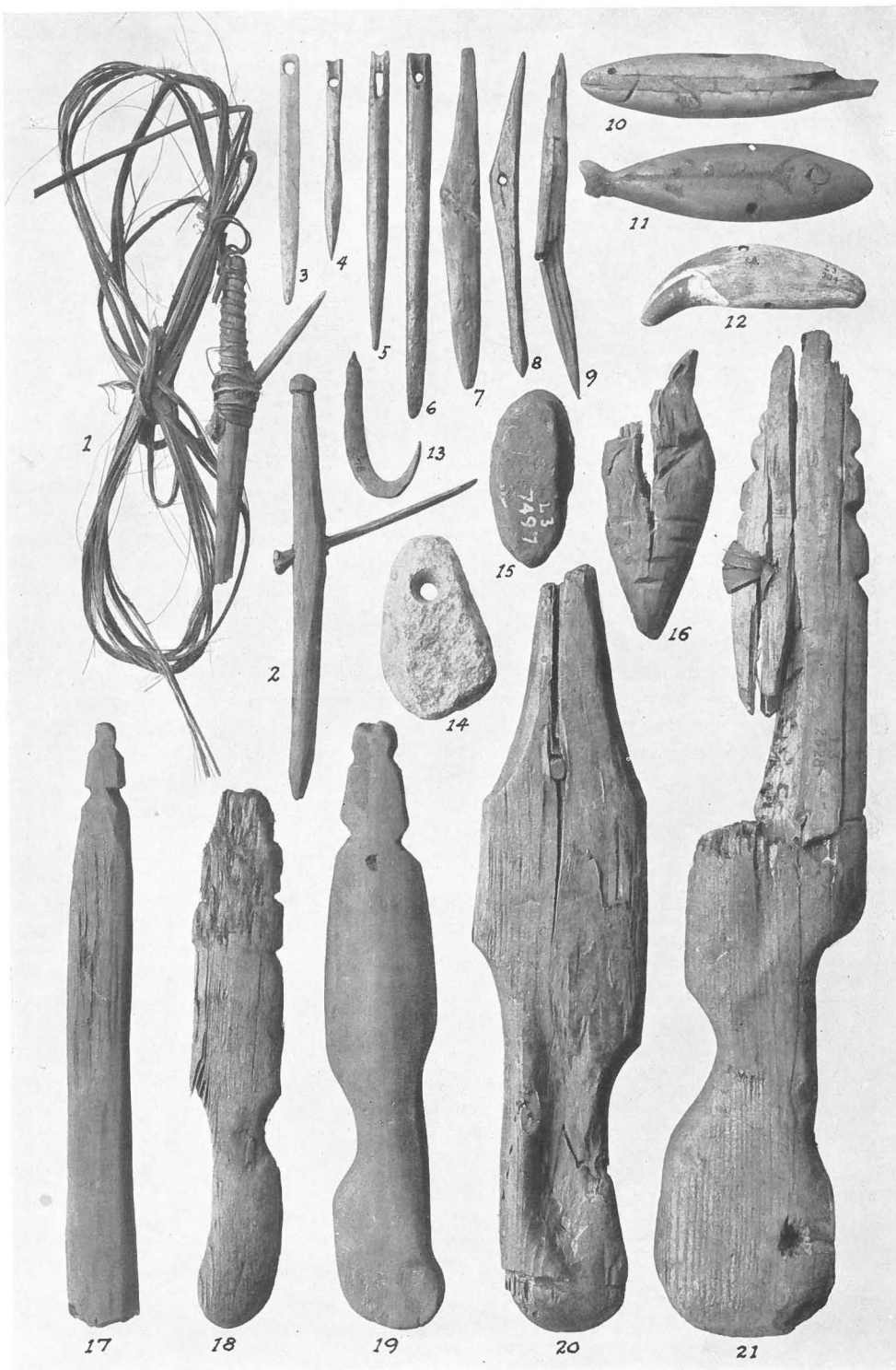

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Plate 14.

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		Ref. p.	L 3:	
1.	Gull hook	220	1965	Inf. House 30
2.	—	220	7781	Thule House 21. Mid. 28.2
3.	Trout needle	220	839	Inf. House 5
4.	—	220	4699	Thule House 19
5.	—	220	10692	— Co. A 17.3
6.	—	220	5084	— House 21. Ø
7.	Gull hook	220	11522	— Co. A 22.3
8.	Gorge	220	6564	— House 21. Mid. 14.6
9.	— of wood	220	6612	— — — 16.4
10.	Salmon decoy	220	575	Inf. House 3
11.	—	220	576	— — 3
12.	—	219	304	C. Russell House 1
13.	Fish hook	219	5078	Thule House 21. Ø
14.	Stone sinker	219	2832	— — 1
15.	—	219	7497	— — 21. Mid. 25.5
16.	Sling handle, rear end (C. Dorset?)	217	11997	Inf. House 4 Mid. layer 5
17.	—	217	7748	Thule House 21. Mid. 27.5
18.	—	217	1198	Inf. House 8
19.	—	217	9928	Thule Co. A 14.8
20.	—	217	8331	— House 26
21.	—	217	2626	Ruin Isl. House 6



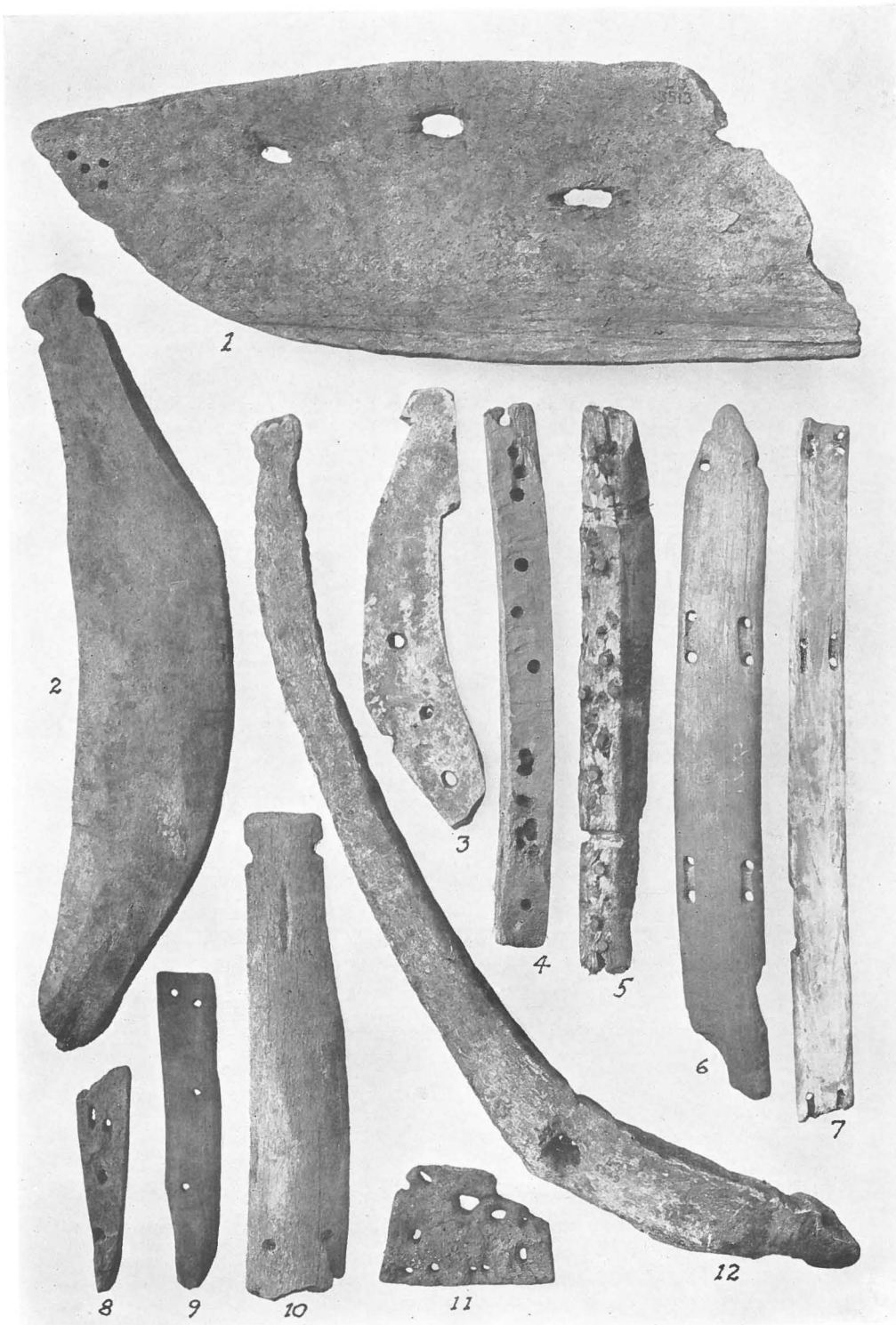
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Plate 15.

1:4

		Ref. p.	L 3:	
1.	Sledge runner of bone, fragm...	222	3513	Thule House 7
2.	— cross-slat	225	5240	— — 21. Ø
3.	— angle brace (?)	226	320	C. Russell House 2
4.	— runner, bone	223	1700	Inf. House 19
5.	— — wood.....	224	1565	— — 16
6.	— shoe.....	224	1250	— — 10
7.	— —	224	5347	Thule House 21. Ø
8.	— runner, fragm. (?).....	224	2975	— — 3
9.	— shoe, antler	225	5897	— — 21.V
10.	— cross-slat	225	1659	Inf. House 18
11.	Piece of compound sledge runner	224	10069	Thule Co. A 15—16.1-2
12.	Sledge upstander, whale bone ..	226	5349	— House 21. Ø

Plate 15.

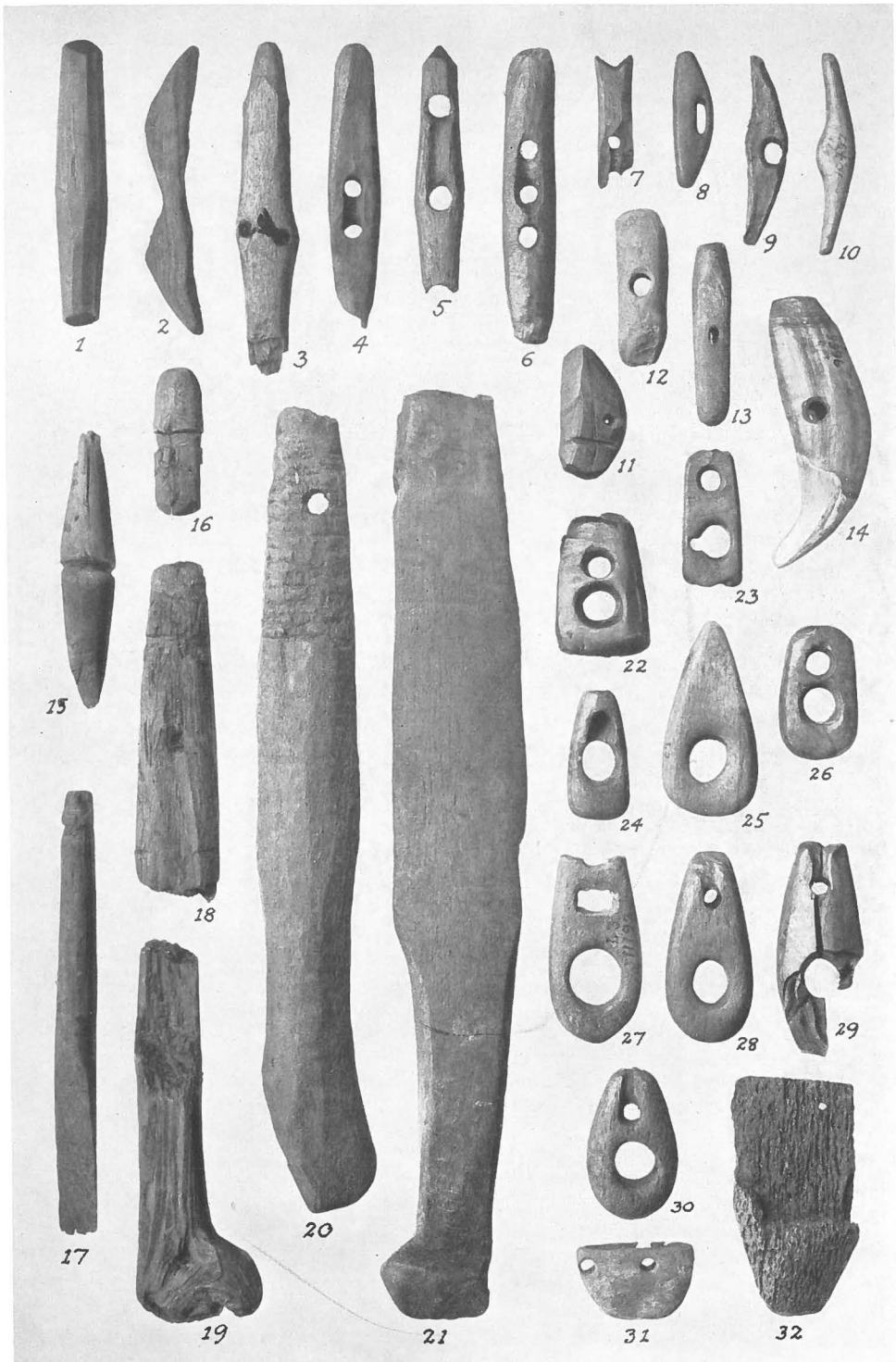


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Plate 16.

1:2

		Ref. p.	L 3:	
1.	Drag-line handle (?) wood	207	2633	Ruin Isl. House 6
2.	— —	207	2632	— — 6
3.	— bone	207	8990	Thule Co. A 11.9
4.	— (?)	207	6916	— House 21. Mid. 23.2
5.	Towing gear neck piece (?)	207	8261	— — 24
6.	— — (?)	207	6500	— — 21. Mid. 13.4
7.	— — (?)	207	9220	— Co. A 12.4
8.	Toggle	207	4016	— House 12
9.	—	207	8558	— Co. A 11—14.1
10.	—	207	10477	— — 16.4
11.	—	206	5196	— House 21. Ø
12.	— walrus molar	206	1336	Inf. House 11
13.	—	206	4735	Thule House 19
14.	— bear tooth	206	9656	— Co. A 13.10
15.	— for sledge draught-line . .	227	1888	Inf. House 26. S
16.	— — — . .	227	9675	Thule Co. A 13.10
17.	Whip shank fore end	229	8658	— — 11.3
18.	— —	228	6408	— House 21. Mid. 12.1
19.	— rear end (?)	229	5364	— — 21. Ø
20.	— bone	228	4232	— — 16
21.	— —	228	5156	— — 21. Ø
22.	Trace buckle	227	2289	Ruin Isl. House 1
23.	—	227	461	Inf. House 2
24.	—	227	9028	Thule Co. A 11.10
25.	—	227	1959	Inf. House 30
26.	—	227	2749	Thule House 1
27.	—	227	11192	— Co. A 19.6
28.	—	227	1499	Inf. House 16
29.	—	227	10964	Thule Co. A 18.5
30.	—	227	1671	Inf. House 18
31.	End mounting for kayak paddle	232	9175	Thule Co. A 12.3
32.	— —	232	11791	— Co. B 2.2

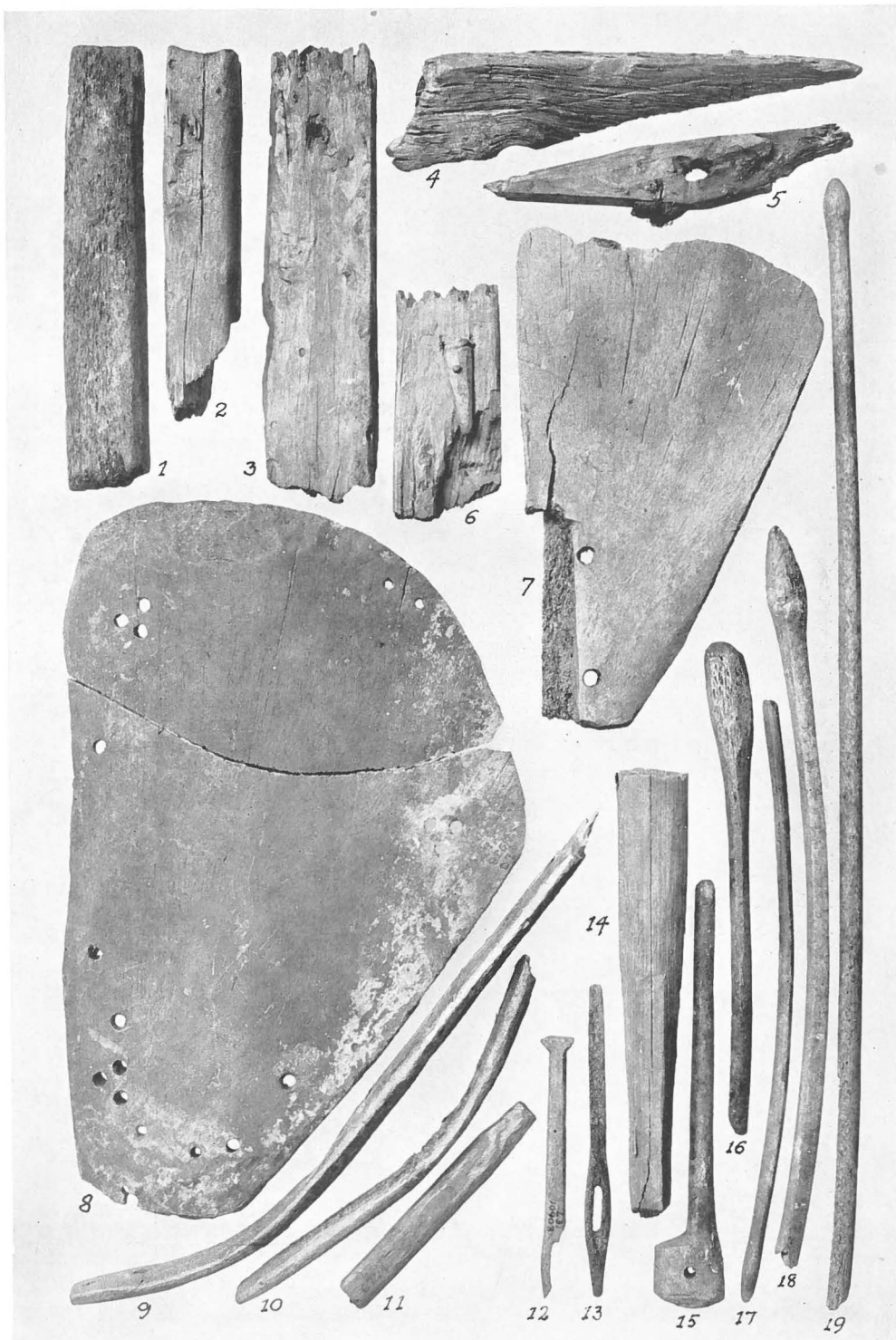

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Plate 17.

1:3

		Ref. p.	L 3:	
1.	Umiaq rib, bone	229	3134	Thule House 4
2.	— wood	229	2841	— — 1
3.	Kayak gunwale, fragm.	230	8280	— — 24
4.	— stem	230	7048	— — 21. Mid. 23.4
5.	— —	230	1505	Inf. House 16
6.	— gunwale, fragm.	230	5144	Thule House 21. Ø
7.	Umiaq oar blade (?)	235	5896	— — 21.V
8.	Snow shovel	235	1938	Inf. House 30
9.	Kayak rib, fragm.	232	1506	— — 16
10.	— —	232	5218	Thule House 21. Ø
11.	— —	232	6774	— — 21. Mid. 21.1
12.	Leg for kayak rack	233	10903	— Co. A 18.4
13.	—	233	4850	— House 20
14.	Kayak paddle, fragm.	232	10014	— Co. A 14.10
15.	Snow probe, rear end	235	5863	— House 21.V
16.	— —	235	3782	— — 10
17.	— fore end	234	997	Inf. House 6
18.	— —	234	4574	Thule House 17
19.	— —	234	1407	Inf. House 12

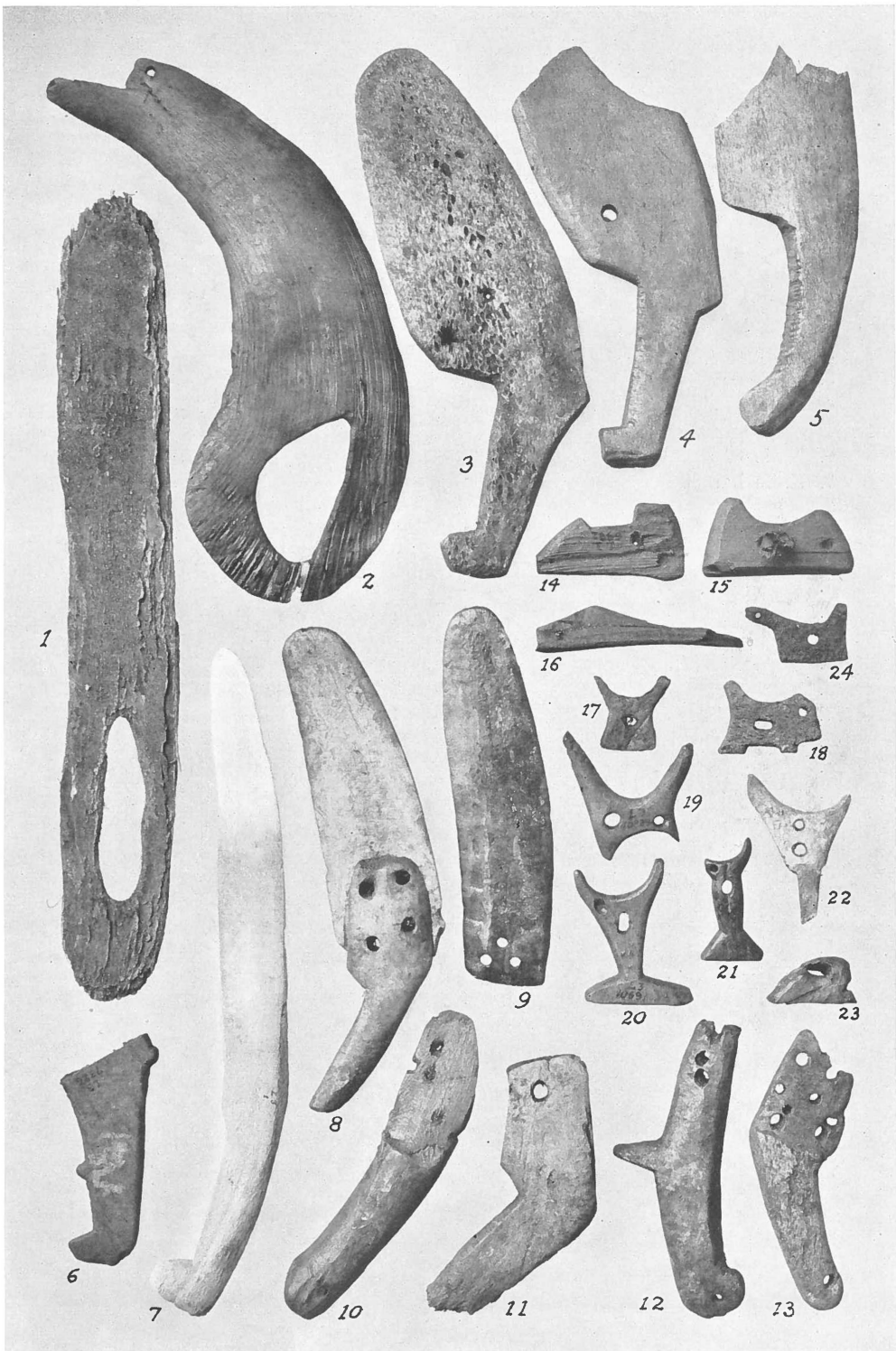


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Plate 18.

