SMITHSONIAN INSTITUTION—BUREAU OF ETHNOLOGY.

THE CENTRAL ESKIMO.

BY

DR. FRANZ BOAS

BUREAU OF ETHNOLOGY SIXTH ANNUAL REPORT PL. II

CONTENTS.

405

ILLUSTRATIONS.

Illustrations have been placed as close as practicable to their discussion in the text. The List of Illustrations shows their original location. Plates II and III, the color maps, are shown at the beginning and end of the text, respectively. Plates II-IV and Figures 544-546 are shown as thumbnails. Click to see a larger version.

A few figures have notation such as “½” or “⅔”, referring to actual size. In this e-text, “actual size” generally corresponds to a resolution of 100dpi:

Images may come out slightly larger or smaller on your screen.

406. Qanging serving for both toggle and handle
407. Qidjarung or whirl for harpoon line
408. Simpler form of whirl
409. Old pattern of hook for drawing out captured seal
410. Seal hook of bear's claw
411. Modern form of seal hook
412. Eskimo approaching seal
413. Frame of a kayak or hunting boat
414. Kayak with covering of skin
406 Model of a Repulse Bay kayak
415.
416. Sirmijaung or scraper for kayak
417. Large kayak harpoon for seal and walrus
418. Tikagung or support for the hand
419. Qatirn or ivory head of harpoon shaft
420. Manner of attaching the two principal parts of the harpoon
421. Tokang or harpoon head in sheath
422. Tokang or harpoon head taken from a whale in Cumberland Sound
423. Ancient tokang or harpoon head
424. Teliqbing, which is fastened to harpoon line
425. Qatilik or spear
426. Avautang or sealskin float
427. Different styles of poviutang or pipe for inflating the float
428. Agdliaq or spear for small seals
429. Agdliaq points
430. Spear heads
431. Large spear head
432. Anguvigang or lance
433. Nuirn or bird spear
434. Nuqsang or throwing board
435. Sealing at the edge of the ice
436. Model of sakurpāng´ or whaling harpoon
437. Niu´tang, with floats
438. Wooden bow from Iglulik
439. Wooden bow from Cumberland Sound

440. Bows of reindeer antlers
441. Bow of antlers, with central part cut off straight, from Pelly Bay
442. Arrows with bone heads
443. Arrows with metal heads
444. Arrowhead from Boothia
445. Showing attachment of arrowhead vertically and parallel to shank
446. Various forms of arrowhead
447. Socket of spear handle from Alaska
448. Slate arrowhead
449. Flint arrowheads from old graves
450. Various styles of quiver
451. Quiver handles
452. Whalebone nooses for catching waterfowl
453. Kakivang or salmon spear
454. Ivory fish used as bait in spearing salmon
455. Quqartaun for stringing fish
456. Salmon hook
457. Salmon hook
458. Bait used in fishing with hooks
459. Butcher's knife with bone handle
460. Pana or knife for dissecting game
461. Form of ulo now in use
462. Old ulo with top of handle broken off, from Cape Broughton, Davis St
463. Fragment of an ulo blade of slate
464. Ulo handle from recent grave
465. Modern tesirqun or scraper
466. Old style of tesirqun or scraper
407 Seligoung or scraper used for softening skins
467.
468. Old stone scrapers found in graves
469. Stretcher for lines
470. Ivory needle
471. Ivory needle-case from Cumberland Sound
472. Common pattern of needle-case
473. Tikiq or thimble

474. Instrument for straightening bones
475. Drill for working in ivory and bone
476. Driftwood used in kindling fire
477. Eskimo graver's tool
478. Framework of Eskimo boat
479. Kiglo or post
480. Umiaq or skin boat
481. Umiaq or skin boat
482. Qamuting or sledge
483. Sledge shoe
484. Clasp for fastening traces to sledge
485. Artistic form of clasp for fastening traces to sledge
486. Uqsirn, for fastening traces to pitu
487. Ano or dog harness
488. Sadniriaq or clasp
489. Tube for drinking
490. Various styles of snow knife
491. Ground plan of snow house of Davis Strait tribes
492. Snow house of Davis Strait, sections
493. Section and interior of snow house
494. Ukusik or soapstone kettle
495. Plan of double snow house
496. Plan of Iglulik house
497. Plan of Hudson Bay house
498. Plan and sections of qarmang or stone house
499. Plan of large qarmang or stone house
500. Plan of stone house in Anarnitung, Cumberland Sound
501. Plan of group of stone houses in Pangnirtung, Cumberland Sound
502. Plan and sections of qarmang or house made of whale ribs
503. Storehouse in Ukiadliving
504. Plan and sections of tupiq or tent of Cumberland Sound
505. Plan and sections of tupiq or tent of Pond Bay
506. Plan and sections of double winter tent, Cumberland Sound
507. Qaturang or boot ornament
508. Woman's jacket

509. Ivory beads for women's jackets
510. Girdle buckles
511. Infant's clothing
512. Child's clothing
513. Ivory combs
514. Buckles
515. Manner of tattooing face and wearing hair
516. Manner of tattooing legs and hands
517. Forks
518. Ladle of musk ox horn
519. Skull used in the game ajegaung
408 Ivory carving representing head of fox, used in the game ajegaung
520.
521. Ivory carvings representing polar bear, used in the game ajegaung
522. Figures used in playing tingmiujang, a game similar to dice
523. Game of nuglutang
524. The sāketān or roulette
525. Ajarorpoq or cat's cradle
526. Ball
527. Dolls in dress of the Oqomiut
528. Dolls in dress of the Akudnirmiut
529. Modern snow goggles, of wood
530. Old form of snow goggles, of ivory
531. Diagram showing interior of qaggi or singing house among eastern trib
532. Plan of Hudson Bay qaggi or singing house
533. Kilaut or drum
534. Plans of remains of supposed qaggi or singing houses
535. Qailertetang, a masked figure
536. Model of lamp from a grave in Cumberland Sound
537. Qaudjaqdjuq is maltreated by his enemies
538. The man in the moon comes down to help Qaudjaqdjuq
539. The man in the moon whipping Qaudjaqdjuq
540. Qaudjaqdjuq has become Qaudjuqdjuaq
541. Qaudjuqdjuaq killing his enemies
542. Tumiujang, or lamp of the Tornit

THE CENTRAL ESKIMO.

By Dr. Franz Boas

INTRODUCTION.

The following account of the Central Eskimo contains chiefly the results of the author's own observations and collections made during a journey to Cumberland Sound and Davis Strait, supplemented by extracts from the reports of other travelers. The geographical results of this journey have been published in a separate volume.[1] A few traditions which were considered unsuitable for publication by the Bureau of Ethnology may be found in the Verhandlungen der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte, 1887. The linguistic material collected during the journey will be published separately. Owing to unfortunate circumstances, the larger portion of the author's collections could not be brought home, and it has therefore been necessary, in preparing this paper, to make use of those made by C. F. Hall, 1860–1862 and 1865–1869; W. Mintzer, 1873-'74, and L. Kumlien, 1877-'78. Through the kindness of Professor Otis T. Mason, I was allowed to make ample use of the collections of the National Museum and have attached its numbers to the specimens figured. The author's collection is deposited in

the Museum für Völkerkunde at Berlin. I am indebted to the American Museum of Natural History; to Mr. Appleton Sturgis, of New York; to Captain John O. Spicer, of Groton, Conn.; and to Mrs. Adams, of Washington, D.C., for several figures drawn from specimens in their possession.

AUTHORITIES QUOTED.

In citing the various authorities, I have used abbreviations as indicated at the end of titles in the following list of works consulted:

De | Martini | Forbisseri | Angli navigati | one in regiones occi | dentis et septen | trionis | Narratio historica, | Ex Gallico sermone in La | tinum translata | per | D. Joan. Tho. Freigivm. | [Design.] | Cum gratia & privilegio Imperiali, ciↃ. iↃ. xxc. [Colophon:] Noribergæ | Imprimebatur, in officina Ca | tharinæ Gerlachin, & Hære | dum Iohannis Mon | tani. Anno ciↃ iↃ xxc. (Cited, Frobisher.)

A | voyage of discovery, | made under the orders of the Admiralty | in | His Majesty's ships | Isabella and Alexander, | for the purpose of | exploring Baffin's Bay, | and inquiring into the probability of a | north-west passage. | By John Ross, K.S. Captain Royal Navy. | London: | John Murray, Albemarle-street. | 1819. (Cited, Ross I.)

Journal | of a voyage for the discovery of a | north-west passage | from the Atlantic to the Pacific; | performed in the years 1819–20, | in His Majesty's ships | Hecla and Griper, | under the orders of | William Edward Parry, R.N., F.R.S., | and commander of the expedition. | With an appendix, containing the scientific | and other observations. | Published by authority of the lords commissioners | of the admiralty. | London: | John Murray, | publisher to the admiralty, and board of longitude. | 1821. (Cited, Parry I.)

Journal | of a | second voyage for the discovery of a | north-west passage | from the Atlantic to the Pacific; | performed in the years 1821–22–23, | in His Majesty's ships | Fury and Hecla, | under the orders of | Captain William Edward Parry, R.N., F.R.S., | and commander of the expedition. | Illustrated by numerous plates. | Published by authority of the lords commissioners | of the

admiralty. | London: | John Murray, | publisher to the admiralty, and board of longitude. | 1824. (Cited, Parry II.)
The | private journal | of | Captain G. F. Lyon, | of H.M.S. Hecla, | during | the recent voyage of discovery under | Captain Parry. | With a map and plates. | London: | John Murray, Albemarle-Street. | 1824. (Cited, Lyon.)
A | brief narrative | of | an unsuccessful attempt | to reach | Repulse Bay, | through | Sir Thomas Rowe's "Welcome," | in | His Majesty's ship Griper, | in the year | 1824. | By Captain G. F. Lyon, R.N. | With a chart and engravings. | London: | John Murray, Albemarle street. | 1825. (Cited, Lyon, Attempt to reach Repulse Bay.)
Narrative | of a | second voyage in search of | a | north-west passage, | and of a | residence in the Arctic regions | during the years 1829, 1830, 1831, 1832, 1833. | By | Sir John Ross, C.B., K.S.A., K.C.S., &c. &c. | captain in the Royal Navy. | Including the reports of | Commander, now Captain, James Clark Ross, R.N., F.R.S., F.L.S., &c. | and | The Discovery of the Northern Magnetic Pole. | London: | A. W. Webster, 156, Regent street. | 1835. (Cited, Ross II.)
A narrative | of some passages in the history of | Eenoolooapik, | a young Esquimaux who was brought to Britain in 1839, in the ship "Neptune" | of Aberdeen. | An account of the | discovery of Hogarth's Sound: | remarks on the northern whale fishery, | and suggestions for its improvement, &c. &c. | By Alexander M'Donald, L.R.C.S.E. | Member of Cuvieran Natural History Society of Edinburgh. | Edinburgh: Fraser & Co. | And J. Hogg, 116 Nicolson Street, | 1841. (Cited, Eenoolooapik.)
Narrative | of | the discoveries | on | the north coast of America; | effected by the | officers of the Hudson's Bay Company | during the years 1836–39. | By Thomas Simpson, esq. | London: | Richard Bentley, New Burlington Street. | Publisher in Ordinary to Her Majesty | 1843. | (Cited, Dease and Simpson.)

Narrative | of an | expedition to the shores | of | the Arctic sea | in 1846 and 1847. | By John Rae, | Hudson Bay Company's service, commander of the expedition.| With maps. | London: | T. & W. Boone, 29, New Pond Street. | 1850. (Cited, Rae I.)
Further papers | relative to the Recent Arctic expeditions | in search of |

Dr. John Franklin, | and the crews of | H.M.S. “Erebus” and “Terror.” | Presented to both houses of Parliament by command of Her Majesty, | January, 1855. London: | Printed by George Edward Eyre and William Spottiswoode, | Printers to the Queen’s most excellent Majesty. | For Her Majesty’s stationery office. | 1855. (Cited, Rae II.)

Same volume: Observations on the Western Esquimaux and the country they inhabit; from Notes taken during two years at Point Barrow, by Mr. John Simpson, Surgeon R.N., Her Majesty’s Discovery Ship “Plover.” (Cited, Simpson.)

The voyage of the ‘Fox’ in the Arctic seas. | A narrative | of the | discovery of the fate | of | Sir John Franklin | and | his companions. | By Captain M’Clintock, R.N., LL.D. | honorary member Royal Dublin Society. | [Portrait.] | With maps and illustrations. | London: | John Murray, Albemarle street, | publisher to the admiralty. | 1859. (Cited, M’Clintock.)

Life with the Esquimaux: | a narrative of Arctic experience in search of | survivors of Sir John Franklin’s | Expedition. | By | Captain Charles Francis Hall, | of the whaling barque “George Henry,” | From May 29, 1860, to September 13, 1862. | Popular Edition. | With Maps, | Coloured illustrations, and one hundred wood cuts. | London: | Sampson Low, son, and Marston, | Milton House, Ludgate Hill. | 1865. (Cited, Hall I.)

Tales and traditions | of the | Eskimo | with a sketch of | their habits, religion, language | and other peculiarities | by | Dr Henry Rink | knight of Dannebrog | Director of the Royal Greenland board of trade, and | formerly Royal Inspector of South Greenland | author of ‘Grönland geographik og | statistick beckrevest,[B] etc. | Translated from the Danish by the author | Edited by | Dr Robert Brown | F.L.S., F.R.G.S. | author of ‘The races of mankind,’ etc. | With numerous illustrations, drawn and | engraved by Eskimo | William Blackwood and Sons | Edinburgh and London | 1875. | All rights reserved. (Cited, Rink.)

Eskimoiske | Eventyr og Sagn | oversatte | efter de indfødte fortælleres opskrifter | og meddelelser | af | H. Rink, | inspektør i Sydgrønland. | Kjøbenhavn. | C. A. Reitzels Boghandel. | Louis Kleins Bogtrykkeri. | 1866. (Cited, Rink, Eventyr og Sagn.)

Eskimoiske | Eventyr og Sagn. | Supplement | indeholdende | et Tillæg om Eskimoerne | af | H. Rink. | Kjøbenhavn. | C. A. Reitzels Boghandel. | Louis Kleins Bogtrykkeri. | 1871. (Cited, Rink, Eventyr og Sagn, Supplement.)

Narrative | of the | second Arctic expedition | made by | Charles F. Hall: | his voyage to Repulse Bay, sledge journeys to the Straits [*sic*] of Fury | and Hecla and to King William's Land, | and | residence among the Eskimos during the years 1864-'69. | Edited under the orders of the Hon. Secretary of the Navy, | by | Prof. J. E. Nourse, U.S.N. | U.S. Naval Observatory, | 1879. | Trübner & Co., | Nos. 57 and 59 Ludgate Hill, | London. (Cited, Hall II.)

Als Eskimo unter den Eskimos. | Eine Schilderung der Erlebnisse | der | Schwatka'schen Franklin-Aufsuchungs-Expedition | in den Jahren 1878–80. | Von | Heinrich W. Klutschak, | Zeichner und Geometer der Expedition. | Mit 3 Karten, 12 Vollbildern und zahlreichen in den Text gedruckten Illustrationen | nach den Skizzen des Verfassers. | Wien. Pest. Leipzig. | A. Hartleben's Verlag. | 1881. | Alle Rechte vorbehalten. (Cited, Klutschak.)

Schwatka's Search | sledging in the Arctic in quest of | the Franklin records | By | William H. Gilder | second in command | with maps and illustrations | London | Sampson Low, Marston, Searle, and Rivington | Crown Buildings, 188, Fleet Street. | All rights reserved. (Cited, Gilder.)

Eskimoisches Wörterbuch, | gesammelt | von den Missionaren | in | Labrador, | revidirt und herausgegeben | von | Friedrich Erdmann. | Budissin, | gedruckt bei Ernst Moritz Monse. | 1864. (Cited, Wörterbuch des Labradordialectes.)

In the following two items, umlauts (äöü) were printed as a small "e" above the letter.

David Cranz | Historie | von | Grönland | enthaltend | Die Beschreibung des Landes und | der Einwohner &c. | insbesondere | die | Geschichte | der dortigen | Mission der | Evangelischen | Brüder | zu | Neu-Herrnhut | und | Lichtenfels. | Mit acht Kupfertafeln und einem Register. | Barby bey Heinrich Detlef Ebers, und in Leipzig | in Commission bey Weidmanns Erben und Reich. | 1765. (Cited,

Cranz.)

Bruchstükke | eines Tagebuches, | gehalten in | Grönland | in den Jahren 1770 bis 1778 | von Hans Egede Saabye, | vormaligem ordinierten Missionar in den Destrikten Claushavn | und Christianshaab, jetzigem Prediger zu Udbye | im Stifte Füthnen. | Aus dem Dänischen übersetzt | von | G. Fries, | beabschiedigtem königlich dänischen Capitaine. | Mit einer Vorrede des Uebersetzers, | enthaltend einige Nachrichten von der Lebensweise der | Grönländer, der Mission in Grönland, samt andern damit | verwandten Gegenständen, und einer Karte | über Grönland. Hamburg. | Bey Perthes und Besser. | 1817. (Cited, Egede.)

Baffin-Land. | Geographische Ergebnisse | einer | in den Jahren 1883 und 1884 ausgeführten Forschungsreise. | Von | Dr. Franz Boas. | Mit zwei Karten und neun Skizzen im Text. | (Ergänzungsheft No. 80 zu »Petermanns Mitteilungen«.) | Gotha: Justus Perthes. | 1885. (Cited, Baffin-Land.)

Die Amerikanische | Nordpol-Expedition | von | Emil Bessels. | Mit zahlreiche Illustrationen in Holzschnitt, Diagrammen und | einer Karte in Farbendruck. | Leipzig. | Verlag von Wilhelm Engelmann. | 1879. (Cited, Bessels.)

Contributions | to the | Natural History of | Arctic America, | made in connection with | the Howgate Polar expedition, 1877-'78, | by | Ludwig Kumlien, | Naturalist of the expedition. | Washington: | Government Printing Office. | 1879.

Report | of the | Hudson's Bay expedition, | under the command of | Lieut. A. R. Gordon, R.N., | 1884.

Traditions indiennes | du | Canada nord-ouest | par Émile Petitot | Ancien missionnaire. | Paris | Maisonneuve frères et Ch. Leclerc, | 25, Quai Voltaire, | 1886.

The following is a list of the papers published by the author on the results of his journey to Baffin Land and of studies connected with it. The ethnological remarks contained in these brief communications have been embodied in the present paper. The method of spelling in the first publications differs from that applied in the present paper. It was decided to use the latter after a conference with Dr. H. Rink.

"Reiseberichte aus Baffin-Land." Berliner Tageblatt, August 4, October 28, November 4, November 25. 1883; September 28, October 19, November 2, November 9, November 16, November 23, December 28, 1884; January 4, April 3, April 27, 1885.
"Unter dem Polarkreise." New-Yorker Staats-Zeitung, February 1, February 22, March 2, 1885.
"The configuration of Ellesmere Land." Science, February 27, 1885.
"A journey in Cumberland Sound and on the west shore of Davis Strait in 1883 and 1884, with map." Bull. Am. Geogr. Soc., pp. 241–272, 1884.
"Die Wohnsitze und Wanderungen der Baffin-Land Eskimos." Deutsche geogr. Blätter, p. 31, 1885.
"Cumberland Sound and its Esquimaux." Popular Science Monthly, p. 768, May, 1885.

"Die Eskimos des Baffin-Landes." Verh. des V. deutschen Geographentags zu Hamburg. Berlin, 1885.
"Reise im Baffinlande, 1883 und 1884." Verh. der Ges. für Erdkunde zu Berlin, 1885, Nos. 5, 6.
"Die Sagen der Baffin-Land Eskimos." Verh. der Berlin, anthrop. Gesellschaft, 1885, p. 161.
"The Eskimo of Baffin Land." Transactions of the Anthropological Society of Washington, Vol. 3, pp. 95–102.
"Sammlung aus Baffin-Land." Original Mittheilungen aus der ethnol. Abtheilung der Kgl. Museen zu Berlin, 1886, p. 131.

ORTHOGRAPHY.

In the spelling of Eskimo words the author has adhered as closely as possible to Kleinschmidt's orthography, as he did not deem it proper to introduce a linguistic alphabet after so much has been published in another and almost sufficient one.

Accents and lengths have been marked where it seemed to be desirable. In quotations Eskimo words are spelled according to this system where it is possible to recognize their meaning and derivation. In other cases the original spelling of the authors has been retained. The alphabet used in this paper is as follows:

Vowels: a — a in father.
e — ey in they.
i — ee in feel.
o — o in nose.
u — oo in pool.
au — ow in how.
ai — i in hide.

Consonants: q — a hard, guttural sound (Kleinschmidt's κ).
r — the German guttural r.
rn — a guttural and nasal r.
χ — the German ch in Buch; Scotch ch in loch.
g — English g in go.
k — English k.
ng — English ng in during.
b — English b.
p — English p.
v — pronounced with the lips only.
f — pronounced with the lips only.
m — English m.
d — English d.
t — English t.
s — English s in soul.
n — English n.
(g)dl — ḏ of Lepsius's standard alphabet.
(g)dtl — ṯ of Lepsius's standard alphabet.
l — English l.
j — German j in jung; English y.
ss — š of Lepsius's standard alphabet, sounding between s and sh.

GEOGRAPHY OF NORTHEASTERN AMERICA.[2]

The Eskimo inhabit almost the whole extent of the coast of Arctic

America. A large part of this country is occupied by the Central Eskimo, one of the great groups into which that people is divided. They live in the northeastern part of the continent and on the eastern islands of the Arctic-American Archipelago. In Smith Sound they inhabit the most northern countries visited by man and their remains are even found at its northern outlet. The southern and western boundaries of this district are the countries about Fort Churchill, the middle part of Back River, and the coast west of Adelaide Peninsula. Along the whole extent of this line they are the neighbors of Indian tribes, with whom they are generally on very bad terms, a mutual distrust existing between the two races. The geography of the whole country is known only in outline, and a great portion of it awaits its explorer. Following is a sketch of what is known about it, so far as it is of importance to the ethnologist.

The vast basin of Hudson Bay separates two large portions of the American continent: Labrador and the region of the large Arctic rivers. The southern shore of the bay is inhabited by Indian tribes who interrupt the communication between the Eskimo of both regions. Hudson Bay, however, has the character of a true mediterranean sea, the northern parts of its opposite shores being connected by a number of islands and peninsulas. The low and narrow Rae Isthmus, which presents an easy passage to the Arctic Ocean, unites Melville Peninsula to the main body of the continent. From this peninsula Baffin Land stretches out toward the north of Labrador, with only two narrow channels intervening: Fury and Hecla Strait and Hudson Strait. Another chain of islands, formed by the parts of Southampton Island and Mansfield Island, stretches from Repulse Bay to the northwest point of Labrador, but the distances between the islands and the roughness of the sea prevent communication.

On the western part of the continent the great bays, Chesterfield Inlet and Wager River, are of importance, as they allow the Eskimo, though they are a coast people, to penetrate into the

interior of the continent. A narrow isthmus separates the head of the bays from the lakes of Back River. At Coronation Bay the latter approaches the Arctic Ocean very closely, and it is probable that the coast west of Adelaide Peninsula, which is skirted by innumerable islands, is indented by deep inlets extending towards the lakes of Back River. Thus communication between the Arctic Ocean and Hudson Bay is facilitated by this large river, which yields an abundant supply of fish. From Wager River an isthmus leads to its estuary.

Boothia Felix, the most northern peninsula of the continent, is united to it by two narrow isthmuses, the former extending from

Pelly Bay to Shepherd Bay, the latter from Lord Mayor Bay to Spence Bay. It is separated from North Somerset by the narrow Bellot Strait. Farther west Adelaide Peninsula and King William Land form the continuation of the continent toward the western extremity of Boothia, thus outlining a spacious bay sheltered from the currents and the pack ice of Melville Sound and the adjoining bays. The eastern sides of Boothia and North Somerset and the western coasts of Melville Peninsula and Baffin Land form a gulf similar to Fox Basin.

Farther north, between Baffin Land and Greenland, North Devon and Ellesmere Land are situated. Thus Baffin Land forms a connecting link for three regions inhabited by Eskimo: the Hudson Bay Territory, Labrador, and Greenland.

The orography of the western coast of Hudson Bay is little known. Most of this coast seems to form a hilly land, consisting generally of granite. Between Wager River and Chesterfield Inlet it rises to a chain of hills of about one thousand feet in height, extending to a plateau farther north. Another chain seems to stretch in a northeasterly direction from Back River to the source of Hayes River. West of Back River Silurian strata prevail. The granite hills form a favorite haunt for the musk ox and reindeer.

Melville Peninsula consists chiefly of a chain of granite hills,

sloping down to a Silurian plain in the eastern part of the peninsula. The northeastern part of Baffin Land is formed by a high chain of mountains stretching from Lancaster Sound to Cape Mercy. Long fjords and deep valleys divide them into many groups. Bylot Island, which stands high out of the sea, is separated from the mainland by Pond Bay and Eclipse Sound. The next group stretches from Pond Bay to the fjord of Anaulereë´ling. Farther to the southeast the groups are smaller, and in Home Bay they are separated by wide valleys, particularly near Eχalualuin, a large fjord on the southern side of that bay.

From this fjord an enormous highland, which I named Penny Highland, extends as far as Cumberland Sound, being terminated by the narrow valley of Pangnirtung. The eastern boundary runs through the fjords Maktartudjennaq and Narpaing to Nedluqseaq and Nudlung. In the interior it may extend to about fifteen miles east of Issortuqdjuaq, the most northern fjord of Cumberland Sound. The whole of the vast highland is covered by an ice cap sending forth numerous glaciers in every direction. In Pangnirtung and on Davis Strait they reach the level of the sea.

Penny Highland, which forms the main body of Cumberland Peninsula, has attached to it a few mountain groups of moderate extent: the peninsula of Nudlung and the highland of Eχalualuin and that of Qivitung.

Farther southeast, between the valleys of Pangnirtung and Kingnait-Padli,

is situated the highland of Kingnait, with sharp peaks emerging from the ice cap which covers the lower parts of the plateau. The rest of Cumberland Peninsula is formed by the highland of Saumia, which much resembles that of Kingnait. Near Cape Mercy the ice covered highland slopes down to a hilly region, which falls abruptly to the sea.

The southern parts of this range of mountains are composed of gneiss and granite. It may be that Silurian strata occur in some

places, but they have not yet been found anywhere in situ. The northern parts are too imperfectly known to enable us to form an idea of their geological character.

The mountains just described slope down to a hilly region, which farther to the west levels off to a plain. The hills are composed of granite, the plains of Silurian limestone, which extends from Prince Regent Inlet to the head of Frobisher Bay.

The peninsula between Cumberland Sound and Frobisher Bay is formed by a plateau, which slopes down gradually to the northwest. It is drained by a great river flowing into Auqardneling, a fjord on the western shore of Cumberland Sound. Near Lake Nettilling the country is very low, the level of the lake being only forty feet above that of the sea. Here the watershed between Cumberland Sound and Fox Basin closely approaches the eastern shore, coming within five miles of the head of Nettilling Fjord. It is formed by a narrow neck of land about a quarter of a mile wide and sixty-five feet above the level of the sea.

From Eskimo reports I conclude that the plateau of Nugumiut, as we may call the peninsula between Frobisher Bay and Cumberland Sound, is comparatively level. Only a single mountain south of Qasigidjen (Bear Sound) rises into the region of eternal snow.

