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THE ESKIMO ARCHAEOLOGY
OF JULIANEHAAB DISTRICT

WITH A BRIEF SUMMARY
OF THE PREHISTORY OF THE GREENLANDERS

BY

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IN COLLABORATION WITH

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WITH 60 FIGURES IN THE TEXT AND 4 PLATES

KØBENHAVN

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PREFACE

In continuation of the expeditions which have been undertaken every summer since 1929 for the purpose of examining the earliest Eskimo settlement in Greenland, the Commission for Scientific Research in Greenland sent out a new one to the Julianehaab District in 1934. In addition to the author the expedition consisted of ERIK HOLTVED, my collaborator in Disko Bay in 1933, the school teacher AAGE KRISTENSEN of Ousager, near Lejre, a brother of the well-known, now deceased archaeologist FRODE KRISTENSEN, and Miss A. HORNUM, who for some years has participated in excavations together with another well-known amateur-archaeologist and the founder of the Langeland Museum, JENS WINTHER, of Rudkøbing. As HOLTVED alone undertook all the surveying and drawing work, I consider it natural that his name should be coupled with mine on the title-page, even if the sole responsibility for the text of this paper is mine.

I would take this opportunity of thanking all my helpers for splendid cooperation during the half year the expedition lasted. My thanks are also due to both Danes and Greenlanders in the Julianehaab District and in Ivigtut for the helpfulness and hospitality extended to the expedition.

I have also to express my gratitude to those who have assisted me in preparing this paper: Dr. M. DEGERBØL (animal bones), ERIK MOLTKE, M.A. (rune inscriptions), Dr. POUL NØRLUND (Norse relics) and the Rev. H. OSTERMANN (orthography of the Greenland names).

As usual W. E. CALVERT has made the translation and S. BENGTTSSON the splendid photographs of the specimens; where nothing else is indicated the other photographs are by myself.

As this presumably will be my last archaeological expedition to Greenland I wish to make use of this occasion to extend my warmest thanks to all who have made it possible for me to carry out this series of Eskimo-archaeological investigations in that country, a number of glorious years of work to which I shall always look back as being among

my finest experiences. First and foremost I must thank the Chairman of the Commission for Scientific Research in Greenland, the director of the Greenland Administration, J. DAUGAARD-JENSEN, who by his great interest and kindness secured the financial basis for these investigations. Next, the Carlsberg Foundation, which has helped to get the investigations started and to have the material treated. Then the Chairman of the Publishing Committee for Meddelelser om Grønland, Vice Admiral G. AMDRUP, for so quickly having the publications accepted and printed in that distinguished series of communications.

Finally I should like to thank all my collaborators throughout the years and all in Greenland, Danes as well as Greenlanders, who so cordially extended both hospitality and support.

Therkel Mathiassen.

I. INTRODUCTION

Julianehaab District comprises the most southerly part of Greenland's west coast, from Kobberminebugten in the west to Lindenows Fjord in the east; in other words, the region between lat. $59^{\circ}43'$ and $61^{\circ}30'$ N., long. $43^{\circ}00'$, and $48^{\circ}20'$ W. It is Greenland's most fertile and most thickly populated region.

Systematic excavations having already been made in Upernivik District, Disko Bay and the Kangâmiut area, on both the northern and southern parts of the west coast, it was natural to investigate this large, densely populated district which forms the connecting link between West and East Greenland. Another circumstance, one that made this region particularly interesting, was that this was where the Norsemen had had their main centre, the East Settlement; on the other hand, however, this meant that all archaeological expeditions that had hitherto gone to the Julianehaab District had had their object in the Norse settlements, a much more conspicuous and attractive one.

Scarcely any information is obtainable from the literature about the early Eskimo settlement, all we have being BIRKET-SMITH's small treatise "Foreløbigt Bidrag til Kap-Farvel-Distrikternes Kulturhistorie", 1917, and O. BENDIXEN's brief summary in "Grønland" 1921, apart from scattered notes in Walløe's, Arctander's, Giesecke's and Daniel Bruun's papers.

The investigations this year stopped eastwards at Cape Farewell; the results of the excavations made by HOLTVED in 1931 as a member of the Sixth Thule Expedition in Lindenows Fjord are naturally being treated together with those of the Seventh Thule Expedition investigations on the southern part of the East Coast, which will appear in a separate publication.

The expedition sailed from Copenhagen on 29th March 1934 on the Cryolite Company's ship "Julius Thomsen", bound for Ivigtût, which was reached on 7th April. From there we proceeded on the schooner "Søkongen" to Julianehaab, arriving there on 12th April.

With the exception of short excursions in the environs of Julianehaab, the work could only begin on 16th May, on account of the unusually late arrival of spring. We camped on the large ruin site Tugtutûp Isua, known through Birket Smith's work referred to above. At first the work there proceeded very slowly owing to the great masses of snow, the frozen ground and very bad weather; altogether the excavations at Isua lasted till 23rd June. During the last two weeks Holtved directed the work there, while Kristensen and I made a motor-boat reconnaissance, first to the region between Julianehaab and Sydprøven, to the Agdluitsoq and Ûnartoq fjords, then to the region between Julianehaab and Bredefjord, up that fjord to the area surrounding Niaqornaq and Narssaq.

On the 26th June we camped at our next excavation site, Ûnartoq, where we remained till 10th July, broken only by Sunday excursions to Søndre Sermilik and the mummy caves at Qerrortût.

We moved on 11th July to Igdlutalik near Narssaq, where we worked till 1st August, when we went over to the adjacent Narssarsuaq; finally, the excavations were concluded with a day's work at Arfermiut, south of Niaqornaq.

The period from 11th to 21st August was employed on a reconnaissance southwards via Sârdloq, Sydprøven and Kanajormiut, through Torssukátak to Augpilagtoq, Anordliuitsoq and Sangmissoq, returning via Pamiagdlok; then in to Tasermiut Fjord and via Sagdlit back to the Colony.

After having packed our specimens for sending home we left for Julianehaab on 24th August, in order to reach Ivigtût via Qagssimiut and Sarqarmiut by the 26th August. Finally, the expedition concluded with a quick run up into the district of Frederikshaab, mainly in order to inspect its largest and earliest ruin site, Ukivik, just north of the Colony, from 27th to 31st August.

The voyage home was undertaken on the s.s. "Julius Thomsen" from Ivigtût, leaving there on 6th September and arriving back in Copenhagen on 19th September.

During my earlier visit to Julianehaab in 1932 I had inspected two ruin sites, Qagssiarssuk (Brattahlid), which I visited while on an air-ride from the Colony, and Arpatsivik in Qaqortoq Fjord.

Within the Julianehaab District we inspected in all 137 Eskimo ruin sites with a total of 432 early ruins. Our excavations comprise 56 house ruins, about 400 sq. metres of midden, while 23 graves were examined; we secured 1808 specimens¹⁾ and 47 skeletons.

¹⁾ Every number may sometimes comprise several specimens; for instance soapstone sherds, stone rubbish, etc. found in the same locality (same ruin, field and layer) are as a rule put together under one number.

The work was distributed over the various localities in the following manner:

	Houses Excavated	Middens Excavated sq. m.	Graves Examined	Specimens Found	Skeletons Found
Tugtutûp Isua . . .	24	112	7	395	12
Ûnartoq	11	ca. 100	6	355	15
Igdlutalik	17	132	8	720	14
Narssarssuaq	4	25	2	197	6
Arfermiut	—	25	—	141	—

We also examined three caves with remains of partly mummified bodies at Qerrortût on Ûnartoq Island. Finally, we established the presence of six hitherto unknown Norse farms: one by a large lake in the interior of the northern part of Tugtutôq, one at Qagdlimiut (a little north of the river mouth) in Agdluitsoq Fjord, one at Kapuivik, one at Nûlup Pernera in Agdluitsoq Fjord, and two on the east side of the south part of Sermilik Fjord (i. a. at Isortoq).

The collections are now in Copenhagen, some in the Ethnographic Section of the National Museum, some in the Normal-Anatomical Museum of the University, and some in the Zoological Museum.

II. RUIN SITES IN JULIANEHAAB DISTRICT

1. Summary of Sites.

Julianehaab District is mostly high mountain country cut up by a great number of deep fjords; the heights rise towards the south, where indeed the topographical forms are mostly alpine. Whereas the outer coast for the greater part makes a bare and barren impression, up the fjords there are luxuriant valleys and plains with a good deal of grass as well as willow and birch scrubs, and in places veritable birch woods; here it was that the old Norse settlement mainly concentrated.

As regards the natural conditions and history of the district, however, readers are referred to other works, especially the survey given in "Grønland", Vol. II.

In the following it is the Eskimo settlement we are to deal with. The district contains a total of 246 places where there are or have been Eskimo winter settlements¹). Of these, 35 are inhabited now, whereas at 211 of them there are only ruins. Five of the inhabited places also have earlier ruins, however, so that the aggregate number of localities describable as ruin sites comes up to 216.

The great extent of the district, and the limited time available made it impossible to inspect them all. Altogether 137 ruin sites were visited, in most cases quite briefly; thorough investigations and excavations were made at only four of them.

Below I have drawn up a schematic summary of these 137 sites, showing the number of ruins of the various house types they comprise. In many cases, of course, this is based upon judgment alone, as very often it was difficult, especially as regards the older, thickly overgrown ruins, to decide the shape; therefore, even though more thorough examination might alter some of the details in the list, I do not think that the main result would be much disturbed.

¹) Presumably the number is still higher, as some places whose names appear in the old church records, etc. could not be identified. The sites on the east coast N. of Prince Christians Sound are not included.

A distinction is made between the following types of houses:

1. Earliest type: round or rounded, small houses, sometimes with two or three built together with common passage; as a rule badly flattened out and with little vegetation.
- 2—3. The types of the 17th—18th centuries: Distinctly rectangular, with a high stone wall — though often badly collapsed — and with a sunken passage which in most cases is at right-angles to the longitudinal axis of the house; large houses (length 5 m and more (Type 3)), and small houses (length under 5 m; the length is always reckoned at right-angles from the passage (Type 2)). In most cases luxuriantly grass-grown.
4. The 19th century house type: Small, rectangular houses with high stone and turf walls, with the passage in prolongation of the longitudinal axis, oftenest with a bend, not sunken, and frequently with an offshoot (kitchen, store-room) in the angle of the passage. The vegetation is very luxuriant grass.

It is the house type that is still in use at most of the settlements; nowadays, however, it is more and more being replaced by wooden houses.

The list also shows when the settlement, according to historical sources, is known to have been inhabited.

The number of the site refers to the map Pl. 1, showing all the localised ruin sites in the District.

Serial No.	Number of ruins					Inhabited
	Total	Type 1	Type 2	Type 3	Type 4	
<i>Qagssimiut Area</i>						
7. Sarqamiut.....	1	..	..	..	..	1833—1934
18. Upernivik.....	3	..	1?	2	..	..
19. Apokátak.....	1	..	..	1	..	..
<i>Qarmat Islands</i>						
25. Qarmánguit.....	2	..	..	2	..	..
26. Takisôq.....	1	..	..	1	..	..
30. Uvingassut.....	2	..	..	2	..	..
31. Putdlatit.....	1	..	..	..	1	1857—64
32. Avatârmiut.....	4	..	..	2	2	1796—1899
33. Qingaitsoq.....	1	..	..	1	..	1806—09
<i>Bredefjord</i>						
37. Qôroq (Ikerasak).....	3	1	..	2	..	1805—18
38. Nûk.....	1	..	..	1	..	..
39. Manîtsoq.....	4	..	3	1	..	..
40. Ukívigsoqaq.....	2	..	..	1?	1	1807—86
41. Tugtutûp Isua.....	24	19	1	4	..	..

Serial No.	Number of ruins					Inhabited
	Total	Type 1	Type 2	Type 3	Type 4	
<i>Northern Sermilik Fjord</i>						
42. Narssarssuaq	8	4	..	2	2	1843
43. Arfermiut kitdlit	2	..	..	1	1	1823—33
44. — kangigdlit	2	..	..	2	..	..
45. Qingâtsiaq	2	..	..	..	2	1856—73
46. Qagssit	4	..	2	2	..	..
47. Igdlumiut	3	..	..	..	3	1855—83
48. Qarmat	3	..	2?	1	..	..
49. Qerrit	1	..	..	..	1	..
50. Nûgâtsiaq	1	..	..	1	..	1782
51. Qeqertaq	3	..	1	2	..	..
56. Nûngmiut	2	..	1?	..	1	1809, 1855—56
<i>Skovfjord-Narssaq Area</i>						
57. Nûgâtsiaq (Igdlukasik).	2	..	..	1	1	1807—55
58. Akuliaruseq	2	..	..	2	..	..
59. Ikerasâ	2	..	..	2	..	..
60. Igdlutalik	24	15	5?	4	..	..
61. Sigssardlugtoq	8	..	..	1?	7	1801—91
62. Kugssanga	4	..	..	1	3	1871—1907
63. Narssâraq	2	..	..	..	2	1848—95
64. Iluilermiut	8	3?	4?	1	..	..
65. Qaersormiut	2	..	1	1	..	..
66. Nûgârssuk	2	..	1	..	..	..
<i>Tunugdliarfik Fjord</i>						
70. Igdlúnguaq	5	..	2	3	..	1794—1823?
71. Qagssiarssuk	3	..	..	3	..	..
<i>Hollenders-Julianehaab</i>						
72. Ikerasârssuk, North	4	..	..	3	1	} 1796—1872
73. Johanne Havn	6	..	2?	3	1	
75. Nunatsiaq	1	..	..	1	..	1830?
77. Ikerasak	3	..	1?	2	..	..
78. Qagssitsiaq	1	..	..	1	..	..
79. Asakâtak	2	..	..	..	2	} 1806—90
80. Itivdlilik	2	..	..	..	2	
81. Kilagtut	1	..	..	1	..	..
82. Perdlernerit	3	1?	1	1	..	..
84. Oqaitsúnguit	1	..	..	1	..	..
85. Akúnâq	3	..	1?	..	2	1830—66
86. Igdluko	1	..	1	..	..	..
87. Qaqortormiut	3	..	2	..	1	1751, 1829—66
88. Nákaivik	1	..	..	..	1	..
89. Niaqornánguaq	2	..	..	1	1	1847—54

Serial No.	Number of ruins					Inhabited
	Total	Type 1	Type 2	Type 3	Type 4	
<i>Qaqortoq Fjord</i>						
90. Karrarmiut	1	..	..	1	..	..
91. Karrarmiut Nûat	3	..	1	..	2	1851
92. Alângormiut	1	..	..	1	..	..
93. Qeqertarsuaq	1	..	..	1	..	..
94. Arpatsivik	1	..	..	1	..	..
<i>Akia-Kangeq Area</i>						
96. Oqaitsormiut	1	..	..	1	..	1797—99
97. Qagssinguaq	1	..	..	1	..	..
98. Nagge	1	..	..	1	..	..
99. Uilormiut	1	..	..	1	..	..
100. Alângormiut	2	..	..	2	..	..
101. Qeporqarmiut	4	..	1	1	2	1866—76
102. Ivnartalik	3	..	..	2	1?	1824—43
103. Inugsuqortôq	2	..	..	2	..	..
104. Kangerdlugtussoq	1	..	..	1	..	..
107. Akiap Isua	2	..	..	2	..	..
108. Uperniviarssuk	2	..	..	2	..	..
109. Niaqornatsiaq	2	..	..	2	..	..
110. Upernivik	4	..	2?	..	2	..
111. Kangeq	1	..	..	..	1	1838—55
112. Ũmánalik	4	..	..	4	..	1818
114. Sanerardlit	3	..	..	2	1	1818—52?
115. Apússuit	2	..	..	2	..	..
116. Ũmánap Alángua	2	..	..	2	..	..
117. — Sarqâ	1	..	..	1	..	..
<i>Sárdloq Islands</i>						
118. Upernivik	7	..	..	1	6	1796—1886
119. Portusôq	3	..	..	3	..	..
120. Itivssâq	1	..	..	1	..	..
121. Púkitsoq	1	..	..	1	..	..
122. Sarqardlit	2	..	..	..	2	1845—69
123. Qeqertatsiaq	3	..	..	2	1	1798—1847
124. Qârusuk	4	..	..	1	3	1845—69
125. Imilik	1	..	..	1	..	..
<i>Qaersog-Sydproven Area</i>						
127. Qeqertarsuaq	3	..	..	..	3	1786—1879
128. Kínalik	6	..	..	1	5	1806—97
129. Kapuivik	3	1	1	1	..	..
130. Pamiagdhluk	1	..	..	1	..	..
131. Ikermiut	1	..	..	1	..	..
133. Uigerdleq	1	..	..	1	..	1798—1804?
134. Ikerasârssuk	4	..	..	1	3	1863—66
135. Arnat avangnardlit	2	..	..	2	..	1799—1818 and 1865—71
136. — kujatdlit	6	..	1	1	4	

Serial No.	Number of ruins					Inhabited
	Total	Type 1	Type 2	Type 3	Type 4	
<i>Agdluitsoq Fjord</i>						
138. Itivdlinguaq	1	..	1	..	..	..
139. Nûgârssuk	2 (+ 9 new)	..	..	2	..	1811—1920
140. Pernera	2	1	..	1	..	..
141. Nûluk	1	..	..	1?	..	1791—1811
<i>Ûnartoq Fjord</i>						
142. Igdlorssuatsiaq	1	..	..	1	..	1805
143. Qerrortût	4	..	..	..	2	1800—67
144. Qarmarsuit	4	..	1	..	3	1783—1870
145. Ûnartoq	26	15	2?	7	1	1751—1860
146. Igpik	1	..	..	..	1	1809—1934
147. Igdlorpait	3	1	..	..	..	Still inhabited
148. Qernertut	4	..	..	1	2	1805—1871
149. Itivdleq	5	..	..	1	2	1789, 1861—62
150. Angnertussoq	3	..	..	..	3	1855—84
151. Ikerasârssuk	2	..	1	1	..	..
152. Iggavik	2	..	..	..	2	..
<i>South Sermilik Fjord</i>						
154. Sermilik	9 (+ 10 new)	2	..	3	4	1799—1915
156. Ivigfût	5	..	3	2	..	..
157. Isortoq	4	..	1	2	1	..
<i>Sermersôq-Sagdlît (Area)</i>						
158. Isua	Only new	..	..	..	..	1811—1929
159. Qiterdlît	2	..	..	2	..	..
160. Kangeq	5	..	..	5	..	1786—1823
162. Sagdlît	Only new	..	..	..	..	—1928
163. Angmalortoq	2	..	..	2	..	..
164. Amitsaq	Disappeared	..	..	..	..	..
<i>Nanortalik Islands</i>						
167. Sigssarigsoq	13	..	..	..	13	1790—1899
168. Qardlulâq	2	..	..	1	1	1851—53
169. Ûmánârssuk	2	..	1	1	..	..
<i>Iqdlukasik-Frederiksdal Area</i>						
171. Ikerasârssuk	5	..	..	3	2	..
172. Ikigait	3	..	..	..	3	1751—ca. 1900
<i>Tasermiut Fjord</i>						
174. Avigissat	2	..	..	1	1?	1854?
175. Tasiussârssuk	1	..	..	1	..	..
176. Tasiussaqa	3	..	..	2	1	1834—63
177. Arpatsivik	2	..	1	1	..	..

Serial No.	Number of ruins					Inhabited
	Total	Type 1	Type 2	Type 3	Type 4	
<i>Cape Farewell Area</i>						
178. Kûaraq	1	..	..	1	..	..
179. Nunarsuaq.....	4	..	1	2	1?	1837—53?
181. Ujarasugsuit	3	..	..	1	2	1858
182. Igdlíssat.....	1	..	..	..	1	1853—60
184. Savssivik.....	3	..	..	2	1	..
191. Anordliuitsoq	16(+10 new)	5	2	9	..	1853—1925
192. Pâmiut.....	1	..	..	1	..	..
193. Utorqarmiut.....	3	..	..	1	2	1853—67
194. Ôgkat	2	..	..	..	2	1857
195. Pamiagdhluk.....	Only new	..	..	..	..	1848—1915
197. Kûngmiut.....	3	..	1	..	2	1858—85
<i>Total...</i>	<i>432</i>	<i>68</i>	<i>53</i>	<i>173</i>	<i>126</i>	

The quite new sites (dating from the 20th century) are not included in the total.

The dates shown mainly agree with the church records¹⁾ and thus do not mean that the settlements have only been inhabited in those years; they indicate merely that church ministrations have been performed in these years (baptisms, marriages, burials) for people living there. One difficulty lies in the fact that the old church records often make use of a form of spelling that makes the names hard to recognise; another is that one cannot in some cases tell which locality of the name is meant, for, as the list shows, there are several settlements of the same name.

Other Localised Ruin Sites.

A total of 61 other ruin sites were localised apart from those inspected; they were determined with the aid of Greenlanders familiar with them and inserted on the map. Where the number of ruins is known it is indicated, as also what is known of the date when they were inhabited. They are given below with the numbers shown on the map, Pl. 1.

Qagssimiut Area:

1. Itivdliatsiaq (1845—1905)²⁾ (also called Nunarssuit)
2. Ánorâq
3. Qáqaligaitsiaq (1805—64. Trading post). 1850: 4 inhabited houses²⁾
4. Ukuakatdla (1859)
5. Inugssuarmiut
6. Qernertormiut
8. Qeqertasugsuk

¹⁾ Dean A. Bugge has kindly obtained extracts of the earliest church records for Julianehaab and Lichtenau from Godthaab National Archives.

²⁾ Grønland II, p. 450.

- | | |
|------------------|-------------------|
| 9. Iggiarmiut | 14. Ivnrssuánguaq |
| 10. Qavdlunâq | 15. Uvingassut |
| 11. Iverfik | 16. Naujarmiut |
| 12. Upernivik | 17. Oqaitsormiut |
| 13. Qeqertatsiaq | |

Qarmat Islands

- | | |
|------------------|---------------|
| 20. Inugsugtût | 27. Qerâmiut |
| 21. Quajait | 28. Suersoq |
| 22. Serrartussoq | 29. Púkitsoq |
| 23. Nunakitsoq | 34. Qôrormiut |
| 24. Igdlukasik | 35. Merqussât |

Bredefjord

36. Akúnârmiut (1803—27)

Northern Sermilik

52. Nûluk (one ruin)
 53. Ipiutat —
 54. Nûgssuaq —
 55. Asivia —

Tunugdliarfik Fjord

- | | |
|------------------------------------|----------------------------|
| 67. Sitdlisit (1751) ¹⁾ | 68. Musartût ²⁾ |
| 69. Nûgârssuk ³⁾ | |

Hollænderøen—Julianehaab

- | | |
|----------------------------|-------------------|
| 74. Isarut | 83. Qârusuarimiut |
| 76. Ilivigarmiut (1855—76) | |

Qaqortoq Fjord

95. Upernivîarsuk (1779: 3 old houses)
- ⁴⁾

Akia—Kangeq Area

- | | |
|----------------------------------|-----------------|
| 105. Kangermiutsiait (1827—1920) | |
| 106. Uertînilip Sarqâ | 113. Igdlutalik |

Sârdloq Islands

126. Ũmánârssuk (1793—1882)

Qaersoq—Sydprøven Area

132. Ũmánartût (Ikerasâ) (1788—1805)
 137. Inuarutdligaq (1798—1821)

¹⁾ Here in 1751 Walløe met the Greenlander Ereerunna in a "wild man's dwelling" (Walløe p. 70).

²⁾ Bruun 1895, p. 272.

³⁾ Ibidem p. 279.

⁴⁾ Arctander p. 1231.

Ũnartoq Fjord

153. Qeqertaussaq

Southern Sermilik

155. Qârnermiut (2 ruins)

Sermersôq—Sagdlit Area

161. Ikerasak (2 ruins; 1863—67)

165. Amitsup Nûa

Igdlokasik—Frederiksdal Area

166. Angissoq (1878)

170. Nunarssuaq (1793—98)

173. Niaqornaq (1 ruin)

Cape Farewell Area

180. Kûngmiut

188. Niaqornârssuk (2 ruins; 1821?)

183. Isortoq

189. Niaqornaq

185. Ujarasugsuit

190. Igdlorssuatsiaq (1857—1917)

186. Niortût (still inhabited)

196. Kangia

187. Isingait (2 ruins)

198. Sarqamiut (1882—98)

As far as I have been able to find out, however, none of these are large settlements.

Non-Localised Ruin Sites.

Besides those shown on the map, Julianehaab district contains a number of former settlements whose exact situation I have been unable to ascertain. They are mostly places that have been mentioned in the early church records; some of them may be summer settlements, of course.

The following are to be found in these church records: Niutâq in Bredefjord (1807—08), Uigordleq near Narssaq (1798—1804), Niaqornârssuk in Tunugdliarfik Fjord (1794—1879), Alângordlit (56 miles north of the colony. 1807—08), Sâtut (1782—1817), Ikerasatsiaq (1802—04), Itivdliarssuk (1826—54), Qajûvfik (1846—67), Sarfarssuit (1832) and Nagtoralik near Nanortalik (1851—54), as well as several places the spelling of whose names makes them difficult to identify.

In Lichtenau's church records we have Kingigtoq (1782—1818), Inuvaq (1893—96) and Qârusulik (1875). In those of Frederiksdal: Ilua (1853—72), Igdluo (1867) and Tinueqissâq (1896—97).

Daniel Bruun mentioned Kapitarmiut and Nûluk¹⁾ in Bredefjord.

These 18 places bring our total up to at least 216 localities where winter settlements are known to have existed in earlier times in the Julianehaab District.

¹⁾ 1895 pp. 248—49.

We shall now proceed to discuss some of the ruin places referred to above. A detailed description of them all would mean much unnecessary repetition, as the same conditions are often found from one place to another. We shall therefore confine ourselves to a discussion of those places where extensive excavations were made, and otherwise make a few remarks on some of the others that are of interest. Consequently, as regards most of the settlements no other information will be given of them than is to be read from the foregoing list.

2. Tugtutûp Isua.

About twenty kilometres northwest of the colony of Julianehaab lies the large island of Tugtutûq, about 35 kilometres long, which separates the two large fjords Bredefjord and Skovfjord, a luxuriant but most uneven island, the highest point reaching 490 metres. Out from its north end a long, curved, low point stretches towards the southwest and thus forms an excellent natural harbour. This point is called Isua, "Land's End", or, to keep it separate from other localities of the same name, Tugtutûp Isua, "Caribou-Land's End". On its south side, at the head of the bay, is the large ruined settlement which we selected for our first large-scale excavations; we stayed there from 16th May till 24th June.

The credit for having discovered this settlement must be given to the Zoological Expedition which, with K. STEPHENSEN as leader and K. BIRKET-SMITH as a member, was in these parts in 1912. In 1914 Stephensen published his observations on this spot, in which he held that some of the ruins were Norse houses, since when Isua has been shown on the maps of Norse ruins in Julianehaab District. In 1917 Birket-Smith published his observations on Eskimo ruins there, as in addition to the Norse ruins he considered that he had seen old Eskimo houses which by their form recalled the whale-bone houses in Arctic America.

However, a detailed examination of these ruins was outside the sphere of that expedition, and consequently it was natural for us to make it. The occurrence of Norse ruins and Eskimo ruins in the same place seemed promising. It must be said at once, however, that Isua proved to be a purely Eskimo settlement; at no place on the point were there ruins ascribable to the Norsemen. On the other hand, about 1 km SSW of the settlement, some way inland, was a Norse farm; and about two kilometres still further inland, on the bank of a large lake, we found another.

The map Pl. 2 shows Isua and its environs as far as the limits of the Eskimo habitation-remains associated with the settlement. At the very head of the bay, on a gravel plain formed of raised marine gravel

containing many pebbles, is the settlement, consisting of 24 Eskimo winter houses besides one or two tent foundations and a number of meat caches. On the continuation of this plain eastwards are three tent foundations, two graves, two caches and two nāngissat¹); along the west boundary of the plain runs a small brook. On the uneven rocky ground rising behind the settlement are 15 graves, and near one of these a kayak-shaped setting of stones. On the outer part of the point, which consists of low rock connected with Tugtutôq by a narrow, low, gravel



Fig. 1. Old Norse Farm near Tugtutûp Isua.

neck, lie 16 graves. Along the outer side of the peninsula, facing towards Sermilik and Skovfjord, and on the south point, lie 16 tent foundations, three box-traps and seven caches. On the high ridge rising west of the bay are six box-traps. Along the shore west of the bay are some caches, box-traps and tent foundations, mostly of more recent date. From this shore an important valley runs inland; in it are two small lakes, and further in a very long one. On the far side of the two lakes, in the south-west corner of the map, is the Norse farm, consisting of two large and two smaller buildings; at the south end of the most northerly lake is an isolated little Norse building near an old Eskimo grave.

Two land-marks, one at the settlement and one a little way behind it, and a cairn on the west shore, indicate the anchorage in the harbour.

¹) Hopping stones, see Disko Bay p. 64.

Fig. 2 shows Isua from the large grave (No. 11) above the settlement.

Fig. 3 is a detail map of the settlement itself. As has been stated, the houses lie on a gravel plain which rises smoothly towards the north, whereas it falls towards the beach in a low bluff from 1 to 1½ metres high. The greater part of this plain was covered with moor vegetation, mainly *Empetrum* and dwarf birch. There was a considerable amount of willow scrub round about Ruin 1 and the ruins in the middle of the settlement; some grass (chiefly *Poa*) was growing on a few of the easterly



Fig. 2. Tugtutùp Isua seen from northwest. The ruins are on the dark plain right below.

ruins (especially 11, 13, 14 and 17). The ruin groups 2—7, and 24, and 12, had the same vegetation as the heather-plain.

The height of the ruins above sea level is shown on the map: highest of all, 8—9 m, lie the houses 1 and 2; about 6 m lies group 3—7 and 24. The others lie between 5 and 1½ m above the sea. Lowest of all lies house 15, the passage of which has been partly broken down by the sea, which is steadily eating the bluff away; but this does not make it necessary to assume that there has been any submergence of the land since this house was built.

We shall now proceed to consider the ruins one by one.

House 1.

Fig. 4 gives a plan and section of this house. It is an unusually handsome and well-built house of the old, round type. In form it is

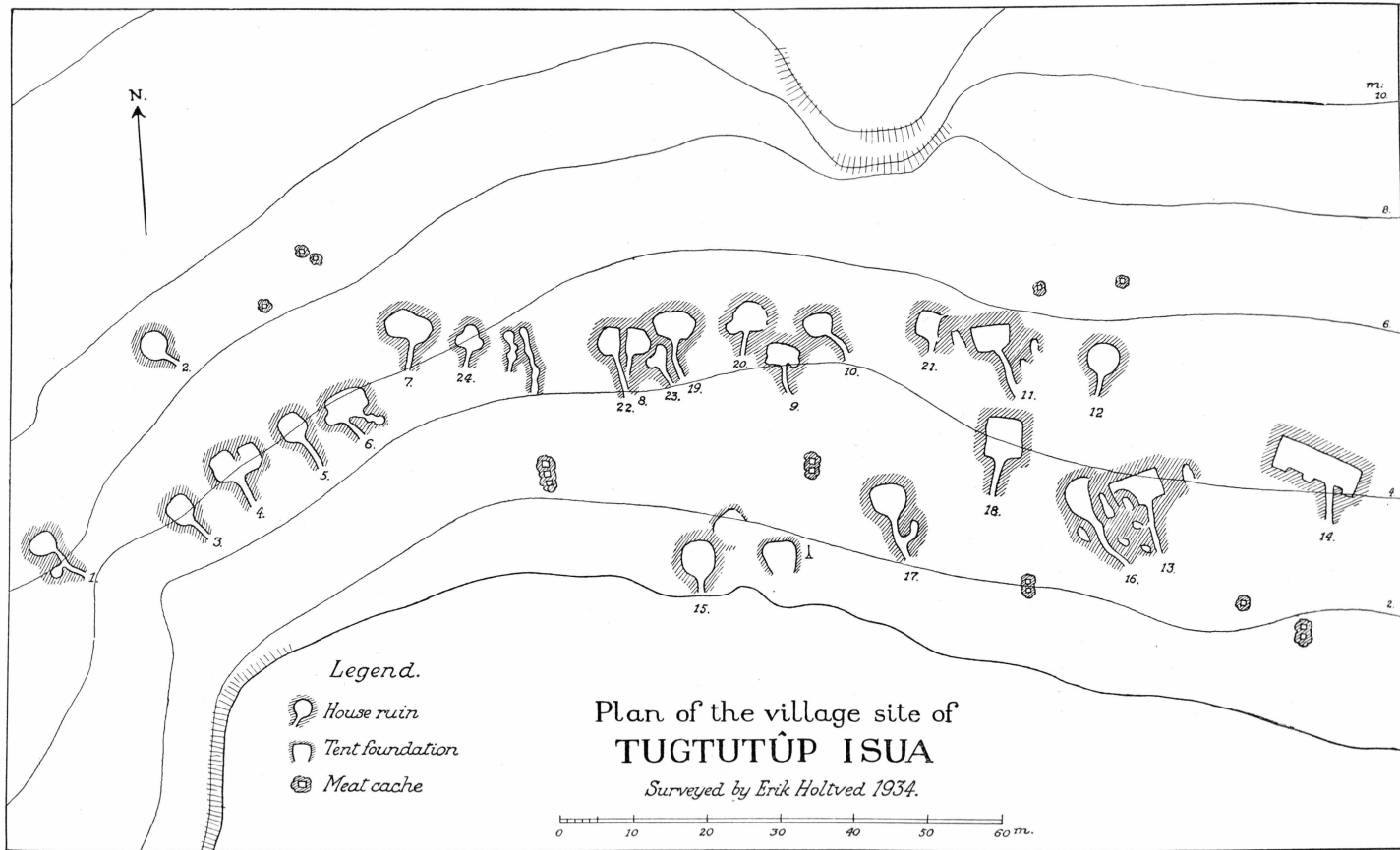


Fig. 3.

*2

slightly oval. It has been dug well down, the floor lying about 70 cm below the level of the ground outside, and the walls are about 1 m high; they are built of stones, in several places having two courses; it is this solid construction that has preserved the house so well as compared with what is usually the case with houses of this type. In the west wall

Section A-A.

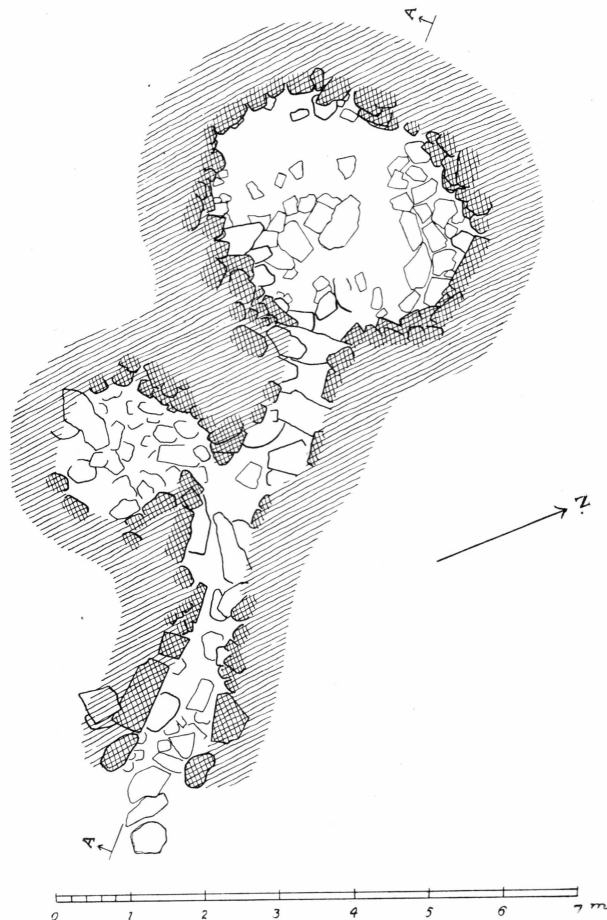
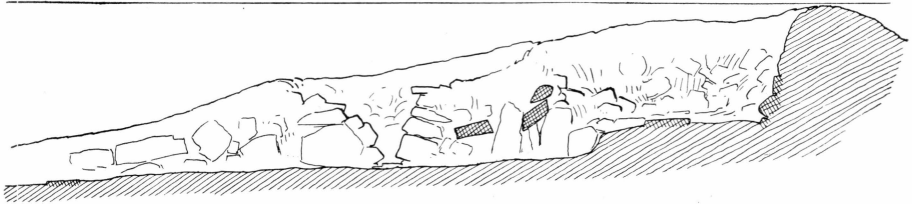


Fig. 4. Plan of House 1, Tugtutùp Isua.

were two large whale bones, one with marks of hewing in it. Floor-stones covered a good deal of the bottom; towards the NE especially there was a large, continuous surface of flat floor-stones. Among these stones was a large lump of bell-metal (Fig. 44. 1). The passage was large, well built, sunk well down, with several covering stones in place and

Section A-A.