1:3

		Ref. p.	L 3:	
1.	Snow knife, baleen	234	2	C. Kent, surface find
2.	— musk-ox horn	234	1122	Inf. House 7
3.	—	233	1609	— — 17
4.	—	233	11452	Thule Co. A 21.3
5.	—	233	5818	— House 21. Ø
6.	— handle	233	7326	— — 21. Mid. 24.5
7.	—	234	1	C. Kent, surface find
8.	—	234	2089	Inf. Midden B. I
9.	— blade	234	5838	Thule House 21. V
10.	— handle, wood	234	862	Inf. House 5
11.	— —	234	3325	Thule House 5. N
12.	— —	234	5825	— — 21. V
13.	— —	234	723	Inf. House 4
14.	Harpoon rest	233	6992	Thule House 21. Mid. 23.3
15.	—	232	11617	— Co. A 22.5
16.	—	232	11776	— Co. B 2.1
17.	—	232	6767	— House 21. Mid. 21.1
18.	—	232	10531	— Co. A 16.7
19.	—	232	10889	— — 18.4
20.	—	233	10691	— — 17.3
21.	—	233	7155	— House 21. Mid. 24.3
22.	—	232	248	C. Kent House 5
23.	Kayak stud	233	3683	Thule House 10
24.	Harpoon rest	232	7774	— — 21. Mid. 28.1

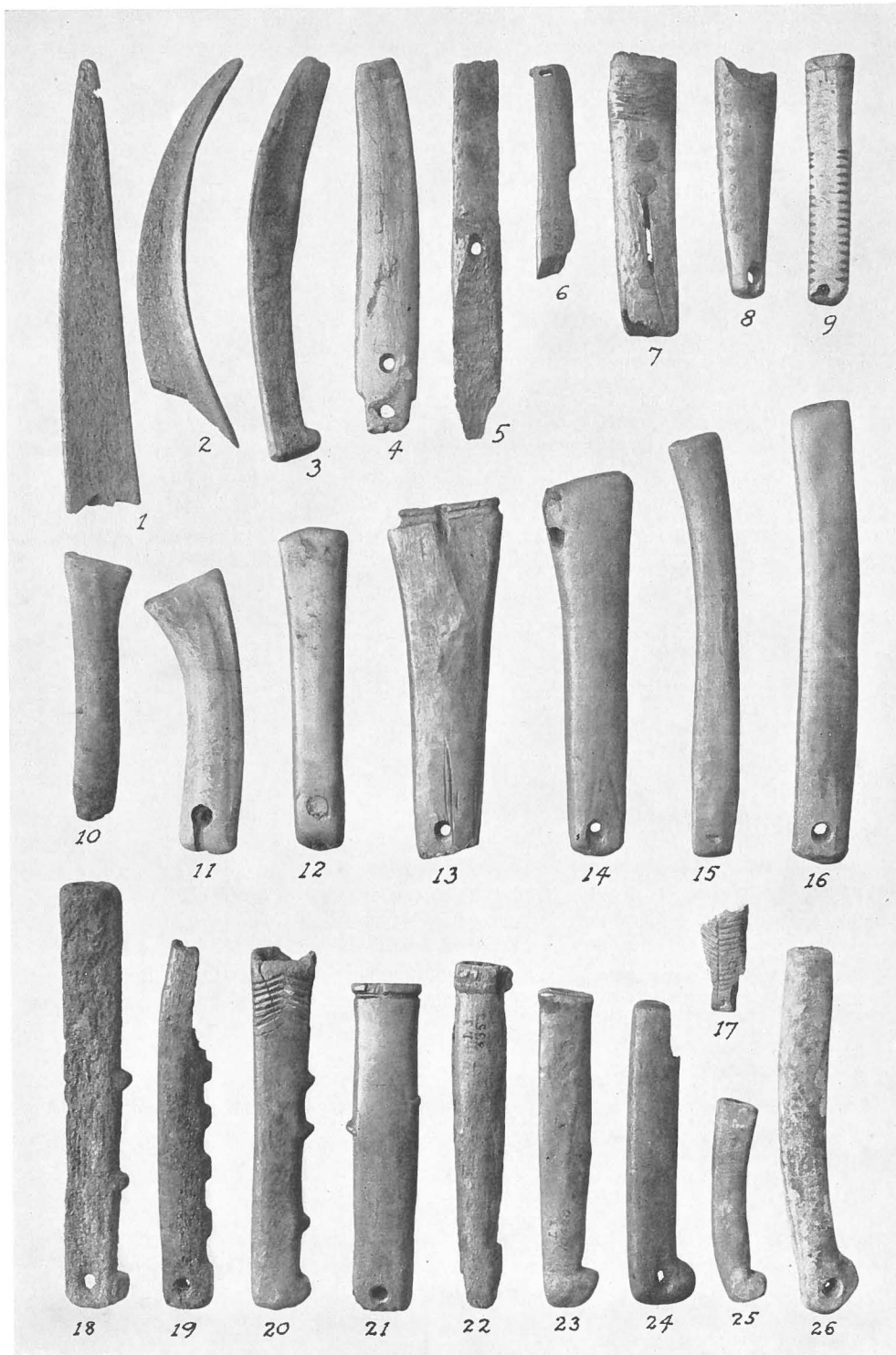


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Plate 19.

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		Ref. p.	L 3:		
1.	Bone knife, blunt edged	235	8702	Thule	Co. A 11.4
2.	Knife of antler, blunt edged ...	235	11724	—	Co. B 2.2
3.	— — ...	235	10630	—	Co. A 17.2
4.	Knife blade of antler, sharp ...	235	6557	—	House 21. Mid. 14.4
5.	Bone knife, sharp	235	8437	—	Co. A 8.4
6.	Knife of antler, sharp	235	8617	—	— 11.3
7.	Knife handle	237	5541	—	House 21. Ø
8.	—	237	8275	—	— 24
9.	—	236	5787	—	— 21.V
10.	—	236	3619	—	— 8
11.	—	237	47	C. Kent	House 2
12.	—	237	1874	Inf.	House 26. N
13.	—	236	2435	Ruin Isl.	House 3. B
14.	—	236	347	Inf.	House 1
15.	—	236	3125	Thule	House 4
16.	—	236	4234	—	— 16
17.	— fragm.	238	11568	—	Co. A 22.4
18.	—	238	6974	—	House 21. Mid. 23.3
19.	—	238	8201	—	— 22. Mid.
20.	—	238	8780	—	Co. A 11.5
21.	—	238	9031	—	— 11.10
22.	—	238	3353	—	House 5. S
23.	—	238	10420	—	Co. A 15.11
24.	—	238	7160	—	House 21. Mid. 24.3
25.	—	238	3919	—	— 11
26.	—	238	4137	—	— 12

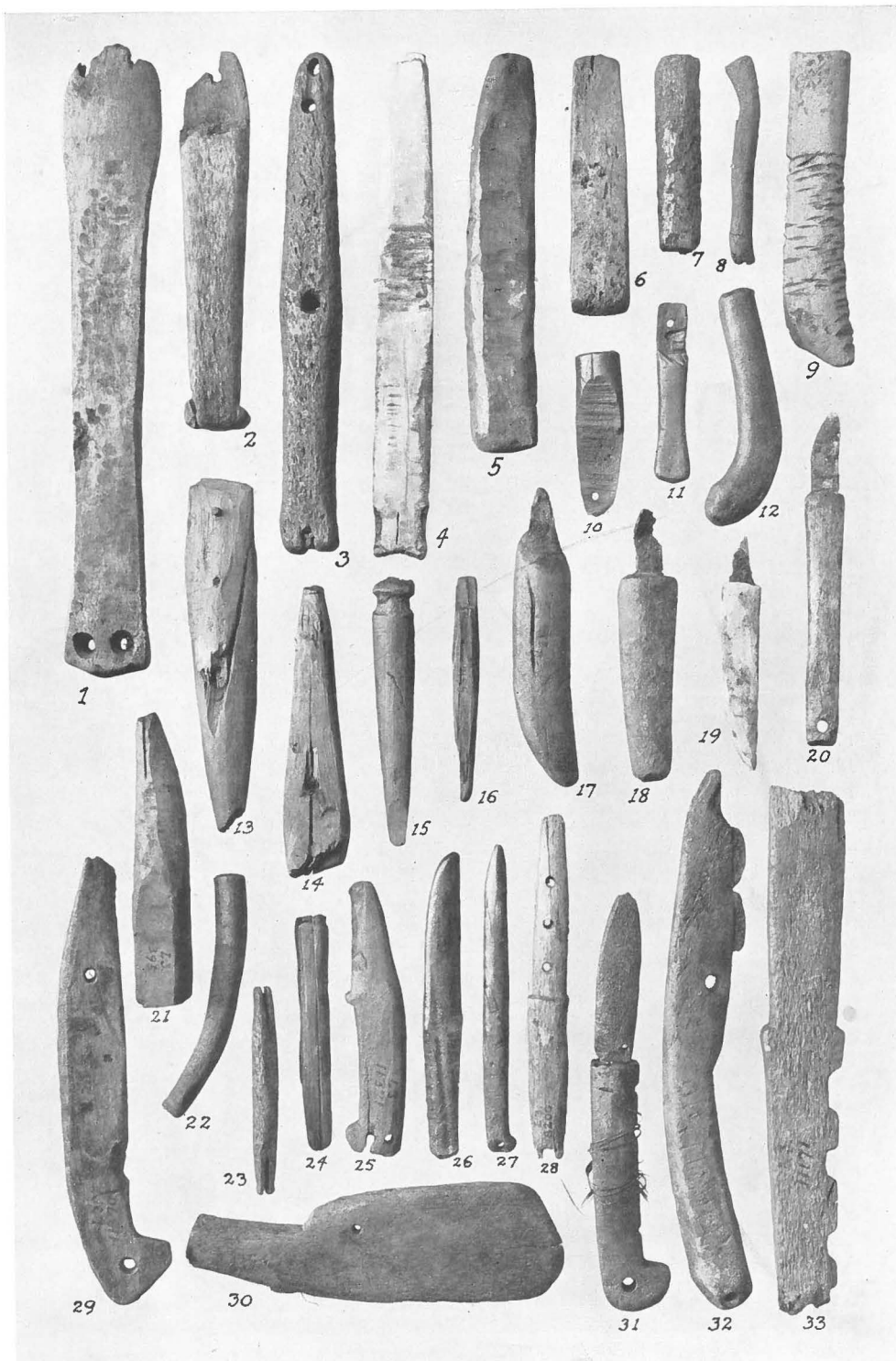


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Plate 20.

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		Ref. p.	L 3:	
1.	Knife handle	239	1541	Inf. House 16
2.	—	239	1373	— — 11
3.	—	239	8822	Thule Co. A 11.6
4.	—	239	1151	Inf. House 7
5.	—	237	2898	Thule House 1
6.	— , rest of iron blade	238	480	Inf. House 2
7.	— —	237	437	— — 2
8.	—	237	7218	Thule House 21. Mid. 24.4
9.	—	238	11761	— Co. B 2.1
10.	— fore end with scarf	238	8995	— Co. A 11.9
11.	—	239	11762	— Co. B 2.1
12.	—	238	10589	— Co. A 16.9
13.	— , wood	239	3949	— House 11
14.	— —	240	1853	Inf. House 26
15.	— —	239	1154	— — 7
16.	— —	239	2155	— Midden B. II 8.3
17.	Knife with iron blade	237	1170	— House 8
18.	—	237	4638	Thule House 18
19.	—	237	819	Inf. House 5
20.	—	237	773	— — 4 Mid. layer 1
21.	Knife handle	239	8395	Thule Co. A 7.2
22.	—	239	5502	— House 21. Ø
23.	—	239	4523	— — 17
24.	— wood	240	2161	Inf. Midden B. II 9.2
25.	—	240	11371	Thule Co. A 20.5
26.	—	240	9525	— — 13.5
27.	—	240	9466	— — 13.3
28.	—	240	8200	— House 22. Mid.
29.	—	239	11370	— Co. A 20.5
30.	—	240	6879	— House 21. Mid. 22.2
31.	—	240	9127	— Co. A 12.3
32.	— , row of iron blades	240	3617	— House 8
33.	—	240	11171	— Co. A 19.5

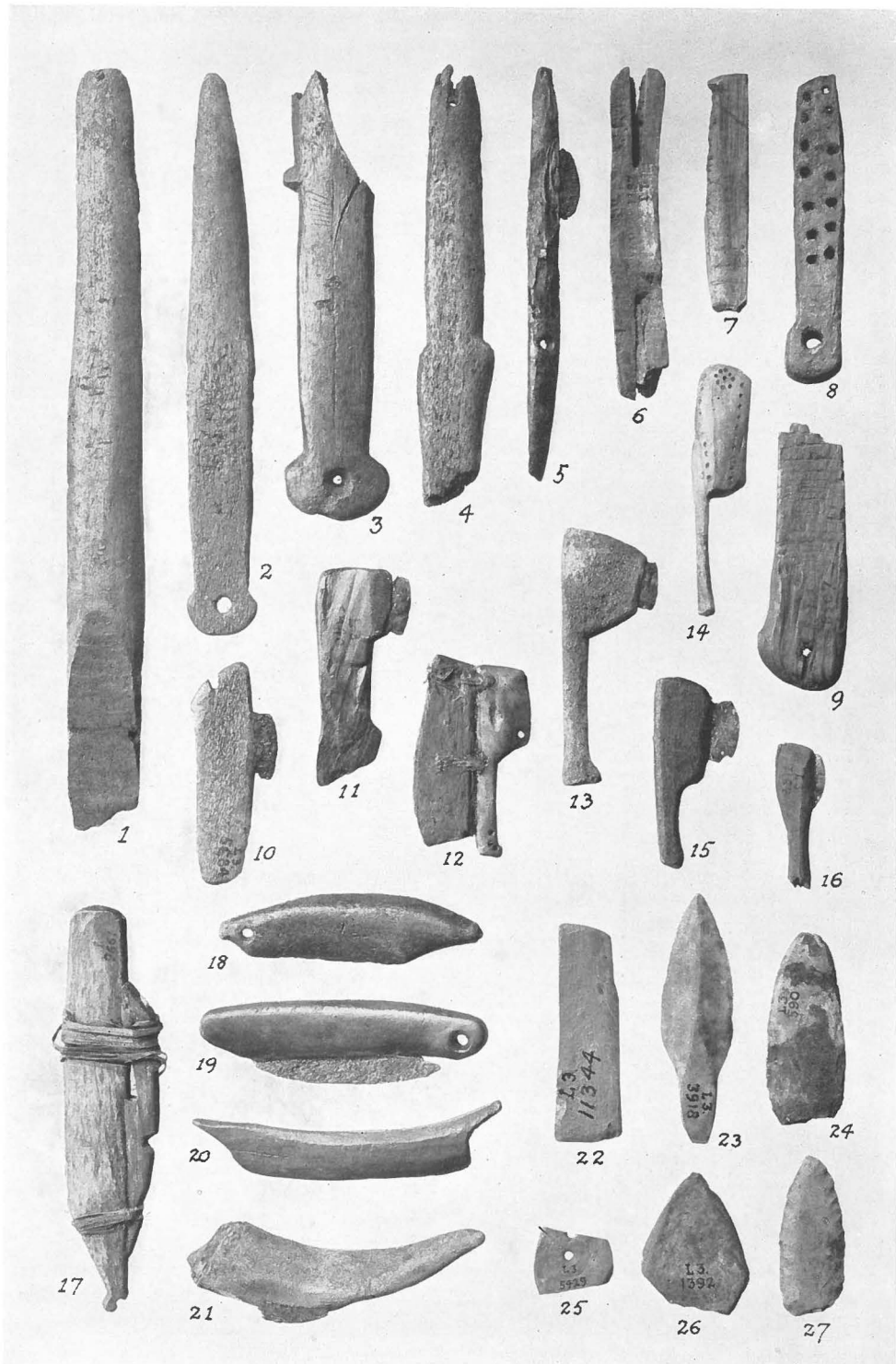

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Plate 21.

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		Ref. p.	L 3:	
1.	Knife fore end	241	5931	Thule House 21.
2.	Knife handle	240	4498	— — 17
3.	—	241	6223	— — 21. Mid. 8.4
4.	—	241	9588	— Co. A 13.7
5.	— , iron blade	241	7782	— House 21. Mid. 28.2
6.	—	238	2611	Ruin Isl. House 6
7.	—	239	2153	Inf. Midden B. II 8.3
8.	— , butt end	241	9728	Thule Co. A 14.2
9.	— —	241	6507	— House 21. Mid. 13.4
10.	— , iron blade	242	5684	— — 21. V
11.	— —	243	6840	— — 21. Mid. 22.1
12.	—	243	5373	— — 21. Ø
13.	— , iron blade	243	8439	— Co. A 8.4
14.	—	243	1740	Inf. House 21
15.	— , blade of brass ...	243	8028	Thule House 21. Mid. 30.2
16.	— , iron blade	242	7162	— — 21. Mid. 24.3
17.	— (?)	242	9661	— Co. A 13.10
18.	Baleen shave	242	9130	— — 12.3
19.	— , iron blade	242	5192	— House 21. Ø
20.	—	242	11450	— Co. A 21.3
21.	— , iron blade	242	11897	— Co. B 3.3
22.	Slate knife	236	11344	— Co. A 20.4
23.	Knife blade, slate	243	3918	— House 11
24.	— —	243	590	Inf. House 3
25.	— —	243	5429	Thule House 21. Ø
26.	— —	243	1392	Inf. House 12
27.	— —	243	1892	— — 27. Midden

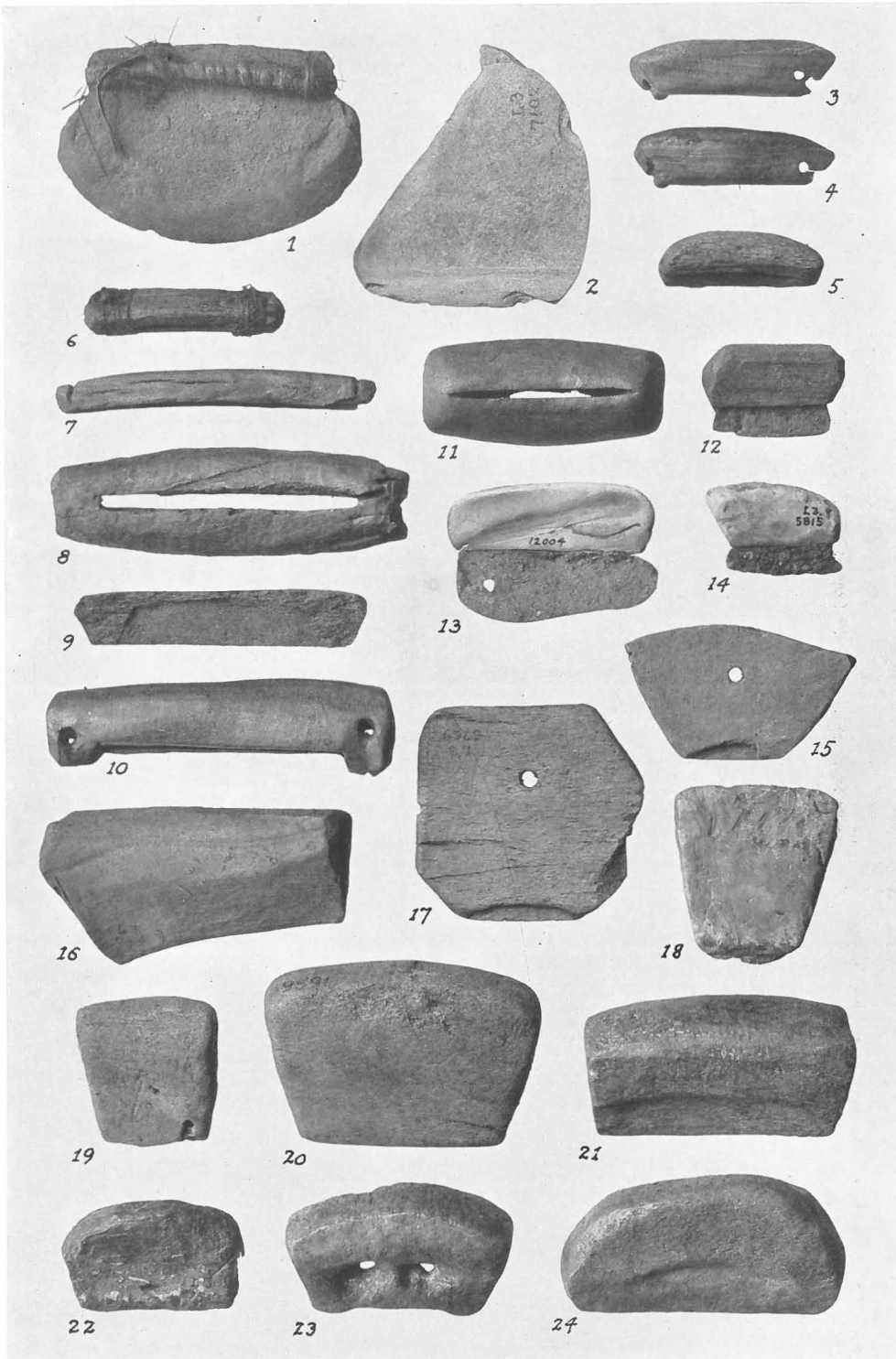

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L3 11344
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Plate 22.