The peninsula between Frobisher Bay and Hudson Strait is formed by a granite highland, the Meta Incognita of Queen Elizabeth. It is covered with ice and sends a few glaciers into the sea. Farther west, near Lesseps Bay and White Bear Sound, the country becomes lower. The narrow isthmus leading from Hudson Strait to Amaqdjuaq cannot be very high, as the Eskimo carry their kayaks to the lake, which I believe is about two hundred feet above the level of the sea.

Last of all I have to mention the highlands of King Cape. The rest of the land is taken up by a vast plain in which two large lakes are situated; the southern, Amaqdjuaq, empties by a short river into Lake Nettilling, whence the long and wide Koukdjuaq runs to the shallow sea. From observations made by Captain Spicer, of

Groton, Conn., and information obtained from the Eskimo, we learn that the whole of the eastern part of Fox Basin is extremely shallow and that there are many low islands scattered about in those parts of the sea. The plains of Baffin Land, Fox Basin, and the eastern half of Melville

Peninsula may be considered a wide basin of Silurian strata bordered by granitic elevations on every side.

Besides the configuration of the land, the extent of the land ice formed during the winter is of vital importance to the inhabitants of the Arctic region, because during the greater part of the year it affords the only means of communication between the tribes, and because in winter the seal, which constitutes the principal food of the Eskimo, takes to those parts of the coast where extensive floes are formed. Therefore the state of the ice regulates the distribution of the natives during the greater part of the year and must be considered in studying the habits of the Eskimo. The extent of the land ice principally depends on the configuration of the land and the strength of the currents. On a shore exposed to a strong current an extensive floe can only be formed where projecting points of land form deep bays. We find the distribution of ice regulated in accordance with this fact all around the shores of the Arctic Ocean. The strong current setting out of Lancaster Sound and Smith Sound generally prevents ice from forming under the steep cliffs of the land. Sometimes the pack ice of the sounds is stopped and freezes together into rough floes; a smooth plain is never formed. By far the largest land floe is formed from Bylot Island to Cape Dyer (Okan). In Home Bay it extends to a distance of about eighty miles from the mainland. The formation of this floe is favored by a number of shoals which extend from the peninsulas of Cape Eglinton (Aqojang), Cape Aston (Niaqonaujang), and Qivitung, for the large floes drifting south are stopped by the icebergs aground on these banks. The greater part of the floe is very rough, smooth ice prevailing only in the bays.

The strong southerly current passing through the narrowest part of Davis Strait between Cape Walsingham (Idjuk) and Holsteinborg breaks up the ice all along the shore from Cape Dyer to Cape Walsingham, Exeter Sound alone being covered by a larger floe. The bay between Cape Mickleham (Nuvuktirpang) and Cape Mercy is well covered with ice, which extends to the islands farthest out toward the sea.

Near Cape Mercy the strong tides caused by Cumberland Sound prevent the ice from consolidating in the entrance of the gulf. As the sound widens greatly behind the narrow passage formed by Nuvukdjuaq and Qaχodluin, the tide sets in with great force. For this reason the floe never extends beyond that narrow entrance. Often the head of the open water runs from Qeqerten to Nuvujen, and instances are known where it even reaches the line of Pujetung-Umanaq.

The southwestern shore of Cumberland Sound from Qaχodluin to Cape Brevoort (Qeqertuqdjuaq) is always washed by water, because

a strong current, which often breaks up the ice of Field and Grinnell Bay (the bays of Ukadliq and Nugumiut), sets along the coast.

The floe seldom extends to Lady Franklin and Monumental Islands (Kitigtung and Taχolidjuin), but usually runs from point to point, compelling the natives to pass across the land in order to reach the floe of the neighboring bay. Most of the time the edge of the floe covering Frobisher Bay extends to a line from Countess of Warwick Sound (Tuarpukdjuaq) to about fifteen miles southeast of Gabriel Island (Qeqertuqdjuaq), whence it runs south to Kingnait. Sometimes Aqbirsiarbing (Cape True) is the most eastern point inclosed by the ice. A dangerous current sets through the strait between Resolution Island (Tudjaqdjuaq) and the mainland, forming whirlpools which menace every ship that attempts the passage.

Hudson Strait never freezes over. The greater part of the year it is filled with an immense pack which never consolidates into a continuous floe. As there are no large bays along the northern shore of that strait, no land floes of great importance are formed. Only the Bay of Qaumauang, North Bay, and Behm Bay (the bay of Quaiirnang and that east of Akuliaq) are covered with floes which are of importance to the natives. The bays east of Akuliaq and the large fjords of that region form a comparatively large body of ice.

Probably no land ice is formed between King Cape (Nuvukdjuaq) and the northern parts of Fox Basin. According to Parry and the reports of the natives, Fury and Hecla Strait and the bay which forms its eastern outlet are covered by land ice which is connected with the floe of the bays of Fox Basin as far as Piling.

In Hudson Bay there are very few places in which the land ice extends to a considerable distance from the shore. Neither Frozen Strait nor Rowe's Welcome freezes over, each being kept open by the swiftly running tides. The most extensive floes are formed in Repulse Bay, Wager Bay, and Chesterfield Inlet.

The drifting ice of the Gulf of Boothia never consolidates and even Committee Bay is rarely covered by a smooth land floe. Pelly Bay and the sea on the east coast of Boothia as far as Victoria Harbor (Tikeraqdjuq) freeze over, since they are sheltered by numerous islands. Still larger is the sheet of ice which covers the bay formed by the estuary of Back River, King William Land, and Boothia. The western shore of this peninsula farther north is skirted by a border of land ice the extent of which is unknown.

It is a remarkable fact that, although the extreme western and eastern parts of the country abound with extensive floes, the Hudson Bay region and the Gulf of Boothia are almost devoid of them.

This brief sketch will enable one to understand the geographical distribution and the migrations of the Eskimo tribes who inhabit this country.

DISTRIBUTION OF THE TRIBES.

GENERAL OBSERVATIONS.

The mode of life of all the Eskimo tribes of Northeastern America is very uniform; therefore it is desirable to make a few general observations on the subject before entering into a detailed description of each tribe. All depends upon the distribution of food at the different seasons. The migrations or the accessibility of the game compel the natives to move their habitations from time to time, and hence the distribution of the villages depends, to a great extent, upon that of the animals which supply them with food.

As the inhospitable country does not produce vegetation to an extent sufficient to sustain life in its human inhabitants, they are forced to depend entirely upon animal food. In Arctic America the abundance of seals found in all parts of the sea enables man to withstand the inclemency of the climate and the sterility of the soil. The skins of seals furnish the material for summer garments and for the tent; their flesh is almost the only food, and their blubber the indispensable fuel during the long dark winter. Scarcely less important is the deer, of whose heavy skin the winter garments are made, and these enable the Eskimo to brave the storms and the cold of winter.

That the mode of life of the Eskimo depends wholly on the distribution of these animals will therefore be apparent, for, as already observed, they regulate their dwelling places in accordance with the migrations of the latter from place to place in search of food.

When the constraint of winter is broken the natives leave their old habitations. The warm rays of the sun melt the roofs of their snow houses, the strong vaults which afforded shelter and comfortable warmth during the long cold winter begin to break down, and new houses must be built. They therefore exchange the solid snow

houses for light tents, which are very small and poor, until a sufficient number of sealskins for better structures is secured. As at this time seals are found in abundance everywhere, basking in the warm sunshine and enjoying the beginning of the spring, a great supply is easily secured. As the season advances food becomes more plentiful, and with the breaking up of the rivers and ponds the salmon leave the latter and descend to the sea. About this time the Eskimo establish their settlements at the head of the fjords, where salmon are easily caught in the shallow rivers. In July the snow, which has covered the land for nine months, has melted away and the natives undertake hunting trips inland, in order to obtain the precious skins of the reindeer and the meat of the fawns, which is always highly prized. With the breaking up of the ice the variety

of food is further increased by the arrival of the walrus and the ground and harp seals, which leave the country during the winter. Birds are also found in abundance, and no cares afflict the natives. Before the sea begins to freeze over again the Eskimo return from deer hunting and gather at places where there are the best chances for obtaining food in the autumn. A few weeks are spent in making short excursions near the settlements, as longer journeys would be too dangerous during this tempestuous season. The colder it grows the more the natives are confined to their huts and the more they become dependent on the seal. While in summer shrubs of various kinds are available for cooking purposes, in winter blubber affords the only fuel for cooking and for heating their huts.

At last the smaller bays are sufficiently frozen to permit a new way of pursuing the game. The hunters visit the edge of the newly formed floe in order to shoot the seals, which are secured by the harpoon.

The process of freezing goes on quickly and the floating pieces of ice begin to consolidate. Only a few holes are now found, in places where icebergs, moved by the tides or the strong currents, prevent

the sea from freezing. During a short time these openings form the favorite hunting ground of the natives. Though the walrus and the ground seal migrate to the edge of the floe as soon as the ice begins to form, the common seal (*Pagomys fœtidus*) remains, and this is always the principal food of the natives. In the autumn the fjords and the narrow channels between the islands are its favorite haunt; later in the season it resorts to the sea, frequently appearing at the surface through breathing holes, which it scratches in the ice. As winter comes on it is hunted by the Eskimo at these holes.

The foregoing observations will serve as a preliminary to the description of the distribution of the tribes of Northeastern America. The object of this section is to treat of the immediate relations between the country and its inhabitants, and a detailed account of their habits will be found in subsequent pages.

According to Dr. H. Rink, the Inuit race may be divided into five groups: the Greenlanders; the central tribes of Smith Sound, Baffin Land, the west shore of Hudson Bay, the Back River region, and Boothia; the Labradorians, on the shores of that peninsula; the Mackenzie tribes of the central parts of the north shore of America; and the tribes of Alaska. I am somewhat in doubt whether the central tribes and those of Labrador differ enough to justify a separate classification, as the natives of both shores of Hudson Strait seem to be closely related. A decisive answer on the division of these tribes may be postponed until the publication of Lucien M. Turner's excellent observations and collections, which were made at Fort Chimo.

BAFFIN LAND.

The Sikosuilarmiut.—

I shall begin with the enumeration of the tribes in the southwestern part of Baffin Land. This country is inhabited by the Sikosuilarmiut, i.e., the inhabitants of the shore without an ice floe. They are settled in two places: Nurata, east of King Cape, and

Sikosuilaq, within the peninsula (or island?) which projects east of King Cape. The large fjords Sarbaq and Sarbausirn, which belong to their territory, are known to me only by a description which I received in Cumberland Sound. In summer they visit the upper parts of this long fjord to hunt deer on the plains which reach to the shore of Fox Basin. Probably they do not extend their migrations very far to the north or northeast; otherwise, they would reach Lakes Amaqdjuaq and Nettilling, the region about the latter being the hunting ground of the natives of Cumberland Sound.

I know of only a single meeting between the Eskimo visiting Lake Nettilling and others who are supposed to have come from Hudson Strait. It occurred in 1883 south of the lake.

The Akuliarmiut.—

This tribe is settled on the northern shore of Hudson Strait. Their winter resort lies west of Qeqertuqdjuaq (Parry's North Bluff). In summer they travel through White Bear Sound or Lesseps Bay to Lake Amaqdjuaq, which they reach after crossing a neck of land about ten miles in width. The exact direction of the road cannot be ascertained, as the position of their starting point, which is called Tuniqten, is doubtful. Crossing a short portage they ascend to Lake Amitoq, whence on a second portage they pass the watershed between Lake Amaqdjuaq and Hudson Strait. From the small Lake Mingong a brook runs into Sioreling and thence into Lake Amaqdjuaq (Baffin-Land, p. 67). On the southern shore of the large lake they erect their summer tents. Farther east, in North Bay, there is another winter residence of the same tribe. Unfortunately, I cannot specify the place of this settlement, which is called Quaiirnang.

The Qaumauangmiut.—

East of the Akuliarmiut live the Eskimo so frequently met near Middle Savage Islands. Their principal residence is near Lake Qaumauang, from which they take their name Qaumauangmiut. My investigations concerning these tribes were much embarrassed

by the want of trustworthy charts. If charts are tolerably well delineated, the Eskimo understand the meaning of every point and island and can give detailed accounts of the situation of the settlements and the migrations of the inhabitants.

Between Sikosuilaq and Akuliaq but a moderate amount of intercourse is kept up, as the settlements are separated by a wide and uninhabited stretch of land. Notwithstanding this many members of one tribe are found to have settled among the other. An American

whaling station which was established in Akuliaq a few years ago may have had some influence upon the distribution and the life of these tribes. The greater importance of Akuliaq, however, cannot be ascribed to the presence of the whalers alone, as a few harbors near Sikosuilaq are also frequently visited by them. The whalers report that there are about fifty inhabitants in Sikosuilaq, about two hundred in Akuliaq, and farther east fifty more. Thus the population of the north shore of Hudson Strait probably amounts to three hundred in all.

The Qaumauangmiut are probably closely related to the Nugumiut of Frobisher Bay.

The Nugumiut.—

I can give a somewhat more detailed description of this tribe, among the families of which Hall passed the winters of 1860-'61 and 1861-'62 (Hall I). Unfortunately, he does not give any coherent account of their life, only meager information being furnished in the record of his journeys. Besides, generalizations cannot be made from his two years' experience. My own observations in Cumberland Sound may serve as a complement to those of Hall. As he gives only a few native names of places, it is sometimes difficult to ascertain the exact position of the localities to which he alludes.

According to Hall and my own inquiries four places are inhabited

by this tribe almost every winter: Tornait (Jones Cape of Hall), about thirty-five miles above Bear Sound, in Frobisher Bay; Operdniving and Tuarpukdjuaq, in Countess of Warwick Sound; Nugumiut, in (Cyrus W.) Field Bay; and Ukadliq, in (Cornell) Grinnell Bay. As these bays open into Davis Strait the formation of the ice is retarded and its extent diminished, and consequently some peculiarities in the arrangement of the life of the Eskimo are observed here. The only occupation of the Nugumiut and the inhabitants of Ukadliq is sealing with the harpoon on the floe of the inner parts of the bay. Near Ukadliq the tide holes east and west of Allen Island abound with seals. In winter, when the seals take to the open ice, the village of this group of families is established near Roger's Island, where the floe of the bay forms the hunting ground of the natives.

During the autumn the Nugumiut stay in Field Bay. The women are then busy preparing the deerskins; for, on account of the requirements of their religion, the walrus hunt cannot be begun until the deerskins which were taken in summer have been worked up for use. As soon as this is done they travel across Bayard Taylor Pass (so called by Hall) to Frobisher Bay, and in the latter half of December or in the beginning of January settle on Operdniving or on Tuarpukdjuaq in company with the natives who stay here during the fall. In Cumberland Sound I learned that this changing of the habitations takes place almost regularly and that sometimes the settlement is moved to Aqbirsiarbing (Cape True) if the bay is frozen

over beyond Operdniving. In traveling to Aqbirsiarbing the tide holes of Ikerassaqdjuaq (Lupton Channel) are avoided by using the pass of Chappell Inlet. Here and in Tornait the natives go sealing on the ice or walrusing at the edge of the floe, which in most cases is not very far off.

About the latter half of March part of the Eskimo begin to travel up Frobisher Bay. In the middle of April, 1862, Hall found a

settlement on Qeqertuqdjuaq (Gabriel Island), from which island the floe edge was visited and young seals were caught in the narrow channels between the numerous islands. Towards the end of the month a portion of the natives went farther to the northwest in pursuit of the basking seals (I, p. 470), intending to reach the head of the bay in July. Hall found summer habitations at Ukadliq (I, p. 468); on Field Bay (p. 296); and on Frobisher Bay at Agdlinartung (p. 308), Opera Glass Point (p. 341), Waddell Bay (p. 341), and Nuvuktualung, on the southern point of Beecher Peninsula (p. 348).

A very important hunting ground of the inhabitants of Tiniqdjuarbiusirn (Frobisher Bay), of which I received some detailed accounts, is Lake Amaqdjuaq. In the foregoing remarks on the Akuliaq tribe I described the course which leads from Hudson Strait to the lake. Another route is followed in traveling from the head of Frobisher Bay to Lake Amaqdjuaq, a distance of about fifty miles. Probably the men leave Sylvia Grinnell River and ascend to Lake Amartung, from which lake a brook runs westward to Lake Amaqdjuaq (Baffin-Land, p. 68). The women take a different route and arrive at Aqbeniling after a tramp of six days, near a small bay called Metja. Here the summer huts are erected and birds and deer are killed in abundance.

The facility in reaching the lake from Hudson Strait and Frobisher Bay is a very important consideration, as the Akuliarmiut and the Nugumiut meet here, and thus an immediate intercourse between the tribes is opened. The inhabitants of Hudson Strait leave Tuniqten in spring, arrive at the head of Frobisher Bay in the fall, and after the formation of the ice reach the Nugumiut settlements by means of sledges. When Hall wintered in Field Bay a traveling party of Sikosuilarmiut which had accomplished the distance from King Cape in one year arrived there (I, p. 267).

Another route, which is practicable only for boats, connects Qaumauang with Nugumiut. It leads along the shore of Hudson Strait. The traveler sails through the dangerous passage between

Tudjaqdjuaq (Resolution Island) and the mainland and crosses Frobisher Bay either at its entrance or in the shelter of the group of islands farther up the bay.

In their intercourse with the Nugumiut, the inhabitants of Cumberland Sound generally follow the long coast between Ukadliq and Naujateling, passing through the numerous sounds formed by long,

narrow islands. I can describe this region from personal observations.

The Oqomiut.—

The Eskimo of Davis Strait call the tribes of Cumberland Sound and Saumia by the name of Oqomiut. The whole of the land from Prince Regent Inlet to the plateau of Nugumiut is divided by the Eskimo into three parts, Aggo, Akudnirn, and Oqo—i.e., the weather side, the center, and the lee side—and accordingly the tribes are called the Aggomiut, Akudnirmiut, and Oqomiut. Unquestionably the whole of Cumberland Sound and the coast of Davis Strait from Cape Mercy to Exeter Sound belong to the Oqo of the Northern Eskimo. Farther north, the inhabitants of Padli extend their migrations from Qarmaqdjuin to Qivitung. These people occupy an intermediate position between the Akudnirmiut and the Oqomiut, having easy communication with both, and consequently it is doubtful to which they belong, so that the determination of the boundary between Oqo and Akudnirn remains arbitrary. In regard to their customs and from the position of the land, however, they may be more properly joined to the Akudnirmiut, of whom they would form a subdivision.

The names Oqo, Akudnirn, and Aggo must not be understood as respectively meaning a region strictly limited: they denote rather directions and the intervals between the localities situated in these directions. In asking for the position of Oqo one would be directed southeast, as this is considered the lee side; in the same way, if

asking for Aggo, one would be directed to the shore of Prince Regent Inlet, the farthest land in the northwest, the weather side. In Cumberland Sound the natives of Iglulik are considered Aggomiut, while in Pond Bay they are known as a separate tribe. In the southern parts the whole of the northern region is comprised in the name Aggo; in the north Oqo means the whole of the southeastern regions.

Formerly, the Oqomiut were divided into four subtribes: the Talirpingmiut, on the west shore of Cumberland Sound; the Qinguamiut, at the head of it; the Kingnaitmiut, on the east shore; and the Saumingmiut, on the southeastern slope of the highland of Saumia. The names are derived from the districts which they inhabit, respectively. As the head of every fjord is called "qingua" (its head), the upper part of the large Cumberland Sound is also so named. The Qingua region may be limited by Imigen on the western shore and Ussualung on the eastern shore, though the name is applied to a region farther north; indeed, the name covers the whole district at the head of the sound. In looking from the head to the entrance of the sound the coasts are called according to their position: the southwestern Talirpia, i.e., its right one, and the northeastern Saumia, i.e., its left one; between Saumia and Qingua the highland Kingnait,

425

i.e., the higher land as compared to the opposite shore, is situated. Although at the present time this division is hardly justifiable, the names of these four tribes are often mentioned on the shore of Davis Strait. Their old settlements are still inhabited, but their separate tribal identity is gone, a fact which is due as well to the diminution in their numbers as to the influence of the whalers visiting them.

In my opinion a great difference between these tribes never existed. Undoubtedly they were groups of families confined to a certain district and connected by a common life. Such a community could more easily develop as long as the number of

individuals was a large one. When the whalers first wintered in Cumberland Sound the population may have amounted to about 1,500. In 1840, when Penny discovered the sound, he met 40 Eskimo in Anarnitung (Eenoolooapik, p. 91). The greater number of the inhabitants were at the head of the fjords fishing for salmon, others were whaling in Issortuqdjuaq, and some were inland on a deer hunting expedition. The whole number at that time probably amounted to 200. A few years later the Kingnaitmiut of Qeqerten were able to man eighteen whaleboats. Assuming five oarsmen and one harpooner to each boat, the steersman being furnished by the whalers, and for each man one wife and two children, we have in all about 400 individuals. The inhabitants of Nettilling Fjord may have numbered as many, and 100 are said to have lived in Imigen. Penny found in Ugjuktung about 30 individuals who belonged to the Saumingmiut and had come thither from Davis Strait. Accordingly I estimate the whole tribe at 150 individuals. On the southwestern coast of the sound between Nuvujen and Naujateling a large number of natives were reported. They lived in three settlements and numbered about 600. These estimates are not absolutely reliable, as they are compiled largely from hearsay and conjecture. Many of the natives being away in the summer, at the time when these estimates were made, accuracy in their preparation was impossible. From inquiries which were made among American whalers who had visited this sound since 1851, the population of Qeqerten must have been larger than that of any of the settlements contiguous to the sound. The estimation is the more difficult as a few settlements were sometimes deserted; for instance, Ukiadliving, in Saumia, and Qarmaqdjuin (Exeter Bay). Probably eight settlements, with a population of 200 inhabitants each—i.e., 1,600 in the sound—would be about the true number in 1840. At first I was inclined to believe in the existence of a larger number, but from later reports I should consider this number too large rather than too small. Since that time the population has diminished at a terrible rate. In 1857 Warmow, a Moravian

missionary who accompanied Penny, estimated it at 300. If this was correct, the rapid diminution must have occurred during the first years after the rediscovery of the

sound. In December, 1883, the Talirpingmiut numbered 86 individuals, the Qinguamiut 60, the Kingnaitmiut 82, the Saumingmiut 17; total, 245. These were distributed in eight settlements. Beginning with the most southern settlement, the Talirpingmiut lived in Umanaqtuaq, Idjorituaqtuin, Nuvujen, and Qarussuit; the Qinguamiut, in Imigen and Anarnitung; the Kingnaitmiut, in Qeqerten; the Saumingmiut, in Ukiadliving. Accordingly the population of the settlements numbered as follows:

Name of the settlement.	Married.		Unmarried.						Total
	Men.	Women.	Widowers	Widows	Men.	Women.	Boys.	Girls.	
Naujateling	6	6	1			1	3	3	20
Idjorituaqtuin	3	3		1	1		2	1	11
Nuvujen	8	8	1	2	1		4	2	26
Qarussuit	10	10		2			2	5	29
Imigen	6	6					4	1	17
Anarnitung	12	12	1	1	1		8	8	43
Qeqerten	26	26		6	4		9	1	82
Ukiadliving	6	6		1		1	2	1	17
Padli	11	13	2	2	1		7	7	43
Akudnirn	8	12			2			(18)	40
Total	96	102	5	15	10	2		(98)	328

I have included in the foregoing table the inhabitants of Davis Strait and may add that the Nugumiut number about 80, the Eskimo of Pond Bay about 50 (?), those of Admiralty Inlet 200, and of Iglulik about 150. The total number of inhabitants of Baffin Land thus ranges between 1,000 and 1,100.

The reason for the rapid diminution in the population of this

country is undoubtedly to be found in the diseases which have been taken thither by the whalers. Of all these, syphilis has made the greatest ravages among the natives. Of other diseases I am unable to give a full account and can only refer to those which came under my observation during the year that I passed in this region. In Qeqerten a man died of cancer of the rectum, two women of pneumonia, and five children of diphtheria, this disease being first brought into the country in 1883. In Anarnitung I knew of the death of two women and one child. On the west shore a number of children died of diphtheria, while the health of the adults was good. In the year 1883-'84 I heard of two births, one occurring in Qeqerten, the other in Padli. At Qarussuit and Anarnitung there were two abortions.

The opinion that the Eskimo are dying out on account of an insufficient supply of food is erroneous, for, even though the natives slaughter the seals without discrimination or forethought, they do

not kill enough to cause any considerable diminution in numbers. The whalers do not hunt the seal to any extent, and when one realizes how small the population of the country is and how vast the territory in which the seal lives it is easy to understand that famine or want cannot arise, as a rule, from the cutting off of the natural food supply. In fact, in the spring enormous numbers of seals may be seen together basking in the sun or swimming in the water.

The causes of the famines which occur somewhat frequently among the Eskimo must be sought in another direction. Pressing need often prevails if in the latter part of the autumn the formation of the floe is retarded; for in that case hunters are not able either to go hunting in boats or to procure the necessary food at the edge of the floe, as new ice is attached to its more solid parts and the seals do not yet open their breathing holes. Such was the case at Niaqonaujang, on Davis Strait, in the fall of 1883. Gales of wind

following in quick succession broke the floe. The new ice which had formed immediately prevented the natives from sealing, and in November and December a famine visited the settlement. Very soon the supply of blubber was exhausted, and being unable to feed the dogs the inhabitants were obliged to kill them one after another and to live upon their frozen carcasses. Only two dogs survived these months of need and starvation. Consequently the hunting season was a very poor one, since the natives missed the services of their dogs, which scent the breathing holes, and could not leave their settlement for any great distance.

In winter a long spell of bad weather occasions privation, since the hunters are then prevented from leaving the huts. If by chance some one should happen to die during this time, famine is inevitable, for a strict law forbids the performance of any kind of work during the days of mourning. When this time is over, however, or at the beginning of good weather, an ample supply is quickly secured. I do not know of any cases of famine arising from the absolute want of game, but only from the impossibility of reaching it.

Sometimes traveling parties that are not acquainted with the nature of the country which they visit are in want of food. For instance, a large company, consisting of three boat crews, were starved on the eastern shore of Fox Basin, their boats being crushed by the heavy ice and the game they expected to find in abundance having left the region altogether. On one of the numerous islands of Nettilling a number of women and children perished, as the men, who had been deer hunting, were unable to find their way back to the place in which they had erected their huts.

Another case of starvation is frequently mentioned by the Eskimo. Some families who were traveling from Akuliaq to Nugumiut passed the isthmus between Hudson Strait and Frobisher Bay. When, after a long and tedious journey, they had reached the sea, the men left

their families near Qairoliktung and descended with their kayaks to Nugumiut in order to borrow some boats in which they could bring their families to the settlements. On the way they were detained by stormy weather, and meanwhile the families were starved and resorted to cannibalism. One woman especially, by the name of Megaujang, who ate all her children, was always mentioned with horror.

Generally food is plentiful between the months of April and October and an ample supply may be secured without extraordinary exertion. During the winter sealing is more difficult, but sufficiently successful to prevent any want, except in the case of continuous bad weather.

I shall now proceed to a description of the single settlements of Cumberland Sound. Separated from the Nugumiut by a long and uninhabited stretch of land we find the settlement of Naujateling, the most southern one of the Talirpingmiut. In the fall the natives erect their huts on the mainland or on an island near it, as the seal, at this season, resort to the narrow channels and to the fjords. Besides, the shelter which is afforded by the islands against the frequent gales is an important consideration, and in these protected waters the natives can manage their frail boats, which would not live for a moment in the tempestuous open sea. Later in the season the ice consolidates in the shelter of the islands, while beyond the bays and channels drifting floes fill the sea.

After the consolidation of the pack ice the natives move their huts to the sea. They leave Naujateling about December and move to Umanaqtuaq. I do not know exactly where they live if the water reaches that island. Should this happen, the floe between Qaχodluin, Umanaqtuaq, and Idjorituaqtuin would offer a productive hunting ground.

