

The Ruin Islanders

Early Thule Culture Pioneers in the Eastern High Arctic



Karen M. McCullough

The Ruin Islanders

Karen M. McCullough

Canadian Museum of Civilization

The Ruin Islanders:

Thule Culture Pioneers in the Eastern High Arctic

Karen M. McCullough

Archaeological Survey of Canada
Mercury Series Paper 141
Canadian Museum of Civilization

Canadian Cataloguing in Publication Data

McCullough, Karen Margrethe

The Ruin Islanders : Thule culture pioneers in the Eastern High Arctic

(Mercury series, ISSN 0316-1854)

(Paper / Archaeological Survey of Canada, ISSN 0317-2244 ; no. 141)

Includes abstract in French.

Originally presented as the author's thesis (doctoral - University of Toronto) under the title:

The Ruin Island phase of Thule culture in the Eastern High Arctic.

Bibliography : p.

ISBN 0-660-10793-7

1. Thule culture – Northwest Territories – Ellesmere Island. 2. Inuit – Northwest Territories – Ellesmere Island – Antiquities. 3. Ellesmere Island (N.W.T.) – Antiquities. 4. Excavation (Archaeology) Northwest Territories – Ellesmere Island. I. Canadian Museum of Civilization. II. Archaeological Survey of Canada. III. Title. IV. Title: Thule culture pioneers in the Eastern High Arctic. V. McCullough, Karen Margrethe. The Ruin Island phase of Thule culture in the Eastern High Arctic. VI. Series: Paper (Archaeological Survey of Canada) ; no. 141.

E99.E7 M33 1989 971.9'501 C89-097041-6

Printed and bound in Canada

Published by
Canadian Museum of Civilization
100 Laurier Street
P.O. Box 3100, Station "B"
Hull, Quebec
J8X 4H2

Archaeological Survey of Canada
Papers Coordinator :
Richard E. Morlan

Canada

OBJECT OF THE MERCURY SERIES

The Mercury Series is designed to permit the rapid dissemination of information pertaining to the disciplines in which the Canadian Museum of Civilization is active. Considered an important reference by the scientific community, the Mercury Series comprises over three hundred specialized publications on Canada's history and prehistory.

Because of its specialized audience, the series consists largely of monographs published in the language of the author.

In the interest of making information available quickly, normal production procedures have been abbreviated. As a result, grammatical and typographical errors may occur. Your indulgence is requested.

Titles in the Mercury Series can be obtained by writing to the:

Mail Order Services
Publishing Division
Canadian Museum of Civilization
100 Laurier Street
P.O. Box 3100, Station "B"
Hull, Quebec
J8X 4H2
(613) 957-9905

BUT DE LA COLLECTION MERCURE

La collection Mercure vise à diffuser rapidement le résultat de travaux dans les disciplines qui relèvent des sphères d'activités du Musée canadien des civilisations. Considérée comme un apport important dans la communauté scientifique, la collection Mercure présente plus de trois cent publications spécialisées portant sur l'héritage canadien préhistorique et historique.

Comme la collection s'adresse à un public spécialisé celle-ci est constituée essentiellement de monographies publiées dans la langue des auteurs.

Pour assurer la prompte distribution des exemplaires imprimés, les étapes de l'édition ont été abrégées. En conséquence, certaines coquilles ou fautes de grammaire peuvent subsister : c'est pourquoi nous réclavons votre indulgence.

Vous pouvez vous procurer la liste des titres parus dans la collection Mercure en écrivant au :

Service des commandes postales
Division de l'édition
Musée canadien des civilisations
100, rue Laurier
C. P. 3100, Succursale "B"
Hull (Québec)
J8X 4H2
(613) 957-9905

Abstract

The Ruin Island phase of Thule culture was initially defined by Erik Holtved (1944) as an intrusive, secondary movement of Neo-Eskimo groups from the Bering Sea region to Northwest Greenland at approximately A.D. 1300. Harpoon head styles linked the phase with the Punuk culture of St. Lawrence Island. Subsequent to Holtved's work, several radiocarbon dates were run on Ruin Island phase material and produced occupation dates in the 9th to 11th centuries A.D. These dates and the stylistically early harpoon head attributes convinced many Arctic researchers that Holtved was mistaken and that the Ruin Island phase represented the pioneering Thule culture movement into the Canadian Arctic.

Recent archaeological research in the Bache Peninsula region of eastern Ellesmere Island, N.W.T. has produced a substantial amount of data relating to this poorly-defined phase of Thule culture. The Skraeling Island, Sverdrup, Eskimobyen and Thule Meadows sites contained thirty winter house ruins which were completely excavated or tested, producing over 4500 artifacts and almost 20,000 animal bones relating to the Ruin Island phase. Seventeen radiocarbon assessments suggest a late 12th or early 13th century A.D. period for the Ruin Island phase, which now appears to be the initial Thule culture occupation of the Smith Sound region. A comparative analysis of selected traits with Alaskan Neo-Eskimo cultures and early Thule culture sites in the Canadian Arctic indicates that the phase is most closely affiliated with Punuk-influenced, early Western Thule sites in Western Alaska, suggesting that the latter area, rather than North Alaska, was the probable source area for the Ruin Island phase. The relatively late dates as compared to early Thule sites in the Barrow Strait/Lancaster Sound region suggest that the Ruin Island phase represents only one of several Thule migrations from Alaska into the Canadian Arctic.

The analysis of the faunal remains demonstrates a subsistence emphasis on sea mammals, particularly ringed seals which were hunted during the spring and fall seasons. The concentration of food resources in the polynyas was a significant factor in the attraction of the Bache Peninsula region as a settlement locale during the early Thule period.

Résumé

La phase dite de "l'île aux Ruines" de la culture thuléenne fut initialement définie par Erik Holtved (1944) comme un déplacement secondaire de groupes néo-esquimaux partis de la région de la mer de Béring pour aboutir dans le nord-ouest du Groenland vers l'an 1300. Les styles des têtes de harpon rattachent cette phase à la culture punuk de St. Lawrence Island. Plusieurs analyses au carbone 14 postérieures aux travaux de Holtved ont été effectuées sur des objets de la phase de l'île aux Ruines et indiquent des dates d'occupation allant du IX^e au XI^e siècle. Ces dates et les caractéristiques stylistiques anciennes des têtes de harpon ont convaincu de nombreux spécialistes de l'Arctique que Holtved était dans l'erreur et que la phase de l'île aux Ruines correspond en fait au déplacement des pionniers de la culture thuléenne vers l'Arctique canadien.