1:2

		Ref. p.	L 3:	
1.	Ulo	252	3622	Thule House 8
2.	—, fragm.	252	7102	— — 21. Mid. 24.2
3.	— handle	253	7680	— — — 27.4
4.	— —	253	6841	— — — 22.1
5.	— —	253	7368	— — — 25.2
6.	— —, wood	253	2612	Ruin Isl. House 6
7.	— — —	253	7296	Thule House 21. Mid. 24.5
8.	— —	253	3688	— — 10
9.	— —	253	10273	— Co. A 15.7
10.	— —	254	6248	— House 21. Mid. 8.6
11.	— —	253	6976	— — — 23.3
12.	—, iron blade	254	10300	— Co. A 15.7
13.	— —	253	12004	Inf. House 4. Midden layer 6
14.	— —	253	5815	Thule House 21. V
15.	— blade piece	255	4082	— — 12
16.	— handle	253	1744	Inf. House 21
17.	— —	255	6769	Thule House 21. Mid. 22.1
18.	— blade piece with iron blade	255	5362	— — 21. Ø
19.	— handle	254	8703	— Co. A 11.4
20.	— —	254	9591	— — 13.7
21.	— —	254	4903	— House 20
22.	— —	254	7512	— — 21. Mid. 26.2
23.	— —	254	10363	— Co. A 15.9
24.	— —	254	5779	— House 21. V

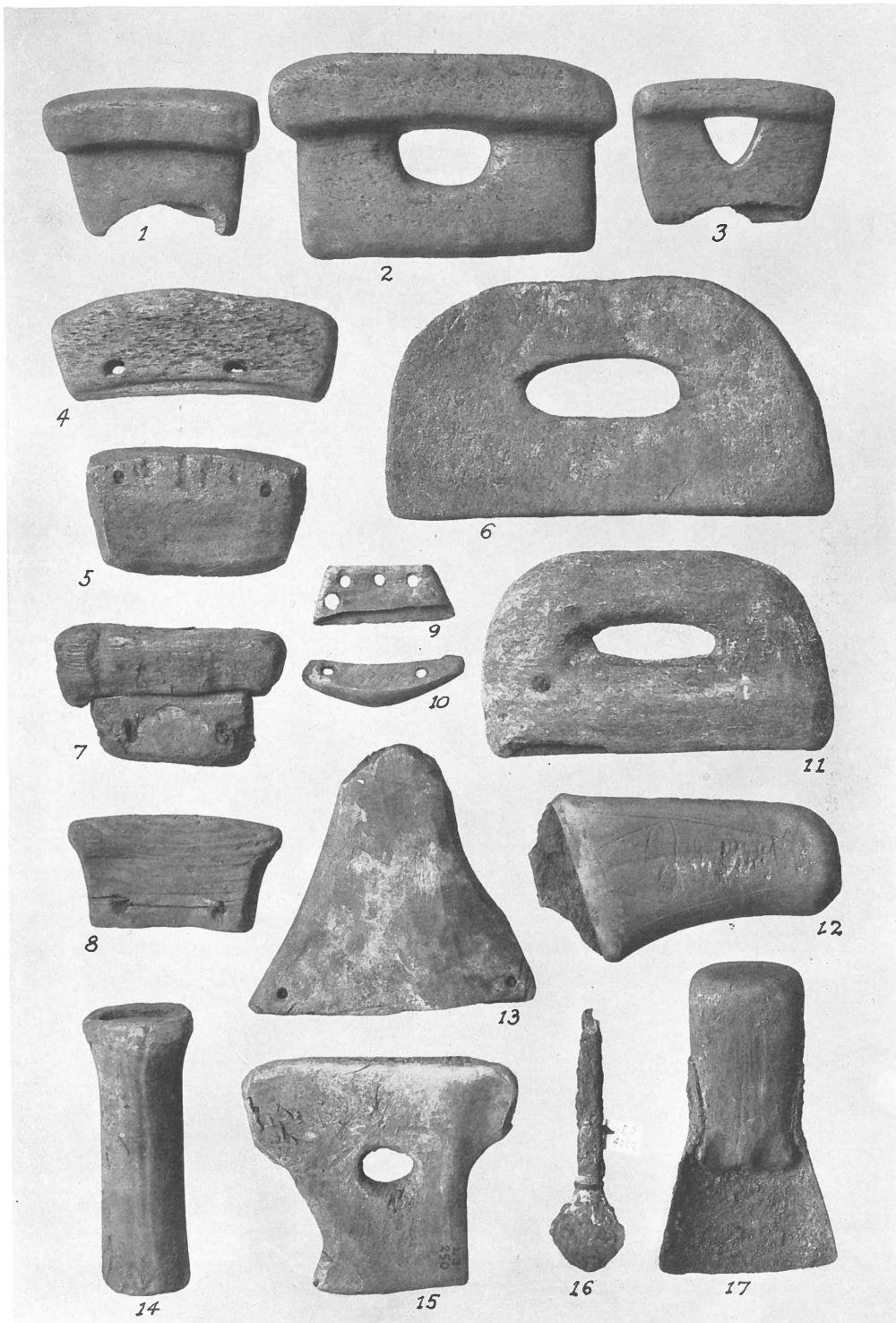


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Plate 23.

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		Ref. p.	L 3:	
1.	Ulo handle	254	11254	Thule Co. A 19.8
2.	—	254	11720	— Co. B 1.3
3.	—	254	11461	— Co. A 21.3
4.	— back-piece	254	7790	— House 21. Mid. 28.2
5.	— blade-piece.....	255	5968	— — 21. V
6.	—	254	4236	— — 16
7.	—	254	5954	— — 21. V
	and	254	5953	— — 21. V
8.	— back-piece	254	11528	— Co. A 22.3
9.	— blade piece.....	255	10508	— — 16.5
10.	— —	254	6793	— House 21. Mid. 21.2
11.	—	254	866	Inf. House 5
12.	Scraper with iron blade.....	257	662	— — 4
13.	— handle.....	256	1945	— — 30
14.	— —	255	3841	Thule House 10
15.	Ulo handle	254	250	C. Kent — 5
16.	Iron nail? (Norse).....	305	4202	Thule — 16
17.	Scraper with iron blade	257	8549	— Co. A 11—14.1

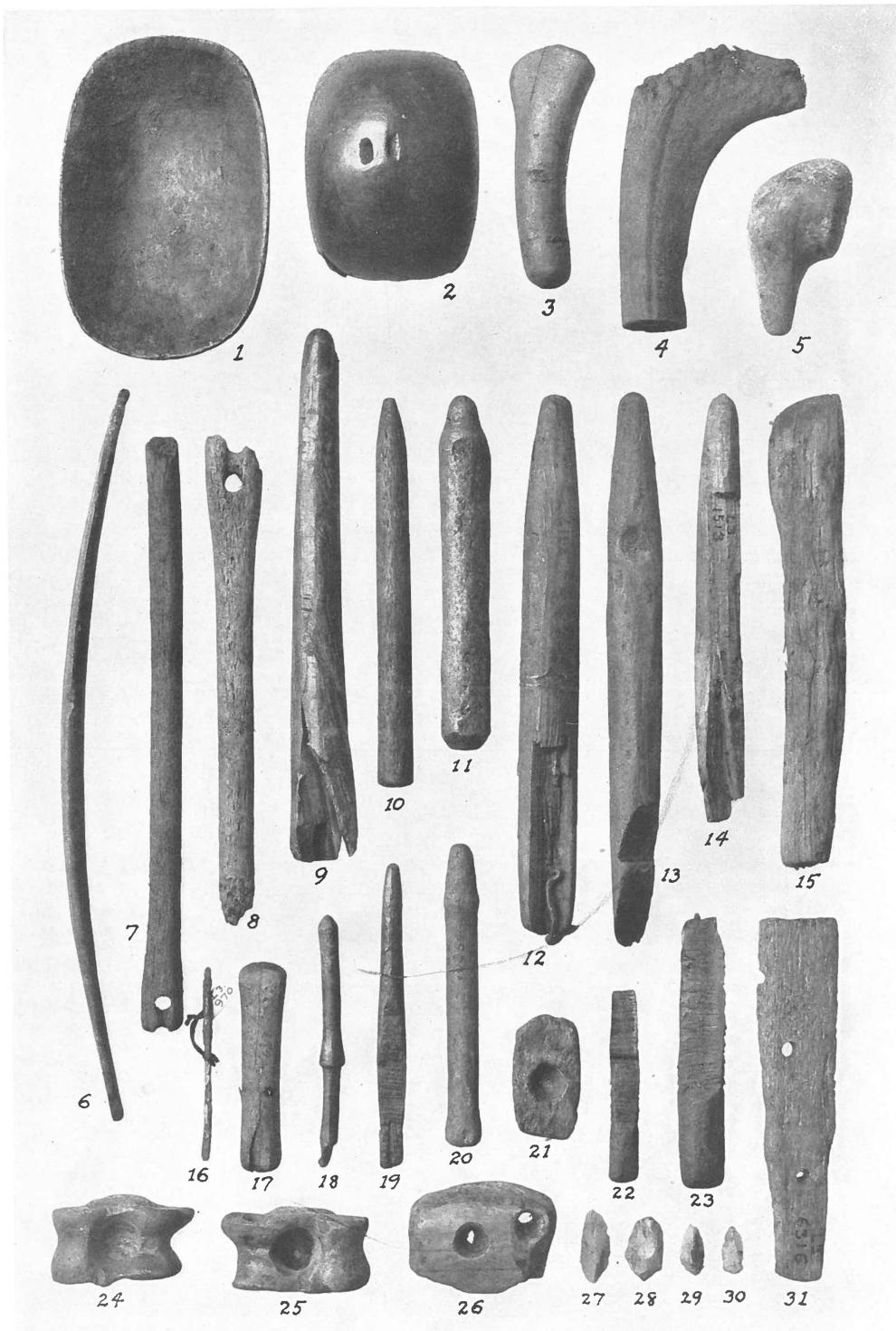


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Plate 24.

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		Ref. p.	L 3:	
1.	Cup-shaped scraper	258	8262	Thule House 24
2.	— —	258	4694	— — 19
3.	Hand drill	244	11994	Inf. House 4 Mid. layer 5
4.	—	244	7365	Thule House 21. Mid. 25.2
5.	—	244	1460	Inf. House 13
6.	Drill bow	244	2415	Ruin Isl. House 3. A
7.	—	244	3721	Thule House 10
8.	—	244	15	C. Kent — 1
9.	Drill shank	244	9757	Thule Co. A 14.3
10.	—	244	4734	— House 19
11.	—	244	10894	— Co. A 18.4
12.	—	244	2617	Ruin Isl. House 6
13.	—	245	1760	Inf. House 21
14.	—	244	1513	— — 16
15.	Hand drill	244	332	C. Russell House 2
16.	Drill bit (?) iron	245	970	Inf. House 6
17.	Hand drill	243	5421	Thule House 21. Ø
18.	Drill shank	244	5765	— — 21. V
19.	—	244	10669	— Co. A 17.3
20.	—	244	10854	— — 18.3
21.	Drill mouthpiece	245	3016	— House 3
22.	— foreshaft	245	3147	— — 4
23.	— —	245	751	Inf. House 4 Mid. layer 1
24.	— mouthpiece	245	3515	Thule House 7
25.	— —	245	3784	— — 10
26.	— —	245	5766	— — 21. V
27.	Drill bit (?) flint	245	11992.a	Inf. House 4 Mid. layer 4
28.	—	245	1743	— — 21
29.	—	245	2187	— Midden B. II 11.2
30.	—	245	2225	— — 15.2
31.	Hand drill	244	6316	Thule House 21. Mid. 10.2

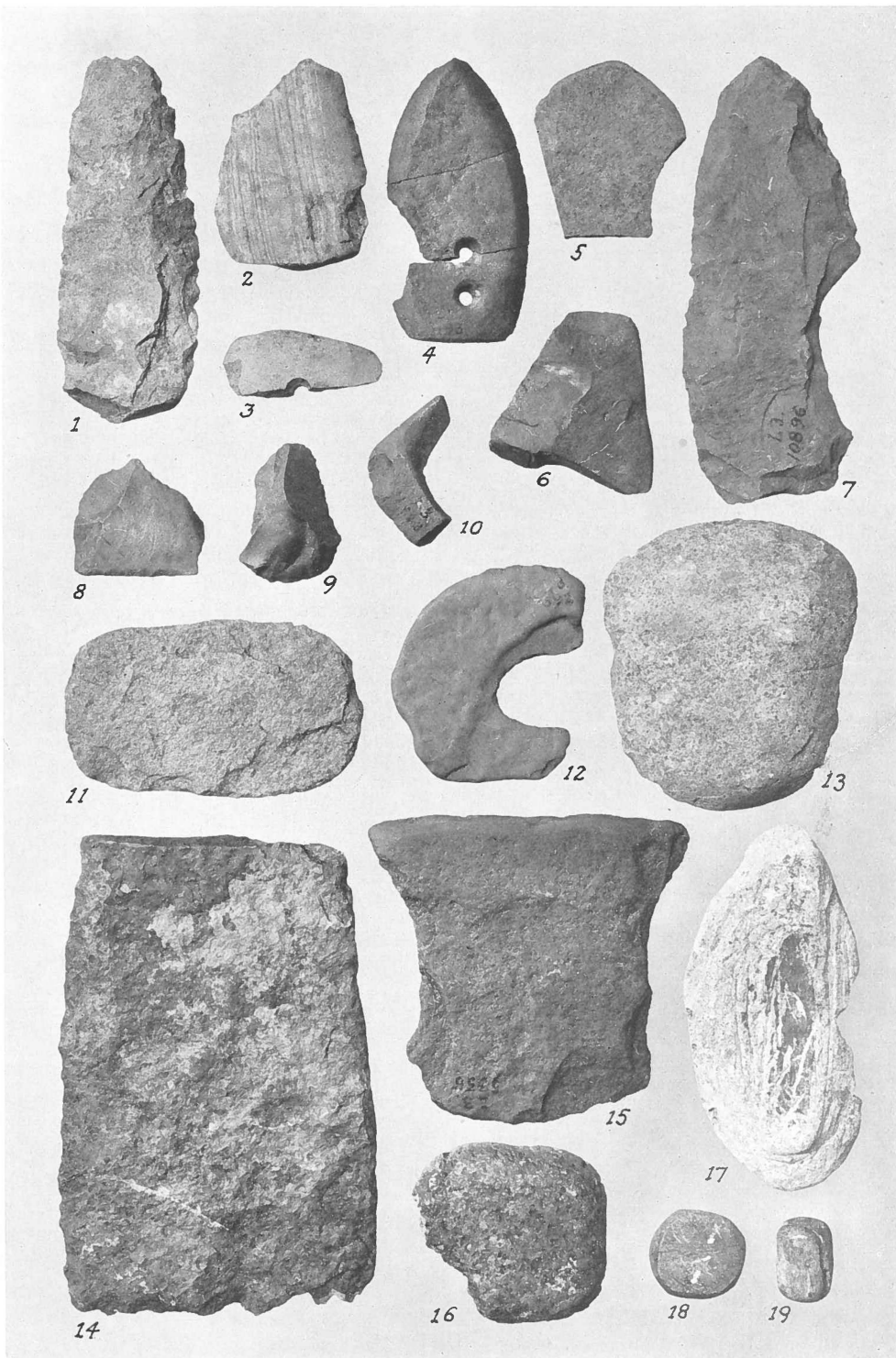

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Plate 25.

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		Ref. p.	L 3:		
1.	Lance blade, unfinished.....	204	9576	Thule	Co. A 13.6
2.	—	204	9208	—	— 12.4
3.	— fragm.....	204	9844	—	— 14.5
4.	—	204	5193	—	House 21. Ø
5.	Stone knife (?).....	252	7785	—	— 21. Mid. 28.2
6.	—	252	9575	—	Co. A 13.6
7.	— unfinished.....		10896	—	— 18.4
8.	Stone scraper.....	255	1918.a	Inf.	House 29
9.	—	255	752	—	— 4 Mid. layer 1
10.	—	255	6623	Thule	House 21. Mid. 16.5
11.	—	256	7367	—	— — 25.2
12.	—	255	4692	—	House 19
13.	—	256	11286	—	Co. A 20.1
14.	—	256	7106	—	House 21. Mid. 24.2
15.	—	256	5356	—	— 21. Ø
16.	—	256	11457	—	Co. A 21.3
17.	—	256	2902	—	House 1
18.	—	256	11458	—	Co. A 21.3
19.	—	256	5113	—	House 21. Ø

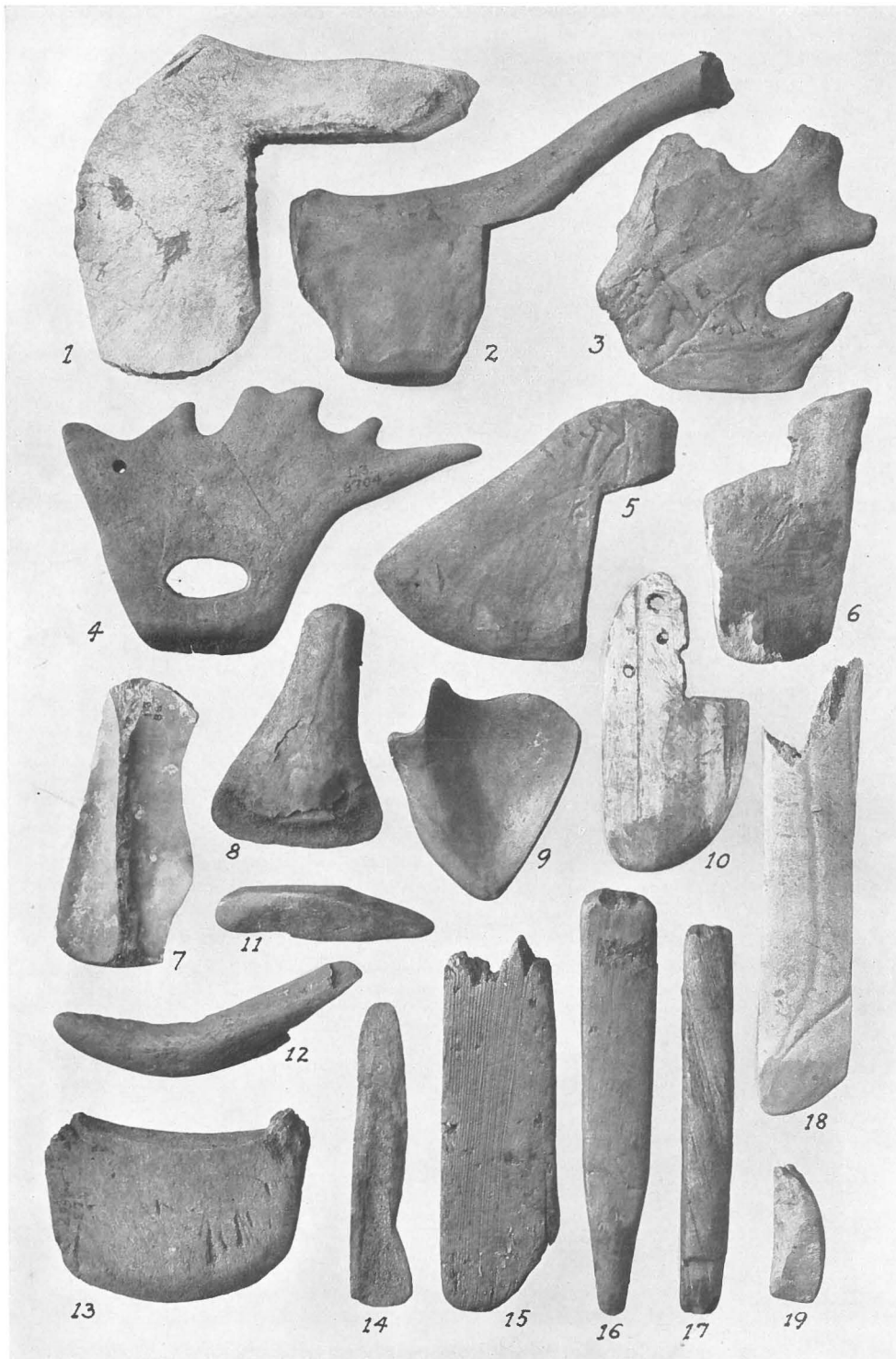


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Plate 26.