About the middle of March the season for hunting the young seal opens. The hunt is prosecuted with much energy over the entire extent of Cumberland Sound, because the white coat of the young animal is of prime importance for the inner garments. The pregnant

females take to the rough ice, where deep snowbanks have been formed by the winter gales, and dig large excavations, in which parturition takes place. Another favorite place is the ground ice on gradually declining shores, where large caves are found between the broken pieces of ice. Therefore the fjords and islands which offer a long coast line furnish a good hunting ground, and in the latter part of March and in April the Eskimo either visit these regions or the floes of rough ice. At such times they sometimes live for a long period on the ice of the open sea in order to be nearer to their hunting ground. As the success of the hunt depends on the extent of ice visited, the Eskimo scatter over a large area, almost every one traveling over a separate tract.

At this time the winter settlements are almost totally broken up.

429

Some of the natives of Naujateling go bear hunting instead of "young sealing," but only a few polar bears lose their way into Cumberland Sound. They are generally found within a few miles of the floe edge, and even if the water reaches pretty far up the sound they do not travel beyond Qaχodluin and Miliqdjuaq, nor does the pack ice carry them far up the sound in summer. On one occasion, in the year 1880, three bears were seen near Qeqerten, about five years earlier one was killed in Qingua, and almost twenty years earlier another one near Anarnitung. Every occurrence of this kind is considered an event of such importance that it is talked about for years afterwards. I myself saw bear tracks in Kouaqdjuaq in March, 1884, and also at Miliqdjuaq. In February a bear was killed between Kautaq and Naujateling.

If the water washes the foot of the cliffs between Kautaq and Sulung, the Eskimo cross the isthmus which lies between Ijelirtung, the eastern branch of Qasigidjen, and Qaχodluin Bay on a sledge road and hunt among the islands that are scattered along the shore south of Qaχodluin. In summer they visit the same region on their hunting excursions.

The principal summer settlements are at the head of Qasigidjen and

Kangertlung Fjords, which are situated near Idjorituaqtuin and Qimissung.
From here they ascend the plateau of Nugumiut and hunt on the level highlands. I think it takes them but a day to travel to the top of the plateau. They travel from Qasigidjen to Agdlinartung, a fjord of Frobisher Bay, whence the Nugumiut ascend the highland. Another route leads from Kangertlung to Eχaluin, near the head of Frobisher Bay.
Farther up the sound we find the winter settlement of Idjorituaqtuin. The same relation exists between this place and Qimissung as between Umanaqtuaq and Naujateling. On Qimissung, which lies near the mainland, the natives gather in the fall after returning from deer hunting, and only move to Idjorituaqtuin after the freezing up of the sea. Deer are hunted inland, the summer settlements being at the head of one of the numerous fjords of the west shore. Favorite places are Kangertlung, which is also visited by the Naujateling Eskimo; Eχaluin, which can be reached from Kangertlung by a short overland road; Auqardneling; and Utiqimitung, at the entrance of Nettilling Fjord. A large river, which, according to Eskimo reports, runs through the greater part of the peninsula, empties into Auqardneling. As it is very deep and wide it cannot be crossed without a vessel of some character, and thus it puts a stop to the migrations from Kangertlung and Eχaluin. In traveling from Kangertlung to Frobisher Bay the river must be crossed. To accomplish this the natives fill a deerskin with shrubs, sew it up, and float themselves across. Only the road leading from Qasigidjen to Frobisher Bay avoids the river.

North of Idjorituaqtuin we find the winter settlement of Nuvujen with the fall settlement, Nuvujalung, a high cliff at the entrance of Nettilling Fjord, belonging to it.
By far the most interesting branch of the Talirpingmiut are the inhabitants of Nettilling Fjord. Among all the tribes of Baffin Land

this one claims particular attention, as it is the only one whose residence is not limited to the seashore. From Greenland to the mouth of the Mackenzie only two Eskimo tribes are known who do not live all the year round on the coast of the sea. These are the Talirpingmiut and the Kinipetu of Chesterfield Inlet. Back and Anderson and Stewart say that the latter tribe spend a great part of the year at the lakes of Back River.

Formerly the Talirpingmiut had three or four settlements on Lake Nettilling: at Tikeraqdjung, near the south point of the lake; at the outlet of Koukdjuaq, on the left bank of the river, opposite to Nikosiving Island; at Qarmang; and probably a fourth one, on the north shore. As the lake abounds with seals, they could live here at all seasons. Its western part seems to have been particularly fitted for winter stations. In the winter of 1877-'78, three families staid near Koukdjuaq without encountering any considerable difficulty in procuring food. This was the last time that natives passed the winter at the lake; the greater portion of the tribe may have retreated to Nettilling Fjord about twenty years ago.

Though the Eskimo assert that the discovery of Lake Nettilling is of recent date, naming two men, Kadlu and Sagmu, as those who first reached it, this assertion is not trustworthy, for with them almost every historical tradition is supposed to have originated a comparatively short time ago. I was told, for instance, that an event which is the subject of the tale Igimarasugdjuqdjuaq the cannibal occurred at the beginning of this century, and yet the tradition is told almost word for word in Greenland and in Labrador.

Just so with Kadlu and Sagmu. According to the assertion of the natives the lake was discovered by the generation before the last—i.e., about 1810—and yet an old woman about seventy-five years of age told me that her grandfather when a young man, starting from Nettilling, had visited Iglulik and that he had lived on the lake. The customs and habits of the Eskimo would have led to the discovery of the lake very soon after the first visit to Cumberland Sound, and no doubt their attention was then called to the

abundance of game in this region.
The greater part of the natives spent the winter in Nettilling Fjord, starting on their way inland about the beginning of May, and returning to the sea about December. I suppose that cases in which men spent their whole life on the lake were exceptional, for they are referred to by the natives as remarkable events. For instance, a man called Neqsiang, who had two wives, lived on a small island near

Koukdjuaq and never descended to Cumberland Sound. A few times only he is said to have sent his son to barter with the Talirpingmiut of Nettilling Fjord. He came to Qarussuit in the spring, but returned after a short stay. It may be remarked here that the total absence of salt does not prevent the natives from staying on Lake Nettilling.
About 1850 the mode of life of the Talirpingmiut was as follows: In November they gathered in Isoa, the easternmost bay of the lake, descended toward the sea, and lived during the following months at the entrance of Nettilling Fjord. There they lived in the same manner as the other Oqomiut, pursuing the seals at their breathing holes. In the spring they hunted young seals; but, when the other natives began to prepare for whaling, they traveled on sledges westward. They avoided the large tide holes of the long fjord by making use of a few passes. Although the fjord is impassable in spring, a safe road leads along its northern shore to its northern branch, Kangertlukdjuaq, where the water hole Sarbaqdualung may be avoided by crossing the land at Tunukutang. In the spring large water holes are formed near Neqemiarbing and at the entrance of Audnerbing, compelling travelers to pass over the island which separates the two passages of Sarbaqdualung. The pass Tunukutang, which is used in winter, consists of a steep and narrow neck of land, which separates a small lake from Kangertlukdjuaq, and a short and winding river, the outlet of the lake. The second tide hole of the fjord may be

passed by the branches Qasigidjen and Sarbaqdjukulu and the adjoining flat isthmus. The holes of Qognung, yet farther up the fjord, do not hinder the natives, as they do not occupy the whole width of the floe.

At length they reached Kangia, and from here a chain of small lakes was ascended, the watershed Ujaraqdjuin was crossed, and finally they arrived at Amitoq. Cairns are everywhere erected on prominent points for way marks. After they had come to Lake Nettilling, they rested a short time at Isoa, where the skin boats and the necessary household goods had been left the preceding fall. These were lashed upon the sledges and then they traveled as quickly as possible to the west. After following the southeastern shore to Tikeraqdjuaq they crossed the lake to a point near Tikeraqdjung, whence they went along the southern shore of the lake, reaching Koukdjuaq in about a fortnight. Here their tents were established on the left bank of the river, opposite to Nikosiving, where they staid until the breaking up of the ice. Then the men descended the river in their kayaks. Four days they followed the coast, passing the bay of Aggirtijung before they reached Qudjitariaq, a long and deep river, which they ascended. For a few weeks they hunted deer among the lakes of this region, which is called Majoraridjen, and then slowly turned southward. At last, about the latter half of

August, they reached Qarmang, where at the beginning of summer the women and old men had arrived in their large boats. Here the whole party stopped until the lake was frozen up. Then they returned on sledges to Isoa and to the sea.

It would be very interesting to learn how far the natives formerly extended their migrations along the shore of Fox Basin and whether a regular intercourse existed between Iglulik and Cumberland Sound. According to reports of some old Eskimo, who had themselves passed the winter on the lake, there was always a small settlement at Qarmang. From here the shore of Fox

Basin was reached with great ease. If, however, the route through Koukdjuaq had to be taken, a long, roundabout way was necessary. According to all reports, even in olden times expeditions to Iglulik were very rare. It is said that one was made about 1750 by a party under the leadership of an Eskimo, Makulu. About 1800 another party left, in which Kotuko assumed the leadership. About these a more detailed account exists. With a few boats and four kayaks they left Nettilling and followed the coast. Alone in his kayak, Kotuko visited Sagdlirn, an island east of Iglulik, but he did not see any people, as they were on a hunting excursion. He found one hut and a large dog. There were a great number of deerskins and walrus tusks, which proved the existence of an abundance of game. He returned, but on account of the prevailing fog could scarcely find his kayak. The absence of the party is said to have lasted three years.

About 1820 another party left for Iglulik, among whom two women, Amaroq and Sigjeriaq, were the most prominent. When they returned, after an absence of three years, they praised the country (Piling), where they had spent some time, as a land of plenty and abundance, and by these tales, in 1835, induced three boat crews to leave Nettilling in order to visit this happy land. They were grievously disappointed and after many misfortunes they perished on the narrow isthmus of Ipiuting. Their bodies were found by the Iglulik Eskimo, who related that the poor fellows had resorted to cannibalism. Among those who perished was a sister of the famous Hannah (Taqulitu), the companion of Hall in his travels in the Arctic. I must mention here that Hall, in 1868, met a native at Iglulik who was said to belong to Cumberland Sound. As, however, in Iglulik Cumberland Sound and Davis Strait are often confounded, I am inclined to think he was a native of the latter region.

From these facts it appears that a regular intercourse between the tribes along the shore of Fox Basin never existed, though formerly interviews were more frequent than they are at present. Since the

last mentioned expedition no Eskimo has visited Piling, nor have any gone by the way of Lake Nettilling to Iglulik. Accordingly the ideas of the Oqomiut about that region are very indefinite. An old man

was the only person whom I could find who knew Iglulik by name and remembered Ingnirn and Piling, two places which had been inhabited by many Eskimo. He mentioned another inhabited region beyond Iglulik, Augpalugtijung, which I was not able to identify. It was described as a large peninsula.

It is worth remarking that the Talirpingmiut seem never to have traveled over the country south of Koukdjuaq. I have not even heard mentioned a single hunting excursion made in this direction.

In the foregoing paragraphs I have described the mode of life of the greater part of the Talirpingmiut. Still another part staid in Cumberland Sound until the ice had gone and went away in the latter half of July. The passage through the rapids of the fjords was very dangerous, as in the whirlpools and overfalls the bulky boats were easily capsized. Therefore the changing of the tides had to be considered in order to effect a safe passage. The men preferred carrying the kayaks over the passes in order to avoid the dangers imminent to their frail crafts. Even up to this day tradition tells of a disaster which happened when the stubborn owner of a boat, against the warning of his friends, tried to pass Sarbaqdualung when the spring tide was running swiftly. The boat was upset and the crew were drowned, with the exception of one woman, who was saved on a bundle of deerskins.

From Kangia boats had to be carried over the portages Igpirto, Igpirtousirn, and Ujaraqdjuin. The rapids of Angmartung were also avoided by a portage over the level bottom of the valley. After passing Taquirbing, Lake Nettilling was reached, on the shore of which the huts were erected. In the fall the party returned before the beginning of the cold season. It has been already mentioned that only a few of the natives staid at the lake during the entire

year, and even among these there were some who descended to the sea in March to take part in the young sealing, for the skins of the young seal cannot be altogether replaced by deerskins.

At the present time it is exceptional for any one to remain inland during the entire year. There may be seals enough in the lake to prevent hunger or starvation, but they are taken much more easily from the sea. In case of a lack of blubber, deer's marrow may be used for fuel. It is probable that the high mortality of recent years has induced the Eskimo to band together more closely than they formerly did and to adopt the plan of returning to Nettilling Fjord at the beginning of winter. In the fall the boats and other articles which are of no use in winter are left in Isoa, and some time is spent in Kangia, where snow houses are built. Here the kayaks are left, and in December, when the sealing begins to be more successful near the sound, the Eskimo turn to the entrance of Nettilling Fjord, where Tininiqdjuaq and Neqemiarbing are favorite places. Seals are hunted there with the harpoon in the same way as in the other settlements

or Sarbaqdualung is visited for the purpose of shooting seals which frequent the tide holes. This, however, is not a favorite way of hunting, as the ice near the tide holes is very rough and treacherous.

In March and April young seals are caught on the shores of the numerous islands between Tininiqdjuaq and Nuvujalung, and at the same time the old settlements are left, as large water holes begin to appear. Qarussuit and Qingaseareang are the favorite places about this time of the year.

As soon as the young sealing is finished the hunt of the basking seal is opened, which is very successful here. Nowhere else did I see such large numbers of animals enjoying the warmth of the sun as in Nettilling Fjord. In April, when on the east shore scarcely any dared to leave the water, hundreds might be seen here. By the first of May all the natives have procured a sufficient number of

sealskins for their summer dress, the skins being then in the best condition, as the first moulting has just occurred. This done, they eagerly prepare for the journey to the lake.

The natives start in the first week of May, and in two or three days arrive at Kangia, whence they reach Isoa in one day's journey. Following the southern shore of Lake Nettilling they sleep the first night on Tikeraqdjuausirn, the second on the island Manirigtung, near Tikeraqdjuaq, and five days after leaving Qarussuit arrive at Tikeraqdjung, where they settle for the summer. As numerous deer are found in this region, they live without any care or trouble. Very soon after their arrival the birds return. While moulting great quantities of these are caught. The geese are so abundant here that they are fed to the dogs. Many deer are caught while passing the deep river which runs from Lake Amaqdjuaq to Lake Nettilling. Frequently they visit the southern plains, which are filled with lakes and lakelets. Sometimes they go as far as Amaqdjuaq, which, as the older natives report, was formerly a summer settlement.

In the river whose outlet is near Padli salmon are caught in abundance. In this district the Talirpingmiut stay until the eastern part of the lake is frozen over.

In the shelter of the islands the floe is more quickly formed than in the open water of the western part, and in November the natives return by sledges to Isoa.

As they take with them heavy loads of deerskins they make very slow progress and generally arrive at their place of destination after six days of traveling. Sometimes they make a short trip to Isoa in March or April to hunt deer or to look for the things which were left behind in Kangia and Isoa at the time of their last departure.

Besides the Talirpingmiut quite a number of Cumberland Sound natives visit the lake by means of boats. They cross the sound after the breaking up of the ice and go to Nettilling, carrying the boats over the portages between Kangia and Isoa. As the Talirpingmiut

have no boats they stay at Tikeraqdjuaq; the other natives,

however, sometimes change their habitations and even visit Qarmang and the north shore of the lake. These journeys, however, are rare, for in the eastern part an inexhaustible supply of food may be obtained; therefore long excursions are quite unnecessary. At the beginning of October the boats leave the lake and the natives return to the fall settlements in the sound.

Nettilling Fjord, with its numerous islands, forms the northern boundary of Talirpia. Farther north we come to Qingua, the head of Tiniqdjuarbing (Cumberland Sound). It extends from Imigen to Ussualung. The winter settlement on the island of Imigen is situated in the midst of one of the best winter hunting grounds, for the southern portion of the island, on which the huts are erected, projects far out into the sea. The hunt is often rendered somewhat difficult by the rough ice which is due to the strong currents between Pujetung, Imigen, and Nettilling Fjord. Towards spring the natives sometimes resort to a place yet nearer the open sea, the largest island of the Pujetung group. Young seals are caught near Imigen, at the Kilauting Islands, and in Qaggilortung. This district, however, cannot be visited every year, as almost every spring the whole area west of a line from Imigen to Anarnitung is covered with very deep and soft snow, which prevents the Eskimo from using their dog sledges. When this condition prevails the natives settle on the sea ice between Augpalugtung and Imigen, or a little farther north, and remain there from the middle of March until the latter part of April.

These natives go deer hunting either to Issortuqdjuaq—where they live at Eχaluaqdjuin, Sirmiling, or Midlurieling—or to Eχaluqdjuaq, near Ussualung, where they hunt in the hilly land adjoining the ice-covered Penny Plateau. As the land farther northwest is said to consist of irregular hills and disconnected valleys, the skins and the meat of the killed deer would have to be carried up and down hills before the settlement was reached. Therefore the natives dislike hunting in this part of the country. Eχaluaqdjuin and Eχaluqdjuaq, as is denoted by the names, are

productive salmon rivers. In starting from the former and ascending a narrow valley, Lake Eχoleaqdjuin is reached, whence a pass leads to the valley adjoining Eχaluaqdjuin. Taking another road the long Lake Imeraqdjuaq is reached, which borders upon the glaciers of the highland. From here, after a four days' tramp following a large river, the traveler comes to Midlurieling. From Issortuqdjuaq a narrow isthmus offering a good sledging road is used in visiting the head of Qaggilortung. Another route, which is suitable only for foot passengers, leads by a chain of lakes to the head of Kangertlukdjuaq. It is not necessary to enumerate the overland routes in this district, as numerous valleys permit the traveler to pass from the east to the west and from the south to the

north. In the fall the natives resort to Saunirtung or to Saunirtuqdjuaq, two islands northwest of Imigen, where they stay until January, when they return to the sea.

The second settlement of the Qinguamiut is Anarnitung, at the northern entrance of Qaggilortung. The small island and the neighboring point of Igdlungajung are, next to Qeqerten, the seat of the most important settlement of Cumberland Sound. On the southern and eastern declivity of the low hills which form this island are a number of very old stone foundations (see p. 549), such as are found everywhere on the Arctic shores of North America (Baffin-Land, p. 77).

If the ice in the upper parts of the sound is smooth, families belonging to this community settle on Kilauting, the largest island of a group running from northwest to southeast a few miles north of Imigen. Here they go sealing with the harpoon. If the ice, however, is rough (as it happened to be during my stay in Cumberland Sound), they remain in Anarnitung, whence some go to the water holes at the entrance of Issortuqdjuaq and shoot the blowing seals, while others go hunting on the ice near Anarnitung. During the young sealing season they almost always leave the island. The favorite resort at this season is Sakiaqdjung, near

Manituling, in Qaggilortung, but heavy snowfalls often compel them to exchange this region for the open sea. If they insist upon stopping there, snowshoes are used as the only means of traveling in the deep and soft snow. In 1878, when the Florence wintered in Anarnitung Harbor, the greater part of the natives remained near the ship; but her presence is accountable for this exception, as some of the families were in her service and others staid near her in order to barter seals, skins, &c.

Of some importance are the passes leading around the numerous water holes at the head of Cumberland Sound. The narrow island of Nudnirn, which separates Sarbuqdjuaq from Putukin, offers a good passage by way of a deep valley. Should the passage be made in a mild winter or in spring, when the water holes of Sarbuqdjuaq have enlarged, they must avoid the latter by passing over the inconvenient isthmus of Itidliaping, west of the steep cliff Naujan. In spring the tide holes of Kangidliuta extend over the passage between that island and Surosirn, preventing sledges from passing to Issortuqdjuaq or to Tessiujang. Then Qaχodlualung is crossed by the way of Naqoreang or the more southerly Tappitariaq, which leads into the sound near Siegtung. Both passes are very inconvenient. From Tessiujang, Issortuqdjuaq may be reached by the fjords Ugjuktung and Itijareling and by the adjoining passes.

Lastly, I have to mention the road formerly used by the natives of Anarnitung in traveling to Nettilling. They crossed the entrance of Qaggilortung and ascended Tarrionitung, whence they came by the Lakes Qamusiojodlang and Irtiujang to Missirtung, in Nettilling

Fjord, thus avoiding a much longer journey around the large peninsula projecting to the eastward. A similar pass farther east connects Tornait and Kangertlukjuaq.

The ruins of a third settlement of the Qinguamiut are found at Tulukan on Qeqertelung.

The next subtribe to be treated is the Kingnaitmiut, who are now located exclusively upon Qeqerten. Formerly they lived in several

places—for instance, near Pangnirtung and on Miliaqdjuin—but for a long time they have gathered on Qeqerten, as two whaling stations are established here, many natives being in the service of the whalers. The island is the largest settlement of the sound. It is a favorite resort during the fall and the first part of winter. In November and December, before the ice of the sound consolidates, the ice east of the islands is the best hunting ground. Later that west of the islands is preferred. There is one disadvantage peculiar to Qeqerten which is not shared by the other settlements, namely, the fohn-like winds which often blow for many days from Kingnait Fjord with irresistible violence. These confine the natives to their huts, though a few miles north or south calm weather prevails. Should fair weather ensue, the snow, which has been firmly packed by these gales, affords a good hunting ground; but if, on the other hand, long spells of bad weather follow, want and hunger may be the result. The young seals are eagerly pursued all about Qeqerten. In Pangnirtung and in the little valley Niutang, in Kingnait, well up in these fjords, are the ruins of two large, ancient settlements. The conditions which formerly enabled the natives to live here will be mentioned later.

The Kingnaitmiut go deer hunting to Kitingujang, at the head of Kingnait Fjord; to Nirdlirn, in the bay behind Augpalugtung and Sednirun; to Pangnirtung; or to the more southern fjords Eχaluaqdjuin and Kangertlukdjuaq.

I shall describe the districts occupied by the Kingnaitmiut, Saumingmiut, and Padlimiut together, as they all bear a uniform character.

From Nirdlirn the mountains of Ussualung or the highland near Ukiuqdjuaq are visited. The same country is traveled over from Pangnirtung, where the settlement is established either above Qordlubing or opposite Aulitiving. The deep valley, with its numerous glaciers, adjoining Pangnirtung and connecting Cumberland Sound and Davis Strait is rarely visited.

The favorite place for the settlement is Kitingujang in Kingnait. In

the river which empties here many salmon are caught, and the declivities of the neighboring highlands, which are less steep than those of Pangnirtung, afford ample opportunity for long hunting excursions. Deer are found on the mountains, for here they escape

the mosquitoes which swarm in the valleys. The natives do not go beyond Padli, but most of them have been there. They often travel through the valleys of Nerseqdjuaq and Tunussung to Pangnirtung, of Davis Strait, down the eastern shore of which they go a considerable distance. Sometimes they make boat excursions during the summer from Kitingujang, visiting the brooks which empty into Kingnait Fjord, or they settle in Tornait, whence Tupirbikdjuin in Pangnirtung is accessible by the wide valleys surrounding Angiuqaq.

I may omit the description of the separate summer habitations farther south, for the head of every fjord and every valley that is a means of reaching the interior are used for erecting the tents. The interior of the region, which is covered with ice, remains unvisited, no game being found there. Therefore it may be said in general that the Eskimo are limited to the peninsulas formed by the numerous fjords.

The Saumingmiut visit the southern fjords of Cumberland Peninsula, where I have marked the settlements on the chart. Here they pursue deer and polar bears, which frequently come down to Cape Mercy during the summer.

An important summer settlement of the Saumingmiut is Touaqdjuaq, from which place they visit the peninsula limited by Exeter Sound and Touaqdjuaq. An important summer station of both Saumingmiut and Padlimiut is Qarmaqdjuin, while Eχaloaping (Durban Harbor of the whalers), near the entrance of Padli, is visited only by the latter tribe.

The number of deer on Cumberland Peninsula is so variable that the result of the hunt is often unsatisfactory. Although in some seasons numerous herds are met, in others scarcely enough animals

are killed to afford a sufficient stock of skins for the winter clothing. Early in the spring the deer pass quite regularly through Itidlirn (the lower part of Padli Valley, between Ikaroling and Padli), in their migrations from Narpaing to Qarmaqdjuin. I was told that in both the latter districts many deer can be found at all times.

Lastly, I have to describe the winter settlements of the Saumingmiut. They are in the habit of separating in the fall, part of them staying during winter on Qeqertaujang, in Ugjuktung, and the remainder at Ukiadliving, on Davis Strait.

Strange as it may seem, walrus are not found in the upper part of the sound, while farther south they are abundant. Akuliaχating, east of Qeqerten, is the most northern point that they visit. It is said that in former times they were met with everywhere in the sound, and indeed some of the local names give evidence of the truth of these traditions; for instance, the name of Uglirn (which is always applied to walrus islands), in the fjord Qaggilortung, and that of Anarnitung (a place having a bad smell from walrus excrement), at the head of the sound.

Before Cumberland Sound begins to freeze up, the Eskimo of Ugjuktung take walrus on the islands Uglirn, south of Qeqertaujang, and at Qeqertaq in Anartuajuin. The animals killed during the fall are buried under stones, and with this stock of provisions the Saumingmiut do not suffer want during the winter. In addition, however, they go sealing at the entrance of Ugjuktung, or travel overland to Kangertloaping, a branch of Kouaqdjuaq, as Nuvukdjuaq is almost always washed by water and cannot be passed in winter. The young sealing is here of little importance, as the bears visit the fjords about this season and frighten the animals away. In March the natives go bear hunting or move up the sound to join the Kingnaitmiut during the time of young sealing. In the spring the settlement is always abandoned, as most of them go to Davis Strait and join the other part of the tribe. Crossing the

country, they travel over a pass leading from Anartuajuin to Ujaradjiraaitjung.

The favorite settlement on the east coast is Ukiadliving. There are several stone foundations in this place which are frequently reconstructed and used as dwellings. Here walrus are hunted in the summer and in the fall and a great stock of provisions is laid up. In winter the floe offers a good hunting ground for sealing and in the spring the bears visit the land and the islands to pursue the pupping (i.e., pregnant or parturient) seals. At the same time the she bear brings forth her young, the meat and skin of which are highly prized. Many old bears and cubs are killed at this season and the precious skins are prepared for sale.

Besides the beforementioned route another and longer one leads to Cumberland Sound. In taking this course the sledges start from Nedluqseaq, west of Ukiadliving, and follow a river which rises in a small lake whence the inland ice is ascended. Farther on the valley leading to Eχaluaqdjuin and Kangertlukdjuaq is reached. This is the only overland route on which the inland ice is crossed. Cape Mercy can be passed by a number of short isthmuses. In the shelter of the bay formed by the cape and Muingmang a floe is formed reaching to the foot of Uibarun (Cape Mercy). The pass Tappitaridjen, which cuts off two peninsulas, leads into the sound. The bays farther west are frozen up and the projecting points are avoided by short passes. Unfortunately this road was unknown to me during my stay in Saumia, else I could have easily visited Cape Mercy. At last Anartuajuin is reached. The water rarely extends to Nuvukdjuaraqdjung, the point between Anartuajuin and Ugjuktung. It may be passed by a difficult road leading across the peninsula. If the water extends to Iliqimisarbing a pass is used which is ascended from Eχalualuin, in the bay of Naujaqdjuaq.