De récentes recherches archéologiques dans la région de la péninsule Bache, à l'est de l'île d'Ellesmere (T.N.-O.), ont fourni des données importantes relatives à cette phase peu connue de la culture thuléenne. Les sites de l'île Skraeling, de Sverdrup, d'Eskimobyen et de Thule Meadows renfermaient les ruines de trente habitations d'hiver qui ont été entièrement fouillées ou sondées, livrant plus de 4 500 objets et près de 20 000 os d'animaux qui se rattachent à la phase de l'île aux Ruines. Dix-sept examens au carbone 14 tendent à situer vers la fin du XII^e siècle ou au début du XIII^e siècle la phase de l'île aux Ruines, qui semble aujourd'hui correspondre à l'établissement de la culture thuléenne dans la région du détroit de Smith. Une analyse comparant certains traits de la phase de l'île aux Ruines des cultures néo-esquimaudes de l'Alaska et des premiers sites de culture thuléenne dans l'Arctique canadien indique que cette phase se rattache surtout aux anciens sites thuléens influencés par la culture punuk dans l'ouest de l'Alaska. Ce qui suggère que cette dernière région, et non le nord de l'Alaska, fut sans doute la région source dans le cas de la phase de l'île aux Ruines. Les dates relativement tardives, au regard des anciens sites thuléens de la région des détroits de Barrow et de Lancaster, laissent croire que la phase de l'île aux Ruines correspondrait uniquement à une migration, parmi plusieurs autres, de groupes partis de l'Alaska pour aboutir dans l'Arctique canadien.

L'analyse des vestiges de la faune montre l'importance des mammifères marins pour la subsistance de l'homme, notamment des phoques annelés qui étaient chassés au printemps et en automne. La concentration des ressources alimentaires dans les polynias fut un important facteur d'attraction vers la région de la péninsule Bache au début de la période thuléenne.

Acknowledgements

This study was originally submitted to the Department of Anthropology, University of Toronto in 1986 as a doctoral dissertation entitled "The Ruin Island Phase of Thule Culture in the Eastern High Arctic". The research data for the original dissertation was obtained during five field seasons from 1978 to 1982 in the Bache Peninsula region of eastern Ellesmere Island, N.W.T. by the author and other members of the Ellesmere Island Research Project, directed by Dr. Peter Schledermann, former Executive Director of the Arctic Institute of North America, University of Calgary.

Many people and institutions have been involved with the Ellesmere Island Research Project since its inception in 1977. Funding for the project was received in several grants to Dr. Schledermann from the Social Science and Humanities Research Council of Canada, the National Geographic Society and the Arctic Institute. Financial support to the author for the 1982 Skraeling Island Research Project was provided by the Prince of Wales Northern Heritage Centre, the Arctic Working Group of the University of Toronto, and the Arctic Institute's Grant-in-Aid program. A very special thank you is extended to the Polar Continental Shelf Project for providing logistic support and for making northern field research so enjoyable.

I thank the University of Toronto and the Social Science and Humanities Research Council for the financial support through doctoral fellowships, and Dr. Charles Arnold, Dr. Scott Raymond, Dr. Peter Schledermann and the late Dr. William Irving for the many letters of reference they wrote on my behalf.

I sincerely thank my thesis committee members for their guidance and constructive criticisms throughout my doctoral programme at the University of Toronto; in particular, my supervisor, Dr. William Irving and the other core committee members, Dr. C. Arnold and Dr. A. Mohr. I am especially grateful to Chuck Arnold for being a constant source of inspiration and encouragement. As external examiner, Dr. Moreau Maxwell offered many valuable suggestions.

Technical assistance was kindly offered by several people. I thank Dr. Weston Blake Jr. for the radiocarbon age determinations; Don Gardner and Ian Robertson for sharing their expertise in prehistoric technology; Bruce Smith, formerly of Academic Computing Services at the University of Calgary, for his invaluable assistance with data organization and management; Marilyn Croot for her fine drafting of maps, artifact and house drawings; Gloria Davis for originally typing Table 1; Jim Peacock for the artifact photography, and Sterling Presley of the Archaeological Survey of Canada for his patience in teaching me the intricacies of tooth thin sectioning and analysis.

Preparation of this publication was greatly assisted by Shepard Braun of the Office of Institutional Analysis and Ross Goodwin of the Arctic Institute of North America, University of Calgary.

The crew members of the Ellesmere and Skraeling Island projects deserve a warm note of thanks in appreciation of all their hard work and in remembrance of many great times in the north. I thank Rochelle Allison, Tore Bjorgo, Erik Blake, Brenda Carter, Peter Francis, Carol Hanchette, Elisa Hart, Diane Lyons, Betsy Nicholls, Jimmy Nowra, Ian Robertson, Doug Ross, Antony Sutcliffe, Gerry Thompson and Edson Way for the memories! My family, and friends Persis Clarkson, Sheila Greaves and Kathy Stewart, provided much love and support throughout my years of graduate school.

I am deeply indebted to Peter Schledermann for introducing me to Arctic archaeology, providing the material for the original dissertation, and assisting in the preparation of this publication.

Table of Contents

Abstract	iii
Résumé	iv
Acknowledgements	v
List of Tables	xii
List of Figures	xiv
List of Plates	xvi
Chapter 1 The Cultural Setting	1
Introduction	1
Neo-Eskimo Culture History	1
Ruin Island Defined	8
Thule Culture Research in the Eastern High Arctic	11
Objectives	14
Chapter 2 Ruin Island Phase Sites	17
The Study Region	17
Project Narrative	19
Method of Excavation and Recording	19
The Skraeling Island Site, Sffk-4	22
Houses 1, 2, 3 and 4	22
House 1	22
House 2	22
House 3	23
House 4	31
Midden Test - House 4	31
House 5	34
House 6	34
House 7	35
House 8	36
House 9	37
House 10	37
Midden Test - Houses 9 and 10	44
House 11	45
House 12	48
House 13	51
House 14	51
House 15	54
Midden Test - House 15	56
House 16	57
House 17	59
House 18	61
House 19	61
House 20	65
House 21	65
House 22	67