2:5

		Ref. p.	L 3:	
1.	Scraper	256	218	C. Kent House 4
2.	—	256	1703	Inf. House 19
3.	—	256	6666	Thule House 21. Mid. 17.2
4.	—	256	8704	— Co. A 11.4
5.	—	256	5901	— House 21. V
6.	—	256	1231	Inf. House 9
7.	—	256	867	— — 5
8.	—	256	1262	— — 10
9.	— of polar bear mandible .	256	3990	Thule House 11
10.	—	256	1261	Inf.House 10
11.	—	256	11033	Thule Co. A 18.7
12.	—	256	4549	— House 17
13.	—	256	4667	— — 19
14.	—	256	1107	Inf. House 7
15.	— , wood.....	256	6127	Thule House 21. Mid. 7.1
16.	— , — (bow stave)	256	5130	— — 21. Ø
17.	—	256	7369	— — 21. Mid. 25.2
18.	—	256	66	C. Kent House 2
19.	— , walrus molar.....	256	1863	Inf. House 26



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Plate 27.

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		Ref. p.	L 3:	
1.	Two handed scraper	258	2948	Thule House 1
2.	—	258	7925	— — 21. Mid. 28.5
3.	—	258	11907	— Co. B 3.3
4.	—	258	11763	— — 2.1
5.	—	258	6016	— House 21. Mid. 2.1
6.	—	258	1450	Inf. House 13
7.	Cutting board	250	4651	Thule House 18
8.	Flint flaker	246	2340	Ruin Isl. House 2
9.	—	246	2341	—
	and	246	2348	—
10.	—	246	1741	Inf. House 21
11.	—	246	1088	— — 7
12.	—	246	3549	Thule House 8
13.	—	246	1396	Inf. House 12
14.	—	246	2582	Ruin Isl. House 6
15.	Side scraper	257	1489	Inf. House 14
16.	Arrow straightener	251	2960	Thule House 1
17.	Thong smoother (?)	251	677	Inf. House 4
18.	Chopping board, whale bone ...	250	1525	— — 16

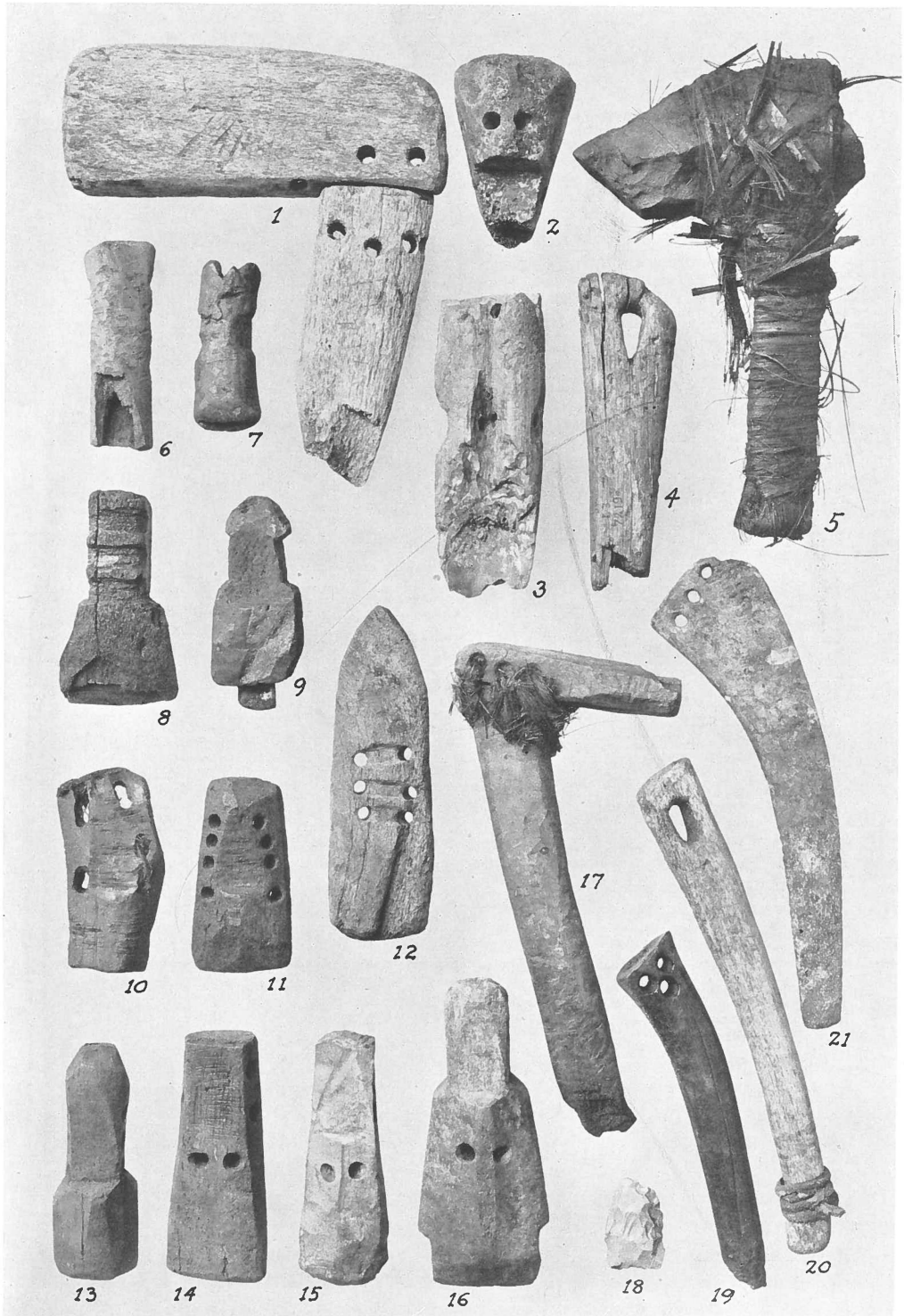


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Plate 28.

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		Ref. p.	L 3:	
1.	Bone maul	246	274	C. Kent House 5
	and	246	275	—
2.	—	246	200	C. Kent House 4
3.	Mattock head, walrus ivory	246	4388	Thule House 16
4.	Adze handle	248	7219	— — 21. Mid. 24.4
5.	Stone maul with baleen handle	246	3209	— — 4
6.	Adze head	247	10162	— Co. A 15.4
7.	—	247	11100	— — 19.3
8.	—	247	6182	— House 21. Mid. 8.3
9.	— , iron blade	247	2308	Ruin Isl. House 2
10.	—	247	3086	Thule House 4
11.	—	247	4361	— — 16
12.	—	247	3490	— — 7
13.	—	248	5237	— — 21. Ø
14.	—	248	11926	— Co. B
15.	—	248	1547	Inf. House 16
16.	—	248	1546	— — 16
17.	Adze	248	3921	Thule House 11
18.	Adze blade	248	2016	Inf. House 30
19.	— handle	248	4417	Thule House 16
20.	— —	248	622	Inf. House 3
21.	— —	248	5407	Thule House 21. Ø

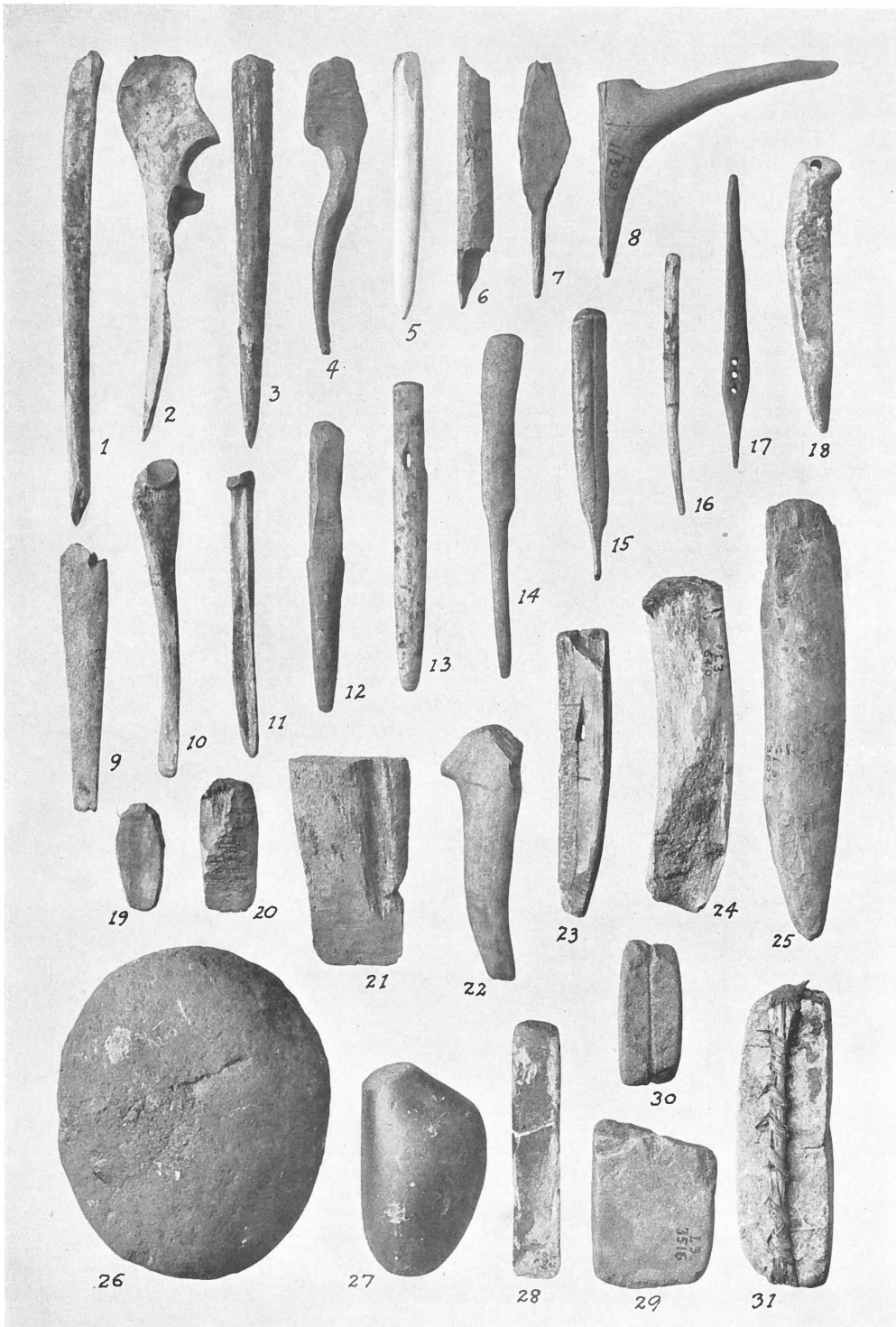


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Plate 29.

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		Ref. p.	L 3:	
1.	Pointed bone	250	251	C. Kent House 5
2.	—	250	5900	Thule House 21. V
3.	Marline spike	250	9219	— Co. A 12.4
4.	—	250	10905	— — 18.4
5.	—	250	863	Inf. House 5
6.	—	250	10006	Thule Co. A 14.10
7.	—	250	7678	— House 21. Mid. 27.4
8.	— (?)	250	11509	— Co. A 22.2
9.	—	250	195	C. Kent House 4
10.	—	250	3661	Thule House 10
11.	— (?)	250	5422	— — 21. Ø
12.	—	250	3326	— — 5. N
13.	—	250	840	Inf. House 5
14.	—	250	754	— — 4 Mid. layer 1
15.	—	250	2946	Thule House 1 .
16.	—	250	1779	Inf. House 22
17.	— (?)	250	9956	Thule Co. A 14.8
18.	—	250	9758	— — 14.3
19.	Wedge	249	4317	— House 16
20.	—	249	1204	Inf. House 8
21.	—	249	11453	Thule Co. A 21.3
22.	—	249	681	Inf. House 4
23.	—	249	4284	Thule House 16
24.	—	249	640	Inf. House 4
25.	—	249	3607	Thule House 8
26.	Hammer stone	246	2281	Ruin Isl. House 1
27.	—	246	3061	Thule House 4
28.	Whetstone, asbestos	245	639	Inf. House 4
29.	—	245	3516	Thule House 7
30.	—	245	554	Inf. House 3
31.	—	245	2017	— — 30

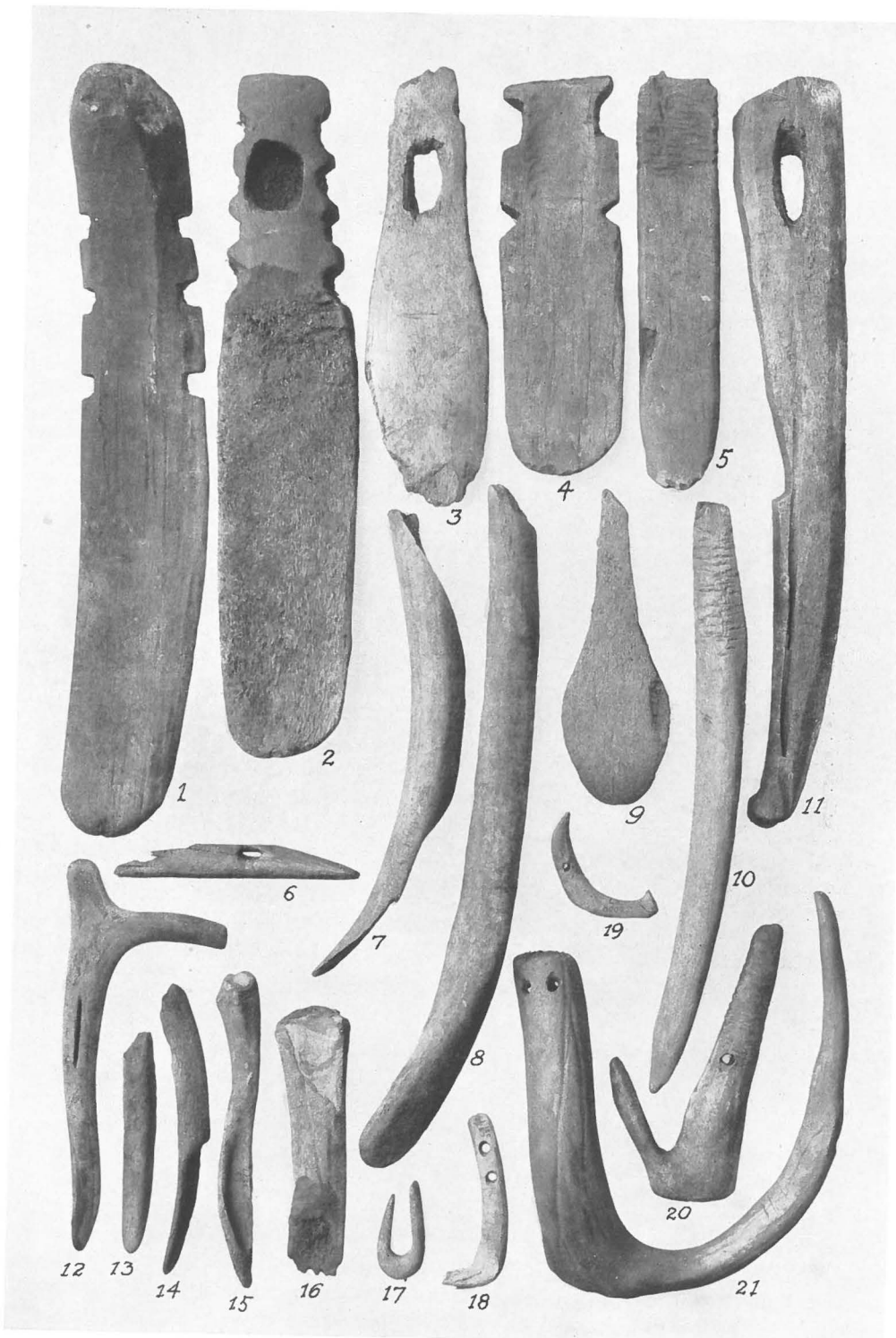

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Plate 30.

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		Ref. p.	L 3:	
1.	Mattock head	249	2356	Ruin Isl. House 2
2.	—	249	1115	Inf. House 7
3.	—	249	1543	— — 16
4.	—	249	1935	— — 30
5.	—	249	4736	Thule House 19
6.	Pick-axe of walrus ivory	249	2127	Inf. Midden B. II 8.2
7.	Hand pick	248	1992	— House 30
8.	—	249	4166	Thule House 12
9.	— (moss spade)	249	9849	— Co. A 14.5
10.	Pick-axe head	249	4321	— House 16
11.	Mattock handle	249	1242	Inf. House 9
12.	Hand pick	248	418	— — 2
13.	—	249	4956	Thule House 21
14.	—	249	3297	— — 5. N
15.	—	249	1577	Inf. House 17
16.	—	248	1578	— — 17
17.	Hook	269	88	C. Kent House 2
18.	—	269	331	C. Russell House 2
19.	—	269	8009	Thule House 21. Mid. 30.1
20.	—	269	4751	— — 19
21.	—	269	5902	— — 21.V



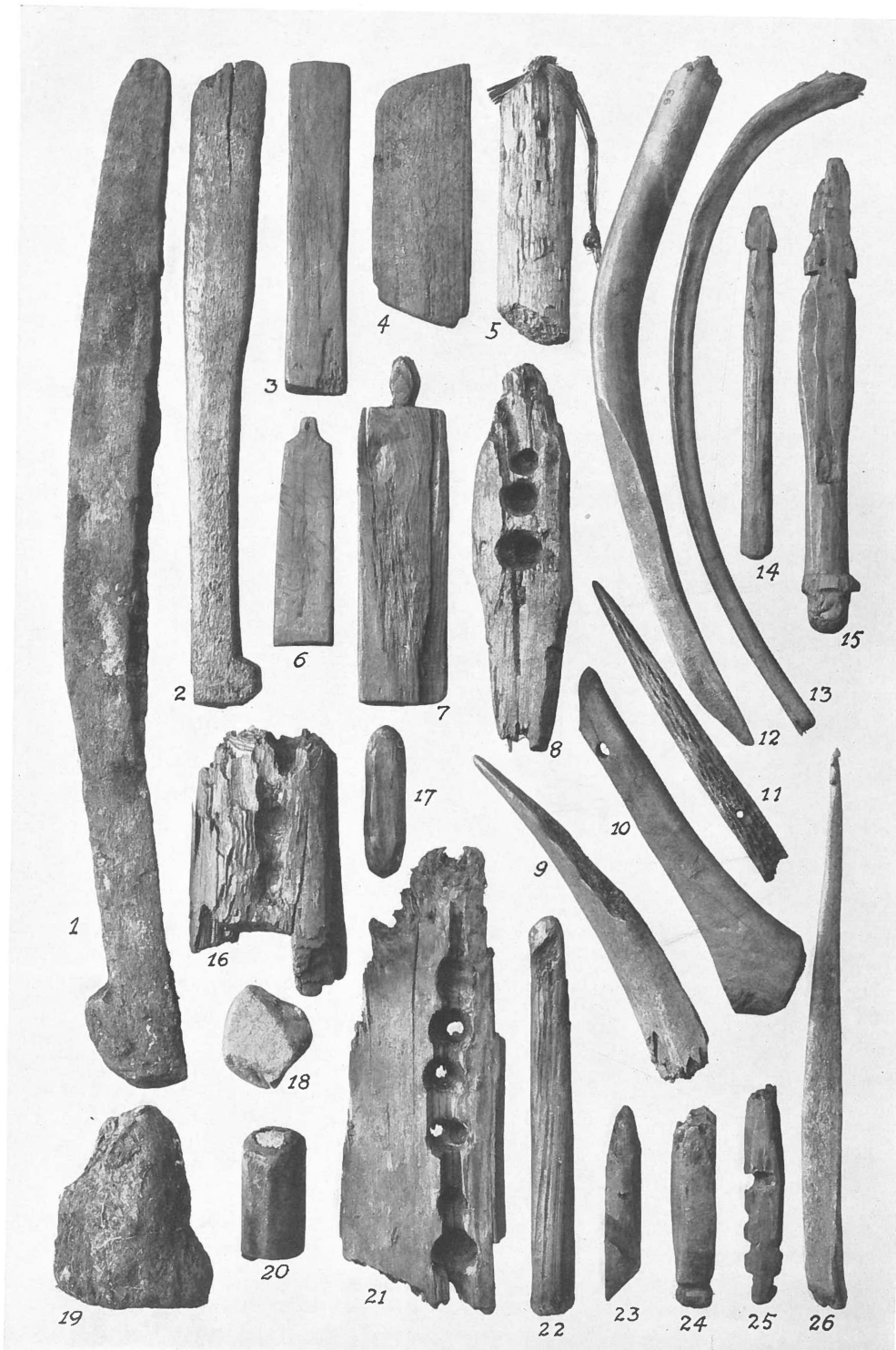
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Plate 31.