On Davis Strait a few important isthmuses must be mentioned. One is used by the inhabitants of Ukiadliving in traveling to Exeter Sound. They leave the sea at the head of Touaqdjuaq and by a

difficult overland route cross to the southern shore of Exeter Sound. Much of the time the ice and snow near Udlimaulitelling make the route almost impassable in that direction. If, therefore, this route is impracticable or that through Touaqdjuaq is too difficult on account of the absence of snow, the journey is postponed until late in spring, when the hummocks begin to be leveled off and the snow becomes harder as it settles; then the rough ice can be passed, and after reaching Ituatukan, a fjord near Cape Walsingham, the Eskimo ascend it, so as to avoid the cape, which is always washed by water. If snow and ice are in a suitable condition the passage by way of Ituatukan is always preferred. From Exeter Sound Kangertlukdjuaq, in Padli Fjord, may be reached by a pass of short extent; but the snow is always so deep here that the passage cannot be effected until June. The peninsulas between Padli Fjord and Exeter Sound, which have no ice foot, can be crossed by narrow isthmuses near the head of the bays.

Before leaving Cumberland Sound and its inhabitants, the Oqomiut, altogether, I wish to add a few remarks on the whale fishery, which the Eskimo formerly carried on in their bulky skin boats. They pursued the monstrous animal in all waters with their imperfect weapons, for a single capture supplied them with food and fuel for a long time. I do not know with certainty whether the natives used to bring their boats to the floe edge in the spring in order to await the arrival of the whales, as the Scotch and American whalers do nowadays, or whether the animals were caught only in summer. On Davis Strait the Padlimiut and the Akudnirmiut used to erect their tents in June near the floe edge, whence they went whaling, sending the meat, blubber, and whalebone to the main settlement. In Cumberland Sound whales were caught in all the fjords, particularly in Kingnait, Issortuqdjuaq, and the narrow channels of the west shore. Therefore the Eskimo could live in the fjords during the winter, as the provisions laid up in the fall lasted until spring. If, therefore, there is a perceptible diminution in the supply of their food it is

due to the fact that the whale fishery has been abandoned by them or rather has been yielded up to Europeans and Americans. It is not probable, however, that a sufficient number of whales were ever caught to support the entire population during the whole of the winter. The whaling is still kept up by the Eskimo of Hudson Strait and Hudson Bay, though only to a limited extent, owing to the visits of whaling ships and the establishment of whaling stations.

The Padlimiut and the Akudnirmiut.—
The next tribes to be described are the Padlimiut and the Akudnirmiut, but this may be done very briefly, as the nature of this region is similar to that of Saumia. A peculiarity of the Akudnirmiut is their more decided migratory character as compared with the Oqomiut. They do not spend every winter at the same place, as we observed that the Oqomiut do, but

are more inclined to visit, in turn, the different winter stations of their country.
In summer the following places are almost always inhabited: Qarmaqdjuin, Eχaloaping in Padli Fjord, Qivitung, and Niaqonaujang. The deer hunting season opens here at the same time as farther south, but it is much facilitated from the fact that the ice breaks up later. The deer visit the numerous islands scattered along the mainland and thus their pasturing ground is easily reached. As the islands of Home Bay constitute a good hunting ground the Eskimo sometimes settle there for a few weeks. The long, low peninsula Pamiujang, near Nedluqseaq, and the head of Nudlung are the favorite summer settlements of the Padlimiut. Nudlung, Eχalualuin, Ijelirtung, and Inugsuin are visited by the Akudnirmiut. An abundance of deer is found along the southern part of Home Bay, where the plains extend to the sea. It is remarkable that all along this shore there is no island on which birds build their nests. Though fowls do not form an important constituent of the food of the Oqomiut and the more southern

tribes, the egg islands are frequently visited. On Davis Strait it is only by chance that ducks &c. are caught, and eggs can scarcely be obtained. The only island which is visited by birds is Avaudjelling, in Home Bay. In July, however, large flocks of eider ducks descend Itirbilung Fjord and many are caught near its head. From this fjord an overland route, which is practicable only in summer, leads to Piling, a district on the shore of Fox Basin, which may be reached in three days. Though the route is well known, it seems to be passing into disuse; at least I do not know any natives who have crossed the land by it. Another interesting road leading overland must be mentioned, namely, the one which leads from Nudlung and Eχalualuin to Majoraridjen and Nettilling. The former region is still visited by the Akudnirmiut, but I know of but one family who went to Nettilling and wintered there.

As a rule, about the beginning of August the Akudnirmiut move to Niaqonanjang in order to have an opportunity of meeting the whalers on their way south. For the same reason the southern families gather at Qivitung.

As soon as the sea is frozen up, part of the natives of Qivitung move southward and settle on Qeqertuqdjuaq, where they stay until February, while in spring some stay here or move farther up the bay, where they establish their huts on Qeqertaq; the rest travel to Padli Fjord and live with the families who had passed the winter there on Padloping. As the floe edge approaches the land here, the country is favorable for bear hunting, which is pursued in March and April. In June the natives move up Padli Fjord to catch salmon, which are found in enormous numbers at Padli. A few visit Agpan, where flocks of loons nest. The natives who intend to return to Qivitung in summer leave about the end of May or the beginning of June.

Those who remain at Qivitung during the winter go sealing in the bay east of the peninsula and subsist upon the product of this occupation, as well as on the walrus meat which was stored up in

the summer and autumn. A few leave Qivitung after the consolidation of the floe and settle on Nanuqtaqdjung, an island in Home Bay, near the northern point of Qeqertalukdjuaq.

In the winter the Akudnirmiut of Niaqonaujang generally remove to Ipiutelling, on the southern shore of Koukteling, and in May go farther south, to the island Avaudjelling. In the spring they go bear hunting on Koukteling and the peninsula of Niaqonaujang, where the she bears dig holes in the snow banks, in which they whelp.

Though the isthmuses are of great value in facilitating the intercourse between the separate settlements of Cumberland Sound and Davis Strait, as their headlands are washed by water, they are not indispensable for the tribes of Davis Strait, for the ice is passable at all points. The low peninsulas are crossed by the natives in their travels in preference to rounding their headlands. Thus they not only shorten their journey, but they avoid the rough ice often found off the points.

For example, a pass leads from the western bay of Padli Fjord to Kangertloaping, and another from Tessiujang, near Qivitung, across the narrow and low isthmus into Home Bay. Similar passes are used in crossing Koukteling, the peninsulas of Niaqonaujang, Aqojang, and Aqojartung.

At Niaqonaujang I reached the limit of my travels and have only to add reports which I obtained from other tribes and in other settlements. River Clyde and Aqbirtijung are not always inhabited, but are visited at irregular intervals by the Akudnirmiut, the same who usually stay at Niaqonaujang. It is probable that Aqbirtijung and Kangertlualung are sometimes visited by the Tununirmiut of Pond Bay.

The Aggomiut.—

I can say but little about the two subtribes of the Aggomiut (the Tununirmiut and the Tununirusirmiut), as the reports are scanty and the chart of the region is too incorrect to convey any exact information. A few statements may be derived from the Eskimo

charts published by Hall (II, pp. 356 and 370). It appears that the natives winter near the entrance of Navy Board Inlet and in the back of Eclipse Sound. Settlements of the Tununirusirmiut at the western entrance of Admiralty Inlet and near its head are mentioned by Hall. Besides seals these natives also pursue the white whales and narwhals which frequent the sound. In summer the Tununirmiut live at the entrance of Pond Bay.

Although I am not informed as to the position of the settlements, and for this reason am unable to judge of the details of the life of the Aggomiut, I can give the more general facts of their relations to the neighboring tribes. Of the greatest importance is their connection

with the Iglulirmiut, for through them a regular intercourse is kept up between the continent of America and the eastern shore of Baffin Land. One road leads through Kangertlukdjuaq, a fjord east of Parry's Murray Maxwell Inlet, to the head of Anaulereëling.

I received a detailed description of this road from a native whom I met at Niaqonaujang. Hall's statement that this way leads to Pond Bay is very likely erroneous, as the natives probably said that it led to Tununirn, which comprises the whole district of Eclipse Sound and the region east of it. It is possible that another road leads to Eχaluin, a fjord of Eclipse Sound. Another route which is often used leads from Kangertlung, Parry's Gifford River, to Angmang, and farther west to Tununirusirn. This route has already been described by Parry, who attempted to reach the north shore of Baffin Land by it (II, p. 449). Parry's description was confirmed in 1869 by Hall (II, p. 356). I am somewhat doubtful whether Fury and Hecla Strait, which is often filled with rough ice, can be passed regularly, and whether a route leading to Tununirusirn follows the shore of the Gulf of Boothia, as stated by some of the natives of Davis Strait. This uncertainty did not occur to me until after I had read Parry's description. Communication between Tununirn and Tununirusirn is by way of the isthmus between Kangertlung and

Navy Board Inlet.

The journeys of the Aggomiut are not at all confined to Baffin Land. In favorable winters they cross Lancaster Sound, passing the small island Uglirn, and winter on the eastern half of Tudjan (North Devon). While here they keep up some intercourse with the inhabitants of Umingman Nuna (Ellesmere Land).

It is said that they cross the ice covered island on sledges. In four days they reach the northern shore, whence a long, narrow peninsula, Nedlung, stretches toward Ellesmere Land. Through the narrow passage which separates Tudjan from Nedlung runs a very swift tide which keeps open a water hole throughout the winter. All around this place the ice wastes quickly in the spring and a large basin is formed which abounds with seals. Only that part of the peninsula which lies nearest North Devon is high and steep, presenting a bold face. Farther north it is rather low.

Having reached Umingman Nuna, the Eskimo who gave me this information affirm that they fell in with a small tribe who resided on this shore. Here they lived for some time, as there was an abundance of seals during the whole year. Farther northwest is a large fjord, Kangertluksiaq, off which an island is found, Qeqertakadlinang by name. The Eskimo do not visit the land on the other side of this fjord, as bears are said to be very numerous and large there. Though these migrations to Jones Sound do not occur very frequently, they have by no means been discontinued. For instance, a family which was well known to me has visited Smith Sound, and

the father of some friends of a resident of Cumberland Sound returned about fifteen years ago from a long stay on Tudjan and Nedlung.

The Iglulirmiut.—

The last group of natives belonging to Baffin Land are those of Iglulik. Our knowledge of this tribe is due to Parry and Hall. As

soon as the sea begins to freeze up, the natives gather on Iglulik, where they hunt the walrus throughout the winter. According to the position of the floe edge, Iglulik, Pingitkalik, or Uglit Islands are the favorite settlements. Later in the winter, when new ice is frequently attached to the floe, part of the families move to the ice northeast of Igluling, where seals are caught with the harpoon. Another winter settlement seems to be near Amitoq. In April young seals are hunted in the bays and fjords, particularly in Hooper Inlet. According to Hall the western coast of Melville Peninsula is sometimes visited during the winter for walrusing and bear hunting (II, p. 343). An overland route leads to this district, crossing the long Grinnell Lake and Brevoort River, thus named by Hall (II, p. 342). As soon as the warm season approaches the natives go deer hunting on Melville Peninsula or more frequently on Baffin Land. From the reports of Parry and Hall and from my own inquiries, there can be no doubt that they visit the eastern shore of Fox Basin.

The Pilingmiut.—

Two tribes were settled on the eastern coast of Fox Basin, the Pilingmiut and the Sagdlirmiut, who had but slight intercourse with the Iglulirmiut. I heard both mentioned at times when traveling along Davis Strait. According to my information I should say that Piling is about 74° west and 69° north. From Parry's reports it appears that the intercourse between these tribes and Iglulik was not very active; for, although he had staid two years at Aivillik and Iglulik, the Pilingmiut when visiting the latter tribe did not know anything about this fact, which was one of the greatest importance to all the natives (II, p. 430). Sometimes the Talirpingmiut of Cumberland Sound meet the Pilingmiut, for both tribes go deer hunting northwest of Nettilling. I heard of one such meeting between hunting parties in that district.

The Sagdlirmiut.—

The information as to the Sagdlirmiut is yet more scanty than that

relating to the inhabitants of Piling. Parry learned that Sagdlirn is about east-northeast of Iglulik (II, p. 549). The description which I received on Davis Strait confirms this opinion, for the direction was denoted as qaningnang, i.e., east-northeast; besides, Sagdlirn was described as a long and narrow island.

WESTERN SHORE OF HUDSON BAY.

A remarkable difference exists between the customs of the western tribes who live on the continent of America and those of the tribes that inhabit Baffin Land and Melville Peninsula. This is chiefly

due to the difference in the nature of their territorial surroundings and to the presence of the musk ox, which they frequently hunt. In addition, the tribes of the continent do not hunt the seal in the winter, laying up instead their supply of meat and blubber in the fall. The information in regard to two of these tribes is quite complete, as they have been visited by explorers frequently and at all seasons. The two tribes referred to are the Aivillirmiut, of the northwestern part of Hudson Bay, and the Netchillirmiut of Boothia Felix. Unfortunately the information in respect to the others, the Kinipetu or Agutit, the Sinimiut, Ugjulirmiut, and Ukusiksalirmiut, is less complete.

The Aivillirmiut.—

In order to describe the mode of life of the Aivillirmiut I shall give an abstract of Dr. John Rae's observations in 1846-'47 and 1854-'55, of C. F. Hall's life with these natives from 1864 to 1869, and of Lieut. F. Schwatka's residence among them from 1877 to 1879. A pretty correct idea of the migrations and favorite resorts of this tribe at the different seasons may be obtained from the journals of these travelers.

When Rae arrived in Repulse Bay in the latter part of July, 1846, he met with twenty-six natives who were deer hunting among the numerous lakes of Rae Isthmus (I, pp. 35, 40, 48). Another part of

the tribe had resorted to Akugdlit, where they hunted the musk ox near Point Hargrave (I, p. 49). Committee Bay (Akugdlit) was filled with a heavy pack about that time, and the natives hunted walrus in their kayaks (I, p. 58). Wherever they killed a deer or musk ox they made deposits of the meat and carefully put up the walrus blubber in sealskin bags for use during the winter. When, about the end of September, the deer were migrating southward and new ice was forming on the lakes, the natives settled in the center of that part of the country which had been their hunting ground during the summer, in order to be near their depots. For this reason they were well scattered all over the country, some establishing their tents on the lakes of the isthmus, others staying on the shore of Repulse Bay, where large deposits of deer meat and blubber had been made. During the winter most of the natives gathered in one settlement east of Fort Hope (near Aivillik), whence they started to bring in their deposits. About the 20th of February they scattered all over the bay (I, p. 91), but it is doubtful whether they did this in order to be nearer their depots or to go sealing. In March the first deer of the season were seen. (I, p. 93), but it was not until April that larger herds passed Repulse Bay on their migration northward (I, p. 99). At this time a small supply of trout was procured from Christie Lake, but it was not sufficient for the support of the natives (I, p. 99). Caches of venison were made and frequently visited until late in June (p. 166). The sealing had begun in the beginning of May (p. 135), when the first animals were seen basking on the ice. But

the Eskimo were now almost independent of their old food supply. When the salmon left the lakes and the deer were roaming among the hills the time of plenty was at hand. The salmon creeks were visited, deer were caught, and seals pursued on the ice (p. 170). Although the first deer were caught in traps in May, the principal season for deer hunting opened after the breaking up of the ice, when they were easily taken while crossing the lakes.

When Rae wintered the second time in Repulse Bay (1854-'55) he was much surprised to find no natives there. They had wintered farther south, and did not come to the bay until May, 1855, when they could catch seals on the land ice. In 1864, when Hall arrived at Wager River, Repulse Bay was again deserted. This year of Hall's stay in Hudson Bay is very instructive, as we learn from his account the particulars of the migration of the Aivillirmiut from Nuvung to Repulse Bay. The following facts are taken from his journal:

In June, 1865, a traveling party arrived in Repulse Bay (Hall II, p. 177), where numerous deer were met with. Their tents were erected on Uglariaq, whence seals were pursued, and they began at once to make blubber deposits (p. 179). They were very eager to store as much provision as possible, as there was no chance of obtaining a fresh stock at Repulse Bay during the winter. Some of the party brought their boats to the floe edge in order to follow the seal and walrus, which were swimming in the water or lying on the drifting ice in great numbers, while others preferred sledging on the land floe and shooting the basking seals (p. 181). After the breaking up of the ice, whales were seen, and kayaks and boats were made ready for their pursuit. In September most of the natives returned to North Pole Lake to hunt deer at the lower narrows (p. 202), where the meat was deposited for winter use (p. 204).

On the 19th of October the last deer was killed (p. 205), and most of the natives returned to the bay. They located at Naujan, the men in the party numbering 43 (p. 216). During the winter no kind of hunt was kept up, only a few salmon and trout being caught in the lakes (p. 210). Towards the latter part of March the settlement was broken up and its members scattered for the purpose of hunting and fishing (p. 227). Salmon were caught in North Pole Lake and deer shot in the narrow passes (p. 227). The sealing did not begin until the first of April (p. 239). In the summer, deer, seal, walrus, and salmon were caught in great abundance. In the following years

the mode of life was about the same, but it maybe remarked that in August the natives lived at Pitiktaujang and afterwards went to Lyon Inlet (Maluksilaq) to hunt deer (p. 323). Part of them returned to Repulse Bay, where walrus were caught on the drifting ice during September. In the ensuing winter (1867-'68) 55 natives had gathered in a village about twenty miles east of Fort Hope (p. 333), where they

lived on the stores deposited during the preceding summer. After the breaking up of the ice they succeeded in killing several whales, which afforded an ample supply of meat and blubber (p. 363). Subsequently, they hunted deer west of Repulse Bay (p. 364) and near Lyon Inlet, where probably the greater part of the families had staid since the previous year.

In November, Hall found near the head of this inlet a number of natives who came to Repulse Bay towards the end of the year, having heard that a whale had been taken there. By this addition the village of Repulse Bay suddenly increased in population to 120 inhabitants (p. 369). This was the only winter in which the natives, began sealing in January (p. 371). In March they built their huts upon the ice and scattered early in the spring for sealing and catching salmon.

From these reports and some more general accounts of these travelers, an idea can be formed of the mode of life of this part of the Aivillirmiut during the different seasons. In the spring, when the seals commence to bask upon the ice, the tents are established on the floe of Repulse Bay, the large winter settlements being broken up into a number of smaller ones. During this season they begin to store away blubber, which is carefully put into sealskin bags. Besides, reindeer are killed in the deer passes. In July a great number of the natives leave the ice and resort to the salmon rivers, where an abundant supply of food is secured, but the sealing is also continued until the breaking up of the ice. At this time of the year (i.e., in August), walrus and seal are taken in large numbers, and

thus an ample stock of provisions for winter use is collected. In some seasons a few whales are caught and stored away at once. In September, most of the natives move to the lakes or rivers, particularly North Pole Lake, to hunt deer as well as the musk ox on the hills. Other favorite localities for deer hunting are west of Repulse Bay or near Lyon Inlet. Large deposits of venison are made, and when the deer go south the natives settle in the center of their summer's hunting ground, building their snow houses on the lakes in order to have a supply of water near at hand. About January most of them gather in one settlement, which is established at Uglariaq, Naujan, or Inugsulik. Those who come from Lyon Inlet do not always join the Repulse Bay tribe, but may be identical with Parry's Winter Island Eskimo, who move to the bay south of Lyon Inlet in winter. They go sealing in winter only in case of need, for the hunt seems to be unproductive, and they subsist on the stores deposited during the preceding summer. Towards the latter half of March the settlements are broken up and some of the natives go to the lakes to fish for trout and salmon, while others begin the sealing.

Another winter station of the Aivillirmiut is Akugdlit, which, however, has never been as important as Aivillik itself. Rae found

some families here in August, 1846. They hunted the musk ox on the western shore of the bay, and later in the season, upon the pack ice which filled the sea, they hunted the walrus (Rae I, p. 58). They reported that the bay was very unfavorable for any kind of chase, as it is usually filled with closely packed ice, which prevents the visits of animals and endangers the boats of the natives (p. 49). In July the salmon creeks of Akugdlit (Committee Bay) were visited by these families, who extended their hunting ground from Colville Bay to the most northern parts of Melville Peninsula (p. 145). According to Hall a number of families live here at times. They were in the habit of staying at Repulse Bay during the early part of the summer and went to Akugdlit in the autumn to hunt the musk

ox and deer. In the winter they transferred their deposits of blubber from Aivillik across the lakes to their settlement. Probably these families returned to Repulse Bay about the first of March, at which time their deposits were always exhausted (Hall II, p. 383). In some seasons the natives journey much farther south, that is, to the country between Cape Fullerton and Wager River. Klutschak's report upon this subject, which is extracted from his observations during Schwatka's search for the Franklin records, will be found tolerably correct (Deutsche Rundschau für Geographie und Statistik, III, 1881, p. 422). The report contains the following statement:

> In the spring of every year these Eskimo live on the land floe of Hudson Bay, at some distance from the point where the tides and winds carry the pack ice past the shore. Here is the favorite feeding place of the walrus, and the Eskimo confine themselves to the pursuit of this animal. They settle near one of the numerous islands situated near the shore.

Later in the season they live in tents, and the hunting of seals and walrus is continued as long as the presence of ice permits. The greater part of the Aivillirmiut live near Depot Island (Pikiulaq). Here, on Cape Fullerton, and near the northern entrance of Chesterfield Inlet, the natives deposit their stores for winter use. As soon as the ice is gone they resort to the mainland, where deer, which descend to the shore at this season, are hunted. When the snow begins to cover the country they move inland, where they continue the deer hunt. In October they settle near a deer pass or a lake which is crossed by the herds migrating southward. In December all the deer have left the country and the natives live upon the stores deposited in the fall. Towards the beginning of the new year part of them return to the sea and live upon the deposits of walrus meat or disperse over the land floe, where seals are killed in their breathing holes. Another part take to the hills near Chesterfield Inlet and Wager River, a favorite feeding ground for

the musk ox. They only return to the bay in March or April, to hunt seals until the breaking up of the ice. If the supplies of walrus meat are very abundant the Eskimo gather in one large settlement.

It appears from Klutschak's own journal that this report is not quite complete, and I shall therefore add those of his own observations which seem to be important:

The natives who had hunted deer in the fall returned in December to Depot Island, where ten inhabitants lived at that time. They hunted walrus at the edge of the floe during the whole winter, but did not exclusively use their old stores (Klutschak, p. 32). In summer whales were hunted by means of kayaks, the blubber and meat being immediately stored for future use (p. 269). It is interesting to learn that a single family spent a whole year in the interior of the country, about two or three days' journey west of Depot Island, living on the flesh of the musk ox most of the time (p. 196). He does not say what kind of fuel they used.

In Klutschak's chart of Hudson Bay, which is published with his essay, a winter settlement is marked on Wager River, where the natives probably lived on seals caught in the breathing holes.

The mode of life of this tribe, as observed by Hall during his stay among them in 1864, differs in some material points from Klutschak's account. It is particularly important that Hall found them at Wager River.

About forty Eskimo are said to have lived in Nuvung during that year, while others were at Depot Island. Large depots of deer meat were scattered over the country around the settlement (Hall II, p. 76) and were brought in by the natives one by one. In the middle of November, after having finished the work of currying their deerskins, they commenced the walrus hunt, but meantime they frequently fed on deer meat from their depots (Hall II, pp. 102, 128, 132, 133). Towards the end of February they commenced to disperse, at first moving southward in order to be nearer the floe edge (p. 144). In the beginning of March an advance party of

natives moved to Wager River, where they intended to catch salmon through the ice and to visit depots in that part of the country (p. 149). In April all the former inhabitants of Nuvung had settled on the ice of Wager River, where salmon in moderate numbers were caught (p. 164), but the main subsistence was the seals, which were at first watched for at the breathing holes, while later on they were killed when basking on the ice.

As a summary of the foregoing statements, we may say that the five principal settlements of the Aivillirmiut are Pikiulaq (Depot Island), Nuvung and Ukusiksalik (Wager River), Aivillik (Repulse Bay), Akugdlit (Committee Bay), and Maluksilaq (Lyon Inlet). They may be divided into two groups, the former comprising the southern settlements, the latter the northern ones. Every one of these settlements has certain well known sites, which are frequented at the proper seasons.

It yet remains to describe the roads which are used in the intercourse between these settlements. From Pikiulaq to Nuvung the natives travel by means of sledges. In the winter of 1864-'65 two journeys were made, the first in December, the latter in January. Besides, boats are used in traveling along the shore in summer. Sledge journeys from Nuvung to Ukusiksalik cannot be accomplished on the ice, as in the entrance of the bay large water holes are formed. The sledges follow a chain of long, narrow lakes beginning near Nuvung and running almost parallel with the coast through a deep gorge. The bay is but a short distance beyond this gorge. I am not acquainted with the sledge road from Nuvung to Aivillik. Rae was visited at Fort Hope by a number of Eskimo, who came by sledges from Nuvung in June (I, p. 169). Hall traveled with the natives in boats, passing the narrows and following the edge of the land ice, while the rest of the families sledged on the shore or on the land ice (II, p. 177). The principal road across Rae Isthmus leads over North Pole Lake and is described by Rae and Hall. The latter accompanied the natives on

two sledge roads, the one leading from Sagdlua, in Haviland Bay, to Qariaq, in Lyon Inlet, the other crossing the land farther south. I am not sure whether a road leading from Nebarvik to Committee Bay connects Maluksilaq with Akugdlit. It is doubtful whether the coast between Aivillik and Gore Bay is visited by the natives.

It is remarkable that the Aivillirmiut very rarely go to Southampton Island, though they are sometimes carried across Frozen Strait or Rowe's Welcome by drifting ice. Scarcely ever of their own accord do they visit the island, which they call Sagdlirn. They know that it is inhabited, but have very little intercourse with its people.

The Kinipetu or Agutit.—

The reports upon the Kinipetu or Agutit of Chesterfield Inlet are very scanty as compared with those of the beforementioned tribe. All authors agree that they differ materially in their habits from the Aivillirmiut, and it has often been affirmed that they scarcely ever descend to the sea. As there is, however, no other tribe mentioned south of the Aivillirmiut besides this one and as in every voyage to these shores, even far south of Chesterfield Inlet, Eskimo are met with who frequently visit Fort Churchill, the most northern station of the Hudson Bay Company, there can be no doubt that they also visit the shore and the islands and hunt seals. Probably the greater part of the tribe live inland from July to March, hunting deer and the musk ox, and in winter only descend to the sea in order to procure blubber and sealskins during the season in which these are most easily obtained. It may be that another part stay near the head of Chesterfield Inlet all the year round or remain in the hilly country between the deep gulf and Back River hunting the musk ox. According to all reports, they are rather independent of the hunt of sea animals, and they do not even use their

skins for garments (Klutschak, Deutsche Rundschau für Geographie und Statistik, III, p. 419). For this reason they would

afford interesting material for investigation, and it is unfortunate that no trustworthy accounts of the tribe exist. Back, on his journey to the shores of the Arctic Ocean, found traces of the Eskimo on the lakes of Back River, ample proof that they were in the habit of visiting this region every summer. He found the first traces near 107° west longitude, and farther down, at the mouth of Baillie River. He did not see the natives whom Anderson and Stewart met in the summer of 1855 near McKinley River and later between Pelly and Garry Lakes. Their clothing and even the covers of their kayaks were made of deer and musk ox skins. They observed among these natives such articles of European make as the Hudson Bay Company used for barter and which were traded to the most southern Eskimo tribes of Hudson Bay. Therefore it is likely that these natives belonged to Chesterfield Inlet. This opinion is supported by Klutschak's remark that a native of the mouth of Back River knew an overland route leading from the lakes at its upper course to Chesterfield Inlet.