House 23	69
The Sverdrup Site, SfFk-5	69
House 6	69
The Eskimobyen Site, SgFm-4	73
House 25	74
House 26	74
The Thule Meadows Site, SfFj-8	78
Summary	78
Chapter 3 Artifact Analysis	83
Sea Mammal Hunting Equipment	87
Harpoon Heads	87
Harpoon Head Sheath	93
Harpoon Head Endblades	93
Weapon Shafts	95
Kayak Hunting Equipment	95
Bladder Dart Head	95
Movable Foreshafts	96
Harpoon Socket-Pieces	100
Line Stoppers	101
Tension Piece	101
Float	103
Float Mouthpieces	103
Float Bars	103
Float Mending Plugs	104
Throwing Board	104
Movable Lance Heads	106
Ice-Hunting Equipment	107
Fixed Foreshafts	107
Ice Picks	107
Harpoon Rests	110
Wound Pins	111
Land Mammal Hunting Equipment	111
Bows	111
Bow Bracers	113
Sinew Twisters	117
Marlinspikes	117
Arrowheads	117
Arrowshafts	120
Arrowpoints	123
Quiver Handles	123
Sling Handles	123
Bird Hunting Equipment	124
Bolas	124
Gull Hooks	128
Bird Dart Side Prongs	128
Miscellaneous Barbs and Prongs	129
Transportation Equipment	131
Sled Shoes	131
Sled Crosspiece	131
Trace Buckles	133
Dog Whip Handles	133
Snow Goggles	135
Paddle	135

Tools and Household Utensils	137
End-bladed Knife Handles	137
Side-bladed Knife Handles	140
Composite Knife Handles	143
Miscellaneous Knife Handles	145
Baleen Knives	145
Snow Knives	146
Engraving Tools	146
Stiletto Handles	148
Miscellaneous Handles	148
Drill Bows	149
Drill Mouthpieces	149
Drill Shanks	149
Adze Heads	150
Adze Handles	154
Mattock Blades	154
Picks	155
Mauls	155
Maul or Mattock Handle	159
Wedges	159
Whetstones	160
Hammerstones	160
Flint Flakers	160
Shims	163
Wooden Pegs and Plugs	163
Bone, Ivory and Horn Pegs	163
Beamers	163
Fleshers	164
Creasers	167
Bone and Ivory Scraping Tools	167
Ulus	167
Baleen Shaves?	168
Baleen Bucket	170
Bucket or Bowl Bottoms	170
Cups?	173
Cup Bottoms	173
Ladles	173
Platter	173
Spatulas	173
Meat Stick	174
Blubber Pounders	174
Antler Hooks	174
Chopping Blocks	174
Drying Racks	179
Fire Drill Bases	179
Fire Drill Shanks	179
Pyrite	179
Soapstone Lamps	179
Soapstone Vessels	180
Soapstone Fragments	180
Pottery	185
Wick Trimmers	188
Needlecases	188
Needles	189

Awls	189
Thimbles	189
Snow Beaters	189
Louse Catchers	190
Skin Clothing and Skin Objects	190
Mitt	190
Boots	190
Caps	196
Jackets	196
Miscellaneous Skin Pieces	197
Skin Bags	200
Ornaments and Carvings	200
Labret?	200
Comb	201
Brow Bands	201
Beads	202
Buttons	202
Chain Links and Pins	202
Pendants	206
Animal Tooth Pendants	206
Animal Figurines	207
Miscellaneous Carvings	210
Amulets and Drums	211
Amulets	211
Drums	211
Drum Stick?	212
Toys and Games	212
Toys	212
Dolls	215
<i>Ajagag</i>	221
Game Pieces?	221
Balls	222
Miscellaneous Objects	222
Quartz Crystal	222
Slate	225
Iron Fragments	225
Copper	225
Coal	225
Pumice	225
Mica	225
Basketry	226
Sucking Tube?	226
Edge Mounting	226
Coils	226
Plaited Baleen	226
Unidentified Ivory Objects	228
Unidentified Bone Objects	228
Unidentified Antler Objects	229
Unidentified Muskox Horn Objects	229
Unidentified Baleen Objects	229
Unidentified Wooden Objects	230
Unidentified Soapstone Objects	230
Norse Artifacts	230
Palaeo-Eskimo Artifacts	236

Chapter 4	Chronology and Cultural Position	239
	The Chronological Position of the Ruin Island Phase	239
	Origin of the Ruin Island Phase	242
	Early Thule Culture in the Eastern Arctic	254
	Summary	257
Chapter 5	Subsistence Analysis	259
	Introduction	259
	Faunal Recovery and Analysis	261
	The Ruin Island Phase Faunal Assemblage	263
	Mammalian Remains	263
	Arctic Hare, <i>Lepus arcticus</i>	265
	Collared Lemming, <i>Dicrostonyx torquatus</i>	268
	Dog or Wolf, <i>Canis sp.</i>	268
	Arctic Fox, <i>Alopex lagopus</i>	270
	Polar Bear, <i>Ursus maritimus</i>	271
	Walrus, <i>Odobenus rosmarus</i>	273
	Seal, <i>Phocinae sp.</i>	276
	Muskox, <i>Ovibos moschatus</i>	289
	Caribou, <i>Rangifer tarandus</i>	290
	Whale, <i>Cetacea sp.</i>	292
	Avian Remains	293
	Summary	297
Chapter 6	Summary and Discussion	299
	Bibliography	305
Appendix 1	Artifact Plate Descriptions	327

List of Tables

1	Artifact Frequency and Distribution	84
2	Descriptive Summary of the Movable Foreshafts	100
3	Descriptive Summary of the Float Mouthpieces	103
4	Baleen Bow Measurements	112
5	Bow Bracer Measurements	113
6	Ruin Island Phase Radiocarbon Dates	241
7	Ruin Island Phase Harpoon Head Types	248
8	Ruin Island Phase Traits in Alaskan Neo-Eskimo Cultures	254
9	Distribution of Faunal Elements by House	263
10	Frequency of Mammalian Elements per House	264
11	Frequency of Mammal Species in Total Faunal Sample	265
12	Summary of Non-cetacean Mammal Bones by House	266
13	Frequency of Arctic Hare Elements per House	267
14	Frequency of Arctic Hare Elements per Body Portion	268
15	Frequency of Dog or Wolf Elements per House	269
16	Frequency of Dog or Wolf Elements per Body Portion	270
17	Frequency of Arctic Fox Elements per House	272
18	Frequency of Arctic Fox Elements per Body Portion	272
19	Frequency of Bear Elements per House	274
20	Frequency of Bear Elements per Body Portion	274
21	Frequency of Walrus Elements per House	276
22	Frequency of Walrus Elements per Body Portion	277
23	Frequency of Small Seal Elements per House	279
24	Frequency of Large Seal Elements per House	280
25	Frequency of Small Seal Elements per Body Portion	281
26	Frequency of Small Seal Flipper Elements per House	282
27	Frequency of Large Seal Elements per Body Portion	283
28	Readability Ratings of Seal Canine Thin Sections	286
29	Frequency of Muskox Elements per House	291
30	Frequency of Muskox Elements per Body Portion	291
31	Frequency of Whale Elements per House	294