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		Ref. p.	L 3:	
1.	Snow beater (?) bone.....	273	5220	Thule House 21. Ø
2.	— —	273	10203	— Co. A 15.5
3.	Cutting board.....	250	5696	— House 21.V
4.	—	250	3085	— — 4
5.	—	250	3455	— — 7
6.	—	251	3012	— — 3
7.	—	251	312	C. Russell House 1
8.	Fire drill top piece (?).....	261	613	Inf. House 3
9.	Meat stick.....	268	5585	Thule House 21.V
10.	—	269	8089	— — 21. Mid. 31.4
11.	—	268	9577	— Co. A 13.6
12.	—	269	93	C. Kent House 2
13.	—	268	4910	Thule House 20
14.	Blubber fork.....	269	8014	— — 21. Mid. 30.1
15.	—	269	7565	— — — 26.4
16.	Fire drilled wood (from umiaq)..	261	4820	— — 20
17.	Fire drill.....	260	603	Inf. House 3
18.	Pyrites.....	260	2722	Aunartoq House 9
19.	Wick moss	261	2870	Thule House 1
20.	Pyrites in handle of antler	260	774	Inf. House 4 Mid. layer 1
21.	Fire drilled wood	261	4488	Thule House 16
22.	Handle for lamp trimmer.....	263	10426	— Co. A 15.11
23.	Lamp trimmer.....	263	9820	— — 14.4
24.	—	263	8013	— House 21. Mid. 30.1
25.	—	263	7940	— — — 28.5
26.	Blubber fork	269	208	C. Kent House 4

Plate 31.

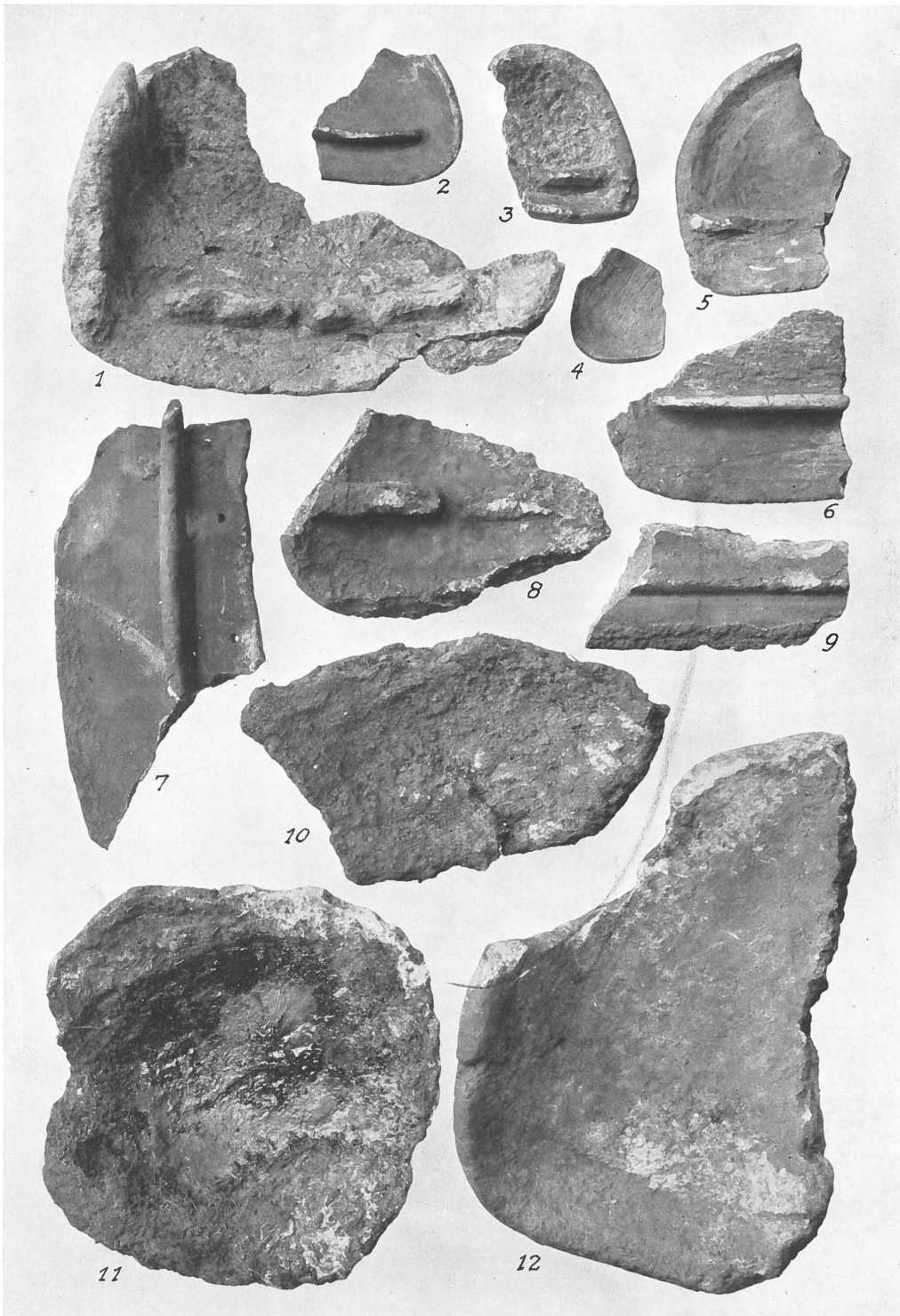


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Plate 32.

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		Ref. p.	L 3:	
1.	Lamp, fragm.	261	4863	Thule House 20
2.	— —	262	9976	— Co. A 14.9
3.	— —	261	10915	— — 18.4
4.	— —	261	522	Inf. House 2
5.	— —	262	5281	Thule House 21. Ø
6.	— —	261	7840	— — 21. Mid. 28.3
7.	— —	262	3696	— — 10
8.	— —	261	4695	— — 19
9.	— —	262	9187	— Co. A 12.4
10.	— —	262	4335	— House 16
11.	—	261	1497	Inf. House 15
12.	— fragm.	262	1815	— — 25

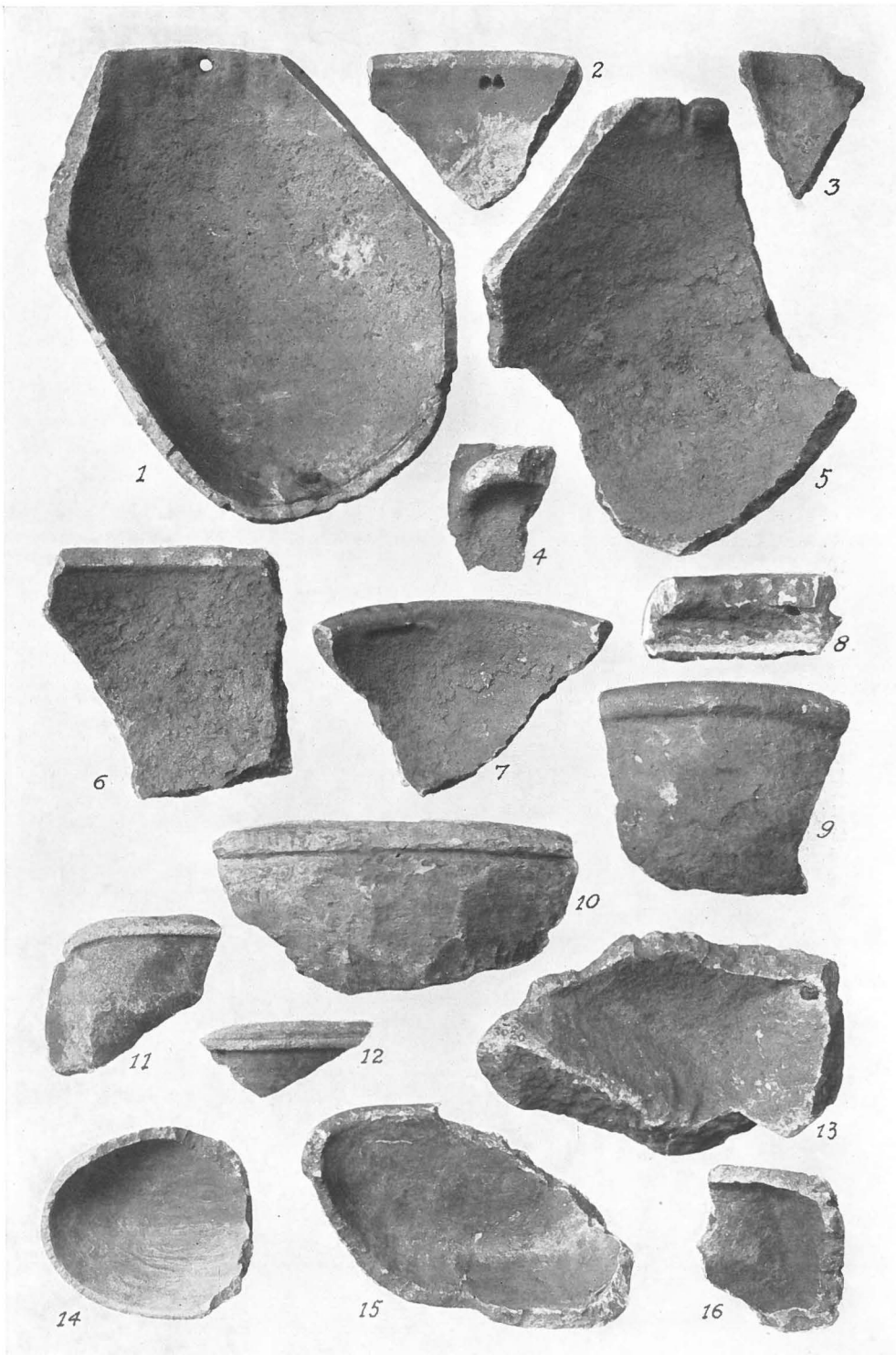


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Plate 33.

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		Ref. p.	L 3:	
1.	Cooking pot fragm.....	263	1816	Inf. House 25
2.	—	264	8503	Thule Co. A 11—14.1
3.	—	264	5676	— House 21. V
4.	—	264	6208	— — 21. Mid. 8.3
5.	—	264	6361	— — — 11.4
6.	—	264	6349	— — — 11.3
7.	—	264	3155	— House 4
8.	—	264	4289	— — 16
9.	—	264	3354	— — 5. S
10.	—	264	3578	— — 8
11.	—	264	6137	— — 21. Mid. 7.2
12.	—	264	5790	— — 21. V
13.	—	264	3020	— — 3
14.	Oval bowl, soapstone.....	264	8278	— — 24
15.	Cooking pot fragm.....	264	3992	— — 11
16.	—	264	11056	— Co. A 19.1

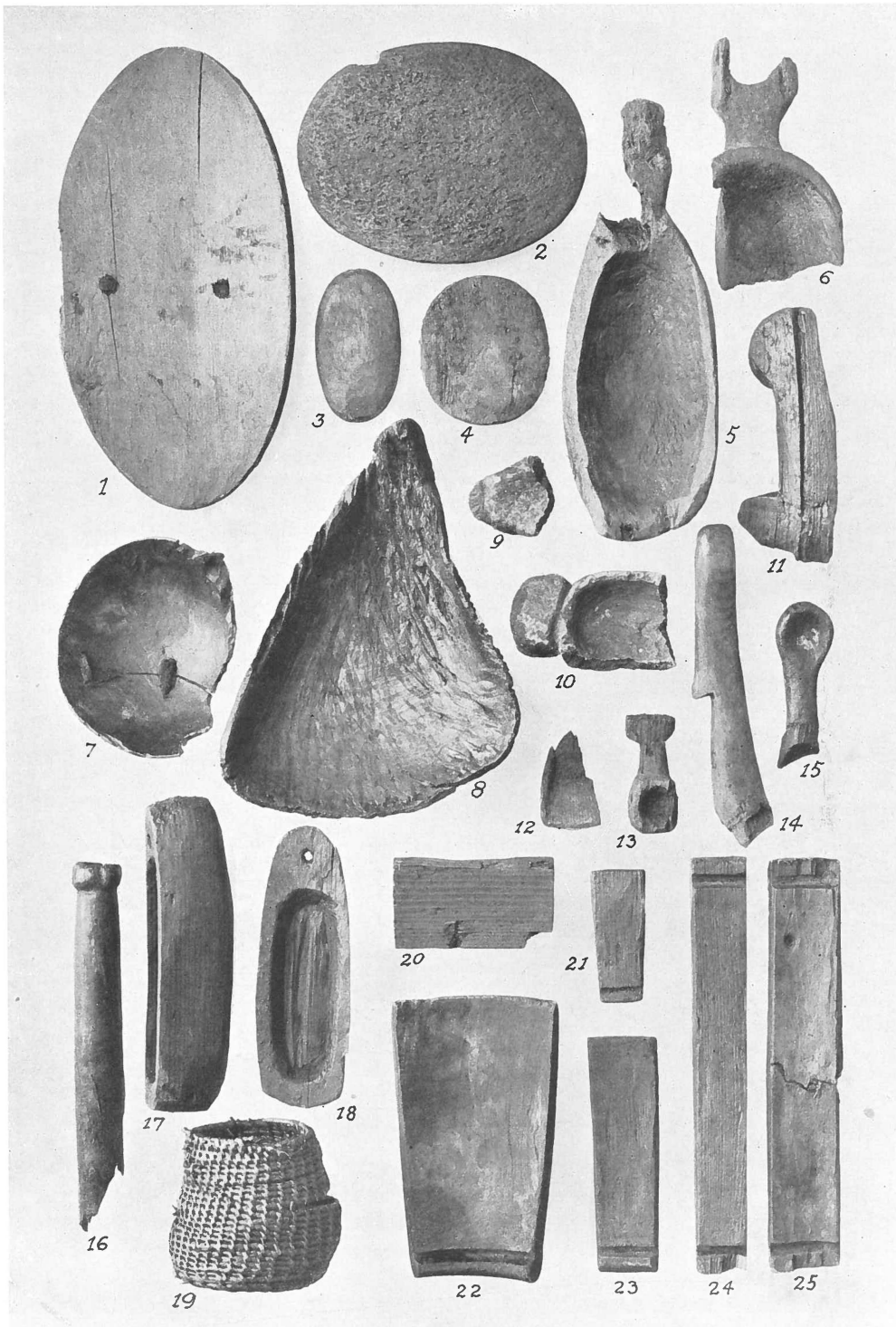


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Plate 34.

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		Ref. p.	L 3:	
1.	Oval bowl bottom	266	5804	Thule House 21. V
2.	—	266	1534	Inf. House 16
3.	Oval cup bottom	266	4557	Thule House 17
4.	—	266	5162	— — 21. Ø
5.	Ladle	268	2347	Ruin Isl. House 2
6.	—	268	10700	Thule Co. A 17.3
7.	— musk-ox horn	267	240	C. Kent House 4
8.	— —	267	2476	Ruin Isl. House 4
9.	Soapstone ladle, fragm.	268	6563	Thule House 21. Mid. 14.5
10.	— —	268	9981	— Co. A 14.9
11.	Ladle handle	268	6008	— House 21. Mid. 1.2
12.	— fragm.	268	3814	— — 10
13.	—	268	11799	— Co. B 2.2
14.	— handle	268	3927	— House 11
15.	— —	268	7182	— — 21. Mid. 24.3
16.	Sucking tube	268	6063	— — — 3.2
17.	Wooden box, hollowed out	252	5134	— — 21. Ø
18.	— lid	252	7148	— — 21. Mid. 24.2
19.	Coiled basket	266	1427	Inf. House 12
20.	Side of rectangular box	252	10217	Thule Co. A 15.5
21.	Tub stave	266	7847	— House 21. Mid. 28.3
22.	—	266	4121	— — 12
23.	—	266	7894	— — 21. Mid. 28.4
24.	—	266	9694	— Co. A 13.11
25.	—	266	9716	— — 13.12

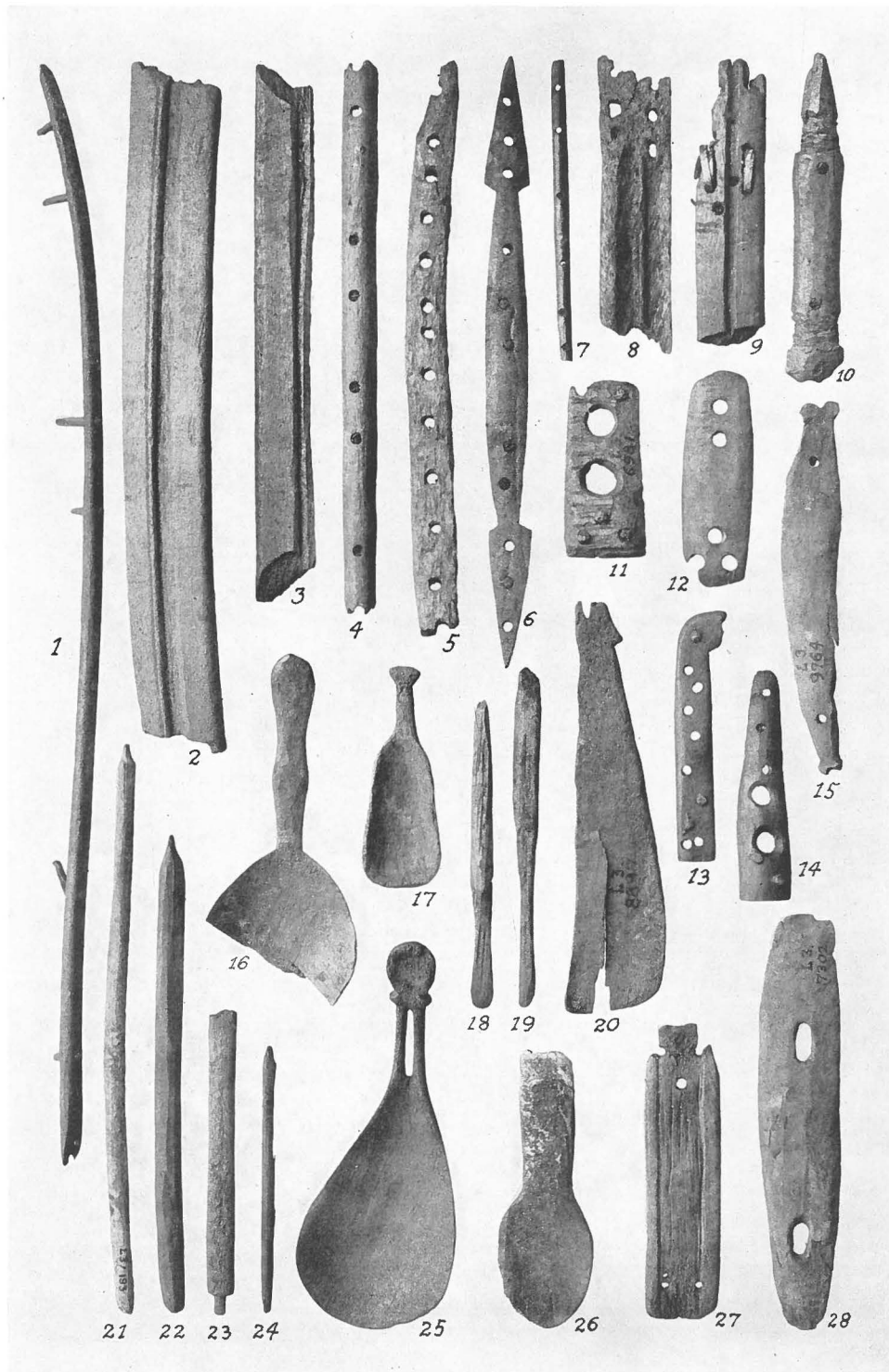


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Plate 35.