The Sagdlirmiut of Southampton Island.—
Before leaving the subject of the Hudson Bay Eskimo I may mention the inhabitants of Southampton Island, a tribe which is almost unknown and the only record of which was obtained by Captain Lyon during the few hours which he passed among them in 1824 (Attempt to reach Repulse Bay, p. 54). In August he found a few families on the island south of Cape Pembroke, who were living upon salmon which had been deposited in stone caches and who had tents made of sealskins. A winter house was found at the same point. About 1865 an American whaling vessel found some natives on Manico Point living in five tents. Even then they had scarcely any iron, but used the old stone implements; this proves the want of all communication with the natives of the mainland. Parry found traces of Eskimo in York Bay and they have been seen on many other parts of the island. The Hudson Bay tribes call this tribe the Sagdlirmiut, i.e., the inhabitants of Sagdlirn, and their

knowledge about them is very scanty, as they meet very rarely and by chance only.

The Sinimiut.—

Northwest of Hudson Bay we find a tribe in Pelly Bay. The reports upon it are very scanty and it is difficult to find out the extent of the district which is occupied by it. Ross did not fall in with the tribe, and in the accounts of the Netchillirmiut on their journey to Repulse Bay no mention is made of an intervening tribe (II, p. 263). In April, 1847, Rae found signs of the tribe near Helen Island, in Pelly Bay (I, p. 113). There was an abundance of seals on the ice all around the islands (p. 111), but besides these they had large stocks of dried musk ox and salmon (p. 124). On his second journey he found their winter habitation on Barrow and Cameroon

Lakes (II, p. 938), and on the 20th of April he met with seventeen natives on the mainland west of Augustus Island, among whom were five women. In traveling farther west he fell in with a native who had been hunting the musk ox. On the 17th of May he found twelve natives settled in the same place and living on seal (II, p. 842).

Hall met with this tribe twice, in 1866 and in 1869. On the 28th of April, in his first attempt to reach King William Land, he found the Sinimiut settled near Cape Beaufort, in Committee Bay, where they were probably sealing (II, p. 255). No further account of this meeting is found except the remark that these natives were on their way to Repulse Bay (p. 259). Therefore it is rather doubtful whether the eastern shore of Simpson Peninsula belongs to their customary district. In April, 1869, on his second visit to Pelly Bay, Hall found their deserted winter huts on Cameroon Lake (p. 386). In the early part of the spring they had lived on the ice south of Augustus Island, the only place where seals could be caught, as the rest of the bay was filled with heavy floes which had been carried

south by the northerly winds prevailing during the preceding fall. The natives themselves were met with on the mainland west of Augustus Island, where they were hunting the musk ox. When Hall crossed the bay in the first days of June the natives had changed neither their place nor their mode of subsistence.

There is a discrepancy in Nourse's extract from Hall's journal, for he sometimes refers to the Pelly Bay natives as different from the Sinimiut, while in other passages all the inhabitants of the bay are comprised in the latter term. I think this discrepancy is occasioned by the fact that a number of Aivillirmiut had settled in Pelly Bay and some others were related to natives of that locality; the latter Nourse calls the Pelly Bay men, the rest the Sinimiut. The place Sini itself, according to a statement of Hall, is near Cape Behrens, on the northwestern shore of the bay.

As the winter huts of the Sinimiut have been found four times on the lakes of the isthmus of Simpson Peninsula, we may suppose that they generally spend the winter there, living on the stores deposited in the preceding season and occasionally angling for trout and salmon (Rae I, p. 110) or killing a musk ox. In March they leave for the sea in order to hunt seals and to secure a fresh supply of blubber for their lamps. Their chief subsistence is the musk ox; besides, salmon are caught in great numbers, for they live on dried fish until spring (Rae I, p. 124).

BOOTHIA FELIX AND BACK RIVER.

The Netchillirmiut.—

Following the shore westward we find the interesting tribes that inhabit Boothia Felix, King William Land, and the mouth of Back River. Among them the Netchillirmiut are the most important. Their favorite hunting grounds seem to have

undergone a remarkable change since they were first visited by Ross in 1829. At that period their district occupied the southern

part of Boothia Felix, particularly the narrow isthmus and the adjoining parts of both coasts. They were acquainted with Bellot Strait (Ikerasaq), which they described as the way the Victory had to take in order to effect a passage to the western sea. A part of the tribe was in the habit of wintering on Owutta Island; they also probably visited the eastern part of King William Land. The southwestern termination of their district cannot be exactly defined, but from their description of the land south of Lake Willerstedt it appears that they visited Shepherd Bay; besides, I find that in June, 1831, a number of families lived south of Netchillik, i.e., probably in Rae Strait or on Shepherd Bay (Ross II, p. 537).

So far as can be gathered from Ross's account the tribe had three winter settlements, one on the eastern shore of the Isthmus of Boothia, another at Lake Netchillik, and the third on Owutta Island.[3] As to the first meeting of the natives with the Victory two contradictory accounts are found. At first it is related (p. 252) that they came from Akugdlit, having been on the road ten days. Later, and this is more probable, it is said that two natives had descried the ship in September, 1829, when passing near Victoria Harbor (p. 309). Being in great fear, they had immediately traveled to Netchillik to communicate with their countrymen. There they met with a woman who had been on board of Parry's ships, and she had induced all the natives, by her stories, to be on the lookout for the Europeans. At the first meeting, on the 9th of January, 1830, 31 men approached the ship. This would answer to a population of about one hundred and twenty persons, and it is quite unprecedented that such a party should travel for any distance and even beyond the limitations of their own territory and of their customary migrations. Probably a traveling party had joined the Netchillirmiut, who had lived somewhere in Lord Mayor's Bay, and they all went to meet the ship.

From Ross we also learn that during January and February these natives lived on seals, which were killed with harpoons (pp. 250,

255, 259), but, in addition, they had deposits of venison, seal blubber, and fish (pp. 251, 262). Sometimes they went hunting the musk ox on the mainland farther north, and a small party may have staid there throughout the winter (p. 265). In the first days of March they began to scatter all over the ice (p. 290), in order to have a better chance of sealing and of catching young seals in the white coat (pp. 293, 295). The young sealing commenced about the 10th of March. It is worth remarking that this is the only tribe on the continent of

America which pursues the young seal; they are enabled to do this by the extent of the land floe in the large bays. In the last days of March some of the natives started for Sarvaq and Netchillik to fetch their kayaks (p. 315), which they had left there the preceding season. As they intended to hunt deer at the lakes farther north, they were obliged to have their boats at hand at the breaking up of the ice. The further the season advanced the more the settlements were broken up (p. 338), and towards the end of April the first families left for Netchillik to join the other part of the tribe (p. 323). At this season the musk ox and the returning reindeer were frequently hunted (pp. 252, 335, 349). In the first days of May some of the natives went to Netchillik (p. 337), and another party followed a month later (p. 383). They stopped on Middle Lake for a short time to fish for trout (p. 384). A number of families remained near the ship, sealing, catching salmon, and hunting the musk ox (pp. 436, 441, 450, 453) until the beginning of July, when the fishing season ended and they went to the inland lakes to hunt deer and fish for trout in the rapids between the lakes (p. 450). In the summer their principal fishing stations were Lindsay River and Sarvaq.

The other part of the tribe which had lived at Lake Netchillik were even more numerous than that of the coast, as 21 snow houses were found which had been inhabited by them during the winter (p. 389). The number of inhabitants of this village was about one

hundred and seventy, and, since there were a few who lived on Owutta Island and yet others who may have been scattered in different parts of the country, it is probable that the whole tribe numbered 350 persons.

As they were seen only a few times by the expedition the reports are rather incomplete. In the winter they lived on a plain, which was called Okavit, on the eastern shore of Lake Netchillik (p. 315). The exact position cannot be learned from Ross's journal. As some mention is made of blubber deposits at Netchillik (p. 388), it is probable that they lived on stores deposited in summer. Toward the end of May and in the beginning of June they were met with at Spence Bay and Josephine Bay. One of their stations was on the island Inugsulik, near Padliaq, the head of Spence Bay. Here their principal food was codfish, which they caught in holes cut through the ice, while the sealing was there a less important interest (pp. 391, 426). The kayaks which were found deposited on the west shore of Boothia as far as Josephine Bay proved that they resorted to this region in the deer hunting season (pp. 406, 407). The families who had been at Owutta during the winter of 1829-'30 were found in June, 1831, in Padliaq, whence they crossed the isthmus and visited Tarionitjoq (p. 431).

In 1830 no natives were seen after the usual time of their departure for the interior of the country, and it was not until April, 1831, that

they were found again. They had wintered at Lake Avatutiaq, on the eastern shore of Boothia (p. 511), where they had lived on a large stock of salmon caught in the fall (p. 531) and on musk oxen which were hunted during the entire year in the hilly country near the lakes. Others had wintered farther south, on Lake Owen (p. 524). A portion of these Eskimo set out for Netchillik in April (p. 522), while the others remained in Tom's Bay and subsisted upon codfish, salmon, and seals (p. 546).

In June another party left for Netchillik, whence some of the natives, who had not seen the ship before, arrived at Victoria

Harbor in July, probably having heard of her new station at this place through the returning families (p. 577). In August the last of them left, going west (p. 592).

Though these reports are rather imperfect, they enable us to get a fair idea of the mode of life of this tribe.

In the large bays on the eastern side of the isthmus the natives live just as do the southern tribes of Baffin Land, pursuing the seal at its breathing hole during the winter. Here, as everywhere else, the settlements were broken up early in the spring. The fishing is commenced remarkably early, while in the east scarcely any salmon are caught before the breaking up of the lakes. West of Melville Peninsula the fishing is commenced in March or even earlier. On Boothia the most important means of subsistence for the natives is the codfish, on which they live during the spring and probably during a part of the winter. It is also an important article of food for the other tribes of this region, while farther east it is of no importance. The salmon fisheries of Boothia are very productive, of which Netchillik and Padliaq in Josephine Bay, Stanley and Lord Lindsay Rivers, Qogulortung, Angmalortuq, and Sarvaq may be considered the most important. Deer are hunted while swimming across the numerous lakes of Boothia, and the musk ox in the granite hills of its northern part. Here is also another winter resort of the tribe, from which the island Tukia, north of Lake Avatutiaq, is visited in summer, to collect pyrite or native iron (p. 362), which is used for kindling fire. The life of the western part of the tribe, as far as we are acquainted with it, was described in the foregoing paragraph.

Neither Dease and Simpson, who visited Castor and Pollux River in 1839, nor Rae, on his second voyage to Boothia, met the natives themselves; the latter, however, saw their marks on the islands of Acland Bay (II, p. 840).

The next traveler who fell in with the tribe was M'Clintock, who visited King William Land in search of the Franklin records. In February, 1859, he met several families near Cape Adelaide

(p. 230). They traveled during the spring all along the shore and had been near Tasmania Islands in March and April. They were seen by him on their return journey to Netchillik, near Cape Nicholas. They

traveled slowly south, hunting seals. They knew the coast as far as Bellot Strait and were able to name every cape of this district.

A few families who had wintered in company with this party at Cape Victoria had returned to Netchillik when the other parties started north (p. 253). On the 4th of May, twenty deserted snow huts were found on the southwest point of Matty Island (p. 257). From the direction of the sledge tracks, M'Clintock concluded that the natives who had formerly lived here had gone to Netchillik. On the 7th of May a settlement of 30 or 40 individuals was found on the eastern coast of King William Land (p. 260). This party had not communicated with the villages on the mainland of Boothia since the preceding fall (p. 260).

An interesting change in the territory which is inhabited by this tribe has occurred since Ross's visit to this country. In order to describe it more fully, I must refer to the relations of the Netchillirmiut to the Ugjulirmiut. At this early period the intercourse between the tribes of Ugjulik and Netchillik was of little consequence. No European had ever been in their districts, which included Adelaide Peninsula and the southern shore of King William Land (Ross II, p. 317), but quite a number of persons were known to the Netchillirmiut (p. 357), who had met them in their trading excursions. In addition to this, a young single man of Ugjulik had been adopted by a Netchillirmio who lived on the eastern coast of King William Land and on Owutta Island (p. 355). When the Franklin expedition perished on King William Land, in 1848, the Netchillirmiut had not yet visited that part of the country. From Schwatka's inquiries we learn that the tribe that found Crozier and his fellow sufferers did not extend its migrations beyond Adelaide Peninsula and the southern shore of King

William Land. In the summer of 1848 they attempted in vain to cross Simpson Strait, and were compelled to stay on the island. They traveled all over the country as far as Peel Inlet, opposite to Matty Island (Gilder, p. 91). Hence it is obvious that the Netchillirmiut, up to the time of the Franklin catastrophe, lived in their old territory, as the inhabitants of Boothia in 1859 had only indirect news of the shipwreck.

When the Ugjulirmiut obtained an enormous stock of metals and wood by the destruction of Franklin's ships, the Netchillirmiut commenced to visit King William Land, in order to partake also of these riches. Thus they began, by degrees, to move westward, and became intermingled with the Ugjulirmiut. Hall mentions quite a number of Boothians who had met Ross on the eastern shore of the isthmus, though they were living on King William Land at that time (Hall II, p. 405). Besides, according to all accounts, the number of women is much smaller among the Netchillirmiut than that of men, and these are obliged to look for wives among the neighboring tribes, particularly among the Ugjulirmiut. As these do not differ in the fashion

of their clothing and tattooing from the Netchillirmiut, it is scarcely possible at the present time to separate the tribes. It is worth remarking, however, that Gilder and Klutschak use both terms, and therefore I conclude that the natives themselves are conscious of belonging to different tribes.

Schwatka describes the limits of their territory as he learned them from his observations in the summer of 1879 (Science, December 19, 1884, p. 543). He found them on the mainland opposite King William Land and along the islands in the vicinity of Simpson Strait. They were most numerous along the northern shores of Adelaide Peninsula, their villages being scattered every few miles along the coast from Montreal Island to Smith Point. On the chart accompanying this account the eastern shore of the Back River estuary is included in the district inhabited by the Netchillirmiut.

It is important to compare this description with the observations which were made by Hall in 1869. He found the first traces of natives at the very head of Shepherd Bay, where a sledge track was observed (p. 395). Near Point Acland several snow huts and a number of natives were met with on the 30th of April (p. 396). Farther west he found a village on Point Booth (p. 397), but the most interesting fact is that in May, 1869, the party had fresh salmon from Netchillik (p. 400). This statement is decisive of the question whether the Netchillirmiut still continued their visits to the isthmus from which they take their name.

From Klutschak's journal a few more details may be gathered. From it we learn that in summer the Netchillirmiut scatter, and, while some go sealing near Montreal Island (p. 75), many others go inland to hunt deer in the lakes of the peninsula and farther south (p. 119). A third party resort to King William Land, the southern shore of which they frequent until September, while the more northern parts are seldom visited (p. 79). At this season they leave the island and all return to Adelaide Peninsula (p. 126).

I suppose, however, that this report does not refer to the whole tribe, but that another party visited Shepherd Bay in winter. It seems to me very improbable that in the interval between 1869 and 1879 a total change should have occurred. In the spring they catch salmon, which are dried and stored to be used in winter. Their stock of blubber and deer meat is sufficient to last them during the greater part of the winter. At this season they fish only in holes made through the ice. Important winter settlements are at Point Richardson and at the outlet of Qimuqsuq (Sherman Inlet), where all the deer needed are caught in the fall while they are crossing the bay.

Although these statements do not altogether harmonize, it appears, notwithstanding, that King William Land and Adelaide Peninsula, which were not visited by the tribe in the early part of our century, became its favorite hunting ground after the loss of the Franklin

expedition. Since that period the more northern parts of Boothia may have been abandoned by the natives, though no certain proof of this can be offered. Netchillik itself and the more southern parts were visited up to 1869, and probably they are yet inhabited by the Eskimo. This cannot be said with positiveness, however, for this part of the country has not been visited since the times of Ross and M'Clintock. The migration of the natives was caused, without doubt and as we have already remarked, by the profusion of metals and wood obtained from the wrecks and the starved traveling parties.

The Ugjulirmiut.—

Several important facts regarding the Ugjulirmiut are mentioned above. Dease and Simpson found their first traces on the western shore of Adelaide Peninsula. From Ross's account (I, p. 427) it appears that their territory was the same at that period as it is now, and M'Clintock's meeting with them on the shore of King William Land may be adduced as a proof of this. Their old country is now inhabited by both Ugjulirmiut and Netchillirmiut. Therefore their mode of life is identical and requires no comment. Visits to the northern parts of King William Land have been very rare, but it was on one of these that Franklin's ships were discovered (Klutschak). They rarely went hunting beyond Cape Herschel, but looked for driftwood on the northern shore of the island.

The Ukusiksalirmiut.—

The last tribe of the Central Eskimo, the Ukusiksalirmiut, inhabit the estuary of Back River. They were met by Back and by Anderson and Stewart. Recently Schwatka and his party communicated with them on their visit to King William Land. Klutschak affirms that they are the remains of a strong tribe which formerly inhabited Adelaide Peninsula but was supplanted by the Netchillirmiut and the Ugjulirmiut. Klutschak calls them Ukusiksalik; Gilder, sometimes Ukusiksalik, sometimes Ugjulik. The latter author relates that a single family living on Hayes River

(Kugnuaq) had formerly had its station on Adelaide Peninsula, but had retired to this country when the warlike Netchillirmiut began to visit King William Land and Adelaide Peninsula. Schwatka could identify the same man with one of those whom Back had seen in the estuary of the river in 1833 (Gilder, p. 78). Therefore they must have lived in this district a long time before the Netchillirmiut began to move westward. According to Back the party with which he fell in did not know the land beyond the estuary of Back River, which indicates that they were neither from Ugjulik nor Netchillik. As the Ugjulirmiut lived on Adelaide Peninsula when Ross wintered in Boothia, I do not consider it probable that the Ukusiksalirmiut ever lived in that part of the country, and I cannot agree with Klutschak. I may add Parry's remark, that beyond Ukusiksalik (Wager River) another Ukusiksalik (Back River) was known to the natives of Winter Island.

459

The reports on their mode of life are very deficient. They were met by Schwatka a little above the great bend of Hayes River in May, 1879; he also met another party in December at the Dangerous Rapids of Back River. Schwatka counted seven families at the former and nine at the latter place. Their principal food consisted of fish, which are caught in abundance in Back River (Klutschak, p. 164). It is said that they have no fuel during the winter. Undoubtedly they use some kind of fuel, and I rather doubt the implication that they do not hunt seals at all. The musk ox and fish, however, are their main food, according to both Klutschak and Gilder. It is very remarkable that all the natives west of Boothia depend much more on fish than do any other tribes of the Central Eskimo.

A word in regard to the roads used in the intercourse between the tribes. From Akugdlit a road leads over the lakes of Simpson Peninsula to Pelly Bay. Rae and Hall traveled over it on their journeys to the northwest and it was used by the Sinimiut when

they visited Repulse Bay in 1866. From Pelly Bay two roads lead to Netchillik and the estuary of Back River, the one following the east shore of the Boothia, the other running to Lake Simpson, whence the valley of Murchison River facilitates the access to Inglis Bay. The Isthmus of Boothia is crossed by the two chains of lakes discovered by Ross. In visiting the northeastern part of the peninsula the natives ascend Stanley River and cross the lakes farther north. Between Netchillik and Ugjulik the Eskimo pass by Owutta Island to Peel Inlet, whence they travel overland to the south shore of King William Land and cross Simpson Strait. Another road leads from Cape Colville to Matheson Point, following the south shore of King William Land. In traveling from Ugjulik to Back River they use Sherman Inlet and the adjoining isthmus. It is probable that Back River is visited by natives belonging to Wager River. The existence of a communication between Back River and Chesterfield Inlet is proved by Anderson and Stewart, who found Eskimo at Lake Garry, and by a remark of Klutschak (p. 170), who learned from a native of Back River that Chesterfield Inlet could be reached from the upper part of that river. It is quite probable that thus an immediate though limited intercourse is kept up between the Kinipetu and the Ukusiksalirmiut.

SMITH SOUND.

The natives of Ellesmere Land.—
Last of all I have to mention the natives of Ellesmere Land and those of North Greenland. Although the latter are not generally considered as belonging to the central tribes, I find that their habits and their implements resemble those of the Central Eskimo rather than those of the Greenlanders,

and therefore a brief mention of them will not be inappropriate. The inhabitants of Umingman Nuna (Ellesmere Land) probably

live on the southern shore, near the western part of Jones Sound, and, according to Bessel's and my own inquiries, they travel all around this island, passing by Hayes Sound.

The North Greenlanders.—
The North Greenlanders live in the sounds of the peninsula between Melville Bay and Kane Basin, hunting seals on the smooth floes of the bays and pursuing walrus at the floe edges. They make large deposits of the blubber and meat obtained in the fall, on which they live during the winter. They also pursue seals in winter with the harpoon. In summer they hunt reindeer on the mountains adjoining the inland ice.

INFLUENCE OF GEOGRAPHICAL CONDITIONS UPON THE DISTRIBUTION OF THE SETTLEMENTS.

In considering the distribution of the tribes it is evident that they are settled wherever extensive floes afford a good sealing ground during the winter. The Sikosuilarmiut live on the large bay east of King Cape, which is sheltered by numerous islands. The Akuliarmiut are settled near Lesseps and North Bays. I am unable to say whether there is a floe near the winter settlement of the Qaumauangmiut, as there are no reports upon the subject. Probably ice is formed in the sound, which is protected by the Middle Savage Islands, and besides it may be that the natives move to North Bay. The important tribe of Nugumiut lives on Frobisher Bay and the adjoining Grinnell and Field Bays. On the largest floe of this part of the country, in Cumberland Sound, including Lake Nettilling, the largest tribe is settled: the Oqomiut. On Davis Strait ice floes are formed between Cape Mickleham and Cape Mercy, in Exeter Sound, and between Okan and Bylot Island. The tribes are distributed accordingly: the Saumingmiut of Ukiadliving, the inhabitants of Qarmaqdjuin with their winter settlement in Exeter

Sound, and the Padlimiut and the Akudnirmiut farther north. The immense land floe of Davis Strait is not so valuable a hunting ground for the Eskimo as Cumberland Sound, the ice being very rough a few miles from the coast and at some places even close inshore. When the sea begins to freeze in the fall the newly formed ice is broken up by severe gales and by the currents and is piled up into high hummocks before it consolidates. The sealing on rough ice during the winter is very difficult and unsuccessful, as it is hard to find the breathing holes and the traveling is very laborious. It is only in the northern parts of Home Bay and in the large fjords that smooth ice is formed. The settlements of the natives are manifestly distributed in accordance with these facts. In every place where smooth ice is formed we find that natives either are settled or have been settled. Aqbirtijung, River Clyde, Ijellirtung,

Home Bay, Brodie Bay, Merchant Bay, and Padli are the only places along the shore of Davis Strait where smooth ice occurs. On the long shores between them, which are unsheltered from winds and currents, the ice is always very hummocky, and, therefore, the natives do not settle upon them in the winter. In the far north, extensive floes of smooth ice are formed in Eclipse Sound and Admiralty Inlet.

Concerning the country farther west the reports are rather scanty. The southwest shore of Baffin Land and the eastern entrance of Fury and Hecla Strait are always frozen over and afford a good hunting ground. On the mainland, the large floes of Repulse Bay and Wager River, Chesterfield Inlet and the bights all around it, Pelly Bay and the narrow bays adjoining Boothia Peninsula, and the mouth of Back River are important places for the distribution of the Eskimo.

There are only a few districts where the proximity of open water favors walrus hunting during the winter, and all of these have neighboring floes on which seals may be hunted with the harpoon. These places are Sikosuilaq, Akuliaq, Frobisher Bay, Iglulik, the

west shore of Hudson Bay, and Smith Sound. As to the remainder the Eskimo live altogether independent of the open water during the winter.

Generally speaking, two conditions are required for winter settlements, viz, the existence of an extensive floe and smooth ice. The different mode of hunting in the spring causes a different distribution of the settlements. During this season those regions which had been deserted during the winter are most visited by the hunters. On light dog sledges they travel over the rough ice and along the shores of the fjords and islands. The natives who lived in large settlements during the winter are spread over the whole country, in order that every one may have a better chance of traveling over his own hunting ground. In a few places the young sealing induces the Eskimo to leave the winter settlements; in other places the kayaks are prepared for visiting the floe edge, and bears and the returning birds are hunted.

Though the greater variety of food which is to be obtained and the difference in the methods of hunting in the spring require the dispersion over a wide area of the families which had kept together during the winter, the selection of places for the new settlements remains wholly dependent upon the state of the ice.

After the ice breaks up, the distribution of the deer regulates the location of the summer settlements. While during the winter the state of the ice is of decisive importance, the orography of the land comes now into consideration.

Wherever deep valleys give access to an extensive area, wherever practicable roads enable the natives to ascend the plateaus, summer settlements are established. The heads of the fjords are favorite

places, as they abound with salmon. The adjoining valleys and the peninsulas which they form give the best chances for a successful deer hunt. These facts are most apparent on the coast of the steep highland of Nugumiut, over which numerous herds of deer roam. A great influence is also exerted by the extensive plains of the

western part of Baffin Land, which abound in deer. We observe that a number of tribes visit these districts, though their winter stations are at a great distance. The Akuliarmiut of Hudson Strait and the Nugumiut travel to Lake Amaqdjuaq, the Oqomiut stay on Lake Nettilling, and the Akudnirmiut visit Majoraridjen. In the same way all the tribes of Hudson Bay visit the land farther west, which is frequented by herds of the musk ox, and they go even as far as Back River. This important fact shows the attraction which is exerted by a rich country on all the tribes of the neighboring districts.

TRADE AND INTERCOURSE BETWEEN THE TRIBES.

In treating of the single tribes, the routes were mentioned which are followed by the natives as they travel from shore to shore and from settlement to settlement. These routes are established by tradition and the Eskimo never stray from them. In order to obtain a more thorough understanding of the migrations of single individuals and of families, the relations between the tribes and the settlements must be discussed.

By the lively intercourse which is always kept up between the settlements, it cannot fail that marriages between members of different tribes should be of frequent occurrence and that many ties of affinity and consanguinity should thus be created. These relations, however, as distances increase, quickly become less common. For instance, in Cumberland Sound three people are found belonging to Tununirn, about ten belonging to Akudnirn, and quite a number coming from Padli. Also, two Sikosuilarmiut live there, a few natives of Akuliaq and Qaumauang, and very many Nugumiut. Hall's accounts concerning the Nugumiut and the Aivillirmiut prove a similar proportion of strange natives among these tribes. Every tribe may be said to bring together its immediate neighbors, as it is closely related to them, while those

which are separated by the tribe itself are strangers to one another. The importance of this mediate position is regulated by the strength of the tribe, by the significance of the country in reference to its produce, and by the routes crossing it.

Thus, the Sikosuilarmiut and the Nuratamiut are closely connected, and may be considered as forming one group with the Akuliarmiut. The Sikosuilarmiut have intercourse with the Igdlumiut, the inhabitants of the northern shore of Labrador. According to Lucien M. Turner, three tribes may be distinguished there as inhabiting the

shores of Ungava Bay and the eastern shore of Hudson Bay. This report differs somewhat from the accounts of the Moravian missionaries who have intercourse with the inhabitants of Ungava Bay near Cape Chidleigh. From their reports four tribes may be distinguished: the Kangivamiut of George River, the Kouksoarmiut of Big River, the Ungavamiut of Hope Advance Bay (which is properly named Ungava), and the Itivimiut of Hudson Bay. I am rather undecided whether Ungava is a bay or a large strait separating Cape Wolstenholme and the adjacent land from the continent, as the name Ungava is also reported south of Cape Wolstenholme. The inhabitants of this shore are the Itivimiut of the Labrador Eskimo and the Igdlumiut of the natives of Baffin Land. Probably the intercourse between Sikosuilaq and Cape Wolstenholme is of no great importance. The Sikosuilarmiut visit Trinity Islands (Nannuragassain) in skin boats to hunt walrus and cross by the three islands Tudjaraaq´djung, Akugdlirn, and Tudjaqdjuara´lung to the opposite shore of Hudson Strait. The passage across the strait is considered very dangerous, and therefore is rarely undertaken. The natives do not utter a single word during the long passage; they believe a destructive gale might be conjured up if they did. Only once have natives been met with on Salisbury Island (Lyon, Attempt to reach Repulse Bay, p. 128), but it is doubtful whether they belonged to the northern or to the southern shore of the strait. As for the rest, the passage is only

known to me by reports I received in Cumberland Sound, which were confirmed by the whalers visiting the northern shore of Hudson Strait. I do not know whether any intercourse exists between Sikosuilaq and Southampton Island. It is worth remarking that on Mansfield Island numerous ruins of Eskimo habitations have been found (Gordon, Report on the Hudson's Bay Expedition, 1884, p. 38).