32	Frequency of Whale Elements per Body Portion	294
33	Frequency of Avian Elements per Site	296

List of Figures

1	Summary of Neo-Eskimo Cultures in Canada and Alaska	3
2	Sites and Localities Discussed in the Text	4
3	The Smith Sound/Kane Basin Region	10
4	The Study Region	16
5	Flagler Bay Polynya, June 1979	18
6	Ruin Island Phase Sites in the Study Region	20
7	Summary of House Measurements	21
8	The Skraeling Island Site, SfFk-4	24
9	Aerial View of Skraeling Island, H. 1, 2, 3 and 4	28
10	Plan of Skraeling Island, H. 1, 2, 3 and 4	25
11	Plan of Skraeling Island, H. 2	26
12	Plan of Skraeling Island, H. 3	27
13	Skraeling Island, H. 3, entrance and meat pit	28
14	Skraeling Island, H. 3, tunnel entrance	29
15	Cross-sectional Profile of Skraeling Island, H. 3	30
16	Plan of Skraeling Island, H. 4	32
17	Skraeling Island, H. 4, west wall midden pit	33
18	Skraeling Island, H. 4, south wall midden pit	33
19	Plan of Skraeling Island, H. 5	38
20	Skraeling Island, H. 5, kitchen	39
21	Aerial View of Skraeling Island, H. 6	39
22	Plan of Skraeling Island, H. 6	40
23	Plan of Skraeling Island, H. 7	41
24	Skraeling Island, H. 7, meat pit	42
25	Aerial View of Skraeling Island, H. 8, 9 and 10	42
26	Plan of Skraeling Island, H. 8	43
27	Skraeling Island, H. 8, "seat stone"	44
28	Skraeling Island, H. 8, west wall, stone uprights	45
29	Plan of Skraeling Island, H. 9 and 10	46
30	Plan of Skraeling Island, H. 11	47
31	Skraeling Island, H. 11, kitchen	48

32	Skraeling Island, H. 11, meat pit and kitchen entry	49
33	Skraeling Island, H. 12, meat pit and tunnel entry	49
34	Plan of Skraeling Island, H. 12	50
35	Aerial View of Skraeling Island, H. 13, 14, 15 and 16	53
36	Plan of Skraeling Island, H. 13 and 14	52
37	Skraeling Island, H. 14, meat pit	53
38	Plan of Skraeling Island, H. 15	55
39	Skraeling Island, H. 15, kitchen	56
40	Skraeling Island, H. 15, kitchen hearth platform	57
41	Plan of Skraeling Island, H. 16	58
42	Skraeling Island, H. 16, entrance tunnel cover	59
43	Plan of Skraeling Island, H. 17	60
44	Plan of Skraeling Island, H. 18	62
45	Plan of Skraeling Island, H. 19	63
46	Skraeling Island, H. 19, entrance tunnel	64
47	Plan of Skraeling Island, H. 20	66
48	Aerial View of Skraeling Island, H. 21 and 22	67
49	Plan of Skraeling Island, H. 21 and 22	68
50	Plan of Skraeling Island, H. 23	70
51	The Sverdrup Site, SfFk-5	71
52	Plan of Sverdrup, H. 6	72
53	Sverdrup, H. 6	76
54	The Eskimobyen Site, SgFm-4	75
55	Eskimobyen, H. 25	76
56	Plan of Eskimobyen, H. 25 and 26	77
57	The Thule Meadows Site, SfFj-8	79
58	Thule Type 3 Harpoon Head (Plate 2:a)	92
59	Decorated End-bladed Knife Handle	139
60	Age of Death of Ringed Seals Based on Dental Annuli	285
61	Season of Death Based on Dental Annuli, 104 Readings	287
62	Season of Death Based on Dental Annuli, 58 Readings	288

List of Plates

1	Thule Type 2 Harpoon Heads	89
2	Thule Type 3 Harpoon Heads	91
3	Thule Type 4 Harpoon Heads	94
4	Harpoon Head Blades	97
5	Weapon Shafts	98
6	<i>Kayak</i> Hunting Equipment	99
7	Harpoon Socket-Pieces	102
8	Float Equipment	105
9	<i>Kayak</i> Hunting Equipment	108
10	Ice-Hunting Equipment	109
11	Ice-Hunting Equipment	114
12	Bows and Arrows	115
13	Wooden Bows	116
14	Bow Equipment	118
15	Arrowheads	119
16	Arrowshafts	121
17	Arrowpoints	125
18	Sling Handles	126
19	Bolas and Gull Hooks	127
20	Barbs and Prongs	130
21	Sled Shoes and Crosspiece	132
22	Dog Sled Gear	134
23	Paddle	136
24	Knife Handles	138
25	Knife Handles	142
26	Composite Knife Handles and Baleen Knives	144
27	Snow Knives and Engraving Tools	147
28	Handles	151
29	Drilling Tools	152
30	Adze Heads and Handles	153
31	Mattock Blades	156

32	Pick Axes and Mauls	157
33	Picks and Mauls	158
34	Wedges	161
35	Whetstones, Hammerstones and Flint Flakers	162
36	Shims, Pegs and Plugs	165
37	Skin Scraping Tools	166
38	Ulus and Baleen Shaves	169
39	Baleen Bucket	171
40	Bowls and Cups	172
41	Ladles	175
42	Platter	176
43	Spatulas and Meat Stick	177
44	Pounders, Chopping Blocks and Hooks	178
45	Drying Racks	181
46	Fire-Starting Tools	182
47	Soapstone Lamps	183
48	Soapstone Vessels	184
49	Pottery	186
50	Sewing Equipment	192
51	Snow Beaters and Louse Catcher	193
52	Skin Clothing	194
53	Boots	195
54	Caps	198
55	Jacket	199
56	Skin Bags	203
57	Skin Bag	204
58	Ornaments and Amulets	205
59	Ornaments	208
60	Animal Carvings	209
61	Animal and Miscellaneous Carvings	216
62	Drums	217
63	Toys	218
64	Toy Bows and Arrows	219
65	Toys	220
66	<i>Ajagaq</i> Bones	223
67	Game Pieces? and Balls	224

68	Miscellaneous	227
69	Unidentified Ivory Objects	231
70	Unidentified Bone Objects	232
71	Unidentified Antler, Horn and Baleen Objects	233
72	Unidentified Wood Objects	234
73	Norse Artifacts	237
74	Palaeo-Eskimo Artifacts	238

1

The Cultural Setting

Introduction

The Ruin Island phase of Thule culture was initially defined by Erik Holtved (1944I,II) following his archaeological investigations in the Thule District of Northwest Greenland in the 1930's. A distinctive Alaskan cast to the material culture, associated Norse items, and conflicting radiocarbon assessments have made it difficult to determine the cultural relationships and chronological position of the Ruin Island phase within the Canadian Thule culture continuum. This study draws on data from recent archaeological research in the Bache Peninsula region of eastern Ellesmere Island, Northwest Territories, Canada to clarify and extend our knowledge of this culture phase and the question of Thule culture expansion into the Canadian High Arctic. In order to establish a cultural setting for the Ruin Island phase it is necessary to briefly summarize our present understanding of cultural developments in the Canadian Arctic and the Alaska/Bering Sea region during the first and second millennia A.D.