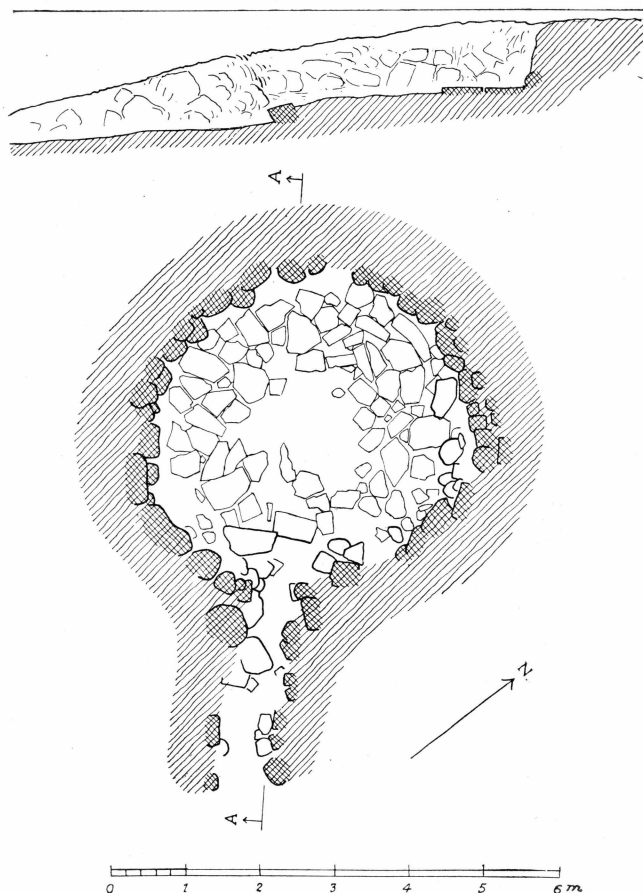


Fig. 5. Plan of House 2, Tugtutûp Isua.

with its floor paved; outside its entrance lay three flat sill stones. From the passage a side passage leads into a stone-set room which apparently has served as a meat cache.

The vegetation in the house: *Empetrum*, moss, and on the walls willow, indicate a high age: the finds inside it do the same: apart from the two large whale bones there were scarcely any bones; all animal bones were decomposed; a little powdered bone was observed in one place only.



Fig. 6. House 2 after Excavation. Tugtutùp Isua. — Holtved phot.



Fig. 7. House 3; Tugtutùp Isua.

Found: whetstone, hammer stone, 3 cooking-pot sherds, 2 toy lamps or cooking pots, a large piece of bell-metal (Fig. 44. 1).

House 2.

Fig. 5 is the plan and section; Fig. 6 is the house after excavation; this house, too, is handsome and well-built, almost circular; the walls consist of only a single course of stones, most of them round boulders; except in the middle, where there was gravel, the floor was paved with flat stones. The passage was sunk, somewhat collapsed owing to the round stones that had been used there too.

It contained neither artefacts nor bones.

House 3.

A round house with walls of a single course of round stones; there were only few floor-stones, otherwise the bottom was gravel; the passage, which was dug deep down, was supported on the east side by two large boulders in situ. (Fig. 7).

The dimensions of the house were 3×3 m, passage 4 m long.

Found: a hammer stone.

House 4.

Fig. 8 is the plan and longitudinal section. A double house of the old, round type; rather roughly built walls, mostly with scattered stones; scattered floor-stones; a deep-sunk passage.

Found: two whetstones; convex-edged scraper blade of rock crystal; fragments of lamp with wick-ledge and of a crude, hollowed-out lamp.

House 5.

A handsome, round house with one course of stones in the walls, most of them round boulders, and stone flags over the greater part of the floor; a recent cache was built into the house. The diameter of this house was about 4 m; the passage measured 5 m and had several floor-stones.

Found: cooking-pot fragment; piece of bell-metal (Fig. 44. 2) (under the wall of the cache).

House 6.

Very roughly built, with scattered and poor wall stones; badly collapsed. Almost oval in shape, $6 \times 3\frac{1}{2}$ m, with a passage 4 m long and a fairly long kitchen offshoot with slag on the southeast.

Found: two whetstones, small, crooked, foursided lamp or bowl (Fig. 44. 4), two cooking-pot sherds, toy lamp (Fig. 38. 10), small bronze object from the Norsemen (Fig. 45. 9) (lay in the kitchen).

Section A-A.

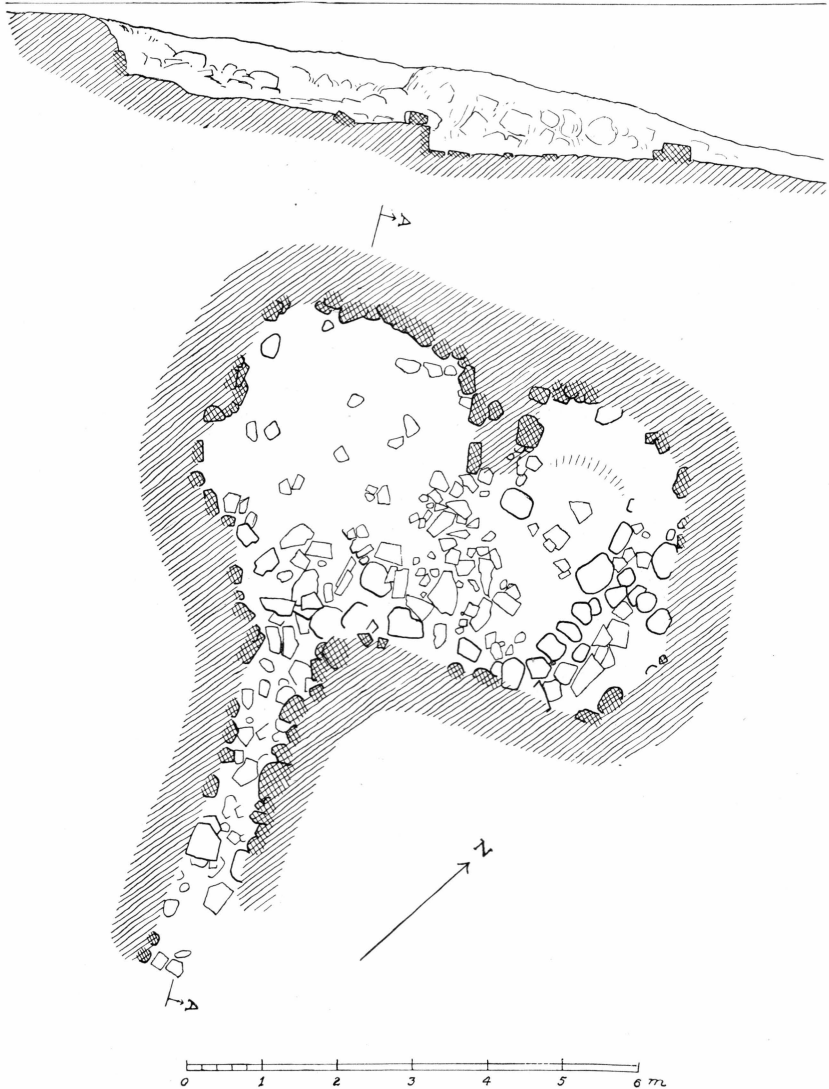


Fig. 8. Plan of House 4; Tugtutúp Isua.

In front of houses 4—6 we excavated a number of squares, in all 40 sq.metres (Field C). It proved to contain scarcely any refuse; no trace of bones; we found only a whetstone and a sherd of soapstone.

House 7.

Recalls house 6; its shape is indistinct, oval if anything; there seems to be a trace of a dividing wall. The walls very roughly built, $6\frac{1}{2} \times 3$ m, with a passage 5 m long. A fireplace in the southwest corner.

Found: whetstone, hammer stone.

House 24.

A small, more or less rounded-triangular house, $3\frac{1}{2} \times 3$ m, with a passage 3 m long; scattered wall stones; a number of floor-stones in the middle. At the back, where the platform was presumed to be, the culture earth with fragments of coal and traces of bones was fairly deep.

Found: soapstone sherd.

Houses 1—7 and 24, which lie together in a separate group, on the west and highest up, give the impression of being the earliest at Isua.



Fig. 9. House 22; Tugtutûp Isua.

Apart from No. 1 they appeared as quite shallow, heather-clad depressions; they contained scarcely any culture earth and no preserved animal bones or bone objects at all.

House-Group 22, 8, 23 and 19.

These four houses lay close together, partly built into one another; they were overgrown with dense willow scrub and surrounded with much culture earth; the bones, however, were almost decomposed.

House 22 is a small house of irregular-rounded shape, with a number of stones in the walls. There were flags both on the floor and on the elevated platform area, and it had a very deep passage, $7\frac{1}{2}$ m

long, with several covering stones in position; the house itself measures $2\frac{1}{2} \times 3$ m (Fig. 9).

Up against its east side lies House 8, the original size and shape of which were impossible to see; its floor-stones continue in under the wall of No. 22 and its passage runs alongside that of the same house, into which it finally cuts and disappears below; House 22 is apparently later than House 8.

Southwest of House 8 lie the remains of a still another earlier house (23), its floor-stones passing in under the walls of both House 8 and House 19 on its east side; thus its shape and size cannot be determined. It contained a layer of ashes and slag, presumably being the kitchen for House 8, and also a small child's grave which lay above the slag layer. The passage was $3\frac{1}{2}$ m long.

House 19 is oval, 5×4 m, with stones here and there in the walls, a number of floor-stones, and a distinct platform edge; it had a rather curved passage, 6 m long.

Found:

- House 22: two whetstones, 2 cooking-pot sherds, four indeterminable soapstone sherds, an iron knife (Fig. 45. 13).
- House 8: whetstone, hammerstone, two toy cooking-pots, five indeterminable soapstone sherds, pendant of soapstone (Fig. 38. 5).
- House 23: three whetstones (Fig. 45. 14), two hammer stones (Fig. 38.12), fragment of a lamp with wick ledge, two cooking-pot sherds, toy cooking-pot, piece of iron knife blade.
- House 19: six whetstones, four lamp fragments with wick ledge or row of knobs, six cooking-pot sherds, 13 indeterminable soapstone sherds.

House-Group 20, 9 and 10.

Three houses lying close together, of the same rough construction, and with a number of stones in the walls; they were covered with willow scrub and contained some culture earth.

House 20 was badly collapsed, $3\frac{1}{2} \times 3\frac{1}{2}$ m, with a number of floor-stones, a kitchen in the SW corner and a very deep passage, 4 m long.

House 9 is irregular four-sided in shape, $4 \times 2\frac{1}{2}$ m, with a kitchen in the SE corner and a passage, rather curved, 6 m long. A whale bone and a seal bone were preserved.

House 10 was oval, 4×3 m, with a number of floor-stones and a passage 5 m long.

Found:

- House 20: two whetstones, three hammer stones, soapstone sherds, toy cooking-pot.

House 9: ice pick, four whetstones, hammer stone, lamp fragment with knobs along front edge (Fig. 41), nine soapstone sherds, pendant of red slate, toy cooking-pot.

House 10: whetstone, hammer stone, two cooking-pot sherds, soapstone sherds.

Section A-A.

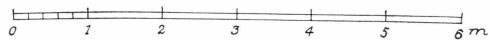
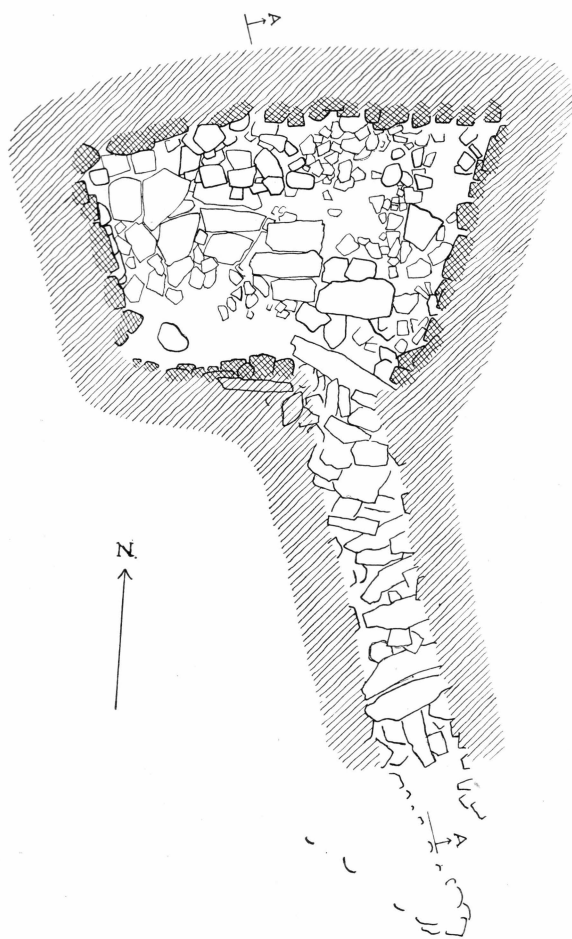
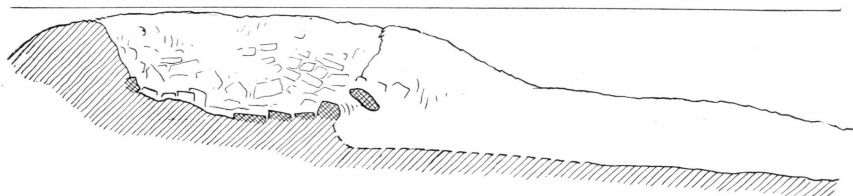


Fig. 10. Plan of House 11; Tugtutùp Isua.

House 21.

A small, round house, $2\frac{1}{2} \times 3\frac{1}{2}$ m, with roughly built walls, gravel bottom and a passage 2 m long; the east side of the house was built over by the wall of House 11. No bones.

Found: Cooking-pot fragment.

House 11.

This house is quite different and of much more solid construction than the foregoing houses. The plan and section of it are given on Fig. 10. In shape it is a parallelogram, and its walls are 1 m high, set with stones, a handsome floor of flags, reaching right over to the back wall on the west, whereas there are smaller, more irregular stones along the greater part of the back wall, along the east and front walls, where apparently there have been platforms. The passage is long, well-preserved, with most of the covering stones in position. West of the house we found a large meat cache, and two others SE of it.

The shape, state of preservation and luxuriant grass covering, show that it is later than those described above. This was in fact confirmed by the finds, even if no bones were found to be preserved in this house either.

Found: five whetstones, three cooking-pot sherds, two glass beads, a thin rod of tin.

House 12.

Merely a round depression in the gravel, 4 m in diameter, with a few scattered floorstones and a passage $3\frac{1}{2}$ m long, deep down and set with stones. The house was heather-covered and contained no bones.

Found: two whetstones, two cooking-pot sherds, two soapstone sherds, toy lamp without wick ledge, unfinished spindle whorl (Fig. 45.7) and a large piece of iron.

House 15.

Merely a round depression in the gravel, $4\frac{1}{2}$ m in diameter; few wall stones, but floorstones at the back and east side of the house. Of the deep passage only the innermost $1\frac{1}{2}$ m preserved, the remainder having fallen in, the house lying right out on the small bluff that is steadily being washed away by the sea. The house had a very thin growth of lichen, juniper and willow. No bones were preserved.

Found: five whetstones, hammer stone, two lamp fragments with wick ledge or knobs, cooking-pot sherds, six soapstone sherds, small piece of iron.

House 17.

Also seems to belong to the early type, though the east wall was more solidly built than usual and there was some grass on the ruin. The

form is rounded; there are some floorstones, and in particular some stones on the platform; the house measures $5\frac{1}{2} \times 4$ m, the passage is 8 m long, curved, with a handsome floor; a side passage leads to a meat cache. There were no bones in the house.

Found: three whetstones, lamp fragment with wick ledge, ten soapstone sherds, unfinished toy lamp.

Section A-A.

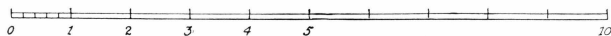
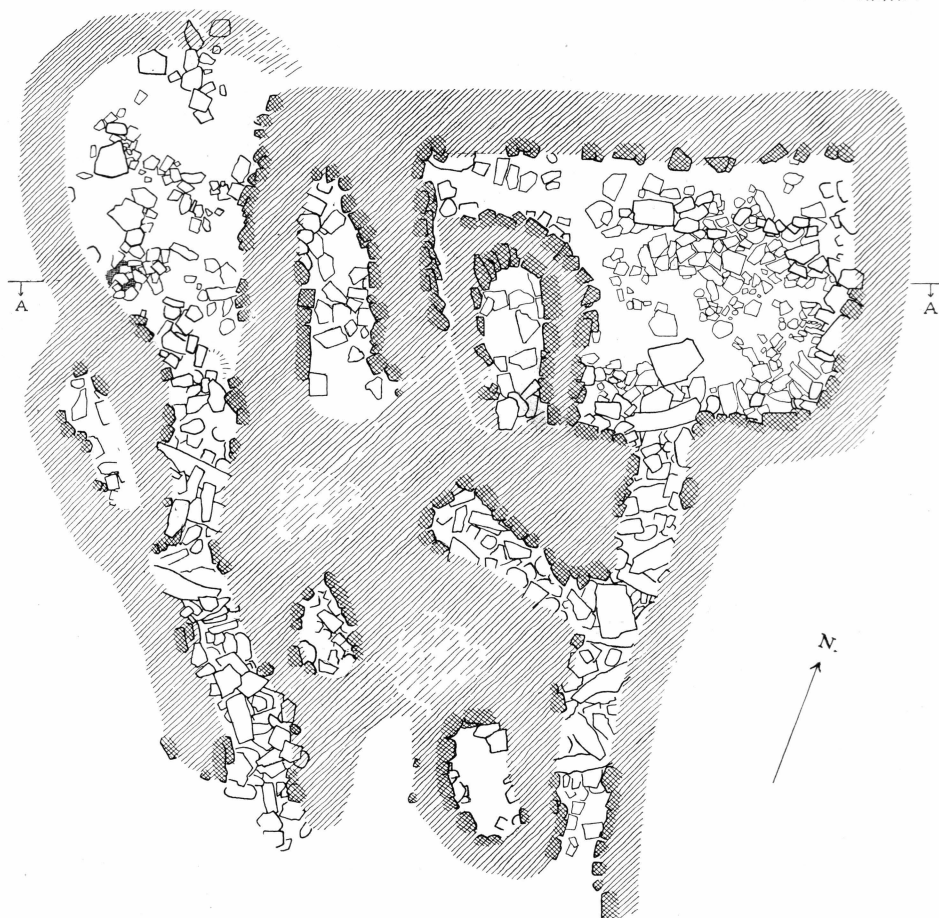
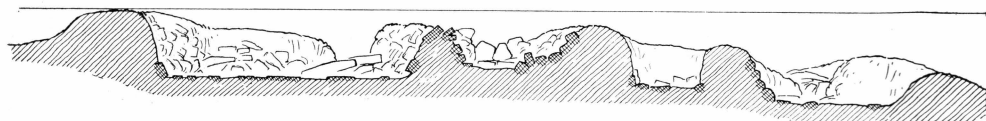


Fig. 11. Plan of House-complex 13 and 16; Tugtutúp Isua.

House Complex 13 and 16. (A plan of this complex is given on Fig.11.)

House 13 is a typical common house of the 17th—18th century type, with stone walls 1 m high, floorstones, a number of stones on the platform and a long, well-built passage, from which there is access to a meat cache. Other caches lie to the west of the outer end (two) and east of the house, while one (later?) cache is built into the west side of the house. West of the house is a narrow, triangular room with floor stones, once belonging to the house, no doubt, but then separated from

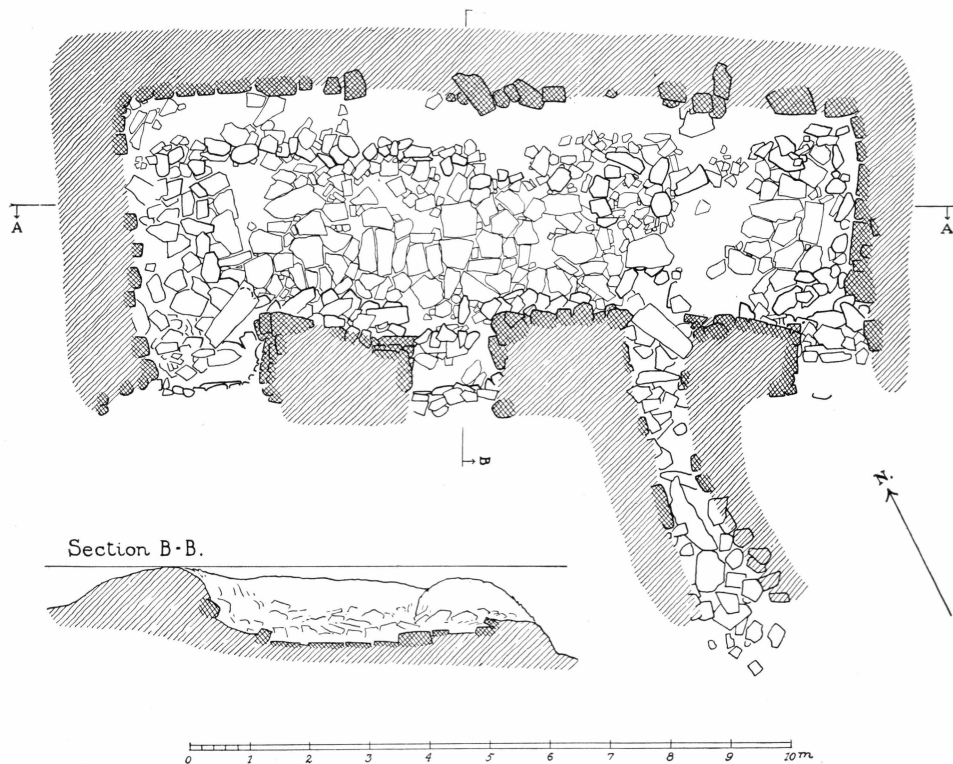


Fig. 12. Plan of House 14; Tugtutùp Isua.

it by building a dividing wall. The wall west of this room, however, that is to say what seems to be House 13's first west wall, is built upon the remnants of an earlier house, the form and size of which could not be distinguished. West of this wall was a good deal of culture earth, and about half a metre down in it was a paved floor, in height corresponding to the long, curved passage stretching from it towards the south and southeast. That this earlier house, House 16, is not much older than House 13 is seen from the fact that on the floor was a glass bead. Under this floor, however, was half a metre of culture earth, with objects that showed that on this site there had been a much earlier house.

Found:

House 13: hammer stone, lamp fragments without wick ledge, two cooking-pot sherds, two soapstone sherds, spindle whorl, eight glass beads, broken bottle glass.

House 16, above floor: three whetstones, three cooking-pot sherds, soapstone sherd, glass bead.

House 16, under floor: two whetstones, lamp fragment with wick ledge, cooking-pot sherd, five soapstone sherds, bead of calcareous spar (Fig. 38. 4), toy cooking-pot, polished graphite, Norse cloth (Fig. 45. 17), spindle whorl (Fig. 45. 2).

In front of this house we excavated 16 sq.metres (Field A); there was scarcely any culture earth in it and only faint traces of bones. It contained only a whetstone and a soapstone sherd.

House 14¹).

A plan of this house is given on Fig. 12. Fig. 13 is the house prior to excavation, Fig. 14 after. It is a fine, large house of the 18th century type, the common house, 11½ m long, 3½ m wide, with a passage 5 m long. The walls, solidly built of stones, were rather collapsed, but were 1 m high in some places. In the front wall were three window niches, where the wall was lower. There was a handsome paved floor over the greater part of the house; apparently it has gone some way in under the platform, which has been supported by a stone edging; it can still be discerned; under the platform there seems to have been a cavity for keeping things, as is still the practice at Angmagssalik today. Apparently there have also been both side and window platforms.

There was luxuriant vegetation on this house; but though it is apparently the latest house at Isua, there were scarcely any trace of bones in it, nor had any midden been formed outside the passage.

Found: saw with brass blade, five whetstones, hammer stone, sinker for fish-hook, three cooking-pot sherds, ten soapstone sherds, three toy lamps (two without wick ledge, one with a longitudinal partition nearest the rear wall), broken bottle glass, two iron nails, piece of brass.

Field B and House 18.

The one spot at Isua where bones and bone objects were found in any quantity was in front of House 11, where a large midden had been deposited. There we excavated an area 6 × 8 m, Field B. When a layer of about half a metre had been dug away, one that was rich in animal bones, mussel shells and other rubbish, we came to floor stones, and the remains of a house were uncovered, House 18. It was badly disturbed,

¹) Stephensen considered this house to be a Norse ruin, possibly a church; he also considered Houses 11 and 13 to be Norse ruins (Stephensen 1914, p. 91).



Fig. 13. House 14 before Excavation; Tugtutùp Isua.



Fig. 14. House 14 after Excavation; Tugtutùp Isua.

but the ground plan could be made out: It was a small, four-sided house, $4\frac{1}{2} \times 5$ m, with a passage $5\frac{1}{2}$ m long. On the east side the wall was partly formed of a large boulder. At the platform area the culture earth went down into a fairly deep pit partly lined with stones, probably an earlier meat cache.

Most of the objects found in this house were probably from House 11; it is possible, however, that some of those found right on the floor were from House 18. Nevertheless it cannot be seen that there is any difference in time between them, and as a matter of fact House 18 from its shape need not be so much older than No. 11.

Found: Ituatit harpoon head (Fig. 47. 4), harpoon blade of bone, bone plug for harpoon bladder; tension piece for harpoon line, bladder mouthpiece, two neck-pieces for towing line, two arrow heads of bone (one with screw), three leister prongs, eight barbs for fish hooks, three sinkers for fish hooks, net sinker (from Norsemen²), hook for kayak thong (Fig. 47. 15), mounting for kayak paddle, six whetstones, three hammer stones, drill shank, convex-edged stone scraper blade, three cooking-pot sherds, nine indeterminable soapstone sherds, marrow extractor (Fig. 47. 14), drop pendant, ornamental bodkin, pierced tooth, ajagaq of seal penis bone, toy harpoon head, toy cooking-pot and toy lamps (two, no wick ledge), nine pieces of edge mounting, two bone toggles, 35 indeterminable bone objects, five glass beads, European table-knife blade, two lumps of iron, fragment of bronze cooking-pot.

Graves at Tugtutûp Isua.

Round about the settlement were in all 33 graves. Seven of them were examined, viz. Nos. 4—7 and 9—10, besides the grave in house 23; from them were taken the remains of 12 skeletons. They presented nothing particular of interest.

Grave 4, in which the inside measured 1.4×0.7 m, contained the remains of six skeletons lying in some disorder.

Grave 5, 1.4×0.5 m, like most graves built up against a rock cliff, contained one skeleton; apparently it is to this grave that the still-preserved kayak-formed stone setting mentioned by Birket-Smith belongs¹).

Grave 6 contained nothing but badly decomposed skeletal remains.

Grave 7 was well built, up against a rock wall, 1.2×0.4 m; it was well paved with flat stones and contained remains of three skeletons. The last to be buried lay with the head to the east, and here again was the familiar phenomenon in Greenland graves: the bones of the previous occupants had been pushed together in the other end of the grave.

¹) 1917 p. 7.

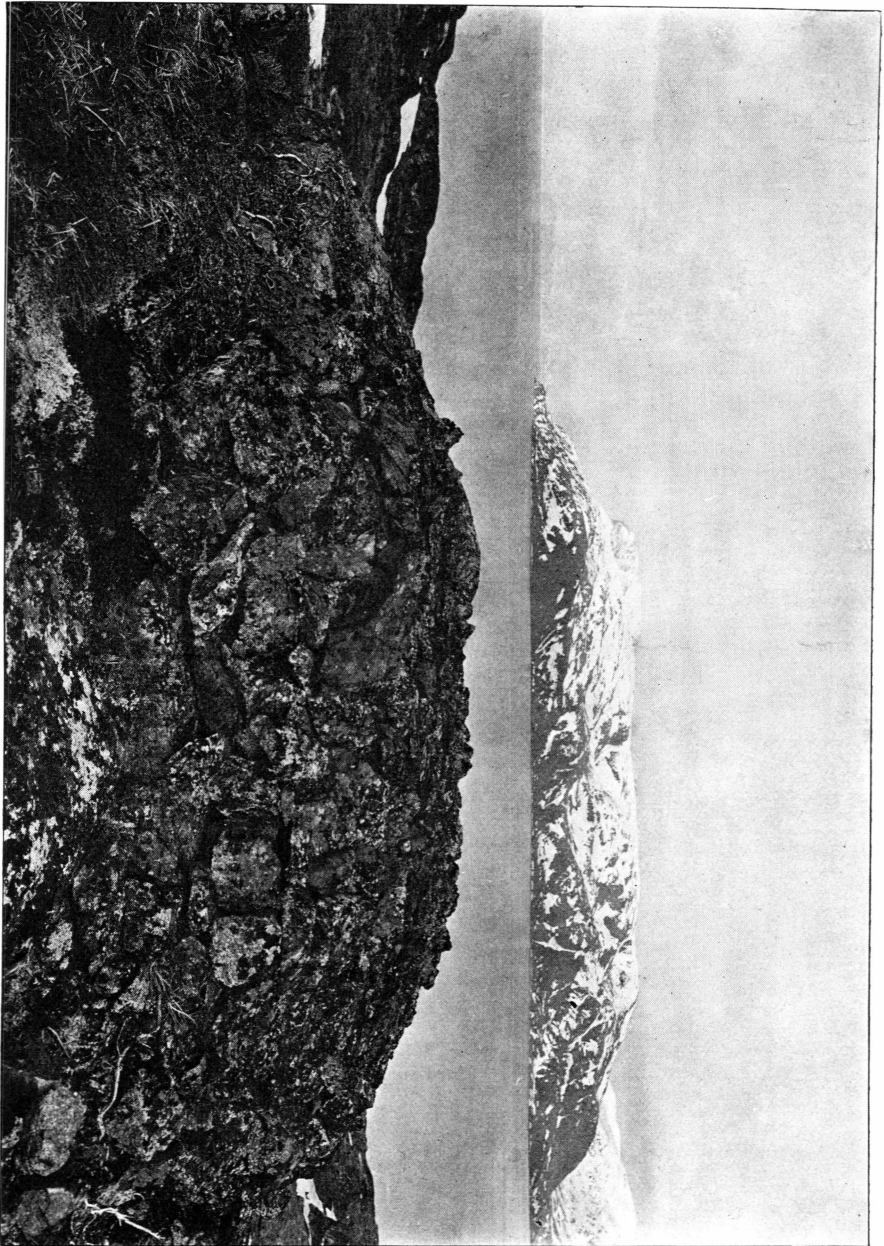


Fig. 16. Grave II; Tuglutup Isua.

Graves 9 and 10 were small children's graves without bones; just outside of No. 9 was a toy lamp (without wick ledge).

Grave 8 was emptied by Birket-Smith¹); the bones showed traces of European admixture.

Of the other graves there is only reason for mentioning No. 11, an unusually large and handsome grave, an enormous heap of stones lying on a dominating height over the settlement, an extremely beautiful and awe-inspiring monument, which we left untouched (Fig. 15).



Fig. 16. Long Meat Cache; Tugtutùp Isua.

Meat Caches.

In the settlement here and there were numbers of meat caches, often well built, several with two, one with three stone-set chambers. East of house 24 were two peculiar erections which must be taken to be caches; judging from their situation and the vegetation they must belong to the earliest settlement, together with houses 1—7 and 24. They were long, resembling a house entrance passage, sunk rather deep in the ground. The better preserved one (Fig. 16) was 9 m long, about $\frac{3}{4}$ m wide, with side-wall stones and a few flat covering stones; it was full of culture earth. At first this long trench was naturally taken to be part of a house, but no house was to be found belonging to it. One of our Greenlander workmen thought it was a row of auersivik, a row of

¹) 1917 p. 7.

meat caches for whole seals; the oldest hunter in Narssaq had told him that such caches were used in earlier times. This explanation sounds quite plausible.

Nāngissat.

On the plain just east of the settlement lie two nāngissat, hopping stones, one of them 11 m long, consisting of 14 stones; the other is 33 m long, having 56 stones.

Tent Foundations.

A number of tent foundations lie in the settlement itself and also (particularly) on the outer side of the peninsula, on its north and east shores and on its south point¹). Apart from some apparently more recent tent rings of spread stones they are fairly solid, carefully built constructions, probably used year after year. Several of them, owing to the submergence of the land, now lie so low that the sea has partly washed them away. In summer the people have evidently preferred to live out towards Sermilik Fjord with its good sealing.

The plan of one of these well-built tent foundations is given in Fig. 17; Fig. 18 is a photograph of it; it is the one lying nearest the narrowest part of the isthmus. It consists of a solidly built wall of stone and turf, 40 cm high, on which the tent sheet has rested. The floor is entirely covered with flat stones; on the part where the platform has been some stones on a higher level have supported the platform boards. In front of the foundation is a thick wind screen, 80 cm high, with a fire-place behind it. The size of the space inside is considerable, $4 \times 5\frac{1}{2}$ m, so it has been a good sized tent that has stood there. The shape is almost that of a parallelogram; though in most of the foundations the rear corners are more rounded.

It will be seen that Tugtutûp Isua had an unusually large number of Eskimo erections of all kinds and dating from all periods; and many of them were very handsome and typical of their time. This gave me the idea that the whole of this ruin site should be protected, so that at one place in Greenland at any rate it would be possible to see how the various Eskimo houses and other erections looked, from the earliest times up to the 18th century. With that in view, all the ruins — with the exception of the very badly preserved houses 12, 15, 16 and 18 — were left uncovered, with the floor, walls and passage revealed, even though more artefacts might have been found by breaking up the floors and passages. It is to be hoped that this ancient and interesting settlement can be kept for posterity as a handsome monument to Greenland's old Eskimo culture.

¹) On the map in Birket-Smith's paper these are shown as Norse ruins.

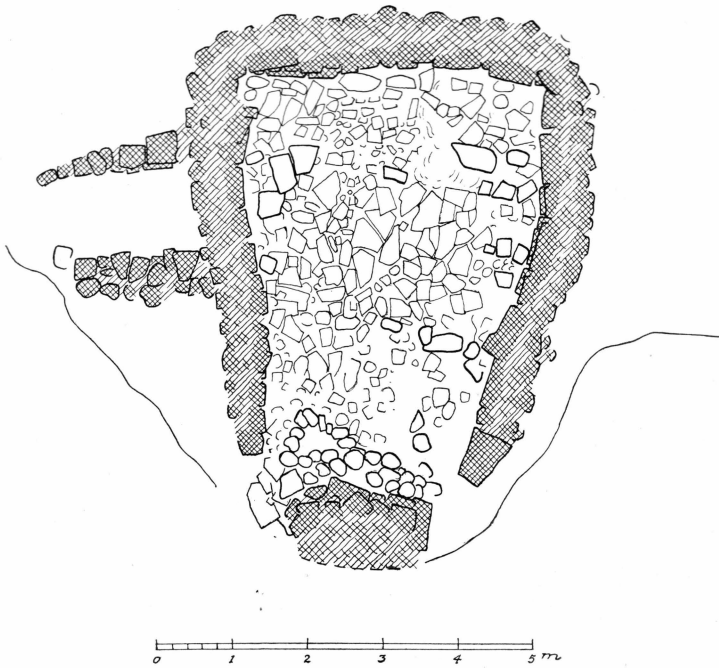


Fig. 17. Plan of Tent Foundation; Tugtutûp Isua.

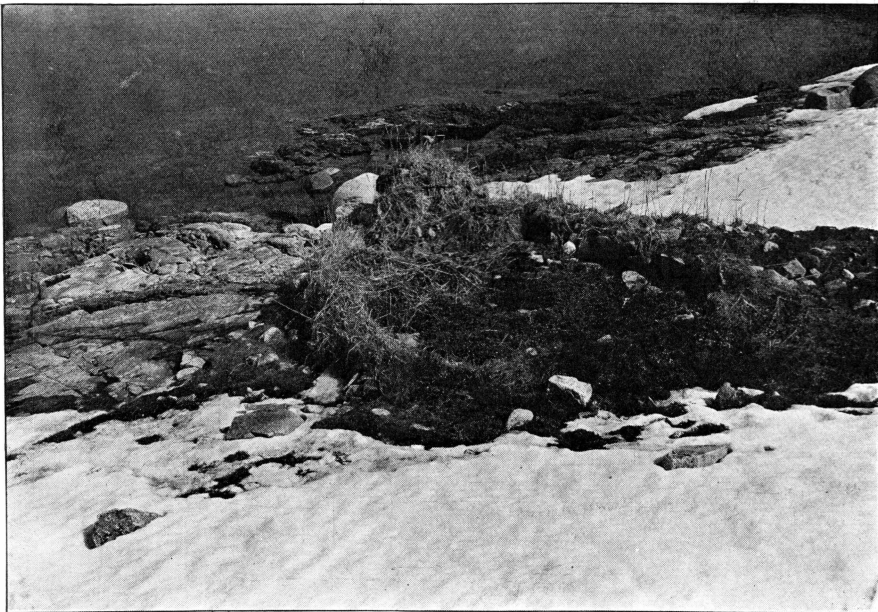


Fig. 18. Tent Foundation; Tugtutûp Isua.