The Qaumauangmiut are connected with the Nugumiut in the same manner as with the Akuliarmiut, and many are said to winter near North Bay, which is also visited by the Akuliarmiut. From Hall's reports it would appear that many are settled in Frobisher Bay.

At present the intercourse between the Nugumiut and the Oqomiut is of no significance, as many years may pass without a journey being made from one tribe to the other. Formerly, when many whalers visited Cumberland Sound and Field Bay, a number of Nugumiut immigrated to the sound, and consequently almost half of the Eskimo now settled on the western shore of Cumberland Sound were born in Nugumiut or Ukadliq. At the same time many Oqomiut settled among the Nugumiut. That period was doubtless an exceptional one; at any rate, the long stretch of uninhabited shore between the settlements of the two tribes is not favorable to intimate intercourse. Indeed, even now the Nugumiut are considered strangers in the sound, and, notwithstanding the existence of many intermarriages between the tribes, a number of families are not at all acquainted

with one another. It is remarkable that the number of natives born in Nugumiut is much larger on the western shore than on the eastern. They seem to have joined their nearest neighbors, the southern Talirpingmiut, perhaps for the reason that in their district the geographic character of the land is most similar to that of Frobisher Bay. The number of Nugumiut settled among the inhabitants of Nettilling Fjord and among the Kingnaitmiut is far less. Among the Saumingmiut there is no one who has traveled

beyond Naujateling, and in Padli or farther north there are very few individuals who have been south of Cumberland Sound. It is only by careful consideration of the birthplace of the different individuals who are members of the settlements of Cumberland Sound that it is possible at the present time to detect the former division of the Oqomiut into subtribes. The inhabitants of the eastern shore are related to the Padlimiut and the Akudnirmiut; those of the western shore, to the Nugumiut. In 1840 a brisk intercourse existed between Padli and the sound (Eenoolooapik, p. 81), and probably sledges crossed the peninsula every winter. Though the intercourse is not so intimate to-day as it is between the settlements of the sound, it is yet active. The Kingnaitmiut form the medium of the regular intercourse between Saumia and Padli, while families removing to Akudnirn travel along the shore of Davis Strait. Among the subtribes of the Oqomiut the Saumingmiut are most nearly related to the Padlimiut and extend their migrations farthest to the north.

The Akudnirmiut, who are closely connected with the Padlimiut, are considered strangers by the Oqomiut. The intercourse between the Akudnirmiut and the Aggomiut is not very frequent, and seems to be maintained as irregularly as that between the Nugumiut and the Oqomiut.

The inhabitants of the northern sounds and of Fury and Hecla Strait frequently visit one another. Parry mentions a number of journeys in each direction (II, p. 436). Hall found natives of Tununirn and Tununirusirn settled in Iglulik (II, p. 356). I myself found two Iglulirmiut among the Akudnirmiut. The intercourse seems to have been always very active, and consequently those tribes may be considered as one group.

The inhabitants of North Devon belong to the Tununirusirmiut, a few families of this tribe sometimes settling on the island and after a few years' absence returning to their former home.

From Parry's, Hall's, and Schwatka's reports it appears that the Aivillirmiut are closely related to the Iglulirmiut, while the Eskimo

of Chesterfield Inlet, the Agutit or Kinipetu, form a separate group. It is remarkable that between the tribes of Hudson Bay and the more western ones a deep distrust exists, which prevents a frequent and unlimited intercourse. The Sinimiut and Netchillirmiut are

feared by the Aivillirmiut, though intermarriages and removals from one tribe to the other are not rare. No doubt they are less closely related than are the neighboring tribes hitherto mentioned. Unfortunately, too little is known of the western tribes to admit of a decided opinion whether or not there exists an important difference in customs and habits. The Sinimiut, the Netchillirmiut, and the Ugjulirmiut may be comprised in one group, for they all hold frequent intercourse with one another and the last two even inhabit the same region at the present time. The change which the relations between these tribes have undergone since 1833 has already been referred to, as has their intercourse with the Ukusiksalirmiut. Schwatka (Science, Vol. IV, p. 543) states that they occasionally meet the Qidneliq of Coronation Bay, but that both tribes distrust each other. Our knowledge about the migrations from North Devon to Ellesmere Land and North Greenland is very scanty, but it is necessary to mention its existence.

Between tribes that are strangers to one another ceremonies of greeting are customary which are not adapted to facilitate intercourse. The ceremonies will be described further on (see p. 609). For the present it will be sufficient to say that duels, with varying details, are common between a stranger and a man of the tribe, and these sometimes result in the death of the former. Among neighboring tribes these ceremonies are dispensed with, for instance, between the Padlimiut and Oqomiut, Padlimiut and Akudnirmiut, while a Nugumio or an Akudnirmio unknown in Oqo has there to go through the whole of the performance. The exception in favor of the former tribes is doubtless due to the frequent intermarriages with those tribes, whereby a constant acquaintance is kept up.

Real wars or fights between settlements, I believe, have never happened, but contests have always been confined to single families. The last instance of a feud which has come to my knowledge occurred about seventy years ago. At that time a great number of Eskimo lived at Niutang, in Kingnait Fjord, and many men of this settlement had been murdered by a Qinguamio of Anarnitung. For this reason the men of Niutang united in a sledge journey to Anarnitung to revenge the death of their companions. They hid themselves behind the ground ice and killed the returning hunter with their arrows. All hostilities have probably been of a similar character.

One tradition only refers to a real fight between the tribes. On the steep island Sagdluaqdjung, near Naujateling, ruins of huts are found on the level summit. They are said to have been built by Eskimo who lived by the seashore and were attacked by a hostile tribe of inlanders. The tradition says that they defended themselves with bows and arrows, and with bowlders which they rolled down upon the enemy. The occurrence of huts upon the top of an island is very unusual, and this tradition is the only one referring to any kind of fights or wars. Even the tradition of the expulsion of the Tornit a

fabulous tribe said to have lived with the Eskimo on these shores, does not refer to a combat. The details of this tradition will be found in a subsequent chapter.

I wish to state here that my inquiries and my understanding of the facts as they have been reported by other travelers do not agree with the opinions given by Klutschak (Deutsche Rundschau für Geographie und Statistik, III, p. 418), who claims for the Eskimo of the west shore of Hudson Bay reservations which are limited by precise lines of demarkation. In comparing this statement with his own and with Gilder's narratives I am led to believe that the relations between the tribes are the same in these regions as they are farther east. This opinion is strengthened by Dall's remarks on

the Alaska tribes (Science, p. 228, 1885).

The reasons for the frequent removals of individual Eskimo to strange tribes are to be looked for in the customs of the natives. I can only mention here that intermarriage, adoption, and the fear of blood vengeance are the principal ones.

It is peculiar to the migratory habits of the Eskimo that almost without exception the old man returns to the country of his youth, and consequently by far the greater part of the old people live in their native districts.

During the last decades the most important inducement to removals has been the presence of the whalers in certain parts of the country. Since the beginning of our century their fleets have visited the west shore of Baffin Bay and Davis Strait, and thus European manufactures have found their way to the inhospitable shores of the Arctic Sea. The most valuable objects which were bartered were metals and wood. The value of the former may be seen in its economical application for knives and harpoon heads. By means of this trade the Akudnirmiut and the Tununirmiut became far superior to the Oqomiut and the Iglulirmiut, with whom they traded extensively in dogs, skins, &c. The Akuliarmiut and the Qaumauangmiut also enjoyed the advantages which accrued from trade with the ships of the Hudson Bay Company. When the whalers became better acquainted with the natives and the peculiar jargon which is still in use was developed, the traffic became very active, and reached its height after Cumberland Sound was rediscovered by Penny. As soon as the whalers began to winter in the sound and to employ the natives the latter received firearms and European boats in exchange for their wares, and then their modes of living became materially changed. The immense quantity of European manufactured articles which thus came into the possession of the natives induced the removal of many families to the favored region. Particularly did the Nugumiut and the Akudnirmiut migrate during that period. When in the course of time the

Bay of Nugumiut was visited by the whalers removals of members of this tribe became less frequent.

After the Eskimo had become acquainted with the advantages of firearms the natives of Davis Strait also began to trade bearskins for guns and ammunition, having learned how highly they were prized in Cumberland Sound. Besides, they received, in exchange for seals and walrus blubber put up for the whalers, tobacco, pipes, coffee, boxes, &c. In a similar way the Saumingmiut barter with the whalers of Cumberland Sound, whom they visit during the winter, carrying heavy loads of bearskins to the stations.

A brief sketch of the way in which the whaling and the trade with the Eskimo in Cumberland Sound are carried on may be of interest at this point. Two of the whaling stations are still kept up. They are situated on Qeqerten, the settlement of the Kingnaitmiut. When the Eskimo who have spent the summer inland return at the beginning of October they eagerly offer their services at the stations, for they receive in payment for a half year's work a gun, a harmonium or something of that nature, and a ration of provisions for their families, with tobacco every week. Every Saturday the women come into the house of the station, at the blowing of the horn, to receive their bread, coffee, sirup, and the precious tobacco. In return the Eskimo is expected to deliver in the kitchen of the station a piece of every seal he catches.

The time for the fall fishing commences as soon as the ice begins to form. If the weather, which is generally stormy, permits it, the boats leave the harbor to look out for the whales which pass along the east shore of the sound toward the north. During the last few years the catch has been very unprofitable, only a few whales having been seen. As the ice forms quickly the boats must be brought back about the end of October or the beginning of November. Since the whale fishery has become unprofitable the stations have followed the business of collecting seal blubber and skins, which they buy from the Eskimo. (See Appendix, Note 1.)

A lively traffic springs up as soon as the ice becomes strong enough to allow sledges to pass from shore to shore. The sledges of the stations are sent from one settlement to another to exchange tobacco, matches, coffee, bread, &c. for skins and the spare blubber which the Eskimo have carefully saved up. On the other hand, those natives who require useful articles, such as cooking pots, lamps, &c., collect quantities of hides and blubber and go to Qeqerten to supply their wants. The winter passes quickly amid the stir of business, till everything comes to a stop at the end of March, when the young sealing season fairly opens.

When the sun has reached such a height that the snow begins to melt in favored spots, a new life begins at the stations. The skins which have been collected in the winter and become frozen are

brought out of the store room and exposed to the sun's rays. Some of the women busy themselves, with their crescent shaped knives, in cutting the blubber from the skins and putting it away in casks. Others clean and salt the skins, which are likewise packed away. The men also find enough work to do after the young sealing is over, for the whale boats must be got ready for the spring fishing. Strangers whose services have been engaged by the station for the next few months arrive daily with their families and all their goods to take up their abode on Qeqerten. The boats are dug out of the deep snow, the oars and sails are looked after, the harpoons are cleaned up and sharpened, and everything is in busy preparation. The boats are made as comfortable as possible with awnings and level floors, for the crews are not to come to the shore for about six weeks.

By the beginning of May, the arrangements having been completed, the boats are put upon the sledges, which, under the direction of native drivers, are drawn by dog teams, with their crews, to the floe edge. The sledges being heavily laden and food for the dogs having to be provided by hunting, each day's stage is rather short. Arriving at the floe edge the sledges are unloaded and

the boats are launched. Seals and birds of all kinds are now found in profusion and the chase is opened without delay upon everything that is useful and can be shot. Sledges are regularly sent back to Qeqerten with skins and meat for the families of the Eskimo, while the blubber is packed in casks, which are kept ready on the spot.

The most important object of the expedition is the whale. Harpoons and lines are always in readiness for the contest with the mighty monster. The boats return to the north with the breaking up of the ice and the fishing ends in July. The Eskimo are paid off and dismissed and resume their reindeer hunting, while the whites are glad to enjoy some rest after the weeks of exhausting labor.

The constant contact between the Eskimo and the whalers has effected a perfect revolution in the trade between the Eskimo tribes. As the whale catch in Cumberland Sound has fallen off during the past fifteen years, a remigration of the population of Davis Strait has occurred, ships visiting these shores every fall and a regular traffic being kept up. Therefore many Oqomiut now travel as far as Qivitung in order to trade there. As Nugumiut is still frequently visited by whalers, there is no inducement for the inhabitants to leave their country.

Within a few years the Akuliarmiut also have become amply provided with firearms and European products in general by means of a new whaling station which has been established in their vicinity.

As to the Iglulirmiut, the importation of European manufactures at Pond Bay makes the trade with that region even more important than formerly.

The Aivillirmiut and the Kinipetu have immediate intercourse

with the whalers frequenting the western shore of Hudson Bay. Besides, the southern tribes trade with the stations of the Hudson Bay Company.

The more western tribes of Boothia and its environs are dependent

on the mediation of the Aivillirmiut for their supply of goods, as they themselves have no chance of communicating with the whites. Finally, I shall describe the old trading routes which existed between these tribes before matters were totally changed by the influence of the Europeans. Two desiderata formed the principal inducement to long journeys, which sometimes lasted even several years: wood and soapstone. The shores of Davis Strait and Cumberland Sound are almost destitute of driftwood, and consequently the natives were obliged to visit distant regions to obtain that necessary material. Tudjaqdjuaq in particular was the objective point of their expeditions. Their boats took a southerly course, and, as the wood was gathered, a portion of it was immediately manufactured into boat ribs and sledge runners, which were carried back on the return journey; another portion was used for bows, though these were also made of deer's horns ingeniously lashed together. A portion of the trade in wood seems to have been in the hands of the Nugumiut, who collected it on Tudjaqdjuaq and took it north. Another necessary and important article of trade, soapstone, is manufactured into lamps and pots. It is found in a few places only, and very rarely in pieces large enough for the manufacture of the articles named. Among the places visited by the natives for the purpose of obtaining it may be mentioned Kautaq, east of Naujateling; Qeqertelung, near the former place; Qarmaqdjuin (Exeter Bay), and Committee Bay. The visitors come from every part of the country, the soapstone being dug or "traded" from the rocks by depositing some trifles in exchange. In addition to wood and soapstone, metals, which were extremely rare in old times, have formed an important object of trade. They were brought to Baffin Bay either by the Aivillirmiut, who had obtained them from the Hudson Bay Company and the Kinipetu, or by the Akuliarmiut. Even when Frobisher visited the Nugumiut in 1577 he found them in possession of some iron (Frobisher).

The occurrence of flint, which was the material for arrowheads, may have given some importance to places where it occurs.

Formerly an important trade existed between the Netchillirmiut and the neighboring tribes. As the district of the former is destitute of driftwood and potstone they are compelled to buy both articles from their neighbors. In Ross's time they got the necessary wood from Ugjulik, the potstone from Aivillik. They exchanged these articles for native iron (or pyrite), which they found on the eastern shore of Boothia and which was used for striking fire. After having collected a sufficient stock of it during several years, they traveled to

the neighboring tribes. For reasons which have been mentioned this trade is now essentially changed. According to Schwatka there is a mutual distrust between the Ugjulirmiut and the Netchillirmiut on one side and the Qidnelik on the other, for which reason the intercourse between these tribes is very limited.

LIST OF THE CENTRAL ESKIMO TRIBES.

The following list gives the tribes of the Central Eskimo and their geographical distribution:

I. Northern coast of Labrador:
- (1) Kangivamiut (George River).
- (2) Kouksoarmiut (Big River).
- (3) Ungavamiut (Hope Advance Bay).
- (4) Itivimiut (Cape Wolstenholme).

II. Northern shore of Hudson Strait:
- (5) Sikosuilarmiut (King Cape).
- (6) Akuliarmiut (North Bluff).
- (7) Qaumauangmiut (Middle Savage Islands).

III. Davis Strait:
- (8) Nugumiut (Frobisher Bay).
- (9) Oqomiut (Cumberland Sound):
  - *a*. Talirpingmiut (west shore of Cumberland Sound and Nettilling).
  - *b*. Qinguamiut (head of Cumberland Sound).
  - *c*. Kingnaitmiut (Qeqerten and environs).

d. Saumingmiut (southern part of Cumberland Peninsula).

(10) Akudnirmiut (Davis Strait).

a. Padlimiut (Padli Fjord).

b. Akudnirmiut (Home Bay).

IV. Northern part of Baffin Land, North Devon, and Ellesmere Land:

(11) Aggomiut.

a. Tununirmiut (Eclipse Sound).

b. Tununirusirmiut (Admiralty Inlet and North Devon).

(12) Inhabitants of Umingman Nuna (Ellesmere Land).

V. Melville Peninsula, Wager River, and Southampton Island:

(13) *a*. Iglulirmiut (Fury and Hecla Strait).

b. Amitormiut (eastern coast of Melville Peninsula).

(14) *a*. Pilingmiut (eastern coast of Fox Basin).

b. Sagdlirmiut (islands of Fox Basin).

(15) Aivillirmiut (Repulse Bay and Wager River).

(16) Sagdlirmiut (Southampton Island):

VI. (17) Kinipetu (Chesterfield Inlet).

VII. Boothia Felix and King William Land:

(18) Sinimiut (Pelly Bay).

(19) Netchillirmiut (Boothia Felix and King William Land).

(20) Ugjulirmiut (King William Land and Adelaide Peninsula).

(21) Ukusiksalirmiut (estuary of Back River).

VIII. Qidnelik (coast west of Adelaide Peninsula).

IX. Inhabitants of North Greenland.

HUNTING AND FISHING.[4]

SEAL, WALRUS, AND WHALE HUNTING.

The staple food of the Central Eskimo is the seal, particularly *Pagomys fœtidus*. The methods of hunting this animal differ materially at different seasons, as its mode of life depends on the

state of the ice.

Fig. 390. harpoon from Alaska. (American Museum of Natural History, New York.) Fig. 391. Modern unang or sealing harpoon. (Museum für Völkerkunde, Berlin. IV A 6729.)

In the winter it takes to the smooth parts of the floe a few miles from the coast, where it scratches breathing holes through the ice, in which it rises to blow. It shuns hummocky ice and floes of more than one year's age. Wherever the edge of the ice is at a great distance from the settlements, the only way of procuring seals is by watching for them at these holes. For the pursuit a light harpoon is used, called unang. The shape of this weapon has been somewhat changed since the introduction of rod iron. Formerly it consisted of a shaft having at one end an ivory point firmly attached by thongs and rivets, the point tapering toward the end. The point was slanting on one side so as to form almost an oblique cone. Thus it facilitated the separation of the harpoon head from the unang. On the opposite end of the shaft another piece of ivory was attached, generally forming a knob. The material used in making the shaft was wood, bone, or ivory, according to the region in which it was manufactured. In Iglulik and in Aggo the narwhal's horn was the favorite material for the whole implement, a single horn being sufficient to make a whole shaft. Wherever wood could be procured small pieces were ingeniously lashed together. As the shaft is apt to be broken by the struggles of the animal when struck by the weapon, it was strengthened by a stout thong running along the whole length of the shaft. In all other respects the old design corresponds to the modern one. Unfortunately I have seen no specimen of this description, but a figure may be seen in Ross II, p. 272, in the hand of one of the natives. In Alaska a similar harpoon is in use, a specimen of which is represented in Fig. 390.

It consists of a wooden shaft, with a stout ivory point at the lower end and another at the upper end. Both are fastened to the shaft by whalebone strings. In the upper end a slanting ivory point is inserted, which serves for attaching the harpoon head to it. The whole shaft is strengthened by a seal line, as shown in the figure. The unang now in use in Baffin Land and on the western shore of Hudson Bay (Fig. 391) consists of a wooden shaft into which an iron rod (unartenga) is sunk. The latter is pointed at the end (see, also, Fig. 393) in about the same way as the old ivory implement. The socket is secured by a small ivory ring (unaqiuta) or a string wound around the end of the shaft. In the socket close to the iron rod

472

a bent nail is inserted, forming a narrow eye (tagusiarbing). Near the center of the whole implement a small piece of ivory (tikagung; see, also, Fig. 418) is fastened to the shaft, forming a support for the hand when throwing the weapon. At the lower end of the shaft a string of deer sinews or a thong is fastened, forming a loop (nabiring) which passes through a hole drilled through the shaft. A stout iron point is also attached to the lower end of the shaft (tounga).

473

Fig. 392. Old style naulang or harpoon head. (Museum für Völkerkunde, Berlin. IV A 6692.) 1/1

The natives carry this implement on all their winter excursions, as it is serviceable for numerous purposes. It is always kept within reach on the sledge, as the strong iron point is useful for cutting down hummocks, should any obstruct the passage of the sledges, or for cutting holes through the ice, or it takes the place of a hatchet in breaking the frozen meat which is carried along for dogs' food. The long iron rod is extremely useful in trying the strength of the ice or the depth of the snow. By taking

precautionary measures of this kind the natives pass over extensive floes of weak ice.

Fig. 393. Modern naulang or harpoon head (Museum für Völkerkunde, Berlin. IV A 6729.) ½

The head belonging to the unang is called naulang. Since iron has been introduced in Baffin Land and Hudson Bay, the natives file their harpoon heads out of it, but adhere almost exactly to the old pattern. The old naulang was cut out of bone or more frequently out of ivory (Fig. 392). It was one inch to two inches long and had a piece of metal inserted into the slit at the top. Through the middle of the instrument a hole was drilled parallel to the plane of the blade. The harpoon line passed through the hole, and as soon as the point struck an animal and a strain was put upon the line it turned at a right angle to the latter, thus acting as a toggle. The effect was increased by two points at the lower end of the naulang, called uming (beard). These pressed into the flesh or the skin of the animal and prevented the harpoon head from slipping back.

The modern naulang (Fig. 393) is about the same length as the old one, but much more slender. While the back of the old pattern was straight, the points of the iron one are bent outward and backward in order to increase its effect.

The naulang is fastened to the harpoon line (iparang). This part of the instrument is much longer than the unang, as it must allow for the struggles of the diving seal. The end of the line passes through the hole of the naulang and a loop is formed and secured by deer sinew or arranged as may be seen in Fig. 393. At a distance equal to the length of the iron rod of the unang a small thong (taguta) is attached to the line and serves to fasten it to the shaft (see Fig. 391). It is drawn through

the eye formed by the tagusiarbing. As soon as a strain is put upon the naulang the line parts from the shaft, as the taguta is only

squeezed into the eye and is easily detached. The harpoon line passes through the nabiring or is fastened by a slipping hitch to the shaft of the unang.

If the unang has a nabiring the line passes through this loop. A few feet below it a small piece of ivory (akparaiktung) is attached to the line, acting as a hook after it has run out. It catches the nabiring and drags the harpoon along, thus impeding the movements of the animal (see Fig. 391).

Fig. 394. Qilertuang or leather strap and clasps for holding coiled up harpoon lines. *a*, *c* (National Museum, Washington. *a*, 34128; *c*, 34132.) *b* (Museum für Völkerkunde, Berlin.) 1/1

The rest of the line is coiled up and held by the hunter. The end is doubled so as to form a loop which serves as a handle when the line runs out with the diving seal. Generally, a small piece of leather (Fig. 394) with two slits at one end and an ivory clasp (qilertuang) at the other is fastened to this loop; it serves to hold the bights together when the line is detached from the harpoon and rolled up. Some art is bestowed on the manufacture of this clasp (Fig. 394). Usually it represents a seal, the head of which forms a hook on which the slits can be fastened. The clasp is either tied or otherwise secured to the leather strap. Some specimens in the British Museum, which are about one hundred and fifty years old, show that these implements have not undergone any change during that time.

Parry describes another harpoon head used by the Iglulirmiut for the unang. He calls it a siatko (Fig. 395). I myself have not seen any of a similar pattern, but Kumlien gives a sketch of one found in a grave at Exeter Sound (Fig. 396). The principal difference between the naulang and the siatko is that the edge of the former is parallel to the hole through which the line passes, while in the latter their directions are vertical to each other. The head of the

whaling harpoon (see Fig. 436) acts on the same principle.

Fig. 395. Siatko or harpoon head of the Iglulirmiut. (From Parry II, p. 550.)

Fig. 396. Siatko found at Exeter Sound. (From a drawing by L. Kumlien.)

When the day begins to dawn the Eskimo prepares for the hunt. The dogs are harnessed to the sledge and the hunting implements are fitted up. The harpoon line and the snow knife are hung over the deer's antlers, which are attached to the hind part of the sledge, a seal or bear skin is lashed upon the bottom, and the spear secured under the lashing. The hunter takes up the whip and the dogs set off for the hunting ground. When near the place where he expects to find seals, the hunter stops the team and takes the implements from the sledge, which is then turned upside down. The points of the runners and the short brow antler are pressed into the snow in order to prevent the dogs from running away. A dog with a good scent is then taken from the team and the Eskimo follows his guidance until a seal's hole is found. In winter it is entirely covered with snow, but generally a very small elevation indicates the situation. The dog is led back to the sledge and the hunter examines the hole to make sure that it is still visited by the seal. Cautiously he cuts a hole through the snow covering and peeps into the excavation. If the water is covered with a new coat of ice the seal has left the hole and it would be in vain to expect its return. The hunter must look for a new hole promising better results.

Fig. 397. Eskimo in the act of striking a seal. (From a photograph.)

If he is sure that the seal has recently visited a hole he marks its

exact center on the top of the snow and then fills up his peep hole with small blocks of snow. All these preparations must be made with the utmost precaution, as any change in the appearance of the snow would frighten away the seal. The Eskimo take particular
476
care that no hairs from their clothing fall into the hole or remain sticking in the snow, for they believe that the smell would scare away the animal. The center of the breathing hole must be marked, as the game remains invisible and only a stroke into the center will be likely to hit it. If the snow covering is very thick and strong it is cut down, but is replaced with loose snow, which is heaped around the end of the harpoon, the latter being placed upon the central point. After the harpoon has been extracted a hole remains which forms the mark for the harpooner. If the Eskimo expects the early return of the seal, he spreads a small piece of skin, generally that of a young seal, close to the hole and places his feet upon it, thus keeping them warm. He fastens the naulang to the harpoon shaft, while the lower
477
end of the line is folded up in a coil, which he holds in the left hand. The unang is held in both hands, and thus the hunter sometimes remains for hours, occasionally stooping and listening, until he hears the blowing of the seal. Then, all of a sudden, he stands upright, and, with all his strength, sends the harpoon straight downward into the hole, paying out the line at the same time, but keeping a firm hold of the loop at its end (Fig. 397). Generally the seal is struck near the head. If the line is fastened to the shaft by a slipping hitch it is at once detached and the harpoon either remains sticking in the snow or falls down by the hole. If the line runs through the nabiring, the harpoon is dragged into the water and impedes the movements of the animal. The hunter then begins at once to cut down the snow covering with his knife, which has been left within easy reach, and hauls in the line. As soon as the seal comes to the surface to breathe it is easily dispatched and drawn up

on the ice.