Neo-Eskimo Culture History

The Ruin Island phase represents an early phase of the Thule culture, first named and described by Therkel Mathiassen (1924, 1927I,II) following his participation as archaeologist and cartographer of the Danish Fifth Thule Expedition to Arctic America from 1921 to 1924. Mathiassen excavated sites on Baffin Island and in the northwestern Hudson Bay region which he considered to be the remains of a highly developed, prehistoric Eskimo whaling culture which had originated in Alaska and then moved to Arctic Canada about 1,000 years ago.

Mathiassen's proposed western ancestry for the Thule culture was substantiated by subsequent archaeological research in the Alaska/Bering Sea region and the definition of a developmental continuum consisting of the Okvik/Old Bering Sea, Punuk, Birnirk and Thule cultures (Collins 1937; Ford 1959; Jenness 1928; Rainey 1941). This group of cultures has been variously designated as the "Neo-Eskimo" stage of Eskimo prehistory (Birket-Smith 1959;

Steensby 1917), the Northern Maritime tradition (Collins 1964:90-101), the Arctic Whale Hunting culture (Larsen and Rainey 1948:49), the Thule tradition (Dumond 1977), the Asian tradition (Bockstoe 1979:84), or the Inuk tradition (MacNeish 1959:11, 12) (Fig. 1). The Neo-Eskimo cultures are differentiated from the earlier Palaeo-Eskimo cultures of the Arctic Small Tool (Irving 1962b, 1968) and the Norton traditions (Dumond 1977) by implement types and styles and by an economic orientation to open-water sea mammal hunting with harpoon float gear (Arnold 1983:15; Steensby 1917:165).

The Old Bering Sea culture was first defined by Diamond Jenness (1928) on the basis of a collection of deeply patinated, decorated ivory harpoon heads and other objects dug up by natives on the St. Lawrence and Diomed Islands (Fig. 2). Jenness (1928:178) identified the Bering Sea culture as a highly developed Eskimo culture of northeastern Asiatic origin and pre-Thule in age. The closely-related Okvik stage of prehistoric Eskimo culture was defined by Rainey (1941) from artifacts found in a site on one of the Punuk Islands off the east coast of St. Lawrence Island. The chronological relationship between the Okvik and Old Bering Sea cultures has been the subject of debate and remains largely undecided. Based mainly on art styles, Rainey (1941), Rudenko (1961), Giddings (1960, 1961) and Collins (1964:90-98) considered Okvik to be a distinct culture stage pre-dating Old Bering Sea. Early radiocarbon dates and research by Soviet archaeologists along coastal Chukchi Peninsula reversed this sequence and gave temporal priority to Old Bering Sea (Arutyunov *et al.* 1964; Arutyunov and Sergeev 1968:72-75; Rainey and Ralph 1959:369). The close similarity between the two complexes and the now overlapping range of recent radiocarbon dates suggest that Okvik and Old Bering Sea are best considered as roughly contemporaneous regional variants of a fully-developed maritime culture which flourished in the Bering Sea region from the last few centuries B.C. to about A.D. 700 (Ackerman 1984:108, 109; Dumond 1977:119).

A strong maritime adaptation in the Okvik and Old Bering Sea complexes is demonstrated by the open-socketed, multiple spurred toggle harpoon heads for hunting seals, walrus and whales, the presence of *kayak* and *umiak* parts, and evidence for float gear. Also characteristic of Okvik/Old Bering Sea were bird darts, fish spears, sealing darts and bows and arrows; thick crude pottery; chipped and ground stone tools; and elaborate curvilinear design motifs on harpoon heads, other implements, and ivory carvings including enigmatic "winged" objects which have been variously identified as bird or butterfly carvings used in whaling ceremonies, or as counterbalancing weights attached to the butt end of harpoon shafts (Bandi 1969:73; Collins 1962:6; Dumond 1977:125; Rudenko 1961:46). Houses were semi-subterranean, round or rectangular in shape, with walls of horizontal timbers and the occasional whale bone support, stone paved floors and sunken entrance tunnels which were also paved (Collins 1937:39, Fig. 3; 1940:550; Rainey 1941:469, Fig. 2). A centrally-located open hearth provided heat for the dwelling and for cooking (Rainey 1941:471).