3. Narssarssuaq.

From Tugtutûp Isua there is a view to the northeast over the large and mostly ice-filled fjord Sermilik, the Isafjörðr of the Norsemen. Its west shore consists of a moderately high, plateau-like country, behind which the white mass of the inland ice can be discerned in several places. Just north of Isua, at a distance of about 6 kilometres from it, one can see a depression in the terrain; this is Narssarssuaq, "the great plain".

From it a valley extends up into the country, and through this valley



Fig. 19. The ruined Village of Narssarssuaq; the Ruins are to the left of the Tents.

runs a river, small, but abounding in salmon; round about its mouth the valley develops into a plain of large size, formed of pebble gravel and having a vegetation of crowberry, blueberry, dwarf birch and willow; about 1 km up the valley lie the ruins of a Norse farm¹).

On the north side of the river mouth is an old Eskimo settlement with six house ruins, as well as eight graves and some caches. Fig. 19 shows this settlement from the south, Fig. 20 is a plan of it. The houses lie on two different terraces. At the upper level is the row 1—4. The first two give the impression of being old; No. 1 is overgrown with willow, blueberry and a little grass, No. 2 also has some sorrel (*Rumex acetosa*); Nos. 3 and 4 have a rather luxuriant growth of grass which spreads on to the terrace below on which house 5 lies; this and house 6

¹) Mentioned Daniel Bruun 1895, p. 247.

appeared merely as very shallow depressions in the ground; the latter has sparse vegetation.

Of these houses we excavated those which seemed to belong to the old, round type, viz. Nos. 1—2 and 5—6.

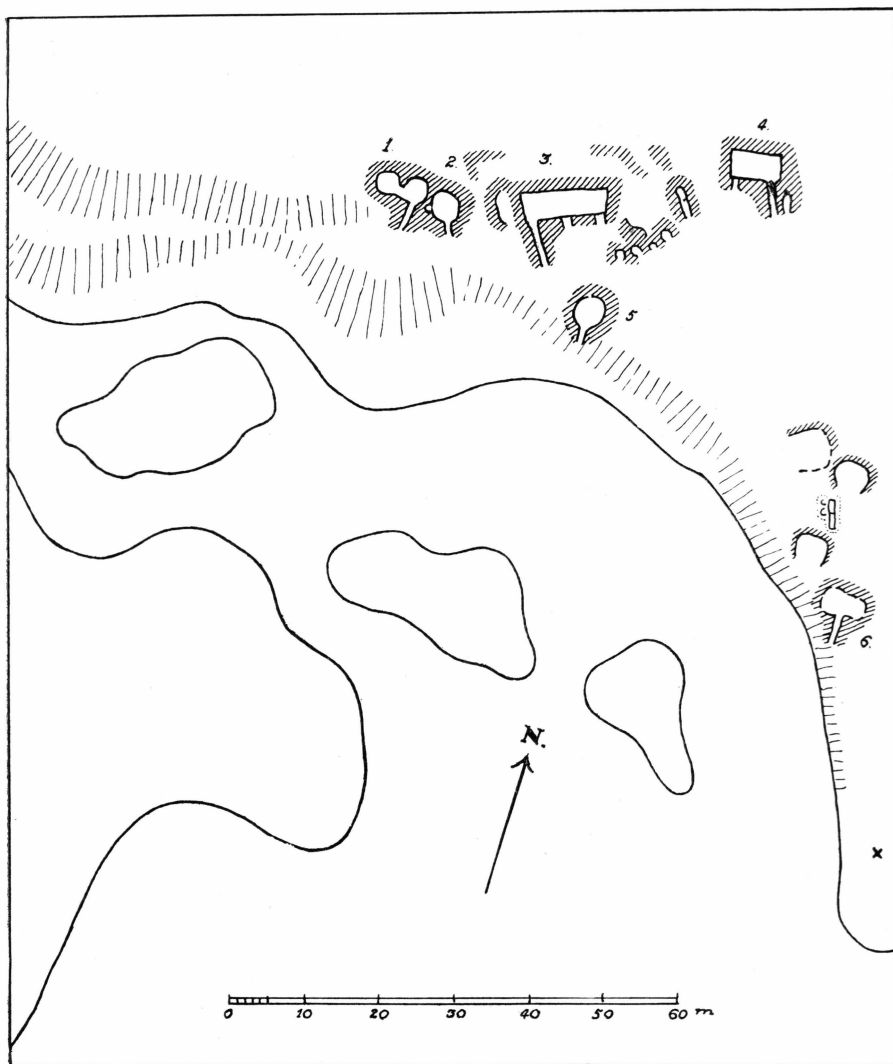


Fig. 20. Plan of Narssarsuaq Village.

House 1.

Fig. 21 is a plan of the ruins 1 and 2. Originally house 1 has been a double house of the old, round type. The west room was almost circular, with a number of stones in the walls and a handsome, paved floor in the middle. The east room was merely a shallow depression in the gravel plain, with only a few wall and floor stones; it had a good,

deep passage with flags on the bottom. The connecting passage between the two rooms seems to have been blocked with a low stone wall during the last occupation. This house contained hardly any trace of bones. The floor lay 5 m above sea level.

Found: two whetstones, four cooking-pot sherds, six indeterminable soapstone sherds and a toy harpoon head (Fig. 38. 3).



Fig. 21. Plan of Houses 1—2; Narssarsuaq.

House 2.

A well-built house of the old, round type (Fig. 21, right). There was a good, stone-set wall of two to three courses, a paved floor at the front and a number of smaller, flat stones towards the back on the platform area, including two rows; the passage was deep, well built, with a paved bottom and one covering stone in position. Some bones were preserved in this house: seal, caribou and dog; in the upper end of the passage

lay a human skull. Under the large sill-stone was a cavity with walls of well-laid stones and a floor a little higher than that of the passage, presumably a sort of cupboard; inside was a fragment of a lamp. From the southwest side of the house extended a kitchen-offshoot, with ashes and slag. The floor of the house was $4\frac{1}{2}$ m above sea level.

Found: knife blade, of stone (Fig. 38. 1), eleven whetstones, four hammer stones, fragment of a lamp with wick ledge, two cooking-pot sherds, nine indeterminable soapstone sherds, ornamental bodkin (Fig. 38. 7), ajagaq, spindle whorl (from the Norsemen) (Fig. 45. 6), three pieces of stone waste.

House 5.

A circular depression in the gravel terrace, 4 m in diameter, with some stones only in the upper part of the passage. It contained many bones and artefacts which presumably came from house 3 above, for which it has served as a midden-pit. The floor of the house lay 3 m above sea level.

The only find that may presumably be placed to early times is a fragment of a lanceolate arrow head of quartzite and a much weathered arrow head of antler with one barb and two knobs on the tang.

A list of the other, more recent artefacts will be given below.

House 6.

Apparently a double house of old type, but in such a state of collapse that it was difficult to see the shape and size; the depression measured $5\frac{1}{2} \times 3$ m; only in the west wall were there any stones. Presumably the stones have been removed to build two fine meat caches close by. Only a single bone, a seal ossicle, was found in the house. Its floor lay 2 m above sea level.

Found: Cooking-pot sherd, three soapstone sherds, presumably a net-sinker (from the Norsemen?) (Fig. 44. 3).

The Later Houses.

House 3 is a large, oblong house, 10×3 m, with a number of stones in the walls which, however, are rather overgrown; the passage starts near to the west end of the house. Height above sea level $5\frac{1}{2}$ m.

House 4 is exactly like No. 3 but smaller, 6×3 m. In the terrain between houses 3 and 4 is a very tussocky and uneven area containing several meat caches; possibly still another ruin is concealed under it. Height of floor above sea level 6 m.

It proved that in front of this uneven area was a thin but rather rich midden deposit, and of it we excavated 25 sq.metres, Field A. The deposit there was about 10 cm thick, and contained many bones of seals,

as well as bones of caribou, whale, dog, a number of birds and fish. A small sample excavation was made in front of house 4, where in patches we found a thin but fairly rich culture deposit with many fish bones.

The Later Finds:

House 5: end mounting of throwing board, arrow head with bone blade, leister prong, eleven whetstones, antler with hole, intermediate piece of ulo, lamp fragment, three cooking-pot sherds, eight soapstone sherds, meat stick, pierced tooth, three drop pendants, bone bead, two ajagaqs, two toy lamps, toy arrow head, 29 indeterminable bone objects, three pieces of stone waste, and of European objects: five glass beads, two iron nails, a piece of iron and one of brass.

Field A: harpoon blade of bone, stopper for harpoon line, bladder dart head with wreath of barbs, three bone arrow heads (one with screw), side prong of bird dart, two barbs for fish hooks, four whetstones, cooking-pot sherd, five soapstone sherds, four pierced teeth, two bone beads, pendant of bone with drilled holes, toy bladder-dart head with wreath of barbs, toy arrow head, ajagaq, 14 pieces of bone mounting, 49 different bone objects, four pieces of stone waste, and a lump of copper.

Midden in front of house 4: harpoon head (thin, two opposite barbs, one spur, blade slit with iron rivet), bone harpoon blade, toy leister prong, piece of worked bone.

Of the graves we examined two, No. 3 (a small child's grave) and 4 (with 5 skeletons); none of them contained grave goods.

In the parish records of Julianehaab, Narssarsuaq is mentioned as being inhabited in 1843, but it is scarcely these houses that were occupied at that time. About 2 kilometres more to the south, on the same plain, lie two houses of a much later appearance, with high stone walls, one rebuilt into a hunting shelter; close by are two graves. This, apparently, was the spot last inhabited at Narssarsuaq.

4. Igdlutalik.

Looking east from Tugtutûp Isua the landscape is dominated by the high land that separates Sermilik and Tunugdliarfik fjords, crowned as it is by the ice-clad 1400 metre peak of Ilimaussaq. Near the southerly point of that spur, close under a high, steep mountain, lies the large trading post of Narssaq. About two kilometres southwest of it is a fairly large island, of moderate height — Igdlutalik; on its north end lies the other large ruined settlement in this area, with no less than 24 ruins. There we excavated for three weeks, and it proved to be the richest store of Eskimo remains found in this district.

As was stated, Tugtutûp Isua lies half way inside the large fjord complex formed of Sermilik and Bredefjord; Igdlutalik occupies a similar position as regards the Skovfjord—Tunugdliarfik complex. The latter fjord is the Eriksfjord of the Norsemen, the centre of the entire Norse settlement, where Brattahlid, the chief seat of Erik the Red, was situated. The hypothesis has been put forward that Igdlutalik is "Erik's Island", the place where Erik spent his first winter in Greenland, but no Norse ruin has been found on that island.

The north end of Igdlutalik Island is formed of a fairly large plain, bearing *Empetrum*, blueberry and willow scrub; in several places quite low rock eminences jut up over the plain, which on the south is bordered by a fairly steep mountain slope strewn with large fallen boulders.

Pl. 3 is a map of the settlement; Fig. 22 is the settlement seen from the mountain-side on the south. On this low and rather flat terrain lie 24 house ruins as well as three graves and some meat caches. In the terrain round about the settlement, mostly up the slope, are 24 more graves.

One peculiar feature of this settlement is the orientation of the houses. Eskimo houses as a rule face the sea and the south; here, however, both conditions cannot be complied with simultaneously, and so we see that some of the houses, the row 1—8 and No. 23, face the south and, instead of the sea, a wet depression through which flows a small brook. The rest of the houses face the sea, which thus compels them to face the north; they lie in four groups: highest the group 9—11, a little lower 12—14, then the long row 15—21, and finally, separated from the settlement by a rock hummock, 22 and 24. The highest houses, group 9—11, lie 5 m above sea level; the lowest, houses 15—18, lie about 2½ m above it.

The vegetation on the Igdlutalik ruins was more luxuriant on the whole than at Isua. Only House 1 had a thick growth of grass — lyme-grass and *Poa*. The others were less luxuriantly covered with grass, especially sorrel (*Rumex acetosa*), one or two with lyme-grass and willow. Only two, Nos. 22 and 23, had the sparse covering, with blueberry, crowberry and lichen that otherwise characterises the earliest ruins in this District; house 24 was overgrown with a vigorous willow scrub.

Seventeen of the twenty-four houses were excavated, i. e. Nos. 6—14 and 17—24.

House 6.

In form almost round, though somewhat irregular, $4 \times 3\frac{1}{2}$ m; there were some stones in the walls, but no real masonry wall; there were many floor stones, often in two layers; at the back on the platform site was some heather. On the southwest was an offshoot with floor stones;



Fig. 22. The Village Site of Igdlutalik, seen from Southwest; the ruins are to the left of the tents.
In the background to the left is the Narssaq village and above that Ilimaussiaq mountain.

from the very curved passage there is access to a kitchen with a lot of ashes.

There was much culture earth in and around this house, and many bones and mussel shells were preserved. The house seems to have been inhabited over long periods.

The fact that it had been inhabited right up to the middle of the 17th century is shown by a dark blue glass bead, which was found on the floor. Just east of the entrance to the passage and under a floor stone was a layer saturated with blubber and very rich in seal bones; in it lay three fragments of a lamp with a wick ledge.

Found: Finger-rest for harpoon, leister prong, five whetstones, adze head, adze blade of slate, drill shank, three fragments of a lamp with wick ledge, cooking-pot sherd, 14 soapstone sherds, pendant of stone (Fig. 38. 6), ajagaq, toy leister prong, net-sinker, spindle whorl (Fig. 45. 5), two pieces of iron, glass bead, a soapstone tube (Fig. 45. 11), four pieces of worked bone and eleven pieces of stone waste.

House-Group 7—8 and 23.

Three apparently round houses, very crudely built, with few wall and floor stones; the passages on the whole were better built. House 8, with its passage facing SW, right inland, had a quantity of slag east of the entrance to the passage. House 7 was 4×3 m, house 23 $2\frac{1}{2} \times 3$ m, and house 8 3×3 m.

There was scarcely any culture earth in these houses, which apparently are among the oldest in the settlement; of bones there was nothing but a piece of whale bone in house 7.

Found:

House 7: two whetstones, hammer stone, two soapstone sherds, two pieces of stone waste.

House 23: whetstone, two cooking-pot sherds, soapstone sherd, knife blade of iron, lump of rock crystal.

House 8: whetstone, hammer stone, flint flaker(?) (Fig. 39), cooking-pot sherd, lump of iron, four pieces of rock crystal.

House-Group 9—11.

These three houses, lying higher than any in the settlement, were close together with common side walls and the passages parallel. They resembled one another greatly in construction: foursided with rounded corners and with a number of stones in the walls, but without any real masonry. One peculiar feature is that there seems to have been connecting passages between all three. At any rate between 10 and 11 there has been one in the dividing wall nearest the front wall; a large stone set up on edge has formed the north side of this passage; from

house 9 to 10 there seems to have been a similar passage, too, but in any case it has later been closed by a wall from house 10.

House 9 was $2\frac{1}{2} \times 2\frac{1}{2}$ m, with a passage $5\frac{1}{2}$ m long, whence there was access to a meat cache. There was a handsome, paved floor in the front half of the house, and in the NW corner, at a level of 10—15 cm lower, was a deeper floor extending right in under the west wall; over this floor was a layer of culture earth, on which the wall was built.

House 10 was $4 \times 3\frac{1}{2}$ m, with a passage 6 m long. On the floor was a very large sill stone; in the east wall a whale vertebra.

House 11 was $3\frac{1}{2} \times 3\frac{1}{2}$ m, the passage 6 m long, whence there was access to a kitchen; there was another cooking place in the NW corner of the house. At the front wall, between the kitchen and the passage, lay remains of two human skeletons.

In and around these houses was a quantity of culture earth, and also in the walls and round the passage; this indicates lengthy habitation on the spot, and before the present erection was put up. The bones were almost entirely decomposed.

Found:

House 9: sinker for fish hook(?) (Fig. 38. 13), four whetstones, three hammer stones, two-armed ulo (Fig. 38. s), three cooking-pot sherds, seven soapstone sherds, fragment of lamp with wick ledge, ajagaq, four indeterminable bone objects, lump of iron, 13 pieces of stone waste.

House 10: six whetstones, two hammer stones, two lamp fragments (one with, one without wick ledge), three cooking-pot sherds, four soapstone sherds, spindle whorl, fragment of soapstone bowl from the Norsemen (Fig. 45. 12), large piece of iron (Fig. 45. 10) (found outside the passage), three indeterminable bone objects, eight pieces of stone waste.

House 11: eight whetstones, hammer stone, mattock blade, ulo handle without tang, concave-edged stone scraper, lamp fragment with wick ledge, small lamp (made out of thick sherd), a handsome, entire cooking-pot (Fig. 43), cooking-pot sherds, pendant of copper (Fig. 45. s), five pieces of stone waste.

House-Group 12—14.

Three apparently round houses with rather roughly built walls, built together and with parallel passages.

House 12 was in a poor state of preservation, 3×4 m, with a passage 3 m long; scarcely any floor stones or culture earth.

House 13 had a fine stone floor in the foremost part; 3×3 m; a passage 5 m long. In under the east wall a floor extended right into house 14, presumably from an earlier house on the site.

House 14 had a number of stones in the walls and the round shape was distinct; there were many floor stones. The size was 3×3 m, and the passage 5 m long, well built, with several covering stones in position, and two meat caches off it.

There was much culture earth in these two houses but very few bones preserved.

Found:

House 12: hammer stone, soapstone sherd.

House 13: two whetstones, two hammer stones, six cooking-pot sherds, six soapstone sherds, toy cooking-pot, 16 pieces of stone waste.

House 14: Point of arrow head of rock crystal, six whetstones, four hammer stones, wedge, lamp fragment, four soapstone sherds, three indeterminable bone objects, 15 pieces of stone waste.

House-Group 17—18.

These two houses have a common wall and parallel passages. House 17 is a small, rounded-foursided house with fairly massive stone walls, especially the east wall, which has up to five courses of stone. There were hardly any floor stones, but a well-built passage with several covering stones in position. The dimensions of this house were 3×3 m.

House 18 was rather bigger, $4 \times 3\frac{1}{2}$ m, of similar shape and construction; the east wall was the most solid.

There was a quantity of culture earth in and round about these houses, indicating long habitation. And there were features showing that earlier houses had stood on the same sites. Under the floor stones of house 18 was a layer of culture earth, in which was a spindle whorl with runes; another spindle whorl was found in culture earth under the east wall of house 17. The stone wall separating the two houses rested on a layer of culture earth and under that was stone flags. An old passage full of culture earth was discovered between the other two.

Found:

In house 17: three whetstones, two soapstone sherds, 19 pieces of waste stone.

House 17, under floor and walls: drill bit, of stone (Fig. 38. 2), spindle whorl (Fig. 45. 3), three pieces of stone waste.

In house 18: five whetstones, three hammer stones, creasing stone(?), small lamp, four cooking-pot sherds, four soapstone sherds, toy lamp (without wick ledge), 16 pieces of stone waste.

House 18, under floor and walls: bladder plug, fragment of stone knife-blade(?), three whetstones (Fig. 45. 16), four soapstone sherds, unfinished toy lamp, two heaps of coloured stones (toys?), spindle whorl with runes (Fig. 45. 1), piece of soapstone with hole (Fig. 38. 9).

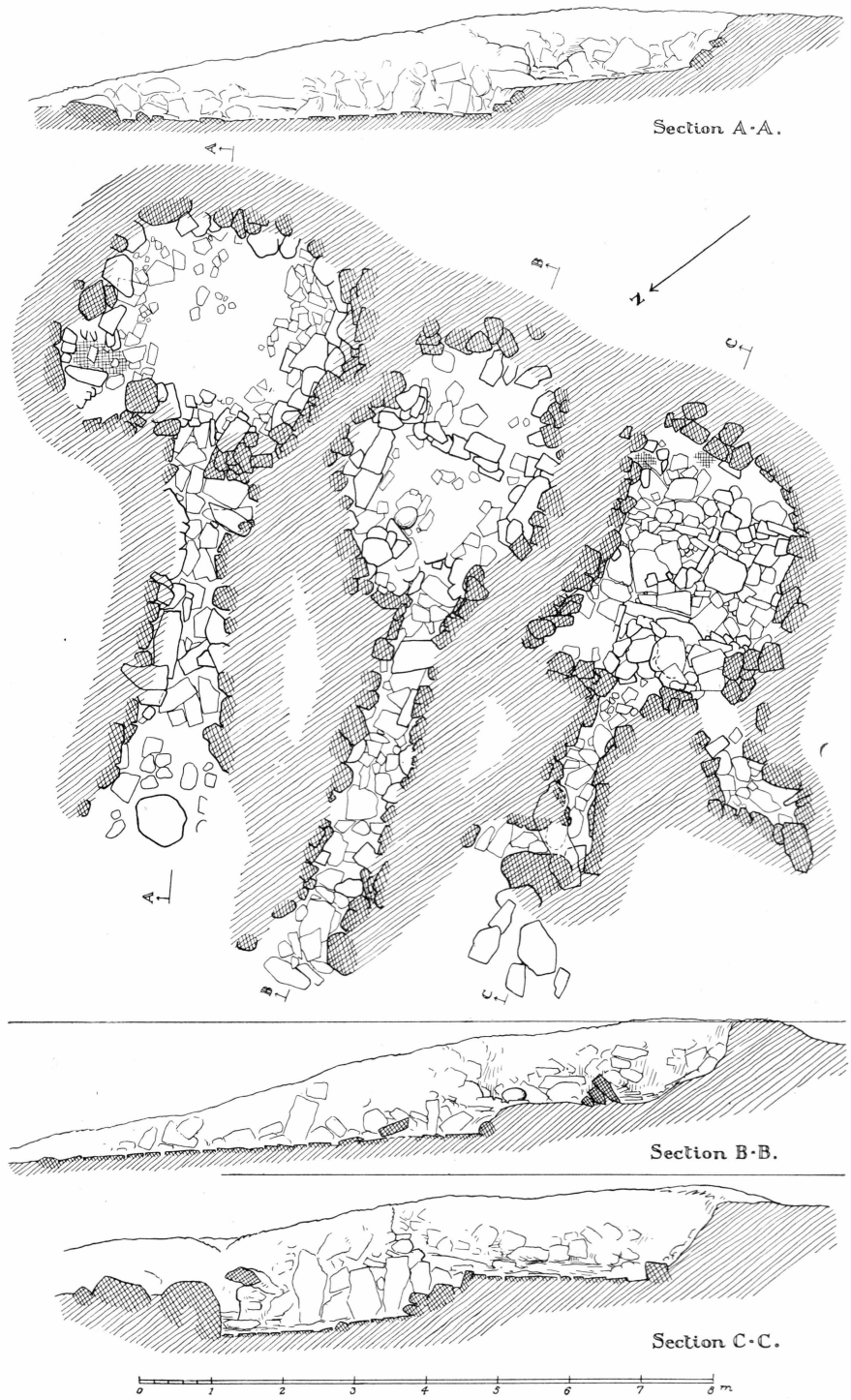


Fig. 23. Plan of House-group 19—21; Igdlutalik.

In and round the old passage: three whetstones, lamp fragment with wick ledge, cooking-pot sherd, five soapstone sherds, two toy cooking-pots, two indeterminable bone objects, fragment of spindle whorl, seven pieces of stone waste.

House-Group 19—21.

A plan of these houses is given in Fig. 23. They are three houses joined together, of the old, round type. There are a lot of stones in the walls, so that the shape is distinct. House 20 seems to have been inhabited later than No. 21, as the curve of its wall cuts into the latter.

House 19 (to the left) has only few floor stones; on the NW a kitchen with slag and ashes, and a long, well-built passage with paving stones. On the floor lay a large oval, rounded stone with marks of hammering, possibly a "stone anvil", used when shaping stone implements.

House 20 had not many floor stones, but a row of fairly large, high stones indicated the edge of the platform. On the floor was a similar large stone anvil; the passage was well built and had paving stones.

House 21 had a large number of stones on the floor but not in the form of a continuous flagging. The passage is peculiar, unusually deep, with very large, vertical side stones; it stops at a large stone in the ground, where it bends away towards the north, in under a large covering stone and then rises abruptly.

There was much culture earth in and around these houses, though the bones were badly decomposed; several large pieces of whale bone were seen.

Found:

House 19: seven whetstones (Fig. 45. 15), four hammer stones, fragment of lamp with wick ledge, three cooking-pot sherds, eight soapstone sherds, three toy cooking-pots, 27 pieces of stone waste. In front of the house: unfinished adze blade, three pieces of rock crystal.

House 20: four whetstones, hammer stone (Fig. 38. 14), three cooking-pot sherds, nine soapstone sherds, toy cooking-pot, spindle whorl (Fig. 45. 4), lump of iron, 24 pieces of stone waste.

House 21: two whetstones, lamp fragment with wick ledge, three cooking-pot sherds, two soapstone sherds, toy cooking-pot, seven pieces of stone waste.

At the foot of a rock slope about 35 m behind house 19 lay a small toy lamp (Fig. 38. 11), bottom upwards.

House 22.

A plan of this house is given in Fig. 24, and Fig. 25 is a photograph of it. It is an unusually large, circular house, 5 m in diameter; there are some stones in the walls, two or three courses in places, so that

Section A-A.

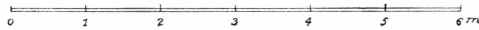
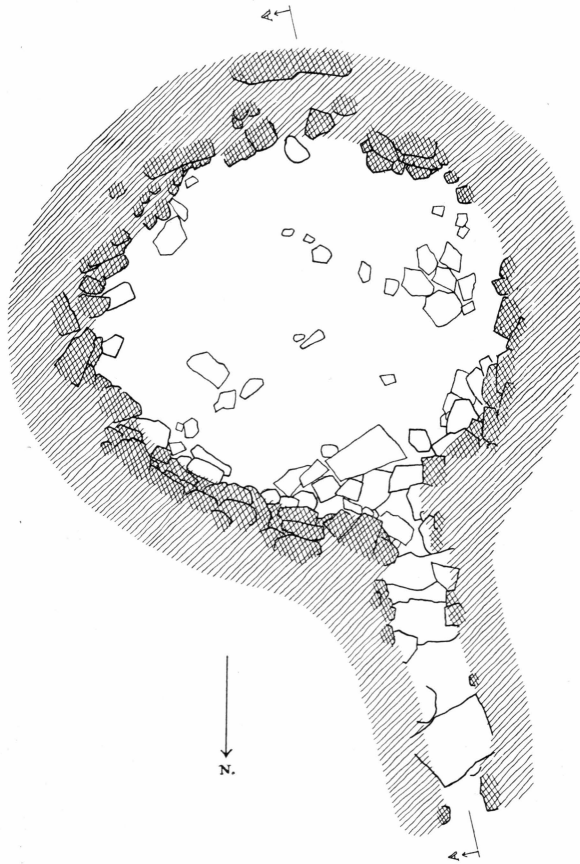
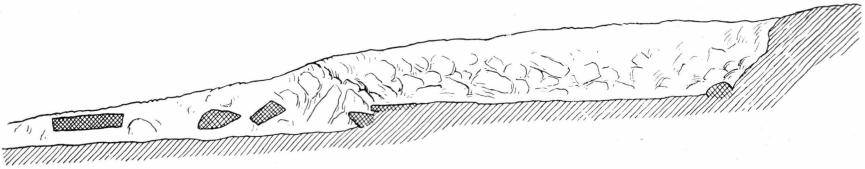


Fig. 24. Plan of House 22; Igdlutalik.

the shape is distinct. Only here and there are there floor stones, otherwise the bottom consists of gravel. The passage was well built, with four covering stones in position.

The house contained scarcely any culture earth and only faint traces of bones; the vegetation also indicated that it is one of the earliest in the settlement.

It is the only house of the ancient round type I have seen in Greenland that might have been used as a Qagsse, a feasting or dancing house¹). With its considerable size and round form it would hold a large number of people; naturally, nothing certain can be said about this use of it.

Found: Cooking-pot sherd, two soapstone sherds, toy cooking-pot, lump of jasper.

House 24.

This house — being in fact two — is shown in plan on Fig. 26. There are stones in the walls and in the left room a number of floor



Fig. 25. House 22; Igdlutalik.

stones. The shape of this room is almost foursided, whereas the right room is round. In other ways, too, the left room appears as the later one of the two: The upper part of the right passage has been filled with stones and used as a kitchen; inwardly this kitchen is bounded by a stone wall, which thus entirely blocks the passage. The other passage is well preserved, with many covering stones wholly or partly in position. Native rock crops out on the floor of the right room; by the rear wall were the remains of two human skeletons.

There was a good deal of culture earth in and around this house, but as usual the bones were in an advanced stage of decomposition; i. a. we found a whale vertebra and a caribou marrow-bone.

¹) Cf. Thalbitzer 1925.

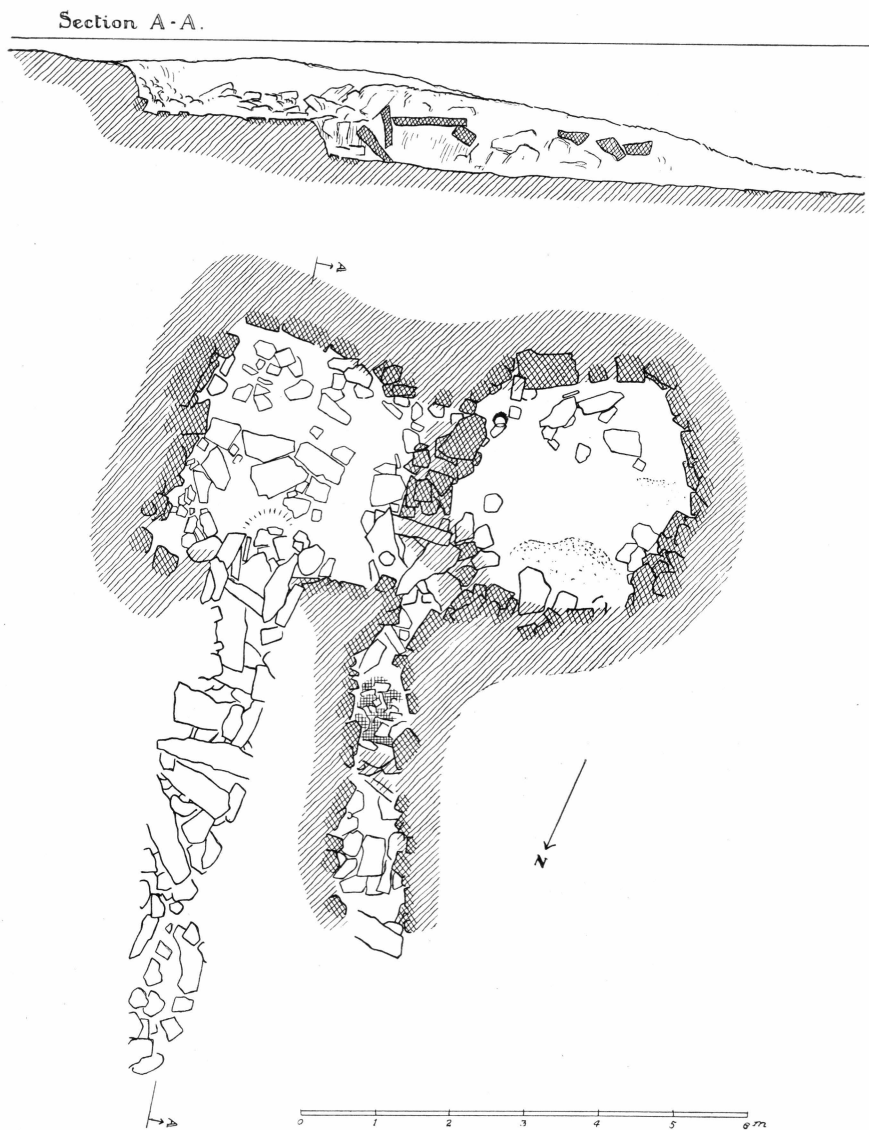


Fig. 26. Plan of House 24, Igdlutalik.

Found:

- Left room: whetstone, adze head, wedge, scraper with convex edge, cooking-pot sherd, two soapstone sherds, two toy lamps, 36 pieces of stone waste.
- Right room: cylindrical harpoon shaft mounting, net sinker, three whetstones, cooking-pot sherd, two soapstone sherds, fragment of spindle whorl, iron knife-blade, fragment of ornamented bone shaft, 26 pieces of stone waste.

The Non-Excavated Houses.

House 1 is one of the large, oblong common houses, $16 \times 3\frac{1}{2}$ m, with a passage $7\frac{1}{2}$ m long; the walls are fairly well preserved, up to 1 m high. At about the middle of the house is a partition wall, apparently built to make it shorter.

In front of this house a fairly large midden had formed, and we excavated 100 sq.metres of it (Field A). The culture layer was 10—20 cm thick, very rich in bones (seal, white whale, caribou, dog, bear, fox, bird, fish) and mussel shells. It contained many artefacts (331 specimens), as will appear from the list given below of the 17th—18th century finds at Igdlutalik, the finds from this midden forming most of those of that period; the other finds of the same period are given after the description of the various localities. Specimens from Field A are illustrated on Fig. 47. 5, 10, 11, 16, 17, 19 and 21.

House 1 is undoubtedly the latest one at Igdlutalik.

House 2 is a depression of indefinite shape, probably measuring $5 \times 3\frac{1}{2}$ m, surrounded by five or six meat caches; it was overgrown with sorrel and a little lyme-grass.

In front of this house 4 sq.metres were excavated (Field B); there was a culture layer about 20 cm thick with badly decomposed bones, but a quantity of wood was preserved. It contained a soapstone sherd, two fragments of an oval wooden bowl, a wooden doll (straight up and down without arms or face, and with a hair-tuft) and a cow horn.

Presumably this house is also one of the later houses.

House 3 is a small foursided house, $4\frac{1}{2} \times 3$ m, with a distinct, stone-set west wall.

House 4 was 6 m long, badly collapsed, apparently foursided.

House 5 had partly been rebuilt to form a large meat cache; it seemed to have been a rather small house, however.

In front of it was a culture layer 10 cm thick (Field C) with a number of bones (many fish bones) and mussel shells.

This house too seems to be later.

House 15 is an elongated depression, 7×3 m, with a passage $6\frac{1}{2}$ m long; presumably one of the 17th—18th century type.

House 16 is an oblong house, $8 \times 4\frac{1}{2}$ m, with a passage 7 m long; a number of covering stones in position over the passage.

In front of houses 15—16 we excavated a strip of in all 24 sq.metres (Field D); at the top were 20 cm mossy turf, as the ground was rather boggy, and below were 10 cm of culture earth, rich in badly decomposed bones (including a number of fish), a few pieces of wood and baleen, many mussel shells.

Found: harpoon wing, three whetstones, two hammer stones, five



Fig. 27. Grave 7; Igdlutalik.



Fig. 28. Grave 7 inside; Igdlutalik.

cooking-pot sherds, seven soapstone sherds, fragment of wooden bowl, wooden doll (no arms or face), broken bottle glass, iron knife-blade.

Apparently these houses are from the 17th—18th century.

Graves.

A total of 27 graves lay round about the Igdlutalik settlement. In the settlement itself were three, on the point east of it was one, while the others lay in two groups of 15 and 8 on the mountain slope south and southeast of the settlement.

Eight graves were examined here:

Grave 1 (just behind house 1) was entirely collapsed and contained one skeleton.

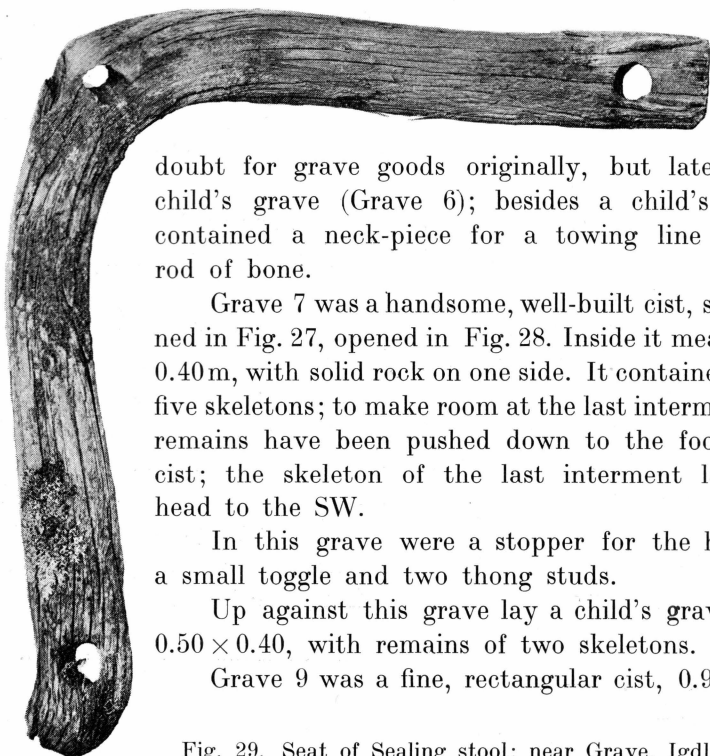
Grave 2 (just east of house 1) was a child's grave with one skeleton.