Fig. 398. Tutareang or buckle. (Museum für Völkerkunde, Berlin. IV A 6710.) 1/1

The arrangements at the seal hole are more elaborate if the sealer expects to wait a long time. If only a few men go out hunting and famine is impending, he sometimes waits for a whole day or even longer, though it be cold and the wind rage over the icy fields. He builds up a semicircular wall of snow blocks to keep off the piercing wind and makes a seat in the center of it. A skin is spread under his feet and his legs are tied together with a thong, which is fastened by a peculiar kind of buckle (tutareang) with two holes (Fig. 398). One end of the thong is firmly tied to the buckle, passing through one of the holes, while the opposite end passes tightly through the second hole. The thong may be quickly opened by a strong effort on the part of the hunter, while it helps to keep him quiet. At his right hand (Fig. 399; in this drawing it appears on the left) the snow knife is stuck into the snow, while to the left the unang is placed upon two pegs. The coil of the line lies in his lap. His left arm is drawn out of his sleeve, that he may more easily keep warm. Both sleeves are generally held together by a piece of deer's horn with a branch on each side which serves as a hook. Thus the hunter waits until he hears the breathing of the seal. As it usually stays for several minutes he is in no hurry to get ready. Cautiously he places his left arm into the sleeve, having first disengaged it from the hook.

He then takes hold of the coil, picks up his unang, and, having risen, strikes the center of the hole.

Fig. 399. Eskimo awaiting return of seal to blowhole. (From a photograph.)

Ross (II, p. 268) and Rae (I, p. 123) state that the sealing at the hole is more difficult in daylight than in the dark. I suppose, however, that when the snow is deep there is no difference; at least the Eskimo of Davis Strait never complain about being annoyed by the daylight.

Fig. 400. Tuputang or ivory plugs for closing wounds. *e* (Museum für Völkerkunde, Berlin. IV A 6706.) *b*, *c*, *d* (National Museum, Washington. *b*, 10192; *c*, 10390; *d*, 9836.) 1/1

Sometimes a small instrument is used in the hunt to indicate the approach of the seal. It is called qipekutang and consists of a very thin rod with a knob or a knot at one end (Parry II, p. 550, Fig. 20). It is stuck through the snow, the end passing into the water, the knob resting on the snow. As soon as the seal rises to blow, it strikes the rod, which, by its movements, warns the Eskimo. Generally it is

made of whalebone. Sometimes a string is attached to the knob and fastened by a pin to the snow, as its movements are more easily detected than those of the knob. The natives are somewhat averse to using this implement, as it frequently scares the seals.

Fig. 401. Wooden case for plugs. (Museum für Völkerkunde, Berlin.) 1/1

Fig. 402. Another form of plug. (Museum für Völkerkunde, Berlin.) ⅔

Fig. 403. Qanging for fastening thong to jaw of seal. *a* (Museum für Völkerkunde, Berlin. IV A 6825.) *b*, *c* (National Museum, Washington. *b*, 34126; *c*, 34129.) 1/1

Fig. 405. Qanging in form of a button. (National Museum, Washington. 34130.) 1/1

After the carcass of the animal has been drawn out of the water, the wounds are closed with ivory plugs (tuputang) (Fig. 400), which are carried in a wooden or leathern case (Fig. 401) and are either triangular or square. The plug is pushed under the skin, which is closely tied to its head. Another form of plug which, however, is

480

rarely used, is represented in Fig. 402. The skin is drawn over the plug and tied over one of the threads of the screw cut into the wood. After the dead animal's wounds are closed, a hole is cut through the flesh beneath the lower jaw and a thong is passed through this hole and the mouth. A small implement called qanging is used for fastening it to the seal. It usually forms a toggle and prevents the line from slipping through the hole. The patterns represented in Fig. 403 are very effective. The hole drilled through the center of the

481

instrument is wider at the lower end than elsewhere, thus furnishing a rest for a knot at the end of the thong. The points are pressed into the flesh of the seal, and thus a firm hold is secured for the whole implement. The Eskimo display some art in the manufacture of this implement, and frequently give it the shape of seals and the like (Fig. 404). Fig. 405 represents a small button, which is much less effective than the other patterns. A very few specimens consist merely of rude pieces of ivory with holes drilled through them. Fig. 406 shows one of these attachments serving for both toggle and handle.

Fig. 404. Qanging in form of a seal. (Museum für Völkerkunde, Berlin. IV A 6825.) 1/1

Fig. 406. Qanging serving for both toggle and handle. (National Museum, Washington. 10400.) ⅔

In order to prevent the line from getting out of order, a whirl (qidjarung) is sometimes used. Fig. 407 represents one brought

from Cumberland Sound by Kumlien, and is described by him (p. 38). There was a ball in the hollow body of this instrument, which could not be pulled through any of the openings. One line was fastened to this ball, passing through the central hole, and another one to the top of the whirl. A simpler pattern is represented in Fig. 408.

Fig. 407. Qidjarung or whirl for harpoon line. (National Museum, Washington. 34121.) 1/1

Fig. 408. Simpler form of whirl. (Museum für Völkerkunde, Berlin.) 1/1

On its capture, the seal is dragged to the sledge and after being covered with the bearskin is firmly secured by the lashing. It freezes quickly and the hunter sits down on top of it. If the seal happens to blow soon after the arrival of the hunter, a second one may be procured, but generally the day is far spent when the first seal is killed.

Wherever water holes are found they are frequently visited during the winter by the Eskimo, especially by those who have firearms. They lie in wait at the lower side of the hole, i.e., the side to which the tide sets, and when the seal blows they shoot him, securing him with the harpoon after he has drifted to the edge of the ice. These holes can only be visited at spring tides, as in the intervals a treacherous floe partly covers the opening and is not destroyed

until the next spring tide.

In March, when the seal brings forth its young, the same way of hunting is continued, besides which young seals are eagerly pursued. The pregnant females make an excavation from five to ten feet in length under the snow, the diving hole being at one end. They prefer snowbanks and rough ice or the cracks and cavities of grounded ice for this purpose, and pup in these holes. The Eskimo set out on light sledges dragged by a few dogs, which quickly take up the scent of the seals. The dogs hurry at the utmost speed to the place of the hole, where they stop at once. The hunter jumps from the sledge and breaks down the roof of the excavation as quickly as possible, cutting off the retreat of the seal through its hole if he can. Generally the mother escapes, but the awkward pup is taken by surprise, or, if very young, cannot get into the water. The Eskimo draws it out by means of a hook (niksiang) and kills it by firmly stepping on the poor beast's breast. An old pattern of the hook used is represented according to Kumlien's drawing in Fig. 409; another, made from a bear's claw, in Fig. 410; the modern pattern, in Fig. 411.

Sometimes the natives try to catch the old seal in a most cruel way, by using the love of the dam for her pup to lure her to the surface of the hole. They tie a thong to the hind flipper of the pup and throw it into the hole. It dives at once, crying pitifully. When it comes up to breathe the hunter pushes it back, and frequently the dam returns to her young and attempts to draw it away. As soon as she is seen the harpoon is plunged into her body and she is quickly drawn out of the water and killed.

The young seal is also pursued by foxes, which drag it from the excavation and leave nothing but the skin, which becomes a welcome find for the Eskimo.

Fig. 409. Old pattern of hook for drawing out captured seal.

Fig. 410. Seal hook of bear's claw. Actual size, 3 feet. (Museum für Völkerkunde, Berlin. IV A 6728.)

Fig. 411. Modern form of seal hook. (From a drawing by Kumlien.)

As the season advances and the rays of the sun become warmer the seals break down the snow roofs and are seen basking beside their holes. The young ones remain with their dams until late in June. At this season a new method of hunting is practiced, by which seals are caught with greater ease than in winter. The hunter approaches

the animal from the windward side until he is within seventy or eighty yards of it. He then lies down, after having fastened a piece of skin under his left arm, upon which he reclines. The skin protects him from the melting snow, facilitates speed, and diminishes the noise as he creeps. He moves on toward the seal, resting on his left arm and side and pushing himself forward with his right foot and left arm (Fig. 412). The seal frequently raises his head and gazes around to make sure that no danger threatens. As long as the seal is looking around the hunter lies flat and keeps perfectly still, or, if he is somewhat close to the animal, imitates its movements by raising his head and rolling and playing with his hands and feet as a seal does with its flippers. Some natives will utter sounds similar to those of a blowing seal or use a small sledge with a white screen to conceal themselves from view. The sealskin clothing makes man and seal look so extremely alike that it is difficult to distinguish one from the other at some distance. If the hunter succeeds in deceiving the animal it lies down again to sleep and he pushes himself on. As the naps of the seal last but a few moments, the Eskimo approaches very slowly. At last he is near enough. He levels his gun and tries to hit the animal's head, as it

must be killed by the first shot, else it jumps into the hole and escapes. If the snow is hard and water has not yet appeared on the top of the ice, a seal may be killed in this way in twenty or thirty minutes. If the snow is very soft and deep it is almost impossible to get near enough, as it is extremely difficult to push one's self along. The approach is rather easy through rough ice, which conceals the hunter, but the seals seldom frequent such places. Sometimes they are found at the edges of rough ice or near the shore and are easily caught when in this position.

Fig. 412. Eskimo approaching seal. (From a photograph.)

Formerly, the harpoon was used instead of the gun, and is even now preferred by some hunters. The hunter gets near enough to reach the seal with the harpoon, and having struck his prey has a better chance of securing it, as the weapon prevents its escape. After the shot has been fired or the harpoon thrown, the Eskimo at once jumps to his feet in order to prevent the escape of the animal

to its hole, to which it takes if only wounded. An expert hunter can kill from ten to fifteen seals in one day.

Rae, in describing the method of hunting, states (I, p. 170) that the women at Repulse Bay are very skillful, and when they have no harpoon frequently use a small wooden club, with which they strike the seal on the nose, killing it.

Generally two men go sealing together. They set out early in the morning on one sledge, and while one creeps toward the seals the other keeps the dogs quiet. A single hunter cannot hunt successfully at this season with a sledge, for when he leaves it the dogs will either follow him or, if made fast to the ice, raise such a howling that the seal is put upon its guard. Therefore it is necessary that a continuous watch be kept on the dogs. When the shot is fired and they perceive that the seal is killed, no amount of

whipping will restrain them; they rush forward until they have reached the victim, which is then lashed on the sledge.

The hunters go on in search of a second seal, at the sight of which the dogs are again stopped. When the Eskimo intend to remain out only a few hours they leave the dead animals at their holes and load them on the sledge on the return journey. A single hunter cannot leave the settlement for a long distance, but is limited to sealing near the village and killing no more animals than he can drag to it himself. Sometimes it happens that the seals are fast asleep. Then the hunter can go up to them without any precaution and kill them immediately, and even a dog team running at full speed can take them by surprise. In winter a similar method of hunting is followed whenever the edge of the floe is close to the land. In such places all kinds of seals lie on the ice, even in the midst of winter, and are pursued in the way which has been already described.

A strange method of hunting is reported by Ross (II, p. 451) as practiced by the Netchillirmiut. Eight men slowly approached the basking seal until it raised its head, when those in front stopped and shouted as loud as they could; on which three others ran up with incredible swiftness and the leader struck it with the spear.

Still later in the season, when the snow is all gone, a very successful method of hunting is practiced. All the inhabitants of the settlements set out at once, men, women, and children, and occupy every seal hole over a large area. The men keep their harpoons ready to strike the animal when it comes up to blow, while the women and children are provided with sticks only, with which they frighten away the seals whenever they rise where they are standing. The animals are compelled to rise somewhere, as otherwise they would be drowned, and thus an ample supply is secured in a short time.

After the breaking up of the ice the natives take to their kayaks and the summer hunt is started. As at this season the methods of

catching all kinds of seal and walrus are almost identical, I shall describe them together; and, first, the most important part of the hunting gear, the kayak and its belongings.

The kayak (qajaq) is almost exclusively used for hunting by all Eskimo tribes from Greenland to Alaska. According to Bessels the Ita natives do not know its use, though they have retained the word. As a connection exists between this tribe and those of Baffin Land, I have no doubt that they are acquainted with the use of the boat, though it may be of little avail in that ice encumbered region. When I first visited the tribes of Davis Strait no kayak was to be found between Cape Mercy and Cape Raper, nor had there been any for several years. In the summer of 1884, however, two boats were built by these natives.

The general principles of their construction are well known. The kayak of the Nugumiut, Oqomiut, and Akudnirmiut is bulky as compared with that of Greenland and Hudson Bay. It is from twenty-five to twenty-seven feet long and weighs from eighty to one hundred pounds, while the Iglulik boats, according to Lyon (p. 322), range from fifty to sixty pounds in weight. It may be that the Repulse Bay boats are even lighter still. According to Hall they are not heavier than twenty-five pounds (II, p. 216).

Fig. 413. Frame of a kayak or hunting boat. (Museum für Völkerkunde, Berlin.)

The frame of the kayak (Fig. 413) consists, first, of two flat pieces of wood which form the gunwale (apumang). From ten to twenty beams (ajang) keep this frame on a stretch above. The greatest width between them is a little behind the cock pit (p. 487).

A strong piece of wood runs from the cross piece before the hole (masing) to the stem, and another from the cross piece abaft the hole (itirbing) to the stern (tuniqdjung). The proportion of the bow end to the stern end, measured from the center of the hole, is 4 to 3.

The former has a projection measuring one-fourth of its whole length. Setting aside the projection, the hole lies in the very center of the body of the kayak. A large number of ribs (tikping), from thirty to sixty, are fastened to the gunwales and kept steady by a keel (kujang), which runs from stem to stern, and by two lateral strips of wood (siadnit), which are fastened between gunwale and keel. The stem projection (usujang), which rises gradually, begins at a strong beam (niutang) and its rib (qaning). The extreme end of the stern (aqojang) is bent upward. The bottom of the boat is partly formed by the keel, partly by the side supports. The stern projection has a keel, but in the body of the boat the side supports are bent down to the depth of the keel, thus forming a flat bottom. Rising again gradually they terminate

close to the stern. Between the masing and the itirbing is the hole (pa) of the kayak, the rim of which is formed by a flat piece of wood or whalebone bent into a hoop. It is flattened abaft and sharply bent at the fore part. The masing sometimes rests upon a stud.

Fig. 414. Kayak with covering of skin. (Museum für Völkerkunde, Berlin.)

The whole frame is covered with skins (aming) tightly sewed together and almost waterproof (Fig. 414). Usually the cover consists of three or four skins of *Pagomys fœtidus*. When put upon the frame it is thoroughly wetted and stretched as much as possible so as to fit tightly. It is tied by thongs to the rim of the hole.

A small piece of ivory is attached to each side of the niutang and serves to fasten a thong which holds the kayak implements. Two more thongs are sewed to the skin just before the hole, another one behind it, and two smaller ones near the stern.

The differences between this boat and that of the Iglulirmiut may be seen from Lyon's description (page 320). Their kayak has a

long peak at the stern, which turns somewhat upward. The rim round the hole is higher in front than at the back, whereas that of the former has the rim of an equal height all around. At Savage Islands Lyon saw the rims very neatly edged with ivory. The bow and the stern of the Iglulik kayaks were equally sharp and they had from sixty to seventy ribs. While the kayaks of the Oqomiut have only in exceptional cases two lateral supports between keel and gunwale, Lyon found in the boats of these natives seven siadnit, but no keel at all. These boats are well represented in Parry's engravings (II, pp. 271 and 508). Instead of the thongs, ivory or wooden holders are fastened abaft to prevent the weapons from slipping down.

If the drawing in Lyon's book (p. 14) be correct, the kayak of the Qaumauangmiut (Savage Islands) has a very long prow ending in a sharp peak, the proportion to the stern being 2 to 1. Its stern is much shorter and steeper than that of the northern boats and carries the same holders as that of the Iglulirmiut.

Fig. 415. Model of a Repulse Bay kayak. (National Museum, Washington. 68126.)

Fig. 416. Sirmijaung or scraper for kayak. (Museum für Völkerkunde, Berlin.) ½

Fig. 417. Large kayak harpoon for seal and walrus. Actual length, 6½ feet. (Museum für Völkerkunde, Berlin.)

The model of a Repulse Bay kayak is represented in Fig. 415. The rim of the hole is in the same position as in the Iglulik kayak, the fore part resting on a rib bent like a hoop, whereas in the others

488
it rests on a beam. The stern resembles closely that of the Cumberland Sound boats, while the head is less peaked, the keel having a sharper bend at the beginning of the projection, which does not turn upward. Early in the spring and in the autumn, when ice is still forming, a scraper (sirmijaung) (Fig. 416) is always carried in the
489
kayak for removing the sleet which forms on the skin. When the boat has been pulled on shore, it is turned upside down and the whole bottom is cleaned with this implement. A double bladed paddle (pauting) is used with the boat. It has a narrow handle (akudnang), which fits the hand of the boatman and widens to about four inches at the thin blades (maling), which are edged with ivory. Between each blade and the handle there is a ring (qudluqsiuta).

The kayak gear consists of the large harpoon and its line (to which the sealskin float is attached), the receptacle for this line, the bird spear (with its throwing board), and two lances.

Fig. 418. Tikagung or support for the hand. *a*, *b*, *c* (National Museum, Washington. *a*, 30000; *b*, 30005; *c*, 30004.) *d* (Museum für Völkerkunde, Berlin.)

The large harpoon (Fig. 417) is used for hunting seals and walrus from the kayak. The shaft (qijuqtenga) consists of a stout pole from four and a half to five feet in length, to which an ivory knob is fastened at the lower end. At its center of gravity a small piece of ivory (tikagung) is attached, which serves to support the hand in throwing the weapon. A remarkable pattern of this tikagung, which nicely fits the hand of the hunter, is represented in the first of the series of Fig. 418, and another one, which differs only in size from
490

that of the unang, in the second. At right angles to the tikagung a small ivory knob is inserted in the shaft and serves to hold the harpoon line. At this part the shaft is greatly flattened and the cross section becomes oblong or rhombic. At the top it is tenoned, to be inserted into the mortice of the ivory head (qatirn). The latter fits so closely on the tenon that it sticks without being either riveted or tied together. The qatirn is represented in Fig. 419. Into the cavity at its top a walrus tusk is inserted and forms with it a ball and socket joint (igimang).

Fig. 419. Qatirn or ivory head of harpoon shaft. (National Museum, Washington. 34101.) ⅔

Fig. 420. Manner of attaching the two principal parts of the harpoon.

The tusk and the qatirn are fastened to each other in a most ingenious way, which may be readily made out from the engraving (Fig. 420). The principal effect of this arrangement of the holes and the thong is that the tusk is kept steady by two parallel thongs that prevent it from tipping over and only allow a movement in the plane of the flattening of the shaft as soon as any considerable force is applied to the tusk.

The harpoon head used in connection with this weapon is the tokang. To prevent it from being injured, it is carried in a wooden sheath (Fig. 421). The iron point is secured by a string of whalebone or sealskin; the lower part is fastened to the sheath as indicated in the figure. The tokang differs from the naulang in that it is larger and stouter. In some cases great care is bestowed upon the finishing of this important weapon.

Fig. 421. Tokang or harpoon point in sheath. (In the possession of Captain John O. Spicer, Groton. Conn.) ⅔

Fig. 422. Tokang or harpoon head taken from a whale in Cumberland Sound. (National Museum, Washington. 34069.) ⅔

An interesting specimen of this variety of harpoon head was found by Kumlien in Cumberland Sound (Fig. 422). It was taken from a whale and differs from the device of that country. The back is bent similar to that of the iron naulang and the barbs have two points each instead of one. The front part is sharply ridged. The specimen is very nicely finished. A few very old harpoon heads of the same pattern are deposited in the British Museum and were of Hudson Strait manufacture; therefore I conclude that Kumlien's specimen is from the same part of the country.

Fig. 423. Ancient tokang or harpoon head. (In A. Sturgis's collection, New York.)

Fig. 423 represents an ancient harpoon head of the same style, the locality of which is unfortunately unknown. The specimen is of particular interest, as it shows the method of fastening the stone to the ivory part. A similar specimen is in the collections of the British Museum; it formed part of the Sloane collection. Both these specimens show perforations at the lower end of the harpoon head which

are not found in the modern ones. Probably these served for holding the harpoon head to the shaft by means of a thin line, in order to prevent the head from coming off before the seal or walrus was struck. These holes are similar to the ones shown in Figs. 395 and 436.

The harpoon line (alirn) is attached to the tokang in the same way as the iparang is to the naulang. When it is fastened to the igimang, the bend of the tusk facilitates the disengagement of the harpoon

head, which turns its back to that of the tusk. Attached to the line at the level of the ivory knob which has been mentioned is the teliqbing (Fig. 424), into the hole of which the knob fits closely. As the line from the tokang to the teliqbing is just long enough to allow it to be pulled down far enough to reach the knob, it holds shaft and head firmly together so long as the tusk remains in its position. As soon as a lateral strain is put upon the tusk the distance between the head and the knob is diminished and the teliqbing slips off, thus disengaging the line with the harpoon head from the shaft. Sometimes the teliqbing has two holes, one being used when the line is wet and longer, the other when it is dry and shorter.

Fig. 424. Teliqbing, which is fastened to harpoon line. (National Museum, Washington. 34123.) 1/1

Fig. 425. Qatilik or spear from Iglulik (From Parry II, p. 550.)

In Iglulik the spear is called qatilik (Fig. 425). In pattern it is the same as that of Akudnirn and Oqo, the only difference, according to Parry's description, being that the toung (the tusk) is straight and has a notch near its socket (see Fig. 425), while the harpoon head which belongs to it has only a single point at its lower end.

Fig. 426. Avautang or sealskin float. (National Museum, Washington. 30009.)

This harpoon is placed on the right side of the prow of the kayak, with the point directed towards its head. The harpoon line, with the tokang, lies just before the hunter in a flat receptacle (asedlun), which consists of a wooden ring with a handle, held by thongs

before the hole of the kayak. The receptacle rests on the skin cover, having no feet, as has the Greenland one. In Hudson Strait it is secured upon holders. The harpoon line is rolled up in a coil, but its end is fastened to the seal float, which lies behind the hunter and is held in place by a thong. The line passes along the right side of the kayak hole. The float (avautang) (Fig. 426) consists of a whole sealskin which had been removed from the animal dexterously, its

entire body being pulled through the mouth, which is enlarged by means of a cut along the throat. The nails of the flippers are frequently extracted and the openings sewed up, the hind flippers and the tail being cut off and firmly tied together by a thong, thus forming a neck (atauta), to which the harpoon line is attached. At the head a pipe for blowing up the skin (poviutang) is inserted (Fig. 427); the skin is firmly tied to the ring of the pipe, on which the stopper is secured as soon as the skin is sufficiently inflated. This device is a very convenient one, for it is difficult to inflate the skin without some kind of mouthpiece. If there are any holes in the float they are closed by a button similar to the one shown in Fig. 427 *a*, which, however, is without a hole.

Fig. 427. Different styles of poviutang or pipe for inflating the float. (National Museum, Washington. *a*, 29986; *b*, 34118; *c*, 34119; *d*, 34120.)

If the harpoon is to be used for hunting large animals, such as walrus or whales, a very ingenious contrivance is sometimes inserted between the line and the float in the shape of a wooden hoop with a seal or deer skin stretched over it (niutang) (see Fig. 437). Three or four thongs of equal length are fastened to the hoop at equal distances and bound together. At their point of union they are attached to the line. As soon as a walrus is struck and starts to swim away, the hoop is thrown at right angles to the

stretched line and exerts a strong resistance when dragged along, thus diminishing the speed of the animal and quickly exhausting its strength. The float prevents its escape, as it is too buoyant to be drawn under water. The animal cannot dive, and thus the hunter does not lose sight of his prey.

Fig. 428. Agdliaq or spear for small seals. (From Parry II, p. 550.)

Fig. 429. Agdliaq points. (National Museum, Washington. *a*, 90165; *b*, 2991; *c*, 34098; *d*, 34063.)

For small seals a similar weapon is used, the agdliaq (Fig. 428),

the main difference being that it is much smaller and has a seal bladder for a float attached to the shaft. I have not seen this weapon myself, but Kumlien has brought away parts of it. Fig. 429 shows that its point differs only in size from the large igimang. The head (probably the naulang) is tied to the shaft, which acts as a drag.

The points are fastened to the shaft in almost the same way as the former, the only difference being that they are straight; the drill holes do not cross one another. Fig. 430 represents the heads belonging to this spear; Fig. 431, a large one which is used with the large harpoon. As the lines in all these run as is represented in Fig. 429 *b*, they cannot act as harpoons. I had no opportunity of seeing any of these weapons myself.

Fig. 430. Spear heads. (National Museum, Washington. *a*, 34076: *b*, 34068.)

Fig. 431. Large spear head. (National Museum, Washington. 10136.) ½

In hunting walrus a lance (anguvigang) (Fig. 432) is used which is

similar to the igimang. The shaft and the joint are alike in both, only the knob for the teliqbing being absent. The head is made of bone or the straight part of a walrus tusk and has an iron

blade on the top. The lance serves to dispatch the animal after it has been harpooned with the igimang.

Fig. 433. Nuirn or bird spear. (Museum für Völkerkunde, Berlin.)

Fig. 432. Anguvigang or lance. Museum für Völkerkunde Berlin.

The joint prevents the shaft from being broken by the struggles of the animal. Its place is behind the hunter on the right side of the kayak, the point being directed toward the stern. Generally a second lance is carried on the left side of the boat parallel with the other. It is either of the same kind or a slender shaft with a long point firmly inserted in it (kapun, ipun). The point is about one and one-third of a foot to one and one-half feet long. This weapon, however, is more particularly in use for hunting deer in the lakes and ponds.

Fig. 434. Nuqsang or throwing board, (*a* front and (*b* back view. National Museum, Washington. 30013.

The last implement in the kayak gear to be described is the bird spear, nuirn (Fig. 433), with its throwing board, nuqsang (Fig. 434). It has a shaft of about four feet in length, flattened at the lower end. Among the natives on the east and southeast of Baffin Land it has an iron prong at its point, whereas in Iglulik it has two points of unequal length, with double barbs. Three double barbed prongs are attached to the center of the shaft. They have a sharp bend at their lower part, the points running parallel to the shaft. The prongs of the Greenland dart are straight and diverge from the

shaft. The lower end of the bird spear fits into the groove of the throwing board. Therefore the end of the shaft is squared. The ivory knob at the end of the spear contains a small hole for the insertion of the

496

spike which is in the end of the groove. When the board is used it is held firmly in the right hand, the first finger passing through the hole by the side of the groove, the thumb clasping the notch on the left side (Fig. 434 *b*), the other fingers those on the right side. The shaft is held by the points of the fingers. When the spear is hurled the posterior point of the groove describes a wide circle, and the fingers let go the shaft, which, remaining in its first position, is driven forward by the spike with great violence, and thus it attains considerable velocity.

497

I will now give a description of the methods of hunting seals and walrus during the summer. As long as ice cakes are drifting in the bays the natives do not use their seal floats, which would be severed from the line and easily torn to pieces. They paddle to a small cake, on which they lift their kayaks, and cautiously move the cake towards another one on which a seal or walrus is asleep. After they have come within range of their game they shoot it. As an abundance of all kinds of seals and walrus are basking on the ice plenty of food can be obtained.

An ingenious way of walrusing during this season is described by Lyon (p. 330):

> When the hunters, in their canoes, perceive a large herd sleeping on the floating ice, as is their custom, they paddle to some other piece near them, which is small enough to be moved. On this they lift their canoes, and then bore several holes, through which they fasten their tough lines, and when everything is ready, they silently paddle the hummock towards their prey, each man sitting by his own line and spear. In this manner they, reach the ice on which the walruses are lying snoring; and if they please, each man

> may strike an animal, though, in general, two persons attack the same beast. The wounded and startled walrus rolls instantly to the water, but the siatko, or harpoon, being well fixed, he cannot escape from the hummock on which the Eskimo have fastened the line. When the animal becomes a little weary, the hunter launches his canoe, and lying out of his reach, spears him to death.