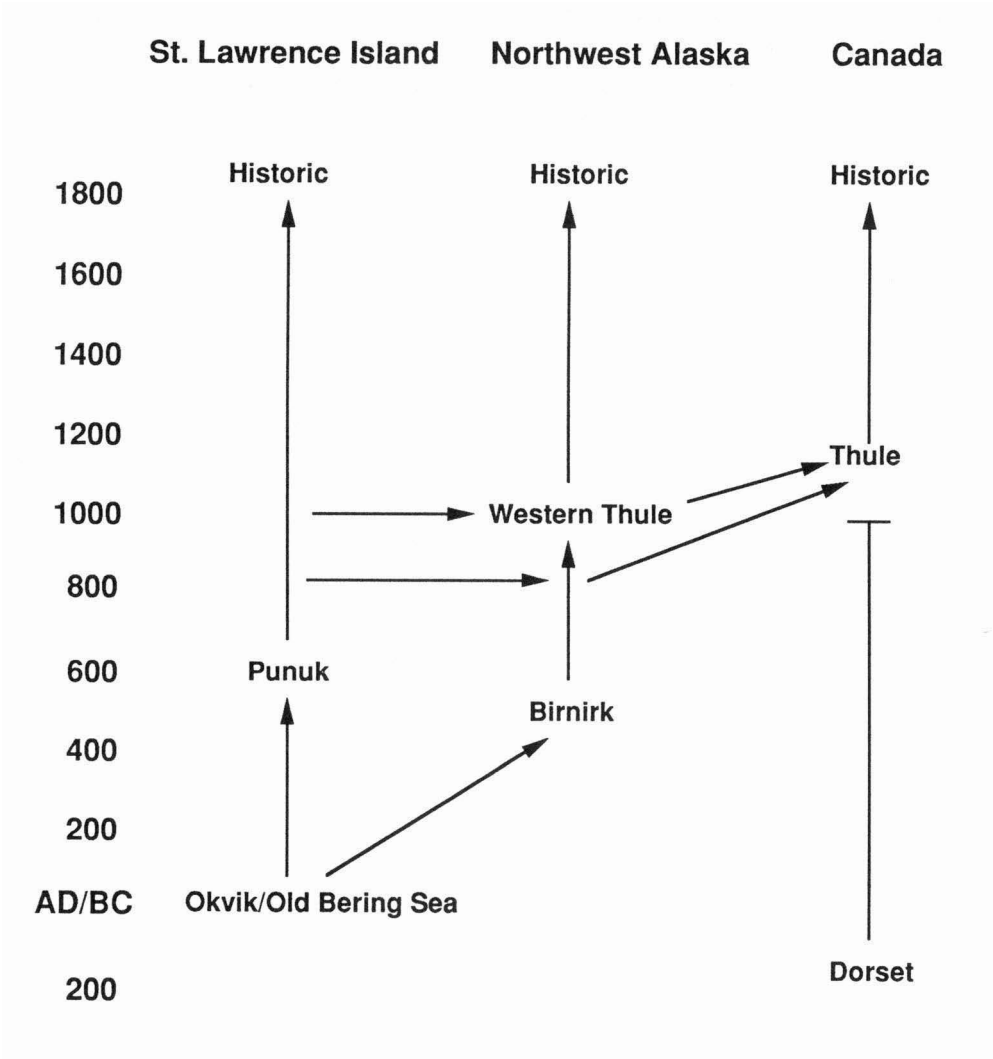


Fig. 1 Summary of Neo-Eskimo Cultures in Canada and Alaska

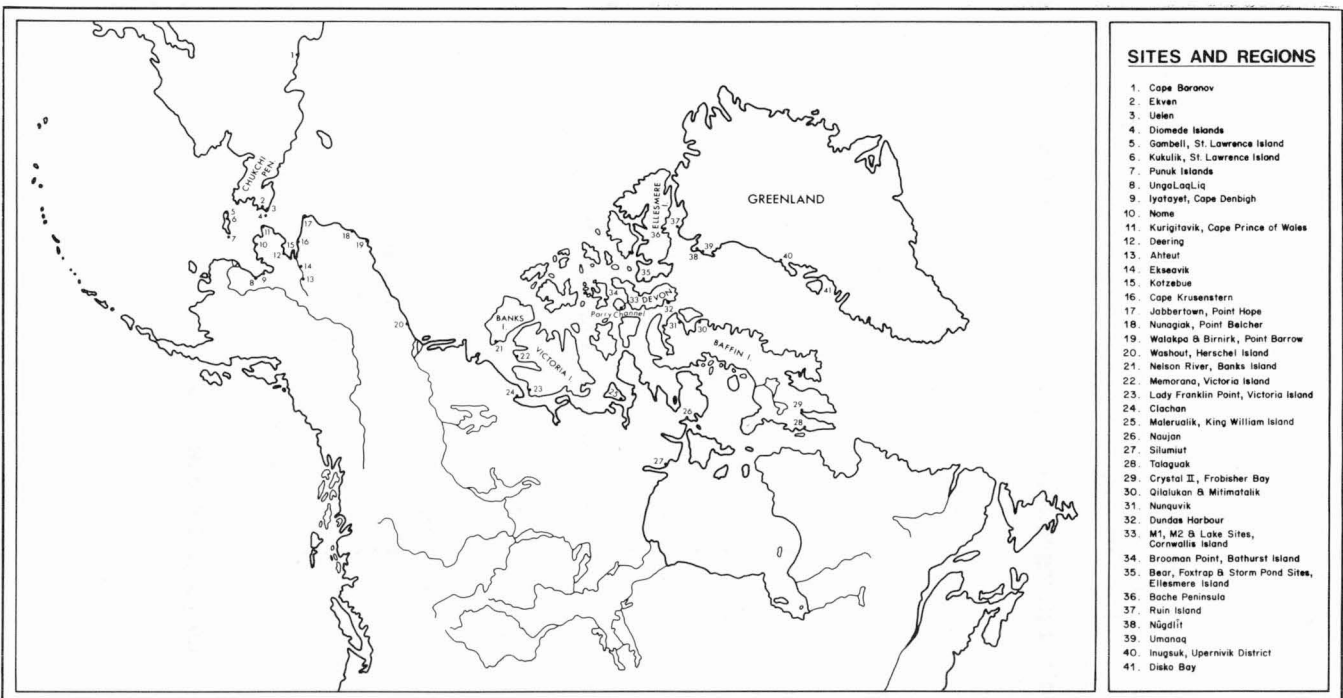


Fig. 2 Sites and Localities Discussed in the Text

Two new phases, Punuk and Birnirk, emerged between A.D. 300 and 600 as direct outgrowths from Okvik/Old Bering Sea. The Punuk culture was initially defined by Henry Collins (1929; 1932:107) in 1928 from a 16' deep midden on one of the Punuk Islands. Later excavations by Collins (1937) at Gambell on St. Lawrence Island confirmed Jenness's ideas on the Bering Sea culture and, moreover, demonstrated a continuous cultural sequence on the island from Old Bering Sea through Punuk to modern Eskimo culture. This developmental sequence was duplicated in a stratigraphic context in a 20' midden at Kukulik on the north coast of St. Lawrence Island (Geist and Rainey 1936). Punuk is differentiated from Old Bering Sea by developmental changes in artifact styles and house forms, more numerous and larger settlements, and a greater emphasis on whaling (Collins 1937, 1964:94; Dumond 1977). Chipped stone tools were largely replaced by implements of ground slate, the ivory winged objects evolved into tridents, and iron-tipped tools were used for engraving. Harpoon head styles became simpler and more standardized in form, as did Punuk art (Collins 1962:14). New traits such as bone plate armour, wrist guards, the reinforced bow, bird bola, heavy ivory netsinkers, and blunt-tipped bird arrows first appeared in the Punuk phase, presumably from Siberian or more southerly Asian influences (Collins 1937:324, 325; 1962:14). Punuk houses were similar to the Old Bering Sea form, but larger in size, with plank or stone floors, walls built of stone, walrus skulls and whale bones, and a narrow entrance passage with stone and bone walls and roofed with horizontal timbers. In some cases, an antechamber built at the end of the tunnel was used as a storage room or kitchen (Collins 1937:71, Fig. 11). Radiocarbon age determinations for the Punuk phase cover the time span from A.D. 600 to 1500, which Giddings (1960:124) divided into three periods: Early Punuk from A.D. 600 to 900, Punuk from A.D. 900 to 1100 and Late or "Thule-Punuk" from A.D. 1100 to 1500. Punuk sites appear to be restricted to the St. Lawrence and Punuk Islands and coastal Chukotka, although Ford (1959:64) identified one house ruin on the Nunagiak site at Point Belcher, North Alaska as Punuk.