Grave 3 (on a point on the northwest shore of the settlement) was disturbed and contained remains of one skeleton.

None of these graves contained grave goods.

Graves 5—9 lay close together in a group a little way up the slope south of the settlement.

Grave 5 was a well-built, rectangular cist, 1.20×0.45 m, containing two skeletons lying side by side; at the foot end were traces of a child's skeleton. Near the same end was a small chamber, 0.70×0.20 m, no



doubt for grave goods originally, but later used as a child's grave (Grave 6); besides a child's skeleton it contained a neck-piece for a towing line and a thin rod of bone.

Grave 7 was a handsome, well-built cist, shown unopened in Fig. 27, opened in Fig. 28. Inside it measured 1.30×0.40 m, with solid rock on one side. It contained remains of five skeletons; to make room at the last interment the other remains have been pushed down to the foot end of the cist; the skeleton of the last interment lay with the head to the SW.

In this grave were a stopper for the harpoon line, a small toggle and two thong studs.

Up against this grave lay a child's grave (Grave 8), 0.50×0.40 , with remains of two skeletons.

Grave 9 was a fine, rectangular cist, 0.90×0.50 ; the

Fig. 29. Seat of Sealing stool; near Grave, Igdlutalik. 1 : 3.

covering consisted of one large slab of stone. Uppermost lay a skeleton with the head to the NE; under it were two stone slabs, below which were two more skeletons with the heads in opposite directions.

Nine other graves of this group were placed between the boulders of two dikes, the rock of which was fairly hard but split by the frost into blocks of medium size; often the graves were very difficult to distinguish from the surroundings.

Between two graves (Nos. 20 and 24) in the other group, whose seven graves all lay quite close together, we found under a large boulder the seat of a sealing stool Fig. 29 and a flat piece of wood, 50 cm long, presumably a kayak beam; no doubt these are grave goods from one of the adjacent graves.

On the point east of the settlement was a nāngíssat.

5. Ūnartoq.

Much more southerly than the ruin settlements already described is the fourth locality where we made extensive excavations, Ūnartoq, in the fjord of the same name, the place with the famous hot springs which are spoken of by the ancient Norsemen and by many travellers since, from the days of Hans Egede¹).

The springs are on a small island in the middle of the fjord. The southerly part of this island consists of fairly high gneiss land with steep sides; the south slope especially is steep and strewn with large boulders; this is the site of the mummy caves at Qerrortût, to be described later.

Northwards the island narrows off quickly. The northern end is formed of a rounded gneiss hummock, at the foot of which lies the present settlement of Igpik. The connecting terrain between the two heights is fairly low, mostly of moraine, its upper surface rebbed by the sea into raised beaches and pebble flats; only here and there are there rock outcrops.

The map Pl. 4 is the south part of this terrain. Farthest south rises the high land; at the middle of the map is a low gneiss hill. To the west are the three hot springs and their drain, a small brook; just opposite, on the east side of the island, is a large ruined Eskimo settlement, the largest I have seen in West Greenland, with 26 ruins. It is named Ūnartoq, which means "hot water" after the springs. The settlement has previously been mentioned by Bendixen²). The locality is described as being inhabited by Walløe 1751³); according to the old church records Ūnartoq was inhabited from 1786 to 1860.

¹) The literature on the subject is given in "Grønland" II, pp. 546—47.

²) Grønland II p. 450—51.

³) Walløe p. 110.

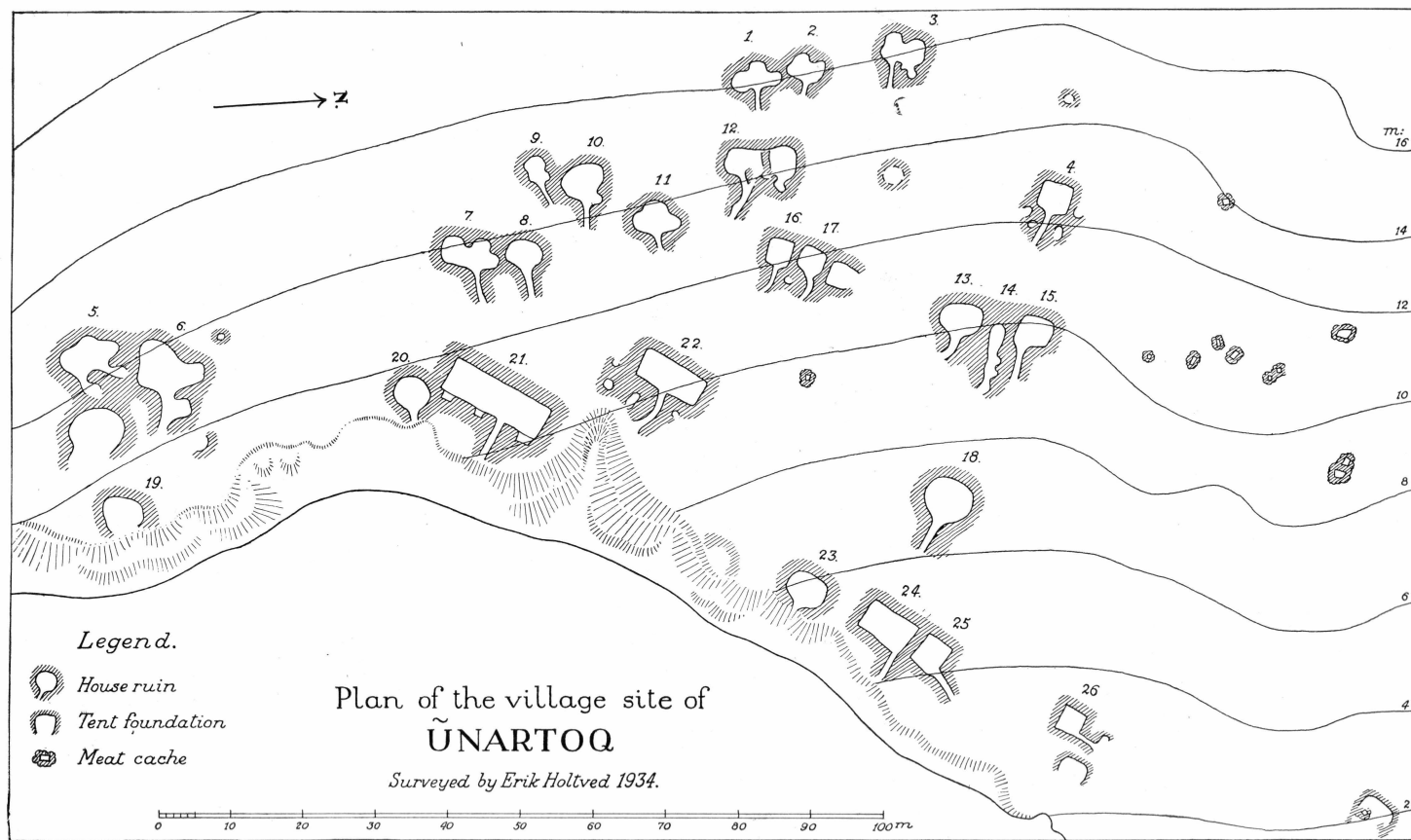


Fig. 30.

In addition to the house ruins, the map shows the other Eskimo remains in the terrain round about the settlement: 21 graves, some tent foundations and fox traps, and a large number of meat caches; an old path leads from the settlement round the almost naked stone plain to the hot springs.

Fig. 31 shows this terrain looking south from the high land.

Fig. 30 is a detail plan of the settlement itself, which is bordered on the south by a watercourse cut down into the plain. The ground



Fig. 31. Ūnartoq Village from the South. The ruins are close to the tents; further back, below the small hill, is the village of Igpik.

falls evenly towards the north and on the sea side ends in a fairly high bluff.

The settlement consists of 26 house ruins; 15 of them seem to belong to the earliest house type, 9 to that of the 17th—18th century, one to the 19th century type, while one cannot be identified. Possibly there are one or two other houses, but this question cannot be decided without further examination.

Excavations were made in 11 ruins, ten of them of the earliest type, one of the 17th—18th century type; areas of five middens of the latter type were also excavated.

House-Group 1—3.

Prior to excavation these three ruins, the highest in the settlement as to situation, appeared as quite shallow, heather-clad depressions; together with house 9 they seemed to be the earliest in the settlement.

Figs. 32—33 give plans of them after excavation; a common feature of them all was that there were very few stones in the walls and few floor-stones; the passages were dug deep down and had relatively many stones.

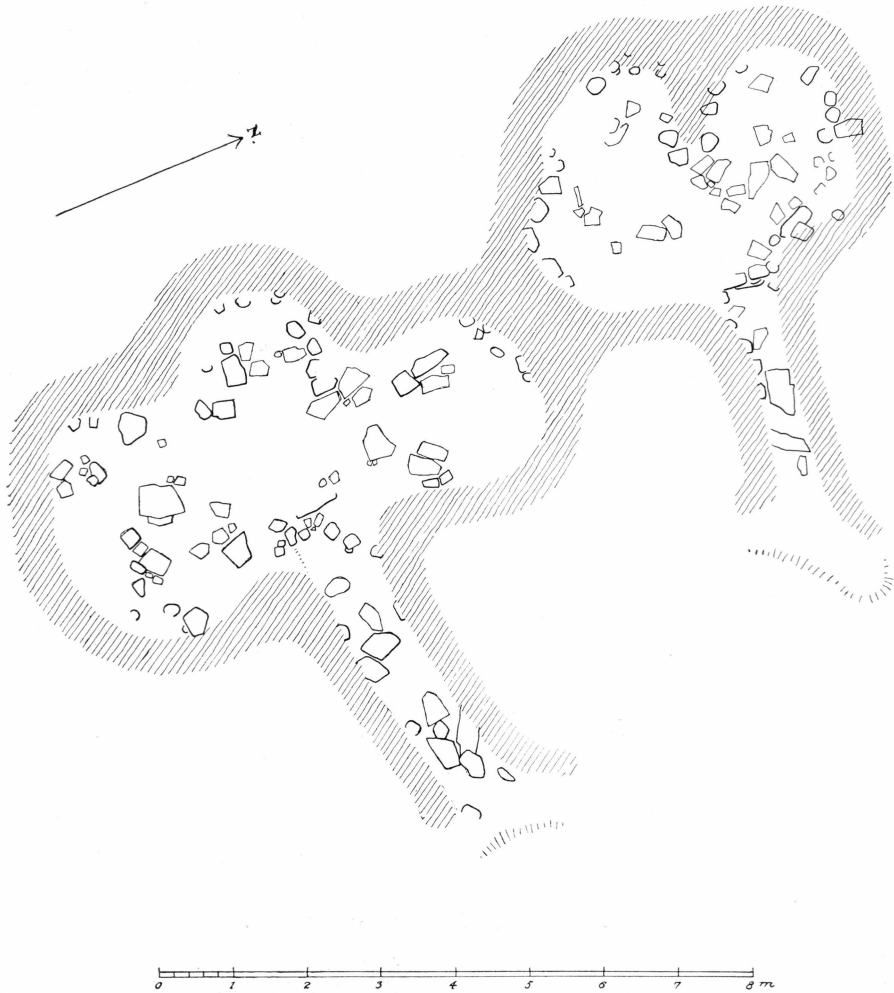


Fig. 32. Plan of Houses 1—2; Ũnartoq.

The houses contained little culture earth; house 1 contained a total of 7 bones, house 3 one, almost all seal ossicles.

House 1 turned out to be clover-leaf shaped, house 2 a double house and house 3 a double house with a kitchen, all of the old round type.

Found:

House 1: Nothing.

House 2: a soapstone sherd.

House 3: a lamp with row of knobs (Fig. 40) lying bottom upwards at

the entrance to the kitchen; a cooking-pot sherd and a cut piece of antler.

House 7.

A large, clover-leaf shaped house of old type (Fig. 34); in the east lobe was the kitchen with ashes; there were not many stones in the walls, but a number of good floor-stones. The upper end of the passage



Fig. 33. Plan of House 3; Ûnartoq.

was well built with many stones. There were only few, badly decomposed bones in the house.

Found: whetstone, hammer stone, fragment of lamp (thick walled, of incoherent soapstone), seven cooking-pot sherds, soapstone sherd, iron nail, three pieces of stone waste.

House 8.

A round grassy depression, $4\frac{1}{2} \times 3\frac{1}{2}$ m, with a few wall and floor-stones; the passage was dug deep down and had a number of very large covering stones. Scarcely any culture earth in the house.

Found: two whetstones, fragment of a lamp with wick ledge, small

lamp (made of cooking-pot sherd?), three cooking-pot sherds, a soapstone sherd of uncertain origin, two toy cooking-pots.

House 9.

A very small depression in the gravel, covered with heather before excavation; oval, 2×3 m, with only one or two wall and floor-stones; kitchen in SE corner; the passage not very deep, with only few stones.

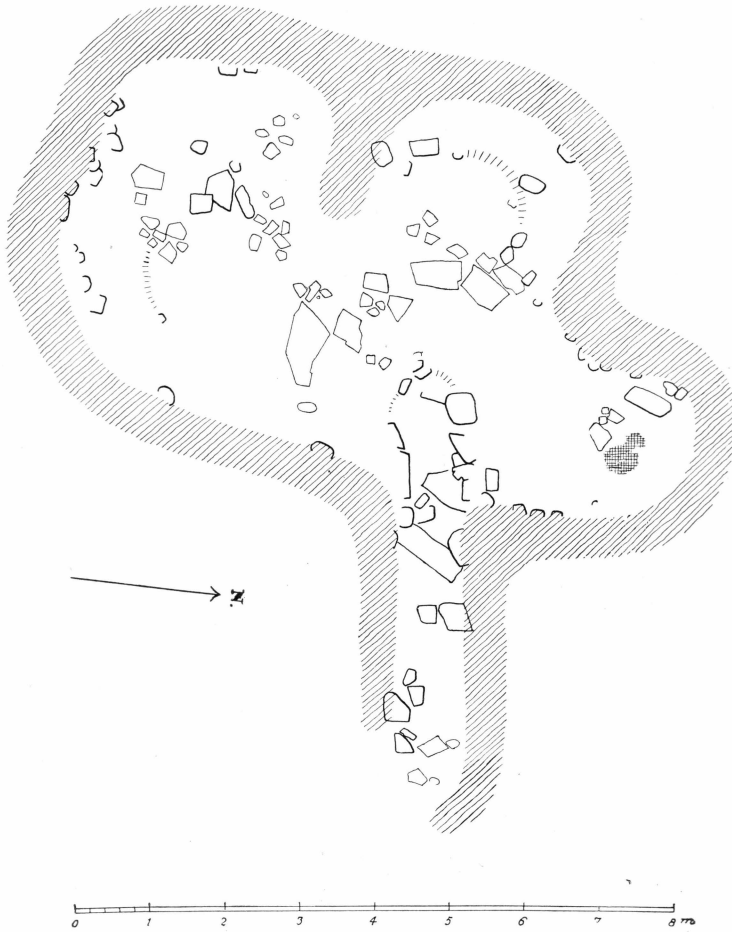


Fig. 34. Plan of House 7; Ūnartoq.

There was scarcely any culture earth, and yet 13 bones were preserved (large whale bone, bear, and seal ossicles).

Found: whetstone.

House 10.

A fairly deeply-dug oval depression, $6 \times 4\frac{1}{2}$ m, with only few stones in wall and on floor, but a number in the passage; east of its mouth a kitchen. Only little culture earth and some mouldered bone.

Found: fragment of knife handle, two whetstones, two hammer stones, scraper with convex edge of rock crystal, lamp fragment with wick ledge, small irregular bowl which had been used as a lamp (Fig. 42), cooking-pot sherd, soapstone sherd.

House 11.

Clover-leaf shaped house of old type, $6\frac{1}{2} \times 3\frac{1}{2}$ m, dug fairly deep into the gravel plain. Not many stones in the wall but a number on the floor; in several places the edge of the platform was indicated by stones set up on edge; in the west room had been a kitchen. Of bones only two much decomposed seal bones were found.

Found: Lamp fragment with wick ledge, 14 soapstone sherds, lump of chrysoprase.

House 12.

This seemed to belong to a later type than those referred to above, even if it was so disturbed that conditions were by no means clear; an earlier erection on the site has no doubt helped towards the confusion.

The house was $8 \times 3\frac{1}{2}$ m, with an almost straight, stone-set rear wall; in the east part of the house were several pits full of rubbish, and a kitchen, and round the upper end of the passage was a confusion of stones. The platform place was on a higher level and had a gravel bottom. There were many but much decomposed bones in this house, in a pit a whale scapula, seal skin, feathers, etc.

Found: ten whetstones, hammer stone, 14 cooking-pot sherds, lamp trimmer, toy lamp (without wick ledge), toy cooking pot, blade of table knife, another knife blade of iron, small lump of iron, small soapstone tube, toggle of seal humerus, four worked pieces of bone and three lumps of rock crystal.

House 20.

A circular depression in the gravel, 5 m in diameter, no wall stones and only a single floor-stone; the upper end of the passage was 30—40 cm deep in the ground and had a covering stone in place; the outer end of the passage had fallen down the bluff.

The few bones and a piece of brass found in it came apparently from the later house 21.

Found: whetstone, soapstone sherd.

House 24.

Exactly like house 20; diameter 5 m; only the passage distinct. There were scarcely any bones, and no other finds either.

Of the houses not excavated five are presumably of the early type; they were rounded in shape and had rather sparse vegetation, crowberry, willow, blue-berry, little or no grass. None of them had any midden.

House 5 was 6×4 m, with no distinct passage.

House 6 was clover-leaf shaped, $7\frac{1}{2} \times 5$ m, with a passage $4\frac{1}{2}$ m long, from which there was an offshoot (kitchen?).

Houses 13 and 15 were rounded depressions, about 5×4 and $5 \times 4\frac{1}{2}$ m, in which the later house 14 was built.

House 18 was a large oval depression, 7×5 m, with a passage 6 m long, in the upper end of which were many stones.

Of the later houses Nos. 21, 22, 24 and 25 were fairly well preserved, of the 18th century type, oblong, with distinct walls; the sizes were 13×4 , 10×4 , $8 \times 4\frac{1}{2}$ and 5×4 m respectively. They were covered with luxuriant grass but had not many preserved bones.

Houses 4, 16 and 17 belong to the same period's smaller type, $3\frac{1}{2} \times 2$, $3\frac{1}{2} \times 3\frac{1}{2}$ and $4 \times 3\frac{1}{2}$ m respectively; house 14 seemed to be of the same type but has been rebuilt into a meat cache. House 19 is merely a depression 6 m long, partly collapsed, with culture earth and some bones in bluffs.

House 26 apparently belongs to the 19th century and thus is the last house to be inhabited at Ûnartoq; it lies lowest, has well-preserved stone walls, measures 4.4×2.7 m, with a passage from one corner and a kitchen offshoot from the passage.

Various midden areas were excavated in front of the later houses:

Field A, in front of house 17: 32 sq.m. The culture deposit was about 20 cm thick, but almost half a metre up against the passage. There were many bones and mussels in the thinner part, which also yielded artefacts.

Field B, house 22: 12 sq.m. In the bluff were rather rich layers of 20 to 30 cm thickness; there were many well-preserved bones and mussel shells, but at the lowest level the bones were almost decomposed; this, in conjunction with the find of a lamp with a wick ledge in the bottom layer, would seem to indicate a much older habitation there.

Field C, house 21: only about 4 sq.m; the layers were 30 to 40 cm thick, but much decomposed.

In front of house 4 we excavated about 4 sq.m, and found thin but fairly rich culture deposits.

In front of house 14 an area of 20 sq.m was excavated; the deposits were fairly rich, 20 cm thick, with many bones and mussel shells.

The objects that were found in the later middens at Ûnartoq will appear from the list page 91; the only finds from houses included among these are those from house 12, a list of which was given above. It was

not possible to distinguish any age difference in the various middens. Artefacts from these middens are illustrated on Fig. 47. 1, 2, 6-9, 13, 20 and 23.

Graves at Ûnartoq.

Most of the graves — twelve — lay in the terrain strewn with large boulders northeast of the settlement. Six of them were examined.

Grave 4 was well built, orientated WSW—ENE, 1.50×0.60 m, with remains of two skeletons; at the north side an empty chamber for grave goods.

Grave 5 had collapsed and contained only few skeletal parts; the cist measured 1.00×0.55 m inside. Three of the covering elements were of wood.

Grave 6 was a well-built, undisturbed grave, 1.60×0.50 m, with six skeletons, all with the heads at the NNE end.

Grave 8 was undisturbed too, built up against a rock wall, 1.40×0.60 , with five skeletons lying ESE. Among stones in the east end lay a small wooden dish with a bone edging, inside the grave a child's drum, five buckles for a kayak-frock, and a coin¹).

Grave 9 had collapsed entirely owing to the waves; it contained remains of two skeletons.

Grave 10 was a child's grave, also somewhat disturbed by the sea, 1.05×0.55 m; it contained no bones, but a wound-plug of wood, a wooden stick of uncertain use, a toy kayak and an unfinished bladder-dart head.

In a cleft in the rock near to these graves lay: a harpoon shaft, 2.07 m long, slender, with a finger rest; two foreends of bird-dart shafts, one with a screw-thread; a throwing board, 44 cm long, 7 cm wide at the rear, with a notch for the thumb and a hole for the index finger; the blade of a kayak paddle.

Elsewhere on the burial ground lay a lamp without a wick ledge. Near Grave 3 were the remains of a tub and a wooden dipper.

The Ruin at the Hot Springs.

It has long been assumed that there were Norse ruins near the hot springs. Arctander says²): "Near the middle pond close to the shore there has been a house, the earth and stone walls of which on one side were three-fourths of a cubit high from the ground and showed that the house has been about eight cubits long, and rather narrower. Possibly this has been a bath house used by the ancients."

¹) According to G. Galster, keeper of the Coin Collection at the National Museum, it is a counter of brass, struck by Johann Konrad Hoyer in Nuremberg 1705—43; on one side Louis XV, on the other: Neptune riding over the Sea.

²) p. 1189.

Frode Petersen¹⁾ was unable to find the Norse ruins at Ûnartoq; according to the Greenlanders they had fallen into the sea. Since then, however, Ûnartoq has been shown on the maps as a place where there have been Norse ruins.

We were unable to find any trace of Norse buildings there. The only ruin in the vicinity of the hot springs lay close by the artificially dammed basin and resembled an Eskimo tent foundation. Indeed, an excavation showed that it was just that; in it were a soapstone sherd,



Fig. 35. The Hot Spring Basin; Unartoq.

an iron rod and a small blue glass bead, showing that it cannot be so very old.

Fig. 35 is the dammed basin at the largest of the hot springs.

5. Observations on Other Ruin Sites.

The majority of the ruin sites visited are not of much interest and, as will be seen from the list, have only one, two or three houses, either 17th—18th or 19th century. This applies particularly to the numerous sites on the outer islands, and these furthermore are badly spoiled, modern hunting cabins having been built into a great many of them and still used by the population when they are out there catching bladder-nose seals in early summer.

¹⁾ Bruun 1895, p. 409.

Nevertheless, some of the sites are of interest in one way or another and call for some description, especially all those that have ruins of the earliest type.

The number of the place on the list and on the map is given after its name.

Ruin Sites with Houses of the Earliest Type.

In addition to the four large settlements examined there are eight more where I consider there are ruins of the earliest type.

Apart from the above four, the largest is Anordliuitsoq (191) in the Cape Farewell area, the most southerly settlement in Greenland where these earliest houses have been found¹⁾; it therefore forms an important connecting link between the earliest Eskimo settlement on the West coast and the East coast.

Anordliuitsoq lies on the east side of the large alpine island that forms the east and south side of that magnificent water Torsukátak Sound. A small bay cuts into the land there and into its head empties a deep river. On the point south of the bay is the modern settlement, which was abandoned in 1925; there are ten ruins of recent houses. On the other side of the bay on a rock is a ruin almost washed away. In the bay, on both sides of the river, lie 16 older ruins.

North of the river lie five houses, of which the innermost is round, $5\frac{1}{2}$ m in diameter, with a few stones in the wall; it has very sparse vegetation over it and lies about 4 m above sea level. The other four are later, four-sided, with thick grass; two are large, $14\frac{1}{2}$ and 8 m long respectively; two are rather small, one being partly washed away.

South of the river are four houses, apparently of the earliest type, all shallow depressions in the sandy plain and with sparse vegetation; two are about 2 m above sea level, the others 4 m. Two are round, $3\frac{1}{2}$ and 5 m in diameter, one is clover-leaf shaped, $7 \times 3\frac{1}{2}$ m, one is a double house.

There are also seven four-sided, rather thickly overgrown houses, up to 9 m long; three have been partly washed away owing to the sinking of the land.

Fig. 36 shows the settlement seen from the sea; in the foreground the sea-washed ruin.

Two other ruin places, fairly large, with houses of the earliest type are Sermilik (154) and Iluilermiut (64), the latter near the trading post of Narssaq.

Sermilik, at the mouth of the southern Sermilik fjord, was abandoned as a settlement in 1915. A little to the west of the ruins of the recent settlement lie nine earlier ruins. Two of them seem to be

¹⁾ Grønland II, p. 450.

of the earliest type, round, almost flattened out, 3 and 4 m in diameter respectively; they lie 4 and 3 m above sea level and have sparse vegetation on them. The other ruins are from the 18th and 19th centuries.

Iluilermiut has eight ruins, but in bad condition owing to grass-turf having been taken from them. Farthest west, about 12 m above sea level, lies an isolated group of three houses, small, badly collapsed, presumably of the earliest type.

At Igdlorpait (147), on the plain where the present large settle-



Fig. 36. The village site of Anordliuitsoq; in the foreground the partly submerged ruin.

ment lies, 5 to 6 m above sea level, is a row of very old ruins, partly destroyed by the removal of turf and by sheep; one still appears as a small round depression; a large whale bone has been found in one of them.

At Kapuivik (129) and Pernera (140) there is a ruin of the earliest type, built into a Norse ruin. The ruin at Kapuivik lies drawn back from the sea, about 7 m above sea level; it measures 3.8×3.5 m, with sparse vegetation; lower down and nearer the sea are two later ruins.

At Pernera, right on the beach, is a large, four-sided ruin dating from the 17th—18th century, and a little farther back, about 3 m above sea level, a small round ruin, 3 m in diameter, with a passage 5 m long, built into a Norse ruin.

Qôroq (37) and Perdlernerit (82) each have only one ruin of the earliest type apart from later ruins.

The ruin at Qôroq lies about 3 m above sea level, is round, 3 m in diameter, with a passage $6\frac{1}{2}$ m long; a number of stones in the west wall, the curve of which can be seen distinctly; overgrown with willow and crowberry.

The one at Perdlernerit lies 2 m above sea level, is round, 3 m in diameter, with a passage $3\frac{1}{2}$ m long; overgrown with willow and crowberry.

At Upervivik (18) at the mouth of Bredefjord there are ruins of the earliest type, according to Bendixen¹). Just on the beach is a small, badly collapsed ruin, the shape of which cannot be discerned; but the rather luxuriant growth of grass does not indicate that it is of the earliest type.

On the south point of Amitsoq (164), according to the Greenlanders, there have been old ruins which were demolished when the graphite mine was started. In the National Museum is a lamp of the Thule type²), said to be from a ruin there, which is also credited with bell metal; these finds also indicate very ancient habitation there.

Later Ruin Sites.

In four places ruins of the later, four-sided type are built into Norse ruins, viz. at Qagssit³) (46) (one small house) and Qarmat (48) (three houses, two of them small) in North Sermilik; at Qagssiarssuk⁴) (71) (three ruins, fairly large) and at Isortoq (157) in South Sermilik (one small ruin).

One spot which is bound up with great legendary interest is Arpatsivik (94) in Qaqortoq fjord⁵). The legend tells that the Norsemen at Qaqortoq attacked the Eskimos there and killed them in their houses; in return the Eskimos destroyed Qaqortoq and killed the Norsemen.

Nevertheless, a visit to Arpatsivik was a disappointment; nowadays there is only one of the large, four-sided common houses dating from the 17th—18th century, badly collapsed. Either the tale is inaccurate or there has been an early habitation at the place in former times. Birket-Smith figures a needle case from there⁶).

At the settlement of Kangeq (160) near Nanortalik is the largest Eskimo house I have ever seen. It was 21 m long, $4\frac{1}{2}$ m wide, oblong, with a luxuriant growth of lyme-grass. It lay about ten metres

¹) Grønland II, p. 450.

²) No. L 9302.

³) Bruun 1895, p. 246.

⁴) Nørlund & Stenberger 1934, p. 48.

⁵) See for example Grønland II, p. 450.

⁶) 1917 p. 25.

up, and a large boulder from the slope had fallen into it — but apparently after it had become a ruin.

Fig. 37 shows this ruin settlement, the large ruin on the right.

In other places, too, there were 17th—18th century ruins of very considerable size. On the islands of Arnat (135) off Sydprøven there is a ruin, 18×4 m, lying so low that it is being washed away; and on the adjacent island of Uigerdleq (133) there is a four-sided ruin $18\frac{1}{2}$ m



Fig. 37. Kangeq. On the right the large house with the big boulder (with the boy on its top).

long; two transversal walls show that it has been shortened twice; this house, too, lies so low that the sea reached right up to the passage at high tide.

In the settlement of Arfermiut kangigdlit (44) south of Niaqornaq in North Sermilik an excavation was made of 25 sq. metres of one of the richest middens I have seen in the District. It was formed in front of two of the large, four-sided houses, $14\frac{1}{2}$ and 7 m long respectively, fairly well preserved and with thick grass on them.

The midden was 30 cm thick and very rich in bones, especially seal, but also caribou, dog, bird, some fish; there was a quantity of mussel shells.

A list of the specimens found, 141 in all, will be given on page 91. Of the illustrated artefacts Fig. 47. 3, 12, 18 and 22 are from here.

III. FINDS FROM THE EARLIEST HOUSES.

In the following a special group will be made of the finds from the house ruins of the earliest type, that is to say the following: Tugtutûp Isua, the houses 1—10, 12, 15, 17 and 20—24; Narssarssuaq, houses 1, 2, 5 and 6; Igdlutalik, the houses 6—14 and 19—24; Ūnartoq, the houses 1—3, 7—11, 20 and 24. In addition there are the earliest deposits under House 16 at Tugtutûp Isua and Houses 17—18 at Igdlutalik. A total of 612 specimen numbers came from these ruins and from middens in front of them.

As a general rule, it is easy to draw the line between this group of houses and the following one, the four-sided house of the 17th—18th century type. Doubt may arise at times, however. At Igdlutalik there is every kind of transition between the two. Houses 9—11 and the left room in 24 are four-sided if anything, but their crude construction, especially the absence of a properly built stone wall, places them nearer to the earliest type. On the other hand, Houses 17—18 at Igdlutalik with their straight, fairly solidly built side walls should be placed to the later type, even if the difference from the foregoing is not great. Under them, however, we revealed remnants of an earlier construction with finds distinctly pointing to the ancient period; and the same was the case with the deposits under the floor of house 16 at Isua, whereas the house itself must, on account of the finds in it, be regarded as belonging to the later type.

The conditions for preservation of ancient relics in the Julianehaab District were the worst possible, as I had expected, and naturally this was most perceptible in the earliest ruins. The constant alternation of frost and thaw throughout the greater part of the year splinters and disintegrates objects of bone, wood and baleen, and the fact that the ruins mostly are deep down in gravel and sandy terraces does not make matters any better, as the rapidly percolating water washes out the lime and other inorganic salts from the bones, whilst the organic substances soon decompose.

As a result, most of the ruins of this period contained no bones or objects of bone or wood at all; at the most there was a little bone powder here and there; in many of the houses there was almost no culture earth to be seen, and none of them had middens of any importance before them.

Conditions were worst at Ûnartoq, where the houses had been dug down into a dry plain of gravel and pebbles; they were not much better at Isua; at Igdlutalik there was more culture earth as a whole in and round the houses, but there, too, the bones were entirely or badly decomposed; only exceptionally were there identifiable objects of bone in the houses, and these were always the later ones. Most of the ruins, then, contained nothing but stone objects, especially soapstone fragments, whetstones and hammer stones.

In describing the various houses in the foregoing a list of the specimens found in them was given. For the purpose of facilitating a survey of them a list will now be given of all the finds from the earliest period and their distribution over the four settlements; all fragments in so far as they can be identified are included in the figures. (See page 72.)

It will be observed that most of the objects of bone are from Igdlutalik; the explanation lies partly in the conditions for preservation, which were much better there, partly in the fact that several of the houses there presumably belong to the latest among this group. The finding of a few objects of later European origin, for instance a glass bead, shows that these houses were still in use during the first whaler period.

Observations on Implement Types.

Many of the artefacts listed above from the earliest houses in Julianehaab District are so well known that a description of them would be superfluous; they are exactly the same as corresponding objects from other, early West Greenland finds described in my three previous works on the archaeology of West Greenland: "Inugsuk", "Ancient Eskimo Settlements in the Kangâmiut Area" and "Contributions to the Archaeology of Disko Bay". As regards other types it will be sufficient to refer to an illustration in one of those works; in a few cases only will an illustration or a more complete description be required.

Eskimo Objects.

Not a single harpoon head was found in the earliest houses, nothing but a toy specimen (Fig. 38. 3), which is of the thin variety, without a separate blade, barbless; everywhere in Greenland's earliest

List of Specimens from the Earliest Houses.