When the ice is gone seals are shot or harpooned with the igimang and the agdliaq. The float prevents their escape and they are killed with the anguvigang or the qapun. Later in summer, when they begin to shed their fur, they lose almost all their blubber and sink when shot; therefore they must be hunted with the harpoon and the float. As the walrus is a dangerous foe should it turn upon the hunters in their light boats, the harpoon is thrown from a great distance, and the animal is not attacked at close quarters until it is well nigh exhausted by dragging the float and the niutang and by loss of blood. A great number of walrus are shot or harpooned while basking on the low islands and rocks.

There are a few shoals and narrow inlets in Frobisher Bay and Cumberland Sound in which great numbers of seals are caught during the summer. In hunting them at those places some of the Eskimo in kayaks occupy the shallow entrance of the inlet, while others scare the seals from its head. As the seals approach its outlet they are speared by those who are lying in wait for them. Since the natives have procured firearms seals are shot from the boats, and in whale boats they even attack the walrus, though they prefer to have drifting ice near at hand in case the fierce animal should turn upon them and tear the boat with its powerful tusks. This method of hunting is very successful in openings which intersect the land floe in spring. To these places an enormous number of seals and walrus

resort, and they are shot either when basking at the edge of the water or when blowing.

In the fall, when the small bays are covered with ice and newly

formed floes drift to and fro in the open sea, the natives go sealing at the edge of the land ice (Fig. 435). The seals are shot on the drifting ice or in the water and are secured by means of the unang, in the following manner: The hunter jumps upon a small cake, which he pushes on with his spear until he is near the body of the animal, and then drags it upon the land floe with the harpoon line. This method is almost the same as the one used in sealing and walrusing during the winter wherever the open water is close to the shore.

Fig. 435. Sealing at the edge of the ice. (From a photograph.)

This hunt is described by Gilder in the following words (pp. 182–184):

Usually there are two hunters who approach the walrus, one hiding behind the other, so that the two appear but as one. When the spear is thrown, both hold on to the line, which is wound around their arms so as to cause as much friction as possible,

in order to exhaust the animal speedily. * * * When the line is nearly run out the end of the spear shaft is passed through a loop in the end of the line and held firmly by digging a little hole in the ice for the end of the spear to rest in, the foot resting upon the line and against the spear to steady it. This gives the hunter an immense advantage over his powerful game, and if he is fortunate enough to secure this hold there is no escape for the walrus except that the line may cut on the edge of the sharp ice, or the thin ice break off, and hunter, line, and all be precipitated into the water—a not unusual experience in walrus hunting. Another cause of misfortune is for the line to become entangled around the arm of the hunter so that he cannot cast it off, in which case he is most assuredly drawn into the sea, and in nine cases out of ten drowned, for his knife is seldom at hand for an emergency and no amount of experience will ever induce an Inung [Eskimo] to provide against danger.

Sometimes the hunter is alone when he strikes a walrus, and in that case it requires considerable dexterity to secure the spear hold in the ice; or if he fails to get that he may sit down and brace his feet against a small hummock, when it comes to a sheer contest of muscle between the hunter and the walrus. In these contests victory generally perches upon the banner of the walrus, though the Inung [Eskimo] will never give up until the last extremity is reached. Often he is dragged to the very edge of the ice before he finds a protuberance against which to brace his feet, and often he is drawn down under the ice before he will relinquish his hold. He is very tenacious under such circumstances, for he knows that when he loses the walrus he loses his line and harpoon also.

Hall (I, p. 459) describes the hunt, according to his observations in Frobisher Bay, as follows:

> The line is coiled, and hung about the neck of the hunter; thus prepared he hides himself among the broken drifting ice, and awaits the moment for striking his game. The spear is then thrown and the hunter at once slips the coil of line off his head, fastens the end to the ice by driving a spear through a loop in it, and waits till the walrus comes to the surface of the water, into which he has plunged on feeling the stroke of the harpoon; then the animal is quickly despatched by the use of a long lance.

Sometimes the walrus when swimming under an extensive floe of new ice are drowned by being frightened down every time they try to come up to blow.

Formerly whaling was one of the favorite hunts of the Central Eskimo and in some places it is even continued to this day. Whales are either pursued in kayaks or in skin boats. If the kayak is used, they are harpooned in the same way as the walrus, a very large float (avautapāq′) being attached to the harpoon head. The whale is pursued by a great number of kayaks and every boatman endeavors to drive his harpoon into the animal, which, by the loss of blood and the resistance of the niutang and floats, is tired out and killed with lances.

More frequently it is pursued in skin boats (p. 527), which for the purpose are propelled by means of paddles (angun). In this case the crew consists entirely of men, although on other occasions the rowing falls to the women's share; a skillful boatman steers the boat and the harpooner stands in the bow watching his opportunity to strike the whale. The implement used in this pursuit is represented in Fig. 436. I could not procure the weapon itself (sakurpāng´, i.e., the

largest weapon), but had a model made by an Akudnirmio, of which the figure is a drawing. The shaft is said to be very long and heavy, measuring from ten to twelve feet. To this shaft a bone point tapering towards the end is firmly attached. The harpoon head consists of two pieces similar to the siatko of the Iglulirmiut (see Fig. 395). The iron edge is inserted into a flat piece of bone, which fits into the slit of a large head. The latter is made from the jawbone of a whale and is extremely heavy. When the whale is struck, both parts, the head and the edge, are disengaged from the shaft and separated from each other, but both enter the flesh of the whale and work in the same way as the tokang.

Fig. 436. Model of sakurpāng´ or whaling harpoon.

Fig. 437. Niutang, with floats.

The long harpoon line is coiled up on the first thwart of the boat. On the second one the niutang and five large floats (Fig. 437), which were fastened to the line, are kept ready and heaved overboard as soon as the harpoon is fast to a whale. The buoys and the niutang tire it out quickly and the boat can easily follow it up. It is lanced with the kalugiang whenever it comes up to blow. This lance consists of a heavy handle with a long point of rod iron;

formerly bone or narwhal ivory, with an iron edge inserted into its point, was used for this purpose.

The narwhal and the white whale are hunted in the same way as the walrus and the right whale. There are a few shallow bays to which the white whale resorts in the summer. If a shoal of them has entered such a bay, the Eskimo take to their boats and kayaks, and by throwing stones frighten them into the shallowest part, where they are easily harpooned.

DEER, MUSK OX, AND BEAR HUNTING.

When the snow has melted and the short summer is at hand the Eskimo start for the deer hunt. The tribes possessed of firearms can easily procure deer all the year round, particularly where uneven land facilitates their approach toward the herd; but in summer the hunt is most important, as it is the only season in which deerskins are fit for clothing.

The favorite method of hunting is to attack the deer in the ponds when swimming from one side to the other. In many places the deer in their migrations are in the habit of crossing the narrow parts of lakes, and here the natives lie in ambush with their kayaks. In other places they are driven into the water by the Eskimo and attacked by the drivers or by hunters stationed on the lake. Favorite places for such a chase are narrow peninsulas, generally called nedlung. The Eskimo deploy into a skirmish line and slowly drive the herd to the point of the peninsula, whence the deer, the retreat being cut off, take to the water.

If the shore be too straight to permit this method of hunting, they drive the deer to a hill stretching to the lake. A line of cairns (inugsung) is erected on the top, intended to deceive the deer, which believe them a new line of hunters approaching from the opposite side. They take to the water, as they see no retreat. If there are no hills a line of cairns is erected in some part of the plain. Such monuments are found all over the country, most of them

having the appearance of being very old.
As soon as the deer are in the water the natives pursue them in their kayaks, and as their boats are propelled much more swiftly than the animals can swim they are quickly overtaken and killed with the spear (kapun). Sometimes the wounded deer will turn upon the boat, in which cases the hunter must make his escape with the utmost speed, else he will be capsized or the skin of the boat will be torn to pieces by the animal's antlers.
In some of the narrow valleys with steep faces on both sides the deer are driven toward the hunters. As there is no chance for escape on either side they are killed by the men who lie in ambush. A remarkable tradition referring to the deer hunts of a fabulous tribe in these passes is frequently told by the Eskimo (see p. 635).

Fig. 438. Wooden bow from Iglulik. (From Parry II, p. 550.)

Some places are particularly favorable to these methods of hunting.
502
The herds when traveling north in spring and south in autumn take the same course every year, passing rivers, lakes, and valleys at the deer passes. Here the Eskimo stay during the migrations of the deer, as they are sure to fall in with them and to secure plenty of meat and skins during the season. In spring the rivers and lakes are not yet freed from their icy fetters and the pursuit is more difficult; in the autumn, however, they are easily captured in the water.
Some important stations of this kind are the island Qeqertome itoq tudlirn, south of Lake Nettilling; the outlet of this lake, Koukdjuaq, particularly the peninsula formed by the river and the south shore of the lake; the country about Qudjitariaq, farther north, and the narrow valley between Piling and Itirbilung: on the continent, the lakes of Rae Isthmus, particularly North Pole Lake; some passes in the hills north of Chesterfield Inlet; the isthmus of Boothia; the entrance of Qimuqsuq, on Adelaide Peninsula; and Simpson Strait.

Fig. 439. Wooden bow from Cumberland Sound. (National Museum, Washington.)

Referring to the last, Klutschak describes an interesting method of hunting deer which is in vogue in that locality (p. 130). The narrow strait which separates Ita Island from King William Land freezes up early in the season, and the reindeer in trying to cross the strait frequently gather on this island. The Eskimo deploy over the icy bridge and make a terrible noise, frightening the reindeer, which are gradually driven toward a place the ice of which is treacherous at this time of the year. Here they break through and, being able to move only with great difficulty, are easily killed.

Fig. 440. Bows of reindeer antlers. (National Museum, Washington. *a*, 34053; *b*, 34055.)

When the deer have scattered over the country they must be stalked, and, wherever the natives have no firearms, bows and arrows are used.

Fig. 441. Bow of antlers, with central part cut off straight, from Pelly Bay. (National Museum, Washington. 10270.)

They have two kinds of bows (pitiqse): a wooden one (Figs. 438 and 439) and another made of reindeer antlers (Figs. 440 and 441). Parry gives a very good description of the former (II, p. 510):

> One of the best of their bows was made of a single piece of fir, four feet eight inches in length, flat on the inner side and rounded on the outer, being five inches in girth about the middle where, however, it is strengthened on the concave side, when strung, by a piece of bone ten inches long, firmly secured by tree-nails of the

same material. At each end of the bow is a knob of bone, or sometimes of wood covered with leather, with a deep notch for the reception of the string. The only wood which they can procure, not possessing sufficient elasticity combined with

503

strength, they ingeniously remedy the defect by securing to the back of the bow, and to the knobs at each end, a quantity of small lines, each composed of a plat or "sinnet" of three sinews. The number of lines thus reaching from end to end is generally about thirty; but besides these, several others are fastened with hitches round the bow, in pairs, commencing eight inches from one end, and again united at the same distance from the other, making the whole number of strings in the middle of the bow sometimes amount to sixty. These being put on with the bow somewhat bent the contrary way, produce a spring so strong as to require considerable force as well as knack in stringing it, and giving the requisite velocity to the arrow. The bow is completed by a woolding round the middle and a wedge or two here and there, driven in to tighten it.

Fig. 442. Arrows with bone heads. (National Museum, Washington. *a*, 34054; *b*, 10270.)

Fig. 443. Arrows with metal heads. *a*, *b* (National Museum, Washington. *a*, 30056; *b*, 34056.) *c* (Museum für Völkerkunde, Berlin. IV A 6707.)

442*b*, 443*a*, *b*: 1/4

The bow represented in Fig. 439 is from Cumberland Sound and resembles the Iglulik pattern. The fastening of the sinew lines is different and the piece of bone giving additional strength to the central part is wanting. In Cumberland Sound and farther south

wooden bows each made of a single piece were not very rare; the wood necessary for their manufacture was found in abundance on Tudjan (Resolution Island), whence it was brought to the more northern districts.

Fig. 444. Arrowhead from Boothia. (National Museum, Washington. 10205.) ½

Fig. 445. Showing attachment of arrowhead vertically and parallel to shank. (National Museum, Washington. *b*, 10137.) ½

The bows which are made of antlers generally consist of three pieces, a stout central one slanted on both sides and two side pieces riveted to it. The central part is either below or above the side ones, as represented in Fig. 440. These bows are strengthened by plaited sinews in the same way as the wooden ones and generally the joints are secured by strong strings wound around them.

A remarkable bow made of antlers is represented in Fig. 441. The central part is not slanted, but cut off straight. The joint is effected by two additional pieces on each side, a short stout one outside, a long thin one inside. These are firmly tied together with sinews. The short piece prevents the parts from breaking apart, the long one gives a powerful spring. The specimen here represented was brought home by Hall from the Sinimiut of Pelly Bay, and a similar one was brought by Collinson from Victoria Land and has been deposited in the British Museum. The strings are attached to these bows in the same way as to the wooden ones.

Fig. 446. Various forms of arrowhead. (National Museum, Washington. *a*, 29993; *e*, 10213.) ½

The arrows (qaqdjung) are made of round pieces of wood generally tapering a little towards the lower end, to which two feathers of an owl or some other bird are attached. The bone heads of these

505

arrows are joined to the shaft as represented in Fig. 442, while metal heads are inserted as shown in Fig. 443. The difference in the methods used by the Mackenzie and the central tribes in fastening the point to the shaft is very striking. The arrow point of the former and of the western tribes is pointed and inserted in the shaft (Fig. 444),[5] while that of the latter is always slanted and lashed to it (Figs. 442 and 443). The direction of the slant is either parallel or vertical to the edge (Fig. 445). Other forms of arrows are shown in Fig. 446. A similar difference between the fastenings of the socket to the spear handle exists in the two localities. The western tribes give its base the form of a wedge (Fig. 447), which is inserted in the shaft, while the Central Eskimo use a mortise.

506

Fig. 447. Socket of spear handle from Alaska. (National Museum, Washington. 36060.) ¼

Fig. 448. Slate arrowhead. (National Museum, Washington. 10403.) 1/1

Formerly slate heads were in general use (Fig. 448); now the heads are almost everywhere made of iron or tin, riveted or tied to the

508

point (Fig. 446). In ancient graves flint heads are frequently found, some of which are represented in Fig. 449. On Southampton Island stone heads are in use even at the present time. Fig. 423 probably shows how they were attached to the shank.

507

Fig. 449. Flint arrowheads from old graves. (National Museum, Washington. *c*, 30109; *d*, 34138.) 1/1

The quiver (Fig. 450) is made of sealskin, the hair of which is removed. It comprises three divisions, a larger one containing the bow and a smaller one containing four or six arrows, the head directed toward the lower end of the case. When extracted from the quiver they are ready for use. Between the two compartments there is also a small pouch, in which tools and extra arrowheads are carried.

Fig. 450. Various styles of quiver. *a*, *b* Two views of a quiver from Cumberland Sound. (National Museum, Washington. 30015.) *c* Quiver from Iglulik (from Parry II, p. 550).

When traveling the Eskimo carry the quiver by an ivory handle; when in use it is hung over the left shoulder. Fig. 451 represents quiver handles, the first being fashioned in imitation of an ermine.

Fig. 451. Quiver handles. (Museum für Völkerkunde, Berlin. *a*, *b*, IV A 6843.)

If the deer cannot be driven into the water the Eskimo either stalk them or shoot them from a stand. In a plain where the hunter cannot hide himself it is easier to approach the herd if two men hunt together. They advance, the second man hiding behind the first one by stooping a little. The bows or the guns are carried on the shoulders so as to resemble the antlers of a deer. The men imitate their grunting and approach slowly, now stopping and stooping, now advancing. If the deer look about suspiciously they sit down, the second man lying almost flat on the ground, and both, at some distance off, greatly resemble the animals themselves. Ross (II, p. 252) states that the inhabitants of Boothia imitate the

appearance of the deer, the foremost of two men stalking a herd bearing a deer's head upon his own.

It is somewhat difficult to approach the deer near enough to get within range, especially if they are hunted with bow and arrow. Generally it is not necessary to get quite near them, for when feeding the herd moves on in the same direction for some time, and the hunter can hide behind a stone lying in that direction and wait until they are within range. After the first shot has been fired they do not take to flight at once, but stand for a few seconds, struck with surprise,

and a clever hunter may kill two or three before they run away. If the country is very level the Eskimo raise heaps of stones or build circular or semicircular walls to conceal themselves and allure the animals by grunting. As the deer possess a very fine scent they must always be approached from the lee side.

An interesting method of hunting is described by Parry (II, p. 512) and confirmed by Hall (II, p. 178). Parry writes:

> Two men walk directly from the deer they wish to kill, when the animal almost always follows them. As soon as they arrive at a large stone, one of the men hides behind it with his bow, while the other continuing to walk on soon leads the deer within range of his companion's arrows.

Hall says that one hunter hides himself behind a stone while the other utters grunting sounds to attract it.

In winter deer are sometimes caught in traps made by digging holes in the snow and covering them with slabs of the same material. Sometimes urine is poured upon and around the trap or salt water ice is placed upon it, in order to allure the deer (Klutschak, p. 131). Having been attracted to the trap they fall through the roof and are speared in the hole.

Wherever the musk ox is found it is eagerly pursued by the Eskimo. Though dogs are of no use in the chase of the nimble deer,

they are of great help in hunting this animal. When a track is found the dogs are let loose and soon overtake the herd. The latter form a circle of defense in which they are kept at bay until the hunter approaches. While the dogs continue attacking and dodging, the musk oxen try to hit them with their horns and do not heed the Eskimo, who assails them at close quarters with a lance to which a thong is frequently attached. When an ox is wounded it makes an impetuous attack on the hunter, who dodges to one side. The dogs being at hand again immediately keep it at bay, thus enabling the hunter to let fly another arrow or throw his lance again. Thus the struggle continues until the greater part of the herd is killed. In rare instances an ox dashes out of the circle and escapes from the pack.
Polar bears are hunted in about the same manner as the musk ox. The Eskimo pursue them in light sledges, and when they are near the pursued animal the traces of the most reliable dogs in the team are cut, when they dash forward and bring the bear to bay. As the hunter gets sufficiently near, the last dogs are let loose and the bear is killed with a spear or with bow and arrow. The best season for bear hunting is in March and April, when the bears come up the fjords and bays in pursuit of the young seals. At this season the she bear is accompanied by the cub which was born in February or March. Its skin and flesh are highly prized by the Eskimo. At some places, for instance at Cape Raper and at Cape Kater on Davis Strait, the she bears dig holes in the snow banks, in which they sleep during

the winter. The natives seek these holes and kill the bear before it awakes.
The chase of the musk ox and that of the bear have become much easier since the introduction of firearms in Arctic America, and the Eskimo can kill their game without encountering the same dangers as formerly.

HUNTING OF SMALL GAME.

Lastly, I mention the methods used in catching smaller animals, such as wolves, foxes, and hares. Wolves are only pursued when they become too troublesome. Frequently they linger about the villages in winter, and when everybody is asleep they attack the store rooms or the dogs, which have the greatest fear of this voracious animal; for, although dogs will brave the bear, they do not venture to resist a single wolf. If a pack of these beasts linger about the village for weeks preying upon the native stores, traps are finally built or the Eskimo lie in ambush near a bait to kill them. The wolf trap is similar to the one used to catch deer. The hole dug in the snow is about eight or nine feet deep and is covered with a slab of snow, on the center of which a bait is laid. A wall is built around it which compels the wolf to leap across it before he can reach the bait. By so doing he breaks through the roof and, as the bottom of the pit is too narrow to afford him jumping room, he is caught and killed there (Rae I, p. 135).

A remarkable method of killing wolves has been described by Klutschak (p. 192) and confirmed by the Eskimo of Cumberland Sound. A sharp knife is smeared with deer's blood and sunk into the snow, the edge only protruding. The wolves lick the knife and cut their tongues so severely as to bleed to death. Another method is to roll a strip of whalebone, about two feet long, in a coil, which is tied up with sinews. At each end a small metal edge is attached to the whalebone. This strip, wrapped in a piece of blubber or meat, is gulped down by the hungry wolf. As it is digested the sinews are dissolved and the elastic strap is opened and tears the stomach of the animal. A very ingenious trap is described by Parry (II, p. 514):

> It consists of a small house built of ice, at one end of which a door, made of the same plentiful material, is fitted to slide up and down in a groove; to the upper part of this a line is attached and, passing over the roof, is led down into the trap at the inner end, and there held by slipping an eye in the end of it over a peg of ice left for the purpose. Over the peg, however, is previously placed a loose

> grummet, to which the bait is fastened, and a false roof placed over all to hide the line. The moment the animal drags at the bait the grummet slips off the peg, bringing with it the line that held up the door, and this falling down closes the trap and secures him.

Foxes are usually caught in traps. An ice house about six feet high is built of hummocks, which are cut down with the point of the spear. It is covered with ice slabs, only a hole in the center

being left. Blocks of snow and slabs of ice are piled up around the building so as to permit easy access to the roof. Some blood is sprinkled round the hole to attract the fox and a larger bait is placed upon the floor of the house. The fox jumps down and, as the only exit is in the center of the roof, cannot escape. Another trap has a slab of ice erected in such a manner as to fall and kill the fox when he touches the bait.

A third trap, similar to the one above mentioned, has been described by Lyon, p. 339:

> It is like a small lime kiln in form, having a hole near the top, within which the bait is placed, and the foxes (for these animals alone are thus taken) are obliged to advance to it over a piece of whalebone, which, bending beneath their weight, lets them into prison, and then resumes its former position: thus a great number of them are sometimes caught in a night. In the summer they are but rarely taken, and it is then by means of a trap of stones, formed like the ice trap, with a falling door.

Hares are either killed with small shot or with arrows or caught in whalebone snares, as are ermines and lemmings.

Fig. 452. Whalebone nooses for catching waterfowl. (In the possession of Captain Spicer, of Groton, Conn.)

Waterfowl of all descriptions are caught in abundance in

whalebone nooses (Fig. 452) fastened to a long whalebone line or to a thong. The line is set along the edge of a lake, particularly near nesting places. In shallow lakes these lines are placed across the water to catch the diving and swimming birds, which are drawn to the shore with the line. On the low egg islands, which are inhabited by innumerable ducks, snares are set on the nests, and great numbers are caught in a short time. Swans and geese are procured in the same way. Other birds, and particularly partridges, are killed with arrows and with small shot.

512

Large flocks of ducks and other kinds of birds fly through certain valleys in the fall and in spring when migrating. Great numbers are caught here without any difficulty, as they can be killed with sticks. A favorite method of catching gulls is by building a flat snow house. One block of the roof is translucent and so thin as to permit the hunter, who is hidden in the house, to push his hand through it. A bait is placed on this block, and as soon as a bird alights to feed it is pulled through the roof into the hut.

By far the greater number of birds are caught during the molting season. Partridges can be caught with the hand and waterfowl are pursued with the kayak. The waterfowl dive as soon as the boat comes near them and being frightened down again as soon as they rise they are eventually drowned. One species of goose (kango)

513

which frequents the lakes of the country is caught in a remarkable way. A circular wall of stones is raised, with a single entrance. The Eskimo drive a flock of these birds towards the building, one man, whom the stupid creatures follow, leading the way. As soon as they have entered the wall the entrance is shut up and they are slaughtered. If they happen to be met with on the water they are encircled by kayaks and driven towards the shore, one boat leading. Then they are driven within the stone wall as already described.

Fig. 454. Ivory fish used as bait in spearing salmon. *a* From Repulse Bay. *a*, *c*, *d* (National Museum, Washington. *a*, 10400; *c*, 34109; *d*, 34134.) 1/1 *b* (Museum für Völkerkunde, Berlin. IV A 6830.) 1/1

FISHING.

The most important fish is the salmon, which is caught in abundance during the summer. When the lakes begin to break up the salmon descend to the sea, following the narrow lead between the

land floe and the water. In some places they are so plentiful as to fill the water completely. Here they are speared with the kakivang (Fig. 453). This instrument consists of a handle which widens towards the end; in the center it has a prong of bone or iron, and two larger ones at the sides, made of deer antlers or musk ox horn. These latter diverge and are furnished with a bone or iron nail on the inner side. The elasticity of these side prongs is increased by thongs or strings holding them tightly together. If the salmon are very plentiful no bait is needed and the natives cannot spear them as quickly as they swim along. When the ice is gone they are caught in the shallow rivers falling from the lakes into the sea. The natives stand on the bank or step into the water. A small ivory fish (Fig. 454) (eχalujang), tied by two or three holes in the back to a plaited string of deer sinews, is used as a bait. Frequently bear's teeth are used for bait. They are attached to a separate line which the hunter continually moves up and down to attract the attention of the fish. When the salmon comes near the bait it is speared with the kakivang. In the left hand the fisherman holds an instrument for stringing the fish (quqartaun), some illustrations of which are given in Fig. 455. It is made of ivory. A thong fastened to the hole of the instrument has a thick knot at the opposite end. As soon as a salmon is caught it is taken out of the nippers (kakivang) and the point of the

quqartaun is pushed into the gills and brought out again at the mouth; thus the fish remains sticking until it is dead. Sometimes it is killed by pushing the ivory point of the instrument into its neck. When dead it is pushed on the thong.

Fig. 453. Kakivang or salmon spear. (National Museum, Washington, *a*, 34087; *b*, 34086.) ¼

Fig. 455. Quqartaun for stringing fish. *c* (Museum für Völkerkunde, Berlin. IV A 6831.)

At some places wears are built, above which the fish are caught. These consist of dikes of stones about one and a half or two feet high, which are piled across a creek some distance below high water mark. The salmon cross the wall at high water, but are cut off from the sea at half tide and are speared while there. In other places the forks of rivers are shut off by dikes, above which the salmon gather.

In autumn salmon are caught when ascending the rivers. Sometimes they linger too long in small ponds and, as the rivers quickly dry up at this season, are prevented from getting out of the pools. Here they are caught until late in the season. Some of these ponds freeze to the bottom in winter, and the natives, when visiting them in the spring, cut holes in the ice and take out the frozen fish.

Fig. 456. Salmon hook. (National Museum, Washington. 10142.) 1/1

Fig. 457. Salmon hook. (Museum für Völkerkunde, Berlin. 6847.) 1/1

In the early part of the spring salmon are caught with hooks (kakliokia, Iglulik; niksiartaung, Oqo), holes being cut through the

ice of the lake. Formerly the hooks were made of deer antlers. Another device consists of a nail, crooked and pointed at one end, the other being let into a piece of ivory or bone (Fig. 456). A third one is represented in Fig. 457.

The fishing line is made of plaited deer sinews and is either held in the hand or tied to a short rod. Along with these hooks baits are used similar to those mentioned in the foregoing description. If the

carving represented in Fig. 458 is used, the hook is tied to it by means of two holes on the lower side of the fish, while the line passes through its back. The fish, in coming near the bait, is generally caught by the hook in the back or side. In this manner salmon, trout, and all kinds of sea fish are caught.

Fig. 458. Bait used in fishing with hooks. (National Museum, Washington. 34108.) 1/1

I myself have never seen any nets for fishing, but Klutschak found them in use among the Utkusiksalik tribe, and Petitot (Les grands Esquimaux, p. 278), among the natives of Anderson River. The Labrador Eskimo also use nets.

MANUFACTURES.

MAKING LEATHER AND PREPARING SKINS.

Most of the implements of the Eskimo are made of some part of the animals which they pursue. The skins are used for clothing, for building purposes, and for covering the frames of boats. Many implements are made of bone, others of walrus tusks or narwhal horn. As wood is extremely scarce, bone or other parts of an