Perhaps slightly earlier than Punuk, Birnirk culture is best known along coastal northern and western Alaska (Ackerman 1984:110). In 1912, Stefansson (1919:393) excavated a mound at Birnirk near Point Barrow, North Alaska and recovered prehistoric artifacts of which the harpoon heads and arrowheads were described by Wissler (1919). Between 1917 and 1919, the University Museum of the University of Pennsylvania hired W.B. Van Valin, a school teacher in Point Barrow, to collect artifacts from the neighbouring sites. His work was subsequently reported on by J. Alden Mason (1930). During the field seasons of 1951 to 1953, Wilbert Carter (1966) excavated three mounds at the Birnirk site and part of a midden at the late prehistoric/early historic Nuvuk site at Point Barrow. The largest of the Birnirk house mounds (H) indicated a lengthy period of site occupation, from early Birnirk to the historic period (Carter 1966:16). James A. Ford's (1959) excavations at Birnirk in the 1930's and Dennis Stanford's (1976) more recent work at Walakpa provided the most detailed picture of Birnirk culture. On the basis of the superimposed occupation layers in the Walakpa mound, Stanford (1976:107-110) divided

Birnirk into three phases: Early Birnirk from A.D. 500 to 700, Middle Birnirk from A.D. 700 to 800 and Late Birnirk from A.D. 800 to 900. These chronological phases of Birnirk culture were primarily distinguished by gradual changes in harpoon head and arrowhead styles. Harpoon heads were more often made of antler rather than ivory, and were characterized by medially-placed, trifurcated spurs during Early Birnirk, bifurcated spurs in Middle Birnirk and single, laterally-placed spurs in Late Birnirk, often with remnant spurs in the form of small knobs or a scalloped edge on the single spur (Stanford 1976:108, Fig. 29). The recovery of Punuk-type whaling harpoon heads from the Birnirk site was interpreted by Stanford (1976:109) as evidence for the introduction of Punuk whaling gear during the Late Birnirk period, although whales were a minor food resource compared to seals and caribou (Anderson 1984:91; Stanford 1976:97, 114). Birnirk houses were square in shape with walls constructed of horizontal logs and single or double posts in each corner. Sleeping areas were at the back or along one side of the dwelling and were either built up or at floor level (Ford 1959:48-52). No interior hearths were found in the house ruins at the Birnirk site, although heavily encrusted and fire-blackened pottery vessel fragments suggested extensive use over open fires (Ford 1959:204). Birnirk phase sites occur on the Alaskan coast from Cape Nome, southeast of Bering Strait, to Point Barrow, northern Alaska and along the Chukotka coast at Uelen, Ekven and Cape Baranov (Ackerman 1984:110; Bockstoe 1979). Although both Ford (1959:244) and Stanford (1976:111) traced the development of Birnirk from Okvik/Old Bering Sea, the presence of Ipiutak-style chipped stone tools in Birnirk suggests some affinity with that partly contemporaneous Palaeo-Eskimo culture (Anderson 1980:240; Arnold 1981:22).

The excavation of seventeen stratigraphic levels at the Walakpa site also clearly demonstrated the *in situ* development of Thule culture from Birnirk around A.D. 900 (Stanford 1976:112). Alaskan Thule culture was given the name Western Thule by Larsen and Rainey (1948:39, 170-175) who excavated houses and graves of Thule culture affiliation at Point Hope, Alaska. The variety of Birnirk harpoon head types was diminished in the Early Thule phase to the single-spurred Natchuk, Sicco and Thule 2 types (Stanford 1976:109). Western Thule houses often had multiple rooms built of horizontal logs, with sunken entrance passages and small kitchen extensions (Giddings 1967:85). The larger settlements and larger individual houses probably resulted from the increased whale hunting evident during the Early Thule period (Anderson 1984:92). Early Western Thule sites in Alaska include Walakpa and Nunagiak near Point Barrow, Jabbertown at Point Hope (Larsen and Rainey 1948), Kurigitavik at Cape Prince of Wales (Collins 1964:99), Nukleet at Cape Denbigh (Giddings 1964), Cape Krusenstern (Giddings 1967:80-101; Giddings and Anderson 1986; Giddings and Bandi 1962) and Ahteut, Ekseavik, Old Kotzebue and Onion Portage on the Kobuk River (Anderson 1968:28; Giddings 1952).

Yamaura (1984:222, 223) has recently proposed that the term 'Western Thule' be restricted to post-Birnirk, pre-contact sites in North Alaska. Sites in the Kotzebue Sound region of Western Alaska which showed a higher degree of

Punuk influences in harpoon head styles were grouped by Yamaura into the "Kurigitavik Culture" named after the site at Wales excavated by Jenness (1928) in 1926 and, more extensively, by Collins (1975:55) a decade later. Artifact similarities between Kurigitavik and Punuk sites induced Collins (1975:58) to characterize Kurigitavik as a blend of Thule and Punuk; nevertheless, he described the site as being "in the truest sense an original Thule site". Strong Punuk influences, particularly in harpoon head and decorative art styles, were also noted in the early period of the Nukleet site in Norton Bay which Giddings (1964:116, 251) related to the Western Thule Culture. A more Punuk-influenced manifestation of Western Thule in Western Alaska rather than North Alaska is not surprising considering the closer proximity of the West Alaskan sites to St. Lawrence Island.

As Western Thule peoples settled the northern and western coasts of Alaska, other Thule groups migrated eastward across the Canadian Arctic as far as Greenland. Prior to A.D. 1000, the central and eastern Canadian Arctic were occupied by people of the Dorset culture. Within a few centuries, Dorset culture was almost completely supplanted by Thule immigrants from the west. Evidence of contact between Dorset and Thule peoples is scarce and the nature of the Dorset/Thule succession remains poorly understood.