Type	Tugtu- túp Isua	Narssars- suaq	Igdluta- lik	Ūnartoq	Total
Shaft mounting, cylindrical.....	..	..	1	..	1
Finger rest.....	..	..	1	..	1
Ice pick.....	1	..	..	..	1
Bladder plug.....	..	..	1	..	1
Arrow head, stone, lanceolate.....	..	1	..	..	1
— , bone, with knobs.....	..	1	..	..	1
Leister prong.....	..	..	1	..	1
Sinker for fish hook(?).....	..	..	1	..	1
Knife handle.....	..	..	1	1	2
— blade, stone, two-edged.....	..	1	2	..	3
Whetstone.....	36	13	62	6	117
Hammer stone.....	14	4	21	3	42
Adze head.....	..	..	2	..	2
— blade.....	..	..	2	..	2
Wedge.....	..	..	3	..	3
Mattock blade.....	..	..	1	..	1
Drill shank.....	..	..	1	..	1
Bow-drill mouthpiece.....	..	..	1	..	1
Drill bit, stone.....	1	..	..	..	1
Flint flaker.....	..	..	1	..	1
“Anvil” stone.....	..	..	1	..	1
Ulo handle, without arms.....	..	..	1	..	1
— , with two arms.....	..	..	1	..	1
Scraper blade, convex edged.....	1	..	1	1	3
— , concave edged.....	..	..	1	..	1
Lamp, with wick ledge.....	13	1	7	4	25
— , without —.....	..	..	1	..	1
— , crude, irregular form.....	1	..	2	3	6
Cooking pot sherds.....	27	6	29	12	74
Soapstone sherds, indeterminable.....	67	12	76	18	173
Pendant, stone.....	2	..	1	..	3
Bead, stone.....	1	..	..	..	1
Bodkin, ornamental.....	..	1	..	..	1
Ajagaq, seal radius.....	..	..	1	..	1
— , seal penis bone.....	..	1	1	..	2
Toy harpoon head, thin.....	..	1	..	..	1
— leister prong.....	..	..	1	..	1
— lamp, with wick ledge.....	1	..	1	..	2
— — , without wick ledge.....	1	..	..	..	1
— cooking pot.....	6	..	8	2	16
— cooking pot or lamp, irregular ..	3	..	3	..	6
Play-stones, coloured.....	..	..	14	..	14
Graphite, polished.....	1	..	..	..	1
Bone objects, indeterminable.....	3	..	20	1	24
Stone waste, pieces.....	18	5	210	3	236
Norse relics.....	18	6	18	1	43
European objects, later.....	..	..	4	..	4

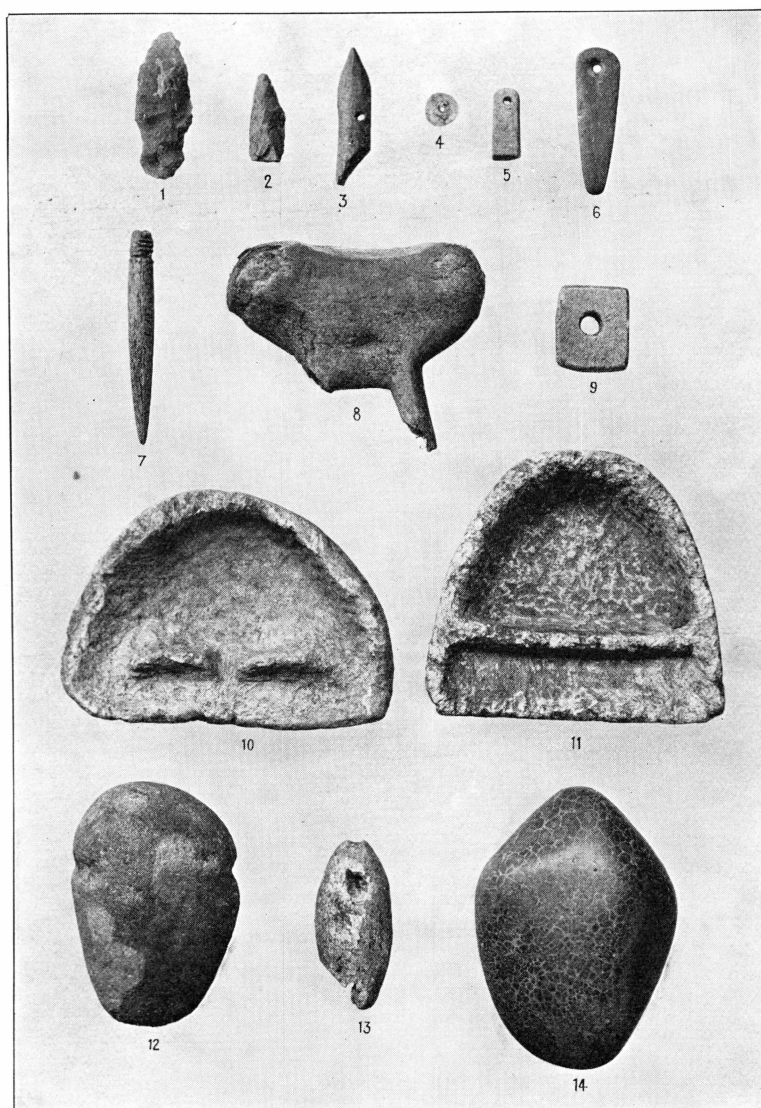


Fig. 38. Eskimo Specimens from the old Culture, Julianehaab District. 1:2.

culture the thin harpoon heads have been predominant¹⁾, so that there is no reason to doubt that they were the same here.

Of the arrow heads the two stone specimens are merely fragments, rock crystal and quartzite respectively. The bone arrow head, which as stated need not date from the earliest culture, is badly weathered, has one barb and two knobs on the tang, just as we find them everywhere in Greenland's earliest culture.

¹⁾ Inugsuk p. 180; Kangâmiut p. 71; Angmagssalik p. 50; Disko Bay p. 72; Mathiassen 1927 I, p. 294; Helge Larsen p. 79.

Fig. 38. 13 is a rounded piece of soapstone, oval in cross-section; it has been broken at one end at a hole, and in the other is a hole running from the side out to the end; it may have been used as a sinker for a fish hook, though it does not quite resemble the usual Greenland sinker, which otherwise seems to make its first appearance during the course of the 17th century¹). It was found in house 9 at Igdlutalik and thus is one of the latest of the finds.

The knife handles are only small fragments, one with the blade socket in the end; the other, only quite small, has a transversal roll round it and also an ornament, consisting of longitudinal and transversal flutings, quite close together, making the surface consist of small squares; this ornament is scarcely original Eskimo, rather an imitation of what we see on European knife handles of the 17th—18th centuries²). If so, this specimen, which came from house 25 at Igdlutalik, reveals influence from the whalers in the 17th century.

Fig. 38. 1 is a knife blade of grey rock resembling hornstone, crudely fashioned, two-edged, with a tang. Knife blades of this kind, often ground and of better workmanship, are well known from the Inugsuk Culture³).

Whetstones are among the commonest artefacts in the old houses; they do not perish so easily; no less than 121 were found in them. In most cases the material is sandstone, especially of the red or red-and-white Igaliko variety which is so common in the Julianehaab District. Other rocks have been employed, however: micaceous schist, argillaceous shale and siliceous schist, and various diabase-like rocks; two, of a soft, red clayey shale, have presumably been used for "writing" on other stones. The shape of these whetstones is mostly irregular, with from one to four whetting surfaces.

Hammer stones are also exceedingly common — 42 were found. Here again Igaliko sandstone was much used; Fig. 38. 12 is one of this variegated red sandstone, with finger-notches in the sides and a large fracture-facet in the point. Basaltic or diabasic rocks are also much in evidence; usually these hammer stones are natural pebbles. Fig. 38. 14 is of a black diabase with a network of white veins; hammer stones of this rock were found both at Isua and at Igdlutalik, and I found the rock itself in situ, forming a narrow dyke at Kugssanga.

The best-preserved adze head is of the type Inugsuk Pl. 11. 3, of whale bone. One of the adze blades is of grey schist, ground at the edge but broken at the butt; the other is an unfinished specimen, of red slate.

The bow-drill mouthpiece is of caribou astragalus, a bone used

¹) Kangâmiut Pl. 7. 5.

²) Inugsuk Pl. 23. 20.

³) Cf. Disko Bay Pl. 9. 3.

for this purpose everywhere, when it is obtainable¹). Fig. 38. 2 is a drill bit, the only implement made of the North-Greenlandic grey silicious slate, *angmaq*; at the butt it is broken, while the point is ground in three facets as on the usual North-Greenland drill bits²). A number of pieces of waste show that drilling as usual has been widely used when splitting and cutting pieces of bone.

Fig. 39 is a fairly long, round, slightly curved rod of whale bone; the ends are rounded and somewhat damaged, flakes having fallen off; at the middle is a belt of cuts as if to provide a better grip; it greatly resembles the flint flakers for working in stone, with which we are

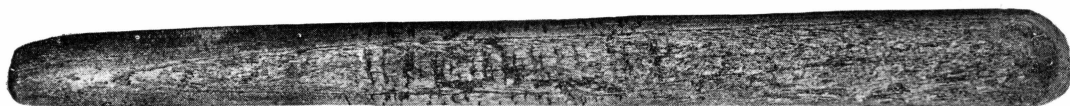


Fig. 39. Flint Flaker; Igdlutalik. 2:3.

familiar from Southampton Island³); it bears less resemblance to those hitherto seen in Greenland⁴), which vary a good deal — if this identification of them is correct.

Of the women's knives, *ulos*, one is of the type known as belonging to the Inugsuk Culture, *Kangâmiut* Pl. 3. 14, having no tang but a thick back and an intermediate piece between hand-grip and blade-holder. The other, shown on Fig. 38. 8, is of antler and is interesting on account of the fact that it has had two arms; two-armed *ulos* like this have not previously been found in the earliest culture of West Greenland; it was found in House 9 at Igdlutalik, a house presumably belonging to the later ones of this group. This find gives a hint of whence *Angmagssalik* received its two-armed *ulo*, which otherwise had been considered as being a local culture element indigenous to the East Coast⁵).

The scraper blades, the convex as well as the concave edged specimens, are small, crudely worked pieces of rock crystal, quite like the specimens in the finds of the Inugsuk Culture⁶).

The lamps are among the most interesting objects, as their varying form makes them of importance to the chronological dating of the finds. Of the 32 whole lamps and fragments found in the earliest houses, 25 have the wick ledge or the row of knobs along the front rim, features showing that these lamps have their place in the Inugsuk Culture; for

¹) See for example Inugsuk Pl. 12. 11.

²) Solberg Pl. 5.

³) Mathiassen 1917 I Pl. 71. 6 and Fig. 83.

⁴) See Disko Bay p. 105.

⁵) *Angmagssalik* p. 90.

⁶) See for example Inugsuk Pl. 13. 4-5.

lamps with the wick ledge or knobs are among the principal guide forms of that culture¹). Fifteen of the specimens found have a wick ledge, five have knobs, whereas the same cannot be said with certainty of the remaining five. Fig. 40 is the only whole lamp of this type found here, it is oval, fairly deep, 26×19 cm in diameters, and at the fore edge has three knobs; it lay almost at the entrance to the kitchen of the



Fig. 40. Lamp; Ûnartoq.



Fig. 41. Lamp fragment; Tugtutùp Isua.



Fig. 42. Lamp; Ûnartoq.

very old house 3 at Ûnartoq. Fig. 41 is a sherd, with two knobs, of a large, wide, segment-shaped lamp; Fig. 38. 10-11 are two toy lamps of this type, one with two knobs, the other with a wick ledge extending right out to the sides; the latter lamp is unusually wide, a feature often recognized on these old lamps²).

¹) Inugsuk p. 228; Kangâmiut p. 97; Disko Bay pp. 77 and 109.

²) Compare Kangâmiut Fig. 32a.

Besides the Inugsuk (or Thule) lamps we have one that is segment-shaped, with no wick ledge, and as usual some crudely-fashioned lamps of no particular shape, formed by hollowing out a thick piece of soapstone, a cooking-pot sherd, or the like. One "emergency lamp" of this sort in the form of a round, irregular bowl is shown on Fig. 42.

Cooking-pot sherds are also among the most commonly occurring objects in these houses; 74 were found. Usually they are of oval or round-cornered, four-sided pots of every possible size. The only complete one is illustrated in Fig. 43; it is oval, of soapstone, 32×19 cm, with the cord-holes in projections on the inside. At one end at the bottom there is a triangular hole, into which the missing piece has been "stitched"; the pot has split longitudinally but has been mended by stitches;



Fig. 43. Cooking pot; Igdlutalik.

the two halves of the bottom do not fit closely together and the crack there has no doubt been filled in with a cement-mass of some kind. This pot was found in pieces in the passage of House 11 at Igdlutalik.

Fig. 38. 5-6 are two pendants of stone; the first is of soapstone, flat, the other of grey micaceous schist, flat, polished. A third specimen is a small fragment, of red slate.

Fig. 38. 4 is a small bead of polished, transparent calcareous spar; in shape it is rounded, double-conical, the hole hour-glass shaped. This bead is interesting as a link between the crude calcareous spar bead at Inugsuk¹⁾ and the handsomely polished specimens at Kangerdlugssuaq on the East coast²⁾.

Fig. 38. 7 is an ornamental bodkin, of whale bone, with six rolls round the head; this is also one of the characteristic types of the Inugsuk Culture³⁾.

¹⁾ Inugsuk Pl. 18. 1.

²⁾ Kangerdlugssuaq p. 10.

³⁾ See for example Inugsuk p. 225.

Of the toys and playthings, mention has already been made of the harpoon head and the lamps. A round, rather shallow cooking pot or lamp has a hole in the bottom. In House 18 at Igdlutalik under the back wall we found two heaps of small, handsomely coloured stones. One heap consisted of ten pieces of violet fluor spar, six of clear fluor spar and three of rose quartz; the other heap was of four pieces of heliotrope fluor spar, nine of colourless fluor spar and a cluster of small rock crystals. No doubt the presence of these stones in the house was also due to children, quite a little "mineral collection".

Of indeterminable objects mention may be made of a small, four-sided piece of soapstone with a drilled hole in it (Fig. 38.9), and a whale vertebra, in one end of which was hewn a long hollow, $13\frac{1}{2} \times 6$ cm and 6 cm deep; probably it was used in the construction of the house.

Of the stone waste — waste from the hewing of stone implements, etc. — most of the pieces, 207 in all, are of rock crystal; 16 are of various kinds of jasper, eight of chrysoprase, eight of quartz, five of chalcedony and one of hornstone.

Norse Relics.

Objects of non-Eskimo origin were found in many of the earliest houses; and as most of these houses must date from the period prior to the coming of the first whalers to the country, they can only have come from the Norsemen, who in these parts in the Middle Ages had their principal settlement, the East Settlement. In many cases the fact that the objects are of Norse origin is indeed proved by their very nature. Norse objects were found at Isua in houses 1, 5, 6, 8, 12, 15, 16 (under the floor), 22 and 23; at Narssarssuaq in houses 2 and 6; at Igdlutalik in houses 6, 8, 9, 10, 11, 17 (under floor and walls), 18 (in the earlier passage), 19, 20, 24 and 25; at Ûnartoq in house 7.

Fig. 44.1-2 are two fragments of church-bells, found in two houses that must be regarded as belonging to the very earliest at Isua. No. 1 is an edge fragment of a large church-bell which, judging from the curve of this piece, must have had a mouth diameter of about 90 cm; it weighs 3.46 kilograms and its corners are bruised, so probably it has been used as a hammer; it lay between the floor stones in House 1. No. 2 is an edge fragment of a smaller bell; on the outer side there are, parallel with the rim, which is 1.5 cm thick, two faintly elevated ridges; its weight is 0.41 kg; it lay under the wall of the meat cache afterwards built into house 5.

Fig. 45.1-7 are a number of spindle whorls of soapstone, of various sizes and shapes; No. 1 is very conical and on one oblique side has four distinctly incised runes, as to which Erik Moltke reports as follows:

“The inscription is $\forall \dagger \forall 1$, kæmt. What it means is impossible to say. As to the rune forms themselves I can say this much that the reversed rune of k, \forall , to my knowledge does not occur on the earliest Greenland inscriptions, but later on becomes common.”

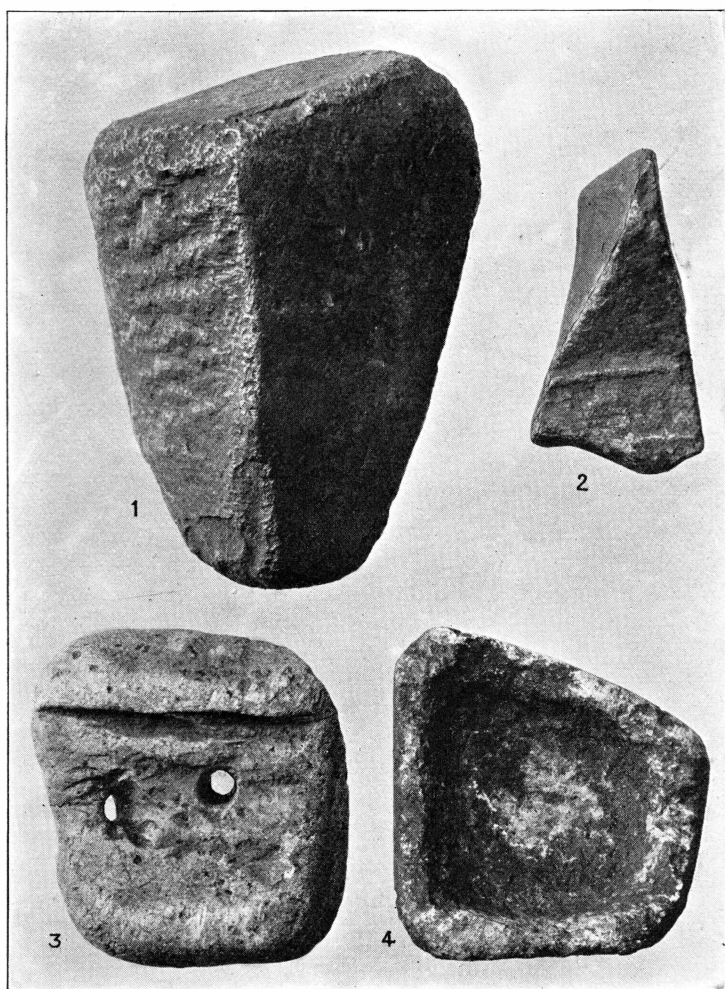


Fig. 44. Norse objects from old Eskimo ruins.
1.-2. church-bell metal; 3. net sinker; 4. soapstone lamp. 1:2.

Nos. 2 and 3 are domed on the upper side and flat underneath, and the domed side is decorated with a circle concentric with the hole, as well as radial lines. Nos. 4—6 are undecorated, No. 4 rather flat, No. 5 fairly high, No. 6 domed. There are three other whorls and fragments; two are crudely ornamented almost like No. 3. No. 7 is presumably an unfinished spindle whorl.

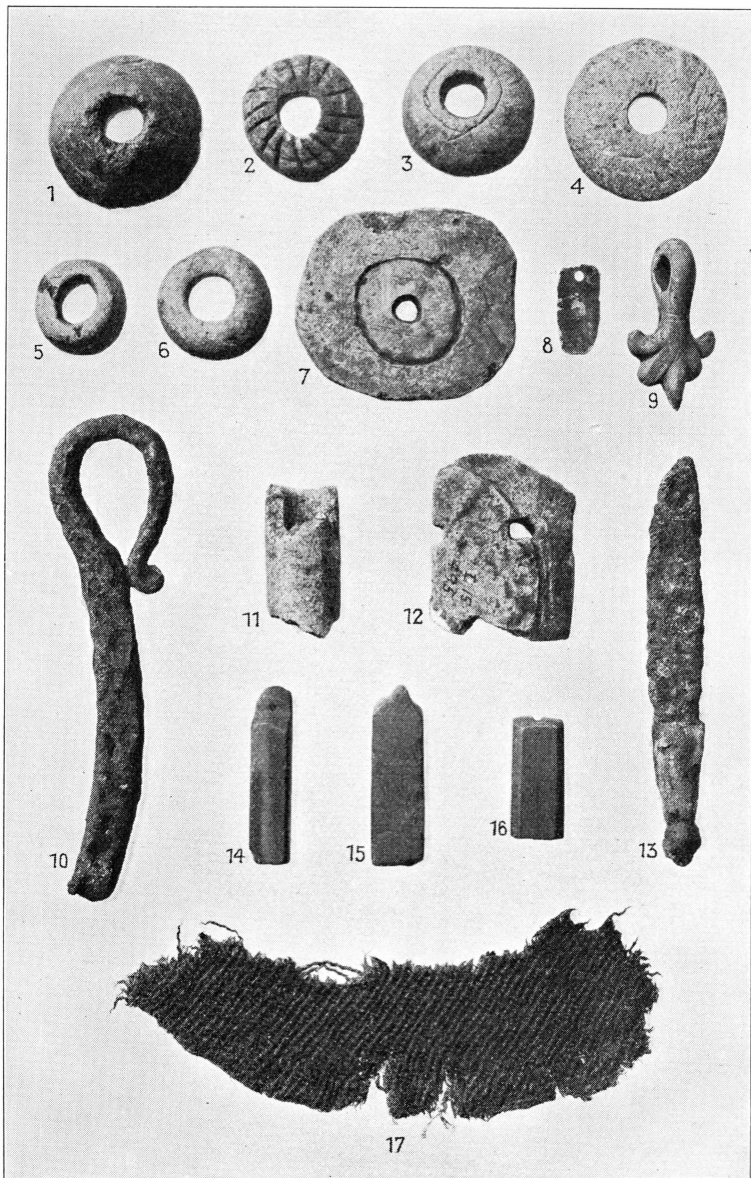


Fig. 45. Norse Relics from old Eskimo Ruins; Julianehaab District.
 1.—7. Spindle whorls; 8.—10. Metal objects; 11.—12. Soapstone
 objects; 13. Knife; 14.—16. Whetstones; 17. Cloth. 1:2.

Spindle whorls are among the commonest artefacts in the Norse settlements, where they have been found in large numbers and with the same kind of decoration (runes, circular and radial lines)¹). Never-

¹) Cf. Boye, pp. 442, 447, 455 and 456; Nørlund 1930 p. 164, and 1934 (Brattahlid) p. 128.

theless it is surprising to find so many of these objects, useless as they were to the Eskimos, in the old houses; the Eskimos have scarcely ever learned to spin and weave; still, they have no doubt put them to some use, and the most likely one is as spinning tops for their children; for the spinning top is an old Eskimo plaything, even if soapstone is not usually employed in making it. It may be recalled that a spindle whorl was also found at Igdlutalik in Disko Bay, and a Norse games-piece remade into a top at Inugsuk¹).

Fig. 45. 17 is a piece of woven cloth with a seam along one edge; it is of the four-shaft weaving that the Norsemen made²) and of exactly the same appearance as the piece found at Inugsuk³). This piece and a smaller one of the same kind, were found in the old culture deposit under the floor of house 16 at Isua; near them was the spindle whorl Fig. 45.2 and a lamp fragment with wick ledge.

Fig. 45. 14-16 are three small whetstones made of a hard red siliceous schist and of characteristic form: slender, four-sided and with ground edges; one of them, No. 16, has had a suspension hole which is now broken, and through the upper, thinner part of No. 14 a hole has also been started. Four other whetstones are of similar shape, size and material.

Whetstones of this kind do not otherwise occur in the Greenland Eskimo culture; they are familiar objects in the Norse settlements, however⁴), and presumably that is where the Eskimos got them from.

Fig. 45. 13 is an iron knife blade, pointed, single edged, with remains of a short bone handle; at the butt end it seems to widen out, though possibly this is a result of the rusting of the blade. This knife blade was found in the very old house No. 22 at Isua and presumably also came from the Norsemen, in whose settlements similar knives have been found⁵). A smaller, more rusted knife blade was found.

Fig. 45. 10 is a peculiar piece of iron having on its lower end a short protuberance, which may mean that the object was used as a key. The same shape of the bent-over end is seen on hasps from Brattahlid⁶). Thus there is no reason for assuming that this is not Norseman work. It was found in front of the passage to house 10 at Igdlutalik; in the same house was a spindle whorl and the fragment of a soapstone bowl described below.

A number of other pieces of iron were found: a nail and some small

¹) Disko Bay Pl. 7. 23; Inugsuk Pl. 22. 6.

²) Nørlund 1924, p. 90.

³) Inugsuk Pl. 22. 2.

⁴) Nørlund, Brattahlid, Fig. 100 E.

⁵) Ibidem, Fig. 99.

⁶) Ibidem, Fig. 100 A.

lumps and other very rusty, indeterminable objects. Naturally there is the possibility that when they immigrated to this area from the north the Eskimos had a little iron with them from Disko Bay, where there is access to telluric iron from the basalt. The quantity would not be much, however, for the distance to the basalt region is a long one, and furthermore, the migration from there down to the south has taken some time; therefore it is most probable that most of the iron found in mediaeval Eskimo ruins in Julianehaab District came from the Norsemen.

No doubt the same applies to another small metal object, the pendant Fig. 45. 8, formed of a small, flat piece of copper.

A curious object is Fig. 45. 9. It is of bronze, ending at the top in an eye and at the bottom in a palmette which is rounded on one side, flat on the other. It is most like the handle of a tub, but there are no signs of riveting. It is strange to find the palmette here in the Middle Ages, but there is no reason to doubt that the object came from the Norsemen; it was found in the kitchen, among slag, in house 6 at Isua; this house is one of the oldest in the locality.

In the same house was the soapstone vessel Fig. 44. 4, a curious foursided vessel with fairly steep sides; it is very like the lamps found among the Norse ruins¹⁾, very different from the large, mostly segment-shaped lamps of the Eskimos.

Fig. 45. 12 is a fragment of a flat soapstone bowl with a distinct foot having a flat base, a feature that is foreign to Eskimo soapstone vessels. Although the Norse settlements have revealed no bowl just like these one, it is probable that it is Norsemen's work, so much the more as we found several other Norse objects in the same house (see above).

Fig. 44. 3 is a flat, thick piece of soapstone with rounded edges and pierced with two holes; it was found in the very old-looking house 6 at Narssarsuaq. Two other specimens seem also to be fragments of thick soapstone vessels with rounded edges and holed. Fragments like these are exceedingly common in the Norse settlements, where they are interpreted as loom weights or net sinkers²⁾. It is not out of the question, however, that the Eskimos themselves have used sinkers for seal-nets; one, of baleen, from the 16th century was found in 1933 in Disko Bay³⁾. But, as stated in that work, this is something they may have learned from the Norsemen. One object, which may be an Eskimo sinker of this kind, is an unfinished toy cooking pot with a hole bored through one end.

Fig. 45. 11 is a piece of cylindrical tube of soapstone; at one end is the termination, forming an inward sloping surface. The object would

¹⁾ Compare Nørlund, Brattahlid, Fig. 91 B.

²⁾ Nørlund, Gardar, p. 164, and Brattahlid, p. 129.

³⁾ Disko Bay, Fig. 44.

seem to have been the spout of a vessel, but we know of no such vessel in the Norse settlements; on the other hand similar soapstone tubes have been found there¹). It was found in house 6 at Igdlutalik; the same house produced a spindle whorl and a net sinker.

Later European Objects.

In the foregoing, mention was made of the finding of a piece of knife handle (house 24 at Igdlutalik) on which the ornamentation indicates influence from the whalers. In the same house we found an iron knife blade, which thus may have come from the same source. In addition, however, the house contained Norse objects: a net sinker and a fragmentary spindle whorl, so matters are a little doubtful here.

One object undoubtedly came from the whalers, however: a broken dark-blue glass bead of large size, found on the floor of house 6 at Igdlutalik; two pieces of iron from the same house may also have come from them. Altogether, however, the finding of two Norse objects and the thick culture deposits indicate that this house has been occupied for long periods. Still, the glass bead at any rate shows that it must have been inhabited when the first whalers came to the country, presumably in the first half of the 17th century. Actually there is nothing surprising in this; in the Kangâmiut area, too, there are houses of the old type which have produced objects proving contact with the whalers²).

General Remarks on the Old Culture.

If we turn to a discussion on the cultural position of the Eskimo artefacts found, there can be no doubting that they belong to the Inugsuk Culture; a perusal of the list of finds will show that nearly all the types are well known to us from that culture, such as we know from North Greenland and from the Kangâmiut area; here the lamps with knobs or wick ledge are of special significance; but in addition the toy harpoon head of the thin type, the cylindrical shaft mounting, the arrow head with knobs on the tang, the mattock blade, the ulo without arms, the bead of calcareous spar, the ornamental bodkin and the ajagaqs, are all of the most characteristic types of that culture; that we are not dealing with Thule Culture is to be seen from the closed socket of the toy harpoon head, the shaft mounting and the ornamental bodkin with its rolls, and from the Norse objects. Even if these finds are not at all rich, they are sufficient to form the connecting link between the Inugsuk Culture as we find it in the earliest culture in the Kangâmiut area and as we find it in the earliest culture at Angmagssalik. To this

¹) Boye p. 442.

²) Kangâmiut p. 111.

we must add the type of house, which is also familiar at both places: small, sunken houses with a roughly built wall, rounded or subangular in shape, with a deep passage, often with a kitchen offshoot in which there has been cooking with bones and blubber; often the houses are built together to form two or three in one.

The only types not occurring in the Inugsuk Culture are the sinker and the two-armed ulo; these, however, were found in two of the latest of these houses.

On the whole, however, it is difficult to set up any chronological difference for the various houses within the long period throughout which the type has been in use; the finds in them are too sparse for that. Our only support is the state of preservation of house and contents, the shape of the houses, as they gradually seem to become more four-sided, and, in a few cases, the finds. Thus the earliest houses must include Nos. 1—7 and 25 at Isua, No. 6 at Narssarsuaq, and Nos. 7, 8, 22 and 23 at Igdlutalik, and Nos. 1—3 at Ûnartoq. The latest houses must be Nos. 6, 9—11 and 24 at Igdlutalik.

In attempting to establish the age of these houses we must first bear in mind the fact that even in the very earliest of them there are Norse artefacts; thus they cannot be older than the Norse settlement. And historical sources tell us when the Eskimos first came to the East Settlement: in 1379 we learn of their first attack on Norse farms there, after having destroyed the West Settlement a few decades before. That, then — the latter half of the 14th century — is the probable date of the earliest of the excavated houses. The upper limit is indicated by the glass bead: it is the middle of the 17th century, when the whalers had begun to come to the country. Accordingly, the earliest culture in the Julianehaab District lies within the period 1350—1650. That is the period which in the Kangâmiut area is covered by the first two culture periods¹⁾; no doubt it is probable that there have been the same two periods in the Julianehaab District, but the sparse finds there do not permit of a separation of the material. One difference from the Kangâmiut area seems notable, however: the lamp with the wick ledge has continued to dominate the entire period, even in the latest houses, whereas it had already dropped into the background in the second culture period of the Kangâmiut area²⁾.

How did all these Norse objects get into the Eskimo ruins? The Eskimos came to these parts in a period when the Norse colonies and the entire population were declining, as the Herjolfsnæs finds show. Compulsorily or voluntarily, one farm after another has been evacuated and the Eskimos have possessed themselves of everything left behind,

¹⁾ Kangâmiut p. 123 seq.

²⁾ Kangâmiut p. 65.

everything new and strange, even if they had no use for it. No doubt most of what we find is plunder from these farms. Naturally, this or that object may have been acquired in the course of peaceful intercourse, as for instance some of the Norse objects found higher up the west coast; but the probability is that most was collected on the deserted farms; the Norsemen would hardly smash up their large church-bells voluntarily merely in order to provide the Eskimos with a heavy hammer. Thus these relics throw some new light over the great tragedy that took place there in South Greenland in the late Middle Ages. An ancient culture perished, and a new one, better adapted to the nature of the country, conquered its territory.

But are there no Eskimo ruins older than the Norse Settlement in the Julianehaab District? What about the traces of Eskimos found in the country by the first Norse settlers after Are Frode? Is it not possible that some of the excavated ruins, or some of those that were not excavated, date from that time? One cannot entirely deny the possibility; but I do not consider the probabilities to be great. Thorough excavations were made at the three largest ruin sites with old houses in the district; of the total of 49 ruins of the earliest type to be found at these three places, 44 have been excavated; of these, Norse artefacts were found in 18, as well as under three later houses. At Narssarsuaq all four old houses were excavated and two of them yielded Norse objects. What is more, Norse relics were found in several of the houses which, judging from their situation and state of preservation, one would consider to be among the very earliest in the District, for instance houses 1, 5 and 6 at Isua. It is true that none were found in the house-group 1—3 at Ûnartoq; but their situation, grouped together with the other ruins, does not argue that they belong to a settlement period much more remote than the others; and on the whole these houses contained very little. Of the non-excavated ruins at other places the old houses at Pernera and Kapuivik are built into Norse ruins and consequently must be later than they are. The only large settlement with old houses not excavated is Anordliuitsoq, and there the houses certainly did not give the impression of being older than many of those that were excavated. It must therefore be regarded as very improbable that an excavation of the remaining twenty houses of the earliest type in the District will give other results than the excavations of the 48 already made.

It might have been thought that this earliest settlement would mainly keep well into the fjords, where ice-hunting could be practised; as a matter of fact most of the fjords were explored with this in view, but without result; the ruins found there were later without exception, dating from the 17th—18th centuries.

Nørlund¹⁾ voices the possibility that owing to the sinking of the land the ruins of that earliest settlement have now gone under the sea and thus evade discovery. It is a possibility that cannot be denied, but I do not think it very probable. The reason is that the earlier ruins as a whole lie higher than the later ones. In the entire District not a single ruin of the earliest type has been seen to lie so low that it is being washed away by the sea (except where there is bluff-erosion); on the other hand this is the case with many 17th—18th century ruins, indeed some of those of the 19th century too. At both Isua and Ûnartoq it is the very earliest ruins that lie highest. My experience has been the same higher up the south part of the west coast, in the Kangâmiut area²⁾, where again it is the later houses that are being submerged. This circumstance might indicate an oscillation of the earth's crust in West Greenland: lastly a submergence which is still proceeding, beginning somewhere in the 17th or 18th century, the houses of which period consequently are found nearest the sea, and before that a rising of the land which made the earlier ruins lie so high that the subsequent sinking did not bring them so far down that the sea could reach them. However, there are Norse ruins which are now being washed away on account of the submergence, so the question is an uncertain one. Nevertheless it would be surprising if a submergence had entirely obliterated an Eskimo habitation prior to the Norse settlement. I am therefore inclined to believe that these ancient Eskimo traces (if we may place any reliance on Are Frode's account, written down about 150 years after the actual event) are the result merely of brief visits of a relatively small group of people from North Greenland who have sampled life in these southerly regions but abandoned it, no doubt mainly because the winter season there is not favourable for ice-hunting. There has scarcely been any real settlement in the country until the 14th century. Nor have traces been found of any Eskimo habitation earlier than the Inugsuk Culture, in the Kangâmiut area, on the southern east coast³⁾ or in Angmagssalik.

With regard to the settlement itself in the earliest period, the map Fig. 46 is very illustrative. Two things will be noticed. Firstly, that all the settlements have a similar situation, half-way up the fjords; none on the outer coast and none deep in the fjords; at the coast they could not carry on ice-hunting, which presumably has still been of importance, and inside the fjords lived the Norsemen, at any rate in the first period. Next it will be seen how many relatively large settlements there are; of the 69 houses of this period, 55 lie in the four large settlements Isua,

¹⁾ Nørlund, *De gamle Nordbobygder*, p. 124.

²⁾ Kangâmiut p. 57.

³⁾ Which I had an opportunity of examining on Dr. Knud Rasmussen's 7th Thule Expedition in 1932. (See Mathiasen, *Frederik VI' Coast*).

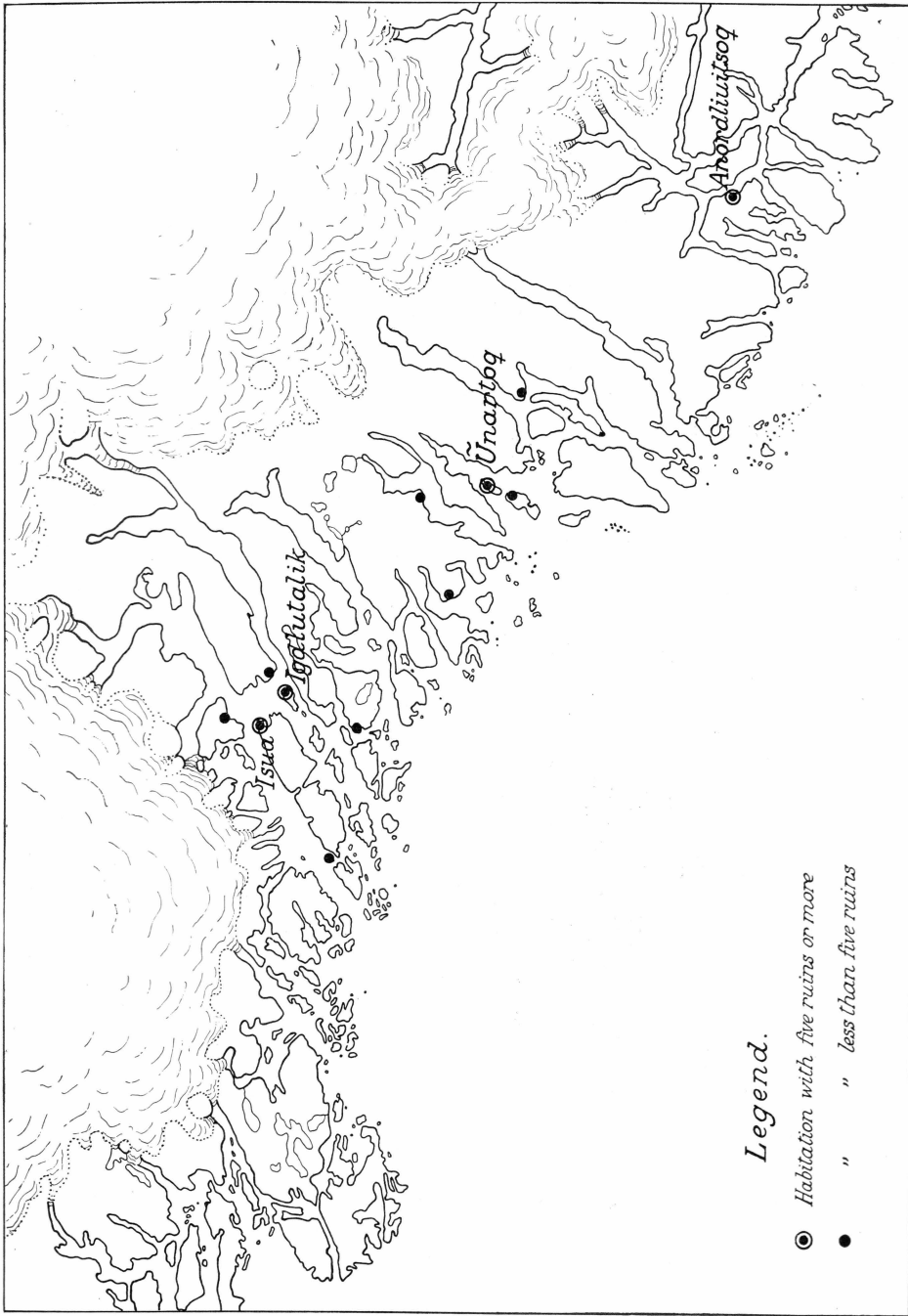


Fig. 46. Map of Mediaeval Eskimo Settlements in Julianehaab District.