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		Ref. p.	L 3:	
1.	Edge mounting	266	4150	Thule House 12
2.	Drum rim	286	10976	— Co. A 18.5
3.	—	286	9230	— — 12.4
4.	Edge mounting	266	4139	— House 12
5.	Rim for skin vessel (?)	266	8534	— Co. A 11—14.1
6.	Edge mounting	266	3662	— House 10
7.	—	266	4047	— — 12
8.	Drum rim	286	9549	— Co. A 13.6
9.	—	286	11236	— — 19.7
10.	Bone mounting	267	5143	— House 21. Ø
11.	—	267	6981	— — 21. Mid. 23.3
12.	—	267	7837	— — — 28.3
13.	—	267	7971	— — — 28.6
14.	—	267	7926	— — — 28.5
15.	—	267	9764	— Co. A 14.3
16.	Spoon of antler	268	8994	— — 11.9
17.	—	268	7350	— House 21. Mid. 25.2
18.	Marrow extractor (?)	268	4324	— — 16
19.	—	268	2635	Ruin Isl. House 6
20.	Spoon of antler	268	8897	Thule Co. A 11.7
21.	Rib for skin vessel (?)	266	193	C. Kent House 4
22.	—	266	6603	Thule House 21. Mid. 16.3
23.	—	266	10521	— Co. A 16.6
24.	—	266	10545	— — 16.7
25.	Spoon of antler	268	7349	— House 21. Mid. 25.2
26.	— (?) walrus ivory	268	1090	Inf. House 7
27.	Bone mounting (?)	267	9479	Thule Co. A 13.3
28.	—	267	7302	— House 21. Mid. 24.5



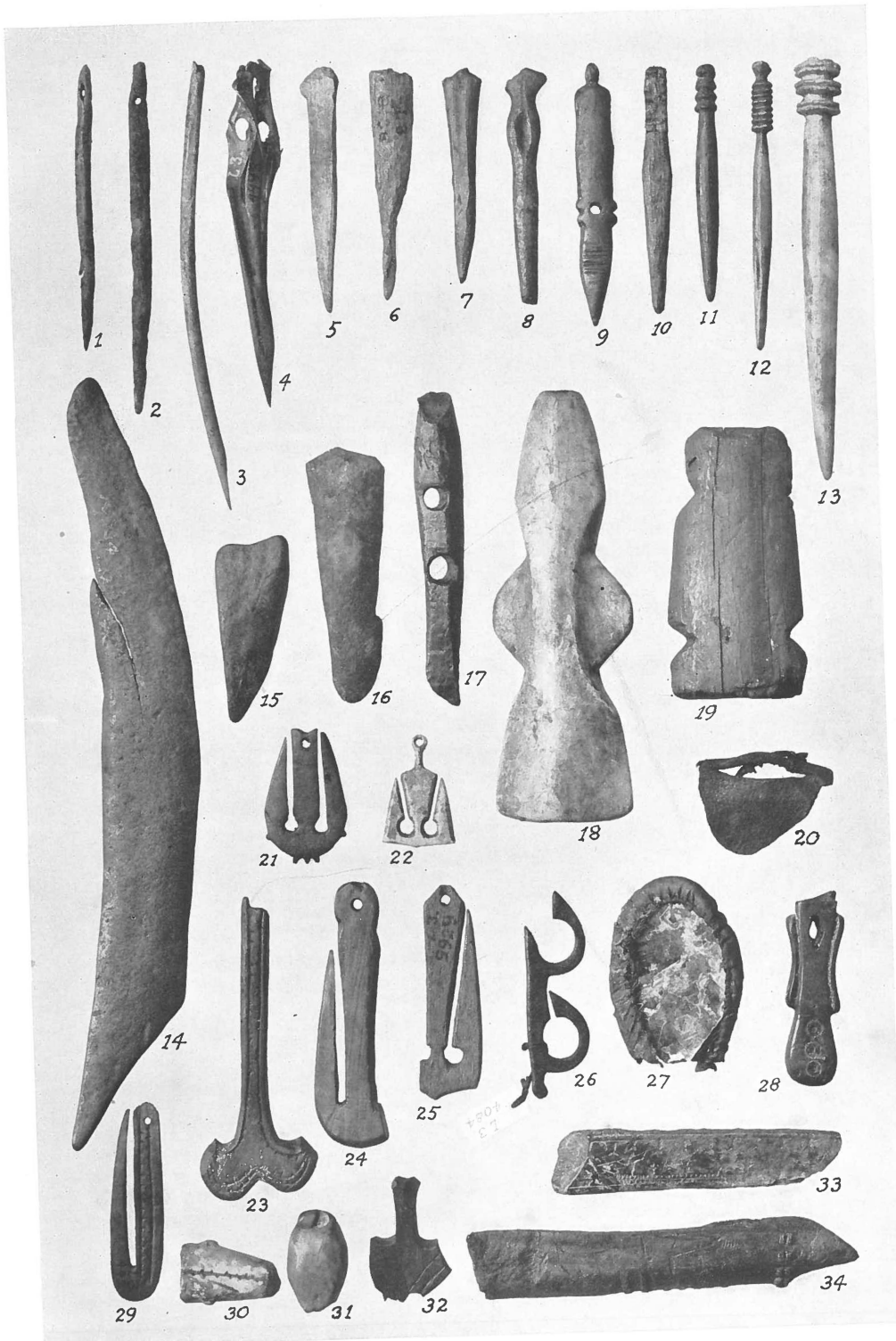
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Plate 36.

2 : 3

		Ref. p.	L 3:	
1.	Sewing needle	259	2549	Ruin Isl. House 5
2.	—	259	563	Inf. House 3
3.	Pointed bird bone	259	5454	Thule — 21. Ø
4.	— — bill	259	4993	— — 21
5.	Bodkin	259	289	C. Kent House 7
6.	—	259	8186	Thule House 22 Midden
7.	—	259	10575	— Co. A 16.8
8.	—	259	3098	— House 4
9.	—	259	11104	— Co. A 19.3
10.	— wood	259	5150	— House 21. Ø
11.	—	259	3157	— — 4
12.	—	259	5272	— — 21. Ø
13.	—	259	305	C. Russell House 1
14.	Boot creaser (?)	259	10904	Thule Co. A 18.4
15.	—	259	3843	— House 10
16.	—	259	2619	Ruin Isl. House 6
17.	—	259	5669	Thule House 21.V
18.	Needle case	259	1267	Inf. House 10
19.	— unfinished	259	3526	Thule House 8
20.	Thimble	259	466	Inf. House 2
21.	Thimble holder	260	7164	Thule House 21. Mid. 24.3
22.	—	260	306	C. Russell House 1
23.	—	260	5511	Thule House 21. Ø
24.	—	260	8286	— — 24
25.	—	260	9929	— Co. A 14.8
26.	—	260	4084	— House 12
27.	Mirror of mica	275	1111	Inf. House 7
28.	Ornamented object	277	8947	Thule Co. A 11.8
29.	Thimble holder	259	442	Inf. House 2
30.	Ornamented object	277	1522	— — 16
31.	—	277	5441	Thule House 21. Ø
32.	Thimble holder, fragm.	260	3754	— — 10
33.	Walrus ivory with etchings	277	7331	— — 21. Mid. 24.5
34.	Knife handle —	241	10161	— Co. A 15.4

Plate 36.

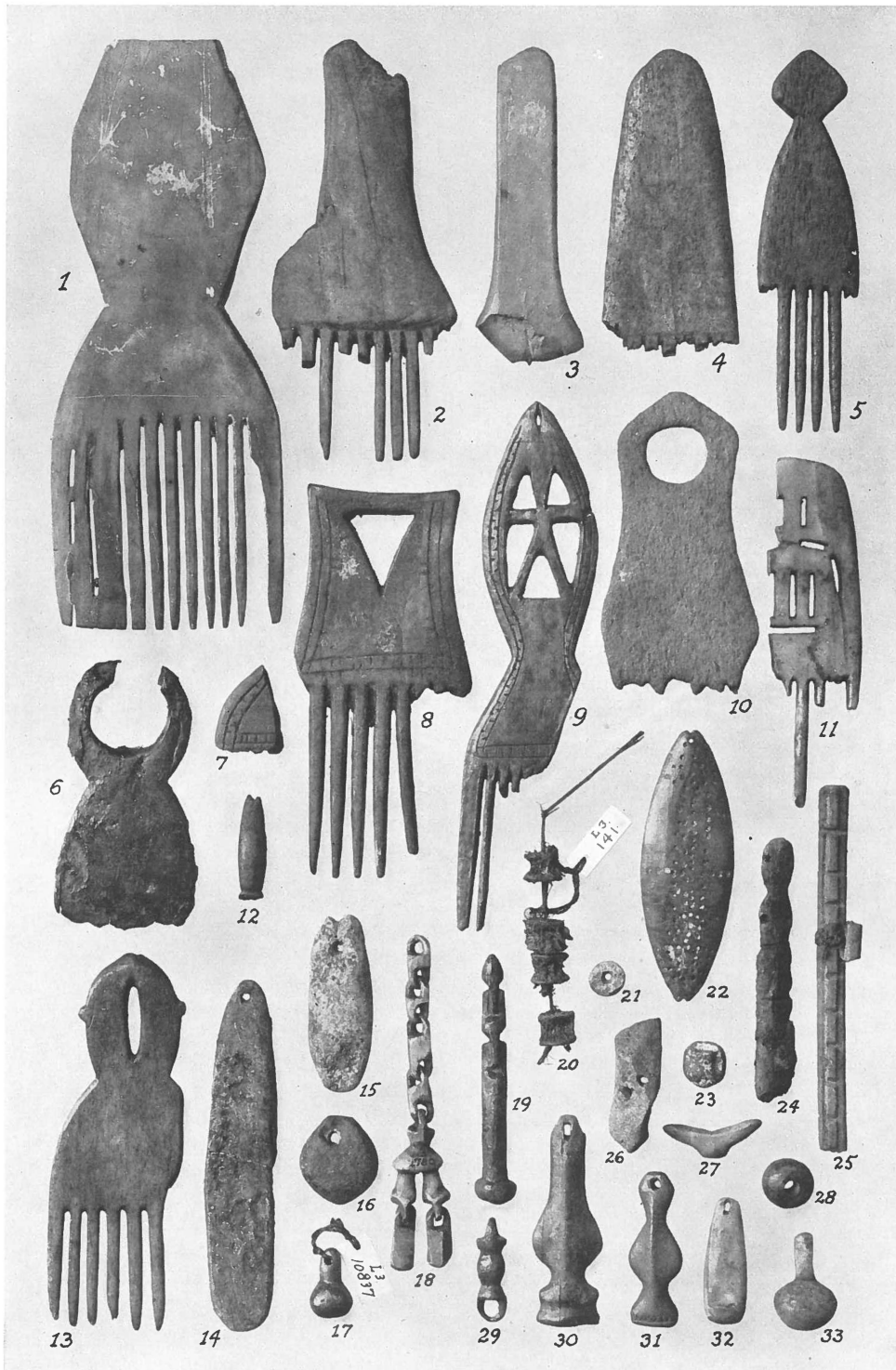

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Plate 37.

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		Ref. p.	L 3:	
1.	Comb	275	984	Inf. House 6
2.	—	274	3424	Thule House 6
3.	—	274	594	Inf. House 3
4.	—	274	7459	Thule House 21. Mid. 25.4
5.	—	275	10799	— Co. A 18.2
6.	—	275	4019	— House 12
7.	— fragm.	275	3884	— — 11
8.	—	274	2351	Ruin Isl. House 2
9.	—	275	1718	Inf. House 20
10.	—	275	9840	Thule Co. A 14.5
11.	—	274	10163	— — 15.4
12.	Pendant of antler	276	7042	— House 21. Mid. 23.4
13.	Comb	275	4702	— — 19
14.	Pendant (?) soapstone	219	6862	— — 21. Mid. 22.1
15.	— —	219	7227	— — — 24.4
16.	— , calcite	276	765	Inf. House 4 Mid. layer 1
17.	— , clorite	276	10837	Thule Co. A 18.3
18.	Chain ornament	276	2780	— House 1
19.	— pendant, unfinished	276	7226	— — 21. Mid. 24.4
20.	Beads of fish vertebrae	276	141	C. Kent House 2
21.	Bead of soapstone	276	7825	Thule House 21. Mid. 28.2
22.	Ornamental plate	277	9173	— Co. A 12.3
23.	Button	272	2352	Ruin Isl. House 2
24.	Buttons, unfinished	272	4704	Thule House 19
25.	— —	272	8307	— — 24
26.	Button	272	813	Inf. House 5
27.	— "winged"	273	506	— — 2
28.	Bead of amber	276	8336	Thule House 26
29.	Chain link	276	2110	Inf. Midden B. I 4.1
30.	Pendant	276	4423	Thule House 16
31.	—	276	4385	— — 16
32.	—	276	362	Inf. House 1
33.	—	276	363	— — 1

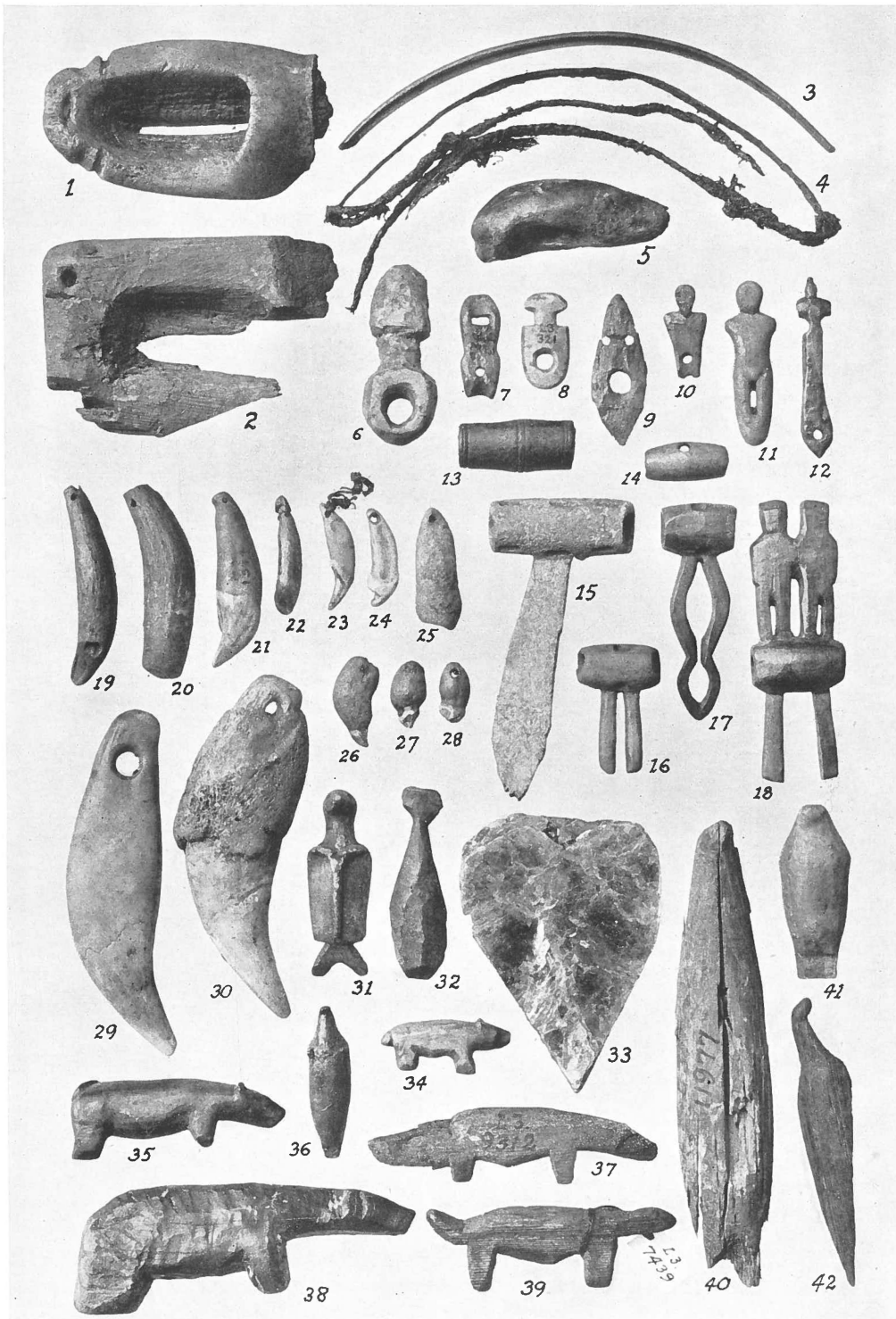

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Plate 38.

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		Ref. p.	L 3:	
1.	Snow goggle	272	8163	Thule House 22
2.	—	272	11603	— Co. A 22.5
3.	Brow band of antler	276	5767	— House 21.V
4.	— of brass	276	8308	— — 24
5.	Line buckle	273	2314	Ruin Isl. House 2
6.	—	273	5041	Thule House 21
7.	—	273	923	Inf. House 6
8.	—	273	321	C. Russell House 2
9.	—	273	8545	Thule Co. A 11—14.1
10.	—	273	7838	— House 21. Mid. 28.3
11.	—	273	4703	— — 19
12.	—	273	8630	— Co. A 11.3
13.	Tube-shaped button	273	2837	— House 1
14.	— —	273	4878	— — 20
15.	— buckle (?) with "wings"	273	188	C. Kent House 4
16.	— — —	273	11986	Inf. House 4 Mid. layer 4
17.	— — —	273	4905	Thule House 20
18.	— — —	273	8305	— — 24
19.	Tooth pendant	277	8833	— Co. A 11.6
20.	—	277	1862	Inf. House 26
21.	—	277	1344	— — 11
22.	—	277	5963	Thule House 21.V
23.	—	277	444	Inf. House 2
24.	—	277	11259	Thule Co. A 19.8
25.	—	277	1302	Inf. House 11
26.	—	277	3824	Thule House 10
27.	—	277	3825	— — 10
28.	—	277	3826	— — 10
29.	Bear tooth with suspension hole	277	2343	Ruin Isl. House 2
30.	— — —	277	2344	— — 2
31.	Bird figure	279	4424	Thule House 16
32.	Whale figure	279	8253	— — 24
33.	Mirror (?) of mica	276	597	Inf. House 3
34.	Dog figure	279	2315	Ruin Isl. House 2
35.	Bear —	279	2302	— — 1
36.	Seal —	279	8631	Thule Co. A 11.3
37.	Fox —	279	9312	— — 12.5
38.	Bear —	279	2418	Ruin Isl. House 3. A
39.	Dog —	279	7439	Thule House 21. Mid. 25.3
40.	Seal —	279	11977	Inf. House 4 Mid. layer 3
41.	— —	279	1705	— — 19
42.	— —	279	7403	Thule House 21. Mid. 25.2

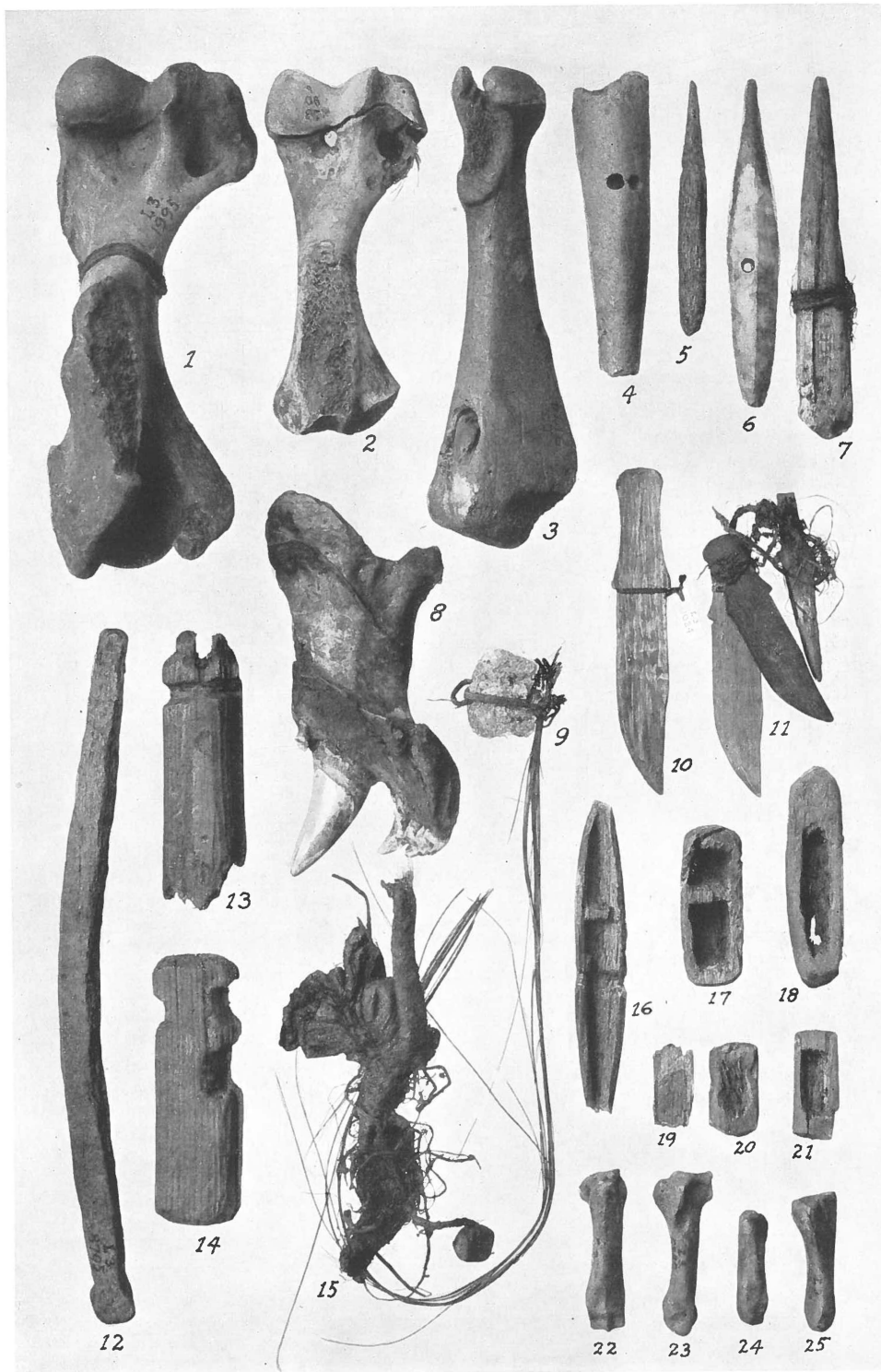

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Plate 39.