The uniformity of early Thule culture in the east has been taken to indicate a rapid initial population movement from Alaska to Greenland. The timing and nature of the Thule culture expansion into the Canadian Arctic has been interpreted in a cultural/ecological model developed by R. McGhee (1969/70, 1975, 1984b). In this model, the rapid expansion of Thule peoples suggested by the uniformity of early Thule culture in the east is linked to the onset of the Neo-Atlantic climatic episode, a warming trend which occurred between A.D. 900 and 1200 in the northern hemisphere (Bryson and Wendland 1967). This warming trend resulted in a lengthened season of open water along the North Alaska coast and an extension of the summer range of bowhead whales into the Beaufort Sea and farther east into the Canadian Archipelago. The development of open-water whaling techniques made possible the expansion of Thule peoples into the Canadian Arctic, to areas within the summering range of the bowhead whale (McCartney 1977:23; McGhee 1969/70; 1975:71; 1984b:373, 374). McGhee (1969/70) has traced the route followed by the pioneering Thule migrants by plotting the distribution of an early form of Thule type 3 harpoon head known as the Sicco Open-Socket style. This distinctive form of harpoon head characterizes the Punuk and Birnirk phases of Alaska (Ford 1959:83-86; Stanford 1976:19, 99) and has been found on Banks Island (Arnold 1983:Fig. 3a; Arnold and Stimmell 1983:3), at Minto Inlet and Lady Franklin Point on Victoria Island, near the mouth of the Inman River east of Cape Parry and at Maxwell Bay on the south coast of Devon Island (Taylor 1963:458, 459), at the M1 site on southern Cornwallis Island (Collins 1952:51), in the Bache Peninsula region of eastern Ellesmere Island (Lethbridge 1939:201; Schledermann 1978:468; Schledermann and McCullough 1980:838) and across Smith Sound at Thule (Umanaq) and Nugdlit (Nuulliit) in Northwest Greenland (Holtved 1944I:186, 1954:61, 62). These sites mark a route of expansion from

Alaska, along the Beaufort Sea coast to Amundsen Gulf, eastward through Parry Channel to Baffin Bay and north to the Smith Sound region (McGhee 1975:71; 1984b:Fig. 1).

A second phase of Thule expansion is proposed between A.D. 1200 and 1300 into the southern Arctic Islands, the western mainland coasts of Amundsen and Coronation Gulfs and into the Hudson Bay region (McGhee 1975:71; 1984b:373, 374). Archaeological sites relating to this second expansion phase include Mathiassen's Thule type-site of Naujan, Silumiut and other sites in the northwestern Hudson Bay region, Mitimatalik and Qilalukan on northern Baffin Island, and Malerualik on King William Island. These sites contain most of the characteristic Thule artifact types listed by Mathiassen (1927II:4, Fig. 1). This phase of Thule culture was marked by regional diversification in subsistence economies and material culture which may reflect the formation of semi-isolated regional "tribes" (McGhee 1969/70:180; 1984b:373). The transition from localized Thule culture variants to the historic Eskimo tribes has been convincingly demonstrated in several areas, confirming speculations that the Thule people were the biological and cultural ancestors of modern Canadian Eskimos (Harp 1961; McGhee 1972, 1984b:376; Taylor 1963:456, 1964:194; VanStone 1962). McGhee's model of Thule culture expansion and development in the Canadian Arctic has been generally accepted although several authors, including McGhee (1983:23, 24), are now de-emphasizing the role of environmental change in cultural change and have forwarded alternative explanations for the Thule expansion such as population or social pressures in the western homeland or a desire for a valued raw material (Morrison 1983:272; Schledermann and McCullough 1980:841; Yorga 1979:290).

Ruin Island Defined

On his return to Denmark from the Fifth Thule Expedition, Mathiassen joined the Ethnographic Division of the Danish National Museum and began a series of archaeological investigations in West Greenland. His research there led to the discovery of a phase of Thule culture which he termed Inugsuk. The Inugsuk phase dates from the mid-13th to mid-14th century and so overlaps with, and was influenced by, the Norse colonists who settled in southwest Greenland (Mathiassen 1931a:325). Mathiassen was assisted for two field seasons by Erik Holtved, who, as a member of the Sixth Thule Expedition in 1931, had previously excavated Eskimo sites in southeast Greenland (Birket-Smith 1969/70:7). With Mathiassen's encouragement, Holtved organized his own archaeological expedition to Northwest Greenland from 1935 to 1937. This part of Greenland has been known as the Thule District since 1910, when Knud Rasmussen established a trading post there which he called the "Thule Station". The post was located near the native settlement of Umanaq, which also became known as "Thule". With the construction of the United States Air Force Base at Thule, the native settlement was moved north to Qanaq, which was then officially named "Thule" and the settlement at Umanaq was named "Dundas" (Gilberg 1976:86). The Thule District is now called *Avanersuup Kommunia*, 'the

northernmost commune' (Gilberg 1984:593). To avoid confusion, the native settlement names will be used whenever possible.

Holtved excavated at seven major site areas and established a chronological framework which extended from Dorset culture, through Thule and Inugsuk, to the historic Polar Eskimo. By calculating the percentage of shared material culture traits between sites and using stratigraphic evidence from the rich and stratified Comer's midden at the settlement of Umanaq, Holtved (1944II:6) identified two geographically separated phases of Thule culture; one at Umanaq (called Thule by Holtved) and the other in Inglefield Land to the north (Fig. 3). On the basis of harpoon head developments as they were known outside of the Thule District, Holtved concluded that the Inuarfigssuaq, Cape Russell and Cape Kent sites in Inglefield Land were occupied earlier than the site at Umanaq. The assemblages from Inglefield Land most closely resembled the Thule culture as defined by Mathiassen from his work on sites north and west of Hudson Bay, whereas those from Umanaq shared strong similarities with the West Greenland Inugsuk culture. Between these two culture periods, Holtved (1944II:40) found evidence of what he thought to be "an intrusion of a more foreign phase of Thule culture" which he named Ruin Island after the small island off the coast of Inglefield Land where its remains were identified. There, Holtved found two tent rings, several meat caches and a fox trap at lower elevations, and 7 winter house ruins on the top of the island between 9 and 12 metres above sea level (ASL). Excavation of the 7 winter houses revealed the presence of 6 uniformly-constructed family dwellings and one *qagsse*, a clubhouse and workshop for men (Holtved 1944I:78).

The Ruin Island assemblages shared many material culture traits with the Thule culture of Inglefield Land. Nevertheless, the presence of Norse artifacts and the house style with a well-developed kitchen extension seemed to relate the phase to the later Inugsuk culture (Holtved 1944II:59). Two houses at the Umanaq site, 16 and 19, conformed closely to the Ruin Island site both in terms of architecture and artifact traits, and Holtved (1944II:150; 1954:106) included these in what he termed the Ruin Island group or phase. Holtved established a trait list of 186 types for the Ruin Island phase, of which 31 types or 16.5% were unique to the phase in the Thule District. Because he considered the Ruin Island phase to be intermediate between the early and late Thule periods, and because of its many "foreign" features, Holtved thought it to be evidence of an immigration to the region after the Thule culture was already established in Inglefield Land. Close similarities in some material culture traits, particularly harpoon head styles, between Ruin Island in Greenland and the Punuk culture of the Bering Strait region, led him to identify these immigrants as Punuk peoples who had migrated from Alaska around A.D. 1300. The retention of many western traits indicated that there had been a fairly rapid migration through the Canadian Arctic to Greenland. Among the features introduced by the immigrants was a profusion of items made from baleen, suggesting that the newcomers were proficient whale hunters (Holtved 1944II:38).