Igdlutalik, Ûnartoq and Anordliutsoq; in most cases many people have lived together, a circumstance also applying to the earliest settlement both in the Kangâmiut area and at Angmagssalik¹). Having regard to the not invariably friendly relations between Eskimos and Norsemen this is only natural.

Actually it is rather surprising how few Eskimo settlements there are from that period, that so few people were able to force the Norsemen away from their 190 farms in the East Settlement. It should be remembered, however, that the map given here is no complete settlement map of the mediaeval Eskimo habitation; it merely shows what has remained for us to see. In a number of other places there may have been old houses that were obliterated by later settlers. On the other hand it is scarcely likely that there has been any widespread Eskimo settlement either out on the coast or up the fjords in the earliest period; it would be remarkable if its traces had disappeared entirely, especially as the form of that early settlement seems to have been few but large colonies, whereas the later settlement has been more scattered and therefore could not obliterate everything. The next point is that the figure of 190 represents the maximum of the Norse habitations; there have scarcely been so many when the Eskimos came to the country. And, of course, some of the Eskimos travelled on to the East Coast.

Nothing much is to be said about the life of the first Eskimo population. As I have said, the situation of the settlements indicates that ice-hunting has been their main winter occupation²). The few animal bones preserved from the old houses show that the seal has been the principal quarry, but the caribou and the whale have been of great importance to them; there are comparatively many whale bones in the earliest houses; whaling always seems to have played a great part in the life of the Eskimos in olden times in Greenland. They have had fairly large numbers of dogs. We have no evidence of sledge-traction, but the dog sledge must have been known to the Eskimos who migrated round to the East Coast, where natural conditions were more suitable for it. The human bones in houses 11 and 24 at Igdlutalik are proof that the struggle for existence has not always been easy.

It is strange that the finds contain so few real stone implements such as blades for weapons and tools; the reason is no doubt that suitable stone has not been obtainable in the District and that there was access to iron in the Norse settlements; the number of iron objects found in the houses is relatively large.

¹) Kangâmiut p. 56; Angmagssalik p. 61.

²) Birket-Smith's 1917 theory is supported by this.

These finds do not of course provide any complete picture of the culture in the earliest period, the types are too few for that. They are, however, sufficient to show that it was the Inugsuk Culture; and, as that culture is already well known from the two localities between which Julianehaab lies: Kangâmiut and Angmagssalik, we can turn to the finds from there for information on matters where the finds from the Julianehaab District itself fail us.

IV. FINDS FROM 17TH—18TH CENTURY HOUSES

The second find group is formed by the objects from the houses of distinctly four-sided type, both the small houses and the large communal houses. This group comprises: houses 11, 13, 14, 16 and 18 at Tugtutûp Isua and the Fields A and B there; at Narssarsuaq most of the finds from house 5 and Field A; at Igdlutalik houses 17, 18 and Field A, besides several small finds from middens; at Ūnartoq house 12 and all the middens; and finally all the objects from Arfermiut. In all about 1200 specimen numbers belong to this group.

The age of this find group can be arrived at from the fact that on the one hand they are later than the earliest house group, which has been in use till about the middle of the 17th century; on the other hand they do not reach as far as the 19th century, when a new house type was taken into use and in which the finds, owing to the many European objects, acquire another character. Thus the group under discussion should reveal the culture in the 18th and the latter half of the 17th century.

As regards the various ages of the different localities within this period, there is hardly any doubt that the Arfermiut settlement is the latest; that is argued by the many European objects, it contains, especially broken glass and sherds of pottery, but which do not occur, or only sparsely, in the other localities. This also argues that the find is later than the Danish colonization (Julianehaab Colony was founded in 1773); again, the state of preservation also indicates that this find is the latest. It may therefore be placed to the close of the 18th century.

The earliest finds are presumably those from houses 17 and 18 at Igdlutalik and house 12 at Ūnartoq; the condition of these houses argues a high age, but the finds from them are too few in number to draw definite conclusions from them. Presumably they are from the latter half of the 17th century.

The remainder of the finds, which means the greater part of them by far, all seem to belong to the same culture period, chiefly the first

half of the 18th century as far as can be made out. None of the three settlements Isua, Narssarsuaq and Igdlutalik are known to have been inhabited after the Danish colonization, whereas Ûnartoq has; but none of the finds there seem to belong to that late period. Furthermore, the objects one finds of these different periods are mostly uniform in character. Naturally, there are age differences; houses 11 and 13 at Isua must certainly be older than 18 and 16, but no culture difference is observable in the artefacts.

One cannot help a feeling of surprise that so few bones and bone objects were preserved in the latest houses at Isua; even house 14, which must be taken to be the most recent of all, had no bone objects worth speaking; and there was no midden at all in front of it. Sample excavations in the later houses at Ûnartoq gave the same discouraging result. At both places the conditions for preservation have apparently been extremely bad.

Below is a list of the finds from this period; fragments, where identifiable, are also included.

List of Finds from 17th and 18th Century Houses.

Type	Tugtutúp Isua	Narssarsuaq	Igdlutalik	Ûnartoq	Arfermiut	Total
Harpoon head, thin.....	..	1	..	1	..	2
— flat .....	..	..	..	..	3	3
— indeterminate ..	..	..	..	2	..	2
— Ituartit.....	1	..	..	1	..	2
Harpoon blade, bone.....	1	2	5	2	..	10
Harpoon wing.....	..	..	1	..	..	1
— , end block ..	..	..	1	..	..	1
Tension piece for harpoon line	1	..	1	..	1	3
Stopper — —	..	1	..	..	..	1
Swivel.....	..	..	3	..	2	5
Bladder plug.....	1	..	1	1	..	3
Bladder bone knob	1	..	..	..	..	1
Bladder dart head with barb wreath.....	..	1	..	2	..	3
Bladder dart head, butt end	..	..	2	..	..	2
Neck-piece for towing gear .	2	..	..	1	..	3
Toggle — —	..	..	1	..	..	1
Wound pin .....	..	..	..	1	..	1
Arrow head, bone	2	4	13	6	3	28
Bird dart head.....	..	..	..	6	1	7
— side prong.....	..	1	5	3	..	9
— , end mounting ..	..	..	2	1	..	3
Throwing board, end mount.	..	1	..	1	..	2
Gorge? .....	..	..	2	2	..	4
Salmon spear, barb for.....	..	..	2	3	..	5

Type	Tugtu- túp Isua	Narssars- suaq	Igdlut- lik	Ũnartoq	Arfer- miut	Total
Leister prong.....	2	1	3	1	..	7
Fish hook, composite .....	..	..	1	..	2	3
— , sinker.....	4	..	2	..	2	8
— , stem.....	..	..	2	2	..	4
— , barb.....	9	2	12	16	2	41
Trout needle.....	..	..	2	..	..	2
Kayak-harpoon rest.....	..	..	1	1	..	2
Kayak-thong hook.....	1	..	..	..	..	1
Kayak paddle, end mounting	1	..	3	..	1	5
Kayak scraper .....	..	..	1	..	..	1
Knife handle with end blade.	..	..	4	..	..	4
— side blade.	..	..	..	1	..	1
Saw.....	1	..	..	..	..	1
Whetstones	28	15	17	19	10	89
Caribou tooth for whetting .	..	1	..	..	..	1
Hammer stone	12	..	3	2	1	18
Adze head .....	..	..	..	1	1	2
Wedge.....	..	..	..	2	1	3
Bow-drill, shank.....	1	..	..	2	..	3
— , mouthpiece.....	..	..	1	..	1	2
Ulo handle, no middle piece .	..	..	..	1	1	2
— , with — .	..	..	1	..	..	1
Ulo blade with tang.....	..	..	1	..	..	1
Scraper blade, convex edge.	1	..	..	..	..	1
Needle, bone, thick.....	..	..	2	1	..	3
Sewing needle, bone.....	..	..	..	1	..	1
Thimble holder.....	..	..	2	..	..	2
Creasing stone?.....	..	..	1	..	..	1
Kamiut stick.....	..	..	..	1	..	1
Lamp, no wick ledge	1	..	2	1	..	4
— , with — .....	..	..	..	3	..	3
— , crude, uncertain ....	..	1	1	2	..	4
— trimmer, asbestos.....	..	..	..	1	1	2
Cooking pot sherds	14	4	14	22	5	59
Soapstone sherds, indetermin.	13	13	25	12	8	71
Wood bowl, oval.....	..	..	3	..	..	3
Side for same, bone .....	..	..	..	1	..	1
Meat stick .....	..	1	..	..	..	1
Ladle, bone.....	..	..	1	..	..	1
Marrow extractor.....	1	..	..	1	..	2
Comb.....	..	..	..	1	..	1
Tooth, pierced.....	1	5	4	5	..	15
Drop pendant.....	1	3	4	1	..	9
Bead, bone .....	..	3	3	2	..	8
Pendant, bone.....	..	1	4	..	1	6
— , stone .....	..	..	..	1	..	1
Bodkin, ornamental.....	1	..	4	2	1	8

Type	Tugtutùp Isua	Narssarssuaq	Igdlutalik	Ũnartoq	Arfermiut	Total
Ajagaq, seal radius . . . . .	..	2	..	1	2	5
— , — penis bone	1	1	..	1	..	3
— , antler . . . . .	..	..	..	..	1	1
Toy harpoon head, thin	1	..	..	2	..	3
— — , flat . . . . .	..	..	1	..	1	2
— harpoon foreshaft . . . . .	..	..	..	1	..	1
— — wing . . . . .	..	..	1	..	1	2
— bladder dart head . . . . .	..	1	1	1	..	3
— bird dart head . . . . .	..	..	..	1	..	1
— — prong . . . . .	..	..	5	2	2	9
— arrow head . . . . .	..	2	1	4	..	7
— leister prong . . . . .	..	9	4	1	..	14
— lamp, wick ledge . . . . .	..	..	..	1	..	1
— — , no —	5	..	1	1	2	9
— — , uncertain . . . . .	..	2	..	..	..	2
— cooking pot	2	..	1	2	..	5
Doll . . . . .	..	..	2	..	..	2
Mounting, bone	9	14	39	25	12	99
Toggle	2	..	4	1	..	7
Thong studs, etc. . . . .	..	..	4	..	1	5
Nail, bone . . . . .	..	..	..	1	..	1
Bead, glass	16	5	3	..	1	25
Other European objects	11	6	4	3	23	47
Norse objects	2	..	..	2	..	4
Stone waste	1	7	44	6	..	58

Observations on Certain Implement Types.

Most of the objects found will be familiar from other 17th—18th century finds in Greenland, so that it will be unnecessary to describe them. Only some of the more interesting groups and specimens will be referred to and figured (on Fig. 47).

Of the harpoon heads the flat type is naturally in the majority; as a matter of fact, however, this is solely due to the three harpoon heads of the Arfermiut find, one of which is shown in Fig. 47. 3; one fragment is of a small, crude harpoon head that has two line holes and an open socket; the specimen is so thin that the socket could not be drilled out in the normal fashion, so the worker has resorted to the ancient custom of hollowing it out from one side and closing the opening with a thong lashing. The two determinable harpoon heads recovered at Narssarssuaq and Ũnartoq are both of the thin variety; the specimen from Narssarssuaq is small, with two opposite barbs, one spur and a blade slit with an iron rivet in it; the one from Ũnartoq has one barb at the same side as the spur (compare Disko Bay Pl. 10. 10). Fig. 47. 2,

also from Ûnartoq, is an unfinished harpoon head of antler; the line hole has not been drilled out. This specimen and the toy harpoon heads show that in Greenland's most southerly parts the thin type has remained

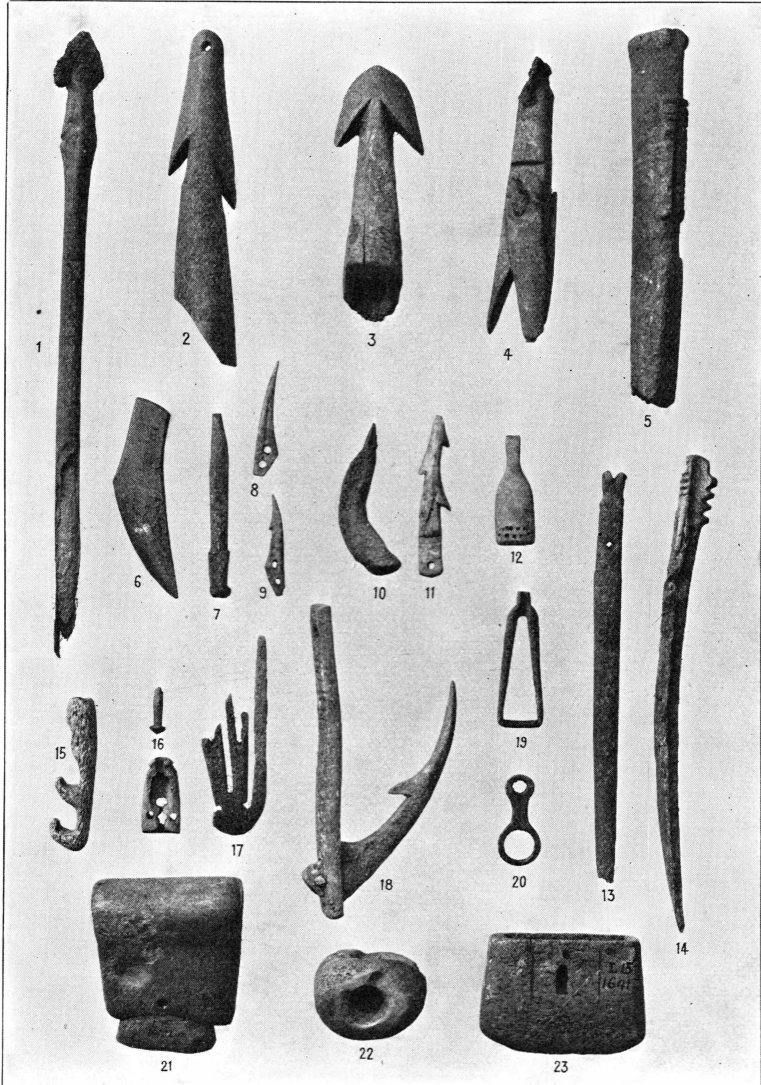


Fig. 47. Eskimo Specimens from the 17th—18th Centuries; Julianehaab District. 1:2.

longer in use than farther north; but it is not possible to judge from the few specimens obtained to what extent they have been used in the Julianehaab District in the 18th century.

Fig. 47. 4 is an Ituartit harpoon head, of antler, with a blade and rivet of iron; the head is still fast in the fork, whereas the remainder

of the shaft is missing. Another specimen has not a separate blade. It has been known that ice-hunting was practised earlier in Julianehaab District¹⁾, but not that the Ituartit harpoon was used — the special implement for ice-hunting. It further strengthens Birket-Smith's hypothesis of the greater importance of ice-hunting in earlier times. At the same time it weakens Thalbitzer's principal argument that the Angmagssalik Eskimos immigrated from the north: that their ice-hunting culture could not have come from more southerly parts²⁾. On the west coast the Ituartit harpoon head has previously been found in the Kangâmiut area³⁾ and in Disko Bay⁴⁾.

The fragments of the winged harpoon — wing and end block — are exactly like elements found at Angmagssalik⁵⁾.

The stopper for the harpoon line resembles Angmagssalik Pl. 5. 22.

Fig. 47. 16 are two parts of a swivel, so small that they have scarcely served any practical purpose; it has more likely been a toy.

A toggle for towing gear (kingugdler'ssuit) is like those still to be found in use in West Greenland⁶⁾.

The arrow heads of bone are small and slender on the whole; some of them must certainly have been toys. Fig. 47. 1, however, is a powerful arrow head of antler, with a bilateral extension towards the point and an inserted iron blade; the butt end is defective. Of the arrow heads preserved with their tang one has a real screw thread, two have interrupted threads, two have several knobs so placed that they act as a screw; one has four knobs, four have two knobs and six have several notches in the tang. Thus there has been good variety in the manner of securing the head to the shaft. It is interesting to see that the old method with the two knobs has held out till the 18th century; farther north in West Greenland it seems to have gone out of use as early as the beginning of the 16th century⁷⁾.

The bird-dart heads have a screw or notches on the tang.

Some thin sticks of bone pointed at both ends have possibly been used as gorges, even if they do lack the hole or notch that is characteristic of that implement.

Another matter of interest here is the finding of several specimens like Fig. 47. 6; they are undoubtedly barbs for salmon spears, of exactly the same kind as we meet with at Angmagssalik⁸⁾; the figured

¹⁾ Grønland II p. 480.

²⁾ Thalbitzer 1913, p. 720.

³⁾ Kangâmiut Pl. 1. s.

⁴⁾ Disko Bay p. 92.

⁵⁾ Angmagssalik Pl. 1. 20 and 6. s.

⁶⁾ Porsild 1915, Fig. 37.

⁷⁾ Disko Bay p. 97.

⁸⁾ Angmagssalik Pl. 3. 4 and 5. 43-44.

specimen has no hole, whereas several of the others have a hole for a pin. I have previously regarded these barbs as an element peculiar to Angmagssalik¹); finding them here forms another connection between the Angmagssalik Culture and the southern west coast.

The fish hook has been an important implement, especially at Ûnartoq, where there were quantities of fish bones in the middens, and at Igdlutalik. One handsome, composite fish hook from Arfermiut is shown on Fig. 47. 18; it consists of a stem, having a round hole at the top and an elongated hole at the bottom; the hook is fastened in the latter, having a flat tenon which passes through the hole and is held by a small peg of bone running through it. An exactly similar but much smaller composite fish hook was found at Igdlutalik; just that type has not been met with elsewhere.

A large number of other specimens are composite hooks of a rather different variety. Fig. 47. 7 is the stem of one, cut across at the top and having three facets and a knob at the bottom, whereas 8-9 are two hooks of the kind that have been fastened to it. The same type is quite common in 18th century finds from Angmagssalik²), and a few are known as loose finds from West Greenland³). The occurrence of these hooks at Julianehaab forms a further band between the 18th century culture here and at Angmagssalik and supports the theory of an immigration to Angmagssalik in that period⁴).

Another type of fish hook is 10-11; it consists of a bent arm (on the reproduced specimen cut off at the top), having in the lower end an elongated hole in which a hook like No. 11 has been inserted; at the bottom the hook has a flat tenon with a hole and at the top two-rowed barbs.

The fish-hook sinkers are of soapstone and are of the usual form⁵).

Of the kayak-harpoon rests one is a curved bone stick which has been fastened to a modern kayak rack; the other is a small, four-sided bone plate with a round notch in one edge.

Fig. 47. 15 is a thong hook which has been fastened on the end of a thong for hooking on to another thong; presumably it has been fastened on to the kayak rack and has held the latter on to one of the deck thongs. As a rule, kayak thong hooks have several notches for tightening or slackening as required⁶).

Of the knife handles one is shown on Fig. 47. 5; it is of antler,

1) Angmagssalik p. 52.

2) Ibidem Pl. 5. 38 and 40-41.

3) Ibidem p. 84.

4) Ibidem p. 107.

5) Ibidem Pl. 5. 39.

6) Cf. Inugsuk Pl. 24. 4.

has a blade socket at the end and on one edge two parallel ridges with notches, a decoration which can also furnish a better grip. Another small knife, 10.3 cm long, has a small iron blade. In a third handle is a very small saw blade of brass.

Here again the whetstones and hammer stones are very numerous and of forms similar to those in the early finds. A caribou molar with the root end drilled through may have been used for whetting; musk-ox molars are sometimes used in this manner among the Central Eskimos¹).

An adze head of whale bone is of the type Inugsuk Pl. 11. 3.

The bow-drill mouthpieces are of caribou astragalus; but, strangely enough, the natural socket has not been used, a new one having been made in the side (Fig. 47. 22).

Of ulos we have a handle of the old type, Inugsuk Pl. 12. 19, with no tang or intermediate piece; then there is Fig. 47. 21, of antler, with a small intermediate piece and finger-grips at different ends of the two sides; and lastly, a fragment of an iron blade with a tang.

Of the bone needles, one of a thin bird bone, with a hole from the side into the marrow cavity, has presumably been used as a sewing needle, whereas thicker bone needles may have been used for stitching up seal wounds.

Fig. 47. 17 is a very defective thimble holder of antler, with fragile, openwork carving.

A crudely formed stick of slate has at the bottom a ground, oblique edge and has presumably been employed as a creasing stone.

Fig. 47. 23, which is of whale bone, has a large socket in one edge; in the other a narrow blade slit; presumably it is an end mounting for a kamiut stick (used for softening kamiks); a metal edge has been inserted in the blade slit.

Most of the lamps have no wick ledge; from Ûnartoq, however, there are three lamp fragments with the ledge; two of them were found in Field B, which also yielded the aforementioned old-fashioned ulo; this may possibly mean that there had been an earlier habitation on the site of house 22. It may also mean, however, that the lamp with the wick ledge, like certain other elements (thin harpoon heads, arrow heads with knobs) has remained in use a relatively long time in these remote southerly regions. In the 18th century finds at Angmagssalik there were also several lamps with this ledge²).

Naturally, the fragments of cooking pots are very numerous; several have cord holes through inside projections.

Fig. 47. 14 is a hollow, short stick of a tubular bone, at the top

¹) Mathiassen 1927 I, p. 53.

²) Angmagssalik p. 92.

carved as an ornamental bodkin, with hole and grooves and notches; its shape indicates that it has been used as a marrow extractor, for getting the marrow out of caribou bones, an implement well known in West Greenland¹).

The pierced teeth are of dog, caribou and seal, all canines.

Of the pendants three, of bone, are reproduced on Fig. 47. 12, 19 and 20; two are cleft at the bottom and recall Angmagssalik Pl. 10. 12-13. One is of red slate, almost unworked.

Of the ornamental bodkins two have a head at the top, two have grooves round them and two are unworked bones, with the one end pierced; one, Fig. 47. 13, is flat, cleft at the top and with faint transversal grooves on the sides.

Of the ajagaqs one is fashioned out of an unfinished thin harpoon head.

As usual, toys are numerous. Of the harpoon heads three are thin, one bladeless and barbless, one has a blade but no barbs, and one has two barbs but no blade; of the flat type one has neither blade nor barbs whereas another has two barbs.

The foreshaft has a short tenon and two holes, the bladder dart head two barbs and two holes, and the bird dart head four pairs of barbs on the same side and knobs on the tang.

Among the very few objects of wood are two dolls, found in the marshy layers in front of houses 2 and 16 at Igdlutalik. They are of the usual type, without arms and facial features; one is straight up and down, with a hair tuft.

In this period too drilling has played a great part in the working of bone objects; there are many waste pieces to evidence this, for instance a caribou skull with the antlers drilled off.

A few Norse objects have also found their way into the deposits from this period, for instance a spindle whorl from house 14 at Isua, a whetstone and a net sinker from house 18 at the same place, a net sinker from house 18 at Igdlutalik, a soapstone tube from house 12 at Ûnartoq, and a piece of bell metal, from a fairly thick-walled bell, from Field A at that place. These can only be accidental intrusions, evidence of "archaeological" interest taken in the Norse ruins.

Glass beads were found in most of the ruins of this period, but in no great numbers, and, curiously enough, none at Ûnartoq. Of more characteristic beads we find both the large opalescent and the large faceted (blue, yellow and colourless); then there are a large black one, a large, rather flat, dark blue, a cylindrical one, red with white longitudinal stripes; four white china beads; four small blue beads.

¹) Birket-Smith 1924, Fig. 285. Inugsuk Pl. 13. 9.

Of other European objects we have from Isua a knife blade, a fragment of a brass pot, nails, brass, bottle glass; from Narssarssuaq nails, brass; from Igdlutalik a knife blade, nails, brass, bottle glass; from Ūnartoq two knife blades, piece of iron; from Arfermiut many objects, including a table-knife blade, a gun flint, sherd of glazed pottery.

The sparseness of European objects indicates, as already stated, that Arfermiut is the only settlement dating from the period after the Danish colonization of Julianehaab District, the commencement of which was in 1773.

General Observations on the 17th and 18th Century Culture and Settlement.

With regard to the culture phase which these finds represent, it compares on the whole with what we find elsewhere in West Greenland from the same period. Still, in certain respects — harpoon heads, arrow heads, lamps — it has an older stamp about it. Undoubtedly this is due to the rather out-of-the-way situation, cut off from the surrounding world by the field ice during the greater part of the summer months. Another feature worth observing is the likeness it bears to the corresponding period at Angmagssalik; we recognize these old-fashioned types again at Angmagssalik, and the similarity is also emphasized by types such as the Ituartit harpoon, salmon spear, fish hooks, two-armed ulo and the bifurcated ornamental pendants. Other types, such as some of the fish hooks and ornamental pendants, have a local appearance.

We get an idea of the settlement in this period from the map Fig. 48. Compared with the foregoing period (Fig. 46) we see a marked diffusion of the settlement, both into the fjords and especially out to the many small islands on the coast. The improved kayak technique — signified by the modern rack and the kayak jacket — has made it possible to hunt in the more troubled waters off the coast both summer and winter. We no longer find the few, large settlements, but a large number of small ones instead; nearly all the groups on the outer coast are small, with one, two or three houses; on the other hand these houses are often very large, holding many people; the very largest Eskimo houses I have seen, up to 21 metres long, lie here by the coast; and a house of this kind could accommodate just as many people as ten of the old, small houses. All the same we do find some larger settlements in this period; but it is due mostly to the establishment of the Danish colonies and trading posts, which began to gather the people together again. In all we know that 114 places in the District were inhabited during the course of this period, and of these 14 are large settlements with more than five houses.

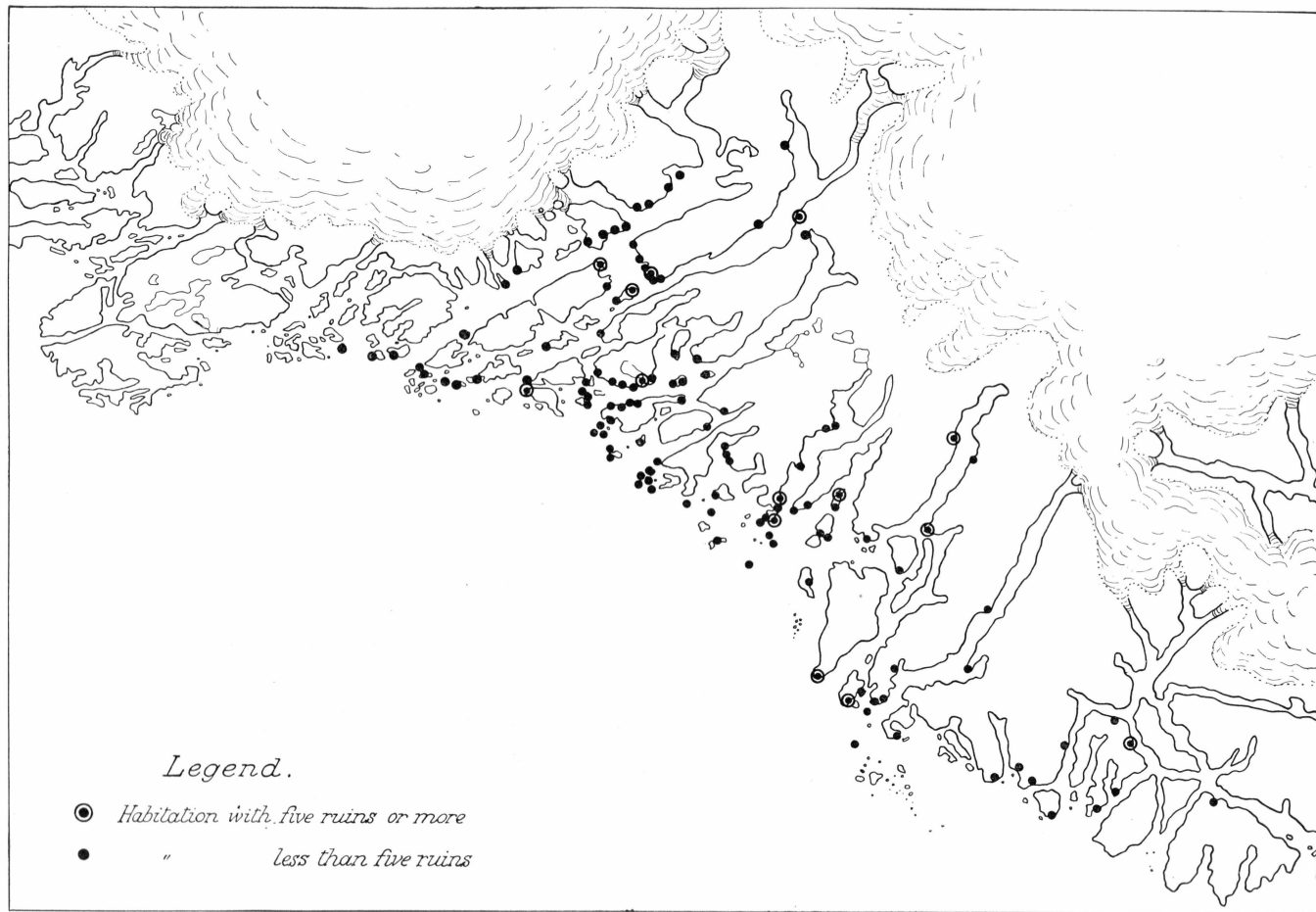


Fig. 48. Settlements of 17th and 18th Centuries; Julianehaab District.

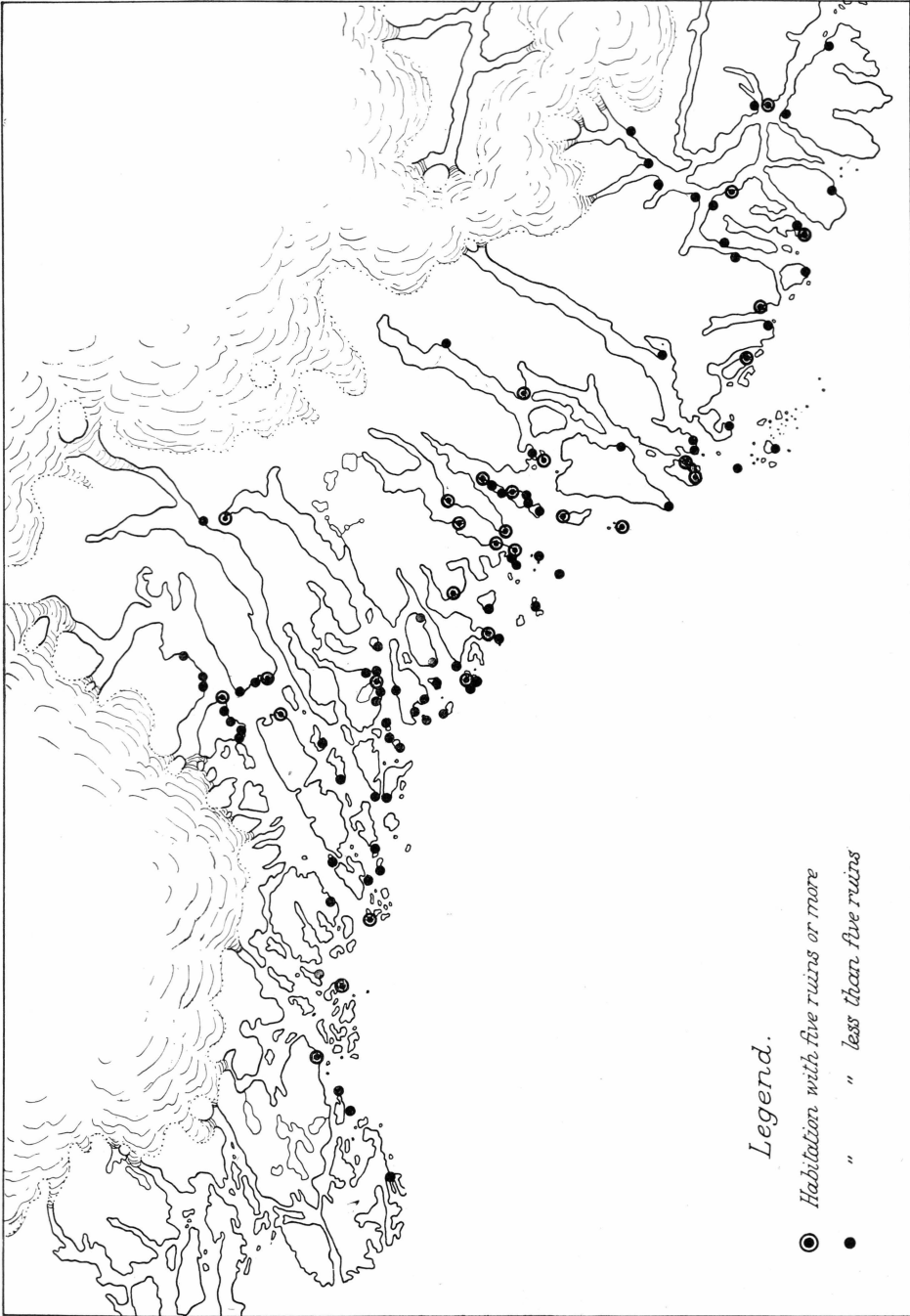


Fig. 49. Settlements of 19th Century; Julianehaab District.

Regarding the life of the population, the animal bones show that sealing has been their main occupation; but they also hunted caribou, whales, white-whales (Igdlutalik), bears, foxes and fowl. In certain periods there have been many fish (cod): at both Ûnartoq and Igdlutalik there were large quantities of fish bones in the middens, and the size of the bones shows that the cod were of good size.

One cannot help being surprised at the number of dog bones found in the middens; the people have kept dogs, but no proof of sledge traction has been found¹). That ice-hunting has played some part in the life of the people is shown partly by the Ituartit harpoon heads from Isua and Ûnartoq, by the harpoon line-stopper, which is also part of the Ituartit harpoon, and by the sealing stool from Igdlutalik (Fig. 29).

The 19th—20th Century Settlement.

Fig. 49 is a map of the settlement in the next period, the 19th century.

107 localities are known to have been inhabited in this period; and this figure is presumably more complete than the foregoing ones, where newer houses often are built on the top of older houses so that the latter can no longer be recognized. We see a decline in the number of settlements; in particular, many of the small settlements of the 18th century disappear, especially on the outer islands; and also far up the fjords the same thing happens. The people now gather more together at the large settlements, near shop, church and school; it is the colonization that is making its mark on the population. This movement continues into the 20th century, where the rapidly increasing fishery attracts the people into large communities where the fish can be disposed of and treated, etc., and at the same time sheep-farming again populates the inner fjord regions. Gradually as the people acquire more and more wooden houses, moving will be made difficult and the population will become more settled. Since 1915 eight settlements have been abandoned in Julianehaab District, viz. Kangermiutsiait, Nûgârssuk, Isua, Sagdlit (trading post), Sermilik, Pamiagdlok (trading post), Anordliuitsoq and Qernertoq; in the same period, however, eight new ones have been established: Mámit, Eqalugarssuk, Augpilagtoq (trading post), Niortut, Qordlortoq, Qagssiarssuk, Qagdlimiut and Tasiusaq, of which the last four are sheep-breeding places up the fjords. The situation of the 34 settlements now in the District is shown on the map Pl. 1.

¹) Compare Birket-Smith 1917, p. 15. It is not certain, however, that the trace buckles shown on Fig. 8 cannot have been buckles for the half-jacket; a similar but smaller specimen, undoubtedly for a half-jacket, was found at Qagssersuaq, north of Arsuk (Frederikshaab District) in a grave together with kayak implements. The two places on Akia where these specimens were found have ruins of the 18th or 19th century only.

V. THE MUMMY CAVES AT QERRORTÛT

The south side of the island of Ûnartoq forms a rather steep mountain slope, at the bottom almost covered by an enormous conglomeration of huge boulders which in most places reach right out into the sea. On a small smooth piece of land, surrounded on all sides by these tremendous blocks of stone, lies the settlement of QerrortÛt. Close by, just over a bluff three metres in height, lie two small four-sided houses of the 19th century type, covered with a very thick overgrowth of lyme-grass. A little more to the east are two similar houses lying separately, and still more easterly, on the point where the shore turns northwards, is the settlement of Qarmarsuit, with three houses of the same type as well as the site of a small, older house and some holes in the ground which may possibly be old houses. It is known that QerrortÛt was inhabited from 1800 to 1867, Qarmarsuit from 1783 to 1870.

Under these great boulders are large numbers of cavities, often whole complexes of big caves, which have been utilised in various ways: sleeping shelters, storing dried meat, etc. Some of them have also been used for interments.

Three of these caves contained remains of mummified bodies; the dry and airy situation has mummified the bodies, flesh and skin drying up and the clothing being preserved.