1:2

		Ref. p.	L 3:	
1.	Ajagaq	278	1995	Inf. House 30
2.	—	278	90	C. Kent House 2
3.	—	278	9174	Thule Co. A 12.3
4.	—	279	3099	— House 4
5.	— stick	279	7671	— — 21. Mid. 27.4
6.	— —	279	301	C. Kent outside House 7
7.	— —	279	1996	Inf. House 30
8.	Split upper iaw of bear	287	5335	Thule House 21. Ø
9.	Stone amulet (?)	287	7012	— — 21. Mid. 23.3
10.	Miniature baleen knife	287	1024	Inf. House 6
11.	— — bundle	287	925	— — 6
12.	Drum stick	286	8705	Thule Co. A 11.4
13.	— handle	286	6459	— House 21. Mid. 12.2
14.	— —	286	9327	— Co. A 12.5
15.	Amulet (?)	287	2362	Ruin Isl. House 2
16.	— box (?)	287	5539	Thule House 21. Ø
17.	— —	287	1381	Inf. House 11
18.	— —	287	9333	Thule Co. A 12.5
19.	— — lid	287	987	Inf. House 6
20.	— —	287	987	— — 6
21.	— —	287	8456	Thule Co. A 8.4
22.	Gambling bone	279	10598	— — 16.9
23.	—	279	6382	— House 21. Mid. 11.5
24.	— carved of ivory	279	8287	— — 24
25.	— —	279	8252	— — 24

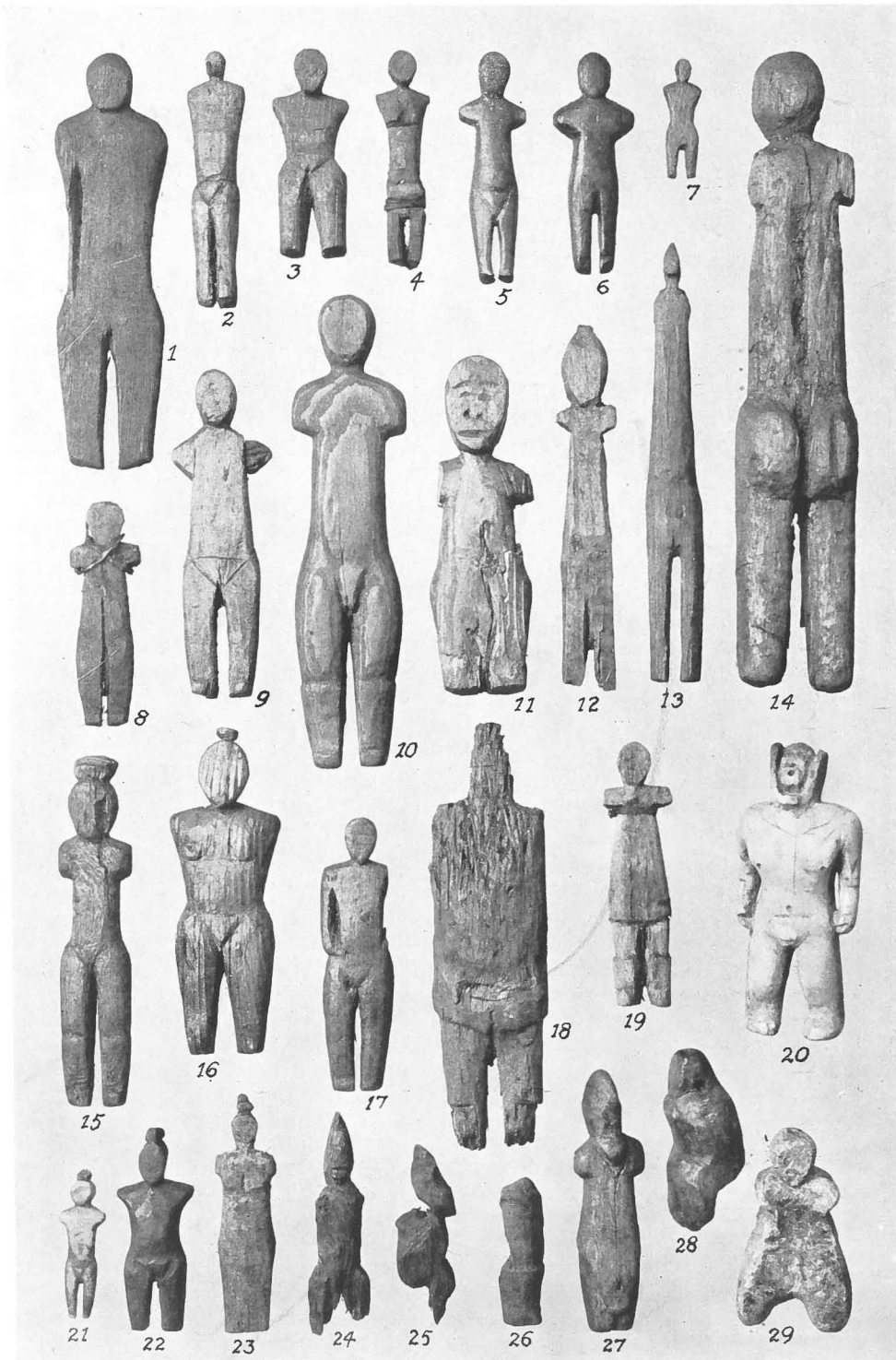


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Plate 40.

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		Ref. p.	L 3:	
1.	Doll	280	9268	Thule Co. A 12.4
2.	—	280	7507	— House 21. Mid. 26.1
3.	—	280	5986	— — 21. V
4.	—	280	8254	— — 24
5.	—	280	9975	— Co. A 14.9
6.	—	280	8655	— — 11.3
7.	—	280	5077	— House 21. Ø
8.	—	280	8306	— — 24
9.	—	280	1747	Inf. House 21
10.	—	280	230	C. Kent House 4
11.	—	280	1472	Inf. House 13
12.	—	280	3040	Thule House 3
13.	—	280	7756	— — 21. Mid. 27.5
14.	—	280	8264	— — 24
15.	—	280	1524	Inf. House 16
16.	—	280	7205	Thule House 21. Mid. 24.3
17.	—	281	7963	— — — 28.5
18.	—	280	11296	— Co. A 20.1
19.	—	280	1416	Inf. House 12
20.	—	281	730	— — 4
21.	—	280	2782	Thule House 1
22.	—	280	7860	— — 21. Mid. 28.3
23.	—	280	10316	— Co. A 15.7
24.	—	280	11975	Inf. House 4. Mid. layer 3
25.	—	280	8095	Thule House 21. Mid. 31.4
26.	— representing Norseman ...	281	8970	Thule Co. A 11.8
27.	—	280	168	C. Kent House 2
28.	—	280	10527	Thule Co. A 16.6
29.	— of soapstone	281	7964	— House 21. Mid. 28.5



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Plate 41.

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			Ref. p.	L 3:	
1.	Toy sledge runner	.....	283	6446	Thule House 21. Mid. 12.1
2.	— —	.....	283	8407	— Co. A 7.3
3.	— —	.....	283	10344	— — 15.8
4.	— sledge cross-slat	.....	284	4010	— House 12
5.	— —	.....	284	10345	— Co. A 15.8
6.	— —	.....	284	10156	— — 15.4
7.	— —	.....	284	9634	— — 13.8
8.	— —	.....	284	3702	— House 10
9.	— —	.....	284	10551	— Co. A 16.7
10.	— —	.....	284	11164	— — 19.4
11.	— sledge upstander	.....	284	5178	— House 21. Ø
12.	— —	.....	284	9635	— Co. A 13.8
13.	— —	.....	284	7274	— House 21. Mid. 24.4
14.	— —	.....	284	8389	— Co. A 4—5.1
15.	— whip handle (?)	.....	284	4631	— House 18
16.	— —	.....	284	6864	— — 21. Mid. 22.1
17.	— —	.....	284	2562	Ruin Isl. House 5
18.	— bow	.....	283	5297	Thule House 21. Ø
19.	— —	.....	283	5462	— — 21. Ø
20.	— —	.....	283	146	C. Kent House 2
21.	— —	.....	283	4427	Thule House 16
22.	— —	.....	283	4158	— — 12
23.	— harpoon foreshaft	.....	282	8738	— Co. A 11.4
24.	— —	.....	282	10157	— — 15.4
25.	— trace buckle	.....		8852	— — 11.6
26.	— arrow	.....	283	3800	— House 10
27.	— —	.....	283	147	C. Kent House 2
28.	— —	.....	283	4020	Thule House 12
29.	— —	.....	283	8971	— Co. A 11.8
30.	— —	.....	283	5744	— House 21.V
31.	— —	.....	283	5151	— — 21. Ø
32.	— —	.....	283	2364	Ruin Isl. House 2
33.	— —	.....	283	150	C. Kent House 2
34.	— harpoon	.....	282	9270	Thule Co. A 12.4
35.	— —	.....	282	9177	— — 12.3
36.	— arrow head	.....	283	1690	Inf. House 18
37.	— —	.....	283	4973	Thule House 21
38.	— —	.....	283	9753	— Co. A 14.3
39.	— —	.....	283	8673	— — 11.4
40.	— —	.....	283	11587	— — 22.5

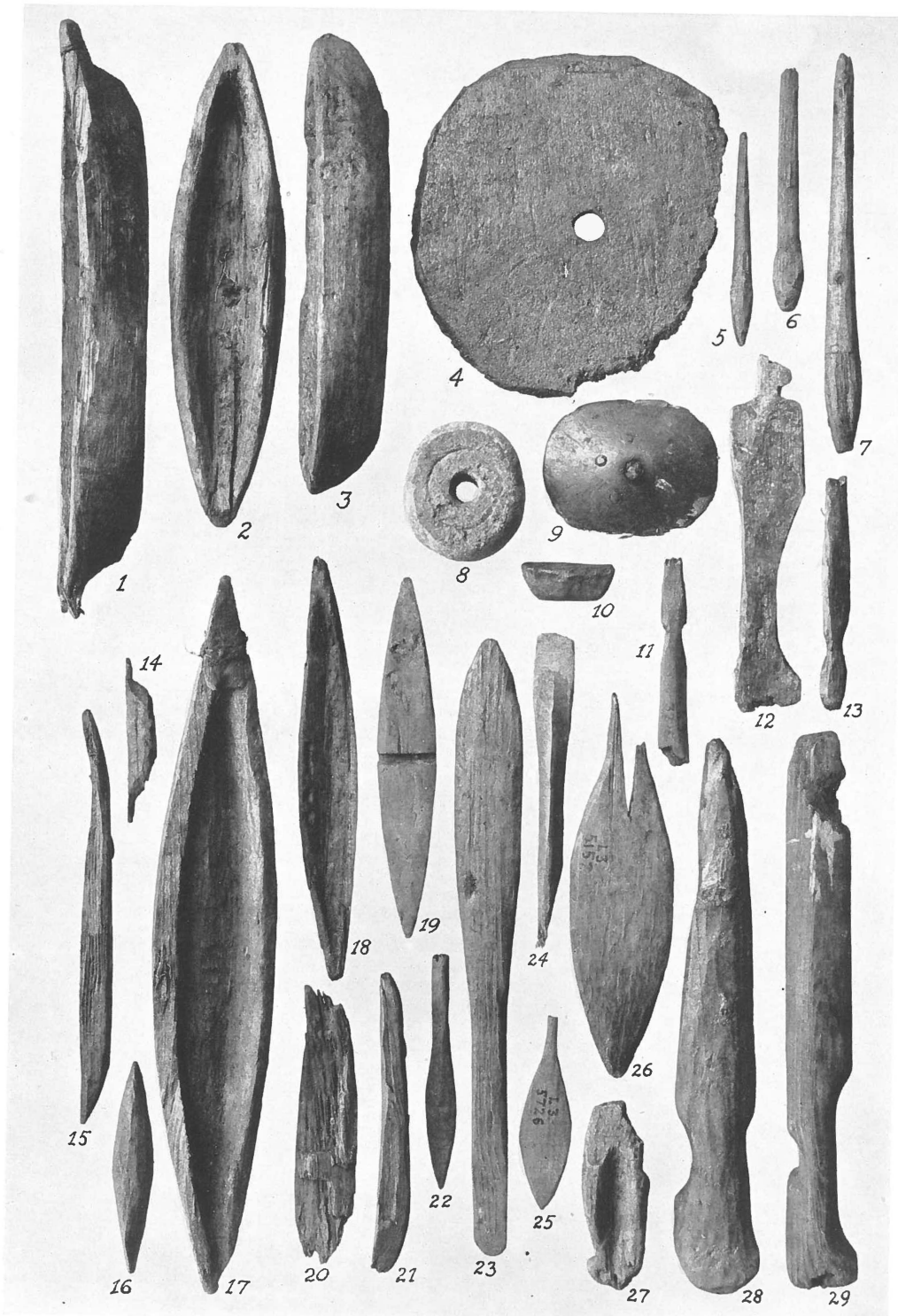

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Plate 42.

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		Ref. p.	L 3:	
1.	Toy umiaq	284	2028	Inf. House 30
2.	— boat (?)	284	631	— — 3
3.	— — (?)	284	3161	Thule House 4
4.	Top disk	282	7665	— — 21. Mid. 27.3
5.	— pivot	282	11380	— Co. A 20.5
6.	— —	282	3381	— House 6
7.	— —	282	5224	— — 21. Ø
8.	— disk, soapstone	282	1706	Inf. — 19
9.	— — ivory	282	2529	Ruin Isl. House 5
10.	Toy ulo handle	285	4974	Thule House 21
11.	— sling handle	283	3225	— — 4
12.	— —	283	1810	Inf. House 24
13.	— —	283	902	— — 5
14.	— umiaq	284	3827	Thule House 10
15.	— kayak	284	599	Inf. House 3
16.	— —	284	11339	Thule Co. A 20.3
17.	— —	284	5126	— House 21. Ø
18.	— —	284	3293	— — 5. N
19.	— —	284	10315	— Co. A 15.7
20.	Amulet box (?) fragm.	287	7594	— House 21. Mid. 26.5
21.	Toy kayak	284	1940	Inf. House 30
22.	— — paddle	285	7147	Thule House 21. Mid. 24.2
23.	— — —	285	8883	— Co. A 11.6
24.	— — —	285	887	Inf. House 5
25.	— — —	285	5726	Thule House 21. V
26.	— — —	285	5157	— — 21. Ø
27.	— sling handle	283	1428	Inf. House 12
28.	— —	283	5313	Thule House 21. Ø
29.	— —	283	999	Inf. House 6

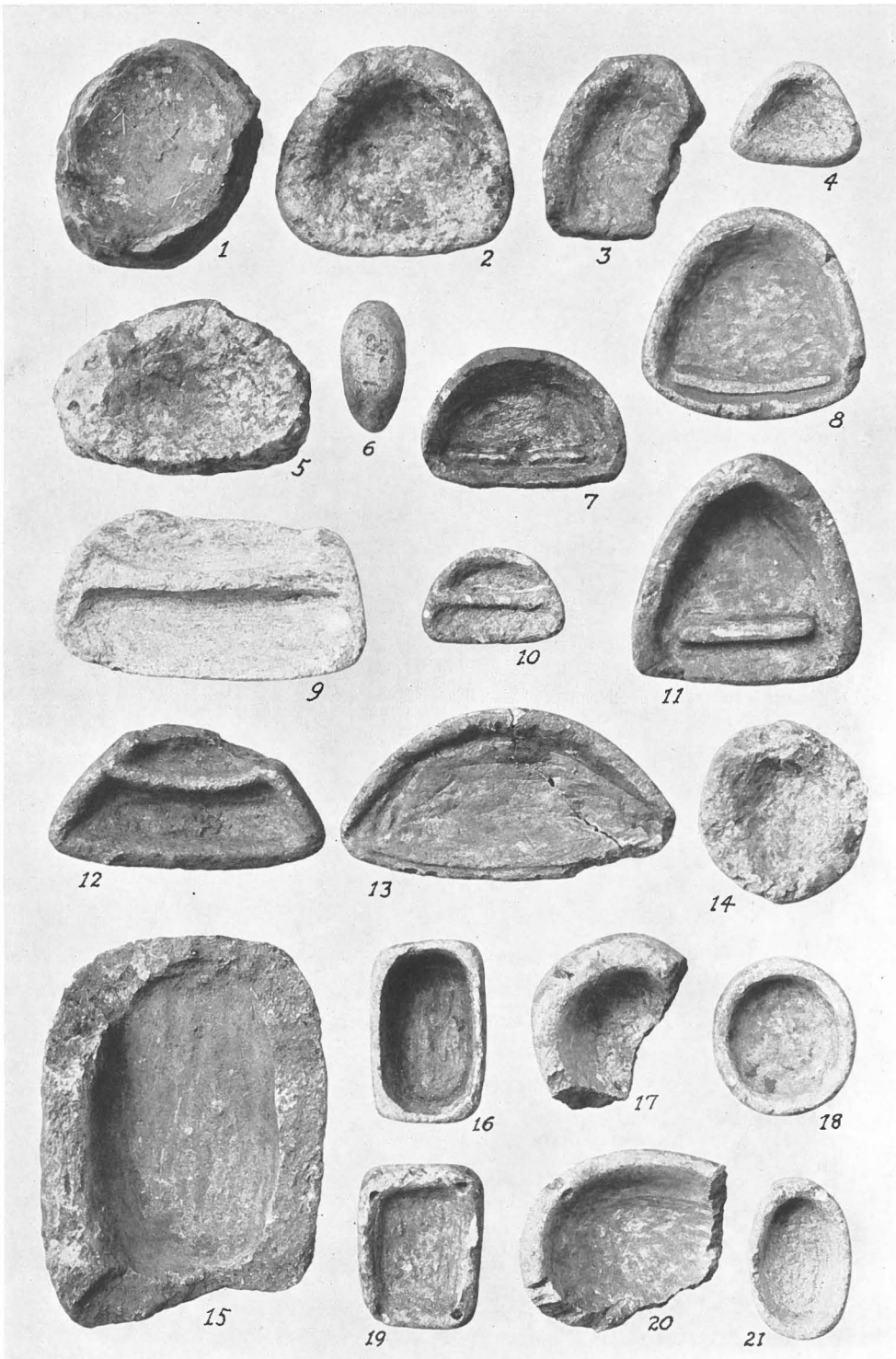


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Plate 43.

2:3

		Ref. p.	L 3:	
1.	Toy lamp	285	72	C. Kent House 2
2.	— —	285	2953	Thule House 1
3.	— —	285	4982	— — 21
4.	— —	285	3344	— — 5. S
5.	— —	285	3799	— — 10
6.	— — (?)	285	671	Inf. House 4
7.	— —	285	151	C. Kent House 2
8.	— —	285	4489	Thule House 16
9.	— —	285	7602	— — 21. Mid. 26.5
10.	— —	285	6865	— — — 22.1
11.	— —	285	6251	— — — 8.6
12.	— —	285	6170	— — — 8.1
13.	— —	285	10471	— Co. A 16.4
14.	— cooking pot.....	285	8408	— — 7.3
15.	— —	285	5105	— House 21. Ø
16.	— —	285	9957	— Co. A 14.8
17.	— —	285	5689	— House 21.V
18.	— —	285	292	C. Kent House 7
19.	— —	285	4975	Thule House 21
20.	— —	285	9199	— Co. A 12.4
21.	— —	285	7492	— House 21. Mid. 25.4



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Plate 44.

1:2

	Objects of Norse origin.	Ref. p.	L 3:	
1.	Side of wooden box	298	11266	Thule Co. A 19.8
2.	—	298	11267	— — 19.8
3.	—	298	11022	— — 18.6
4.	Leg of metal cooking pot	299	1466	Inf. House 13
5.	Wooden sieve	300	3728	Thule House 10
6.	Tub bottom	300	1975	Inf. House 30
7.	Fragment of chain mail	300	2474	Ruin Isl. House 4
8.	Spear head iron	300	2613	— — 6
9.	Chess-man	300	610	Inf. House 3
10.	—	300	5707	Thule House 21. V
11.	Comb	301	2504	Ruin Isl. House 4
12.	Draughts-man	300	2530	— — 5
13.	Case for spoon	301	4479	Thule House 16

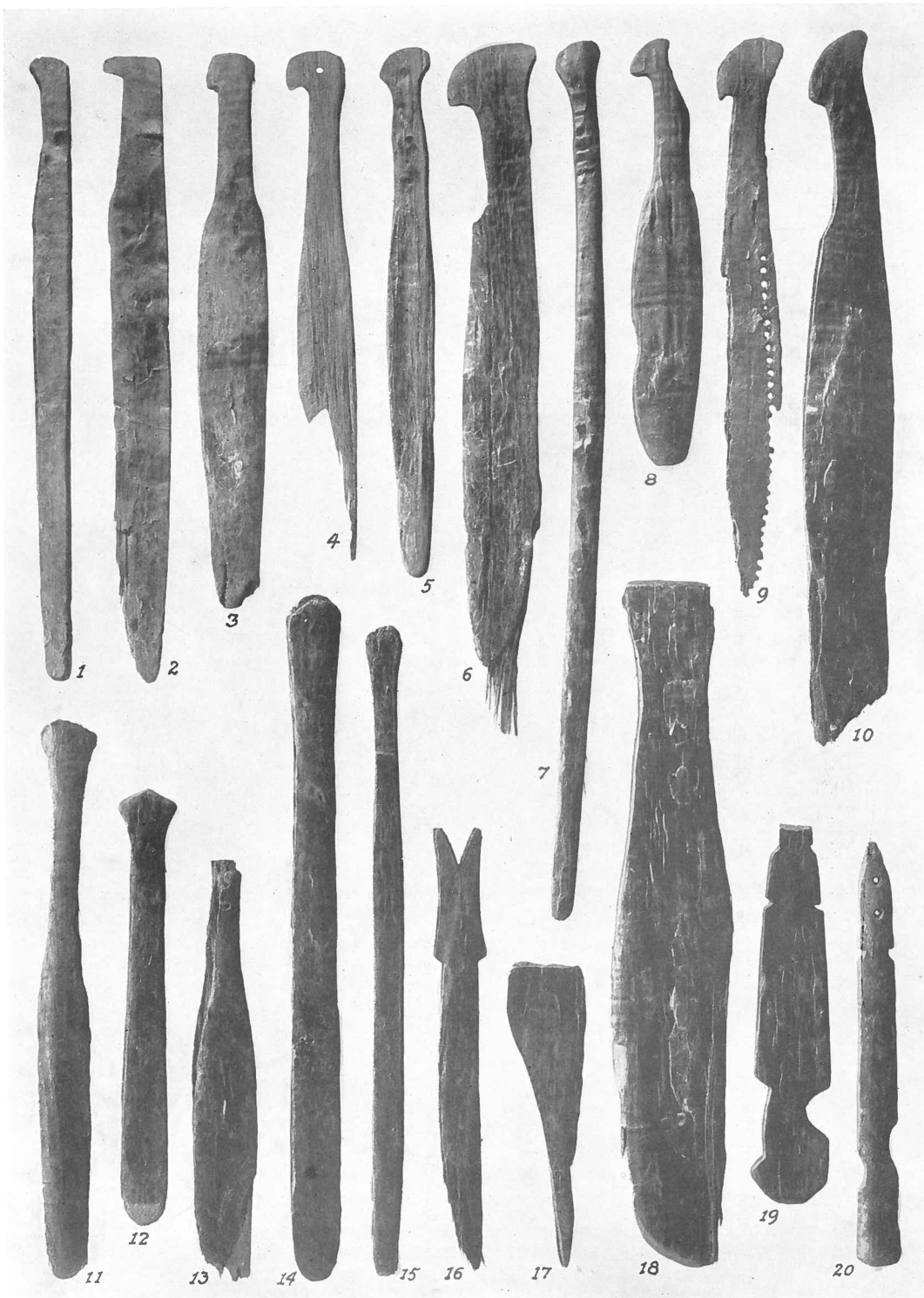


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Plate 45.