Unfortunately, there was great disturbance in two of these mummy caves. An American anthropologist, M. Luther, sent out by Harvard University to make anthropological researches in Greenland, had received telegraphic permission to take away a few skeletons from graves. He heard of the mummies at QerrortÛt and took some of them to the Peabody Museum. The caves were not completely emptied, however, but left in a completely confused condition. It is deplorable that these interesting caves have not been subjected to expert examination and that the finds have been dispersed in the manner described.

Cave 1.

At the west end of the settlement, at a low height above it, there is under a huge boulder a cave, the entrance of which has been closed



Fig. 50. Entrance to Mummy Cave 1; Qerrortût.

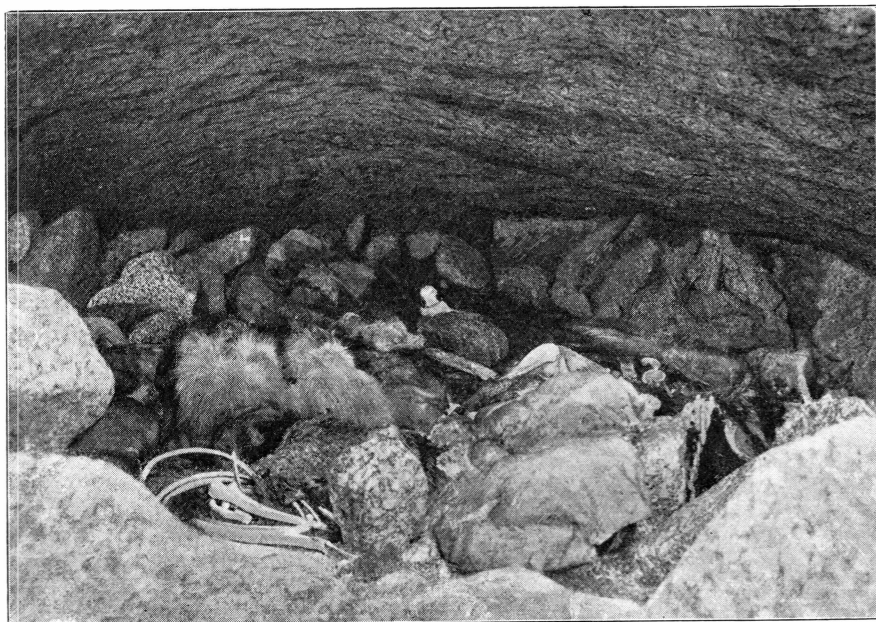


Fig. 51. The Inside of Mummy Cave 1; Qerrortût.

by a wall of stones, now partly pulled down. Fig. 50 shows the entrance, and Fig. 51 the inside as it appeared on our arrival. Scattered about the floor lay remains of at least two bodies, including two legs (with well-preserved kamiks on), four pelvises, three scapulae and a mandible; in addition there were remains of the clothing of these bodies: remains of skin of seal, caribou, dog and bird, including the most of other two kamiks, fragments of bird-skin shirts, etc.

Fig. 52 is one of the legs with the kamik on it. The dried flesh and

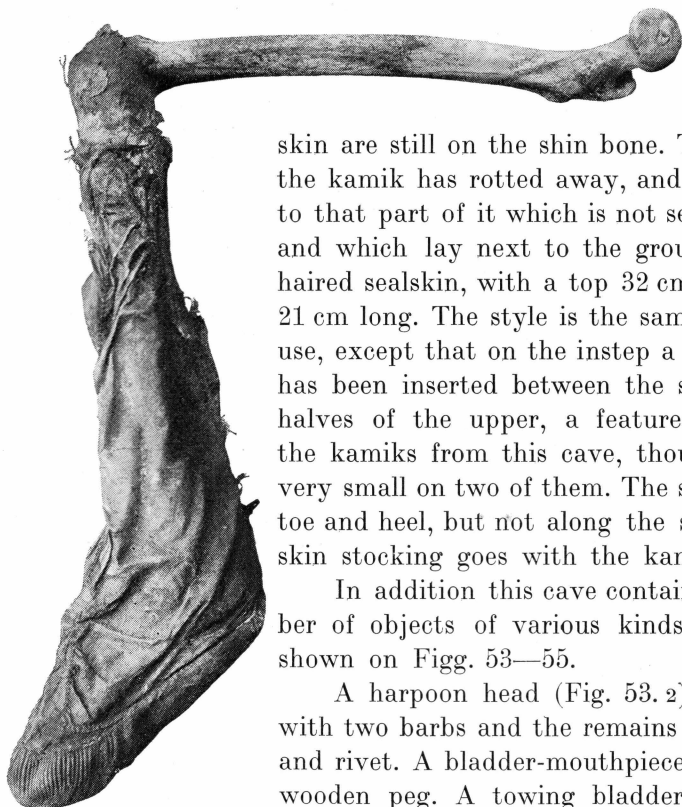


Fig. 52.
Leg with boot;
Qerrortût.

skin are still on the shin bone. The upper end of the kamik has rotted away, and the same applies to that part of it which is not seen in the picture and which lay next to the ground. It is of un-haired sealskin, with a top 32 cm long and a foot 21 cm long. The style is the same as that now in use, except that on the instep a triangular wedge has been inserted between the sole and the two halves of the upper, a feature repeated on all the kamiks from this cave, though the wedge is very small on two of them. The sole is crimped at toe and heel, but not along the sides. A caribou-skin stocking goes with the kamik.

In addition this cave contained a large number of objects of various kinds, some of them shown on Fig. 53—55.

A harpoon head (Fig. 53. 2) of antler, thin, with two barbs and the remains of an iron blade and rivet. A bladder-mouthpiece (Fig. 53. 8) with wooden peg. A towing bladder (Fig. 54) of gut skin, in which is a mouthpiece with wooden peg and a bone plug with a hole, in which is fastened a thong, and in the other end a flat bone point with two barbs, fastened to the bladder by a lashing of baleen cord passing through a hole in the bone point; this barbed point has been intended to hold the inflated bladder to the seal to prevent it from sinking on the journey home.

A leg of a ring-shaped kayak rack (Fig. 53. 4), of whale bone, formed of two pieces held together by a winding of sinew thread. The elongated hole at the top, through which the ring of the rack has passed, is broken but seems to have been mended with baleen cord; the cross-piece, which forms a rest for the harpoon, is a seal phalange. A small ulo without



Fig. 53. Specimens from Mummy Cave 1; Qerrortût. 1:2.

tang, wooden handle, and a fairly large, broken iron blade (Fig. 53. 3). A roughly carved spoon of wood (Fig. 53. 5). A blubber carrier of wood (Fig. 53. 1). Remains of a small bag of bird-foot skin.

A small straw container of coiled basketry, plaited of grass (Fig. 55); it is round, about 12 cm in diameter, badly decomposed.

This basket contained numbers of small objects, mostly sewing, toilet and ornamental things, i. e. in all probability the property of a woman; most of them figured in Fig. 53:

A needle case (13), a simple tube made of a thick bird bone. A thimble holder (12), of antler, with two arms. Two boot creasers; one of them (16) is of a limb-bone splinter, with a hole at the top and a short rounded edge at the bottom; the other is the shape of a flat ornamental bodkin, with a short, sharp transversal edge. The latter is shown together with two other ornamental bodkins on 15; all three have holes at the top and the usual ornamentation: three transversal rolls; the latter two are made of caribou lateral metacarpals; an unworked bone of the same kind was found in the basket.



Fig. 54. Towing bladder;
Qerrortút. 1:3.



Fig. 55. Grass Basket;
Qerrortút. 1:2.

Two combs of whale bone (7 and 14); one is very wide, whereas the shape of the other is reminiscent of combs in the form of stylised human figures¹).

Pierced teeth to the number of 17 (26), viz. a bear incisor, four dog incisors, a seal canine, ten fox canines and two fox molars.

Various other personal ornaments: A small oval trinket, rounded on one side, formed out of a seal tooth, decorated on the rounded side with drilled rows of holes (17). A chain link (22); a drop pendant (19) and a small toggle (21), made of teeth. A small bone buckle (18), an oval bone ring (20), a smaller bone ring (10), two small foursided worked pieces of bone (24-25) and a small bone ferrule (11), a small piece of copper sewn on to a piece of skin (23).

A fragment of a soapstone piece, decorated with concentric circles

¹) See for instance Disko Bay p. 80.

(6), presumably a spindle whorl from the Norsemen. Next, two pieces of a greenish flint-like stone (one shown 9), two unworked animal teeth, a mussel shell, some smaller mussel shells and some fish ossicles.

The contents of this basket recall those of the trinket box from Qeqertarmiut¹).

The find in this case contains much that is of interest:

The kamik differs from the boots generally in use in West Greenland today in having the small triangular insertion on the instep and in not having the cross seam which normally occurs by the bending of the medial seam on the leg away to the side and down to the sole²). The oldest Eskimo kamik known, the one from Qilalukan³) (Thule Culture), has a separate, rather large instep piece, divided from the leg by a cross seam; we find the same on the kamiks of the Polar Eskimo men⁴). The triangular instep piece is much smaller than on these and presumably must be regarded as a survival of that in the Thule Culture and among the Polar Eskimos. In that case the modern West Greenland style has developed later.

The towing bladder is a well-known Greenland element⁵), but this one is different, in that instead of a toggle it has a point with barbs for holding it fast to the seal. No specimen of this type has been found elsewhere; when it occurs alone the barbed point itself is easily confused with a leister prong.

Sewn bags made of the skin of bird feet are widely diffused over the Eskimo cultures⁶), which indicates that it is an old culture element; this, however, is the first time it has occurred in an old archaeological find, as bags of this sort will only be preserved quite exceptionally.

Coiled basketry is also widespread among the Eskimos: Alaska, the Central Eskimos, Labrador⁷). Thus this, too, is apparently an old element, but is rarely found archaeologically on account of its fragility. The technique is still known in West Greenland and used in various places, mostly where the Moravian missions have been. Peculiarly enough, in the Julianehaab District it is used only in the settlement of Igpik, on the same island as the Qerrortût caves. Other finds, however, prove that coiled basketry is an old art there and can scarcely be ascribed to European influence.

The leg of the kayak rack is of the same kind as those still in use⁸).

¹) Kangâmiut p. 95.

²) Birket-Smith 1924, p. 170. Hatt Pl. XIV. 6.

³) Mathiasen 1927 I, Pl. 56.

⁴) Hatt Pl. XIV. 5.

⁵) Porsild 1915 p. 186; Birket-Smith 1924, p. 315.

⁶) For distribution see Birket-Smith 1929 II, p. 238.

⁷) Birket-Smith 1924, p. 115.

⁸) Ibidem p. 305.

It does not occur in the Inugsuk Culture proper, but we find it in the Kangâmiut area's 2nd culture stage¹).

Of the small objects there is reason for noting the chain link. Chains carved out of one piece are known of in the Thule Culture and in several old Greenland finds: Inugsuk, Qeqertarmiut, Kangerdlugssuaq; in more recent times we know of them only from Angmagssalik²).

Cave 2.

This cave was a little farther east and slightly higher, and likewise under a large boulder; here again the entrance had been closed by a stone wall. Inside, and in great disorder, lay the remains of four individuals: 8 femora, 8 pelvises, 6 scapulae, but only one head, mummified,



Fig. 56. Mummified Head, Cave 2; Qerrortût.

with dried-up skin and tufts of hair (Fig. 56). Three of the legs had kamiks on, of unhaired sealskin, crimped only at the toe; only one of them has a very small triangle inserted above the toe; two of them have an edging of light sealskin at the top. Sealskin stockings go with the kamiks. There were also remains of clothing of seal and bird skin, and fragments of caribou and dog skin and some baleen cord.

Of other objects the number was not great: a round wooden shaft 38 cm long, having a small tenon at one end and a socket with traces of rust at the other. A cutting board of wood, fairly thick, slightly curved, 37 × 9 cm. A wooden stick, slight pointed, with notches in the sides, possibly a blubber carrier.

¹) Kangâmiut p. 87.

²) Mathiassen 1927 II, p. 116. Inugsuk Pl. 18. 11. Kangâmiut Pl. 4. s. Kangerdlugssuaq Pl. 1. 13-15 and 28. Thalbitzer 1914, Fig. 344 b.

Cave 3.

This cave lay between the other two, lower, a little further inland. Whereas the first two were so low that a grown man had difficulty in creeping in and moving about inside, this was an enormous cave, connected by openings with a complex of other caves. On a block of stone inside was a child's grave: It was an oval of medium-sized stones, 0.50×0.40 m, but without any covering; inside the oval lay three bodies of infants, sewn up in skins (Fig. 57—58). The skin is of un-haired seal,

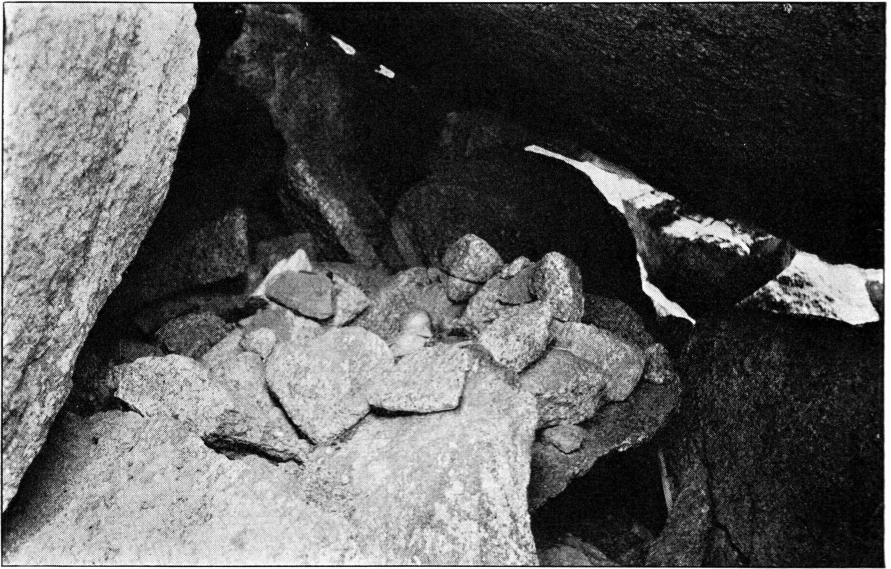


Fig. 57. The Grave in Cave 3; Qerrortût.

Holtved fot.

held together by thongs drawn through holes in the edges. By the side of the grave lay the remains of the skeleton of a child's kayak.

The following observations were made when these child mummies were examined at the National Museum laboratory together with Conservator G. Rosenberg:

1. On the body was a small vest of seal skin with the hair on the inside; it had arms, but no hood.
2. The body was laid on a bed of straw and covered over with a whole bird skin; it had a bird-skin coat with a hood. Everything was wrapped in two or three layers of seal skin. Between the outermost bird skin and the seal skin was a small child's stocking of sealskin with the hair inside. The skeleton itself was in an advanced stage of decomposition. It is shown on Fig. 59 together with the bird skin and the stocking.

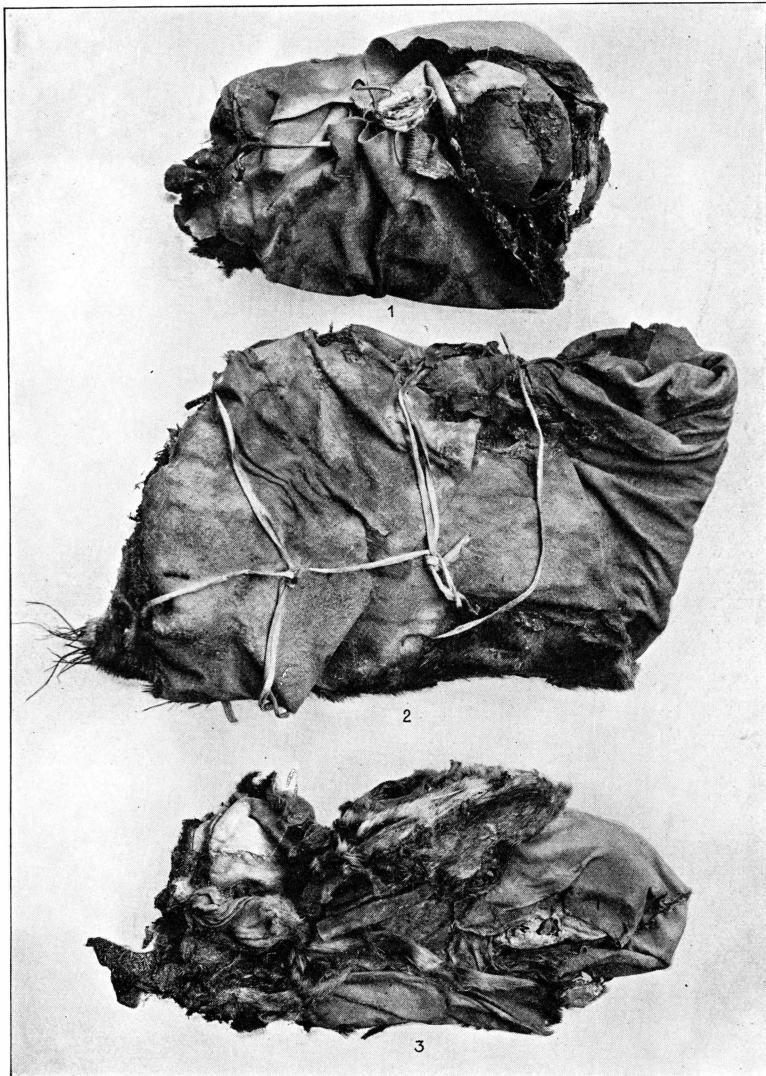


Fig. 58. The Child Mummies; Qerrortût.

3. The body has a shirt of gut skin with a hood and sleeves, and an edging of seal skin round the face. The finger nails were long and well preserved.

All three bodies were of very small children, only a few months old; the bones are badly decomposed, though usually the skull, limb bones and ribs are recognizable. There are many larva cocoons.

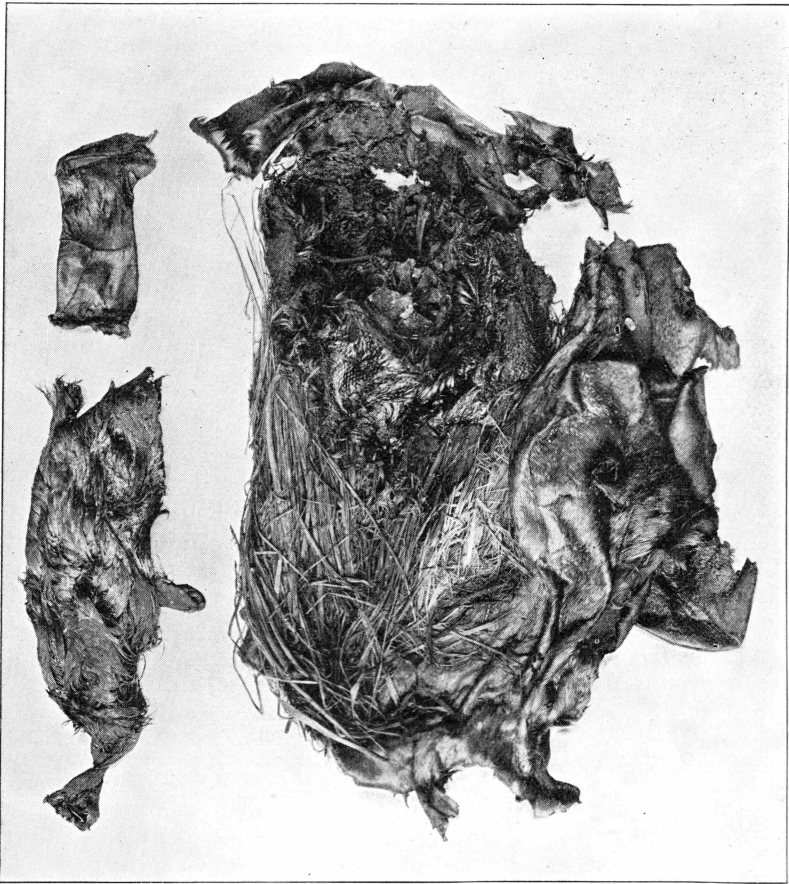


Fig. 59. The Child Mummy No. 2; Qerrortût.

General Remarks on the Mummy Caves.

The local Greenlanders have the following legend about these caves: Once when there were still Norsemen in the land the Eskimos on Ûnartoq island heard that the Norsemen were about to attack them; they fled from the island in umiaks and kayaks, but there were not craft enough to carry them all. Those for whom there was no room hid in the caves at Qerrortût, and there they died of hunger.

There is scarcely much truth in the tale, however. The contents of the caves are more likely interments. At any rate the infants' bodies were, and most probably the others as well, though their disturbed state on our arrival made definite conclusions impossible. Cave burials, however, are not uncommon in Greenland. I have previously mentioned two at Kangâmiut¹⁾, where many skeletons and grave goods have been

¹⁾ Kangâmiut pp. 46 and 52.

recovered; one at least dated from the first part of the 18th century. The many skins do not argue that they were people who died of hunger, for the skins would have been eaten. Furthermore, judging from the nature of the objects found, especially the basket with the many ornaments, they are more likely to be grave goods.

How old are these Qerrortût mummies? The only cave that is capable of contributing anything towards the answering of that question is Cave 1. The objects in the others are too few and insignificant, so that there is no guarantee even that the three are of the same period, though it is probable that they are.

These interments must date from pagan times; no burial of that kind, with grave goods, has taken place since the people were baptized. The find contains nothing to indicate contact with the whalers or Danish colonists; the basket contains no glass beads or other shop articles. No small number of objects point well back in time: the harpoon head is of the thin type; but, as already stated, it is a type that has held out well through the centuries. The ulo is of the old type, no tang; one of the combs still bears a hint of the comb in human shape; the ornamental bodkins have rolls; we find an old element like the chain link; the kamiks are of old style; there is a good deal of baleen; the spindle whorl indicates that the Norse settlement is not so terribly far away.

Then can the find be from Norse times? It is scarcely so old; in particular, the leg of the modern kayak rack would indicate that the find is not older than the 16th century. The iron blades in the harpoon head and the ulo, and the lump of copper may have come from the Norsemen.

All in all I am inclined to think that this find belongs to the 16th century, a period that otherwise is very poorly represented in the finds from Julianehaab District. It thus forms a very important supplement to the other finds from this region.

VI. A BRIEF SUMMARY OF THE ESKIMO- ARCHAEOLOGY OF GREENLAND

The results from the investigations in Julianehaab District fill up the gap hitherto existing in our knowledge of the Eskimo settlement on the West Coast and the southern part of the East Coast, as elicited from excavations in Upernivik District (1929), Disko Bay (1933), Sukkertoppen District (1930), the southerly East Coast (1932), and Angmagssalik (1931—32). In this same period other expeditions have made excavations on the northerly East Coast, as at Kangerdlugssuaq (1932) and in Christian X's Land (1931—33). Both Norwegian and Danish scientists have worked in the latter region. Whereas the Norwegian publication¹⁾ is mainly a collection of material, with no attempt at separating early and later groups, the part of the Danish material so far published²⁾ has presented something really new: a systematic excavation of the largest Eskimo ruin site in East Greenland, Dødemandsbugten on Clavering Island, and a careful and thorough publication of the rich material excavated, whereby it has been possible to distinguish between three culture stages; the earliest of these is the Inugsuk Culture, well known from West Greenland and the southerly East Coast, whilst the later groups bear evidence of influence from Cape York District north about Greenland and also disclose a local development that has made considerable progress in the course of time.

With these investigations certain main outlines in the Eskimo archaeology of Greenland may be said to be established, though of course there are many details that still remain obscure. A brief summary will therefore not be out of place at this juncture³⁾:

¹⁾ Richter 1934.

²⁾ Larsen 1934, Glob 1935.

³⁾ The last comprehensive summaries were made by Thomsen (1928) and Mathiassen (*Acta Archaeologica* 1931). Short summaries have been published in *Geographical Review* 1935 ("Eskimo Migrations in Greenland") and in "Skrælingerne i Grønland" (1935).

Cape York District.

We begin at Cape York District, Greenland's gate from Arctic America. This is the least known part of all Greenland; and yet, prior to 1929 it was the only region from which we had a large, systematically excavated find. That find, known as Comer's Midden at Thule¹), is to this day one of the most important in Greenland's archaeology, for it is so far the only one in Greenland having a pure Thule Culture, the ancient culture which, as was found everywhere by the Fifth Thule Expedition, proved to lie under the modern Central Eskimo Culture²); owing to finds made at a large number of places (Naujan, Ponds Inlet, Southampton Island, King Williams Land) that old culture is now fairly well known; it can be traced right back to Alaska and Siberia³); presumably it has its home in those western regions.

The Comer's Midden find contains all the principal features of the Thule Culture: the harpoon heads are mainly thin, open socketed; the lamps have a wick ledge; the snow knives have one or two shoulders; we find combs in conventionalised human shape, ulos with no tang, snow beaters and platform mats of baleen. A particularly characteristic feature of the find is the large quantity of objects of baleen it contains. There is a little iron, meteoric iron from the meteors at Cape York.

It is surmised that the Comer's Midden find belongs to the later Thule Culture finds, at any rate later than the early ones, Naujan and Mitimatalik. Just how old it is cannot be said until a close examination of Cape York District's archaeology has been made. There is a possibility that the Thule Culture there has survived for a very long time. Certain sporadic finds in the district also seem to show that a still earlier stage of the Thule Culture has existed there⁴).

The most northerly Eskimo relics from Greenland's west coast, found by Lauge Koch in Washington Land and Hall Land⁵), display partly pure Thule Culture, partly some elements from the Cape Dorset Culture of Hudson Bay⁶), and finally the remains of a kayak which must have belonged to a West Greenlander who had strayed up there somehow or other.

Northern West Greenland.

The earliest Eskimo ruins in West Greenland were found on the island of Igdlutalik in the ice-fjord Torssukátak, in Disko Bay⁷). The

¹) Wissler. Mathiassen 1927 I, p. 293.

²) See Mathiassen 1927.

³) Mathiassen 1930. Mason.

⁴) Mathiassen 1927 II, p. 165 seq.

⁵) Mathiassen, Washington Land and Hall Land.

⁶) Jenness 1925.

⁷) Disko Bay, pp. 41—46 and 70—85.

house type is familiar to us from the whale bone house of the Central Eskimo Thule Culture: small, round or rounded, dug into the ground, often two together with a common passage. Here the whale bones have been replaced by stones, and the walls are less well built. There is a paved floor and a deeply sunk passage, and often there are indoor cooking places with slag of bone and blubber, most frequently in offshoots from the front of the house.

The culture we find in these houses closely approaches the Thule Culture; the principal difference is that most of the harpoon heads now have closed sockets; otherwise we recognize a number of the most characteristic types of the Thule Culture.

With the Inugsuk Culture (see below) as the basis of calculation, the age of these finds has been estimated at the period from the 10th to the 12th century A. D.

House ruins of similar type have been found in the north, in Upernivik District¹), but none of them were excavated by trained archaeologists. Presumably it is here that we must seek for the very earliest traces of Eskimos in West Greenland, and most likely they will be pure Thule Culture; but they will scarcely be much older than the Igdlutalik find.

The next stage in developments is represented by the find from Inugsuk²) in Upernivik District. The find from the early deposits on the Island of Inugsuk is the largest and richest yet brought to light in West Greenland³). In the midden there, a metre thick and partly washed away by the sea, was a wealth of old, well-preserved Eskimo relics. In it we find nearly all the types of the Thule Culture; eighty per cent. of the types found belong to it. Much that is new has been added, however: as at Igdlutalik the harpoon heads mostly are closed-socketed; the dominating type, which has been called the Inugsuk harpoon head, is thin, closed-socketed, having the blade parallel with the line hole. Then a local, West Greenland development has commenced and produced certain types such as the ornamental bodkin, cooking pot with suspension holes on the inside, various stone implements (arrow heads, bow-drill, and so on). In addition, however, we find an intrusion from an entirely foreign culture, mediaeval Norse culture from South Greenland; we find firstly certain objects that must have come from the Norsemen: bell metal, woven cloth, a carving in wood, a games piece; then certain types of elements which must be attributed to cultural influence from the Norsemen: coopered tubs, certain forms of spoons⁴); very curious is a

¹) Mathiassen, Upernivik Distrikt, Geogr. Tidsskrift 1930.

²) Inugsuk.

³) Not taking into account what was excavated by Porsild at Sermermiut, but not yet published.

⁴) Nørlund (De gamle Nordbovygder p. 127) considers there are chronological

small wooden figurine, carved by an Eskimo but representing a Norseman in mediaeval robe and hood. Inugsuk lies just beside Kingigtorsuaq, where a rune-stone was found telling of three Norsemen's journey up there; the style of the inscription indicates the close of the 13th century.

By means of these Norse relics the Inugsuk find may be placed approximately to the 13th—14th century; this makes it one of the most important chronological milestones in the archaeology of Greenland. The

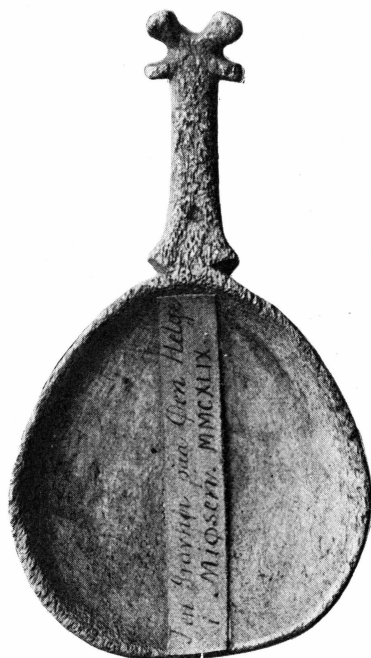


Fig. 60. Spoon from the Viking Age, Norway. 1:1

stage we find in these early deposits at Inugsuk has been called the Inugsuk Culture.

In other places in northern West Greenland there have been smaller finds of a date similar to that at Inugsuk. One of the most important is from the large ruined settlement of Igdlorssuit¹⁾ in Disko Bay; one of the ruins there contained a bronze cooking pot from the Norsemen. The houses were of the same type as the earliest of those at Igdlutalik.

We find the next stage again at Igdlutalik in Disko Bay²⁾. In difficulties to hinder a derivation of these spoons from European spoons, as the ones they mostly resemble date from about 1500, too late to be able to influence the Greenland spoons. However, Fig. 60 is a bone spoon very like the Greenland variety, now in the National Museum's comparative collection (No. MMCXLIX). It was found in a large mound at the farm Hovindsholm, on Helge Island in Mjosen, Norway, and thus would seem to date from Viking times.

¹⁾ Disko Bay pp. 150—157.

²⁾ Ibidem pp. 85—120.

the lower half of a large midden we find a culture very like Inugsuk; the one real difference is that the thin harpoon heads have given way to the flat type; the dominating type is now flat, with two spurs, and the blade parallel with the line hole. In this horizon, too, we find Norse relics: a dagger handle, a carved dragon head, a spindle whorl, etc. Presumably this find dates from the 15th century.

The upper half of the same midden, the two small four-sided houses from which these deposits came, and the find from a four-sided double-house at Igdlutalik, contain objects that point forward a little in time. We still recognize many of the types of the Inugsuk Culture. The harpoon heads are like those in the lower half of the midden, but lamps with a wick ledge have been forced well into the background, and a number of new element types appear, such as the heavy bird-dart heads and arrow heads with a screw-tang, heavy bladder-dart heads with one or several rings of barbs, neck-piece for towing gear, wound plugs of wood; knives and ulos with narrow blade grooves for inserting small flakes of telluric iron become very prominent. A Norse doll has a later style about the clothing than that from Inugsuk. The type of house itself presents new features: small, four-sided, rather solidly built.

These finds apparently belong to the 16th and the beginning of the 17th centuries.

From the middle of the 17th century the finds bear the signs of the coming of the whalers to the country and, later, the Danish colonization: glass beads, European goods, and later on pottery. As a guide in judging the culture of the 17th—18th centuries on the northern West Coast we have the later finds from Inugsuk¹⁾, though they extend into the 19th century, and finds from a house at Igdlorssuit²⁾. The Eskimo implement types we find there display a markedly local, West Greenland development, characterised especially by the highly developed kayak culture; numbers of the old forms of the Inugsuk Culture disappear and are replaced by new ones. The large, four-sided common houses supplant the early, small houses. European influence becomes stronger and stronger. We are now arrived at the time when archaeology must yield to ethnography; the written sources acquire importance, and the material in ethnographical museums takes the place of archaeological relics. In Birket-Smith's book on the Egedesminde District we have a splendid survey of the ethnography of northern West Greenland.

¹⁾ Inugsuk p. 304 seqq.

²⁾ Disko Bay pp. 120—124 and 157—162.

Southern West Greenland.

Here the finds most important for our chronology are those from the Kangâmiut area in the northern part of the region, where conditions for preservation are not yet quite so poor as further south.

The earliest settlement is represented by a number of house ruins at Utorqait and the lower part of a large midden at Qeqertarmiut¹).

The houses are the same as the earliest of those we know on the northern West Coast, and the finds belong to the Inugsuk Culture, almost identical with what we found at Inugsuk, except that the arctic features of the culture: ice-hunting, dog sledges, snow house, etc. naturally become much less conspicuous here in South Greenland, even if they can still be discerned. The finds do not contain many Norse objects: one or two lumps of bell metal and a toy boat which is possibly intended to represent a ship. These finds have been placed to the period about 1350—1500. It was in the first part of this period that the great southward migration of the Eskimos began; in the middle of the 14th century the West Settlement of the Norsemen was destroyed, and in 1379 we hear of the Eskimos' first attack on the East Settlement.

What could have been the cause of that Eskimo penetration southwards? Several influences may have been at work: Overpopulation in the north? Improved kayak technique (the cruciform kayak-rack?)²), which made it possible to get through the winter in southerly parts? Or simply curiosity to see the Norsemen's settlements and to acquire some of their strange possessions?³). And of course the irrepressible wanderlust of this nation, the drift that has carried it over the whole of arctic America and to Greenland's farthest shores?

Seemingly it is from the same period that the earliest house ruins in Julianehaab District date, as we know them in the three large ruin settlements of Tugtutûp Isua, Igdlutalik and Ûnartoq, and the smaller Narssarssuaq. The finds in these houses are characterised by lamps with the wick ledge and many Norse objects: spindle whorls, cloth, metal objects, bell metal, etc. On the whole, however, conditions for preservation are very poor. The houses themselves are of the same type as the earliest in North Greenland.

Somewhat later in date, presumably from the period 1500—1650, are the finds from a number of houses at Utorqait and a small find

¹) Kangâmiut p. 61 seqq.

²) At Inugsuk was found (Inugsuk p. 309) a cruciform kayak rack which I considered belonged to the later culture. Now that it has been proved that the ring-shaped kayak rack goes as far back as to the 16th century, it is more probable that the earlier, cruciform type belongs to the mediaeval Inugsuk Culture and with it has migrated to Angmagssalik, where it was in use right up to our time.

³) Nørlund, *De gamle Nordbovygder* p. 130.

from Igdlutalik near Kangâmiut; and some of those from Julianehaab District, especially from Igdlutalik at Narssaq, and the mummy caves at Qerrortût, apparently belong to the same period.

The difference between this and the earliest period is distinct: We find — at any rate in the Kangâmiut area — that the flat harpoon heads predominate; we meet with types such as bird dart heads and arrow heads with the screw, bladder dart heads with the rings of barbs, the modern kayak rack; old types like the lamp with the wick ledge are supplanted. In Julianehaab District we still find Norse relics in the ruins: plunder from the ruins of the Norse houses.

At the close of this period we find the first glass beads from the whalers; but the old, small type of house is still in use; Danell saw it in Holsteinborg District in 1652. In South Greenland the Eskimos have been more conservative than in North Greenland as regards both type of house and harpoon heads; this seems to have been true particularly of Julianehaab District, where old forms can be traced still farther down in time.

The last half of the 17th century and the eighteen century are represented by finds at Utorqait, Ûmánaq and Ukivínguaq in the Kangâmiut area¹⁾. The first is apparently from the 17th, the second from the first part and the third from the last part of the 18th century. From Julianehaab District we have finds at Isua, Igdlutalik, Nars-sarssuaq, Ûnartoq and Arfermiut.

In the Kangâmiut area especially the finds are conspicuously characterized by the many glass beads which the whalers left in the country; after the Danish colonization they are less prominent than potsherds, gun flints, European tools and the like. In Julianehaab District, which has not been so accessible and was colonized later, European objects are not so numerous in the finds.

The Eskimo implement types display the same development as in North Greenland, except that elements like the snow knife and dog sledge gradually disappear; nevertheless, ice-hunting has still been practised, and dogs have been kept. The large, four-sided common house is the prevailing form. The old-fashioned appearance of some of the implement types in Julianehaab District has already been mentioned. And whereas in earlier times settlement was concentrated in large groups half-way up the fjords, it now spreads out, with many small settlements, some near the outer coast, some in the fjords which before that were occupied by the Norsemen.

There is no reason for discussing the culture of the 19th century here; an author like Fabricius gives more information than the archaeo-

¹⁾ Kangâmiut pp. 113—121.

logical finds. Settlement once again concentrates gradually at large places, the trading posts and the missions; in the south more and more East-Coast dwellers come in. Julianehaab District has now become the most populous in all Greenland.

The Southern East Coast.

In Angmagssalik we find the earliest settlement represented at Sûkersit, Portusôq, Kangârtik, Savanganeq and Sivtsingaleq. Here again are the small round houses, of the same type as on the West Coast. And the finds we have from them are pure Inugsuk Culture¹).

We find the same house type again on the most southerly part of the East Coast, Frederik VI's coast, where it has been found in several places: Tingmiarmiut fjord, Anoritoq, Auarqat, Lindenow fjord. The finds from them are too small to tell us anything, but presumably they also belong to the Inugsuk Culture. Both there and at Angmagssalik the earliest settlement has resembled what we found in Julianehaab District: Large groups of houses lying a little way up the fjords, where there was a possibility of ice-hunting. In all probability this earliest settlement dates from the close of the 14th century to about 1500.

The subsequent period, the 16th and 17th centuries, has given us only sparse material from Angmagssalik. A new element, the screw on the arrow heads, presumably arrived round on the East Coast during the 16th century and moved northwards with the Eskimo migration which seems to have taken place on that coast.

A group of those Eskimos stopped at Kangerdlugssuaq²), where they lived for some time and left a number of ruins and graves before they became extinct, presumably in the 18th century. The culture they had was built upon the old Inugsuk Culture and differs only a little from it; one of the finest grave finds made in Greenland was discovered there and shows this very clearly. Nevertheless, a few local types developed in the locality.

In Angmagssalik there was a new immigration from West Greenland, apparently in the early part of the 18th century. The large finds we have from this period, chiefly from Misigtoq, Kangârtik and Savanganeq³), and from Skjoldungen on the southern East Coast, leave no doubt on that point. We find the large, foursided common houses from West Greenland, and we find a similar decentralisation of the settlement; we find quantities of West Greenland's implement types of that period; but in addition we find evidence of the beginning of a local development, one that culminates in the 19th century in the out-

¹) Angmagssalik pp. 47—62.

²) Kangerdlugssuaq.

³) Angmagssalik pp. 67—111.

standing Angmagssalik Culture described in Holm's excellent work¹). That culture still stamps Angmagssalik, though it is swiftly declining thanks to West Greenland and European influence²).

The people disappeared from the most southerly East Coast during the 19th century; some went to Angmagssalik, others to West Greenland, attracted by the shops, and thus avoided the fate of the population at Kangerdlugssuaq and in Northeast Greenland. At Angmagssalik, however, there are families who regularly spend the winter on that coast.

The Northern East Coast.

The northern East Coast from and including Scoresby Sound forms a region of its own, isolated from the rest of Greenland by great stretches of coast that are almost impassable. Only once, in 1823, have living Eskimos been seen there — by Clavering on the island that bears his name. Consequently our knowledge of the population there must be based almost exclusively on archaeological material. For this reason most of the expeditions in these regions have also made excavations in the many house ruins and graves they met with everywhere. Much archaeological material has been procured and described by Koldewey, Nathorst, Stolpe, Ryder, Amdrup, Thalbitzer (1909), Thostrup, Thomsen (1917), Mathiasen (Cambridge East Greenland Expedition), Johnson, Bartlett & Bird, Solberg (1932), Richter, Helge Larsen and Glob.

One difficulty connected with much of this material is that it was excavated by others than archaeologists; in particular, until recently there has been an absence of large, collective, systematically excavated finds, which could be used for chronological study. This has now been remedied to some extent by Helge Larsen's publication of the large find at Dødemandsbugten on Clavering Island.

There it is possible to distinguish between three culture stages: The earliest, represented solely by the find from one double house of the old, round type³). This stage is pure Inugsuk Culture with only a faint local stamp about it. The shape of the houses, the state of preservation and the finds themselves indicate that they are among the earliest in Northeast Greenland. The close connection with the earliest houses at Angmagssalik and on the West Coast argues that the first inhabitants of Northeast Greenland immigrated there from the south. I have several

¹) Holm 1888. Thalbitzer 1914.

²) Angmagssalik p. 132 seqq.

³) If of the finds from the other two houses of the same type (Group 1, Nos. 3 and 4) we assume that the grave find in the passage of House 3 is later than the remainder of the find in the house, laid there by the later inhabitants of the settlement, these two houses may possibly be included in the earliest culture, which in fact the shape of the houses seems to call for.

times previously¹⁾ asserted that the migration which took the first inhabitants round Cape Farewell to Angmagssalik, and also left traces at Kangerdlugssuaq, must have got up to the more northerly parts of the East Coast. Thus what is new about Helge Larsen's work does not consist in having pointed out this southern immigration, but in having proved that it was the earliest immigration to Northeast Greenland, whereas my opinion earlier was that the earliest houses in Northeast Greenland contained objects from the Thule Culture and thus were due to an immigration from the north²⁾.

Helge Larsen estimates the age of these earliest houses on Clavering Island at about the 16th century³⁾, which sounds very credible.

The later finds at Dødemandsbugten are characterised by the fact that they reveal a mixed culture, consisting of three components: the old Inugsuk Culture, an intrusion of Thule Culture, immigrated north about Greenland, and a group of special Northeast Greenland forms.

Helge Larsen points out — quite correctly — that these later finds may again be divided into an earlier and a later group. In this the state of preservation of the houses is the indicator; the shape of the houses also differs: In the early group they are rounded or four-sided with rounded corners, with the longest dimension oftenest at right angles to the longitudinal direction of the passage, with two pits full of blubber in the front corners of the house and a cavity under the platform; he calls these houses the Cape York type, and actually they bear great resemblance to them.

The houses of the later group are narrow, with the longest dimension running in the same direction as the passage; the shape is rectangular or trapeziform, and these, too, often have bulging corners at the front.

In the finds, too, there are marked differences: In the first stage the number of thin and of flat harpoon heads is almost equal; in the second the flat heads predominate. In the first stage there are still old types such as the two-handed scraper, blubber pounder, lamp with wick ledge, ornamental bodkin, etc., which have disappeared in the second stage.

As to the period of this mixed culture, Helge Larsen puts its first stage to the 17th, and the second stage to the 18th and beginning of the 19th century, up to the time when the Eskimos died out.

According to the above, in the 17th century there was an immi-

¹⁾ Inugsuk p. 282. Angmagssalik p. 62. Kangerdlugssuaq p. 20. Helge Larsen is not correct in stating that I considered I had traced this immigration only as far as to Kangerdlugssuaq and Scoresby Sound, for in my opinion (Inugsuk p. 282) it was traceable right up into the Danmarks Havn region.

²⁾ Mathiassen, Cambridge Exp. p. 166.

³⁾ Larsen p. 86.

gration north about Greenland from Cape York District; previously there have been quite heated discussions on the subject of that immigration, both for and against. With the recent finds as a background it will therefore be of interest to summarise what evidence is in favour of that immigration having taken place.

First of all the houses, which undeniably recall the Cape York house. However, during the later investigations in Disko Bay very old houses of similar shape have been brought to light, with kitchen extensions in the front corners and a cavity under the platform¹⁾; in Angmagssalik, too, the earliest period contains houses with one kitchen-extension²⁾. Thus this type of house need not have come from the north, even if its distribution in Northeast Greenland — most numerous towards the north — might indicate that it did so.

The other elements on which this immigration hypothesis builds are³⁾: Harpoon head of Thule type 2; heavy shaft mounting; bird-dart prong with barbs, also on outer side; toggle for towing gear; snow knife with two shoulders; double drill bits; snow beaters; baleen hank; bird figures; fire-striking with pyrite.

Of these, not much can be based upon types like the toggle for towing gear, snow beater and baleen hank; the last two are known from Inugsuk; and though objects of baleen are scarcely known at all from the more southerly finds, on both West and East coast, owing to conditions for preservation, that is no ground for concluding that they have not been known there in earlier times.

However, there still remain important types such as: the Thule harpoon heads (found on neither the southern West Coast nor the southern East Coast), bird-dart side prongs (found nowhere else in Greenland, but in the Central Eskimo regions), the snow knife with two shoulders (found at Cape York and in the Central Eskimo Thule Culture), double drill bits and bird figures (both occurring in the Central Thule Culture⁴⁾). The occurrence of these elements, which are completely lacking on the southern East and West Coasts, indeed most of them on the West Coast altogether, seems difficult to explain unless we assume an immigration to Northeast Greenland from Cape York District (or Ellesmere Land) passing north about Greenland.

The question is now whether, at the time when this migration is supposed to have taken place, the 17th century, there was a culture in Cape York District possessing these elements. Only an archaeological investigation of Cape York District can give the answer.

¹⁾ See for instance Disko Bay Fig. 56 (House VIII) and Fig. 63.

²⁾ See Angmagssalik, Fig. 19, House 7—9.

³⁾ Larsen p. 163.

⁴⁾ The bird figure from Etah (Mathiassen 1927 II, Fig. 10. 7) may have been left by the last Baffinlanders to immigrate.

In the 19th century the Eskimos of Northeast Greenland died out; Clavering saw them last, in 1823. Why did they die out? Or did they go elsewhere? The latter possibility may be considered as out of the question, for otherwise there must have been traces of their special culture at the place where they settled; none have been found, either in Angmagssalik or in Cape York District. They must have died in the country. Ejnar Mikkelsen¹⁾ considers that their extinction was a result of intercourse with whalers, who may have given them alcohol and infected them with disease. That is not impossible; that they must have been in contact with them is evident from the bottle glass which Ejnar Mikkelsen found in a ruin on Shannon Island and from the bottle glass and porcelain sherds found by Helge Larsen in Dødemandsbugten. However, I should think that if these Eskimos had had much intercourse with whalers one would find many more European objects in their houses, first and foremost glass beads, which have never been found in Northeast Greenland²⁾; here I agree with Helge Larsen³⁾, that any such intercourse must have been of a very casual and exceptional character.

As at Kangerdlugssuaq and on Southampton Island, centuries of isolation and intermarriage must have degenerated and debilitated these Eskimos so much that, when adversity came — in the form of either absence of game or sickness — they have been unable to face it and have succumbed.

With this we have concluded this summary of Greenland's Eskimo archaeology. We see the Eskimos come from arctic Canada somewhere about a thousand years ago; they arrive with their whale-bone house and Thule Culture, and settle down in Cape York District. Soon they move southwards, over Melville Bay, to northern West Greenland, where they live for several hundred years, and where they fall in with Norsemen travelling northwards on their hunting expeditions; the Thule Culture by this time is changed to the Inugsuk Culture. In the 14th century the population has grown so big that it seeks new hunting fields. South Greenland is populated in the course of this century, the Norsemen are overrun, and a group of Eskimos wanders round Cape Farewell to the East Coast and far to the north along that coast. In the 17th century a group of Polar Eskimos migrates north about Greenland and is mixed with Northeast Greenland's early population; and shortly afterwards more West-Greenlanders come round to Angmagssalik; at Kangerdlugs-

¹⁾ 1934 p. 25 seq.

²⁾ Since this has been written some glass beads have appeared in a grave find from Cape Hope, Scoresby Sound, brought home by Johan Petersen.

³⁾ p. 160.

suaq there is still a small remnant of the first immigration to the East Coast, and before long they die out. The same is the case with the inhabitants in Northeast Greenland. In West Greenland, however, the population grows rapidly, by and by helped by the Danish colonization, which also saves the population of Angmagssalik from the fate of the other people on the East Coast. At Cape York there is still a remainder of the old Thule Eskimos, added to by a new immigration from Baffin Land.

From a culture-historical point of view Greenland is a cul-de-sac; culture streams from the outside deposit themselves but never go out again; culture developments in Greenland are never of any significance to the developments that are proceeding on the American continent; Greenland is a small realm of its own, following its own lead. But to study the manner in which the culture develops within so limited a region within a limited period is surely also of importance to cultural science in general.

The Origin of the Eskimo Culture.

The great Eskimo problems, first and foremost the problem of the origin of the whole Eskimo culture, cannot be solved in Greenland. All the same, conditions in Greenland are in no way insignificant in that connection, so that there may be reason for closing this survey of Greenland's Eskimo-archaeology with a few words on the subject, even if very few new facts have come to light since Birket-Smith and I concluded our discussion on it¹).

The latest and most well-founded theory on the origin of the Eskimo culture is the one set up by Birket-Smith in "The Caribou Eskimos". He sees the Eskimo culture as a link in an ancient, circumpolar Inland Culture, possibly having its roots right back in palaeolithic times. In the central parts of arctic Canada, between Hudson Bay and Mackenzie, the Eskimos for the first time adapted their life to the coast and thereby created the first Eskimo littoral culture, "Palæeskimo Culture"; nevertheless, a remnant of the population remained on the Barren Grounds, where the present-day Caribou Eskimos are their descendants. The Palæeskimos spread along the arctic coasts and reached Alaska, and there arose the "Neo-Eskimo Culture", the Thule Culture, a distinctly littoral and whaler culture, which thereafter made its way back eastwards, expelled the Palæeskimo Culture from Canada's coastal regions and reached Greenland. In the Central regions the Thule Culture in its turn was overrun by a new culture wave — or immigration — from the interior, whereby the present Central Eskimo coast culture arose. On

¹) Geografisk Tidsskrift 1930. American Anthropologist 1930.

the Barren Grounds, however, the Caribou Eskimos still remained as a relic of the "primordial Eskimos".

I have advanced the following arguments against that theory:

1) There is no archaeological evidence whatever to show that any Palæskimo Culture earlier than the Thule Culture has existed in the Central regions west of Hudson Bay.

2) I cannot admit that the culture of the Caribou Eskimos is on a more primitive level than the Thule Culture, as the primitive features in it might just as well be explained as a degeneration, the result of the relatively simple inland life, whereas the many implements connected with life by the sea must necessarily be lacking. The implement forms of the Caribou Eskimos may be explained partly by a descent from those of the Thule Culture, partly by a relatively late Indian influence.

Thus I am inclined to think that the Thule Culture represents the first settlement of the Eskimos in arctic Canada and Greenland; and, as presumably the Thule Culture originally came from the west, it is to the west we should turn, to Alaska and Siberia, to find the native home of the Eskimos.

Is there anything to justify a resumption of that discussion? Has anything been discovered in recent years that will provide an acceptable answer to these questions? Actually no. A good deal of excavating has been done, it is true, especially in Alaska, but the publications that have appeared so far are mostly very brief.

Take Alaska, where most excavating has been done. The important Van Valin Collection from Point Barrow has been published in concise form¹). It is almost pure Thule Culture, at an earlier stage than the Central Thule Culture. The main difference is that most of the harpoon heads are of the type which, after another locality at Point Barrow, have been called the Birnirk Type; this belongs to the same main group as the Thule harpoon heads — thin, open socketed, and actually only differs from it in the fact that the spur is bifurcated or trifurcated. One of the harpoon heads in that collection has the curved line decoration that is characteristic of the Bering Sea Culture.

There has been a good deal of discussion on the subject of this old culture. At first there appeared merely isolated specimens with the peculiar curved line decoration that characterises it²). Afterwards a large material was discovered, excavated by Collins³) and Geist on St. Lawrence Island, where the Bering Sea Culture seems to be the earliest; after it comes the somewhat later Punuk Stage, with its own peculiar

¹) Mason 1930.

²) Jenness 1928. Mathiassen, Indian Notes 1929.

³) Collins 1929 and 1932.

ornamentation, and only above this, close to historic times, the Thule Culture. Again, Jenness' excavations on Cape Prince of Wales and Diomedé Island¹⁾ indicate that at these places the Thule Culture is not so terribly old. In my short article on the Bering Sea Culture in 1929 I asserted that on the basis of the geographical distribution of the two forms it was probable that the Birnirk harpoon head associated with the Bering Sea Culture was later than the common Thule harpoon heads, which we know of from Siberia to Greenland. However, investigations since then in Alaska point in the opposite direction; at any rate on the Bering Strait and on St. Lawrence Island the Birnirk harpoon head and the Bering Sea Culture seem to be earlier than the Thule Culture; at Point Barrow, too, the Birnirk type seems to be the earliest variant of the Thule harpoon head²⁾. Fresh support for the theory of the high age of the Thule harpoon head in Alaska has, however, come forward by F. de Laguna's find of Thule harpoon heads in the earliest deposits in Cook Inlet, South Alaska³⁾. Also we have Thule harpoon heads in very old finds in Siberia⁴⁾, North Alaska (the Van Valin collection, together with Birnirk types), South Alaska (Cook Inlet), arctic Canada and Greenland, and the ones in the western region are apparently the oldest. Then how shall we explain the relatively young age of the Thule Culture on the Berings Strait itself? Collins points out the possibility of a returning of Thule Eskimos from eastern regions. Instead, one might also imagine a similar immigration from Siberia, whose archaeology, however, is too obscure to permit of any real conclusions.

In any case, the Bering Sea Culture is very old. Jenness estimates it at about two thousand years⁵⁾. If we put the immigration of the Thule Culture into Greenland at about a thousand years ago — which if anything must be regarded as a minimum, judging from the recent investigations in Greenland — the Thule Culture presumably is some centuries older in the Central regions (Naujan, Malerualik) and again some hundred of years older in Alaska; we should thus approximately put the Van Valin collection to the first centuries A.D. Then if the Bering Sea Culture is still older, we get back to the centuries before Christ. I agree with Jenness that the high age of this Eskimo culture in Alaska — for the Bering Sea Culture, which is a highly developed one, can hardly be the earliest Eskimo culture — is scarcely compatible with Birket-Smith's theory that Alaska was first populated by Eskimos as the result of a Palæeskimo immigration from the east. At any rate,

1) Jenness 1928.

2) Collins 1933.

3) Laguna, Cook Inlet, p. 80.

4) Mathiassen, Arch. Cent. Esk. II, p. 177 seq.

5) 1933, p. 387.

the Bering Sea Culture has no easterly associations, but points towards Asia, the river Amur, the Aleutians, Japan, China, though for the present it is impossible to establish its origin more definitely.

Thus I consider that these recent excavations in Alaska mean that the Eskimo Culture is older in Alaska than anywhere else on American ground. Unfortunately, as yet we know too little about this earliest culture to form an opinion on its origin. Nevertheless I consider that the distribution of such important forms as the composite bow, the dog sledge, the bow drill, the needle case, the lamp, pottery, and finally the Thule harpoon heads (which outside of the Eskimo region have only been found in North Norway, the Kola peninsula and in Japan's Stone Age) indicates that it is in the old world that the Eskimo Culture has its deepest roots. But it is uncertain whether or not they extend so far back as to palæolithic times. A recent attempt to compare Eskimo and palæolithic art¹⁾ has given an answer more negative than anything.

In the development of the Eskimo Culture in arctic Canada a certain role has been played by the Cape Dorset Culture described by Jenness²⁾. It first appeared in finds in the east part of Hudson Bay, excavated by Eskimos and other "amateurs", for which reason the finds were mixed with Thule types. This caused me to look upon this Cape Dorset Culture, whose influence is traceable as far up as in most northerly Greenland³⁾, as a local phase of the Thule Culture⁴⁾. Since then, however, Wintenberg has excavated settlements in Newfoundland with a pure Cape Dorset Culture⁵⁾. The culture we find here is a remarkable one. On the whole the objects are small; there is no snow knife, no dog sledge, no whaling; no bow drill, all holes being gouged out; no bows or bone arrows; no throwing board; no evidence of kayaks or umiaks. Not only are the blades of weapons and tools, mostly of chert and chalcedony, very finely hewn; in many cases they are also polished. There are types such as double-convex scrapers, soapstone plummets, cylindrical hammer stones, semi-lunar knives, etc. It seems to be a culture more based upon hunting and fishing than upon sealing and whaling.

This peculiar culture, hitherto known only in its mixed form from Hudson Bay, of course cannot have arisen out of the Thule Culture; the two cultures are very different. Then where shall we seek its origin? Jenness indicated the Caribou Eskimos as a possibility; by this means he would be able to succour at any rate a part of Birket-Smith's theory,

1) Laguna 1933.

2) Jenness 1925.

3) Mathiassen, Washington Land and Hall Land, p. 213.

4) Arch. Cent. Esk. II, p. 164.

5) Jenness 1933 p. 389 seq.

which then would have to be amended to read that the primordial Eskimos on the Barren Grounds sent out a wave of migrators to the coast, not to the north and west but to the south and east, where they developed the Cape Dorset Culture; they would thus be "palæeskimo".

However, I fail to see that there is any similarity between the Cape Dorset Culture and that of the Caribou Eskimos, except that they are both inland cultures. But were the Cape Dorset people Eskimos at all? The culture at any rate is very Indian. Cannot the find-localities in New Foundland have been left by an Indian population, whose culture has affected and stamped the Thule Culture Eskimos in Hudson Bay? No doubt fresh excavations in Labrador or Hudson Bay will be capable of answering the question.

On the whole it is new, systematic excavations that are needed if the Eskimo problems are to be solved entirely. In museums, however, especially in America, there are large and valuable collections whose publication would mean much in this connection.

As regards Greenland, it is especially the Cape York District, Greenland's western gate, that requires investigating. And it is to be hoped that it will not be long before that region is subjected to expert, archaeological exploration¹).

¹) As a matter of fact one of my associates in the work in Greenland, Erik Holtved, is now in Thule to spend two years there and make a thorough archaeological study of this important territory.

APPENDIX:
BONES FROM JULIANEHAAB DISTRICT

By MAGNUS DEGERBØL

The following species are represented in the bone material from Julianehaab District, excavated in 1934 by Dr. THERKEL MATHIASSEN:—

Gadus callarias, cod.
Hippoglossus vulgaris, halibut¹⁾.
Anas boscas, mallard²⁾.
Lagopus mutus, ptarmigan.
Larus hyperboreus, glaucous gull.
Larus leucopterus, Iceland gull.
Uria lomvia, Brünnich's guillemot.
Uria grylle, black guillemot.
Phalacrocorax carbo, cormorant.
Haliaëtus albicilla, white tailed eagle.
Corvus corax, raven.
Lepus groenlandicus, arctic hare.
Alopex lagopus, arctic fox.
Ursus maritimus, polar bear.
Odobenus rosmarus, walrus.
Erignathus barbatus, bearded seal.
Phoca vitulina, spotted seal.
Phoca hispida, ringed seal.
Phoca groenlandica, harp seal.
Cystophora cristata, bladder-nose.
Rangifer tarandus, reindeer.
Toothed whale.
Large whale.

¹⁾ Identified by J. R. Pfaff.

²⁾ The bird bones have been identified by R. Hørring.

Canis familiaris, Eskimo dog.

Bos taurus domesticus, ox.

Ovis aries or *Capra hircus*, sheep or goat.

As was the case with earlier material from excavations in Eskimo middens on the west coast of Greenland (Animal Bones from the Sukkertoppen District, 1930. Medd. o. Gr. Vol. 91, 1931), the present material contains relatively many bones of fishes and birds, though in comparison with the mammal bones their quantity is extremely small. In this respect the finds contrast with the kitchen middens of the Norsemen in the same region, the East Settlement, where bones of fishes and birds are extremely rare (Degerbøl: Medd. o. Gr. Vol. LXXVI, 1929 and *ibid.* 88, 1934). The probability is that this has to do with the different ways of keeping the dogs. The Eskimos have kept their dogs tied up to prevent them from destroying kayak skins, etc., whereas the Norsemen's dogs seem to have had more liberty and have thus had opportunities of eating the smaller bones. In addition, however, among the Norsemen many of these smaller bones have undoubtedly been thrown into the fire and burnt, whereas the Eskimos with their different method of heating their houses generally had no such possibility. Nevertheless it may be pointed out that there are no fish or bird bones, or at any rate only extremely few, in the Eskimo middens on the east coast of Greenland, Clavering Island and King Oscar Fjord region (Degerbøl, Medd. o. Grøn. 102, 1934 and 1935) and the Kangerdlugssuaq area, where I myself had an opportunity of making excavations. As regards the fish bones the explanation is simple, for there has been no possibility of sea fishing, and any salmon fishing has been pursued at places other than the winter settlements; what is more, salmon bones are very brittle and offer little resistance to wind and weather. That bird bones almost do not occur either indicates that bird catching at any rate has been of no great interest to these Northeast-Coast dwellers.

In the present excavations at Julianehaab District quite a number of cod bones have been unearthed; several of these fishes have been extremely well grown. Cod bones were found in the following localities: Tugtutûp Isua, Arfermiut, Igdlutalik, Ūnartoq, all from the 18th century, and from Narssarsuaq from the 17th—18th century. Actually there is nothing surprising in finding the cod in these South Greenland waters, as we know that last century, the 19th century, there were two great cod periods off Greenland. (Ad. S. Jensen and Paul M. Hansen: *Undersøgelser over den grønlandske Torsk (Gadus callarias L.)*). The fish bones now examined show that in former times, too, there have been very large cod indeed in Julianehaab District. That the cod has also ranged farther north in previous times is evidenced by the Eskimo middens at

Sukkertoppen, in which were found cod bones dating from the latter half of the 17th century (Utorqait) and the first half of the 18th century (Ũmánat).

Among the mammals the harp seal is the animal best represented, as has also been the case in other finds.

As might have been expected, the dog bones are of the Eskimo dog; the long-legged dogs of Norse times have disappeared. Very remarkable is a much weathered mandible of *Bos taurus*, found in House 3 at Narsarsuaq and dated to the 14th—16th century; this, presumably, takes us right back to Norse times.

LIST OF SPECIMENS ILLUSTRATED WITH THEIR
MUSEUM NUMBERS (ALL L 15) AND FINDING PLACE

T = Tugtutûp Isua, N = Narssarssuaq, I = Igdlutalik,
U = Ũnartoq, A = Arfermiut, H = House, F = Field.

Fig. 29.	Sealing stool	1113	I, between graves 20 and 24
Fig. 38.	1. Arrow head of stone	1127	N. H 2
	2. Bow-drill bit	567	I. H 17
	3. Toy harpoon head	1126	N. H 1
	4. Bead of calcareous spar	185	T. H 16, bottom layer
	5. Pendant of soapstone	49	T. H 8
	6. — - micaceous schist	424	I. H 6
	7. Ornamental bodkin	1145	N. H 2
	8. Ulo handle	453	I. H 9
	9. Soapstone piece with hole	631	I. H 18
	10. Toy lamp	24	T. H 6
	11. —	1115	T. In terrain
	12. Hammer stone	67	T. H 23
	13. Sinker for fish hook	459	I. H 9
	14. Hammer stone	691	I. H 20
Fig. 39.	Flint flaker	445	I. H 8
Fig. 40.	Lamp	1458	U. H 3
Fig. 41.	Lamp fragment	88	T. H 9
Fig. 42.	Round lamp	1487	U. H 10
Fig. 43.	Cooking pot	516	I. H 11, passage
Fig. 44.	1. Bell metal	11	T. H 1
	2. —	20	T. H 5
	3. Sinker	1236	N. H 6
	4. Cooking pot, Norse	28	T. H 6
Fig. 45.	1. Spindle whorl	626	I. H 18, lower layer
	2. —	179	T. H 16, bottom layer
	3. —	570	I. H 17, lower layer
	4. —	690	I. H 20
	5. —	400	I. H 6
	6. —	1148	N. H 2
	7. — , unfinished	114	T. H 12
	8. Pendant of copper	518	I. H 11
	9. Metal object	29	T. H 6

	10. Iron key?.....	491	I. H 10
	11. Soapstone tube	422	I. H 6
	12. Soapstone bowl, fragment.....	495	I. H 10
	13. Knife	60	T. H 22
	14. Whetstone.....	64	T. H 23
	15. —	667	I. H 19
	16. —	625	I. H 18, lower layer
	17. Cloth, woven	187	T. H 16, bottom layer
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	2. Harpoon Head.....	1584	U. F at H 14
	3. —	1317	A.
	4. Ituartit harpoon head	325	T. FB
	5. Knife handle	1070	I. FA
	6. Barb of salmon spear	1761	U. FB
	7. Fish hook, stem for.....	1728	U. FB
	8. — , barb for	1618	U. FA
	9. — , —	1562	U. F at H 14
	10. — , stem for	783	I. FA
	11. — , barb for	1025	I. FA
	12. Pendant.....	1385	A.
	13. Ornamental bodkin.....	1763	U. FB
	14. Marrow extractor	321	T. FB
	15. Thong hook	329	T. FB
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¹⁾ The objects from Qerrortût had not received museum numbers when this was written.

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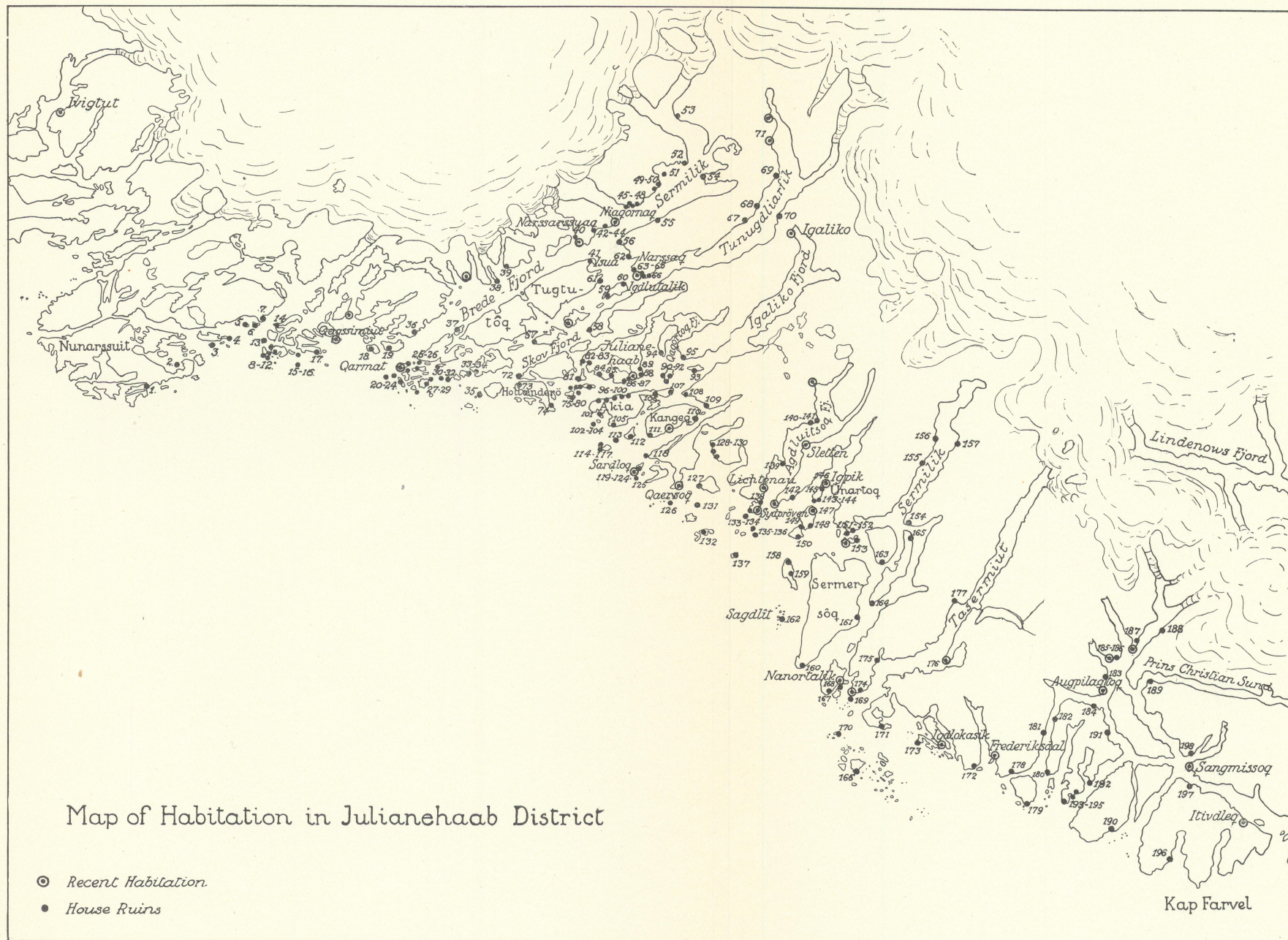
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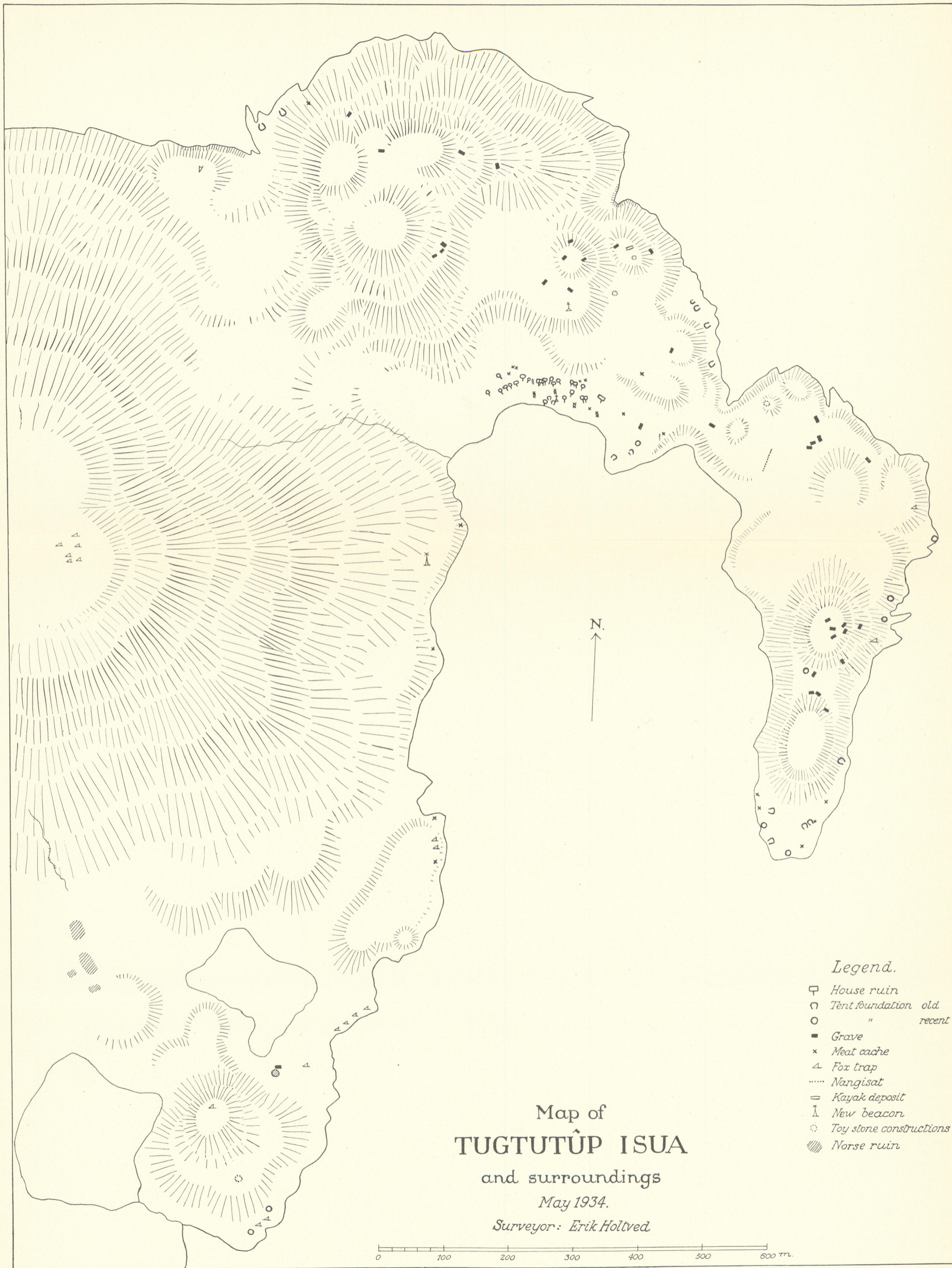
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Færdig fra Trykkeriet den 6. Maj 1936.

PLATES





Legend.

- House ruin
- Tent foundation old
- " recent
- Grave
- x Meat cache
- △ Fox trap
- Nangisat
- ≡ Kayak deposit
- ⊥ New beacon
- ⊙ Toy stone constructions
- ▨ Norse ruin

Map of TUGTUTÛP ISUA

and surroundings

May 1934.

Surveyor: Erik Holtved