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	Objects of baleen.	Ref. p.	L 3:	
1.	Snow beater	273	9390	Thule Co. A 12.6
2.	—	274	8411	— — 7.3
3.	—	274	11562	— — 22.3
4.	—	274	8459	— — 8.4
5.	—	274	3232	— House 4
6.	—	274	3969	— — 11
7.	—	274	5211	— — 21. Ø
8.	—	274	5385	— — 21. Ø
9.	—	274	7862	— — 21. Mid. 28.3
10.	—	274	10063	— Co. A 14.12
11.	—	274	1538	Inf. House 16
12.	—	274	9959	Thule Co. A 14.8
13.	—	274	9961	— — 14.8
14.	—	273	3838	— House 10
15.	—	274	4490	— — 16
16.	Harpoon rest	205	11965	— — 1
17.	— (?)		6814	— — 21. Mid. 21.2
18.	Snow beater	274	8170	— — 22
19.	Sling handle	217	2043	Inf. House 30
20.	—	217	4778	Thule House 19

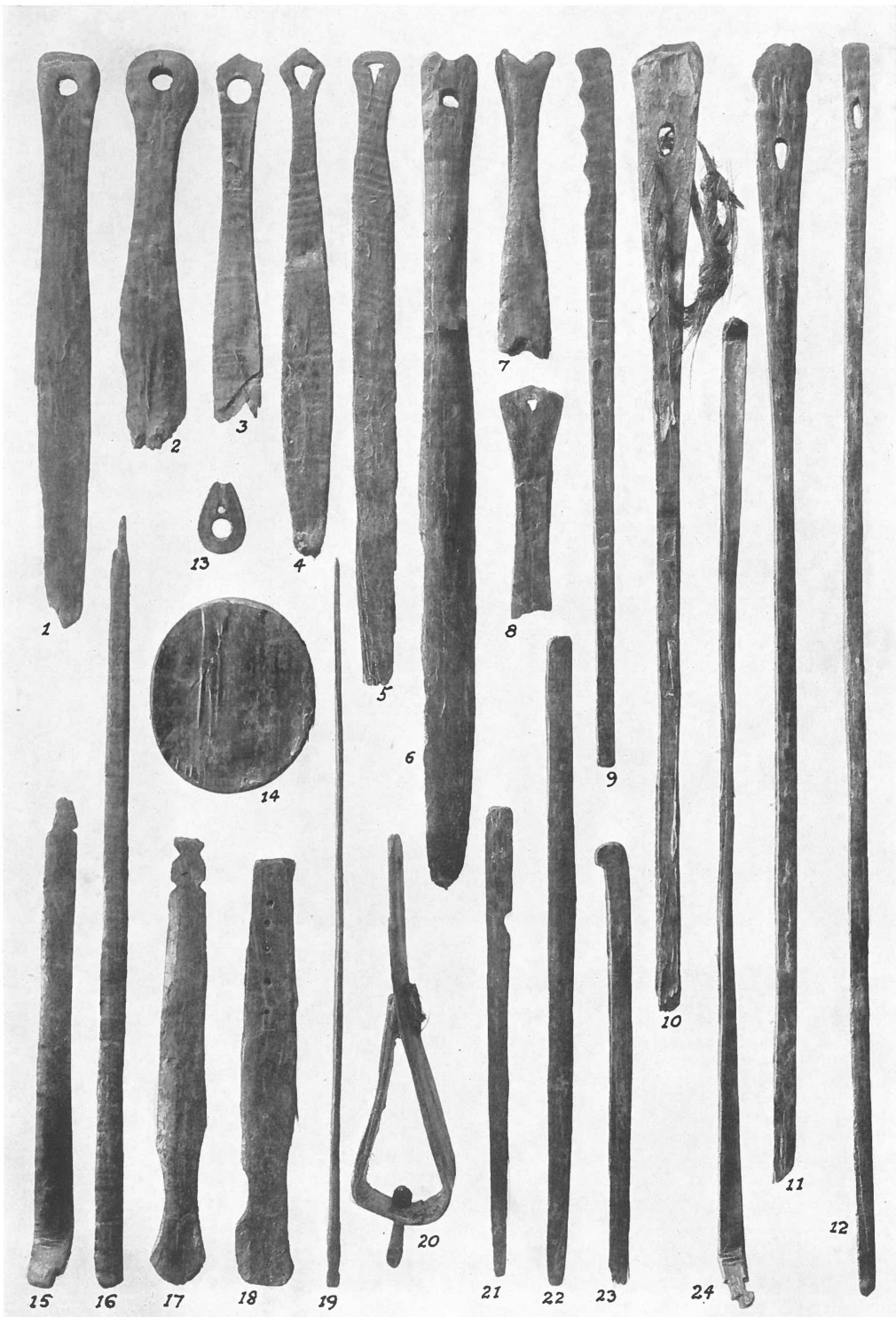


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Plate 46.

1:4

	Objects of baleen.	Ref. p.	L 3:	
1.	Snow beater	274	3043	Thule House 3
2.	—	274	10878	— Co. A 18.3
3.	—	274	10289	— — 15.7
4.	—	274	7324	— House 21. Mid. 24.5
5.	—	274	11834	— Co. B 2.3
6.	—	274	5727	— House 21. V
7.	—	274	11883	— Co. B 3.2
8.	—	274	3911	— House 11
9.	—	274	8978	— Co. A 11.8
10.	Stick	274	9343	— — 12.5
11.	—	274	10047	— — 14.11
12.	—	274	11836	— Co. B 2.3
13.	Trace buckle	227	3482	— House 7
14.	Bowl bottom	266	3261	— — 4
15.	Whip shank	229	8499	— Co. A 10.1
16.	—	229	3190	— House 4
17.	—	229	8329	— — 26
18.	—	229	5210	— — 21. Ø
19.	Rounded stick	296	2663	Ruin Isl. House 6
20.	Swivel	228	4253	Thule House 16
21.	Snow beater (?)	274	3234	— — 4
22.	—	274	4580	— — 17
23.	—	274	11027	— Co. A 18.6
24.	Carrying stick (?)	267	9989	— — 14.9

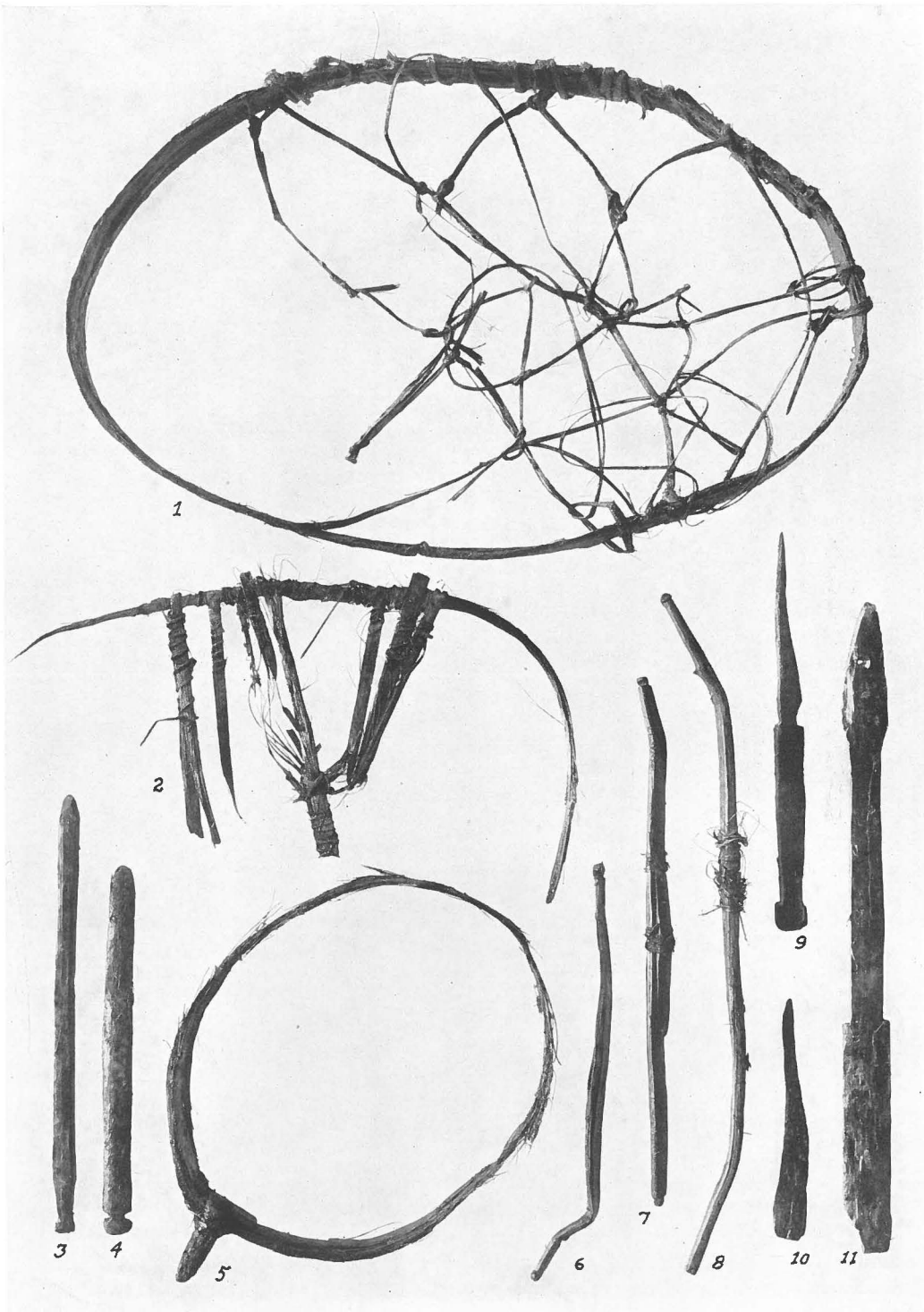


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Plate 47.

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Objects of baleen.	Ref. p.	L 3:	
1. Drying rack	269	4768	Thule House 19
2. Scoop	220	10318	— Co. A 15.7
3. Drum stick	286	11009	— — 18.5
4. —	286	9418	— — 12.7
5. Drum	286	4328	— House 16
6. Bow	211	3111	— — 4
7. —	211	633	Inf. House 3
8. —	211	4167	Thule House 12
9. Meat stick	269	9178	— Co. A 12.3
10. —	269	7291	— House 21. Mid. 24.4
11. Blubber fork (?)	269	4308	— — 16

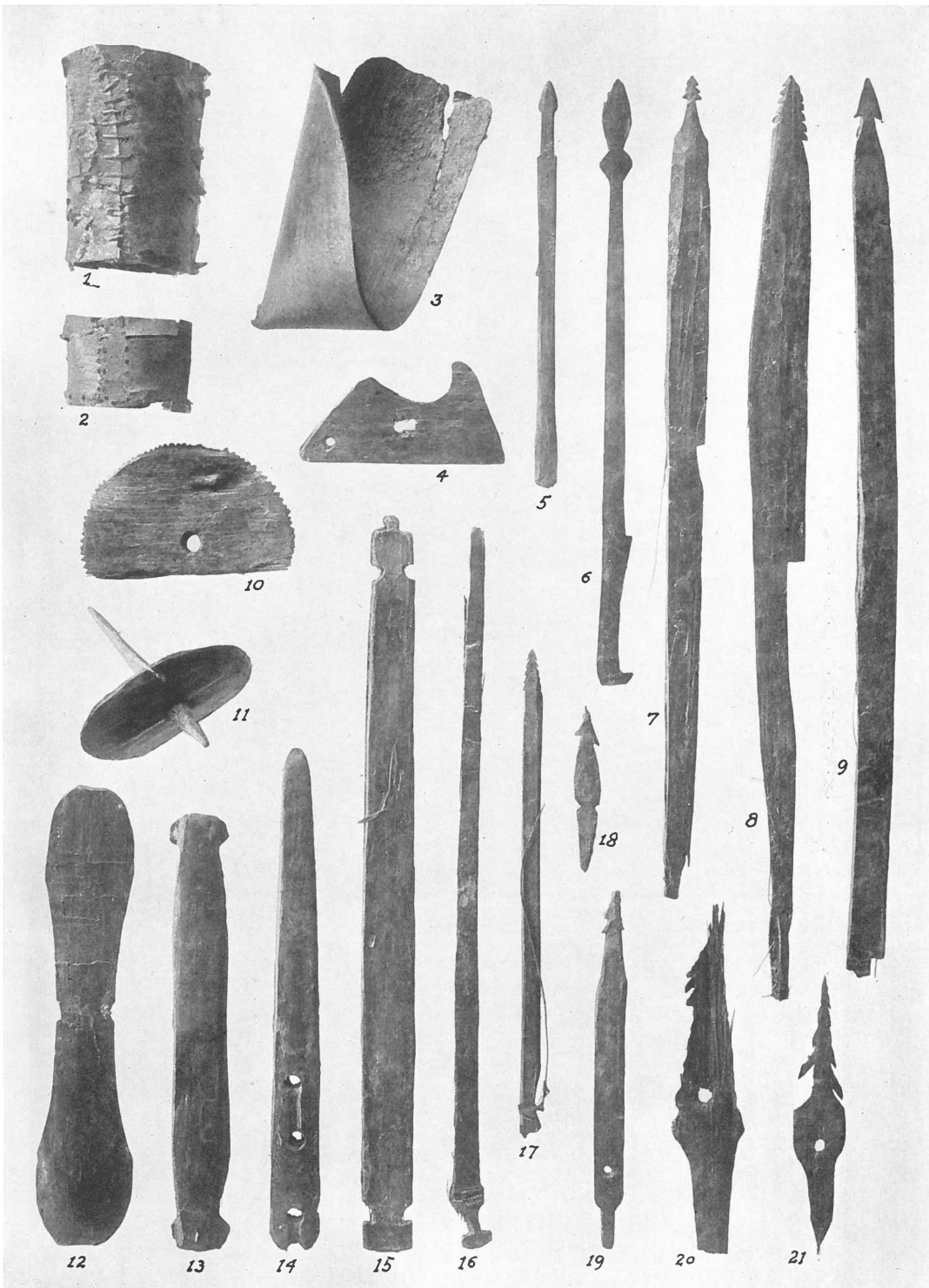


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Plate 48.

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Objects of baleen.	Ref. p.	L 3:	
1. Cup side	265	3639	Thule House 8
2. —	265	5367	— — 21. Ø
3. Scoop	220	5183	— — 21. Ø
4. Harpoon rest	233	3307	— — 5. N
5. Toy lance	283	6967	— — 21. Mid. 23.3
6. — —	283	3999	— — 11
7. — harpoon	282	4160	— — 12
8. — —	282	8297	— — 24
9. — —	282	11486	— Co. A 21.3
10. Top disk	282	10732	— — 17.4
11. Top	282	174	C. Kent House 2
12. Propeller (?)	282	3237	Thule House 4
13. Carrying stick (?)	267	8265	— — 24
14. Fastening peg for bladder (?)	197	1692	Inf. House 18
15. Carrying stick (?)	267	11804	Thule Co. B 2.2
16. — (?)	267	7293	— House 21. Mid. 24.4
17. Toy harpoon	283	4169	— — 12
18. — bladder dart head	282	4827	— — 20
19. — —	282	11564	— Co. A 22.3
20. — — (?)	282	2427	Ruin Isl. House 3. A
21. — — (?)	282	2462	— — 3. B

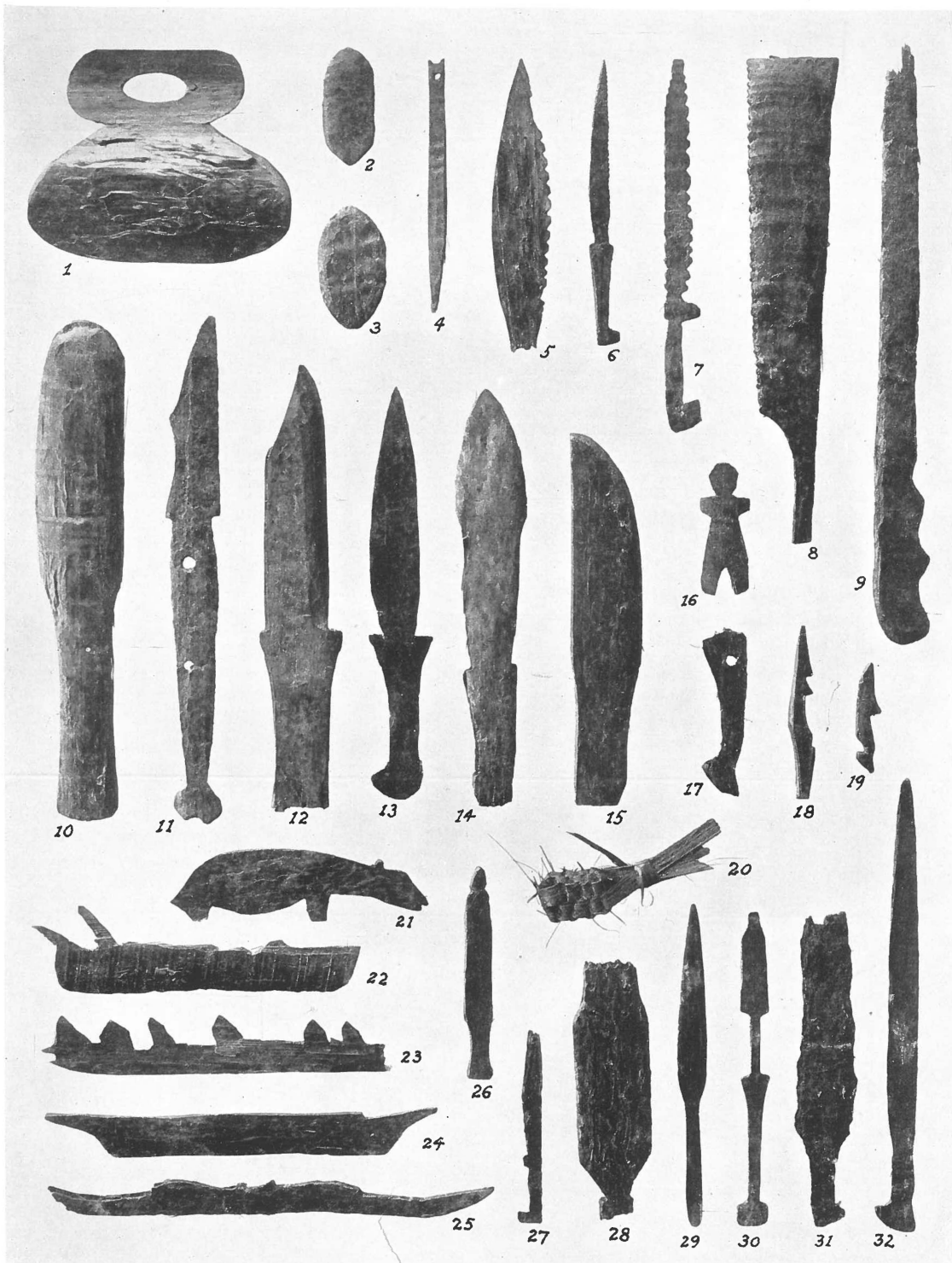


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Plate 49.

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	Objects of baleen.	Ref. p.	L 3:	
1.	Ulo	253	3640	Thule House 8
2.	Mending disk for bladder	197	9288	— Co. A 12.4
3.	— —	197	3316	— House 5. N
4.	Trout needle	220	4131	— — 12
5.	Saw	245	11391	— Co. A 20.6
6.	—	245	8748	— — 11.4
7.	—	245	9584	— — 13.6
8.	—	245	9063	— — 11.10
9.	—	245	7440	— House 21. Mid. 25.3
10.	Scraper	236	4276	4276 — 16
11.	Knife	236	10847	— Co. A 18.3
12.	—	236	2661	Ruin Isl. House 6
13.	—	236	3873	Thule House 11
14.	—	236	6901	— — 21. Mid. 22.2
15.	—	236	4277	— — 16
16.	Doll	281	4466	— — 16
17.	Handle of toy snow knife	285	5276	— — 21. Ø
18.	Toy side prong for bird dart	283	4134	— — 12
19.	— —	283	10230	— Co. A 15.5
20.	Plaiting	288	2666	Ruin Isl. House 6
21.	Bear figure	279	3485	Thule House 7
22.	Toy umiaq	284	5185	— — 21. Ø
23.	— —	284	5368	— — 21. Ø
24.	— —	284	5121	— — 21. Ø
25.	— kayak	284	4717	— — 19
26.	— sling handle	283	5184	— — 21. Ø
27.	— knife	287	9026	— Co. A 11.9
28.	— sledge cross slat	284	9964	— — 14.8
29.	— knife (?)	287	5212	— House 21. Ø
30.	— —	287	6820	— — 21. Mid. 21.2
31.	— snow beater (?)	285	3743	— — 10
32.	— —	285	8772	— Co. A 11.5


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